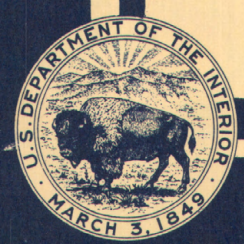
1971

Water Resources Data for Texas

Part 1. Surface Water Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Texas
and with other agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

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JANUARY 1971

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FEBRUARY 1971

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AUGUST 1971

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SEPTEMBER 1971

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1971

Water Resources Data for Texas

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Texas
and with other agencies

Prepared in cooperation with

Texas Water Development Board
Pecos River Commission
Sabine River Compact Administration
City of Fort Worth
City of Dallas
City of Houston
County of Dallas
Texas Highway Department and Bureau of Public Roads
Corps of Engineers, U.S. Army
U.S. Soil Conservation Service
Bureau of Sport Fisheries and Wildlife

Water resources records, 1971, for Texas are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Texas
   Part 1: Surface Water Records

2. Water Resources Data for Texas
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Federal Building
300 East 8th Street
Austin, Texas 78701

1972

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WATER RESOURCES DATA FOR TEXAS, 1971

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1971 water year for Texas, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report. Records for a few pertinent gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of I. D. Yost, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Texas.

Through September 30, 1960, the records of discharge and stage of streams and canals and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States."

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 also are published in a Geological Survey water-supply paper series entitled "Surface Water Supply of the United States 1961-65." There will be a similar series of water-supply papers for the period 1966-70.

COOPERATION

The first gaging station in Texas was established on the Rio Grande at El Paso, May 10, 1889, and a few miscellaneous measurements of Central Texas streams were made in 1894, 1895, and 1896. In 1897, Thomas U. Taylor, then Professor of Civil Engineering at the University of Texas, began a systematic study of a few of the principal streams of Texas for the Geological Survey. In 1915, the first cooperative agreement was entered into between the Texas Board of Water Engineers, now, in part, the Texas Water Development Board, and the U.S. Geological Survey for stream-measurement work in Texas.

Organizations that assisted in the collection of data through cooperative agreements with the Geological Survey in 1971 are:

Texas Water Development Board, Harry P. Burleigh, Executive Director; W. E. Tinsley, Chairman; Marvin Shurbet, Vice-Chairman; R. B. Gilmore, John H. McCoy, Milton T. Potts, and Carl Illig, Members.

Pecos River Commission, Horace Babcock, Federal Representative and Chairman; R. B. McGowen, Jr., Commissioner for Texas, and Robert E. Pritchett, Commissioner for New Mexico.

Sabine River Compact Administration, William H. Robinson, Federal Representative and Chairman; Raymond J. Palmer and H. B. Myers for Louisiana; and J. M. Syler and George M. Smith for Texas.

City of Fort Worth, J. M. Graham, Director of Public Works.

City of Dallas, H. H. Stirman, Director of Public Works.

City of Houston, E. B. Cape, Director, Department of Public Works.

County of Dallas, Judson Shook, Director of Public Works.

Texas Highway Department, J. C. Dingwall, State Highway Engineer.

Assistance in the form of funds or services was furnished by the following Federal Agencies:

Corps of Engineers, U.S. Army, in the operation of 133 gaging stations.

Soil Conservation Service, Department of Agriculture, in the operation of 12 gaging stations.

Bureau of Sport Fisheries and Wildlife, in the operation of 3 gaging stations.

Acknowledgment is due the National Oceanic and Atmospheric Administration, National Weather Service, for assistance in collecting certain records published herein.

Assistance in the form of funds or services was rendered by the following organizations:

The cities of Abilene, Alice, Arlington, Austin, Brady, Breckenridge, Cleburne, Clyde, Corpus Christi, Dallas, El Paso, Fort Worth, Gainesville, Graham, Houston, Lampasas, San Angelo, and Wichita Falls; Athens Municipal Water Authority; Bistone Municipal Water Supply District; Brazos River Authority; Bexar, Medina, and Atascosa Counties Water Control and Improvement District No. 1; City Public Service Board of San Antonio; Colorado River Municipal Water District; Dallas County, Dallas Power and Light Company; Dow Chemical Company; Edwards Underground Water District; Greenbelt Municipal and Industrial Water Authority; Guadalupe-Blanco River Authority; Harris County Flood Control District; Houston Lighting and Power Company; Lower Colorado River Authority; Lower Neches Valley Authority; Palo Pinto Water District; Red Bluff Water Power Control District; Reeves County Water Improvement District No. 1; Richmond Rice Association; Sabine River Authority of Texas; San Antonio River Authority; San Antonio City Water Board; San Jacinto River Authority; South Texas Water Company; Tarrant County Water Control and Improvement District No. 1; Texas Electric Service Company; Trinity River Authority of Texas; Upper Guadalupe River Authority; Upper Neches River Municipal Water Authority; West Central Texas Municipal Water District; White River Municipal Water District; Wichita County Water Improvement District No. 2; and Wood County.

DEFINITION OF TERMS

Terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Contents is the volume of water in a reservoir or lake. Volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, a long reach of the channel, or an artificial structure.

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

The DRAINAGE AREA of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.HT.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage", although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. The term "stream-gaging station" is applied to those sites where a continuous record of discharge is computed.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Runoff in inches (IN.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from man made changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates the downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 08096500, includes the part number "08" followed by a 6-digit station number. In this report, the complete number 08096500 appears just to the left of the station name and the records are presented in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (see also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The

application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information required for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the

basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1971 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred

outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton rating tables are published for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN.") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average rainfall on the drainage basin is usually less than 20 inches.

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height.

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents and the maximum and minimum daily content for the calendar year and for the water year.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average

of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month of more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

Accuracy of Data

The accuracy of discharge data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs (except for those months with 10,000 or more cfs-days where computer processing procedures limit printed daily values to tenths of a cfs); to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Publications

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be purchased or consulted as follows:

1. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, who will, on application, furnish lists giving prices. A list of Geological Survey publications may also be obtained by applying to the Director, U.S. Geological Survey, Washington, D. C. 20242.

2. Sets of the reports may be consulted in the libraries of principal cities (and many universities).

3. Sets are available for consultation in the District Office of the Geological Survey at Austin, Texas.

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface-Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. The new series of water-supply papers containing surface-water records for the 5-year period October 1, 1960, to September 30, 1965, also includes lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1311(7) and 1312(8); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1731(7) and 1732(8). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill shoft gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and miscellaneous sites are given at the end of this report. Data for partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements at miscellaneous sites are given in the third table.

Special studies of the low-flow characteristics of a stream or a reach of a stream are presented following measurements at miscellaneous sites. A series of discharge measurements is made to determine gains or losses of base flow, and water samples are analyzed to determine changes in the chemical constituents of the water. Whenever possible, changes in amounts of flow and in chemical content of the water are referred to geologic formations encountered in the reach investigated.

Information of a more detailed nature than that published for most of the gaging stations is on file in the district office, such as discharge measurements and recorder charts or nonrecording-gage readings. At a number of gaging stations data are collected for use in the analyses of rainfall-runoff relationships. Many gaging-stations records in the State through 1968 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The International Boundary and Water Commission, United States and Mexico, operates all streamflow stations on the Rio Grande and near the mouth of its principal tributaries at and below El Paso, Texas. Records collected at these stations are published in annual bulletins by the Commission and may be obtained by request to the office of the United States Section, P. O. Box 1859, El Paso, Texas 79950.

HYDROLOGIC CONDITIONS

Large variations in rainfall and runoff characterize the usual hydrologic conditions in Texas. In the east, streams are usually deep with wide alluvial flood plains and streamflow is generally perennial. Normal annual rainfall exceeds 50 inches in the extreme east and annual runoff averages as much as 15 inches. In the west, streams are generally of the arroyo type and streamflow is highly ephemeral. Normal annual rainfall is as low as 8 inches and annual runoff averages less than 0.1 inch in many areas.

During the 1971 water year, annual runoff over the State was deficient in the north, east, and central, below average in the west, and average in the south. Figure 1 on page 16 shows a comparison of monthly and annual mean discharges for four index stations spread geographically over the State. Conservation storage in a selected group of 57 reservoirs (combined conservation capacity, 25,993,500 acre-feet) increased from 75 to 78 percent of capacity during the year.

At the beginning of the water year, streamflow ranged from deficient in the west to excessive in the northeast. By January, the area of deficient streamflow had increased to include the entire State.

A small area in the mid-central part of the State regained the normal range in February and March. Another small area above Twin Buttes Reservoir was in the excessive range in April, but in May the entire State was again in the deficient range. In June and July, scattered rains in the west, central, and south temporarily relieved the drought conditions for these areas. In August, the drought was broken and three of the four index stations reached excessive runoff. For September, streamflow followed the trend set in August with excessive flows in south Texas as Hurricane Fern skirted the coast and caused as much as 34 inches of rain in local areas.

The flow of Comal Springs, which is an indication of groundwater head in the Edwards Limestone aquifer, had a discharge of 290 cfs at the end of October 1970, decreased gradually to 92 cfs in mid-June, and had increased to 242 cfs at the end of September 1971.

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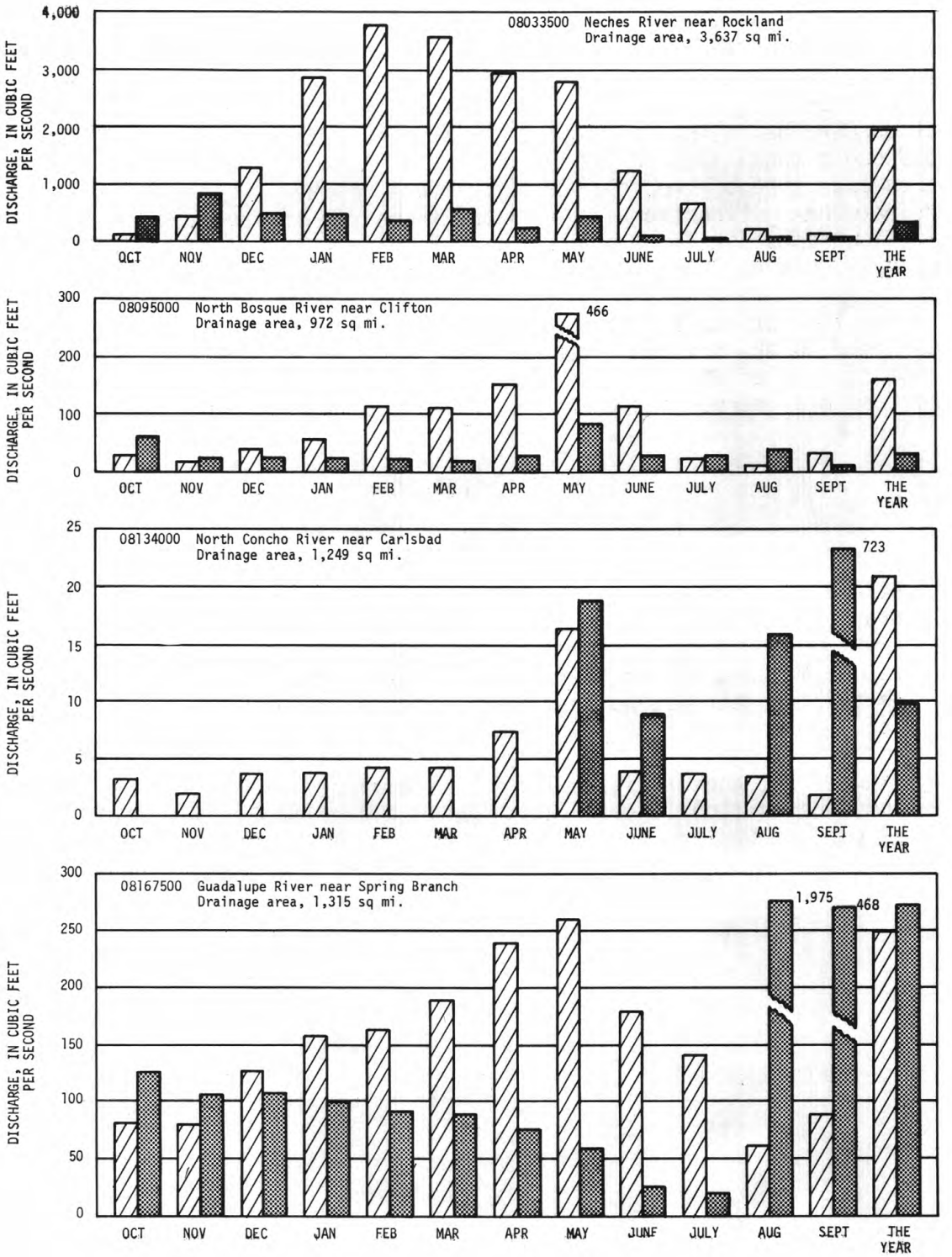

FIGURE 1.--COMPARISON OF DISCHARGE AT FOUR LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 1971 WATER YEAR WITH MEDIAN DISCHARGE FOR THE PERIOD 1931-60.

07227200 Tramperos Creek near Stead, N. Mex.

LOCATION.--Lat 36°04'15", long 103°12'10", in NW¼NW¼ sec. 10, T.21 N., R. 35 E., Union County, at downstream end of bridge pier on State Highway 18, 2.1 miles south of Stead, and 26 miles south of Clayton.

DRAINAGE AREA.--556 sq mi, approximately.

PERIOD OF RECORD.--October 1964 to May 1966 (annual maximum only), June 1966 to current year. Prior to October 1966, published as Major Longs Creek near Stead.

GAGE.--Water-stage recorder. Datum of gage is 4,481.19 ft above mean sea level. Prior to Feb. 6, 1969, at site 90 ft upstream at datum 1.61 ft lower.

AVERAGE DISCHARGE.--5 years, 4.31 cfs (3,120 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,720 cfs May 30 (gage height, 9.27 ft), from rating curve extended above 14 cfs on basis of slope-area measurements at gage heights 12.4 and 14.9 ft; no flow most of time.
Period of record: Maximum discharge, 12,300 cfs Oct. 17, 1965 (gage height, 14.9 ft, from floodmark, present datum), by slope-area measurement; no flow most of time.
A flood in 1904 reached a stage of about 27.4 ft (discharge, about 45,500 cfs) with only a single span bridge, and a flood in 1937 reached a stage of about 20.4 ft (discharge, about 31,600 cfs), from information by State Highway Department.

REMARKS.--Records poor. Minor regulation by detention reservoirs and stock ponds.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	2.0	2.1	.32	
2								0	0	10	0	
3								0	0	2.5	0	
4								0	0	.89	0	
5								0	0	.34	0	
6								0	0	0	0	
7								0	0	0	27	
8								0	0	0	136	
9								0	0	0	37	
10								0	0	0	5.4	
11								0	0	0	1.2	
12								0	0	0	.34	
13								0	0	0	.04	
14								0	0	0	.02	
15								0	0	0	130	
16								0	0	0	17	
17								0	0	0	7.4	
18								0	0	0	2.9	
19								0	0	0	.89	
20								0	36	0	.08	
21								0	25	0	0	
22								0	1.5	0	0	
23								0	.70	3.9	0	
24								0	.34	17	0	
25								0	.03	5.0	0	
26								0	0	20	0	
27								0	0	10	0	
28								0	0	6.3	0	
29					------			.08	0	2.3	0	
30					------			462	2.4	6.8	0	
31		------			------		------	25	------	3.4	0	------
TOTAL	0	0	0	0	0	0	0	487.08	67.97	90.53	365.59	0
MEAN	0	0	0	0	0	0	0	15.7	2.27	2.92	11.8	0
MAX	0	0	0	0	0	0	0	462	36	20	136	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	966	135	180	725	0

CAL YR 1970 TOTAL 69.57 MEAN .19 MAX 2.3 MIN 0 AC-FT 138
WTR YR 1971 TOTAL 1,011.17 MEAN 2.77 MAX 462 MIN 0 AC-FT 2,010

PEAK DISCHARGE (BASE, 1,200 CFS).--May 30 (0530) 1,720 cfs (9.27 ft).

07227448 Punta de Agua Creek near Channing, Tex.

LOCATION.--Lat 35°40'03", long 102°28'48", Hartley County, on left bank at downstream side of bridge on Farm Road 767, 8.5 miles west of Channing, and 10.3 miles upstream from mouth.

DRAINAGE AREA.--3,568 sq mi, of which 2,068 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,390.87 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,420 cfs May 30 (gage height, 4.83 ft); maximum gage height, 4.95 ft Aug. 17; no flow for many days.
Period of record: Maximum discharge, 4,000 cfs May 9, 1968 (gage height, 5.79 ft, from floodmark); no flow for many days each year.

REMARKS.--Records poor. Flow is partly regulated by Lake Rita Blanca on Rita Blanca Creek (capacity, 12,100 acre-ft) 23 miles upstream. Small diversions from Lake Rita Blanca.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.40	1.0	3.8	0	0	10	2.0	0	0
2			0	.40	1.7	3.0	0	0	5.2	214	0	0
3			0	.40	1.5	2.0	0	0	1.2	.87	0	0
4			0	0	2.0	2.1	0	0	.81	0	0	0
5			0	0	1.5	1.1	0	0	38	0	0	0
6			0	0	1.0	1.0	0	0	9.4	0	0	0
7			0	0	.50	1.0	0	0	0	0	0	0
8			0	0	.50	1.0	0	0	0	0	.12	0
9			0	0	2.4	.94	0	0	0	0	0	0
10			0	.20	5.2	.87	0	0	0	0	0	0
11			0	.30	4.1	.81	3.0	0	.32	0	.32	0
12			0	.40	4.1	.81	.40	0	8.9	0	0	0
13			0	6.2	4.1	.53	.02	0	2.2	0	0	0
14			0	3.5	4.1	.47	0	0	.69	0	0	0
15			0	1.1	5.6	.47	.66	0	.25	0	0	0
16			0	1.2	3.5	.53	2.1	0	0	0	15	0
17			0	14	1.6	.32	1.7	0	0	0	124	0
18			.10	12	1.2	.19	1.1	0	0	0	21	0
19			.10	6.2	1.6	.09	1.2	0	0	.54	7.7	0
20			.10	3.2	1.0	.13	1.7	0	0	23	1.0	0
21			.20	2.7	.75	.23	1.4	0	0	0	.07	0
22			.20	1.0	.50	.32	.69	0	0	0	0	.25
23			.20	1.4	1.0	.42	.75	0	0	250	0	0
24			.20	1.1	4.0	.53	.75	0	0	10	0	0
25			.20	1.2	6.6	.75	.69	0	0	1.0	0	0
26			.30	1.0	5.2	.75	.46	0	0	0	0	0
27			.30	.87	5.6	.69	.21	0	0	0	0	0
28			.30	1.0	5.6	.42	0	0	0	0	0	0
29			.37	1.0	------	.50	0	0	0	0	0	0
30			.40	1.2	------	.37	0	212	0	0	0	0
31		------	.40	1.1	------	.01	------	30	------	0	0	------
TOTAL	0	0	3.37	63.07	77.45	26.15	16.83	242	76.97	501.41	169.21	.25
MEAN	0	0	.11	2.03	2.77	.84	.56	7.81	2.57	16.2	5.46	.008
MAX	0	0	.40	14	6.6	3.8	3.0	212	38	250	124	.25
MIN	0	0	0	0	.50	.01	0	0	0	0	0	0
AC-FT	0	0	6.7	125	154	52	33	480	153	995	336	.5

CAL YR 1970 TOTAL 548.26 MEAN 1.50 MAX 18 MIN 0 AC-FT 1,090
WTR YR 1971 TOTAL 1,176.71 MEAN 3.22 MAX 250 MIN 0 AC-FT 2,330

PEAK DISCHARGE (BASE, 1,000 CFS).--May 30 (0400) 1,420 cfs (4.83 ft); July 2 (0900) 1,260 cfs (4.00 ft).

07227470 Canadian River at Tascosa, Tex.

LOCATION.--Lat 35°31'10", long 102°15'30", Oldham County, on right bank at downstream side of bridge on U.S. Highway 385, 0.8 mile northwest of Tascosa, and 1.0 mile southwest of Boys Ranch.

DRAINAGE AREA.--18,536 sq mi, of which approximately 3,823 sq mi is noncontributing.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,169.25 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 27,500 cfs July 27 (gage height, 8.50 ft), from rating curve extended above 4,500 cfs; no flow at times.
Period of record: Maximum discharge, 27,500 cfs July 27, 1971 (gage height, 8.50 ft), from rating curve extended above 4,500 cfs; no flow at times.
Maximum stage probably occurred October 1904; other major floods occurred in May 1914, October 1937, and July 1941, from information by local residents.

REMARKS.--Records poor. Some regulation by Conchas and Ute Reservoirs in New Mexico (combined capacity, 462,200 acre-ft). Conchas and Bell Ranch Canals divert from Conchas Reservoir for irrigation. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	55	8.3	23	11	30	0	6.1	836	756	419	435
2	18	55	8.9	22	18	33	0	6.9	687	3,380	512	402
3	23	43	8.9	15	16	25	0	5.0	571	1,780	471	187
4	24	35	8.3	10	14	30	0	3.3	372	622	587	126
5	18	31	7.8	6.0	14	18	.91	2.9	251	612	604	80
6	16	30	7.8	5.0	14	19	2.0	2.1	202	680	496	60
7	14	27	8.3	5.0	12	16	3.0	2.7	146	760	698	38
8	15	19	8.3	5.0	8.0	15	.48	2.6	113	815	914	25
9	18	17	9.4	7.0	20	10	0	2.2	76	838	935	21
10	22	14	10	10	26	8.9	0	1.1	37	851	1,100	16
11	22	13	9.4	15	26	10	0	.53	57	880	892	12
12	19	13	8.9	25	25	9.4	0	.35	2,020	801	1,700	8.5
13	16	21	8.3	45	22	13	0	.80	1,420	312	1,240	6.1
14	15	23	8.9	37	19	10	0	1.2	805	159	320	3.7
15	27	25	8.3	32	20	8.9	.22	1.5	360	114	270	3.6
16	136	25	8.3	48	18	8.3	386	.91	310	80	383	2.0
17	91	22	9.4	45	18	7.8	23	.05	233	44	2,530	42
18	88	20	10	40	15	7.2	11	.58	99	20	698	63
19	230	18	18	38	15	6.1	26	.46	743	50	187	30
20	182	16	20	37	15	5.5	48	.04	163	223	221	21
21	156	13	20	30	12	4.4	38	0	53	171	402	28
22	142	10	22	26	10	5.3	76	0	39	116	426	386
23	115	9.0	22	23	15	5.1	60	0	200	2,220	422	321
24	80	8.0	15	23	82	4.7	55	0	401	1,240	445	374
25	66	9.0	13	20	76	4.9	43	0	246	726	869	286
26	36	5.9	15	20	68	5.8	33	0	323	422	971	474
27	60	6.1	19	19	38	3.1	17	0	332	2,060	972	298
28	72	14	20	18	30	2.7	13	0	320	3,800	549	216
29	60	10	25	16	------	3.1	12	4,320	283	102	521	229
30	53	9.4	22	15	------	2.2	9.4	1,450	397	112	596	237
31	48	------	20	15	------	.76	------	1,100	------	387	548	------
TOTAL	1,908	616.4	408.5	695.0	677.0	333.16	857.01	6,911.32	12,095	25,133	21,898	4,430.9
MEAN	61.5	20.5	13.2	22.4	24.2	10.7	28.6	223	403	811	706	148
MAX	230	55	25	48	82	33	386	4,320	2,020	3,800	2,530	474
MIN	14	5.9	7.8	5.0	8.0	.76	0	0	37	20	187	2.0
AC-FT	3,780	1,220	810	1,380	1,340	661	1,700	13,710	23,990	49,850	43,430	8,790

CAL YR 1970 TOTAL 33,509.94 MEAN 91.8 MAX 5,820 MIN 0 AC-FT 66,470
WTR YR 1971 TOTAL 75,963.29 MEAN 208 MAX 4,320 MIN 0 AC-FT 150,700

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
5-29	0215	7.17	17,300
7-27	2300	8.50	27,500
8-17	1100	6.60	10,000

07227500 Canadian River near Amarillo, Tex.

LOCATION.--Lat 35°28'13", long 101°52'45", Potter County, near left bank on downstream side of pier of bridge on U.S. Highways 87 and 287, 1,500 ft downstream from Pitcher Creek, 1.4 miles downstream from East Amarillo Creek, 1.7 miles downstream from Panhandle and Santa Fe Railway Co. bridge, 19 miles north of Amarillo, and at mile 537.7.

DRAINAGE AREA.--19,445 sq mi, of which 4,069 sq mi is probably noncontributing.

PERIOD OF RECORD.--January 1924 to December 1925, January 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 2,989.16 ft above mean sea level. Jan. 16, 1924, to Dec. 31, 1925, and Apr. 3 to June 1, 1938, nonrecording gage at site of old bridge 20 ft upstream at same datum. June 2 to Dec. 5, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--34 years, 386 cfs (279,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,600 cfs July 28 (gage height, 7.74 ft); minimum daily, 0.16 cfs May 23.
Period of record: Maximum discharge, 135,000 cfs July 25, 1941 (gage height, 15.7 ft), from rating curve extended above 100,000 cfs; no flow at times January 1924 to December 1925, Aug. 7, 8, 1940.
Flood in May 1914 reached a stage of 24 ft; a higher stage probably occurred during flood in October 1904, from information by local resident.

REMARKS.--Records poor. Extreme low flow is maintained by sewage effluent from Amarillo sewage disposal plant. During the year, the city of Amarillo reported that 6,200 acre-ft of sewage effluent was discharged into East Amarillo Creek (tributary to Canadian River). Some regulation by Conchas and Ute Reservoirs in New Mexico (combined capacity, 462,200 acre-ft). Conchas Canal and Bell Ranch Canal divert from Conchas Reservoir for irrigation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	73	9.3	20	18	31	5.2	6.4	797	1,300	456	144
2	27	81	6.9	14	21	27	12	4.8	443	1,260	435	144
3	15	90	5.5	10	14	29	14	3.3	254	2,460	497	199
4	11	81	9.2	7.0	12	35	5.9	2.8	156	732	508	120
5	9.2	66	5.8	6.0	12	23	8.1	1.9	94	680	625	77
6	18	56	8.0	6.0	9.5	23	17	1.5	53	699	479	44
7	11	53	7.5	7.0	6.5	12	14	2.4	31	634	753	23
8	14	50	12	8.0	15	17	7.3	3.1	31	623	795	14
9	29	42	6.3	9.0	30	25	6.6	2.8	25	602	1,330	12
10	27	35	10	10	45	14	8.2	2.1	21	616	1,590	11
11	24	31	8.4	9.0	59	14	6.6	1.4	16	564	1,670	4.6
12	10	25	7.0	8.0	49	17	3.5	1.4	180	565	1,800	3.1
13	15	23	7.5	10	37	8.4	5.8	1.5	1,220	519	1,820	2.6
14	8.8	27	8.9	13	34	2.9	10	1.4	1,230	234	1,130	2.3
15	21	23	20	20	25	3.4	12	1.1	775	104	1,030	2.3
16	52	21	20	29	21	10	138	1.4	486	63	699	2.3
17	122	23	16	49	17	10	170	.92	898	45	1,720	33
18	114	20	17	54	16	3.5	66	2.3	279	24	658	155
19	107	18	17	53	16	4.0	42	1.0	572	170	584	131
20	262	15	16	43	12	4.0	33	.92	1,480	120	312	66
21	224	15	20	39	9.0	3.5	33	.48	320	99	305	40
22	167	11	26	33	7.0	2.8	22	.57	104	77	291	1,890
23	148	5.5	14	30	11	6.0	40	.16	50	167	268	1,280
24	144	7.0	16	29	25	2.3	43	.39	77	1,210	272	883
25	95	8.3	20	26	52	9.9	33	4.6	211	660	553	1,010
26	75	9.5	22	24	82	11	25	2.3	138	546	350	795
27	70	6.1	26	22	81	2.3	19	2.3	138	598	734	832
28	78	8.0	24	37	50	1.4	13	2.3	170	2,940	372	421
29	101	10	28	18	------	1.9	10	2,560	156	192	387	211
30	92	8.4	26	18	------	9.8	6.7	1,460	156	49	223	94
31	79	------	24	21	------	14	------	771	------	78	152	------
TOTAL	2,208.0	941.8	464.3	682.0	786.0	378.1	829.9	4,848.54	10,561	18,630	22,798	8,646.2
MEAN	71.2	31.4	15.0	22.0	28.1	12.2	27.7	156	352	601	735	288
MAX	262	90	28	54	82	35	170	2,560	1,480	2,940	1,820	1,890
MIN	8.8	5.5	5.5	6.0	6.5	1.4	3.5	.16	16	24	152	2.3
AC-FT	4,380	1,870	921	1,350	1,560	750	1,650	9,620	20,950	36,950	45,220	17,150

CAL YR 1970 TOTAL 41,567.50 MEAN 114 MAX 6,730 MIN 2.2 AC-FT 82,450
WTR YR 1971 TOTAL 71,773.84 MEAN 197 MAX 2,940 MIN .16 AC-FT 142,400

PEAK DISCHARGE (BASE, 14,000 CFS).--July 28 (0430) 18,600 cfs (7.74 ft).

07227900 Lake Meredith near Sanford, Tex.

LOCATION.--Lat 35°42'38", long 101°33'03", Hutchinson County, on outlet tower near right end of dam on Canadian River, 1.2 miles northwest of Sanford, and at mile 508.5.

DRAINAGE AREA.--20,220 sq mi, of which 4,172 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level (levels by Bureau of Reclamation). Prior to Aug. 16, 1965, nonrecording gage read daily at same site and datum.

EXTREMES.--Current year: Maximum contents, 438,000 acre-ft Oct. 1 (elevation, 2,905.99 ft); minimum, 385,100 acre-ft May 28 (elevation, 2,901.15 ft).
Period of record: Maximum contents, 470,200 acre-ft Apr. 26-28, 1970 (elevation, 2,908.77 ft); minimum since first appreciable storage, 219,900 acre-ft Apr. 10, 11, 1967 (elevation, 2,883.10 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 6,410 ft long. Dam completed and storage began in October 1964. The uncontrolled service spillway is a concrete drop inlet with a crest elevation of 2,965.0 ft, located at left end of dam with a 22-foot-diameter concrete pipe, designed to discharge 19,300 cfs at an elevation of 3,004.9 ft. Flood-control outlet works consist of three gate-controlled outlets, opening into three 15.5-foot concrete conduits, and located to the left of the service spillway. Dam was built by the U.S. Bureau of Reclamation for the Canadian River Municipal Water Authority for flood control and to impound water for municipal and industrial use for the cities of Amarillo, Borger, Brownfield, Lamesa, Levelland, Lubbock, O'Donnel, Pampa, Plainview, Slaton, and Tahoka. The U.S. Bureau of Reclamation furnished the capacity curve which is based on Geological Survey topographic maps dated 1953. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	3,011.0	-
Maximum design flood pool	3,004.9	2,434,200
Crest of service spillway	2,965.0	1,407,600
Invert of flood-control outlet works	2,894.0	313,700
Sill of lower gate	2,850.0	43,050

COOPERATION.--Record of elevations and diversions furnished by the Canadian River Municipal Water Authority.

Capacity table (elevation, in feet, and total contents, in acre-feet)

2,901.0	383,500	2,904.0	415,700
2,902.0	394,100	2,905.0	426,800
2,903.0	404,800	2,906.0	438,100

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	438,000	430,600	424,400	417,300	412,300	410,100	402,700	395,900	392,300	393,200	400,300	417,000
2	437,700	430,500	424,300	417,200	412,300	409,500	402,300	395,400	392,600	394,800	400,600	416,700
3	437,600	430,500	423,900	417,100	412,200	409,500	402,200	394,900	393,000	396,500	400,500	417,000
4	437,200	430,200	423,800	416,800	412,100	409,500	401,600	394,800	393,300	398,200	400,700	416,500
5	436,500	429,900	423,500	416,700	412,000	409,400	401,200	394,500	393,000	398,400	400,700	416,200
6	436,300	429,600	423,000	416,500	411,500	409,300	401,300	393,700	393,000	398,300	400,900	415,800
7	435,800	429,500	422,700	416,200	411,400	409,300	401,200	393,300	392,200	398,400	400,900	415,500
8	435,400	429,500	422,700	416,200	411,400	409,000	400,600	392,900	391,800	398,000	400,900	415,100
9	435,300	429,000	422,600	415,600	411,300	408,600	400,600	392,600	391,500	397,800	401,600	414,600
10	435,100	428,700	422,500	415,400	411,300	408,600	400,200	392,200	391,200	398,200	402,300	414,400
11	434,400	428,400	422,300	414,900	411,300	408,500	399,900	392,000	391,000	398,200	403,100	414,000
12	434,100	428,200	422,100	415,000	411,000	408,300	399,500	391,300	391,000	397,900	404,300	413,400
13	433,800	427,800	421,600	415,200	410,900	408,200	398,400	391,000	391,000	397,700	405,900	412,800
14	433,300	427,800	421,500	415,000	410,800	407,900	398,800	390,600	391,300	397,400	408,400	412,600
15	433,100	427,800	421,200	415,000	410,600	407,400	398,800	390,300	391,700	397,100	409,600	411,500
16	433,100	427,600	420,800	414,800	410,400	407,300	398,600	389,800	392,000	396,800	410,800	411,100
17	433,100	427,600	420,600	414,600	410,300	407,000	398,600	389,800	392,400	396,500	411,100	410,100
18	433,000	427,300	420,300	414,500	410,300	406,800	398,600	388,900	392,700	396,000	413,700	410,500
19	432,800	427,200	419,900	414,300	410,300	406,300	398,700	388,900	392,900	396,600	414,800	410,100
20	432,800	426,900	419,700	414,300	410,200	406,300	398,800	388,400	393,700	396,300	415,300	409,900
21	432,800	426,800	419,700	414,000	410,300	405,700	398,500	388,400	394,600	396,000	415,500	409,400
22	432,700	426,600	419,700	414,300	410,900	405,500	398,000	387,800	394,500	395,800	415,200	411,300
23	432,600	426,300	419,100	414,100	410,900	405,300	397,700	387,200	394,400	395,500	415,300	413,600
24	432,400	426,000	418,800	414,000	410,400	405,000	397,500	386,800	394,100	395,400	415,300	415,100
25	432,200	425,700	418,600	413,800	410,400	404,800	397,400	386,100	393,700	395,800	415,400	416,000
26	432,000	425,600	418,500	413,700	410,300	404,600	397,000	385,700	393,300	395,500	415,700	416,200
27	431,800	425,000	418,400	413,600	410,200	404,400	396,900	385,500	392,800	395,600	416,000	416,200
28	431,700	424,700	418,000	413,400	410,100	403,500	396,500	385,100	392,200	396,300	416,500	416,400
29	431,400	424,700	418,000	413,400	------	403,500	396,100	385,200	391,800	400,500	416,700	416,600
30	431,300	424,700	418,000	412,900	------	403,500	396,100	389,700	391,300	400,700	416,700	416,800
31	430,900	------	417,500	412,700	------	403,200	------	391,500	------	400,700	416,800	------
(†)	2,905.36	2,904.81	2,904.16	2,903.72	2,903.48	2,902.85	2,902.19	2,901.76	2,901.74	2,902.62	2,904.10	2,904.10
(*)	-7,400	-6,200	-7,200	-4,800	-2,600	-6,900	-7,100	-4,600	-200	+9,400	+16,100	0
(††)	4,609	3,947	4,844	5,047	3,991	4,923	5,256	6,601	6,046	6,709	5,282	6,502
MAX	438,000	430,600	424,400	417,300	412,300	410,100	402,700	395,900	394,600	400,700	416,800	417,000
MIN	430,900	424,700	417,500	412,700	410,100	403,200	396,100	385,100	391,000	393,200	400,300	409,400

CAL YR 1970..... * -42,400 †† 60,144 MAX 470,200 MIN 417,500
WTR YR 1971..... * -21,500 †† 63,757 MAX 438,000 MIN 385,100

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal and industrial use.

07228000 Canadian River near Canadian, Tex.

LOCATION.--Lat 35°56'01", long 100°22'06", Hemphill County, near left bank on downstream side of pier of bridge on U.S. Highways 60 and 83, 500 ft downstream from Panhandle and Santa Fe Railway Co. bridge, 1.2 miles downstream from Red Deer Creek, 1.6 miles northeast of Canadian, and at mile 433.9.

DRAINAGE AREA.--22,866 sq mi, of which 4,688 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1924 to August 1925 (gage heights only), January 1938 to current year. Prior to April 1938, monthly discharge only published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 2,301.50 ft above mean sea level. July 1, 1924, to Aug. 31, 1925, nonrecording gage; Apr. 21 to Dec. 15, 1938, nonrecording gage; and Dec. 16, 1938, to Sept. 30, 1953, water-stage recorder and nonrecording gages; all at site 300 ft upstream at same datum.

AVERAGE DISCHARGE.--33 years (1938-71), 450 cfs (326,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,800 cfs June 9 (gage height, 6.20 ft); minimum, 0.04 cfs June 25-27.
Period of record: Maximum discharge, 122,000 cfs Sept. 23, 1941 (gage height, 9.8 ft, from graph based on gage readings), from rating curves for two channels extended above 8,000 and 54,000 cfs; no flow at times.
Maximum stage 20.0 ft Oct. 2, 1904. Floods of May 2, 1914, and Oct. 5, 1923, second highest known, reached stages of 12 ft.

REMARKS.--Records fair. Extreme low flow maintained by springs which enter river about 600 ft above gage. Some regulation and diversions upstream by Lake Meredith 75 miles upstream (station 07227900).

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	15	18	45	56	149	21	11	1.8	583	8.5	2.7
2	20	18	19	45	63	158	16	11	1.6	460	3.2	1.9
3	18	19	20	50	61	144	14	9.1	1.6	708	.97	1.2
4	17	18	22	30	52	109	14	8.0	1.5	370	.38	.80
5	14	17	26	20	52	94	14	6.7	1.6	168	.46	.50
6	12	18	31	20	75	113	18	5.5	4.8	80	.62	.38
7	8.7	19	35	20	40	105	18	4.5	5.9	27	.35	.26
8	8.0	18	47	35	40	97	18	3.9	3.7	10	8.5	.18
9	18	15	56	32	70	86	18	3.4	4,180	5.5	72	.12
10	13	14	56	29	70	75	16	2.7	1,650	2.5	168	.11
11	9.4	13	54	32	81	69	15	2.0	163	.97	46	.11
12	6.8	15	59	34	78	64	19	2.0	224	.56	15	.10
13	4.2	47	58	47	70	58	14	3.2	120	.35	5.9	.10
14	2.2	100	59	61	63	52	12	1.6	64	.28	9.1	.10
15	3.7	70	59	49	56	46	11	3.4	31	.26	33	.11
16	6.8	59	54	107	52	40	13	3.4	14	.26	97	.12
17	11	54	56	100	47	36	17	2.5	6.3	.24	295	9.6
18	15	52	54	78	49	33	24	3.2	1.6	.22	124	80
19	16	37	54	73	56	27	36	2.5	1.8	1.8	66	26
20	17	26	56	73	52	20	48	2.5	1.3	128	44	13
21	15	17	56	73	80	19	44	1.8	.56	231	30	7.1
22	13	9.4	59	78	70	18	40	1.4	.32	69	18	124
23	11	5.7	54	73	60	20	35	1.3	.16	33	14	1,070
24	10	3.3	54	65	70	21	30	1.1	.09	40	11	1,320
25	9.4	5.7	54	65	288	24	23	1.1	.04	13	11	1,320
26	9.4	8.0	54	70	626	28	20	1.1	.04	5.9	10	370
27	8.7	8.7	54	63	225	33	17	1.1	.04	2.2	10	173
28	10	11	52	63	134	28	15	1.2	.05	1.3	8.5	105
29	11	13	52	58	------	27	15	1.3	.09	28	6.3	69
30	12	16	43	56	------	24	13	1.9	27	28	4.8	44
31	13	------	41	56	------	24	------	1.8	------	20	3.7	------
TOTAL	364.3	741.8	1,466	1,700	2,736	1,841	628	107.2	6,507.89	3,018.34	1,125.28	4,739.49
MEAN	11.8	24.7	47.3	54.8	97.7	59.4	20.9	3.46	217	97.4	36.3	158
MAX	21	100	59	107	626	158	48	11	4,180	708	295	1,320
MIN	2.2	3.3	18	20	40	18	11	1.1	.04	.22	.35	.10
AC-FT	723	1,470	2,910	3,370	5,430	3,650	1,250	213	12,910	5,990	2,230	9,400

CAL YR 1970 TOTAL 19,032.07 MEAN 52.1 MAX 5,920 MIN 0 AC-FT 37,750
WTR YR 1971 TOTAL 24,975.30 MEAN 68.4 MAX 4,180 MIN .04 AC-FT 49,540

07233500 Palo Duro Creek near Spearman, Tex.

LOCATION.--Lat 36°12'08", long 101°18'20", Hansford County, on right bank at downstream side of bridge on State Highway 15, 6 miles west of Spearman, and 18 miles upstream from Horse Creek.

DRAINAGE AREA.--960 sq mi, of which 520 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,961.63 ft above mean sea level. May 8, 1968, to Dec. 4, 1969, at site 5 miles downstream at different datum.

AVERAGE DISCHARGE.--26 years, 20.8 cfs (15,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,720 cfs June 9 (gage height, 16.60 ft); no flow at times.
Period of record: Maximum discharge, 21,200 cfs Oct. 7, 1946 (gage height, 19.87 ft); no flow at times.
Maximum stage since 1936, 22.5 ft Sept. 4, 1938, from floodmark (discharge, about 34,000 cfs). Flood of June 4, 1936, reached a stage of 21 ft, from floodmark (discharge, 26,100 cfs, from rating curve extended above 20,000 cfs).

REMARKS.--Records good. Small diversion above station for irrigation.

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	4.6	1.6	.20	.15	.20	1.3	.50	126	9.0	9.0	5.0
2	.56	4.3	1.9	.20	.15	.15	1.0	.97	52	206	6.4	4.4
3	.58	4.2	1.6	.10	.19	.10	.62	3.8	25	228	6.2	3.8
4	.68	3.6	1.5	.07	.17	.30	.60	2.0	21	288	4.2	3.9
5	.71	3.5	1.2	0	.15	1.0	2.1	4.5	20	111	1.8	4.8
6	.54	3.5	1.3	0	.12	.50	2.6	3.2	28	53	92	5.0
7	.23	3.2	.96	0	.10	.60	3.1	2.1	19	30	30	5.5
8	.45	3.4	1.1	.01	.20	.80	3.1	2.6	64	19	16	6.0
9	2.8	2.6	1.3	.02	.50	1.2	3.2	2.8	2,340	13	14	6.9
10	2.0	2.6	1.2	.04	.80	.87	2.0	3.0	525	8.7	10	6.6
11	1.3	2.0	1.1	.06	.80	.81	1.8	2.4	119	5.6	132	6.2
12	1.5	2.0	1.0	.10	.70	.65	1.4	2.1	185	4.1	21	6.9
13	2.8	3.2	1.0	.12	.51	.36	1.2	2.3	152	3.4	20	5.2
14	2.5	2.9	1.5	.20	.40	.12	.77	2.4	46	2.7	11	5.1
15	2.6	2.5	2.3	.50	.23	.23	.73	2.0	34	2.8	6.0	5.6
16	2.4	2.3	1.5	1.0	.10	.32	1.0	2.8	22	2.2	2.5	6.5
17	2.1	2.4	1.7	1.6	.09	.37	.79	2.6	20	1.6	2.1	7.4
18	2.8	3.7	1.7	1.6	.34	0	.82	1.7	25	.81	2.3	9.4
19	6.4	2.4	1.5	1.6	.13	.33	.94	1.6	21	4.9	2.3	22
20	5.3	2.1	1.6	1.5	.10	.08	1.3	1.1	14	6.3	2.3	17
21	3.6	1.8	1.7	1.3	.05	0	2.1	1.3	9.9	50	2.7	12
22	2.6	1.3	1.8	.83	.05	0	.77	1.5	8.1	58	3.4	13
23	2.6	1.0	1.8	.50	.05	0	1.0	2.0	6.6	26	3.5	101
24	3.2	.90	.50	.35	.05	0	.87	1.3	5.3	9.3	3.6	90
25	2.6	1.4	.20	.25	.10	0	.58	1.6	4.2	5.2	3.3	29
26	2.7	1.3	.25	.20	.20	4.8	.81	2.2	3.5	3.8	2.8	13
27	3.6	1.1	.25	.20	.20	3.1	1.2	1.6	2.8	167	2.6	6.2
28	5.2	1.8	.31	.20	.15	3.4	1.1	2.9	2.0	440	2.8	3.7
29	5.6	2.1	.25	.24	------	2.7	.87	61	1.6	99	3.5	2.3
30	4.4	1.7	.50	.26	------	2.2	.75	85	1.8	41	4.4	1.5
31	4.1	------	.20	.14	------	1.6	------	194	------	18	5.0	------
TOTAL	79.30	75.40	36.32	13.39	6.78	26.79	40.42	400.87	3,903.8	1,917.41	428.7	414.9
MEAN	2.56	2.51	1.17	.43	.24	.86	1.35	12.9	130	61.9	13.8	13.8
MAX	6.4	4.6	2.3	1.6	.80	4.8	3.2	194	2,340	440	132	101
MIN	.23	.90	.20	0	.05	0	.58	.50	1.6	.81	1.8	1.5
AC-FT	157	150	72	27	13	53	80	795	7,740	3,800	850	823

CAL YR 1970 TOTAL 2,609.90 MEAN 7.15 MAX 1,040 MIN 0 AC-FT 5,180
WTR YR 1971 TOTAL 7,344.08 MEAN 20.1 MAX 2,340 MIN 0 AC-FT 14,570

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
6- 9	0445	16.60	6,720
7-27	2345	14.78	2,990
8-11	0215	10.44	570

07235000 Wolf Creek at Lipscomb, Tex.

LOCATION.--Lat 36°14'16", long 100°16'28", Lipscomb County, near center of stream on downstream side of bridge on State Highway 305, 0.3 mile north of Lipscomb, 0.7 mile downstream from Little Sandy Creek, 2 miles upstream from Plum Creek, and at mile 61.2.

DRAINAGE AREA.--697 sq mi, of which 222 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1937 to September 1942, October 1961 to current year. Prior to 1941, monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 2,371.29 ft above mean sea level. Prior to Feb. 25, 1938, nonrecording gage, Feb. 25, 1938, to Sept. 30, 1942, water-stage recorder and nonrecording gage at present site at datum 5.77 ft higher.

AVERAGE DISCHARGE.--15 years (1937-42, 1961-71), 22.5 cfs (16,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,560 cfs June 9 (gage height, 7.30 ft); minimum, 0.20 cfs Sept. 13, 14.
Period of record: Maximum discharge, 20,000 cfs Oct. 21, 1941 (gage height, 11.57 ft, present datum), from rating curve extended above 14,000 cfs on basis of velocity-area studies; no flow at times.
Maximum stage since 1890, 15.5 ft June 23, 1957, present site and datum, from floodmarks. Flood in May 1955 reached a stage of 12.1 ft, present site and datum, from information by State Highway Department.

REMARKS.--Records fair. Small diversion upstream from station for irrigation and recreation.

REVISIONS (WATER YEARS).--WSP 1311: 1938-39, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	5.3	5.8	7.7	6.5	8.0	5.8	4.6	3.5	4.4	2.6	.53
2	6.5	5.1	6.3	8.0	6.5	7.0	5.5	4.8	3.2	3.9	2.3	.53
3	6.3	5.1	6.3	7.0	6.5	6.0	5.5	4.6	3.2	3.2	2.6	.53
4	6.0	4.8	6.3	6.0	6.5	7.0	5.3	4.6	3.2	3.2	2.6	.68
5	5.3	4.8	6.3	5.0	6.5	10	5.5	4.6	2.8	3.0	2.6	.53
6	4.6	5.1	6.3	4.0	6.3	10	5.3	4.4	2.8	2.3	2.6	.53
7	4.8	5.1	6.0	3.0	6.0	10	5.3	4.2	2.6	1.7	2.3	.40
8	5.3	5.1	6.3	3.0	5.8	10	4.8	4.4	2.7	1.2	1.7	.29
9	5.5	4.8	6.3	3.0	5.5	9.7	4.8	4.4	280	1.0	1.5	.68
10	6.3	4.6	6.0	3.0	5.5	9.7	4.8	4.4	133	.90	1.5	.40
11	4.4	4.8	6.3	4.0	5.9	9.4	4.8	4.6	113	.85	1.5	.68
12	3.5	5.1	6.5	4.0	6.0	9.2	18	4.6	27	.80	1.5	.29
13	3.2	5.3	6.5	6.0	5.8	9.4	5.5	4.4	21	.75	1.5	.20
14	3.2	5.3	6.7	8.2	5.8	9.0	4.4	4.4	161	.68	1.2	.20
15	3.5	5.3	6.7	7.7	5.5	9.0	4.2	4.2	43	.53	1.2	.29
16	3.7	5.3	7.0	7.7	5.3	8.7	4.2	4.2	22	.40	1.5	.40
17	3.9	5.3	7.2	7.7	5.1	8.4	4.2	3.9	14	.53	1.5	.53
18	4.2	5.3	7.2	7.7	5.3	7.7	3.9	3.9	12	.84	1.5	1.0
19	4.2	5.3	7.2	7.7	5.5	7.0	4.2	3.9	11	1.7	1.5	.84
20	4.4	5.3	7.2	7.7	5.0	7.2	4.8	3.7	10	1.9	1.0	.68
21	4.6	5.3	7.5	7.7	4.0	7.0	3.9	3.7	9.4	1.7	1.0	.53
22	4.8	5.3	7.5	7.2	3.5	7.0	3.7	4.2	8.4	1.7	1.0	.84
23	5.1	5.1	7.5	7.2	3.5	6.7	4.2	3.9	7.5	2.6	.84	1.0
24	5.3	4.8	7.5	7.2	4.0	7.0	4.4	3.7	6.7	2.1	.84	1.7
25	5.5	5.3	7.7	7.2	5.0	6.7	4.4	3.7	6.3	2.1	1.5	1.9
26	5.3	5.8	7.7	7.0	6.0	7.0	4.4	3.5	5.5	2.3	.84	1.7
27	5.3	5.8	8.0	7.0	7.0	6.5	4.4	3.5	4.6	2.6	.53	1.0
28	5.1	5.5	8.0	7.0	8.0	6.3	4.6	3.5	4.6	2.8	.53	.68
29	5.3	5.8	8.2	6.7	------	6.0	4.8	3.5	3.9	3.5	.68	.68
30	5.3	5.8	8.0	7.0	------	6.3	4.8	3.7	3.2	3.5	.53	1.0
31	5.3	------	8.2	7.0	------	5.8	------	3.7	------	3.5	.40	------
TOTAL	153.2	156.6	216.2	196.3	157.8	244.7	154.4	127.4	931.1	62.18	44.89	21.24
MEAN	4.94	5.22	6.97	6.33	5.64	7.89	5.15	4.11	31.0	2.01	1.45	.71
MAX	7.5	5.8	8.2	8.2	8.0	10	18	4.8	280	4.4	2.6	1.9
MIN	3.2	4.6	5.8	3.0	3.5	5.8	3.7	3.5	2.6	.40	.40	.20
AC-FT	304	311	429	389	313	485	306	253	1,850	123	89	42

CAL YR 1970 TOTAL 4,336.09 MEAN 11.9 MAX 1,680 MIN .06 AC-FT 8,600
WTR YR 1971 TOTAL 2,466.01 MEAN 6.76 MAX 280 MIN .20 AC-FT 4,890

PEAK DISCHARGE (BASE, 500 CFS).--June 9 (1030) 1,560 cfs (7.30 ft).

07295500 Tierra Blanca Creek above Buffalo Lake near Umbarger, Tex.

LOCATION.--Lat 34°50'55", long 102°10'32", Deaf Smith County, on left bank 8.4 miles southwest of Umbarger, and 9 miles upstream from Buffalo Lake Dam.

DRAINAGE AREA.--1,968 sq mi, of which 1,430 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1938 to November 1939 (occasional daily discharges), December 1939 to September 1954 published as "at reservoir near Umbarger", March 1967 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 3,650 ft (from topographic map). Prior to Aug. 29, 1940, water-stage recorder or nonrecording gage at conduit tower at different datum.

AVERAGE DISCHARGE.--18 years (1940-54, 1967-71), 11.5 cfs (8,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,350 cfs Sept. 23 (gage height, 7.82 ft); no flow at times.
Period of record: Maximum discharge, 11,300 cfs June 6, 1941 (computed by rate of change in contents and outflow from reservoir); no flow at times each year.

REMARKS.--Records good. Surface runoff represents inflow to Buffalo Lake.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0		0	.83		0	.63
2						0		0	.21		0	.52
3						0		0	.02		0	.41
4						0		0	0		0	.37
5						0		0	0		0	.28
6						0		0	0		0	.20
7						.03		0	0		0	.13
8						.05		0	0		155	.05
9						.03		0	0		63	.02
10						.02		0	0		15	.01
11						.01		0	0		6.1	0
12						0		0	0		3.2	0
13						0		0	0		2.2	0
14						0		0	0		1.7	0
15						0		0	0		1.4	0
16						0		0	0		1.3	0
17						0		0	0		152	0
18						0		0	0		195	0
19						0		0	0		45	0
20						0		0	0		16	0
21						0		0	0		7.0	0
22						0		0	0		3.2	686
23						0		0	0		2.2	783
24						0		0	0		1.7	428
25						0		0	0		1.4	114
26						0		0	0		1.3	36
27						0		0	0		1.3	19
28						0		0	0		1.4	12
29					------	0		0	0		1.3	7.1
30					------	0		1.3	0		1.2	4.7
31		------			------	0	------	2.3	------		.87	------
TOTAL	0	0	0	0	0	.14	0	3.6	1.06	0	679.77	2,092.42
MEAN	0	0	0	0	0	.005	0	.12	.035	0	21.9	69.7
MAX	0	0	0	0	0	.05	0	2.3	.83	0	195	783
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	.3	0	7.1	2.1	0	1,350	4,150

CAL YR 1970 TOTAL 58.42 MEAN .16 MAX 10 MIN 0 AC-FT 116
WTR YR 1971 TOTAL 2,776.99 MEAN 7.61 MAX 783 MIN 0 AC-FT 5,510

PEAK DISCHARGE (BASE, 500 CFS).--Sept. 23 (0200) 1,350 cfs (7.82 ft).

07296000 Buffalo Lake near Umbarger, Tex.

LOCATION.--Lat 34°55'26", long 102°06'01", Randall County, on intake structure 100 ft upstream, 200 ft to right of left end of dam on Tierra Blanca Creek, 2 miles south of Umbarger, 20 miles upstream from Palo Duro Creek, and at mile 1,200.

DRAINAGE AREA.--2,075 sq mi, of which 1,500 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1938 to September 1954, March 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,515.6 ft above mean sea level. Prior to Aug. 29, 1940, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 2,500 acre-ft Sept. 30 (gage height, 115.50 ft); lake dry Mar. 26 to July 22.
Period of record: Maximum contents, 25,100 acre-ft June 6, 1941 (gage height, 130.43 ft); minimum since first appreciable storage, lake dry Mar. 26 to July 22, 1971.

REMARKS.--Lake is formed by a rolled-fill earthen dam 882 ft long with an uncontrolled concrete service spillway at right end 200 ft long with crest at gage height 127.0 ft. Storage began June 9, 1938, and dam completed June 15, 1938. Outlet works consist of a 4- by 5-foot concrete conduit controlled by a gate in the control tower. Data regarding dam and lake are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	146.8	-
Spillway crest	127.0	18,150
Sill of 4- by 5-foot conduit	97.2	0

COOPERATION.--Capacity curve, based on a 1937 survey was furnished by the Soil Conservation Service. Curve revised below 116.0 ft by Bureau of Sport Fisheries and Wildlife based on their surveys in May 1970.

Capacity table (gage height, in feet, and total contents, in acre-feet)

110.0	230	113.0	890
111.0	375	114.0	1,350
112.0	590	115.0	2,000
		116.0	2,990

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	255	216	140	134	116				0	15	413
2	293	255	214	139	134	115				0	10	402
3	293	254	210	138	134	114				0	10	398
4	291	253	208	137	132	114				0	10	392
5	289	250	206	136	130	113				0	10	388
6	286	250	205	135	128	112				0	10	384
7	284	248	204	135	127	112				0	8	379
8	282	246	204	136	125	111				0	8	373
9	280	245	203	136	123	110				0	8	369
10	280	242	202	136	122	109				0	40	366
11	278	240	201	137	119	108				0	40	361
12	276	235	200	137	116	108				0	75	359
13	276	230	199	137	114	105				0	75	356
14	278	229	198	138	114	100				0	75	353
15	280	228	195	138	114	95				0	75	350
16	280	226	192	138	114	90				0	105	349
17	280	224	192	138	112	85				0	180	346
18	281	222	192	138	111	80				0	230	343
19	281	220	191	137	109	78				0	379	340
20	282	220	189	137	108	74				0	472	337
21	282	219	188	136	106	70				0	482	334
22	282	219	187	136	105	68				0	472	400
23	279	218	186	135	103	63				40	463	1,190
24	275	218	186	135	102	48				40	461	1,810
25	273	217	185	135	114	20				40	455	2,340
26	270	217	185	135	125	0				30	450	2,420
27	267	217	184	135	121	0				20	446	2,450
28	264	216	184	135	120	0				20	442	2,460
29	261	216	183	134	------	0				15	435	2,460
30	258	216	181	134	------	0				15	429	2,450
31	255	------	180	134	------	0	------		------	15	420	------
(*)	-45	-39	-36	-8	-14	-120	0	0	0	+15	+405	+2,030
MAX	296	255	216	140	134	116	0	0	0	40	482	2,460
MIN	255	216	180	134	102	0	0	0	0	0	8	334

CAL YR 1970..... * -1,510 MAX 1,690 MIN 180
WTR YR 1971..... * +2,190 MAX 2,460 MIN 0

* Change in contents, in acre-feet.

07296100 Tierra Blanca Creek below Buffalo Lake near Umbarger, Tex.

LOCATION.--Lat 34°55'27", long 102°05'57", Randall County, 25 ft downstream from Buffalo Lake dam on Tierra Blanca Creek, 2 miles south of Umbarger, 20 miles upstream from Palo Duro Creek, and at mile 1,200.

DRAINAGE AREA.--2,075 sq mi, of which 1,500 sq mi is probably noncontributing. All drainage area is above Buffalo Lake dam.

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder and metal H weir. Datum of gage is 3,611.5 ft above mean sea level.

EXTREMES.--Current year: Maximum daily discharge, 14 cfs Mar. 24 (gage height unknown, lake being drained and gage bypassed); no flow at times.
Period of record: Maximum daily discharge, 14 cfs Mar. 24, 1971; maximum gage height, 2.45 ft Aug. 17, 1971 (backwater from a dam downstream); no flow at times.

REMARKS.--Records poor. Flow regulated by Buffalo Lake (capacity, 18,150 acre-ft) 25 ft upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	.01	.01	.01	0		0	.01		0	.01
2	0	.01	.01	.01	.02	0		0	.01		0	.01
3	0	.01	.01	.01	.02	0		0	.01		0	.01
4	0	.01	.01	.01	.02	0		0	.01		0	.01
5	0	.01	.01	.01	.02	0		0	.01		0	.01
6	0	.01	.01	.01	.02	0		0	.01		0	.01
7	0	.01	.01	.01	.02	0		0	.01		0	.01
8	0	.01	.01	.01	.02	.01		.01	.01		0	.01
9	0	.01	.01	.01	.02	.01		.01	.01		.01	.01
10	0	.01	.01	.01	.02	.01		.01	.01		.01	.01
11	0	.01	.01	.01	.02	.01		.01	.01		.01	.02
12	0	.01	.02	.01	.02	.37		.01	.01		.01	.03
13	0	.01	.02	.01	.01	.01		0	.01		.01	.03
14	0	.01	.01	.01	.01	.01		0	.01		.01	.01
15	0	.01	.01	.01	.01	.01		0	.01		.01	.01
16	0	.01	.01	.01	.01	.01		0	.01		.01	.01
17	0	.01	.01	.01	.01	.01		0	.01		.01	.01
18	0	.01	.01	.01	.01	.01		0	.01		.02	.01
19	0	.01	.01	.01	.01	.01		0	.02		.02	.01
20	0	.01	.01	.01	.01	.01		0	.05		.02	.01
21	0	.01	.01	.01	.01	.01		0	.03		.02	.01
22	0	.01	.01	.01	.01	.01		0	.02		.02	.14
23	.01	.01	.01	.01	.01	.01		0	.01		.02	.03
24	.01	.01	.01	.01	0	14		0	.01		.02	.05
25	.01	.01	.01	.01	0	10		0	.01		.02	.03
26	.01	.01	.01	.01	0	0		0	0		.01	.03
27	.01	.01	.01	.01	0	0		.01	0		.01	.05
28	.01	.01	.01	.01	0	0		.02	0		.01	.10
29	.01	.01	.01	.01	------	0		.02	0		.01	.10
30	.01	.01	.01	.01	------	0		.02	0		.01	.08
31	.01	------	.01	.01	------	0	------	.02	------		.01	------
TOTAL	.09	.30	.33	.31	.34	24.52	0	.14	.33	0	.31	.87
MEAN	.003	.010	.011	.010	.012	.79	0	.005	.011	0	.010	.029
MAX	.01	.01	.02	.01	.02	14	0	.02	.05	0	.02	.14
MIN	0	.01	.01	.01	0	0	0	0	0	0	0	.01
AC-FT	.2	.6	.7	.6	.7	49	0	.3	.7	0	.6	1.7

CAL YR 1970 TOTAL 2.57 MEAN .0070 MAX .0 MIN 0 AC-FT 5.1
WTR YR 1971 TOTAL 27.54 MEAN .076 MAX 14 MIN 0 AC-FT 55

07297910 Prairie Dog Town Fork Red River near Wayside, Tex.

LOCATION.--Lat 34°50'15", long 101°24'49", Armstrong County, on left bank at downstream side of bridge on Farm Road 284, 13 miles northeast of Wayside, 26 miles south of Claude, and at mile 1,145.

DRAINAGE AREA.--4,211 sq mi, of which 3,281 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,463.74 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 10,000 cfs Aug. 17 (gage height, 10.03 ft); no flow at times.
Period of record: Maximum discharge, 58,000 cfs Aug. 28, 1968 (gage height, 13.0 ft, from floodmark); no flow at times.

REMARKS.--Records fair. Several small diversions above station. Flow partly regulated by Buffalo Lake, Amarillo City Lake, Palo Duro Lake, and Lake Tangelwood, having a combined capacity of 28,600 acre-ft. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	.14	.13	.43	.73	.10	.17	.08	4.7	.17	.02
2	0	.05	.13	.13	.43	.73	.10	.15	.04	.21	.08	.01
3	0	.07	.08	.08	.43	.73	.08	.10	.11	.01	.08	0
4	0	.06	.09	.06	.43	.62	.28	.12	.13	0	.05	0
5	0	.07	.08	.06	.43	.52	.28	.12	1.8	0	.02	0
6	0	.06	.08	.08	.43	.22	.13	.10	3.7	0	3.2	0
7	0	.07	.08	.15	.40	.35	.13	.08	.20	0	.84	0
8	0	.06	.08	.30	.35	.43	.10	.91	.31	0	235	0
9	0	.04	.08	.62	.50	.35	.10	.66	57	0	21	0
10	0	.05	.10	.62	.62	.35	.12	.10	2.0	0	11	0
11	0	.05	.10	.52	.62	.43	.13	.07	1.9	0	13	0
12	0	.03	.10	.43	.52	.43	.09	.05	34	0	15	0
13	0	.14	.10	.35	.52	.35	.06	.05	213	0	170	0
14	0	.13	.10	.35	.52	.28	.09	.04	.22	0	43	0
15	.15	.11	.10	.35	.52	.22	.98	.03	.59	0	87	0
16	.61	.10	.10	.28	.52	.22	2.9	.02	.43	0	48	0
17	.39	.08	.10	.28	.52	.13	1.3	.01	.26	0	821	3.6
18	.28	.07	.10	.28	.52	.18	.48	0	.05	0	107	20
19	.22	.05	.10	.28	.43	.10	1.2	0	.03	0	22	.93
20	.09	.04	.10	.28	.35	.17	1.2	0	9.7	2.1	11	.10
21	.03	.04	.10	.22	.30	.10	.30	0	.55	1.1	7.8	.01
22	0	.03	.10	.22	.30	.22	.15	.01	.07	.73	5.1	133
23	0	.05	.10	.28	1.0	.35	.13	0	.05	11	5.6	61
24	0	.07	.11	.35	2.3	.35	.17	0	.05	.78	6.2	856
25	0	.08	.08	.35	1.4	.43	.17	0	0	.35	2.0	74
26	0	.04	.08	.35	1.1	.35	.12	.44	0	.17	.83	50
27	0	.04	.09	.35	.85	.43	.10	52	0	1.4	.44	38
28	0	.06	.13	.35	.85	.22	.10	.57	0	63	.28	26
29	0	.10	.13	.35	------	.22	.12	.67	0	2.6	.16	15
30	0	.14	.11	.43	------	.22	.13	3.2	0	.63	.10	9.6
31	0	------	.10	.43	------	.17	------	.34	------	.22	.05	------
TOTAL	1.77	1.99	3.07	9.31	17.59	10.60	11.34	60.01	326.27	89.00	1,637.00	1,287.27
MEAN	.057	.066	.099	.30	.63	.34	.38	1.94	10.9	2.87	52.8	42.9
MAX	.61	.14	.14	.62	2.3	.73	2.9	52	213	63	821	856
MIN	0	.01	.08	.06	.30	.10	.06	0	0	0	.02	0
AC-FT	3.5	4.0	6.1	18	35	21	22	119	647	177	3,250	2,550

CAL YR 1970 TOTAL 1,444.41 MEAN 3.96 MAX 471 MIN 0 AC-FT 2,860
WTR YR 1971 TOTAL 3,455.22 MEAN 9.47 MAX 856 MIN 0 AC-FT 6,850

PEAK DISCHARGE (BASE, 6,000 CFS).--Aug. 17 (1330) 10,000 cfs (10.03 ft).

07298000 North Tule Draw at reservoir, near Tulia, Tex.

LOCATION.--Lat 34°33'33", long 101°42'30", Swisher County, at upstream side of dam, 250 ft to left of concrete spillway, 1.0 mile upstream from mouth, and 3.2 miles northeast of Tulia.

DRAINAGE AREA.--About 189 sq mi, of which 124 sq mi is probably noncontributing.

PERIOD OF RECORD.--May 1939 to June 1940 (monthly figures only), November 1940 to current year. Prior to October 1950, published as North Tule Creek at reservoir, near Tulia.

GAGE.--Water-stage recorder. Altitude of gage is 3,310 ft (by barometer). Prior to Sept. 29, 1939, nonrecording gage at datum 70.5 ft higher. Sept. 29, 1939, to Nov. 26, 1940, nonrecording gage at present datum.

AVERAGE DISCHARGE.--30 years (1941-71), 3.31 cfs (2,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 968 cfs June 13; maximum gage height, 92.83 ft June 13; no flow most of year.
Period of record: Maximum discharge, 10,600 cfs June 10, 1965; maximum gage height, 98.62 ft June 11, 1965; no flow at times in most years.

REMARKS.--Records poor. Records given herein represent flow into reservoir. Discharge below gage height 91.9 ft (spillway crest) determined from daily change in contents of reservoir; that above gage height 91.9 ft determined by algebraic summation of flow over spillway (computed from spillway rating curve), computed flow through conduit, and change in contents of reservoir (computed from capacity curve and reduced to equivalent cubic feet per second). No outflow through conduit or over emergency spillway during year. No adjustment made for evaporation or seepage losses. Dam completed Jan. 15, 1939. Reservoir capacity, 686 acre-ft. Capacity based on plane table survey made by Geological Survey in May 1965. Reservoir used for recreational purposes and water is rarely released through outlet gate.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0							0	0	0	0
2	0	0							0	0	0	0
3	0	0							0	0	0	0
4	0	0							0	0	0	0
5	0	0							0	0	0	0
6	0	0							0	0	0	0
7	0	0							0	0	0	0
8	0	0							0	0	0	0
9	0	0							98	0	0	0
10	0	0							2.8	0	0	0
11	0	0							1.0	0	0	0
12	0	0							95	0	0	0
13	0	0							306	0	0	0
14	0	0							24	0	0	0
15	.60	0							5.0	0	0	0
16	.20	0							1.0	0	0	.10
17	.10	0							.50	0	0	0
18	0	0							.10	0	15	0
19	0	0							7.4	0	40	0
20	0	0							1.0	0	7.5	0
21	0	0							0	0	.10	0
22	0	0							0	0	0	0
23	0	0							0	142	0	0
24	0	0							0	75	0	109
25	0	0							0	18	0	4.0
26	0	0							0	2.0	0	1.0
27	0	0							0	.50	0	0
28	0	.71							0	0	0	0
29	0	.35			------				0	0	0	0
30	0	.10			------				0	0	0	0
31	0	------			------		------		------	0	0	------
TOTAL	.90	1.16	0	0	0	0	0	0	541.80	237.50	62.60	114.10
MEAN	.029	.039	0	0	0	0	0	0	18.1	7.66	2.02	3.80
MAX	.60	.71	0	0	0	0	0	0	306	142	40	109
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	1.8	2.3	0	0	0	0	0	0	1,070	471	124	226
(†)	36	19	10	6	0	0	0	0	593	667	630	668

CAL YR 1970 TOTAL 9.46 MEAN .026 MAX 2.2 MIN 0 AC-FT 19 † -439
WTR YR 1971 TOTAL 958.06 MEAN 2.62 MAX 306 MIN 0 AC-FT 1,900 † +620

† Contents, in acre-feet, at end of month.

07298200 Tule Creek near Silverton, Tex.

LOCATION.--Lat 34°32'38", long 101°25'40", Briscoe County, on downstream side of bridge on Farm Road 284, 0.1 mile downstream from Rock Creek, 8.6 miles northwest of Silverton, 15 miles downstream from South Tule Draw, and 17.5 miles upstream from Prairie Dog Town Fork Red River.

DRAINAGE AREA.--1,150 sq mi, of which 960 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,852.44 ft above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--7 years, 11.2 cfs (8,110 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,440 cfs June 12 (gage height, 6.90 ft); no flow for many days.
Period of record: Maximum discharge, 9,900 cfs June 11, 1965 (gage height, 11.65 ft); no flow for many days each year.
Maximum stage since 1890, occurred in 1892 (stage and discharge unknown); second highest stage occurred September 1926 (stage and discharge unknown); third highest stage occurred May 10, 1934, gage height, 20.3 ft, discharge unknown, from information by local residents.

REMARKS.--Records good. Flow partly regulated by reservoir on North Tule Draw near Tulia 25 miles upstream (station 07298000).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	0	.15	.74	0	0	.74		0	0
2	0		0	.02	.15	.60	0	0	.15		0	0
3	0		0	.06	.20	.30	0	0	.11		12	0
4	0		0	0	.15	.10	0	0	.02		2.9	0
5	0		0	0	.11	.20	0	0	0		0	0
6	0		0	0	.11	.36	0	0	.13		0	0
7	0		0	0	.11	.27	0	0	.08		0	0
8	0		0	0	.20	.27	0	0	45		0	0
9	0		0	0	.36	.20	0	0	237		0	0
10	0		0	0	.46	.11	0	0	138		0	0
11	0		0	.01	.36	.08	0	0	109		0	0
12	0		0	.11	.46	.06	0	0	134		0	0
13	0		0	.11	.36	.02	0	0	1,120		81	0
14	0		0	.11	.36	0	0	0	385		20	0
15	.09		0	.08	.36	0	0	0	67		.06	0
16	.08		0	.06	.27	0	.18	0	18		.01	0
17	.11		0	.06	.20	0	.20	0	1.2		120	0
18	.02		0	.06	.27	0	.15	0	.15		31	0
19	0		0	.06	.20	0	.06	0	.15		1.5	0
20	0		0	.06	.15	0	.02	0	12		.02	0
21	0		0	.02	.01	0	0	0	.01		0	0
22	0		0	.02	.01	0	0	0	0		0	0
23	0		0	.02	5.9	0	0	0	.01		0	1.5
24	0		0	.04	9.4	0	0	0	.01		0	37
25	0		0	.08	4.9	0	0	0	.01		0	1.5
26	0		0	.06	2.3	0	0	0	0		0	46
27	0		0	.06	1.2	0	0	0	0		0	2.8
28	0		.01	.08	.94	0	0	1.2	0		0	.46
29	0		.02	.11	------	0	0	3.4	0		0	.27
30	0		0	.15	------	0	0	88	0		0	.08
31	0	------	0	.15	------	0	------	6.6	------		0	------
TOTAL	.30	0	.03	1.59	29.65	3.31	.61	99.2	2,267.77	0	268.49	89.61
MEAN	.010	0	.001	.051	1.06	.11	.020	3.20	75.6	0	8.66	2.99
MAX	.11	0	.02	.15	9.4	.74	.20	88	1,120	0	120	46
MIN	0	0	0	0	.01	0	0	0	0	0	0	0
AC-FT	.6	0	.06	3.2	59	6.6	1.2	197	4,500	0	533	178

CAL YR 1970 TOTAL 380.07 MEAN 1.04 MAX 72 MIN 0 AC-FT 754
WTR YR 1971 TOTAL 2,760.56 MEAN 7.56 MAX 1,120 MIN 0 AC-FT 5,480

PEAK DISCHARGE (BASE, 1,000 CFS).--June 12 (2330) 2,440 cfs (6.90 ft); Aug. 17 (2000) 1,260 cfs (5.55 ft).

07299200 Prairie Dog Town Fork Red River near Lakeview, Tex.

LOCATION.--Lat 34°34'23", long 100°44'43", Hall County, on left bank at downstream side of bridge on Farm Road 657, 7.6 miles southwest of Lakeview, 8.6 miles upstream from Little Red River, 13.3 miles downstream from former gage near Brice, and at mile 1,092.5.

DRAINAGE AREA.--6,792 sq mi, of which 4,769 sq mi is probably noncontributing.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,926.41 ft above mean sea level. Aug. 29 to Dec. 12, 1968, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--8 years, 68.2 cfs (49,410 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,400 cfs Sept. 24 (gage height, 7.00 ft); no flow at times.
Period of record: Maximum discharge, 51,000 cfs Aug. 29, 1968 (gage height, 9.10 ft, from floodmarks), from rating curve extended above 19,000 cfs on basis of slope-area measurement of peak flow; maximum gage height, 10.50 ft June 26, 1965; no flow at times.

REMARKS.--Records poor. Several small diversions above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.05	.22	.10	.21	.94	0	0	.55	.35	0	.56
2	.07	.05	.25	.10	.17	.83	0	0	.10	.25	0	.56
3	.02	.03	.26	.07	.17	.70	0	0	.07	18	0	.56
4	.04	.05	.22	.05	.10	.60	0	0	.04	1.0	0	.48
5	.07	.09	.19	0	.08	.50	0	0	.09	.21	0	.40
6	.03	.15	.21	0	.06	.56	0	0	.07	.11	4.5	.41
7	.03	.25	.38	0	.04	.60	0	0	.02	.01	8.0	.41
8	.01	.19	.60	.05	0	.64	0	0	.02	0	57	.40
9	.01	.05	.62	.15	.20	.48	0	13	45	0	6.5	.41
10	.01	.05	.74	.25	.35	.48	0	1.1	31	0	45	.35
11	.01	.05	.23	.56	.25	.41	0	.94	32	0	3.3	.30
12	.01	.05	.25	.56	.35	.48	0	.64	328	0	.21	.30
13	.02	29	.25	.48	.48	.17	0	.41	689	0	156	.21
14	.03	.25	.20	.25	.60	.03	0	.41	121	0	49	.17
15	.30	.21	.20	.25	.73	.03	.07	.56	54	0	8.0	.14
16	.58	.25	.23	.25	.64	.05	.14	.30	14	0	76	.17
17	.59	.14	.24	.25	.73	.05	.17	.02	7.5	0	13	48
18	.31	.17	.18	.25	1.1	0	.09	.05	2.4	0	878	5.2
19	.18	.07	.09	.25	.94	0	.05	.35	1.8	0	40	5.0
20	.20	.11	.19	.30	1.2	0	.03	.48	2.0	.64	9.0	4.0
21	.14	.09	.23	.25	2.0	0	0	.73	3.0	.73	4.4	1.5
22	.09	.03	.14	.17	3.0	0	0	.64	3.8	.50	3.0	.56
23	.04	.07	.10	.17	5.2	0	0	.10	.94	.30	2.0	51
24	.03	.05	.10	.17	3.5	0	.01	0	.30	.07	978	6,090
25	.03	.25	.10	.21	3.2	0	0	0	.14	.10	64	454
26	.04	.08	.14	.17	3.0	0	0	.07	.35	.30	9.0	110
27	.01	.06	.21	.21	2.2	0	0	1.3	.35	.30	2.0	49
28	.02	.16	.23	.21	1.5	0	0	102	.30	174	.83	23
29	.02	.35	.19	.25	------	0	0	90	.25	55	.80	13
30	.03	.51	.08	.25	------	0	0	50	.21	3.1	.73	3.0
31	.05	------	.10	.21	------	0	------	36	------	.14	.64	------
TOTAL	3.11	32.91	7.37	6.44	32.00	7.55	.56	299.10	1,338.30	255.11	2,418.91	6,863.09
MEAN	.10	1.10	.24	.21	1.14	.24	.019	9.65	44.6	8.23	78.0	229
MAX	.59	29	.74	.56	5.2	.94	.17	102	689	174	978	6,090
MIN	.01	.03	.08	0	0	0	0	0	.02	0	0	.14
AC-FT	6.2	65	15	13	63	15	1.1	593	2,650	506	4,800	13,610

CAL YR 1970 TOTAL 5,935.19 MEAN 16.3 MAX 4,070 MIN 0 AC-FT 11,770
WTR YR 1971 TOTAL 11,264.45 MEAN 30.9 MAX 6,090 MIN 0 AC-FT 22,340

PEAK DISCHARGE (BASE, 6,000 CFS).--Aug. 18 (0500) 8,800 cfs (6.50 ft); Sept. 24 (0600) 14,400 cfs (7.00 ft).

07299300 Little Red River near Turkey, Tex.

LOCATION.--Lat 34°32'27", long 100°46'13", Hall County, on left bank at downstream side of bridge on Farm Road 657, 10 miles upstream from mouth, and 14.5 miles northeast of Turkey.

DRAINAGE AREA.--139 sq mi.

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,925.39 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,970 cfs May 29 (gage height, 12.30 ft); no flow for many days.
Period of record: Maximum discharge, 3,570 cfs Aug. 29, 1968 (gage height, 13.48 ft, from floodmarks), from rating curve extended above 450 cfs on basis of slope-area measurement of peak flow; no flow at times.

REMARKS.--Records good. No diversion above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.07	.16	.18	.05	.07	.03	.01	2.8	1.9	.07	.18
2	.24	.07	.16	.18	.04	.05	.03	0	1.5	.49	.07	.14
3	.27	.07	.16	.21	.04	.05	.03	0	1.5	.44	.06	.12
4	.27	.07	.16	.15	.05	.05	.03	0	1.7	.35	.07	.10
5	.27	.07	.21	.05	.05	.05	.03	0	.94	.31	.07	.10
6	.27	.07	.21	.10	.05	.07	.03	0	2.1	.27	20	.18
7	.27	.07	.21	.15	.02	.07	.03	0	.49	.21	30	.23
8	.24	.07	.24	.18	.05	.08	.04	0	.35	.18	348	1.3
9	.21	.07	.24	.21	.07	.08	.04	345	.58	.16	.50	.35
10	.16	.07	.24	.24	.08	.07	.03	7.6	23	.14	63	.24
11	.16	.07	.24	.18	.08	.06	.02	.64	9.0	.12	3.6	.24
12	.14	.06	.21	.16	.08	.07	.01	.59	19	.10	.60	.24
13	.12	.14	.21	.16	.07	.06	.01	.59	13	.08	214	.21
14	.10	.12	.21	.16	.06	.05	0	.59	4.3	.07	227	.24
15	.16	.10	.21	.12	.06	.04	0	.85	1.7	.08	44	.21
16	.27	.07	.18	.12	.05	.04	.19	.70	.85	.07	816	.24
17	.24	.07	.18	.10	.06	.04	.62	.54	.64	.08	41	94
18	.16	.07	.18	.10	.07	.04	.49	.49	.54	.07	2.3	62
19	.12	.07	.18	.08	.07	.04	.08	.49	.54	.07	.10	12
20	.12	.08	.18	.08	.07	.04	.03	.59	.54	.10	.02	3.6
21	.10	.08	.18	.07	.05	.04	.01	113	.54	.10	.01	1.0
22	.08	.08	.18	.07	.04	.04	.01	2.5	.54	.08	58	.70
23	.08	.08	.18	.06	.16	.04	0	.59	.54	.06	24	41
24	.08	.08	.18	.06	.12	.05	0	.35	.49	.08	103	663
25	.08	.10	.18	.05	.10	.06	0	.35	.49	.08	36	241
26	.08	.10	.18	.05	.08	.06	0	.31	.44	.08	6.9	47
27	.07	.12	.18	.04	.08	.06	0	1.4	.44	.08	4.0	21
28	.06	.12	.18	.05	.08	.04	0	.65	.44	.10	1.7	12
29	.07	.12	.18	.06	------	.04	.01	417	.44	.10	10	6.6
30	.08	.16	.18	.05	------	.03	.01	271	.44	.08	1.4	2.3
31	.07	------	.18	.05	------	.04	------	17	------	.07	.24	------
TOTAL	4.95	2.59	5.95	3.52	1.88	1.62	1.81	1,182.83	89.87	6.20	2,055.71	1,211.52
MEAN	.16	.086	.19	.11	.067	.052	.060	38.2	3.00	.20	66.3	40.4
MAX	.31	.16	.24	.24	.16	.08	.62	417	23	1.9	816	663
MIN	.06	.06	.16	.04	.02	.03	0	0	.35	.06	.01	.10
AC-FT	9.8	5.1	12	7.0	3.7	3.2	3.6	2,350	178	12	4,080	2,400

CAL YR 1970 TOTAL 981.36 MEAN 2.69 MAX 213 MIN 0 AC-FT 1,950
WTR YR 1971 TOTAL 4,568.45 MEAN 12.5 MAX 816 MIN 0 AC-FT 9,060

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5- 9	0200	11.70	2,670	8- 8	0100	10.00	1,860
5-21	0400	7.27	678	8-13	1600	7.39	730
5-29	0130	12.30	2,970	8-16	0300	11.60	2,620
				9-24	1200	8.72	1,280

07299540 Prairie Dog Town Fork Red River near Childress, Tex.

LOCATION.--Lat 34°34'09", long 100°11'37", Childress County, on left bank at downstream side of bridge on U.S. Highways 62 and 83, 3.1 miles downstream from Salt Creek, 10.0 miles north of Childress, and at mile 1,061.

DRAINAGE AREA.--7,725 sq mi, of which 4,769 sq is probably noncontributing.

PERIOD OF RECORD.--December 1964 to March 1965 (gage heights only), April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,628.4 ft above mean sea level, from highway bridge plans.

AVERAGE DISCHARGE.--6 years, 101 cfs (73,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Aug. 13 (gage height, 9.46 ft); minimum, 0.01 cfs May 25, 26.
Period of record: Maximum discharge, 58,800 cfs June 26, 1965 (gage height, 12.0 ft), from rating curve extended above 33,000 cfs; no flow Aug. 5-8, Sept. 12, 1970.
Maximum stage since at least 1899, 16.9 ft in May or June 1957, from information by local residents and State Highway Department.

REMARKS.--Records poor. Many small diversions above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.43	3.2	1.4	2.9	4.9	.13	1.6	312	3.6	8.8	1.3
2	2.5	.43	2.7	1.0	3.2	3.6	.22	1.4	7.5	1.3	4.7	.92
3	1.7	.57	2.5	.80	4.9	3.5	.11	2.4	.31	24	3.0	.92
4	1.4	1.4	1.5	.50	4.3	3.7	.16	2.7	25	35	2.5	1.2
5	2.5	.92	2.0	.30	2.7	3.4	.92	4.5	7.0	6.2	1.2	1.2
6	2.5	.43	1.1	.30	1.0	2.8	1.4	1.2	3.6	3.4	1.2	1.4
7	1.7	.43	1.6	.40	1.0	2.9	.57	1.1	2.1	.11	42	1.4
8	1.4	.43	1.8	.60	1.5	3.6	.11	31	.57	.11	46	1.4
9	.31	.16	1.7	1.0	2.5	4.2	.15	893	621	.11	2,440	14
10	.03	.16	2.0	1.4	3.2	2.0	.07	528	101	.16	1,430	4.1
11	.22	.22	1.2	1.4	2.5	3.4	.22	63	1,770	.11	662	.92
12	.16	.31	1.2	1.4	2.0	3.7	1.7	6.1	1,470	.92	52	.22
13	.11	15	1.2	1.7	1.3	2.1	2.2	1.7	1,960	.43	1,630	.16
14	.07	16	1.2	1.5	1.4	1.5	.46	.92	1,050	.05	617	.16
15	8.8	5.4	13	1.0	1.4	.72	1.4	.31	501	.07	275	.16
16	46	3.7	7.5	1.4	1.4	1.5	163	.43	246	.07	1,010	.16
17	70	3.2	2.6	1.5	1.5	1.2	78	.05	60	.57	764	112
18	24	2.5	2.3	2.1	5.4	.57	54	.31	14	.16	775	79
19	9.8	3.7	1.6	1.9	2.5	.25	38	.22	5.4	.11	633	38
20	3.6	2.0	3.9	2.5	2.1	.49	21	.16	1.7	.72	155	23
21	2.1	3.6	5.8	2.8	2.0	1.2	17	.31	.43	1.7	55	8.8
22	1.7	3.3	5.4	3.0	10	1.1	7.9	1.4	.43	.92	21	4.1
23	.57	2.4	2.6	2.4	50	1.4	2.1	1.4	.22	21	13	317
24	.43	2.5	1.6	3.5	12	1.7	1.7	.07	.22	1.4	164	3,680
25	.31	4.0	1.3	3.6	9.9	.92	1.7	.01	.22	.31	1,350	2,860
26	.43	3.1	1.2	3.6	5.7	.96	.72	.01	.22	.22	90	339
27	.16	2.4	1.9	3.4	3.1	.72	.92	2.7	.22	.11	15	98
28	.11	2.8	2.3	3.9	4.1	.92	3.0	.92	.22	32	5.4	74
29	.11	3.6	2.4	4.8	------	.92	3.9	12	.11	8.9	1.7	38
30	.11	3.5	2.6	5.0	------	.72	1.7	677	.31	89	1.4	23
31	.43	------	1.4	3.5	------	.43	------	803	------	20	5.3	------
TOTAL	185.76	88.59	84.3	63.60	145.5	61.02	404.46	3,038.92	8,160.78	252.76	12,274.2	7,723.52
MEAN	5.99	2.95	2.72	2.05	5.20	1.97	13.5	98.0	272	8.15	396	257
MAX	70	16	13	5.0	50	4.9	163	893	1,960	89	2,440	3,680
MIN	.03	.16	1.1	.30	1.0	.25	.07	.01	.11	.05	1.2	.16
AC-FT	368	176	167	126	289	121	802	6,030	16,190	501	24,350	15,320

CAL YR 1970 TOTAL 8,955.88 MEAN 24.5 MAX 2,140 MIN 0 AC-FT 17,760
WTR YR 1971 TOTAL 32,483.41 MEAN 89.0 MAX 3,680 MIN .01 AC-FT 64,430

PEAK DISCHARGE (BASE, 7,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6-13	2000	8.77	7,440	8-13	1900	9.46	14,600
8- 9	0100	8.80	7,680	9-24	2030	9.27	12,300

07299570 Red River near Quanah, Tex.

LOCATION.--Lat 34°24'47", long 99°44'03", Hardeman County, on right bank at downstream side of bridge on State Highway 283, 8 miles north of Quanah, 30 miles upstream from Salt Fork Red River, and at mile 1,030.

DRAINAGE AREA.--8,321 sq mi, of which 4,769 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,412.97 ft above mean sea level.

AVERAGE DISCHARGE.--11 years (1960-71), 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,800 cfs June 13 (gage height, 11.22 ft); no flow at times.
Period of record: Maximum discharge, 64,000 cfs June 7, 1960 (gage height, 16.00 ft), from rating curve extended above 32,000 cfs; no flow at times.
Maximum stage since at least 1891 occurred in 1896 and was about 2 ft higher than flood of June 1, 1957 (second highest), which reached a stage of 21.2 ft, from information by local resident.

REMARKS.--Records poor. Several small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.27	.54	.80	1.9	2.1	1.8	.50	732	38	14	.9
2	.38	.48	.35	1.3	2.2	1.5	.93	.28	110	37	4.8	.2
3	.02	.33	.20	1.9	2.8	1.3	1.2	.20	28	17	1.2	0
4	0	.25	.25	.40	3.7	1.8	1.3	.20	5.1	23	0	1.2
5	.40	.36	.16	.20	3.2	1.6	1.6	.20	.8	32	0	16
6	.15	.59	.20	.30	2.5	1.1	2.5	.20	16	30	0	2.2
7	0	.67	.25	.80	2.3	1.1	2.0	.12	8.9	3.6	0	.1
8	.40	.57	.38	1.4	2.0	1.5	1.6	6.0	2.3	0	4.3	0
9	.09	.27	.47	2.0	2.5	1.9	1.3	135	71	0	3,460	4.4
10	0	.28	.47	3.0	4.2	1.3	1.3	809	413	0	1,200	11
11	0	.39	.31	2.6	3.7	1.6	1.4	113	1,490	0	1,230	0
12	0	.33	.31	2.2	2.8	2.1	1.1	16	635	0	468	0
13	0	3.4	.38	2.5	2.7	2.5	1.4	4.6	5,640	0	185	0
14	0	1.9	.38	2.2	2.8	1.9	1.7	2.8	5,270	0	2,860	0
15	4.8	.83	1.4	1.9	2.5	1.3	1.6	.94	1,630	0	688	0
16	11	.98	.80	2.1	2.5	1.1	12	.57	408	0	549	0
17	14	.86	.47	2.5	2.8	1.1	7.7	.31	215	0	2,320	983
18	4.7	.58	.47	2.2	2.8	1.2	23	.20	84	0	531	2,640
19	2.7	.53	.38	2.2	2.5	.53	10	.16	42	0	1,150	144
20	1.4	.50	.47	2.5	2.2	.52	3.4	.16	36	0	233	79
21	1.1	.49	.94	2.5	2.2	1.2	.47	.20	52	0	92	34
22	.71	.34	.94	2.2	2.2	1.2	.20	.20	31	0	41	49
23	.30	.16	.47	2.2	12	1.3	.16	51	20	.75	22	193
24	.23	.32	.57	2.5	35	1.6	.20	9.8	11	0	15	2,320
25	.18	.50	.57	2.5	17	2.4	.20	.34	6.8	0	305	9,470
26	.32	.46	.57	2.2	6.8	2.4	.16	.06	4.0	0	259	1,330
27	.09	.36	.80	2.2	2.3	2.5	.12	1.2	2.9	0	99	367
28	.13	.45	.94	2.8	2.2	2.2	1.3	.25	2.4	0	60	171
29	.20	.74	.94	3.2	------	1.1	6.0	5.5	2.2	0	27	116
30	.27	.94	1.1	2.8	------	1.0	1.1	774	1.8	4.0	11	75
31	.25	------	.68	2.5	------	.89	------	1,060	------	44	3.7	------
TOTAL	43.91	19.13	17.16	62.60	134.3	46.84	88.74	2,992.99	16,971.2	229.35	15,833.0	18,007.0
MEAN	1.42	.64	.55	2.02	4.80	1.51	2.96	96.5	566	7.40	511	600
MAX	14	3.4	1.4	3.2	35	2.5	23	1,060	5,640	44	3,460	9,470
MIN	0	.16	.16	.20	1.9	.52	.12	.06	.80	0	0	0
AC-FT	87	38	34	124	266	93	176	5,940	33,660	455	31,400	35,720

CAL YR 1970 TOTAL 4,850.77 MEAN 13.3 MAX 924 MIN 0 AC-FT 9,620
WTR YR 1971 TOTAL 54,446.22 MEAN 149 MAX 9,470 MIN 0 AC-FT 108,000

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6-13	2215	11.22	21,800	8-14	0400	9.93	11,600
8- 9	1200	9.90	11,200	9-18	0100	11.18	21,600
				9-25	0300	10.83	18,800

07299670 Groesbeck Creek at State Highway 283, near Quanah, Tex.

LOCATION.--Lat 34°21'16", long 99°44'24", Hardeman County, near left bank on downstream side of bridge on State Highway 283, 2 miles downstream from confluence of North and South Groesbeck Creeks, 4 miles north of Quanah, and 9 miles upstream from mouth.

DRAINAGE AREA.--303 sq mi.

PERIOD OF RECORD.--November 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,425.69 ft above mean sea level.

AVERAGE DISCHARGE.--9 years (1962-71), 9.47 cfs (6,860 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs Sept. 18 (gage height, 15.73 ft); no flow at times.
Period of record: Maximum discharge, 12,000 cfs Oct. 18, 1965 (gage height, 22.93 ft), from rating curve extended above 6,100 cfs; no flow at times.
Highest stage occurred in June 1891; highest stage since 1891 occurred in September 1929; other large floods are reported to have occurred in 1912, 1936, 1946, 1951, 1955, and 1957, from information by local residents.

REMARKS.--Records good. Several diversions upstream from station for farm and ranch use and for a gypsum wallboard plant.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	1.4	1.9	1.5	1.3	1.2	1.3	1.5	30	.54	0	.14
2	.82	1.5	1.8	1.6	1.3	1.1	1.1	1.3	7.5	.62	0	.14
3	.81	1.4	1.8	1.7	1.3	1.1	1.2	1.4	4.5	.64	0	.14
4	.76	1.4	1.7	1.7	1.3	1.2	.99	1.3	4.2	.56	0	14
5	.74	1.4	1.7	1.2	1.2	1.2	1.2	1.3	3.6	.58	0	11
6	.66	1.4	1.5	1.2	1.2	1.1	1.4	1.3	3.5	.53	0	386
7	.63	1.5	1.8	1.2	1.2	1.0	1.4	1.4	3.0	.48	0	172
8	.54	1.5	1.9	1.3	1.2	1.1	1.4	1.4	6.2	.46	0	3.5
9	.54	1.5	1.9	1.4	1.2	1.1	1.3	1.7	4.3	.46	0	.89
10	.52	1.5	1.8	1.3	1.3	1.1	1.4	2.0	2.5	.34	0	.45
11	.59	1.5	1.8	1.3	1.4	1.3	1.4	1.5	12	.34	0	.28
12	.63	1.6	1.8	1.2	1.3	1.2	.75	1.3	4.2	.17	0	.13
13	1.1	1.7	1.8	1.3	1.4	1.2	.16	1.3	2.4	.08	0	.05
14	1.5	2.0	1.8	1.3	1.4	1.1	.48	1.4	2.1	.04	0	.03
15	1.7	1.9	1.9	1.2	1.3	.98	.85	1.4	1.8	.02	72	.02
16	1.8	1.6	1.9	1.2	1.2	1.1	1.1	1.6	1.6	.02	2.2	.02
17	1.8	1.6	1.7	1.2	1.3	1.2	1.4	1.5	1.6	.01	42	4.4
18	1.6	1.7	1.7	1.2	1.4	1.1	1.7	1.3	1.4	0	45	1,060
19	1.4	1.7	1.7	1.2	1.5	1.7	1.8	1.2	1.2	0	2.0	491
20	1.3	1.7	1.8	1.2	1.4	1.3	1.5	1.5	1.2	0	.59	40
21	1.2	1.8	1.8	1.2	1.5	1.2	1.4	1.5	1.1	0	.30	8.5
22	1.2	1.7	1.9	1.3	1.7	1.2	1.3	1.5	1.2	0	.20	5.5
23	1.3	1.7	1.8	1.4	1.7	1.3	1.3	1.8	1.0	0	0	318
24	1.2	1.7	1.6	1.4	1.5	1.2	1.3	1.5	.76	0	0	450
25	1.2	1.8	1.6	1.4	1.5	1.3	1.4	1.2	.67	0	.07	743
26	1.3	1.8	1.6	1.4	1.4	1.3	1.3	1.1	.40	0	.19	197
27	1.3	1.7	1.7	1.4	1.2	1.3	1.3	1.0	1.6	0	.20	17
28	1.3	1.9	1.7	1.4	1.3	1.0	1.2	1.0	.70	0	.19	7.1
29	1.3	1.9	1.8	1.4	------	1.1	1.3	85	.63	0	.17	6.1
30	1.4	1.9	1.6	1.3	------	1.2	1.5	339	.61	0	.16	5.5
31	1.4	------	1.5	1.2	------	1.1	------	168	------	0	.16	------
TOTAL	34.33	49.4	54.3	41.2	37.9	36.58	37.13	631.2	107.47	5.89	165.43	3,941.89
MEAN	1.11	1.65	1.75	1.33	1.35	1.18	1.24	20.4	3.58	.19	5.34	131
MAX	1.8	2.0	1.9	1.7	1.7	1.7	1.8	339	30	.64	72	1,060
MIN	.52	1.4	1.5	1.2	1.2	.98	.16	1.0	.40	0	0	.02
AC-FT	68	98	108	82	75	73	74	1,250	213	12	328	7,820

CAL YR 1970 TOTAL 1,376.67 MEAN 3.77 MAX 404 MIN 0 AC-FT 2,730
WTR YR 1971 TOTAL 5,142.72 MEAN 14.1 MAX 1,060 MIN 0 AC-FT 10,200

PEAK DISCHARGE (BASE, 1,000 CFS).--Sept. 18 (1800) 1,600 cfs (15.73 ft).

07299840 Greenbelt Reservoir near Clarendon, Tex.

LOCATION.--Lat 35°00'02", long 100°53'40", Donley County, on upstream side and near right end of dam on Salt Fork Red River and 4.3 miles north of Clarendon.

DRAINAGE AREA.--457 sq mi, of which 191 sq mi is probably noncontributing.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level (levels by Freese, Nichols, and Endress, Consulting Engineers).

EXTREMES.--Current year: Maximum contents, 21,070 acre-ft Oct. 1 (elevation, 2,637.69 ft); minimum, 18,510 acre-ft Aug. 6 (elevation, 2,634.96 ft).
Period of record: Maximum contents, 24,560 acre-ft Apr. 21, 1970 (elevation, 2,641.07 ft); minimum, 2,950 acre-ft Aug. 30, 1967 (elevation, 2,607.37 ft).

REMARKS.--Reservoir is formed by a rolled-fill earthen dam 5,800 ft long. Storage began Dec. 5, 1966, and dam was completed in August 1967. The dam is property of Greenbelt Municipal and Industrial Water Authority and was built to impound water for municipal and industrial use by cities of Childress, Clarendon, Crowell, Hedley, and Quanah. The uncontrolled emergency spillway (elevation, 2,674.0 ft) is an open cut about 1,500 ft wide, located at left end of dam, and will discharge 184,000 cfs at a lake elevation of 2,684.0 ft. Data regarding dam and reservoir are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	2,686.0	-
Top of design flood pool	2,683.0	105,600
Crest of emergency spillway	2,674.0	81,760
Crest of service spillway (morning glory)	2,663.65	59,110
Inlet to service outlet pipe	2,597.0	900

COOPERATION.--Records of diversion and capacity table (dated April 1964, using the 1962 Geological Survey topographic maps) furnished by Greenbelt Municipal and Industrial Water Authority.

Capacity table (elevation, in feet, and total contents, in acre-feet)

2,634.0	17,660	2,637.0	20,400
2,635.0	18,550	2,638.0	21,370
2,636.0	19,460	2,639.0	22,370

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21,040	20,640	20,600	20,570	20,660	20,910	20,860	20,610	20,080	19,620	18,640	19,020
2	21,030	20,630	20,580	20,580	20,750	20,920	20,840	20,590	20,080	19,600	18,610	19,000
3	21,000	20,600	20,570	20,550	20,710	20,930	20,800	20,590	20,080	19,580	18,580	18,970
4	20,980	20,600	20,570	20,530	20,710	20,960	20,770	20,580	20,070	19,550	18,550	18,960
5	21,000	20,590	20,560	20,510	20,710	20,980	20,770	20,560	20,070	19,510	18,520	18,930
6	20,970	20,600	20,550	20,520	20,680	21,000	20,770	20,510	20,070	19,460	18,770	18,910
7	20,880	20,600	20,550	20,520	20,660	21,010	20,820	20,500	20,040	19,410	18,770	18,880
8	20,850	20,650	20,550	20,560	20,700	21,030	20,810	20,460	20,020	19,370	18,760	18,820
9	20,840	20,610	20,550	20,560	20,740	21,050	20,790	20,450	20,020	19,320	18,740	18,800
10	20,810	20,640	20,560	20,560	20,750	21,050	20,790	20,420	20,000	19,280	18,740	18,780
11	20,800	20,580	20,560	20,580	20,740	21,040	20,790	20,370	20,060	19,230	18,710	18,760
12	20,780	20,590	20,540	20,580	20,740	21,040	20,790	20,310	20,130	19,190	18,710	18,720
13	20,760	20,580	20,540	20,670	20,740	21,030	20,800	20,310	20,170	19,140	18,980	18,700
14	20,760	20,600	20,600	20,620	20,750	21,020	20,800	20,300	20,160	19,100	19,000	18,670
15	20,730	20,590	20,570	20,610	20,750	21,020	20,810	20,290	20,160	19,050	19,170	18,600
16	20,730	20,590	20,580	20,680	20,750	21,020	20,810	20,290	20,150	19,000	19,230	18,560
17	20,740	20,620	20,580	20,670	20,750	21,020	20,820	20,260	20,110	18,960	19,280	18,600
18	20,750	20,650	20,580	20,670	20,770	21,010	20,820	20,150	20,080	18,910	19,280	18,630
19	20,750	20,610	20,570	20,670	20,760	21,000	20,830	20,150	20,030	18,890	19,260	18,640
20	20,750	20,590	20,570	20,650	20,760	20,990	20,840	20,150	19,990	18,870	19,240	18,640
21	20,750	20,590	20,570	20,650	20,840	20,930	20,850	20,150	19,950	18,870	19,230	18,640
22	20,750	20,560	20,570	20,650	20,840	20,910	20,800	20,120	19,950	18,870	19,220	18,680
23	20,750	20,560	20,570	20,670	20,800	20,910	20,750	20,040	19,910	18,870	19,200	18,800
24	20,740	20,580	20,570	20,680	20,790	20,900	20,770	19,990	19,870	18,850	19,170	19,230
25	20,740	20,580	20,560	20,690	20,800	20,900	20,760	19,980	19,810	18,820	19,160	19,330
26	20,710	20,570	20,610	20,700	20,830	20,920	20,760	19,970	19,740	18,800	19,150	19,350
27	20,680	20,570	20,610	20,690	20,850	20,950	20,740	19,970	19,700	18,780	19,130	19,370
28	20,660	20,590	20,600	20,690	20,880	20,910	20,670	20,000	19,660	18,770	19,110	19,370
29	20,660	20,620	20,600	20,690	------	20,900	20,640	20,010	19,630	18,720	19,070	19,350
30	20,660	20,610	20,600	20,690	------	20,930	20,630	20,100	19,600	18,700	19,050	19,350
31	20,660	------	20,570	20,690	------	20,870	------	20,080	------	18,680	19,020	------
(†)	2637.27	2637.22	2637.18	2637.30	2637.50	2637.48	2637.24	2636.66	2636.15	2635.14	2635.52	2635.88
(*)	-420	-50	-40	+120	+190	-10	-240	-550	-480	-920	+340	+330
(††)	173	152	165	187	155	203	209	275	282	366	247	225
MAX	21,040	20,650	20,610	20,700	20,880	21,050	20,860	20,610	20,170	19,620	19,280	19,370
MIN	20,660	20,560	20,540	20,510	20,660	20,870	20,630	19,970	19,600	18,680	18,520	18,560

CAL YR 1970..... * -560 †† 2,583 MAX 24,560 MIN 20,540
WTR YR 1971..... * -1,730 †† 2,639 MAX 21,040 MIN 18,520

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal and industrial use.

07300000 Salt Fork Red River near Wellington, Tex.

LOCATION.--Lat 34°57'27", long 100°13'14", Collingsworth County, near center of stream on downstream side of bridge on U.S. Highway 83, 4 miles downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 miles south of Lutie, and 7.2 miles north of Wellington.

DRAINAGE AREA.--1,222 sq mi, of which 209 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,941.41 ft above mean sea level.

AVERAGE DISCHARGE.--19 years, 62.4 cfs (45,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,210 cfs June 9 (gage height, 6.27 ft); minimum, 0.49 cfs May 25.
Period of record: Maximum discharge, 146,000 cfs May 16, 1957 (gage height, 19.00 ft), from rating curve extended above 11,000 cfs on basis of slope-area measurement of 63,400 cfs; minimum, 0.1 cfs June 19, 1952.

REMARKS.--Records poor. Flow partly regulated since August 1967 by Greenbelt Reservoir (station 07299840). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	8.0	12	15	10	15	4.6	2.7	1.6	6.8	1.8	2.7
2	3.2	9.1	11	13	9.8	9.1	5.4	2.7	1.2	7.3	1.8	2.2
3	3.0	8.4	10	10	10	8.4	4.6	2.2	4.1	18	2.0	2.5
4	3.0	7.3	11	5.9	12	10	5.0	2.5	5.2	7.3	2.0	3.0
5	3.0	9.1	12	5.0	12	11	5.9	2.2	2.2	5.9	2.2	2.2
6	3.0	11	13	5.0	11	9.8	5.9	1.8	1.8	4.2	2.2	2.0
7	3.0	11	14	6.0	9.0	9.8	6.8	1.8	1.2	2.7	2.7	2.5
8	4.6	11	13	8.0	6.0	12	6.4	2.0	5.0	6.4	2.5	2.2
9	3.2	11	12	10	7.0	12	5.4	4.6	248	5.4	2.5	2.5
10	3.0	10	12	12	10	12	5.4	2.7	202	4.6	2.5	2.2
11	3.0	9.8	10	13	12	16	5.0	2.7	54	4.6	2.2	2.2
12	3.2	9.1	13	14	11	16	5.4	2.2	57	5.0	2.5	2.2
13	3.8	10	14	13	11	7.8	4.4	1.8	100	3.2	2.5	2.2
14	5.0	12	18	13	11	8.0	5.4	2.2	38	3.2	2.5	2.7
15	4.6	12	19	13	12	8.4	6.8	2.0	25	2.5	2.2	2.5
16	5.4	12	18	13	11	7.8	13	1.5	22	2.2	3.2	2.5
17	8.4	10	18	12	11	7.8	14	1.0	19	3.0	4.6	11
18	7.8	10	19	11	12	7.8	8.0	1.5	18	2.7	3.2	13
19	5.9	9.8	18	12	12	7.8	9.1	1.8	17	2.2	2.7	9.8
20	5.4	9.1	19	10	11	7.8	10	1.8	16	2.5	2.5	7.3
21	5.4	10	21	10	9.0	9.1	6.4	1.8	14	2.2	2.5	5.4
22	5.4	9.8	21	10	8.0	9.8	6.4	1.6	9.8	2.0	2.2	6.4
23	5.4	9.8	17	10	8.0	9.8	5.0	.91	8.4	1.3	5.0	6.8
24	5.0	10	17	9.8	15	8.4	5.4	.91	8.4	1.5	5.0	266
25	5.4	11	15	9.8	23	5.9	5.0	.56	7.3	1.6	3.8	146
26	5.9	9.1	13	10	23	5.4	4.2	.64	5.4	6.0	3.5	17
27	6.4	10	15	10	23	5.9	4.2	1.3	5.6	4.2	3.2	9.8
28	5.9	11	17	10	18	6.0	3.5	8.5	5.9	11	3.0	7.8
29	5.9	13	15	10	------	7.3	3.5	10	3.5	2.7	3.0	6.8
30	6.8	13	14	11	------	7.3	3.0	6.0	6.4	2.5	2.7	6.4
31	6.8	------	14	10	------	7.8	------	5.0	------	2.0	2.7	------
TOTAL	148.8	306.4	465	324.5	337.8	287.0	183.1	80.92	913.0	136.7	86.9	557.8
MEAN	4.80	10.2	15.0	10.5	12.1	9.26	6.10	2.61	30.4	4.41	2.80	18.6
MAX	8.4	13	21	15	23	16	14	10	248	18	5.0	266
MIN	3.0	7.3	10	5.0	6.0	5.4	3.0	.56	1.2	1.3	1.8	2.0
AC-FT	295	608	922	644	670	569	363	161	1,810	271	172	1,110

CAL YR 1970 TOTAL 5,725.92 MEAN 15.7 MAX 1,110 MIN .91 AC-FT 11,360
WTR YR 1971 TOTAL 3,827.92 MEAN 10.5 MAX 266 MIN .56 AC-FT 7,590

PEAK DISCHARGE (BASE, 5,000 CFS).--No peak above base.

07300500 Salt Fork Red River at Mangum, Okla.

LOCATION.--Lat 34°51'32", long 99°30'28", in SW¼SE¼ sec. 34, T.5 N., R.22 W., Greer County, near left bank on downstream side of pier of bridge on State Highway 34, 0.5 mile south of Mangum, 13 miles downstream from Fish Creek, and at mile 35.5.

DRAINAGE AREA.--1,566 sq mi, of which 209 sq mi is probably noncontributing.

PERIOD OF RECORD.--April 1905 to June 1906, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 1,490.87 ft above mean sea level (levels by Bureau of Reclamation). Apr. 11, 1905, to June 30, 1906, nonrecording gage at site 0.2 mile upstream at different datum. Oct. 1, 1937, to Nov. 8, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--34 years (1937-71), 89.5 cfs (64,840 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,080 cfs June 11 (gage height, 9.16 ft); no flow at times.
Period of record: Maximum discharge, 72,000 cfs May 16, 1957; (gage height, 14.55 ft); maximum gage height, 14.7 ft June 16, 1938; no flow at times each year.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1211: Drainage area. WSP 1241: 1938.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	2.9			0	0	0	0
2					0	.90			0	16	0	0
3					0	0			0	93	0	0
4					0	0			0	.22	0	128
5					0	0			0	0	0	226
6					0	0			0	0	0	9.1
7					0	0			0	0	0	.74
8					0	0			0	0	0	0
9					0	0			62	0	0	283
10					0	0			84	0	0	2.1
11					0	0			1,400	0	0	0
12					0	0			684	0	0	0
13					0	0			92	0	0	0
14					0	0			50	0	75	0
15					0	0			34	0	572	0
16					0	0			6.0	0	79	0
17					0	0			.11	0	24	81
18					0	0			0	0	2.3	36
19					0	0			0	0	.04	3.5
20					0	0			0	0	0	.88
21					0	0			0	0	0	.12
22					0	0			0	0	0	0
23					0	0			0	72	0	39
24					0	0			0	2.3	0	3.7
25					0	0			0	0	0	205
26					9.7	0			0	0	0	97
27					9.2	0			0	0	0	56
28					3.6	0			0	0	0	9.0
29					------	0			0	0	0	2.4
30					------	0			0	0	0	.23
31		------			------	0	------		------	0	0	------
TOTAL	0	0	0	0	22.5	3.80	0	0	2,412.11	183.52	752.34	1,182.77
MEAN	0	0	0	0	.80	.12	0	0	80.4	5.92	24.3	39.4
MAX	0	0	0	0	9.7	2.9	0	0	1,400	93	572	283
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	45	7.5	0	0	4,780	364	1,490	2,350

CAL YR 1970 TOTAL 11,517.72 MEAN 31.6 MAX 3,160 MIN 0 AC-FT 22,850
WTR YR 1971 TOTAL 4,557.04 MEAN 12.5 MAX 1,400 MIN 0 AC-FT 9,040

PEAK DISCHARGE (BASE, 6,000 CFS).--No peak above base.

07301200 McClellan Creek near McLean, Tex.

LOCATION.--Lat 35°19'45", long 100°36'32", Gray County, on left bank at downstream side of bridge on State Highway 273, 5 miles upstream from mouth, and 6.6 miles north of McLean.

DRAINAGE AREA.--759 sq mi, of which 299 sq mi is probably noncontributing.

PERIOD OF RECORD.--Occasional low-flow measurements, 1965-67, October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,566.99 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 514 cfs Sept. 17 (gage height, 9.10 ft); no flow at times.
Period of record: Maximum discharge, 8,730 cfs Apr. 18, 1970 (gage height, 10.64 ft), from rating curve extended above 1,100 cfs; no flow at times each year.
Maximum stage since 1912, 21 ft May 1957, from information by local residents. Other major floods occurred in 1920, 1941, and 1951.

REMARKS.--Records poor. Flow largely regulated by Lake McClellan (capacity, 5,000 acre-ft) 18 miles upstream. One small diversion from lake upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	3.7	6.1	31	46	59	9.4	11	6.1		0	0
2	0	4.4	8.2	28	42	55	9.4	14	3.7		0	0
3	0	1.5	11	31	51	67	9.4	14	6.1		0	0
4	0	.45	9.4	28	51	87	9.4	11	9.4		0	0
5	0	1.5	9.4	20	51	76	14	9.4	2.4		0	0
6	0	1.9	8.2	18	51	63	14	9.4	.88		0	0
7	0	3.7	9.4	20	40	51	9.4	11	.45		0	0
8	0	5.2	11	22	30	51	6.1	12	.11		31	0
9	0	7.1	12	25	50	42	5.2	9.4	1.2		3.2	0
10	0	8.2	16	30	60	31	6.1	6.1	1.9		2.3	0
11	.43	7.1	19	30	59	26	7.1	7.1	3.7		0	0
12	.64	8.2	21	25	63	28	8.2	8.2	7.1		0	0
13	0	7.1	24	20	63	24	8.2	5.2	6.1		0	0
14	0	8.2	26	30	63	21	9.4	3.7	5.2		.61	0
15	.24	6.1	21	30	63	24	23	2.4	4.4		16	0
16	2.4	7.1	33	28	59	21	16	1.2	1.2		3.7	0
17	1.9	8.2	33	31	59	19	14	.30	.06		.11	51
18	1.9	9.4	33	31	59	19	19	.04	0		0	14
19	1.5	12	36	28	55	16	28	0	0		0	.02
20	1.2	14	31	33	51	16	28	0	0		0	.01
21	1.2	12	36	36	45	14	6.1	0	0		0	0
22	1.5	14	42	38	40	14	7.1	.01	0		0	10
23	1.5	16	42	38	35	12	7.1	0	0		0	12
24	1.2	16	51	38	60	12	3.0	0	0		0	25
25	1.2	13	55	42	80	9.4	6.1	.01	0		0	7.1
26	1.5	10	51	55	80	8.2	8.2	3.0	0		0	6.1
27	1.5	8.2	38	46	72	7.1	8.2	9.4	0		0	5.2
28	1.5	6.1	42	42	67	7.1	9.4	6.1	0		0	4.4
29	1.9	5.2	42	42	------	6.1	9.4	8.2	0		13	4.4
30	2.4	5.2	38	42	------	7.1	11	11	0		.50	4.4
31	3.0	------	28	46	------	9.4	------	8.2	------		0	------
TOTAL	28.61	230.75	842.7	1,004	1,545	902.4	328.9	181.36	60.00	0	70.42	143.63
MEAN	.92	7.69	27.2	32.4	55.2	29.1	11.0	5.85	2.00	0	2.27	4.79
MAX	3.0	16	55	55	80	87	28	14	9.4	0	31	51
MIN	0	.45	6.1	18	30	6.1	3.0	0	0	0	0	0
AC-FT	57	458	1,670	1,990	3,060	1,790	652	360	119	0	140	285

CAL YR 1970 TOTAL 7,731.09 MEAN 21.2 MAX 3,220 MIN 0 AC-FT 15,330
WTR YR 1971 TOTAL 5,337.77 MEAN 14.6 MAX 87 MIN 0 AC-FT 10,590

07301300 North Fork Red River near Shamrock, Tex.

LOCATION.--Lat 35°15'51", long 100°14'29", Wheeler County, on left bank at downstream side of bridge on U.S. Highway 83, 2.5 miles north of Shamrock, 16 miles upstream from Oklahoma-Texas State line, and 23 miles downstream from McClellan Creek.

DRAINAGE AREA.--1,082 sq mi, of which 379 sq mi is probably noncontributing.

PERIOD OF RECORD.--1951-63 (occasional low-flow measurements), February 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,165.55 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 23.9 cfs (17,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,360 cfs May 31 (gage height, 4.58 ft); no flow at times.
Period of record: Maximum discharge, 11,200 cfs June 7, 1967 (gage height, 5.80 ft), from rating curve extended above 3,800 cfs; no flow at times.
Maximum stage since at least 1915, 16.1 ft in May 1957, from information by State Highway Department and local residents.

REMARKS.--Records poor. Small diversion from McClellan Creek upstream from gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	64		0	23		0	0
2					0	35		0	0		0	0
3					0	25		0	0		0	0
4					0	50		0	5.4		0	0
5					0	75		0	0		0	0
6					0	40		0	0		0	0
7					0	24		0	0		15	0
8					0	19		0	0		0	0
9					0	15		0	12		0	0
10					0	12		0	.05		0	0
11					13	4.6		0	0		0	0
12					10	5.4		0	.32		0	0
13					11	3.7		0	7.7		0	0
14					12	.34		0	0		0	0
15					7.9	0		0	0		0	0
16					7.9	0		0	0		0	0
17					7.0	0		0	0		0	0
18					12	0		0	0		0	0
19					27	0		0	0		0	0
20					20	0		0	0		0	0
21					17	0		0	0		0	0
22					15	0		0	0		0	0
23					15	0		0	0		0	0
24					50	0		0	0		0	0
25					82	0		0	0		0	0
26					124	0		0	0		0	0
27					150	0		0	0		0	4.7
28					121	0		0	0		0	.04
29					------	0		37	0		0	.01
30					------	0		7.3	0		0	0
31		------			------	0	------	156	------		0	------
TOTAL	0	0	0	0	701.8	373.04	0	200.3	48.47	0	15	4.75
MEAN	0	0	0	0	25.1	12.0	0	6.46	1.62	0	.48	.16
MAX	0	0	0	0	150	75	0	156	23	0	15	4.7
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	1,390	740	0	397	96	0	30	9.4

CAL YR 1970 TOTAL 5,262.45 MEAN 14.4 MAX 2,150 MIN 0 AC-FT 10,440
WTR YR 1971 TOTAL 1,343.36 MEAN 3.68 MAX 156 MIN 0 AC-FT 2,660

PEAK DISCHARGE (BASE, 3,000 CFS).--May 31 (2200) 3,360 cfs (4.58 ft).

07301410 Sweetwater Creek near Kelton, Tex.

LOCATION.--Lat 35°28'23", long 100°07'14", Wheeler County, near center of stream on downstream side of bridge on Farm Road 592, 5 miles north of Kelton, 8 miles upstream from Texas-Oklahoma State line, and 8.5 miles northeast of Wheeler.

DRAINAGE AREA.--287 sq mi, of which 20 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,230 ft (from topographic map).

AVERAGE DISCHARGE.--9 years (1962-71), 14.1 cfs (10,220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 730 cfs June 11 (gage height, 12.80 ft); no flow Sept. 6-16.
Period of record: Maximum discharge, 2,110 cfs Apr. 18, 1970 (gage height, 14.95 ft); no flow at times.
Maximum stage since at least 1882, about 20 ft May 16, 1957.

REMARKS.--Records good. Diversion above station for ranch use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	9.1	11	11	9.2	13	9.7	6.6	2.6	1.9	.64	.01
2	.89	7.5	10	11	9.4	11	9.7	6.4	2.0	1.5	.54	.01
3	.89	8.5	10	10	9.9	10	9.9	6.2	1.6	1.6	.49	.01
4	.89	9.2	9.9	9.0	10	10	9.2	6.2	2.6	1.3	.40	.01
5	.89	9.9	11	8.0	9.5	11	8.7	6.0	2.6	1.1	.40	.01
6	.89	9.9	10	7.0	9.0	9.7	9.2	5.6	1.6	1.0	.40	0
7	.96	9.2	10	7.0	8.0	9.0	9.2	5.9	1.2	.82	.44	0
8	1.2	9.9	11	8.0	7.0	9.2	9.0	4.8	1.0	.76	.66	0
9	1.5	10	11	9.0	8.0	9.0	7.8	4.8	1.8	.76	2.7	0
10	1.6	11	11	10	9.0	8.2	7.5	4.3	6.5	.70	1.5	0
11	1.7	11	11	11	9.7	8.2	7.8	3.4	247	.54	1.3	0
12	1.7	12	11	10	8.7	8.5	8.0	3.3	52	.44	1.2	0
13	1.9	12	11	11	8.7	8.7	7.8	3.1	32	.40	1.2	0
14	2.0	11	11	12	8.5	8.2	7.5	3.4	19	.40	1.3	0
15	2.3	11	12	10	8.5	8.0	7.8	3.1	12	.40	1.4	0
16	2.6	11	11	11	8.7	7.8	9.2	2.8	8.2	.40	1.4	0
17	3.0	11	11	11	8.5	8.0	11	2.3	5.8	.36	1.2	.07
18	3.1	11	11	11	9.4	7.8	11	2.0	4.5	.28	1.2	.53
19	3.1	11	11	11	11	7.8	10	2.0	3.5	.32	.82	.24
20	3.5	9.9	11	11	9.2	8.0	12	1.9	3.1	.44	.59	.22
21	4.0	10	11	11	9.0	8.7	10	1.8	3.0	.40	.44	.16
22	4.5	11	11	11	8.0	8.7	9.0	1.7	2.9	.32	.28	.34
23	5.0	10	11	10	10	9.2	8.2	1.2	2.6	1.5	.24	1.4
24	6.2	11	10	10	12	9.2	8.2	.96	2.3	2.1	.22	6.2
25	6.0	12	9.0	10	14	9.9	8.2	.82	2.1	.89	.16	15
26	6.6	12	10	9.9	16	9.9	7.5	.82	2.0	.64	.12	11
27	7.0	10	11	9.7	19	10	7.3	.70	1.8	.59	.10	3.9
28	7.8	10	11	9.7	16	9.9	7.0	.76	1.7	.64	.06	2.2
29	8.5	11	11	9.9	------	9.9	7.3	3.7	1.5	.76	.04	1.7
30	8.7	11	11	9.9	------	10	7.0	4.6	1.5	.89	.03	1.5
31	9.0	------	10	9.7	------	11	------	3.5	------	.76	.01	------
TOTAL	108.87	313.1	331.9	309.8	283.9	287.5	261.7	104.66	432.0	24.91	21.48	44.51
MEAN	3.51	10.4	10.7	9.99	10.1	9.27	8.72	3.38	14.4	.80	.69	1.48
MAX	9.0	12	12	12	19	13	12	6.6	247	2.1	2.7	15
MIN	.89	7.5	9.0	7.0	7.0	7.8	7.0	.70	1.0	.28	.01	0
AC-FT	216	621	658	614	563	570	519	208	857	49	43	88

CAL YR 1970 TOTAL 5,416.99 MEAN 14.8 MAX 1,190 MIN .10 AC-FT 10,740
WTR YR 1971 TOTAL 2,524.33 MEAN 6.92 MAX 247 MIN 0 AC-FT 5,010

PEAK DISCHARGE (BASE, 500 CFS).--June 11 (0930) 730 cfs (12.80 ft).

07307800 Pease River near Childress, Tex.

LOCATION.--Lat 34°13'39", long 100°04'24", Cottle County, near right bank on downstream side of bridge on Farm Road 104, 0.8 mile upstream from Catfish Creek, 4.4 miles downstream from confluence of North and Middle Forks, and 17 miles southeast of Childress.

DRAINAGE AREA.--3,000 sq mi, of which 800 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1959 to September 1962, October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,492.98 ft above mean sea level.

AVERAGE DISCHARGE.--6 years (1960-62, 1967-71), 64.2 cfs (46,510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,570 cfs June 11 (gage height, 11.32 ft); no flow May 25, 26.
Period of record: Maximum discharge, 19,000 cfs June 9, 1960 (gage height, 13.59 ft); no flow Aug. 10-22, 1969, May 25, 26, 1971.
Maximum stage since at least 1909, 22 ft June 1, 1957; flood in May 1935 reached a stage of 18 ft and was the second highest, from information by local resident.

REMARKS.--Records fair. Three small diversions for irrigation above station. At end of year, flow from 6.97 sq mi above this station was partly controlled by six floodwater-retarding structures with a total combined capacity of 1,840 acre-ft below the flood-spillway crests, of which 1,360 acre-ft is floodwater-retarding capacity and 480 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.8	5.4	2.8	3.6	2.4	2.4	2.0	464	1.2	.04	20
2	1.4	2.8	4.0	2.4	3.6	1.8	2.4	1.2	77	3.2	.05	6.5
3	1.4	2.8	4.4	2.0	4.0	2.4	2.4	1.2	14	7.8	.05	3.6
4	1.4	2.8	3.6	2.4	5.4	2.8	2.4	1.2	4.0	2.4	.05	2.0
5	1.4	2.4	3.6	2.4	4.4	2.0	2.4	1.2	1.8	1.2	.07	565
6	1.2	3.2	4.0	2.4	3.2	2.4	2.8	1.4	33	.98	.04	848
7	1.2	3.6	4.0	2.8	3.2	3.2	2.4	.98	9.0	.63	.07	49
8	.98	3.6	4.8	3.6	3.6	3.6	2.0	3.5	5.0	.50	.19	22
9	.98	2.8	4.8	4.0	3.6	3.2	1.8	18	42	.50	.19	119
10	.78	3.2	4.8	3.6	3.6	3.2	1.2	7.2	505	.50	235	132
11	.98	2.8	4.4	3.2	2.8	4.4	.78	6.5	2,880	.40	287	22
12	.98	2.8	3.6	3.2	2.4	4.8	.63	2.8	596	.31	29	12
13	.98	4.4	3.2	2.8	2.4	4.4	.63	2.0	252	.25	12	11
14	.98	4.8	4.4	2.8	2.4	4.0	.78	1.8	133	.50	71	7.8
15	9.2	4.4	8.5	2.8	2.4	2.8	2.8	1.4	42	.50	376	4.4
16	29	4.4	7.2	2.8	3.2	2.4	15	1.4	22	.31	1,010	2.0
17	22	4.0	5.9	2.8	2.8	2.4	44	.98	14	.25	354	173
18	14	4.0	4.4	2.8	2.0	2.4	32	.78	9.2	.25	73	1,660
19	8.5	3.6	4.8	2.8	2.4	2.4	9.9	.63	4.8	.40	38	296
20	5.9	3.2	4.4	2.8	2.0	2.4	9.9	.78	4.0	.31	20	63
21	4.8	3.2	3.6	2.8	1.8	2.4	8.5	.63	3.6	.25	5.5	5.4
22	3.6	3.2	3.2	2.8	1.6	2.8	5.9	.50	2.8	.25	.80	3.9
23	3.2	2.8	3.6	2.8	1.2	3.2	2.8	13	3.6	.25	.10	916
24	2.0	3.2	4.0	2.8	1.4	3.2	3.2	1.5	3.2	.19	37	2,160
25	2.0	3.6	4.0	2.4	1.8	2.8	2.8	.03	2.0	.15	1,290	2,560
26	2.0	3.6	3.6	1.8	3.6	2.4	2.8	.02	1.4	.12	409	778
27	2.0	3.6	3.6	1.8	2.4	2.0	2.8	.50	1.2	.09	233	302
28	2.0	3.6	3.6	2.0	2.4	2.0	4.0	.31	.98	.40	58	196
29	2.0	4.4	3.6	2.0	------	2.0	14	1,250	.98	.05	30	122
30	2.4	4.8	3.2	2.4	------	2.0	7.2	1,650	.98	.04	67	86
31	2.4	------	2.8	2.8	------	2.0	------	2,030	------	.03	44	------
TOTAL	133.06	104.4	133.0	83.6	79.2	86.2	192.62	5,003.44	5,132.54	24.21	4,680.15	11,147.6
MEAN	4.29	3.48	4.29	2.70	2.83	2.78	6.42	161	171	.78	151	372
MAX	29	4.8	8.5	4.0	5.4	4.8	44	2,030	2,880	7.8	1,290	2,560
MIN	.78	2.4	2.8	1.8	1.2	1.8	.63	.02	.98	.03	.04	2.0
AC-FT	264	207	264	166	157	171	382	9,920	10,180	48	9,280	22,110

CAL YR 1970 TOTAL 6,490.98 MEAN 17.8 MAX 2,680 MIN .09 AC-FT 12,870
WTR YR 1971 TOTAL 26,800.02 MEAN 73.4 MAX 2,880 MIN .02 AC-FT 53,160

PEAK DISCHARGE (BASE, 2,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	1000	10.36	4,480	8-25	0200	9.67	2,680
6-11	0100	11.32	7,570	9- 5	2400	10.81	5,800
8-16	0500	9.98	3,500	9-18	0400	11.24	7,320
				9-25	0200	10.42	4,600

07308200 Pease River near Vernon, Tex.

LOCATION.--Lat 34°10'44", long 99°16'40", Wilbarger County, near left bank on downstream side of bridge on U.S. Highway 283, 1.9 miles north of Vernon, and 10 miles upstream from mouth.

DRAINAGE AREA.--3,488 sq mi, of which 559 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,166.03 ft above mean sea level.

AVERAGE DISCHARGE.--11 years (1960-71), 87.7 cfs (63,540 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,190 cfs Sept. 25 (gage height, 11.86 ft); no flow at times.
Period of record: Maximum discharge 31,000 cfs, Sept. 19, 1965 (gage height, 18.50 ft); no flow at times each year.
Maximum stage since at least 1890, 24 ft in 1891; flood in September 1936 reached a stage of 23.5 ft, and flood of June 2, 1957, reached a stage of 22.0 ft, from information by local residents.

REMARKS.--Records fair. Four small diversions for irrigation above station. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Pease River near Childress (station 07307800).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0							0	2,310		0	69
2	1.2							0	518		0	36
3	.14							0	132		0	35
4	0							0	45		0	31
5	0							0	22		0	80
6	0							0	14		0	477
7	0							0	11		0	341
8	0							0	8.4		0	144
9	0							0	23		0	74
10	0							0	7.7		0	50
11	0							0	1,130		0	29
12	0							0	1,530		0	49
13	0							0	449		0	48
14	0							0	145		0	22
15	0							0	58		0	15
16	.05							0	35		125	7.7
17	.10							0	16		555	22
18	.08							0	6.0		225	1,780
19	.04							0	2.0		207	1,040
20	0							0	.10		88	500
21	0							0	9.5		52	345
22	0							0	50		29	235
23	0							0	.14		15	479
24	0							0	0		14	1,480
25	0							0	0		47	4,170
26	0							.08	0		485	1,720
27	0							.82	0		284	940
28	0							0	0		162	532
29	0				------			0	0		163	251
30	0				------			910	0		110	168
31	0	------			------		------	2,210	------		72	------
TOTAL	4.61	0	0	0	0	0	0	3,120.90	6,521.84	0	2,633	15,169.7
MEAN	.15	0	0	0	0	0	0	101	217	0	84.9	506
MAX	3.0	0	0	0	0	0	0	2,210	2,310	0	555	4,170
MIN	0	0	0	0	0	0	0	0	0	0	0	7.7
AC-FT	9.1	0	0	0	0	0	0	6,190	12,940	0	5,220	30,090

CAL YR 1970 TOTAL 7,769.46 MEAN 21.3 MAX 831 MIN 0 AC-FT 15,410
WTR YR 1971 TOTAL 27,450.05 MEAN 75.2 MAX 4,170 MIN 0 AC-FT 54,450

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6- 1	0700	11.85	5,170	9- 6	1700	10.52	2,530
6-11	1800	11.45	4,300	9-18	2000	11.85	5,170
				9-25	0800	11.86	5,190

07308500 Red River near Burkburnett, Tex.

LOCATION.--Lat 34°06'30", long 98°32'00", Wichita County, on downstream side of bridge on U.S. Highways 277 and 281, 2 miles northeast of Burkburnett, and at mile 933.

DRAINAGE AREA.--20,570 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1924 to August 1925 (monthly discharge only), December 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 956 ft (from topographic map). July 11, 1924, to Aug. 31, 1925, nonrecording gage at site 1,000 ft downstream at same datum.

AVERAGE DISCHARGE.--11 years (1960-71), 698 cfs (505,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,700 cfs Sept. 6 (gage height, 8.85 ft); no flow at times.
Period of record: Maximum discharge, 62,800 cfs Oct. 19, 1965 (gage height, 11.46 ft); no flow at times.
Flood of June 3, 1957, reached a stage of 13.54 ft (from floodmarks). According to local residents, higher stages occurred in 1891 and June 1941.

REMARKS.--Records poor. Many small diversions for irrigation above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	1.8	1.6	4.3	5.0	19	.20	0	1,460	11	21	262
2	60	1.6	1.6	4.3	5.0	16	0	0	3,600	19	19	460
3	48	1.1	2.0	4.2	6.2	14	0	0	1,760	27	9.6	263
4	37	.91	1.6	4.0	7.1	18	0	0	962	9.1	8.6	173
5	29	.91	1.6	3.6	6.6	22	0	0	451	5.8	15	772
6	24	.81	1.1	3.5	5.4	17	0	0	228	13	34	6,010
7	18	.72	1.5	3.7	4.6	15	0	0	126	156	51	9,540
8	18	.57	1.8	4.0	5.8	14	0	0	86	62	107	6,040
9	18	.28	2.2	4.3	5.8	13	0	0	147	24	37	2,300
10	28	.28	2.2	4.6	6.2	13	0	0	84	16	36	1,090
11	17	.18	1.8	5.8	6.6	11	0	0	42	13	773	606
12	13	.28	1.4	5.8	5.4	11	0	0	566	10	611	425
13	12	1.2	2.4	11	6.2	9.6	0	36	6,240	7.6	989	315
14	12	1.4	2.4	7.6	5.4	6.6	0	118	3,830	7.6	714	288
15	14	2.2	5.0	6.2	5.4	5.8	0	32	7,400	4.6	2,540	281
16	13	2.6	4.6	6.2	5.4	5.8	0	9.1	3,770	2.2	2,300	222
17	13	2.6	3.7	6.2	4.6	6.2	0	.32	2,900	.91	1,320	244
18	19	2.2	3.2	5.4	5.4	5.0	0	0	1,570	.24	1,410	300
19	31	1.5	2.4	5.4	4.6	3.2	0	0	925	.05	3,750	6,930
20	37	.81	3.2	6.2	4.0	2.6	0	0	540	.03	2,020	8,840
21	24	.57	4.3	5.4	4.6	2.2	1.1	0	484	0	1,500	3,510
22	21	.36	5.4	5.0	6.1	2.0	2.8	0	639	0	827	3,580
23	36	.15	4.0	5.0	19	2.0	.21	0	399	1.9	390	1,450
24	19	.18	4.0	5.4	22	2.0	.07	0	363	.57	275	2,220
25	12	.13	3.2	6.2	20	2.0	0	0	192	.36	390	4,940
26	8.6	.11	3.2	6.2	16	2.0	0	0	80	3.2	288	6,530
27	6.6	.11	3.7	6.2	17	1.8	0	4.4	48	2.0	566	5,180
28	5.8	.44	3.7	6.6	19	1.8	0	19	32	70	929	4,780
29	5.0	1.0	3.4	6.6	------	1.8	0	12	22	83	520	3,090
30	3.2	1.8	5.9	7.1	------	1.2	0	11	15	62	351	2,290
31	2.4	------	4.3	5.4	------	.41	------	113	------	38	300	------
TOTAL	677.6	28.80	92.4	171.4	234.4	247.01	4.38	354.82	38,961	650.16	23,101.2	82,931
MEAN	21.9	.96	2.98	5.53	8.37	7.97	.15	11.4	1,299	21.0	745	2,764
MAX	73	2.6	5.9	11	22	22	2.8	118	7,400	156	3,750	9,540
MIN	2.4	.11	1.1	3.5	4.0	.41	0	0	15	0	8.6	173
AC-FT	1,340	57	183	340	465	490	8.7	704	77,280	1,290	45,820	164,500

CAL YR 1970 TOTAL 50,167.29 MEAN 137 MAX 3,230 MIN 0 AC-FT 99,510
WTR YR 1971 TOTAL 147,454.17 MEAN 404 MAX 9,540 MIN 0 AC-FT 292,500

PEAK DISCHARGE (BASE, 9,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
6-15	0700	8.73	12,500
9- 6	2000	8.85	12,700
9-20	0700	8.81	12,300

07311600 North Fork Wichita River near Paducah, Tex.

LOCATION.--Lat 33°57'02", long 100°03'52", Cottle County, near center of stream on downstream side of county bridge, 4 miles downstream from Cottonwood Creek, 7 miles downstream from Salt Creek, 12 miles upstream from Middle Fork, and 14 miles southeast of Paducah.

DRAINAGE AREA.--540 sq mi.

PERIOD OF RECORD.--1951-54 (occasional low-flow measurements), July 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,533 ft, from topographic map.

AVERAGE DISCHARGE.--10 years, 17.7 cfs (12,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,800 cfs June 11 (gage height, 10.27 ft); minimum, 2.0 cfs July 19.
Period of record: Maximum discharge, 9,920 cfs Aug. 25, 1966 (gage height, 15.3 ft, from floodmarks); minimum, 0.3 cfs Sept. 1-4, 1964.
Maximum stage since at least 1908, 29.5 ft in October 1955; flood in May or June 1956 reached a stage of 27 ft, from information by local resident.

REMARKS.--Records good. One small diversion for irrigation above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	9.0	7.8	7.8	8.4	7.8	4.6	6.7	154	4.1	2.8	7.2
2	4.6	9.0	7.8	7.8	8.4	7.8	5.1	6.2	30	4.6	2.8	6.7
3	4.1	9.0	7.8	7.8	8.4	8.4	5.1	5.6	15	4.1	2.8	6.2
4	4.1	9.0	7.8	7.0	7.8	8.4	4.6	6.7	12	4.6	2.8	6.2
5	4.1	9.0	9.0	7.5	7.2	7.8	5.1	6.7	10	4.6	2.8	6.2
6	4.1	9.0	9.0	8.4	7.2	7.2	5.6	5.6	10	4.6	2.8	61
7	3.6	9.7	9.0	7.8	7.2	7.2	5.6	6.2	8.4	4.1	3.2	19
8	4.6	9.0	9.0	7.8	7.0	7.8	5.6	6.7	7.8	4.1	6.3	12
9	4.1	8.4	9.0	8.4	8.4	7.2	5.1	9.0	7.2	3.6	27	9.0
10	4.6	8.4	9.0	8.4	7.8	7.8	5.6	7.2	7.8	3.6	29	6.7
11	4.6	7.8	8.4	8.4	7.2	7.8	5.6	5.6	1,490	3.2	11	6.2
12	5.1	8.4	8.4	8.4	7.2	7.8	5.6	5.6	83	2.8	5.1	6.2
13	4.6	8.4	8.4	8.4	8.4	7.8	5.1	5.1	29	2.8	2.8	6.2
14	5.1	8.4	8.4	8.4	8.4	6.7	5.6	5.6	19	2.8	2.4	6.2
15	7.8	8.4	8.4	8.4	8.4	6.2	7.8	5.1	15	2.8	11	6.2
16	12	8.4	8.4	8.4	8.4	6.7	11	5.1	12	2.8	857	6.2
17	11	8.4	8.4	8.4	8.4	6.7	11	4.1	12	2.8	77	11
18	8.4	8.4	8.4	8.4	9.7	5.6	9.7	4.1	11	2.4	23	135
19	7.2	8.4	7.8	8.4	9.0	6.2	9.7	3.6	10	2.4	13	48
20	6.7	7.8	8.4	8.4	7.8	6.2	9.0	4.1	9.7	2.8	9.0	22
21	6.7	8.4	8.4	7.8	10	6.2	6.7	4.1	10	4.1	7.8	13
22	6.7	7.8	8.4	7.8	10	6.2	7.2	4.1	9.0	4.6	8.4	16
23	6.7	7.8	7.8	7.8	9.7	6.2	6.7	6.2	8.4	5.1	7.2	351
24	6.7	7.8	7.8	8.4	9.0	6.2	6.7	6.2	7.2	4.6	6.7	331
25	7.2	7.8	7.8	7.8	9.0	6.2	6.2	3.6	6.7	4.1	179	694
26	7.2	7.8	7.8	7.8	8.4	6.2	6.2	3.6	6.7	3.6	33	68
27	7.2	7.2	7.8	7.8	8.4	6.2	6.2	3.6	5.6	3.6	15	28
28	7.8	7.2	8.4	8.4	8.4	5.6	6.7	49	5.6	3.6	10	18
29	7.8	7.2	8.4	8.4	------	5.6	7.2	67	5.1	3.2	9.0	15
30	7.8	8.4	7.8	8.4	------	5.6	6.7	1,300	5.1	2.8	7.8	13
31	7.8	------	7.8	8.4	------	5.6	------	314	------	2.8	7.8	------
TOTAL	194.6	249.7	256.8	251.5	233.6	210.9	198.6	1,876.0	2,022.3	111.7	1,385.3	1,940.4
MEAN	6.28	8.32	8.28	8.11	8.34	6.80	6.62	60.5	67.4	3.60	44.7	64.7
MAX	12	9.7	9.0	8.4	10	8.4	11	1,300	1,490	5.1	857	694
MIN	3.6	7.2	7.8	7.0	7.0	5.6	4.6	3.6	5.1	2.4	2.4	6.2
AC-FT	386	495	509	499	463	418	394	3,720	4,010	222	2,750	3,850

CAL YR 1970 TOTAL 3,534.6 MEAN 9.68 MAX 32 MIN 3.3 AC-FT 7,010
WTR YR 1971 TOTAL 8,931.4 MEAN 24.5 MAX 1,490 MIN 2.4 AC-FT 17,720

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	1800	9.42	2,920	8-16	1100	9.37	2,900
6-11	1200	10.27	3,800	9-25	0230	7.90	1,670

07311622 North Fork Wichita River near Crowell, Tex.

LOCATION.--Lat 33°52'12", long 99°56'48", Foard County, on left bank 152 ft downstream from ranch road, 2.0 miles upstream from Middle Fork, 15.0 miles southwest of Crowell, and at mile 203.3.

DRAINAGE AREA.--591 sq mi.

PERIOD OF RECORD.--1956-57 (occasional discharge measurements at site 2 miles downstream). October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,448 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 3,100 cfs June 11 (gage height, 6.70 ft); minimum, 1.2 cfs July 19.
Period of record: Maximum discharge, 3,100 cfs June 11, 1971 (gage height, 6.70 ft); minimum, 1.2 cfs July 19, 1971.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.4	7.4	6.7	9.1	9.1	8.2	9.1	311	4.2	1.5	7.4
2	5.4	7.4	7.4	6.7	9.1	9.1	8.2	7.4	193	4.2	1.5	6.7
3	5.4	7.4	7.4	6.5	9.1	9.0	7.4	4.8	39	3.6	1.5	5.4
4	5.4	6.7	6.7	6.0	9.1	10	6.7	5.4	26	3.6	1.5	4.8
5	5.4	6.7	7.4	6.0	9.1	10	6.7	6.0	21	3.6	1.5	4.8
6	5.4	6.7	8.2	6.0	9.1	9.1	6.0	9.1	18	3.6	1.5	27
7	4.8	6.7	8.2	6.0	8.0	9.1	5.4	4.8	30	3.6	1.8	32
8	4.8	7.4	9.1	6.0	7.0	9.1	5.4	6.7	32	3.6	2.2	12
9	5.4	7.4	10	6.5	11	9.1	5.4	11	15	3.6	11	7.4
10	5.4	7.4	10	10	10	8.2	5.4	11	14	3.6	106	6.7
11	4.8	7.4	10	9.1	9.1	8.2	5.4	7.4	973	3.1	24	5.4
12	6.0	7.4	11	9.1	10	9.1	5.4	6.7	131	2.6	16	4.2
13	6.0	7.4	13	9.1	10	10	5.4	4.8	48	1.8	13	3.6
14	6.0	7.4	14	9.1	9.1	10	5.4	4.8	24	1.8	11	3.6
15	6.7	7.4	14	9.1	9.1	10	6.7	3.1	21	1.8	18	3.6
16	14	6.7	14	9.1	10	10	10	2.6	17	1.8	475	3.6
17	18	6.7	13	9.1	10	10	15	2.2	14	1.8	114	10
18	14	6.7	13	9.1	10	10	14	2.2	12	1.5	28	192
19	10	7.4	12	9.1	9.1	10	14	2.2	11	1.2	18	80
20	8.2	7.4	12	9.1	9.1	10	12	2.6	10	1.5	14	21
21	7.4	7.4	13	8.2	11	10	11	6.0	13	3.6	10	12
22	7.4	7.4	14	8.2	11	10	10	10	9.1	4.2	9.1	40
23	7.4	7.4	14	8.2	13	10	9.1	14	8.2	6.7	8.2	307
24	7.4	7.4	11	8.2	12	10	8.2	10	7.4	5.4	14	206
25	7.4	7.4	11	8.2	11	10	7.4	13	6.7	3.6	122	522
26	7.4	7.4	11	8.2	10	10	7.4	9.1	6.0	3.1	45	89
27	7.4	6.7	12	8.2	9.1	9.1	6.7	9.1	5.4	3.1	19	34
28	7.4	6.7	11	8.2	9.1	9.1	13	36	4.8	2.6	14	21
29	7.4	6.7	10	9.1	------	8.2	6.7	329	4.2	1.8	21	17
30	8.2	7.4	9.1	9.1	------	8.2	8.2	959	4.2	1.5	12	14
31	8.2	------	6.7	9.1	------	8.2	------	903	------	1.8	8.2	------
TOTAL	229.5	215.0	330.6	250.3	272.3	291.9	245.8	2,412.1	2,029.0	93.5	1,143.5	1,703.2
MEAN	7.40	7.17	10.7	8.07	9.73	9.42	8.19	77.8	67.6	3.02	36.9	56.8
MAX	18	7.4	14	10	13	10	15	959	973	6.7	475	522
MIN	4.8	6.7	6.7	6.0	7.0	8.2	5.4	2.2	4.2	1.2	1.5	3.6
AC-FT	455	426	656	496	540	579	488	4,780	4,020	185	2,270	3,380

CAL YR 1970 TOTAL 775.10 MEAN 2.12 MAX 18 MIN 0 AC-FT 1,540
WTR YR 1971 TOTAL 9,216.70 MEAN 25.3 MAX 973 MIN 1.2 AC-FT 18,280

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	2300	6.40	2,400	8-16	1600	5.63	1,740
6-11	1700	6.70	3,100	9-25	0700	4.67	995

07311648 Middle Fork Wichita River near Truscott, Tex.

LOCATION.--Lat 33°51'12", long 99°57'44", Foard County, on right bank 32 ft downstream from ranch road, 11.1 miles northwest of Truscott, and at mile 3.0.

DRAINAGE AREA.--161 sq mi.

PERIOD OF RECORD.--1956-57, 1968-70 (occasional discharge measurements made 3 miles downstream) published as "near Crowell". October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,457 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,510 cfs May 30 (gage height, 9.51 ft); minimum, 1.6 cfs July 9.
Period of record: Maximum discharge, 1,510 cfs May 30, 1971 (gage height, 9.51 ft); minimum, 1.6 cfs July 9, 1971.
Maximum stage since at least 1900 occurred in August 1913, about 17 ft, from information furnished by longtime local resident.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	5.0	5.0	5.2	4.4	4.4	3.0	3.4	5.6	2.2	4.1	5.2
2	3.9	5.0	5.0	5.2	4.2	4.4	3.0	3.2	4.2	2.2	4.2	4.8
3	3.9	4.8	5.0	5.0	4.2	4.4	3.0	3.2	3.9	2.2	4.4	4.6
4	3.9	4.8	5.0	4.0	4.2	4.4	3.1	3.4	3.9	2.2	4.4	4.6
5	3.9	4.8	5.0	4.0	4.2	4.4	3.2	3.6	3.9	2.3	4.6	4.6
6	3.7	4.8	5.0	4.0	4.2	4.2	3.4	3.6	4.2	2.2	4.8	4.6
7	3.7	4.8	5.0	4.0	4.2	4.1	3.2	3.6	20	2.1	5.2	4.4
8	3.7	4.8	5.0	4.0	4.0	4.1	3.2	4.3	13	2.0	5.8	4.4
9	3.4	4.8	5.0	5.0	4.4	4.1	3.4	4.4	4.1	2.0	11	4.4
10	3.5	4.8	5.0	4.5	4.4	4.1	3.4	4.4	4.1	2.1	50	4.4
11	3.5	4.8	5.0	4.0	4.4	3.7	3.4	4.1	4.4	2.1	14	4.4
12	3.7	4.8	5.2	4.0	4.4	3.6	3.4	4.1	4.6	2.1	10	4.4
13	4.1	4.8	5.2	3.7	4.4	3.6	3.2	3.9	6.2	2.1	8.0	4.4
14	3.9	4.8	5.2	3.7	4.4	3.6	3.2	4.1	5.2	2.1	8.0	4.4
15	3.9	4.8	5.2	3.7	4.4	3.6	3.6	4.2	5.0	2.1	11	4.4
16	7.5	4.8	5.0	3.7	4.4	3.4	4.6	4.2	4.6	2.1	25	4.6
17	12	5.0	5.0	3.9	4.4	3.4	5.8	3.9	4.4	2.2	139	7.8
18	6.7	4.8	5.0	3.9	4.4	3.4	5.2	4.2	3.9	2.3	17	81
19	5.4	5.0	5.0	4.2	4.4	3.4	4.4	4.1	3.7	2.3	8.8	16
20	5.0	5.0	5.0	4.2	4.4	3.4	4.4	4.1	4.9	2.4	7.2	6.3
21	4.8	5.0	5.5	4.4	5.2	3.2	4.2	4.4	8.6	2.4	6.5	5.6
22	4.8	5.0	5.5	4.4	5.0	3.4	4.1	4.4	4.6	3.7	6.3	14
23	4.6	5.0	5.5	4.4	4.8	3.4	4.1	4.6	3.4	11	6.3	31
24	4.5	5.0	5.5	4.4	4.6	3.4	4.1	4.2	2.6	3.9	12	27
25	4.5	4.6	5.5	4.4	4.6	3.4	4.1	4.1	2.3	3.7	8.2	14
26	4.6	4.5	5.0	4.4	4.4	3.2	3.9	4.2	2.2	3.7	9.1	27
27	4.4	4.6	5.0	4.6	4.4	3.2	3.7	5.0	2.2	3.7	8.2	8.7
28	4.4	4.8	5.0	4.6	4.4	3.2	7.1	20	2.2	3.7	8.6	5.8
29	4.8	5.0	5.0	4.6	------	3.1	4.2	234	2.2	3.7	9.7	5.2
30	5.0	5.0	4.8	4.6	------	3.1	3.6	416	2.2	3.7	6.3	4.8
31	5.0	------	5.0	4.6	------	3.0	------	28	------	3.9	5.4	------
TOTAL	144.8	145.5	158.1	133.3	123.8	113.3	116.2	806.9	146.3	90.4	433.1	326.8
MEAN	4.67	4.85	5.10	4.30	4.42	3.65	3.87	26.0	4.88	2.92	14.0	10.9
MAX	12	5.0	5.5	5.2	5.2	4.4	7.1	416	20	11	139	81
MIN	3.4	4.5	4.8	3.7	4.0	3.0	3.0	3.2	2.2	2.0	4.1	4.4
AC-FT	287	289	314	264	246	225	230	1,600	290	179	859	648

WTR YR 1971 TOTAL 2,738.5 MEAN 7.50 MAX 416 MIN 2.0 AC-FT 5,430

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	0130	8.26	1,030	8-17	0500	5.66	322
5-30	1200	9.51	1,510	9-18	0400	5.19	238

07311700 North Fork Wichita River near Truscott, Tex.

LOCATION.--Lat 33°49'14", long 99°47'10", Foard-Knox County line, near right bank on downstream side of bridge on State Highway 283, 4.5 miles north of Truscott, about 33 miles upstream from confluence with South Fork, and at mile 188.4.

DRAINAGE AREA.--937 sq mi.

PERIOD OF RECORD.--1952-57 (occasional low-flow measurements), December 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,351.78 ft above mean sea level. Nov. 6, 1959, to Jan. 2, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years (1960-71), 61.7 cfs (44,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,580 cfs June 11 (gage height, 12.05 ft); minimum, 0.40 cfs July 20.
Period of record: Maximum discharge, 28,900 cfs Sept. 19, 1965 (gage height, 21.96 ft); minimum, 0.01 cfs July 25, 1964.
Maximum stage since at least 1900 occurred in September 1919; the next highest flood occurred in May 1954, from information by local resident.

REMARKS.--Records good. One small diversion for irrigation above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	8.7	13	12	13	13	7.6	10	174	4.8	1.2	11
2	7.4	9.4	13	13	12	14	7.6	7.1	163	5.4	1.1	9.0
3	7.4	10	12	13	12	12	7.0	5.8	57	7.3	1.0	8.2
4	6.6	10	12	6.0	12	12	8.5	4.8	29	11	.95	7.4
5	6.0	9.2	12	7.0	12	14	8.7	4.6	17	5.6	.55	6.6
6	6.0	9.6	12	11	12	13	9.4	4.0	13	4.5	1.0	6.6
7	5.4	10	12	14	11	13	9.4	3.8	13	3.7	1.3	50
8	9.0	11	13	15	9.0	12	8.8	3.9	62	3.2	2.1	87
9	9.0	10	13	15	12	12	7.7	7.2	15	2.5	12	29
10	6.2	9.7	14	18	14	12	7.0	8.1	11	2.5	110	13
11	6.2	9.1	14	13	13	12	7.5	6.4	601	2.2	46	11
12	5.8	8.9	14	12	12	12	7.1	4.9	740	1.8	13	8.2
13	6.8	11	14	11	12	11	7.4	3.8	123	1.4	6.2	7.4
14	6.7	14	14	11	12	11	6.2	3.9	66	1.1	1.9	6.6
15	10	15	15	11	12	10	6.8	3.8	57	.96	5.4	5.4
16	32	14	15	11	12	10	13	3.8	35	.75	293	5.4
17	55	12	15	11	12	9.4	22	3.7	21	.75	600	25
18	32	11	14	11	13	10	25	4.0	14	.59	107	643
19	20	12	14	12	13	9.4	22	3.8	14	.51	36	205
20	14	11	14	12	14	9.2	16	3.7	11	.40	17	63
21	11	12	14	12	13	9.2	13	3.4	42	.68	9.9	26
22	9.7	12	15	11	12	9.2	12	3.4	26	2.2	6.4	86
23	9.2	11	14	11	14	9.4	11	3.5	16	67	4.9	939
24	7.7	11	14	12	17	9.9	9.8	3.4	9.8	30	17	580
25	8.0	11	13	12	17	11	8.2	3.2	8.6	13	106	941
26	7.8	11	13	12	16	11	7.4	2.9	7.1	7.2	135	344
27	8.2	11	13	12	14	10	6.6	2.9	5.9	4.9	45	109
28	8.5	12	13	12	13	10	12	5.7	5.2	3.2	23	49
29	8.9	13	13	12	------	9.9	36	474	4.7	2.3	18	31
30	8.4	13	14	12	------	8.9	12	1,220	4.7	1.6	34	23
31	8.5	------	13	12	------	8.2	------	1,520	------	1.3	14	------
TOTAL	354.8	332.6	418	369.0	360.0	337.7	342.7	3,343.5	2,366.0	194.34	1,669.90	4,335.8
MEAN	11.4	11.1	13.5	11.9	12.9	10.9	11.4	108	78.9	6.27	53.9	145
MAX	55	15	15	18	17	14	36	1,520	740	67	600	941
MIN	5.4	8.7	12	6.0	9.0	8.2	6.2	2.9	4.7	.40	.55	5.4
AC-FT	704	660	829	732	714	670	680	6,630	4,690	385	3,310	8,600

CAL YR 1970 TOTAL 7,438.85 MEAN 20.4 MAX 698 MIN .75 AC-FT 14,750
WTR YR 1971 TOTAL 14,424.34 MEAN 39.5 MAX 1,520 MIN .40 AC-FT 28,610

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-31	0500	12.00	2,550	8-16	2300	10.15	1,670
6-11	2300	12.05	2,580	9-17	0600	9.51	1,410
				9-25	1500	9.72	1,490

07311780 South Fork Wichita River near Guthrie, Tex.

LOCATION.--Lat 33°27'29", long 100°13'04", King County, on left bank 60 ft upstream from ranch road, 3.9 miles upstream from Willow Creek, 6.1 miles east of Guthrie, and at mile 92.5.

DRAINAGE AREA.--239 sq mi.

PERIOD OF RECORD.--1952-54, 1956-57 (discharge measurements only). October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage 1,600 ft, from topographic map.

EXTREMES.--Current year: Maximum discharge, 2,060 cfs Aug. 25 (gage height, 7.15 ft); minimum, 2.1 cfs for many days.
Period of record: Maximum discharge, 2,060 cfs Aug. 25, 1971 (gage height, 7.15 ft); minimum, 2.1 cfs for many days in 1971.
Maximum stage since 1950, 20.8 ft in May 1954, present site and datum, from floodmarks furnished by local resident.

REMARKS.--Records good below 10 cfs and poor above. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.6	2.8	2.6	2.8	2.6	2.6	2.6	11	2.6	2.6	4.1
2	2.8	2.8	2.8	2.6	2.8	2.8	2.6	2.6	3.7	2.6	2.6	3.8
3	2.8	2.8	2.8	2.6	2.8	2.8	2.8	2.6	2.4	2.4	2.6	3.6
4	2.8	2.8	2.8	2.8	3.1	2.8	2.8	2.6	2.4	2.4	2.6	3.6
5	2.8	2.8	2.8	2.8	3.1	2.8	3.1	2.6	2.1	2.4	2.6	3.3
6	2.8	2.8	2.8	3.1	2.8	2.4	3.1	2.6	2.1	2.1	2.6	3.6
7	3.1	2.8	2.8	3.1	2.6	2.4	3.1	2.6	2.1	2.1	2.6	3.6
8	3.1	2.8	2.8	3.1	2.8	2.6	2.8	2.4	2.4	2.1	2.6	3.6
9	3.1	2.8	2.8	3.1	2.8	2.8	2.6	2.4	2.4	2.1	3.4	3.3
10	3.1	2.8	3.1	3.1	2.6	2.8	2.4	2.4	2.4	2.1	3.4	3.3
11	3.1	2.8	3.1	3.4	2.6	3.1	2.6	2.4	2.4	2.1	3.1	3.6
12	3.1	2.8	2.8	3.4	2.8	3.4	2.4	2.4	2.4	2.1	3.1	3.6
13	3.1	2.8	2.8	3.4	2.8	3.7	2.1	2.4	2.4	2.1	3.1	3.6
14	3.1	2.8	2.6	3.4	2.6	3.4	2.1	2.4	2.4	2.1	5.1	3.3
15	4.0	2.8	2.6	3.4	2.6	2.8	2.4	2.4	2.4	2.1	5.7	3.3
16	4.0	2.8	2.6	3.4	2.6	2.8	3.7	2.4	2.4	2.1	8.5	3.3
17	4.0	2.8	2.6	3.4	2.8	2.8	3.7	2.4	2.4	2.1	3.4	4.4
18	3.4	2.8	2.6	3.4	3.4	2.6	3.1	3.1	2.6	2.1	3.1	7.0
19	3.1	2.8	2.6	3.4	3.1	2.8	2.8	2.4	2.6	2.1	3.1	4.4
20	3.0	2.8	2.8	3.4	2.8	3.4	2.8	2.4	2.8	2.1	3.1	4.1
21	2.6	2.8	2.8	3.4	3.1	3.4	2.8	2.4	4.8	2.1	3.1	3.8
22	2.6	2.8	2.8	3.4	2.8	3.1	2.8	2.4	3.1	2.1	3.1	3.8
23	2.6	2.8	3.1	3.1	2.8	3.1	2.8	2.4	2.8	2.4	3.1	5.0
24	2.6	2.8	3.1	3.1	2.8	2.8	2.8	2.1	2.8	2.6	508	9.0
25	2.6	2.8	3.1	3.1	2.8	2.8	2.8	2.1	2.8	2.6	445	14
26	2.6	2.8	3.1	3.1	2.8	2.8	2.8	2.1	2.8	2.6	51	9.6
27	2.4	2.8	3.1	3.1	2.8	2.8	2.6	2.1	2.8	2.6	79	4.7
28	2.6	2.8	3.1	3.1	2.6	2.8	2.6	3.2	2.6	2.6	92	4.1
29	2.6	2.8	2.8	3.1	------	2.8	2.6	7.3	2.6	2.6	18	3.8
30	2.6	2.8	2.6	2.8	------	2.8	2.6	3.5	2.6	2.6	7.8	3.6
31	2.6	------	2.6	2.8	------	2.8	------	16	------	2.6	5.0	------
TOTAL	91.5	83.8	87.6	97.0	78.8	89.6	82.8	95.7	87.5	71.3	1,284.0	137.8
MEAN	2.95	2.79	2.83	3.13	2.81	2.89	2.76	3.09	2.92	2.30	41.4	4.59
MAX	4.0	2.8	3.1	3.4	3.4	3.7	3.7	16	11	2.6	508	14
MIN	2.4	2.6	2.6	2.6	2.6	2.4	2.1	2.1	2.1	2.1	2.6	3.3
AC-FT	181	166	174	192	156	178	164	190	174	141	2,550	273

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971 TOTAL 2,287.4 MEAN 6.27 MAX 508 MIN 2.1 AC-FT 4,540

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 25 (0030) 2,060 cfs (7.15 ft); Aug. 27 (2200) 340 cfs (4.54 ft).

07311790 South Fork Wichita River at Ross Ranch near Benjamin, Tex.

LOCATION.--Lat 33°39'18", long 100°00'49", King County, on left bank 170 ft upstream from ranch road, 1.6 miles downstream from Ox Yoke Creek, 13.7 miles northwest of Benjamin, and at mile 64.5.

DRAINAGE AREA.--499 sq mi.

PERIOD OF RECORD.--September 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,451 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,360 cfs May 30 (gage height, 9.42 ft); no flow July 11-22.
Period of record: Maximum discharge, 1,360 cfs May 30, 1971 (gage height, 9.42 ft); no flow July 11-22, 1971.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	5.0	5.4	5.8	4.6	5.0	2.3	4.2	10	1.2	.44	14
2	3.3	4.6	5.0	5.8	5.0	5.0	2.3	3.9	12	1.0	.55	12
3	3.0	4.6	5.4	5.8	5.4	5.0	2.3	3.6	5.8	.91	.55	8.4
4	3.0	4.6	5.4	5.0	5.4	5.4	2.1	3.3	3.6	.79	.55	7.3
5	3.0	4.6	5.4	4.5	5.4	4.6	2.1	3.0	2.7	.67	.44	6.8
6	3.0	4.6	5.8	4.5	5.0	4.2	2.3	3.0	2.7	.35	2.7	6.8
7	3.0	4.6	5.8	4.5	5.0	4.2	2.5	3.0	2.5	.20	2.1	6.3
8	3.0	4.6	5.8	5.5	4.5	4.2	2.5	3.0	1.7	.14	1.9	5.8
9	3.0	4.6	6.3	6.3	5.0	4.2	2.7	3.6	1.5	.05	5.4	5.8
10	3.0	4.6	6.3	6.8	6.3	4.2	2.7	3.0	1.2	.02	59	5.8
11	3.0	4.6	6.8	6.3	5.8	4.2	2.7	2.7	1.4	0	43	5.4
12	3.0	4.6	6.3	6.3	5.4	3.9	2.7	2.1	1.5	0	5.8	5.0
13	3.0	4.2	6.3	6.3	5.0	3.6	2.7	2.1	1.7	0	3.9	5.4
14	3.0	3.9	6.3	5.8	5.0	3.6	3.6	2.3	1.7	0	3.6	5.4
15	5.7	4.2	6.3	5.4	5.0	3.6	3.9	2.3	1.7	0	13	5.0
16	14	4.2	6.3	5.4	5.0	3.6	12	2.1	1.4	0	192	5.0
17	15	4.2	6.8	5.4	5.0	3.6	19	1.7	1.2	0	74	6.5
18	9.6	4.2	6.8	5.4	5.0	3.3	12	3.6	1.0	0	27	49
19	7.8	4.2	6.8	5.0	5.0	3.0	9.0	2.7	.91	0	14	34
20	7.8	4.2	6.8	5.0	4.6	3.3	8.4	3.0	.79	0	9.0	14
21	7.8	4.2	6.3	5.0	7.3	3.3	6.8	2.1	28	0	6.3	11
22	7.3	4.2	6.3	5.0	7.0	3.3	5.4	1.7	51	0	5.4	15
23	7.3	3.9	5.8	5.0	7.8	3.3	4.6	2.1	16	8.5	4.2	24
24	6.8	4.2	5.8	5.0	6.8	3.3	4.2	1.5	5.0	5.0	8.4	60
25	6.8	5.0	5.8	4.6	6.3	3.3	4.2	1.4	3.3	2.5	466	65
26	6.3	5.4	5.4	4.6	5.4	3.6	4.6	.91	2.1	1.4	171	46
27	5.8	5.4	5.4	4.6	5.0	3.3	4.2	.79	1.5	.91	181	24
28	5.8	5.0	5.4	4.6	5.0	3.0	4.2	57	1.2	.67	157	15
29	5.4	5.0	5.4	4.6	------	2.7	4.2	89	1.2	.55	107	13
30	5.0	5.0	5.4	4.6	------	2.7	4.2	253	1.0	.44	53	12
31	5.0	------	5.4	4.6	------	2.3	------	39	------	.44	23	------
TOTAL	172.1	136.2	184.5	163.0	153.0	115.8	146.4	506.70	167.30	25.74	1,641.23	498.7
MEAN	5.55	4.54	5.95	5.26	5.46	3.74	4.88	16.3	5.58	.83	52.9	16.6
MAX	15	5.4	6.8	6.8	7.8	5.4	19	253	51	8.5	466	65
MIN	3.0	3.9	5.0	4.5	4.5	2.3	2.1	.79	.79	0	.44	5.0
AC-FT	341	270	366	323	303	230	290	1,010	332	51	3,260	989

WTR YR 1971 TOTAL 3,910.67 MEAN 10.7 MAX 466 MIN 0 AC-FT 7,760

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	0900	9.42	1,360	8-25	1400	8.34	942
8-16	1200	6.94	562	8-27	1900	7.30	650

07311800 South Fork Wichita River near Benjamin, Tex.

LOCATION.--Lat 33°38'39", long 99°48'02", Knox County, on downstream side of bridge on State Highway 283, 2 miles downstream from Panhandle and Santa Fe Railway Co. bridge, 4 miles north of Benjamin, and 34 miles upstream from confluence with North Fork Wichita River.

DRAINAGE AREA.--584 sq mi.

PERIOD OF RECORD.--1952-57 (occasional low-flow measurements), December 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,334.23 ft above mean sea level. Prior to Jan. 2, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years (1960-71), 42.9 cfs (31,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,200 cfs May 30 (gage height, 14.22 ft); no flow for many days.
Period of record: Maximum discharge, 13,000 cfs Oct. 18, 1960 (gage height, 15.40 ft); maximum gage height, 16.48 ft Oct. 18, 1965; no flow at times.
Maximum stage since at least 1903 occurred in September 1919 (stage and discharge unknown), from information by local resident.

REMARKS.--Records fair. No known regulation or diversion above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.6	4.6	5.3	5.1	4.3	2.5	2.1	40	4.0	0	30
2	3.0	4.3	4.6	5.4	5.1	4.6	2.1	2.1	23	3.0	0	24
3	2.8	4.1	4.8	5.4	5.0	4.0	2.0	1.9	19	2.1	0	19
4	2.8	4.1	4.7	4.0	5.0	4.5	2.1	1.7	15	1.9	0	18
5	2.7	4.1	5.1	3.5	5.0	5.0	2.0	1.5	12	1.1	0	16
6	2.5	4.2	5.0	3.0	5.0	4.6	2.1	1.4	12	.47	6.8	15
7	2.1	4.3	5.0	3.0	4.6	4.3	2.1	1.2	11	.19	12	14
8	1.7	4.3	5.2	3.5	4.0	4.0	2.1	1.2	10	.11	4.6	31
9	1.5	4.3	5.4	5.5	4.3	4.3	2.1	1.4	8.3	.07	16	33
10	1.4	4.3	5.0	7.7	4.6	3.8	1.8	1.2	7.6	.03	116	12
11	1.4	4.3	5.0	7.0	5.4	3.9	1.7	1.0	6.8	.01	73	10
12	1.4	4.1	5.0	6.3	4.6	3.9	1.6	.90	6.8	0	29	8.2
13	1.4	4.4	5.0	6.0	4.3	3.5	1.7	.75	6.2	0	21	6.5
14	1.2	4.7	5.0	5.7	4.3	3.4	1.4	.65	6.3	0	19	5.3
15	9.7	5.0	5.0	5.4	4.3	3.2	1.4	.55	6.3	0	21	4.3
16	35	5.0	4.6	5.5	4.3	3.1	3.2	.55	5.4	0	59	3.7
17	38	5.1	4.8	5.4	4.3	3.0	9.2	.45	4.6	0	210	13
18	14	5.0	5.0	5.4	4.3	3.0	9.8	3.8	3.9	0	48	118
19	10	5.0	5.0	5.4	4.3	2.7	8.1	3.3	3.6	0	27	37
20	8.9	4.9	5.1	5.3	4.3	2.7	6.8	1.4	3.2	0	19	24
21	7.4	4.6	5.0	5.3	4.0	2.6	5.1	.65	291	0	16	16
22	6.6	4.6	5.2	5.1	4.0	2.6	20	.65	160	0	14	12
23	6.5	4.3	5.4	5.3	5.0	2.7	5.4	.55	43	101	12	84
24	6.1	4.3	5.0	5.5	6.0	2.8	3.6	.08	24	19	78	109
25	5.8	4.2	5.4	5.4	5.8	3.1	3.3	.20	16	5.0	167	58
26	5.4	4.1	4.9	5.4	4.3	3.3	2.8	.08	13	2.5	574	34
27	5.1	4.1	4.7	5.3	4.0	3.2	2.6	.08	10	.85	222	27
28	5.0	4.1	4.8	5.4	4.0	3.2	2.6	451	8.1	.29	238	20
29	4.6	4.1	5.0	5.4	------	3.0	2.3	1,240	6.3	.10	155	16
30	4.6	4.5	5.1	5.4	------	2.8	2.3	2,340	5.2	.01	75	14
31	4.6	------	5.3	5.3	------	2.6	------	244	------	0	39	------
TOTAL	205.9	133.0	154.7	162.5	129.2	107.7	115.8	4,306.34	787.6	141.73	2,271.4	832.0
MEAN	6.64	4.43	4.99	5.24	4.61	3.47	3.86	139	26.3	4.57	73.3	27.7
MAX	38	5.1	5.4	7.7	6.0	5.0	20	2,340	291	101	574	118
MIN	1.2	4.1	4.6	3.0	4.0	2.6	1.4	.08	3.2	0	0	3.7
AC-FT	408	264	307	322	256	214	230	8,540	1,560	281	4,510	1,650

CAL YR 1970 TOTAL 5,338.16 MEAN 14.6 MAX 821 MIN 0 AC-FT 10,590
WTR YR 1971 TOTAL 9,347.87 MEAN 25.6 MAX 2,340 MIN 0 AC-FT 18,540

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE
5-30	1200	14.22	4,200
6-21	2145	8.61	1,130
8-26	0115	8.41	1,070

07311900 Wichita River near Seymour, Tex.

LOCATION.--Lat 33°42'01", long 99°23'18", Baylor County, near left bank on downstream side of pier of bridge on Ranch Road 1919, 6 miles upstream from head of Lake Kemp, 10 miles downstream from confluence of North and South Forks, and 10.5 miles northwest of Seymour.

DRAINAGE AREA.--1,874 sq mi.

PERIOD OF RECORD.--November 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,152.7 ft above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--11 years (1960-71), 175 cfs (126,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,320 cfs May 30 (gage height, 14.11 ft); no flow July 19, 20.
Period of record: Maximum discharge, 23,100 cfs Sept. 20, 1965 (gage height, 17.75 ft); no flow at times.

REMARKS.--Records fair. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.2	11	15	14	12	5.3	14	2,190	10	12	52
2	8.2	8.2	12	15	14	12	5.0	14	406	13	7.0	46
3	7.3	8.0	12	18	15	10	4.6	9.6	292	18	3.4	36
4	6.5	7.8	12	13	15	10	4.9	7.0	191	12	2.8	24
5	5.9	7.9	12	10	13	12	5.0	5.5	145	6.8	1.5	17
6	5.1	8.3	11	10	14	13	5.4	4.6	122	7.2	1.3	13
7	4.6	8.8	12	12	13	13	5.3	4.2	103	4.8	72	12
8	33	8.6	13	12	10	12	4.8	4.3	93	3.6	9.0	12
9	11	7.8	13	12	12	12	4.9	4.4	85	3.1	37	97
10	5.9	7.7	13	13	13	11	5.0	4.1	98	2.6	32	93
11	4.9	7.6	13	16	12	9.9	4.5	3.4	77	1.8	64	40
12	5.4	7.5	13	18	14	10	4.4	3.0	530	1.4	68	14
13	4.6	8.8	14	18	12	9.6	4.0	3.4	422	.97	44	9.4
14	3.9	11	13	16	13	7.7	4.3	3.4	164	.72	180	13
15	25	11	14	15	12	7.4	4.1	3.1	108	.60	122	10
16	126	11	15	15	12	7.7	6.7	2.8	84	.53	92	8.2
17	467	12	14	15	11	7.3	7.5	2.5	82	.29	165	16
18	142	12	14	15	11	6.0	9.0	3.1	63	.09	436	418
19	74	11	15	15	10	5.9	9.7	6.5	48	.05	110	640
20	52	11	13	15	10	5.5	14	6.5	38	.01	18	207
21	42	10	14	14	9.0	5.9	15	2.9	65	8.4	5.4	116
22	34	9.7	15	14	8.0	5.5	38	2.0	390	24	2.2	74
23	28	8.9	14	15	10	5.4	45	1.7	248	41	1.1	246
24	23	8.4	14	15	12	5.7	28	1.3	81	145	18	1,300
25	21	9.1	14	15	15	6.8	17	1.1	57	71	788	1,060
26	18	8.4	14	15	17	7.1	11	.9	39	41	382	820
27	15	8.6	14	15	16	6.8	7.5	.8	28	21	484	336
28	14	9.4	14	15	13	7.0	6.8	1.1	21	33	236	177
29	12	10	14	15	------	7.1	6.0	1,420	16	11	147	120
30	10	11	17	15	------	6.5	5.5	5,140	13	190	82	91
31	9.5	------	16	15	------	5.9	------	4,720	------	37	74	------
TOTAL	1,228.8	278.7	419	451	350.0	263.7	298.2	11,401.2	6,299	709.96	3,696.7	6,117.6
MEAN	39.6	9.29	13.5	14.5	12.5	8.51	9.94	368	210	22.9	119	204
MAX	467	12	17	18	17	13	45	5,140	2,190	190	788	1,300
MIN	3.9	7.5	11	10	8.0	5.4	4.0	.80	13	.01	1.1	8.2
AC-FT	2,440	553	831	895	694	523	591	22,610	12,490	1,410	7,330	12,130

CAL YR 1970 TOTAL 22,638.93 MEAN 62.0 MAX 3,830 MIN 0 AC-FT 44,900
WTR YR 1971 TOTAL 31,513.86 MEAN 86.3 MAX 5,140 MIN .01 AC-FT 62,510

PEAK DISCHARGE (BASE, 2,500 CFS).--May 30 (1630) 7,320 cfs (14.11 ft).

07312000 Lake Kemp near Mabelle, Tex.

LOCATION.--Lat 33°45'15", long 99°08'42", Baylor County, on outlet gate of control house at dam on Wichita River, 6.2 miles north of Mabelle, 10.2 miles northeast of Seymour, and at mile 126.7.

DRAINAGE AREA.--2,086 sq mi.

PERIOD OF RECORD.--October 1922 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2.40 ft above mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents, 192,100 acre-ft Oct. 18 (gage height, 1,132.71 ft); minimum, 71,150 acre-ft Aug. 14 (gage height, 1,116.72 ft).
Period of record: Maximum contents, 420,900 acre-ft June 30, 1941 (gage height, 1,149.6 ft); minimum since first appreciable storage, 26,160 acre-ft June 30, 1953 (gage height, 1,105.6 ft).

REMARKS.--Lake is formed by a hydraulic earthfill dam 7,500 ft long, with an uncontrolled semicircular concrete service spillway 564 ft long. Capacity of lake, 461,800 acre-ft (gage height, 1,150.6 ft at crest of spillway). No flow has been permitted to pass over spillway. Two uncontrolled emergency spillways are located between the left end of dam and the service spillway, with one spillway 70 ft long with crest at gage height 1,159.1 ft and the other 335 ft long with crest varying from gage heights, 1,159.6 to 1,162.9 ft. Storage began Oct. 1, 1922, and dam was completed Aug. 25, 1923. Outlet works consist of six conduits, 7 ft in diameter controlled by lift-type gates. Water is used for irrigation in the Wichita River Valley, oilfield operation, and industrial use. Forty-two thousand acres of land are available for irrigation. Data regarding dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	1,166.8	-
Top of design flood pool	1,160.6	648,000
Crest of service spillway	1,150.6	461,800
Invert of outlet conduits	1,067.0	0

COOPERATION.--Records of daily gage height furnished by the city of Wichita Falls and Wichita County Water Improvement District No. 2. Capacity table used beginning Oct. 1, 1958, furnished by the Soil Conservation Service, was based on their survey made in 1958.

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,116.0	67,550	1,122.0	101,000	1,128.0	145,000
1,118.0	77,550	1,124.0	114,000	1,130.0	165,000
1,120.0	89,000	1,126.0	128,000	1,132.0	185,000
				1,134.0	205,000

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191,300	188,900	185,100	179,200	167,000	155,300	139,500	118,500	111,600	99,320	75,700	82,840
2	191,300	188,700	184,900	178,000	165,200	155,300	138,500	117,800	115,200	98,300	75,700	82,890
3	191,100	188,600	184,800	177,100	164,200	155,400	137,700	116,800	116,300	97,160	75,700	82,950
4	190,900	188,400	184,700	176,700	164,000	155,500	136,900	115,800	116,100	96,380	75,550	82,950
5	191,000	188,200	184,600	176,300	163,800	155,100	136,000	115,200	116,300	95,540	75,500	83,900
6	190,900	188,000	185,000	176,000	163,500	155,100	135,400	114,100	116,200	94,340	75,450	83,960
7	190,900	187,900	184,500	175,900	163,300	155,000	134,800	112,800	116,100	93,140	74,800	83,900
8	190,900	187,900	184,800	175,700	163,100	155,000	134,000	111,800	116,300	91,940	74,100	83,780
9	190,500	187,800	184,800	175,500	162,800	154,900	132,800	110,400	116,000	90,980	74,250	83,780
10	190,300	187,500	184,400	175,300	162,600	154,800	131,900	109,100	115,800	89,960	74,200	83,720
11	189,900	187,400	184,200	175,100	162,400	154,400	131,100	107,800	114,600	88,880	73,450	83,660
12	189,700	187,300	184,100	175,000	162,300	154,300	130,300	106,600	113,500	87,800	72,900	83,720
13	189,500	186,800	184,000	175,000	162,000	154,100	129,500	105,700	113,400	86,780	72,050	83,720
14	189,400	187,100	183,900	174,600	161,800	154,400	128,600	104,700	113,000	85,700	71,150	83,660
15	189,400	187,000	183,900	173,700	161,600	153,200	127,400	103,800	112,500	84,620	71,400	83,420
16	189,600	186,900	183,800	172,500	161,700	152,100	126,700	103,300	111,900	83,540	72,900	83,240
17	191,000	186,900	183,700	172,300	161,100	151,000	126,000	102,800	111,300	81,960	73,250	83,060
18	192,100	186,800	183,700	172,200	160,400	150,400	125,100	101,900	110,600	80,770	73,850	83,720
19	192,000	186,600	183,600	172,000	159,700	148,600	124,200	100,900	109,900	79,510	74,450	85,220
20	191,700	186,400	183,500	171,800	159,100	147,700	123,700	99,860	108,700	77,940	74,750	86,600
21	191,300	186,500	183,400	171,500	159,300	147,000	123,400	98,840	107,800	76,900	74,900	87,020
22	191,000	186,200	183,200	171,400	158,400	146,400	123,000	97,760	107,100	75,900	74,750	87,260
23	190,700	186,200	183,100	171,200	157,600	145,500	122,700	96,860	106,500	74,750	74,750	87,680
24	190,400	185,900	183,000	171,000	156,900	144,700	122,400	95,900	106,300	74,550	74,750	89,300
25	190,200	185,700	183,000	170,800	156,300	144,300	122,100	94,700	105,500	74,600	75,550	95,120
26	190,000	185,500	182,900	170,600	156,000	143,600	121,600	93,800	104,500	74,600	79,900	97,220
27	189,900	185,300	182,800	170,400	155,600	142,900	121,300	93,080	103,300	74,950	80,820	98,780
28	189,600	185,100	182,800	170,000	155,400	142,100	120,900	92,360	102,100	74,900	81,740	99,560
29	189,400	185,100	182,300	169,200	------	141,300	120,200	92,240	101,300	75,800	82,350	99,860
30	189,200	185,100	181,600	168,100	------	141,000	119,400	96,680	100,300	75,650	82,570	99,980
31	189,000	------	180,000	167,500	------	140,100	------	103,600	------	75,750	82,780	------
(†)	1,132.40	1,132.01	1,131.50	1,130.25	1,129.04	1,127.51	1,124.77	1,122.43	1,121.88	1,117.64	1,118.96	1,121.83
(#)	-2,400	-3,900	-5,100	-12,500	-12,100	-15,300	-20,700	-15,800	-3,300	-24,550	+7,030	+17,200
MAX	192,100	188,900	185,100	179,200	167,000	155,500	139,500	118,500	116,300	99,320	82,780	99,980
MIN	189,000	185,100	180,000	167,500	155,400	140,100	119,400	92,240	100,300	74,550	71,150	82,840

CAL YR 1970..... # -125,400 MAX 326,700 MIN 180,000
WTR YR 1971..... # -92,420 MAX 192,100 MIN 71,150

† Gage height, in feet, at end of month.
# Change in contents, in acre-feet.

07312100 Wichita River near Mabelle, Tex.

LOCATION.--Lat 33°45'36", long 99°08'33", Baylor County, near left bank on downstream side of bridge on U.S. Highways 183 and 283, 0.3 mile downstream from Lake Kemp Dam, 6 miles north of Mabelle, and 13 miles northeast of Seymour.

DRAINAGE AREA.--2,086 sq mi, all of which is above Lake Kemp Dam.

PERIOD OF RECORD.--1952-58 (occasional discharge measurements), October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,062.72 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 167 cfs (121,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 595 cfs May 7 (gage height, 5.02 ft); maximum gage height, 5.03 ft May 6, 7; minimum daily discharge, 12 cfs Dec. 22-27, July 25-27, Aug. 19.
Period of record: Maximum daily discharge, 1,800 cfs Sept. 27, 28, 1966, Oct. 1, 2, 4, 6-8, 1967; minimum daily, 2 cfs Jan. 13, 14, 20, 24, 25, 1963 (result of freeze).

REMARKS.--Records good. Flow completely regulated by Lake Kemp (see station 07312000). Water is released from Lake Kemp to supply Lake Diversion. From Lake Diversion it is released for irrigation in vicinity of Wichita Falls (42,000 acres under permit). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	13	408	321	19	219	362	33	440	14	14
2	15	16	13	408	322	19	219	382	32	442	14	14
3	15	16	13	235	222	19	222	478	32	440	14	15
4	14	15	13	43	56	18	222	476	31	437	14	16
5	14	15	13	42	56	18	225	476	31	438	14	25
6	14	15	13	41	56	17	225	554	31	438	180	15
7	14	15	13	38	54	17	258	595	30	435	410	15
8	15	15	13	35	53	17	386	591	30	435	198	15
9	15	15	13	34	53	16	388	588	30	434	14	15
10	15	15	13	33	53	16	390	583	348	433	205	15
11	16	15	13	33	53	16	392	579	461	432	406	16
12	16	15	13	33	51	16	394	490	454	414	407	17
13	16	15	13	114	51	17	404	348	450	428	411	17
14	16	15	13	334	50	156	407	346	430	426	415	17
15	16	15	13	331	48	334	411	344	303	424	199	17
16	89	15	13	186	63	334	417	341	302	490	14	17
17	181	15	13	57	240	334	421	356	301	522	14	18
18	179	15	13	57	247	334	425	459	300	520	13	17
19	177	15	13	57	247	314	359	454	340	522	12	17
20	177	15	13	57	247	210	192	450	437	520	13	16
21	177	14	13	57	247	210	150	446	434	518	13	17
22	177	14	12	57	244	210	153	444	433	515	13	16
23	103	14	12	56	247	213	157	440	433	313	13	17
24	16	14	12	56	247	210	162	444	433	13	14	37
25	16	14	12	56	247	213	166	421	434	12	20	17
26	16	14	12	57	98	213	169	370	435	12	15	16
27	16	13	12	118	19	213	173	368	437	12	14	15
28	16	13	174	322	19	213	272	370	437	34	13	15
29	16	13	348	319	------	216	363	307	439	14	13	14
30	16	13	412	319	------	216	363	135	439	14	14	14
31	16	------	408	319	------	216	------	34	------	14	14	------
TOTAL	1,613	439	1,687	4,312	3,911	4,584	8,704	13,031	8,760	10,541	3,137	506
MEAN	52.0	14.6	54.4	139	140	148	290	420	292	340	101	16.9
MAX	181	16	412	408	322	334	425	595	461	522	415	37
MIN	14	13	12	33	19	16	150	34	30	12	12	14
AC-FT	3,200	871	3,350	8,550	7,760	9,090	17,260	25,850	17,380	20,910	6,220	1,000

CAL YR 1970 TOTAL 73,712.3 MEAN 202 MAX 1,080 MIN 5.8 AC-FT 146,200
WTR YR 1971 TOTAL 61,225.0 MEAN 168 MAX 595 MIN 12 AC-FT 121,400

07312200 Beaver Creek near Electra, Tex.

LOCATION.--Lat 33°54'21", long 98°54'17", Wichita County, near right bank on downstream side of bridge on Farm Road 2326, 6.5 miles northwest of Kamay, 8 miles upstream from Wichita River, and 9 miles south of Electra.

DRAINAGE AREA.--652 sq mi.

PERIOD OF RECORD.--February 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 991.3 ft above mean sea level (State Highway Department reference point).

AVERAGE DISCHARGE.--11 years, 59.6 cfs (43,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,610 cfs Sept. 25 (gage height, 23.48 ft); no flow at times.
Period of record: Maximum discharge, 11,700 cfs Mar. 17, 1961 (gage height, 33.57 ft); no flow at times.
Maximum stage since at least 1925, 36.0 ft in 1941 (partly caused by deliberate demolition of Santa Rosa Dam to avoid its failure), from information by local residents.

REMARKS.--Records good. Some regulation by Santa Rosa Lake (capacity, 11,570 acre-ft) about 30 miles upstream. Several small diversions above station. Water-quality records for the period Oct. 1 to June 30, 1971, are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	2.2	1.6	.40	13	4.7	2.4	4.1	78	4.8	5.6	.32
2	1.2	2.0	1.5	.43	12	2.8	2.4	4.1	50	3.6	4.2	.02
3	3.0	1.9	1.4	.49	14	2.9	1.6	4.6	4.3	3.0	3.2	0
4	3.8	2.1	1.2	.57	14	2.7	1.3	5.2	1.3	2.1	2.6	1.3
5	3.4	2.2	1.0	.50	13	2.3	1.2	5.3	.44	1.4	2.4	487
6	3.0	2.1	.93	.39	13	1.4	1.4	5.4	.20	.64	75	68
7	2.1	2.1	.83	.35	12	.81	1.1	4.1	.09	.17	23	15
8	4.8	1.7	.83	.45	10	.46	1.3	2.5	.08	0	17	5.7
9	10	1.6	.93	.49	13	.25	1.4	.97	0	0	60	3.4
10	4.7	1.4	.93	.41	13	.15	1.7	.45	0	0	11	.74
11	3.1	.98	.93	.32	11	.36	1.8	.30	0	0	7.1	.43
12	3.2	.72	.83	.23	9.9	.29	2.2	.06	0	0	3.3	.16
13	3.3	1.1	.83	.36	8.2	.32	2.5	.01	0	0	1.3	.10
14	3.1	1.6	.73	.16	8.6	.33	2.5	.01	1.3	0	24	0
15	3.3	1.6	.64	8.5	7.3	.64	1.8	.01	30	0	122	0
16	3.5	1.5	.57	6.8	5.1	.98	2.0	.01	31	0	178	0
17	59	1.5	.43	3.2	6.2	.87	3.3	.01	3.7	0	38	0
18	34	1.4	.26	2.4	5.5	1.5	3.7	2.2	3.8	0	7.1	125
19	7.0	1.7	.21	2.1	2.8	1.9	4.0	.14	1.7	0	5.4	134
20	2.9	2.7	.50	1.9	2.2	1.8	3.5	.03	3.3	0	9.0	24
21	1.8	2.6	.64	1.3	26	2.2	2.6	.01	103	0	7.7	7.7
22	1.6	2.6	.64	.97	28	2.1	4.2	0	12	0	4.8	9.0
23	1.8	1.9	.64	.73	6.1	2.2	2.9	0	4.2	36	17	478
24	1.5	2.1	.50	.64	2.9	2.0	2.9	0	2.1	21	188	918
25	1.2	2.1	.43	.50	4.2	2.4	2.6	0	1.6	6.0	1,540	1,700
26	1.3	2.1	.36	.31	6.6	2.5	3.2	0	1.4	18	495	203
27	1.9	2.1	.36	.21	6.5	2.5	3.2	0	1.3	50	36	62
28	2.3	2.3	.36	.13	6.1	2.5	3.1	0	1.3	8.2	21	17
29	2.2	2.5	.31	.10	------	2.7	3.0	12	1.9	3.8	7.9	13
30	2.3	1.8	.40	.06	------	2.3	3.6	72	2.6	1.6	2.9	7.0
31	2.6	------	.35	13	------	2.3	------	89	------	.83	1.4	------
TOTAL	179.40	56.20	22.07	48.40	280.2	53.16	74.4	212.51	340.61	161.14	2,920.9	4,279.87
MEAN	5.79	1.87	.71	1.56	10.0	1.71	2.48	6.86	11.4	5.20	94.2	143
MAX	59	2.7	1.6	13	28	4.7	4.2	89	103	50	1,540	1,700
MIN	.50	.72	.21	.06	2.2	.15	1.1	0	0	0	1.3	0
AC-FT	356	111	44	96	556	105	148	422	676	320	5,790	8,490

CAL YR 1970 TOTAL 8,396.52 MEAN 23.0 MAX 1,840 MIN .08 AC-FT 16,650
WTR YR 1971 TOTAL 8,628.86 MEAN 23.6 MAX 1,700 MIN 0 AC-FT 17,120

PEAK DISCHARGE (BASE, 1,000 CFS).--Aug. 25 (1700) 1,910 cfs (20.68 ft); Sept. 25 (0200) 2,610 cfs (23.48 ft).

07312500 Wichita River at Wichita Falls, Tex.

LOCATION.--Lat 33°54'34", long 98°32'00", Wichita County, near center of stream on downstream side of bridge on Beverly Drive in Wichita Falls, 4 miles upstream from Fort Worth and Denver Railway Co. bridge, 8.4 miles upstream from Holliday Creek, and at mile 55.3.

DRAINAGE AREA.--3,140 sq mi, of which 2,086 sq mi is above Lake Kemp Dam.

PERIOD OF RECORD.--February 1900 to January 1902 (monthly discharge only, published in WSP 1311), October 1910 to December 1911 (gage heights only), March 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 924.26 ft above mean sea level. February 1900 to February 1902 and Oct. 1, 1910, to Dec. 31, 1911, nonrecording gages at site 4 miles downstream at different datum. Mar. 30, 1938, to Dec. 1, 1959, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--34 years (1900-1, 1938-71), 292 cfs (211,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,950 cfs Aug. 15 (gage height, 20.44 ft); minimum daily, 31 cfs Mar. 8, 15.
Period of record: Maximum discharge, 17,800 cfs Oct. 3, 1941 (gage height, 24.0 ft); no flow Oct. 11, 1960 (construction cofferdam upstream).
Maximum discharge known, 50,000 cfs June 8, 1915, computed by Vernon L. Sullivan, engineer for Big Wichita River Irrigation Co.

REMARKS.--Records good. Flow from 2,086 sq mi is regulated by Lake Kemp (capacity, 461,800 acre-ft) 71 miles upstream. Since completion of dam in 1923 no flow has been permitted to pass over spillway. Water is diverted from Lake Diversion (capacity, 40,000 acre-ft) 51 miles upstream for irrigation (42,000 acres under permit) in the vicinity of Wichita Falls. During the water year, Wichita County Water Improvement District No. 2 diverted 97,380 acre-ft from Lake Diversion for mining, industrial use, recreation, and irrigation of 19,820 acres. The city of Wichita Falls diverted 8,080 acre-ft from Lake Kickapoo on the North Fork Little Wichita River and 11,040 acre-ft from Lake Arrowhead on Little Wichita River for municipal use, of which 9,570 acre-ft was returned to Wichita River below station as sewage effluent and filter plant washwater. Diversion and return flow records furnished by Wichita County Water Improvement District No. 2 and the city of Wichita Falls.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	73	49	67	43	43	95	91	230	137	190	143
2	90	74	38	75	64	42	90	112	236	140	192	122
3	73	73	39	85	72	41	96	110	154	135	180	114
4	72	70	39	81	70	38	100	99	100	143	176	110
5	70	67	37	75	60	34	111	105	62	166	173	1,080
6	71	75	40	70	58	33	101	109	54	165	197	1,080
7	69	72	42	60	57	33	70	119	58	143	308	657
8	69	54	49	55	50	31	78	120	61	148	354	378
9	71	36	44	47	53	37	88	135	57	159	297	233
10	61	43	39	39	56	37	72	158	59	184	332	174
11	64	46	40	34	58	34	81	129	63	177	271	122
12	64	49	37	35	53	41	102	104	70	196	258	96
13	67	53	33	34	49	43	101	97	81	193	268	81
14	62	60	42	39	54	35	103	98	94	183	403	76
15	61	59	53	41	52	31	136	91	101	177	5,330	73
16	63	62	56	36	51	37	135	107	93	192	5,630	73
17	77	63	53	41	45	45	132	105	138	217	1,020	84
18	125	64	49	45	43	46	130	106	110	234	518	121
19	117	56	54	43	49	56	144	103	100	251	284	194
20	87	51	49	39	42	56	153	107	117	237	231	204
21	76	50	49	36	87	51	112	114	143	223	215	124
22	78	49	57	34	117	54	74	110	220	261	205	159
23	104	44	55	33	93	55	67	110	185	415	199	192
24	97	41	59	33	79	65	70	122	148	449	714	845
25	73	43	59	34	60	81	77	136	118	257	2,920	3,120
26	64	41	60	35	49	85	89	111	103	216	2,520	2,940
27	70	39	62	39	43	85	98	95	114	190	921	1,250
28	75	42	66	41	44	100	79	83	118	225	498	700
29	74	45	64	37	------	104	67	98	127	273	348	465
30	73	46	61	42	------	98	82	198	134	233	242	323
31	74	------	64	39	------	97	------	236	------	192	175	------
TOTAL	2,369	1,640	1,538	1,444	1,651	1,668	2,933	3,618	3,448	6,511	25,569	15,333
MEAN	76.4	54.7	49.6	46.6	59.0	53.8	97.8	117	115	210	825	511
MAX	125	75	66	85	117	104	153	236	236	449	5,630	3,120
MIN	61	36	33	33	42	31	67	83	54	135	173	73
AC-FT	4,700	3,250	3,050	2,860	3,270	3,310	5,820	7,180	6,840	12,910	50,720	30,410

CAL YR 1970 TOTAL 52,455 MEAN 144 MAX 2,750 MIN 30 AC-FT 104,000
WTR YR 1971 TOTAL 67,722 MEAN 186 MAX 5,630 MIN 31 AC-FT 134,300

07312700 Wichita River near Charlie, Tex.

LOCATION.--Lat 34°03'11", long 98°17'47", Clay County, on right bank at bridge on Farm Road 810, 3.0 miles southeast of Charlie, and 5.7 miles northwest of Petrolia.

DRAINAGE AREA.--3,439 sq mi, of which 2,086 sq mi is above Lake Kemp Dam and 143 sq mi is above Lake Wichita Dam.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 872.7 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 5,220 cfs Aug. 17 (gage height, 19.47 ft); minimum, 46 cfs Mar. 16.
Period of record: Maximum discharge, 5,220 cfs Aug. 17, 1971 (gage height, 19.47 ft); minimum, 41 cfs Jan. 7, 1968 (result of freeze-up).

REMARKS.--Records good. Flow is partly regulated by four major reservoirs whose combined capacity is 527,400 acre-ft. For statement concerning regulations and diversions, see station 07312500. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	92	90	143	86	85	134	107	303	148	130	287
2	88	89	87	145	91	84	142	130	279	142	120	242
3	111	89	82	153	109	86	147	152	279	164	114	210
4	88	91	79	194	128	98	141	161	189	128	111	191
5	88	89	73	177	130	93	150	146	121	144	109	813
6	98	87	76	167	120	77	154	148	87	156	136	1,490
7	101	90	71	166	100	78	146	153	63	147	145	1,170
8	109	89	76	153	80	70	126	157	75	125	198	791
9	142	80	82	133	80	64	115	155	98	126	248	545
10	101	61	78	124	85	66	132	189	62	136	202	404
11	86	62	73	114	92	70	118	218	64	150	212	313
12	84	63	69	102	91	63	125	172	67	152	182	268
13	79	66	68	90	93	60	168	137	77	155	157	230
14	72	81	63	89	85	63	186	128	103	145	163	216
15	74	106	67	80	83	59	183	133	112	129	977	190
16	74	104	104	82	89	50	222	126	128	130	3,860	165
17	84	102	114	73	91	52	226	131	121	145	4,720	163
18	111	118	90	69	78	59	212	130	158	153	1,610	214
19	136	128	106	75	70	72	224	131	129	169	499	275
20	145	124	111	77	79	84	268	125	120	188	309	332
21	108	116	123	77	124	88	263	135	151	178	239	309
22	95	112	124	77	299	84	191	145	243	170	209	229
23	98	119	115	74	171	85	138	138	286	225	195	516
24	178	120	127	72	154	102	120	137	227	390	206	472
25	130	110	128	59	131	100	117	155	175	368	1,160	1,560
26	105	102	137	57	103	115	116	160	144	209	2,380	2,590
27	92	97	140	57	96	136	135	140	128	154	2,090	2,380
28	89	82	140	57	87	134	151	112	136	127	1,050	1,290
29	93	80	140	63	------	147	130	105	135	180	650	898
30	94	87	143	68	------	166	103	117	139	186	506	625
31	93	------	158	77	------	156	------	261	------	194	374	------
TOTAL	3,139	2,836	3,134	3,144	3,025	2,746	4,783	4,534	4,399	5,313	23,261	19,378
MEAN	101	94.5	101	101	108	88.6	159	146	147	171	750	646
MAX	178	128	158	194	299	166	268	261	303	390	4,720	2,590
MIN	72	61	63	57	70	50	103	105	62	125	109	163
AC-FT	6,230	5,630	6,220	6,240	6,000	5,450	9,490	8,990	8,730	10,540	46,140	38,440

CAL YR 1970 TOTAL 72,245 MEAN 198 MAX 2,140 MIN 55 AC-FT 143,300
WTR YR 1971 TOTAL 79,692 MEAN 218 MAX 4,720 MIN 50 AC-FT 158,100

07314000 Lake Kickapoo near Archer City, Tex.

LOCATION.--Lat 33°39'47", long 98°46'43", Archer County, on intake tower near left end of dam on North Fork Wichita River, 8.2 miles south of Mankins, and 9.2 miles northwest of Archer City.

DRAINAGE AREA.--275 sq mi.

PERIOD OF RECORD.--February 1946 to current year. Prior to October 1969, monthend contents only.

GAGE.--Nonrecording gage read twice daily. Datum of gage is at mean sea level. Prior to Oct. 8, 1946, water-stage recorder at same site and datum.

EXTREMES (at 0800).--Current year: Maximum contents, 101,590 acre-ft Sept. 27-30 (elevation, 1,044.3 ft); minimum observed, 66,500 acre-ft July 26-28 (elevation, 1,038.0 ft).
Period of record: Maximum contents, 134,300 acre-ft Aug. 2, 1950 (elevation, 1,049.2 ft); minimum observed since first filling in July 1950, 35,660 acre-ft June 30, 1953 (elevation, 1,029.8 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 6,800 ft long, containing a 483-foot long reinforced concrete ogee-type uncontrolled service spillway at right end of dam. Dam completed Dec. 15, 1945, and storage began Feb. 1, 1946. There are two 48- by 60-inch outlet conduits at elevation 1,000.92 ft. Lake is used as municipal water supply for the city of Wichita Falls. Capacity table based on U.S. Geological Survey topographic maps, 5-foot contour interval, surveyed in 1929. Copy of capacity curve obtained from city of Wichita Falls entitled "Lake Kickapoo Area & Capacity Curve", dated November 1946. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,062.0	-
Maximum design flood (2-foot freeboard)	1,060.0	221,000
Crest of service spillway	1,045.0	106,000
Invert of two 48- by 60-inch outlet conduits	1,000.92	0

COOPERATION.--Capacity curve, record of lake elevations, and diversions for municipal use furnished by the city of Wichita Falls.

REVISIONS.--WSP 1211: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,038.0	66,500	1,042.0	87,700
1,039.0	71,300	1,043.0	93,600
1,040.0	76,500	1,044.0	99,700
1,041.0	82,000	1,045.0	106,000

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88,880	87,700	85,990	82,000	81,450	79,250	78,150	75,980	73,380	70,820	67,460	96,650
2	88,880	87,700	85,990	82,000	81,450	79,250	78,150	75,460	73,900	70,820	67,460	96,040
3	88,880	87,700	85,990	82,000	81,450	79,250	78,150	75,460	73,900	70,820	67,460	96,040
4	88,880	87,700	85,990	82,000	81,450	79,250	77,600	75,460	73,900	70,820	67,460	96,040
5	88,880	87,700	85,420	82,000	81,450	79,250	77,600	74,940	73,900	70,340	67,460	96,040
6	88,880	87,700	85,420	82,000	81,450	79,250	77,600	74,940	73,900	70,340	67,460	96,040
7	88,880	87,700	84,850	82,000	81,450	79,250	77,600	74,940	73,900	70,340	67,460	96,040
8	88,880	87,700	84,850	82,000	80,900	79,250	77,600	74,940	73,900	70,340	67,460	96,040
9	88,880	87,700	84,850	82,000	80,900	79,250	77,050	73,900	73,380	69,860	67,460	96,040
10	88,880	87,700	84,850	82,000	80,900	79,250	77,050	73,900	73,380	69,860	67,460	96,040
11	88,880	87,700	84,850	82,000	80,900	79,250	77,050	73,900	73,380	69,860	66,980	96,040
12	88,880	87,700	84,850	82,000	80,900	79,250	77,050	73,900	72,860	69,860	66,980	96,040
13	88,880	87,700	84,850	82,000	80,900	79,250	77,050	73,380	72,860	69,860	66,980	96,040
14	88,880	87,130	84,850	82,000	80,900	79,250	77,050	73,380	72,340	69,380	66,980	96,040
15	88,880	87,130	84,850	82,000	80,900	79,250	77,050	73,380	72,340	69,380	70,340	96,040
16	88,880	87,700	84,850	82,000	80,350	78,150	77,050	73,380	72,340	69,380	83,140	96,040
17	88,880	87,130	83,140	82,000	80,350	78,700	77,050	72,860	72,340	68,900	83,710	96,040
18	88,290	87,130	83,140	82,000	80,350	78,700	76,500	72,860	71,820	68,900	84,280	96,040
19	88,290	86,560	83,140	81,450	80,350	78,700	76,500	72,860	71,820	68,900	84,850	95,430
20	88,290	86,560	83,140	81,450	80,350	78,700	76,500	72,340	71,300	68,900	84,850	95,430
21	88,290	86,560	82,000	81,450	80,350	78,700	76,500	72,340	71,300	68,900	84,850	95,430
22	88,290	86,560	82,000	80,900	79,250	78,700	76,500	71,820	71,300	67,940	84,850	95,430
23	88,290	86,560	82,000	80,900	79,250	78,700	76,500	71,820	71,300	67,940	84,850	96,650
24	88,290	86,560	82,000	80,900	79,250	78,150	76,500	71,300	71,300	67,460	84,850	96,650
25	88,290	86,560	82,000	80,900	79,250	78,150	76,500	71,300	71,300	67,460	84,850	99,700
26	88,290	86,560	82,000	80,900	79,250	78,150	76,500	70,820	71,300	66,500	86,560	100,330
27	88,290	86,560	82,000	80,900	79,250	78,150	75,980	70,820	71,300	66,500	87,130	101,590
28	88,290	86,560	82,000	80,900	79,250	78,150	75,980	70,820	71,300	66,500	94,210	101,590
29	88,290	86,560	82,000	80,900	------	78,150	75,980	72,340	71,300	66,980	96,650	101,590
30	87,700	86,560	82,000	81,450	------	78,150	75,980	72,340	71,300	66,980	96,650	101,590
31	87,700	------	82,000	81,450	------	78,150	------	72,860	------	67,460	96,650	------
(†)	1,042.0	1,041.8	1,041.0	1,040.9	1,040.5	1,040.3	1,039.9	1,039.3	1,039.0	1,038.2	1,043.5	1,044.3
(*)	-1,180	-1,140	-4,560	-550	-2,200	-1,100	-2,170	-3,120	-1,560	-3,840	+29,190	+4,940
(††)	209	880	759	1,202	665	798	437	303	273	644	666	1,240
MAX	88,880	87,700	85,990	82,000	81,450	79,250	78,150	75,980	73,900	70,820	96,650	101,590
MIN	87,700	86,560	82,000	80,900	79,250	78,150	75,980	70,820	71,300	66,500	66,980	95,430

CAL YR 1970..... * -15,970 †† 11,876 MAX 106,000 MIN 82,000
WTR YR 1971..... * +12,710 †† 8,076 MAX 101,590 MIN 66,500

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

07314500 Little Wichita River near Archer City, Tex.

LOCATION.--Lat 33°39'45", long 98°36'46", Archer County, on left bank at downstream side of State Highway 79, 1.5 miles downstream from confluence of North and Middle Forks, and 4.8 miles north of Archer City.

DRAINAGE AREA.--481 sq mi.

PERIOD OF RECORD.--May 1932 to January 1956, August 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 934.72 ft above mean sea level. Aug. 17, 1954, to Jan. 6, 1956, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--28 years (1932-55, 1966-71), 72.5 cfs (52,530 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,530 cfs Aug. 16 (gage height, 20.09 ft); no flow many days.
Period of record: Maximum discharge, 17,900 cfs Oct. 31, 1941 (gage height, 26.18 ft); no flow at times.
Flood of June 1930 reached a stage of about 28 ft, from information by State Highway Department.

REMARKS.--Records good. Some regulation by Lake Kickapoo (station 07314000) on North Fork Little Wichita River. Records furnished by Wichita Falls show that 8,075 acre-ft was diverted from Lake Kickapoo for municipal use during the 1971 water year.

REVISIONS (WATER YEARS).--WSP 827: 1932-35. WRD Texas 1969: 1968. WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	.57	.64	.83	.57	.14		0	16	0	2.8	.40
2	.57	.57	.71	.68	.57	.09		0	3.6	0	.75	.23
3	.48	.48	.63	.63	.57	.10		0	1.0	0	.19	.12
4	.40	.48	.57	.61	.69	.15		0	.40	0	.08	.07
5	.49	.48	.57	.52	.67	.15		0	.18	0	.05	691
6	.48	.63	.53	.43	.76	.17		0	.09	0	30	429
7	.38	.66	.66	.35	.71	.18		0	.03	0	229	12
8	.68	.59	.71	.43	.68	.20		0	.01	0	18	2.0
9	3.2	.48	.63	.77	.63	.16		0	0	0	2.0	.75
10	1.9	.41	.66	.95	.62	.08		0	0	0	.40	1.9
11	.60	.49	.67	.94	.60	.05		0	0	0	.20	19
12	.49	.36	.67	.90	.78	.02		0	0	0	.10	3.4
13	.56	.32	.61	.99	.78	.01		0	0	0	.10	.94
14	.56	.32	.57	.86	.78	.01		0	0	0	27	.32
15	.57	.48	.63	.63	.71	0		0	0	0	639	.13
16	.53	.57	.67	.51	.83	0		0	0	0	1,470	.06
17	.64	.57	.61	.50	.83	0		0	0	0	881	.05
18	2.5	.57	.57	.57	.72	0		0	0	0	24	.27
19	2.3	.57	.67	.63	.63	0		0	0	0	5.3	1.8
20	.81	.57	.67	.72	.51	0		0	18	0	1.7	1.4
21	.57	.48	.67	.78	3.5	0		0	110	0	.54	.85
22	.47	.51	.67	.78	16	0		0	40	0	.23	2.1
23	17	.57	.64	.90	3.8	0		0	4.3	0	.08	62
24	35	.57	.68	.90	1.8	0		0	.92	0	26	85
25	3.7	.53	.88	.90	.87	0		0	.25	0	351	510
26	2.4	.51	.81	.90	.53	0		0	.11	0	349	284
27	1.8	.40	.64	.78	.28	0		0	.06	0	322	24
28	.99	.60	.75	.67	.18	0		0	.02	22	51	5.5
29	.90	.48	.72	.61	------	0		0	.01	147	6.0	2.1
30	.68	.46	.77	.57	------	0		0	.01	20	2.2	.97
31	.57	------	.90	.57	------	0	------	111	------	10	.88	------
TOTAL	82.75	15.28	20.78	21.81	40.60	1.51	0	111	194.99	199	4,440.60	2,141.36
MEAN	2.67	.51	.67	.70	1.45	.049	0	3.58	6.50	6.42	143	71.4
MAX	35	.66	.90	.99	16	.20	0	111	110	147	1,470	691
MIN	.38	.32	.53	.35	.18	0	0	0	0	0	.05	.05
AC-FT	164	30	41	43	81	3.0	0	220	387	395	8,810	4,250

CAL YR 1970 TOTAL 4,350.50 MEAN 11.9 MAX 892 MIN .01 AC-FT 8,630
WTR YR 1971 TOTAL 7,269.68 MEAN 19.9 MAX 1,470 MIN 0 AC-FT 14,420

07314800 Lake Arrowhead near Henrietta, Tex.

LOCATION.--Lat 33°45'51", long 98°22'17", Clay County, at intake tower near center of dam on Little Wichita River, 2.3 miles upstream from Lake Creek, 11 miles southwest of Henrietta, and 12.3 miles southeast of Wichita Falls.

DRAINAGE AREA.--822 sq mi.

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.4 ft below mean sea level.

EXTREMES.--Current year: Maximum contents, 110,300 acre-ft Oct. 1 (gage height, 914.21 ft); minimum, 74,600 acre-ft Aug. 11, 13 (gage height, 909.63 ft).
Period of record: Maximum contents, 140,400 acre-ft May 3, 1970 (gage height, 917.30 ft); minimum since first appreciable storage, 6,510 acre-ft June 2, 1967 (gage height, 93.0 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam approximately 3 miles long with an uncontrolled reinforced concrete service spillway, 1,581 ft long at left end of dam. Dam was completed in December 1966 and storage began in June 1967. Capacity at crest of spillway is 262,100 acre-ft (gage height, 926.4 ft). Dead storage is negligible. Data regarding dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	944.4	-
Crest of service spillway	926.4	262,100
Invert of upper 5-foot-diameter inlet to outlet structure	905.7	50,840
Invert of lower 5-foot-diameter inlet to outlet structure	874.1	-

COOPERATION.--Capacity table computed from data furnished by Homer Hunter and Associates, and Biggs and Mathews Consulting Engineers for the city of Wichita Falls. Data based on Geological Survey topographic maps. Record of diversions furnished by the city of Wichita Falls. Figures given herein represent total contents.

Capacity table (gage height, in feet, and total contents, in acre-feet)

909.0	70,390	912.0	91,840
910.0	77,130	913.0	99,890
911.0	84,270	914.0	108,400
		915.0	117,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110,300	107,000	103,200	101,700	101,300	97,990	94,520	91,220	87,160	81,370	75,550	88,080
2	110,100	106,900	103,500	102,000	101,000	98,100	94,600	91,220	87,160	81,660	75,550	88,080
3	109,800	106,600	102,900	101,100	100,700	98,300	94,600	91,060	87,010	81,730	75,280	87,840
4	110,000	106,500	103,100	101,200	100,400	98,400	94,680	90,900	86,710	81,590	75,140	87,840
5	110,100	106,800	102,400	101,300	100,100	98,300	94,360	90,820	86,350	81,220	74,870	88,000
6	110,200	106,600	102,700	101,400	99,800	98,240	94,360	90,820	86,350	80,940	74,800	89,900
7	109,900	107,000	102,700	101,500	99,500	98,000	94,440	90,590	85,750	80,650	75,210	90,280
8	108,900	106,400	102,700	101,600	99,200	97,670	94,440	90,280	85,530	80,220	75,280	90,360
9	108,500	106,200	102,800	101,600	99,000	97,600	94,120	90,430	85,310	80,080	74,930	90,060
10	108,400	106,500	101,500	101,600	98,800	97,580	94,120	90,430	84,930	79,800	74,870	89,900
11	108,400	105,800	101,900	101,600	98,600	97,600	94,040	89,830	84,790	79,510	74,600	89,750
12	108,400	105,700	102,000	101,600	98,400	97,670	94,040	89,520	84,490	79,230	74,730	89,600
13	108,100	105,500	102,200	101,600	98,240	97,670	93,170	89,520	84,640	78,880	74,600	89,670
14	107,700	105,500	102,300	101,600	98,200	97,180	93,170	89,520	84,560	78,530	74,870	89,360
15	107,400	105,600	101,700	101,500	98,200	97,020	93,410	89,280	84,490	78,390	76,100	89,060
16	107,400	106,000	101,900	101,400	98,200	96,940	93,090	89,440	84,420	78,180	78,810	88,750
17	107,800	105,700	102,300	101,300	98,200	96,770	93,090	89,360	83,910	77,830	82,450	88,680
18	107,800	105,900	102,000	101,200	98,200	96,040	93,410	88,000	83,540	77,480	84,270	88,530
19	107,800	105,500	101,500	101,200	98,200	95,960	93,170	88,230	83,320	76,650	84,130	88,750
20	107,900	105,600	101,600	101,100	98,240	96,370	93,570	88,000	82,810	76,440	84,050	88,900
21	107,900	105,900	101,800	101,100	98,240	95,960	93,250	88,150	82,810	76,300	84,050	88,830
22	108,100	105,800	101,900	101,000	98,240	95,640	93,010	88,150	83,030	76,240	83,980	89,520
23	108,000	105,500	101,200	101,000	98,200	95,560	92,470	87,690	83,030	76,300	83,760	90,280
24	108,400	105,200	101,800	100,900	98,200	95,720	92,780	87,320	82,670	76,300	85,160	91,290
25	108,200	104,100	101,000	100,900	98,100	95,640	92,780	87,160	82,450	76,440	86,490	92,390
26	108,000	103,800	101,000	100,900	98,100	95,720	92,540	86,940	82,090	75,960	87,620	93,570
27	107,800	102,800	101,200	100,900	98,100	96,280	91,840	86,860	81,950	76,030	88,530	93,810
28	108,000	103,400	101,000	100,700	98,000	95,320	91,600	86,640	81,730	75,750	88,610	93,650
29	108,000	103,200	101,900	100,800	------	95,320	91,290	86,560	81,590	75,550	88,380	93,650
30	108,000	103,600	101,900	101,100	------	95,560	91,530	87,240	81,220	75,820	88,300	93,650
31	107,200	------	101,900	101,600	------	95,000	------	87,010	------	75,690	88,300	------
(†)	913.86	913.43	913.23	913.20	912.77	912.40	911.96	911.37	910.58	909.79	911.54	912.23
(*)	-3,300	-3,600	-1,700	-300	-3,600	-3,000	-3,470	-4,520	-5,790	-5,530	+12,610	+5,350
(††)	1,013	276	405	0	416	500	1,032	1,740	2,097	2,239	1,049	276
MAX	110,300	107,000	103,500	102,000	101,300	98,400	94,680	91,220	87,160	81,730	88,610	93,810
MIN	107,200	102,800	101,000	100,700	98,000	95,000	91,290	86,560	81,220	75,550	74,600	87,840

CAL YR 1970..... * -18,600 †† 8,655 MAX 140,400 MIN 101,000
WTR YR 1971..... * -16,850 †† 11,043 MAX 110,300 MIN 74,600

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Wichita Falls.

NOTE.--Occasional gage-height observations only, Jan. 4-26, Feb. 1 to Mar. 11.

07315000 Little Wichita River near Henrietta, Tex.

LOCATION.--Lat 33°50'02", long 98°12'31", Clay County, on downstream side of bridge near left bank on State Highway 148, 1.5 miles northwest of Henrietta, 4 miles upstream from Turkey Creek, and 5 miles upstream from Dry Fork Little Wichita River.

DRAINAGE AREA.--1,037 sq mi.

PERIOD OF RECORD.--January 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 831.57 ft above mean sea level. Prior to June 26, 1953, non-recording gage, at present site and datum.

AVERAGE DISCHARGE.--18 years, 94.5 cfs (68,470 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 847 cfs Aug. 15 (gage height, 10.42 ft); no flow for long periods.
Period of record: Maximum discharge, 7,630 cfs May 1, 1966 (gage height, 18.28 ft); maximum gage height, 18.36 ft May 2, 1957; no flow at times each year.
Flood in 1908 reached a stage of about 21 ft, from information by State Highway Department.

REMARKS.--Records good. Two major reservoirs, Lake Kickapoo and Lake Arrowhead, with a total capacity of 368,100 acre-ft largely regulate the flow above station. The city of Wichita Falls diverted 8,080 acre-ft from Lake Kickapoo and 11,040 acre-ft from Lake Arrowhead for municipal use, and returned 9,570 acre-ft as sewage effluent and filter plant wash-water to the Wichita River. The city of Henrietta diverted 641 acre-ft from pool at gage for municipal use. Diversion records were furnished by the cities of Wichita Falls and Henrietta, respectively.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0		0	.17
2									0		0	.03
3									0		0	.01
4									0		0	0
5									0		0	0
6									0		0	33
7									0		0	9.3
8									0		0	.43
9									0		0	.04
10									0		0	.02
11									0		0	.01
12									0		0	0
13									0		0	0
14									0		0	0
15									0		336	0
16									0		114	0
17									0		18	0
18									0		15	0
19									6.7		.09	0
20									22		0	0
21									25		0	0
22									34		0	30
23									16		1.3	70
24									0		18	107
25									0		435	30
26									0		163	14
27									0		51	13
28									0		14	4.9
29					------				0		4.7	1.6
30					------				0		1.5	.46
31		------			------		------		------		.61	------
TOTAL	0	0	0	0	0	0	0	0	103.7	0	1,172.20	313.97
MEAN	0	0	0	0	0	0	0	0	3.46	0	37.8	10.5
MAX	0	0	0	0	0	0	0	0	34	0	435	107
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	206	0	2,330	623

CAL YR 1970 TOTAL 3,773.79 MEAN 10.3 MAX 403 MIN 0 AC-FT 7,490
WTR YR 1971 TOTAL 1,589.87 MEAN 4.36 MAX 435 MIN 0 AC-FT 3,150

07315200 East Fork Little Wichita River near Henrietta, Tex.

LOCATION.--Lat 33°48'46", long 98°05'05", Clay County, on downstream side of bridge on U.S. Highway 82, 5.8 miles upstream from Little Wichita River, 6.4 miles east of Henrietta, and 8.9 miles west of Ringgold.

DRAINAGE AREA.--178 sq mi.

PERIOD OF RECORD.--November 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 825.32 ft above mean sea level.

AVERAGE DISCHARGE.--7 years (1964-71), 19.2 cfs (13,910 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 391 cfs Aug. 25 (gage height, 14.20 ft); no flow for many days.
Period of record: Maximum discharge, 4,700 cfs Apr. 30, 1966 (gage height, 26.55 ft); no flow for many days.
Maximum stage since at least 1920, 28.8 ft in October 1941, from information by local resident.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.38	.13			0	.01					0	.10
2	.26	.09			0	.01					0	.05
3	.18	.06			0	.01					0	.02
4	.15	.04			0	.01					0	.01
5	.13	.04			0	.01					0	.01
6	.11	.04			0	.01					0	0
7	.09	.02			0	0					0	0
8	.10	.02			0	0					0	0
9	.08	.02			0	0					0	0
10	.06	.01			0	0					0	0
11	.05	.01			0	0					0	0
12	.04	.01			0	0					0	0
13	.03	.01			0	0					0	0
14	.03	.01			0	0					0	0
15	.02	.01			0	0					78	0
16	.02	.01			0	0					101	0
17	.03	.01			0	0					6.0	0
18	.03	.01			0	0					1.0	0
19	.02	.01			0	0					.65	0
20	.01	.01			0	0					.45	0
21	.01	0			.02	0					.25	0
22	.88	0			.01	0					.14	63
23	14	0			.03	0					.10	286
24	10	0			.03	0					.08	277
25	1.9	0			.02	0					222	119
26	2.6	0			.02	0					147	14
27	3.9	0			.01	0					10	3.6
28	1.0	0			.01	0					2.3	.80
29	1.2	0			------	0					.65	.45
30	.88	0			------	0					.21	.30
31	.44	------			------	0	------		------		.16	------
TOTAL	38.63	.57	0	0	.15	.06	0	0	0	0	569.99	764.34
MEAN	1.25	.019	0	0	.005	.002	0	0	0	0	18.4	25.5
MAX	14	.13	0	0	.03	.01	0	0	0	0	222	286
MIN	.01	0	0	0	0	0	0	0	0	0	0	0
AC-FT	77	1.1	0	0	.3	.1	0	0	0	0	1,130	1,520

CAL YR 1970 TOTAL 5,507.81 MEAN 15.1 MAX 69[illegible] MIN 0 AC-FT 10,920
WTR YR 1971 TOTAL 1,373.74 MEAN 3.76 MAX 286 MIN 0 AC-FT 2,720

PEAK DISCHARGE (BASE, 300 CFS).--Aug. 25 (2000) 391 cfs (14.20 ft); Sept. 23 (0600) 317 cfs (13.10 ft).

07315500 Red River near Terral, Okla.

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, near left bank on downstream side of pier of bridge on U.S. Highway 81, 0.5 mile downstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, 1.2 miles south of Terral, 3.6 miles downstream from Little Wichita River, and at mile 872.

DRAINAGE AREA.--28,723 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--January 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 770.31 ft above mean sea level. Prior to Jan. 12, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 2,198 cfs (1,592,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30,000 cfs Aug. 16 (gage height, 18.43 ft); minimum daily, 80 cfs Mar. 19.
Period of record: Maximum discharge, 197,000 cfs June 8, 1941 (gage height, 28.12 ft); minimum, 43 cfs Mar. 15, 1939. Maximum stage since at least 1891, that of June 8, 1941. Flood of May 19, 1935, reached a stage of 27.2 ft; floods in 1891 and May 1, 1908, are reported to have reached about the same stage.

REMARKS.--Records good. Some regulation by Lake Kemp on Wichita River (capacity, 461,800 acre-ft), Lake Kickapoo on North Fork Little Wichita River (capacity, 106,000 acre-ft), Lake Arrowhead on Little Wichita River (capacity, 262,100 acre-ft), Lake Altus on North Fork Red River (capacity, 142,900 acre-ft), Lake Lawtonka on Medicine Creek (capacity, 63,000 acre-ft), Lake Thomas on Little Medicine Creek (capacity, 8,300 acre-ft), and Lake Ellsworth on East Cache Creek (capacity, 94,500 acre-ft). Principal diversions are from Wichita River for irrigation of about 20,000 acres in the vicinity of Wichita Falls, Tex., and from North Fork Red River for irrigation of about 48,000 acres in vicinity of Altus, Okla. Many small diversions for irrigation above station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	146	115	144	119	177	117	110	243	243	348	770
2	311	144	113	143	121	167	115	92	337	234	333	668
3	260	139	117	142	127	145	113	83	3,760	231	291	620
4	227	137	115	130	131	145	117	88	3,410	246	209	626
5	229	134	111	120	138	151	117	106	1,720	269	174	515
6	201	134	110	130	145	152	119	116	931	223	177	460
7	188	134	108	135	146	145	121	109	588	208	174	5,290
8	198	130	110	140	130	135	121	105	397	217	154	10,700
9	288	121	111	145	140	130	119	114	293	204	215	7,050
10	282	121	111	150	151	124	111	140	270	226	253	3,210
11	236	119	111	164	135	114	102	134	243	212	256	1,810
12	199	113	111	154	132	110	102	133	244	193	243	1,170
13	171	113	110	151	129	113	102	151	211	189	615	819
14	162	119	111	149	127	101	104	140	1,060	183	873	620
15	155	119	115	146	130	96	132	125	2,680	179	2,040	614
16	150	119	115	149	125	95	151	123	3,650	173	22,800	550
17	156	137	117	152	126	106	161	132	2,580	161	25,100	505
18	154	137	130	145	129	83	177	131	1,690	153	14,800	500
19	157	128	144	141	126	80	177	126	1,200	163	5,400	540
20	183	134	130	139	125	88	186	120	828	161	2,610	5,790
21	207	141	132	142	141	85	184	120	605	187	1,720	9,330
22	212	139	146	142	189	88	205	119	567	201	1,620	5,350
23	301	128	151	139	377	81	196	131	676	219	1,570	3,680
24	370	119	148	138	409	81	216	132	1,070	235	1,670	3,190
25	225	126	144	138	305	88	256	127	860	268	1,720	3,900
26	265	132	144	134	270	97	160	142	601	459	4,480	16,000
27	347	139	146	127	234	98	127	217	450	467	3,550	21,500
28	223	137	154	122	200	90	112	191	345	527	2,820	13,900
29	178	130	154	122	------	108	108	212	293	341	1,780	6,600
30	167	121	156	120	------	102	118	210	271	275	1,360	4,140
31	158	------	154	118	------	110	------	180	------	355	991	------
TOTAL	6,940	3,890	3,944	4,311	4,757	3,485	4,246	4,159	32,073	7,602	100,346	130,417
MEAN	224	130	127	139	170	112	142	134	1,069	245	3,237	4,347
MAX	380	146	156	164	409	177	256	217	3,760	527	25,100	21,500
MIN	150	113	108	118	119	80	102	83	211	153	154	460
AC-FT	13,770	7,720	7,820	8,550	9,440	6,910	8,420	8,250	63,620	15,080	199,000	258,700

CAL YR 1970 TOTAL 226,391 MEAN 620 MAX 11,700 MIN 105 AC-FT 449,000
WTR YR 1971 TOTAL 306,170 MEAN 839 MAX 25,100 MIN 80 AC-FT 607,300

PEAK DISCHARGE (BASE, 21,000 CFS).--Aug. 16 (2400) 30,000 cfs (18.43 ft); Sept. 27 (0900) 22,800 cfs (17.43 ft).

07315950 Moss Lake near Gainesville, Tex.

LOCATION (revised).--Lat 33°46'26", long 97°12'52", Cooke County, at upstream side of outlet tower near right end of dam on Fish Creek, 1.6 miles upstream from Bearhead Creek, 3.7 miles upstream from mouth, and 11 miles northwest of Gainesville.

DRAINAGE AREA.--65 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level.

EXTREMES.--Current year: Maximum contents, 23,230 acre-ft Oct. 1 (elevation, 715.02 ft); minimum, 21,780 acre-ft Aug. 6 (elevation, 713.69 ft).
Period of record: Maximum contents, 26,770 acre-ft May 17, 1968 (elevation, 718.02 ft); minimum since lake first filled in May 1968, 21,250 acre-ft Nov. 21-26, Dec. 1-4, 1969 (elevation, 713.20 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 1,460 ft long. The dam was completed and storage began Dec. 2, 1966. The service spillway is a concrete structure consisting of a 7- by 7-foot conduit with an uncontrolled rectangular drop inlet designed to discharge 2,500 cfs with a 10-foot head. The emergency spillway is a 400-foot wide cut through natural ground located about 100 ft to left of left end of dam. The dam was built by the city of Gainesville to impound water for municipal use. Area and capacity tables are based on a 1961 survey. There was no diversion from the lake during the current water year. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	740.0	-
Top of design flood pool	736.0	55,230
Crest of emergency spillway	725.0	36,440
Crest of service spillway	715.0	23,210
Invert of 30-inch pipe to intake tower	666.0	78

Capacity table (elevation, in feet, and total contents, in acre-feet)

713.0	21,040	715.0	23,210
714.0	22,110	716.0	24,360

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23,190	22,940	22,780	22,840	22,900	22,890	22,740	22,630	22,880	22,420	21,830	22,810
2	23,180	22,920	22,800	22,840	22,880	22,900	22,720	22,600	22,880	22,400	21,810	22,780
3	23,160	22,910	22,800	22,940	22,890	22,900	22,720	22,590	22,870	22,370	21,800	22,760
4	23,110	22,910	22,780	22,940	22,880	22,890	22,700	22,570	22,860	22,330	21,790	22,740
5	23,090	22,900	22,780	22,910	22,870	22,890	22,670	22,620	22,820	22,330	21,790	22,720
6	23,080	22,890	22,780	22,910	22,860	22,890	22,640	22,790	22,810	22,310	21,850	22,700
7	23,080	22,880	22,780	22,900	22,840	22,890	22,620	22,780	22,790	22,280	21,860	22,690
8	23,100	22,880	22,780	22,990	22,820	22,890	22,600	22,770	22,760	22,230	21,850	22,670
9	23,080	22,870	22,800	22,890	22,820	22,890	22,600	22,880	22,750	22,230	21,820	22,650
10	23,070	22,850	22,810	22,890	22,810	22,890	22,590	22,990	22,720	22,210	21,800	22,630
11	23,060	22,840	22,790	22,890	22,810	22,890	22,570	22,990	22,680	22,150	21,790	22,620
12	23,060	22,820	22,770	22,880	22,800	22,890	22,580	22,970	22,670	22,130	21,790	22,580
13	23,060	22,890	22,770	22,900	22,800	22,900	22,570	22,920	22,670	22,100	21,800	22,570
14	23,040	22,870	22,770	22,900	22,810	22,880	22,550	22,910	22,750	22,080	22,900	22,550
15	23,020	22,850	22,800	22,890	22,810	22,880	22,550	22,910	22,700	22,020	22,970	22,530
16	23,000	22,850	22,790	22,880	22,820	22,850	22,590	22,900	22,680	22,000	22,970	22,500
17	22,990	22,850	22,780	22,880	22,860	22,850	22,650	22,890	22,660	21,980	22,970	22,470
18	22,990	22,850	22,790	22,880	22,910	22,810	22,660	22,880	22,640	21,940	22,960	22,450
19	22,990	22,820	22,780	22,890	22,920	22,800	22,660	22,870	22,620	21,890	22,900	22,430
20	22,980	22,820	22,790	22,880	22,920	22,800	22,700	22,770	22,590	21,870	22,900	22,420
21	22,980	22,820	22,800	22,880	22,940	22,790	22,690	22,860	22,560	21,860	22,890	22,400
22	22,990	22,810	22,810	22,880	22,920	22,790	22,720	22,850	22,550	21,810	22,880	22,550
23	23,080	22,780	22,800	22,880	22,920	22,780	22,720	22,850	22,540	21,970	22,870	22,580
24	23,090	22,770	22,800	22,890	22,900	22,770	22,700	22,800	22,530	21,980	22,860	22,580
25	23,070	22,760	22,800	22,890	22,950	22,770	22,690	22,780	22,460	21,970	22,910	22,850
26	23,060	22,760	22,800	22,880	22,900	22,780	22,680	22,770	22,440	21,930	22,910	22,860
27	23,030	22,760	22,810	22,890	22,890	22,810	22,680	22,880	22,430	21,910	22,900	22,850
28	23,020	22,770	22,810	22,890	22,880	22,810	22,660	22,870	22,400	21,920	22,880	22,840
29	23,000	22,780	22,800	22,890	------	22,790	22,660	22,870	22,420	21,910	22,860	22,820
30	22,970	22,800	22,820	22,900	------	22,780	22,640	22,880	22,380	21,890	22,840	22,810
31	22,950	------	22,820	22,900	------	22,770	------	22,880	------	21,850	22,820	------
(†)	714.76	714.63	714.65	714.72	714.70	714.60	714.48	714.70	714.25	713.76	714.65	714.64
(‡)	-270	-150	+20	+80	-20	-110	-130	+240	-500	-530	+970	-10
MAX	23,190	22,940	22,820	22,940	22,950	22,900	22,740	22,990	22,880	22,420	22,970	22,860
MIN	22,950	22,760	22,770	22,840	22,800	22,770	22,550	22,570	22,380	21,810	21,790	22,400

CAL YR 1970..... ‡ +610 MAX 24,930 MIN 21,710
WTR YR 1971..... ‡ -410 MAX 23,190 MIN 21,790

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

07316000 Red River near Gainesville, Tex.

LOCATION.--Lat 33°43'40", long 97°09'35", in SW¼ sec. 36, T.9 S., R.1 E., Love County, Okla., near center of span on downstream side of bridge on U.S. Highway 77, 0.2 mile downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 5 miles downstream from Fish Creek, 7 miles north of Gainesville, and at mile 791.5.

DRAINAGE AREA.--30,782 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--May 1936 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 627.91 ft above mean sea level. Prior to Jan. 17, 1939, and Feb. 13, 1965, to Nov. 14, 1966, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--35 years, 2,744 cfs (1,988,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,000 cfs Aug. 18 (gage height, 16.64 ft); minimum, 95 cfs Mar. 31.
Period of record: Maximum discharge, 168,000 cfs June 9, 1941 (gage height, 24.15 ft); maximum gage height, 26.53 ft May 21, 1951; minimum discharge, 48 cfs Jan. 27, 1940.

REMARKS.--Records good. Flow slightly regulated by Lake Kemp (station 07312000) since 1943 by Lake Altus and since 1946 by Lake Kickapoo (station 07314000).

COOPERATION.--Gage-height record, 43 discharge measurements, and computations of daily discharge furnished by Corps of Engineers; records reviewed by Geological Survey.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,020	429	191	163	144	306	118	159	242	383	321	1,510
2	758	352	181	163	142	270	109	156	277	339	267	1,230
3	617	305	182	163	146	254	115	152	393	311	301	1,030
4	524	277	168	168	152	234	118	142	366	287	294	884
5	463	258	169	173	157	233	124	146	2,490	239	269	779
6	435	246	164	184	161	216	126	263	2,780	211	268	772
7	391	236	165	262	155	191	123	309	1,690	203	236	697
8	409	227	163	237	156	180	126	210	1,030	217	207	781
9	418	215	169	225	160	179	134	191	730	201	186	4,260
10	361	208	164	236	160	178	129	512	549	180	174	6,500
11	364	195	144	225	172	172	126	593	423	175	150	4,520
12	460	185	146	227	163	162	123	324	335	164	153	2,760
13	450	191	158	223	165	165	127	220	296	160	180	1,860
14	348	202	160	204	161	151	116	187	293	155	662	1,400
15	295	196	160	200	151	149	113	173	289	142	550	1,150
16	268	189	158	188	150	139	115	170	468	133	1,180	1,010
17	262	185	156	187	149	124	133	165	2,260	128	8,390	814
18	254	184	153	182	150	132	163	158	3,140	120	17,100	751
19	243	177	151	171	174	117	212	154	2,880	114	10,700	737
20	231	178	151	169	183	120	203	141	1,850	107	6,580	702
21	222	184	153	180	169	117	209	140	1,380	107	3,750	926
22	218	184	153	170	184	121	201	136	992	105	2,980	5,630
23	258	167	160	163	244	115	192	138	842	129	2,450	6,180
24	380	174	158	160	229	112	181	135	786	151	1,810	4,420
25	970	175	158	159	251	109	188	127	767	155	1,640	3,630
26	1,570	184	158	158	448	113	194	126	900	149	2,200	3,090
27	2,670	182	160	156	418	114	203	181	885	147	3,510	6,430
28	3,970	170	160	155	333	123	222	193	657	167	3,700	15,500
29	1,630	170	160	155	------	113	179	200	542	298	3,320	10,600
30	807	182	163	155	------	114	156	214	449	370	2,650	6,270
31	537	------	163	147	------	105	------	223	------	374	1,930	------
TOTAL	21,803	6,407	4,999	5,708	5,427	4,928	4,578	6,338	30,981	6,121	78,108	96,823
MEAN	703	214	161	184	194	159	153	204	1,033	197	2,520	3,227
MAX	3,970	429	191	262	448	306	222	593	3,140	383	17,100	15,500
MIN	218	167	144	147	142	105	109	126	242	105	150	697
AC-FT	43,250	12,710	9,920	11,320	10,760	9,770	9,080	12,570	61,450	12,140	154,900	192,000

CAL YR 1970 TOTAL 392,874 MEAN 1,076 MAX 16,400 MIN 136 AC-FT 779,300
WTR YR 1971 TOTAL 272,221 MEAN 746 MAX 17,100 MIN 105 AC-FT 540,000

PEAK DISCHARGE (BASE, 24,000 CFS).--No peak above base.

07316200 Mineral Creek near Sadler, Tex.

LOCATION.--Lat 33°42'08", long 96°50'51", Grayson County, on right bank at downstream side of bridge on Farm Road 901, 1.4 miles north of Sadler, and 2.0 miles upstream from Mustang Creek.

DRAINAGE AREA.--26.0 sq mi.

PERIOD OF RECORD.--December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 650.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 665 cfs May 10 (gage height, 10.11 ft); no flow at times.
Period of record: Maximum discharge, 2,270 cfs May 14, 1969 (gage height, 13.62 ft); no flow at times each year.
Maximum stage since about 1900, about 18 ft in 1922, from information by local residents.

REMARKS.--Records good. The city of Whitesboro, which obtains its domestic water from wells, discharged 168 acre-ft of sewage effluent into a tributary above the station during the 1971 water year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.31	.24	.40	.55	.60	.45	.27	.60	0	0	0
2	1.1	.40	.24	.35	.50	.76	.35	.24	.35	0	0	0
3	1.1	.40	.24	4.0	.55	1.1	.35	.18	.21	0	0	0
4	1.2	.35	.26	1.8	1.6	.94	.40	.21	.18	0	0	0
5	1.0	.35	.28	1.3	.94	.76	.40	.21	.10	0	0	0
6	.70	.45	.30	1.4	.70	.65	.40	.18	.08	0	0	0
7	.50	.45	.35	1.1	.65	.50	.40	.15	.06	0	0	0
8	5.4	.45	.35	.76	.65	.45	.50	.18	.02	0	0	0
9	2.6	.35	.40	.82	.55	.50	.45	20	.01	0	0	0
10	1.1	.40	.45	1.0	.55	.50	.45	116	.01	0	0	0
11	.70	.40	.45	.88	.55	.60	.55	5.2	0	0	0	0
12	.76	.45	.45	.82	.55	.82	.60	3.3	0	0	0	0
13	.65	.92	.45	.82	.55	1.4	.55	2.8	0	0	2.6	0
14	.55	1.3	.45	.76	.65	1.4	.40	2.4	.19	0	89	0
15	.40	.76	.65	.65	.60	.70	.50	2.0	.05	0	5.9	0
16	.35	.60	.88	.94	.65	.50	.60	1.9	.04	0	.60	0
17	.40	.50	.60	.88	.94	.35	.65	1.7	0	0	.15	0
18	.45	.45	.50	.82	.88	.50	1.6	1.4	0	0	.04	0
19	.40	.40	.50	.65	.76	.40	.94	1.2	0	0	0	0
20	.35	.31	.50	.60	.65	.35	.70	1.1	0	0	0	0
21	.35	.31	.82	.65	4.0	.40	.60	1.1	0	0	0	0
22	.31	.27	.65	.65	1.7	.40	.50	1.1	0	0	0	1.0
23	6.8	.21	.50	.65	.65	.35	.45	1.4	0	0	0	1.4
24	2.8	.24	.40	.65	.65	.35	.35	2.7	0	0	0	1.5
25	1.3	.27	.40	.60	.70	.35	.31	1.9	0	0	0	140
26	.76	.31	.35	.55	.70	.45	.35	1.4	0	0	0	5.0
27	.55	.27	.50	.55	.60	.50	.35	4.5	0	0	0	.04
28	.40	.24	.94	.55	.60	.60	.31	2.2	0	0	0	0
29	.40	.24	.50	.55	------	.65	.31	26	0	0	0	0
30	.40	.24	.55	.60	------	.55	.27	3.7	0	0	0	0
31	.35	------	.60	.65	------	.50	------	1.2	------	0	0	------
TOTAL	35.33	12.60	14.75	27.40	23.62	18.88	15.04	207.82	1.90	0	98.29	148.94
MEAN	1.14	.42	.48	.88	.84	.61	.50	6.70	.063	0	3.17	4.96
MAX	6.8	1.3	.94	4.0	4.0	1.4	1.6	116	.60	0	89	140
MIN	.31	.21	.24	.35	.50	.35	.27	.15	0	0	0	0
CFSM	.04	.02	.02	.03	.03	.02	.02	.26	.002	0	.12	.19
IN.	.05	.02	.02	.04	.03	.03	.02	.30	.002	0	.14	.21
AC-FT	70	25	29	54	47	37	30	412	3.8	0	195	295

CAL YR 1970 TOTAL 4,521.23 MEAN 12.4 MAX 521 MIN 0 CFSM .48 IN 6.47 AC-FT 8,970
WTR YR 1971 TOTAL 604.57 MEAN 1.66 MAX 140 MIN 0 CFSM .06 IN .87 AC-FT 1,200

07331500 Lake Texoma near Denison, Tex.

LOCATION.--Lat 33°49'05", long 96°34'20", in NE¼ sec. 33, T.8 S., R.7 E., Bryan County, Okla., in control tower of Denison Dam on Red River, 1.2 miles upstream from Shawnee Creek, 1.8 miles upstream from Sand Creek, 4 miles northwest of Denison, and at mile 725.9.

DRAINAGE AREA.--39,719 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1942 to current year. Monthend contents only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Mar. 30, 1944, nonrecording gage at same site and datum. Prior to Oct. 1, 1948, auxiliary nonrecording gage in Cumberland pool at same datum.

EXTREMES.--Current year: Maximum contents, 2,760,700 acre-ft Nov. 9 (elevation, 617.31 ft); minimum, 2,074,000 acre-ft Aug. 12 (elevation, 608.70 ft).
Period of record: Maximum contents, 5,991,300 acre-ft June 5, 1957 (elevation, 643.18 ft); minimum since power pool was first filled, 1,565,100 acre-ft Sept. 16, 1964; minimum elevation, 599.96 ft Mar. 1, 2, 1957.

REMARKS.--Lake is formed by a rolled-fill earth dam. Flow was diverted through conduits July 27, 1942; regulated storage began Oct. 31, 1943; power pool was first filled Mar. 15, 1945. Capacity, based on 1962 survey, 5,392,900 acre-ft at elevation 640.0 ft (crest of spillway), 2,733,300 acre-ft at elevation 617.0 ft (maximum power pool), 1,049,200 acre-ft at elevation 590.0 ft (minimum power pool) in Denison pool. Dead storage, 11,000 acre-ft at elevation 610.0 ft in Cumberland pool. When contents are below 2,167,900 acre-ft, the lake is divided into two pools by protective levees around the Cumberland oilfield on the Washita River arm with bottom of outlet channel for the upper pool (known as Cumberland pool) at elevation 610.0 ft. At higher elevations the two pools are considered as being at a common level, contents being computed from gage in the Denison pool. Figures given herein represent total contents of both pools. Lake is used principally for flood control and power development. Revised capacity table, based on survey in 1962, used since Oct. 1, 1963.

COOPERATION.--Records furnished by Corps of Engineers.

REVISIONS.--WSP 1211: Drainage area.

Capacity table (elevation, in feet, and contents, in thousands of acre-feet)

608.0	2,024.8	613.0	2,397.7
611.0	2,242.6	615.0	2,561.5
		617.0	2,733.3

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,369	2,744	2,653	2,540	2,355	2,329	2,285	2,214	2,197	2,231	2,109	2,189
2	2,374	2,745	2,647	2,433	2,352	2,325	2,284	2,209	2,193	2,223	2,109	2,190
3	2,380	2,748	2,645	2,445	2,355	2,312	2,281	2,206	2,194	2,220	2,108	2,186
4	2,381	2,746	2,637	2,424	2,359	2,305	2,282	2,205	2,201	2,218	2,108	2,179
5	2,380	2,746	2,637	2,410	2,361	2,303	2,273	2,200	2,211	2,211	2,112	2,182
6	2,378	2,746	2,636	2,400	2,362	2,309	2,264	2,208	2,219	2,202	2,115	2,179
7	2,385	2,745	2,629	2,389	2,360	2,308	2,254	2,205	2,226	2,196	2,113	2,176
8	2,394	2,757	2,625	2,374	2,351	2,306	2,251	2,203	2,230	2,193	2,109	2,171
9	2,404	2,750	2,622	2,376	2,346	2,307	2,253	2,212	2,232	2,193	2,099	2,170
10	2,431	2,747	2,623	2,378	2,341	2,306	2,253	2,219	2,234	2,188	2,091	2,183
11	2,478	2,748	2,615	2,376	2,341	2,306	2,252	2,223	2,236	2,187	2,081	2,196
12	2,505	2,735	2,615	2,375	2,341	2,314	2,251	2,221	2,233	2,179	2,075	2,199
13	2,526	2,735	2,615	2,376	2,337	2,315	2,251	2,221	2,234	2,170	2,081	2,202
14	2,543	2,734	2,613	2,378	2,338	2,319	2,249	2,220	2,238	2,162	2,110	2,201
15	2,550	2,729	2,614	2,375	2,337	2,318	2,245	2,220	2,237	2,155	2,111	2,199
16	2,557	2,716	2,605	2,378	2,339	2,317	2,244	2,207	2,235	2,145	2,111	2,201
17	2,564	2,715	2,593	2,379	2,337	2,313	2,251	2,207	2,232	2,137	2,113	2,200
18	2,573	2,705	2,588	2,379	2,340	2,318	2,254	2,208	2,232	2,131	2,140	2,202
19	2,581	2,696	2,582	2,370	2,339	2,317	2,254	2,203	2,233	2,120	2,164	2,201
20	2,590	2,683	2,574	2,361	2,337	2,310	2,250	2,197	2,244	2,116	2,172	2,201
21	2,593	2,685	2,564	2,362	2,348	2,309	2,243	2,191	2,251	2,114	2,173	2,200
22	2,592	2,689	2,553	2,362	2,337	2,309	2,238	2,190	2,253	2,109	2,170	2,212
23	2,612	2,679	2,543	2,363	2,327	2,306	2,238	2,193	2,254	2,122	2,169	2,226
24	2,628	2,667	2,532	2,363	2,327	2,300	2,234	2,193	2,253	2,123	2,171	2,242
25	2,642	2,660	2,524	2,363	2,327	2,296	2,231	2,189	2,251	2,120	2,175	2,276
26	2,667	2,661	2,514	2,362	2,330	2,293	2,227	2,186	2,247	2,115	2,171	2,280
27	2,705	2,664	2,504	2,360	2,330	2,293	2,223	2,193	2,247	2,116	2,172	2,285
28	2,711	2,659	2,492	2,356	2,331	2,292	2,220	2,190	2,244	2,116	2,172	2,313
29	2,724	2,660	2,481	2,358	------	2,288	2,216	2,192	2,242	2,116	2,176	2,337
30	2,733	2,654	2,481	2,361	------	2,283	2,216	2,194	2,233	2,110	2,182	2,349
31	2,739	------	2,461	2,358	------	2,280	------	2,196	------	2,110	2,186	------
(†)	616.07	616.10	613.79	612.50	612.16	611.50	610.65	610.39	610.88	609.21	610.25	612.39
(*)	+369.5	-84.9	-193.2	-103.2	-26.5	-51.0	-64.5	-19.4	+36.7	-123.1	+76.0	+163.2
MAX	2,739	2,757	2,653	2,540	2,362	2,329	2,285	2,223	2,254	2,231	2,186	2,349
MIN	2,369	2,654	2,461	2,356	2,327	2,280	2,216	2,186	2,193	2,109	2,075	2,170

CAL YR 1970..... * +118.0 MAX 2,757 MIN 2,097
WTR YR 1971..... * -20.4 MAX 2,757 MIN 2,075

† Elevation, in feet, at end of month.
* Change in contents, in thousands of acre-feet.

07331600 Red River at Denison Dam, near Denison, Tex.

LOCATION.--Lat 33°49'08", long 96°33'47", Grayson County, on right bank 1,800 ft downstream from Denison Dam powerhouse, 0.4 mile upstream from Shawnee Creek (spillway flow return), 4.5 miles north of Denison, and at mile 725.5.

DRAINAGE AREA.--39,720 sq mi, of which 5,936 sq mi is probably noncontributing. At site used prior to October 1961, drainage area 39,777 sq mi, of which 5,936 sq mi was probably noncontributing.

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1934, published as "near Denison, Tex.," and October 1934 to September 1961, published as "near Colbert, Okla." Gage-height records collected at various sites in this vicinity 1892-93, 1906-28, 1931-49 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above mean sea level. Oct. 9, 1923, to Sept. 24, 1934, nonrecording gage and July 29, 1942, to Sept. 30, 1961, water-stage recorder at county road bridge 2.5 miles downstream at datum 6.85 ft higher prior to Oct. 1, 1931, at datum 7.07 ft higher Oct. 1, 1931, to Sept. 24, 1934, and at datum 2.64 ft lower July 29, 1942, to Sept. 30, 1961. Sept. 25, 1934, to July 28, 1942, water-stage recorder at railway bridge 1.9 miles downstream at datum 7.36 ft higher.

AVERAGE DISCHARGE.--48 years, 4,756 cfs (3,446,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,700 cfs Jan. 5 (gage height, 9.50 ft); minimum daily, 81 cfs Sept. 10.
Period of record: Maximum discharge, 201,000 cfs May 21, 1935 (gage height, 31.8 ft, at site and datum then in use); maximum gage height, 32.0 ft Apr. 25, 1942 (at site and datum used in 1943); minimum daily discharge, 12 cfs Jan. 10, 1944.
Flood of May 26, 1908, reached a stage of 45.5 ft at site and datum used July 29, 1942, to Sept. 30, 1961, from records of U.S. Weather Bureau.

REMARKS.--Records good. Flow regulated since October 1943 by Lake Texoma (station 07331500).

COOPERATION.--Gage-height record, 18 discharge measurements, and computations of daily discharge furnished by Corps of Engineers; records reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 807: 1935(M). WSP 1211: Drainage area. WSP 1241: 1924-29, 1932-33, 1934(M), 1935.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	508	1,980	5,320	659	3,480	95	701	2,550	3,060	119	992
2	83	964	2,620	6,350	523	5,540	169	1,680	3,070	2,430	121	152
3	85	114	2,210	4,710	221	3,810	96	953	563	1,740	2,550	1,500
4	293	122	3,170	7,790	159	3,130	1,810	857	414	1,760	344	1,190
5	1,780	105	886	7,350	479	425	3,280	2,240	193	3,620	135	1,070
6	2,510	1,180	126	7,470	865	418	3,310	2,940	3,020	3,640	118	1,810
7	3,310	163	2,570	8,180	1,870	174	3,470	1,670	1,740	3,740	1,990	2,080
8	306	88	2,390	7,790	3,610	644	918	634	656	248	2,200	1,390
9	147	748	2,100	981	2,150	684	91	899	1,330	346	4,000	130
10	138	795	2,280	148	1,390	960	87	3,890	1,040	2,290	4,750	81
11	136	2,100	2,280	2,570	2,520	1,580	85	237	1,150	168	5,190	1,160
12	2,620	5,210	160	798	350	378	277	152	2,820	2,980	3,910	110
13	2,030	5,320	109	893	510	1,050	1,150	154	977	3,810	296	1,290
14	2,530	499	247	703	710	219	130	155	1,240	2,860	1,360	1,390
15	1,130	139	3,780	1,090	250	665	1,200	158	1,110	3,480	2,870	1,080
16	2,870	5,920	2,070	225	150	728	1,320	2,390	2,060	4,130	1,580	123
17	155	3,580	4,540	197	475	734	230	4,240	3,510	4,350	3,310	83
18	130	4,700	4,340	1,160	397	482	101	1,990	1,210	2,360	3,850	83
19	128	5,400	3,040	3,620	940	1,120	2,810	2,300	822	3,950	3,410	92
20	1,460	5,270	4,720	3,620	1,880	857	1,940	2,760	454	1,320	4,380	93
21	864	157	5,390	1,220	1,930	478	3,340	2,440	108	128	5,240	93
22	2,290	95	5,080	1,020	2,270	777	4,510	240	89	1,440	4,310	105
23	977	3,160	5,420	211	5,260	1,320	1,860	772	477	204	4,850	108
24	136	3,730	4,140	189	1,210	2,260	1,890	255	912	111	3,530	113
25	109	3,700	4,730	911	1,330	1,940	2,010	1,730	854	111	239	1,050
26	4,320	120	4,770	749	194	1,520	3,760	2,560	2,890	2,820	2,990	1,780
27	1,170	773	4,700	950	1,170	1,970	3,560	2,270	660	1,660	2,500	1,690
28	152	2,490	6,140	2,530	240	334	1,340	1,980	2,310	778	2,630	1,620
29	123	137	6,150	175	------	1,330	1,290	2,080	3,040	2,160	1,260	1,640
30	107	3,270	5,450	162	------	1,350	1,010	794	4,970	209	1,250	1,610
31	105	------	5,470	633	------	126	------	191	------	113	194	------
TOTAL	32,369	60,557	103,058	79,715	33,712	40,483	47,139	46,312	46,239	62,016	75,476	25,708
MEAN	1,044	2,019	3,324	2,571	1,204	1,306	1,571	1,494	1,541	2,001	2,435	857
MAX	4,320	5,920	6,150	8,180	5,260	5,540	4,510	4,240	4,970	4,350	5,240	2,080
MIN	83	88	109	148	150	126	85	152	89	111	118	81
AC-FT	64,200	120,100	204,400	158,100	66,870	80,300	93,500	91,860	91,720	123,000	149,700	50,990

CAL YR 1970 TOTAL 901,960 MEAN 2,471 MAX 8,020 MIN 76 AC-FT 1,789,000
WTR YR 1971 TOTAL 652,784 MEAN 1,788 MAX 8,180 MIN 81 AC-FT 1,295,000

07332600 Bois d'Arc Creek near Randolph, Tex.

LOCATION.--Lat 33°28'32", long 96°12'52", Fannin County, on right bank at downstream side of bridge on State Highway 11 (revised), 2.3 miles upstream from Henson Creek, and 2.4 miles east of Randolph.

DRAINAGE AREA.--72 sq mi.

PERIOD OF RECORD.--November 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 564.38 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--8 years (1963-71), 52.3 cfs (37,890 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 567 cfs Feb. 21 (gage height, 5.32 ft); no flow at times.
Period of record: Maximum discharge, 11,600 cfs Apr. 29, 1966 (gage height, 19.66 ft); maximum gage height, 20.69 ft May 7, 1969; no flow at times most years.
Maximum stage since at least 1922, 24.6 ft about 1935, from information by State Highway Department and local resident.

REMARKS.--Records good. No known diversion or regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	7.9	5.7	4.8	4.4	11	2.5	.70	2.5	0	.27	0
2	1.3	6.7	5.1	4.1	4.2	13	2.3	.57	1.8	0	.12	0
3	1.0	6.4	4.9	8.0	4.8	17	2.2	.54	1.4	0	6.4	0
4	.80	5.9	4.2	21	7.4	17	2.3	.49	1.0	0	6.0	0
5	1.2	6.5	4.1	5.9	6.8	14	2.3	.55	.62	0	2.9	0
6	2.6	6.2	3.7	4.8	5.7	10	2.0	.57	.31	0	3.4	0
7	1.7	6.5	3.6	4.5	4.9	7.5	2.1	.40	.18	0	2.4	0
8	1.5	6.0	3.8	4.5	5.6	7.6	2.2	.28	.10	0	.70	0
9	1.0	5.4	4.1	4.6	5.4	7.7	2.2	.30	.04	0	.17	0
10	.95	4.9	4.1	4.4	5.0	7.1	2.3	.51	.02	0	.06	0
11	51	4.8	3.8	3.9	5.2	7.1	2.2	1.0	0	0	.02	0
12	71	4.6	3.5	3.4	8.0	7.3	2.3	1.2	0	0	.01	0
13	14	6.7	3.3	36	7.3	7.7	2.1	.66	0	0	0	0
14	7.7	59	3.3	33	5.4	7.4	1.9	.33	0	0	33	0
15	5.1	13	4.1	12	5.5	5.1	1.9	.18	0	0	26	0
16	4.0	8.8	5.1	8.4	5.5	4.7	1.8	.09	0	0	2.2	0
17	3.6	7.9	4.5	7.9	5.5	4.6	1.9	.04	0	0	.62	0
18	3.6	7.1	4.0	7.2	6.8	4.5	4.3	.03	0	0	.28	0
19	3.3	6.6	3.7	5.7	46	3.9	4.7	3.0	0	0	.15	0
20	2.8	5.2	3.3	5.4	10	4.0	3.4	2.8	0	0	.06	0
21	2.6	5.2	3.7	5.9	154	4.4	3.0	.75	0	0	.02	0
22	2.6	5.4	4.0	5.9	48	4.6	2.6	.26	0	0	.01	58
23	54	4.0	3.8	5.5	16	4.2	1.9	25	0	0	0	73
24	31	3.7	3.1	5.4	13	4.0	1.5	145	0	0	1.5	106
25	10	4.7	2.9	5.3	14	4.2	1.4	4.9	0	0	9.3	33
26	12	5.5	2.8	4.9	16	4.1	1.3	1.4	0	27	.98	8.5
27	111	5.6	2.9	4.4	14	4.0	1.3	107	0	12	.25	2.9
28	16	5.3	3.1	4.6	12	4.1	1.1	11	0	40	.09	1.1
29	11	5.2	3.1	5.1	------	3.7	.81	53	0	6.0	.03	.60
30	9.2	5.6	5.0	5.6	------	2.9	.78	21	0	20	0	.33
31	8.3	------	5.5	5.2	------	2.6	------	4.3	------	1.1	0	------
TOTAL	447.45	236.3	121.8	247.3	446.4	211.0	64.59	387.85	7.97	106.1	96.94	283.43
MEAN	14.4	7.88	3.93	7.98	15.9	6.81	2.15	12.5	.27	3.42	3.13	9.45
MAX	111	59	5.7	36	154	17	4.7	145	2.5	40	33	106
MIN	.80	3.7	2.8	3.4	4.2	2.6	.78	.03	0	0	0	0
CFSM	.20	.11	.05	.11	.22	.09	.03	.17	.004	.05	.04	.13
IN.	.23	.12	.06	.13	.23	.11	.03	.20	.004	.05	.05	.15
AC-FT	888	469	242	491	885	419	128	769	16	210	192	562

CAL YR 1970 TOTAL 17,802.10 MEAN 48.8 MAX 2,950 MIN 0 CFSM .68 IN 9.20 AC-FT 35,310
WTR YR 1971 TOTAL 2,657.13 MEAN 7.28 MAX 154 MIN 0 CFSM .10 IN 1.37 AC-FT 5,270

PEAK DISCHARGE (BASE, 1,500 CFS).--No peak above base.

07335390 Pat Mayse Lake near Chicota, Tex.
(Formerly published as Pat Mayse Reservoir near Chicota)

LOCATION.--Lat 33°51'10", long 95°32'38", Lamar County, on upstream side of dam on Sanders Creek, 2,800 ft to right of outlet channel, 2.0 miles southeast of Chicota, and 4.6 miles upstream from the Red River.

DRAINAGE AREA.--175 sq mi.

PERIOD OF RECORD.--October 1967 to current year. Prior to October 1970, published as Pat Mayse Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 10, 1968, nonrecording gage at present site and datum.

EXTREMES.--Current year: Maximum contents, 133,100 acre-ft Oct. 13-15 (elevation, 452.40 ft); minimum, 120,200 acre-ft Sept. 22, (elevation, 450.27 ft).
Period of record: Maximum contents, 186,800 acre-ft May 19, 1969 (elevation, 460.20 ft); minimum since conservation pool was first reached on Apr. 20, 1968, 119,600 acre-ft Sept. 13, 1970 (elevation, 450.17 ft).

REMARKS.--Lake is formed by a rolled earthfill dam about 7,080 ft long with an emergency spillway 100 ft wide located near the right abutment of dam. The flood-control outlet works consist of an uncontrolled morning-glory type drop-inlet spillway with a 7.25-foot-diameter 525-foot long outlet conduit under the dam. A 24-inch-diameter low-flow pipe and a 12-inch water-supply pipe are also provided for additional outlets. The construction of the dam began Mar. 9, 1965; closure for diversion was made Nov. 29, 1966; regulated storage began Sept. 28, 1967. Lake was built for flood control, municipal and industrial water supply, recreation, fish and wildlife conservation, and for channel improvement on Sanders Creek. The capacity table is based on a Geological Survey topographic map dated 1949. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	488.5	-
Crest of emergency spillway	477.0	352,700
Top of flood-control pool	460.5	189,100
Top of conservation pool (drop inlet)	451.0	124,500
Bed of stream	393.0	0

COOPERATION.--Records furnished by Corps of Engineers and reviewed by the Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

450.0	118,600
452.0	130,600
454.0	143,200

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128,900	130,900	128,600	126,200	126,500	128,300	126,200	125,000	126,000	123,400	123,900	122,500
2	128,600	130,700	128,500	126,200	126,300	128,300	126,200	124,900	126,000	123,400	123,900	122,300
3	128,500	130,300	128,400	127,100	126,500	128,600	126,000	124,600	125,100	123,400	123,900	122,300
4	128,200	130,000	128,200	127,200	126,500	128,900	125,800	124,600	126,000	123,200	123,900	122,100
5	128,500	129,700	128,000	127,200	126,500	129,000	125,800	124,700	126,000	123,200	123,800	122,100
6	128,500	129,600	127,900	127,200	126,300	128,700	125,600	124,600	125,800	123,000	123,900	122,000
7	128,600	129,400	127,700	127,200	126,300	128,500	125,600	124,600	125,700	122,900	124,100	122,000
8	128,600	128,800	127,600	127,100	126,200	128,500	125,600	124,600	125,400	122,700	124,100	121,800
9	128,400	129,000	127,600	127,000	126,200	128,400	125,400	125,000	125,300	122,600	124,100	121,700
10	128,400	128,700	127,600	127,000	126,200	128,200	125,400	125,200	125,100	122,400	124,000	121,500
11	129,100	128,500	127,200	126,900	126,300	128,100	125,400	125,300	125,100	122,300	123,900	121,500
12	130,900	128,300	127,200	126,900	126,300	128,200	125,400	125,300	125,000	122,200	124,000	121,400
13	133,100	128,900	127,100	127,200	126,200	128,000	125,100	125,200	124,900	122,000	124,000	121,300
14	133,100	129,900	127,000	127,500	126,400	128,200	125,000	125,000	124,400	121,800	124,200	121,100
15	132,600	132,000	127,100	127,600	126,300	128,100	125,000	124,800	124,100	121,700	124,200	121,000
16	132,200	132,000	127,100	127,700	126,400	128,000	124,900	124,800	124,000	121,300	124,200	120,900
17	131,800	131,800	127,000	127,600	126,300	127,700	124,800	124,700	123,800	121,300	124,200	120,700
18	131,600	131,500	126,900	127,400	126,600	127,600	125,400	124,600	123,700	121,100	124,100	120,600
19	131,200	131,000	126,800	127,300	126,600	127,400	125,400	124,600	123,600	120,800	124,000	120,400
20	131,000	130,700	126,800	127,200	126,600	127,200	125,600	124,600	123,400	120,700	123,900	120,400
21	130,700	130,400	126,800	127,200	127,200	127,100	125,700	124,500	123,400	120,500	123,900	120,300
22	130,500	129,400	126,900	127,200	128,300	127,100	125,900	124,400	123,400	121,400	123,700	121,400
23	130,800	129,600	126,800	127,100	128,300	126,800	126,000	124,800	123,300	121,500	123,500	121,500
24	131,400	129,400	126,600	127,100	128,300	126,600	126,000	124,900	123,200	121,500	123,300	121,600
25	131,800	129,300	126,500	127,100	128,400	126,600	125,800	124,800	123,000	121,900	123,300	121,800
26	131,700	129,200	126,500	127,000	128,500	126,600	125,500	124,800	122,800	121,900	123,300	121,800
27	131,800	129,000	126,400	126,900	128,400	126,600	125,300	125,500	122,700	121,800	123,000	121,800
28	132,200	129,000	126,400	126,800	128,300	126,600	125,100	125,800	122,300	123,300	122,900	121,800
29	132,200	128,800	126,300	126,800	------	126,500	125,000	125,900	123,000	123,900	122,800	121,700
30	131,700	128,800	126,500	126,700	------	126,400	125,000	125,800	122,900	124,000	122,700	121,600
31	131,400	------	126,200	126,600	------	126,400	------	125,800	------	124,000	122,600	------
(†)	452.13	451.70	451.28	451.34	451.62	451.31	451.08	451.22	450.73	450.92	450.67	450.51
(*)	+2,300	-2,600	-2,600	+400	+1,700	-1,900	-1,400	+800	-2,900	+1,100	-1,400	-1,000
(††)	694	586	707	697	632	701	684	726	888	868	691	381
MAX	133,100	132,000	128,600	127,700	128,500	129,000	126,200	125,900	126,100	124,000	124,200	122,500
MIN	128,200	128,300	126,200	126,200	126,200	126,400	124,800	124,400	122,700	120,500	122,600	120,300

CAL YR 1970..... * -7,200 †† 7,920 MAX 153,100 MIN 119,700
WTR YR 1971..... * -7,500 †† 8,260 MAX 132,000 MIN 120,300

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Paris.

07335400 Sanders Creek near Chicota, Tex.

LOCATION.--Lat 33°51'10", long 99°32'28", Lamar County, on upstream side of Pat Mayse Dam, 2,800 ft to right of morning-glory drop inlet, 2.0 miles southeast of Chicota, and 4.6 miles upstream from mouth.

DRAINAGE AREA.--175 sq mi, at Pat Mayse Dam. 184 sq mi at former site 2.6 miles downstream.

PERIOD OF RECORD.--March 1964 to September 1967 (gage heights and discharge measurements only), October 1967 to current year.

GAGE (revised).--Water-stage recorder. Datum of gage is 440.00 ft above mean sea level. Prior to Oct. 1, 1967, water-stage recorder at site 2.6 miles downstream at datum 52.77 ft lower. Oct. 1, 1967, to Sept. 30, 1970, at datum 10.00 ft higher.

EXTREMES.-Current year: Maximum outflow, 199 cfs Oct. 14 (gage height, 12.40 ft); no flow at times.
Period of record: Maximum outflow, 1,060 cfs May 19, 1969 (gage height, 10.20 ft); no flow at times.

REMARKS.--Records fair. Flow represents uncontrolled outflow from Pat Mayse Lake (see preceding page, revised). Flow downstream from dam is affected by local runoff and backwater from the Red River.

COOPERATION.--Records furnished by Corps of Engineers and reviewed by the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	120	59	13	15	53	13	5.8	18			
2	67	110	57	12	12	53	11	5.2	18			
3	63	101	54	20	11	58	10	2.8	18			
4	56	93	49	26	15	64	9.4	2.3	17			
5	55	85	45	27	14	68	7.8	3.8	15			
6	60	80	41	27	12	65	6.6	3.1	14			
7	63	74	37	27	12	61	5.4	4.0	12			
8	61	68	36	26	10	55	5.1	4.1	9.4			
9	61	65	36	24	9.9	53	3.9	4.8	7.9			
10	60	63	33	24	10	46	4.0	11	7.8			
11	59	58	30	24	9.9	42	4.0	14	6.4			
12	94	52	27	23	12	42	4.0	15	6.0			
13	169	53	26	25	11	42	3.4	14	4.7			
14	199	75	23	30	11	46	2.3	12	1.3			
15	190	123	23	31	12	47	1.8	12	.40			
16	174	151	25	32	12	44	1.7	11	0			
17	156	147	23	32	12	41	.80	11	0			
18	142	141	23	30	13	39	4.6	11	0			
19	130	126	21	27	15	34	6.5	9.9	0			
20	116	115	19	25	15	29	9.2	9.2	0			
21	104	108	19	25	22	28	9.9	7.4	0			
22	101	102	21	25	41	27	11	5.3	0			
23	101	88	20	22	50	22	15	5.4	0			
24	114	82	18	21	50	19	15	9.4	0			
25	131	76	16	21	51	18	14	8.7	0			
26	134	74	15	21	53	18	11	7.8	0			
27	135	71	14	19	54	17	9.2	13	0			
28	142	67	14	18	52	17	9.2	16	0			
29	150	65	13	18	------	16	5.8	18	0			
30	143	63	13	17	------	15	5.8	18	0			
31	131	------	13	16	------	14	------	17	------			------
TOTAL	3,434	2,696	863	728	616.8	1,193	220.40	292.0	155.90	0	0	0
MEAN	111	89.9	27.8	23.5	22.0	38.5	7.35	9.42	5.20	0	0	0
MAX	199	151	59	32	54	68	15	18	18	0	0	0
MIN	55	52	13	12	9.9	14	.80	2.3	0	0	0	0
AC-FT	6,810	5,350	1,710	1,440	1,220	2,370	437	579	309	0	0	0

CAL YR 1970 TOTAL 59,120.00 MEAN 162 MAX 898 MIN 0 AC-FT 117,300
WTR YR 1971 TOTAL 10,199.10 MEAN 27.9 MAX 199 MIN 0 AC-FT 20,230

07335500 Red River at Arthur City, Tex.

LOCATION.--Lat 33°52'32", long 95°30'08", in NW¼ sec. 11, T.8 S., R.17 E., Choctaw County, Okla., near right bank on downstream side of pier of bridge on U.S. Highway 271 at Arthur City, 10.6 miles downstream from Muddy Boggy River, 26.0 miles upstream from Kiamichi River, and at mile 633.1.

DRAINAGE AREA.--44,531 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--January to September 1905 (gage heights and discharge measurements only), October 1905 to December 1911, July 1936 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at same site since 1891 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 380.07 ft above mean sea level. 1905-11, nonrecording gage at St. Louis-San Francisco Railway Co. bridge 200 ft upstream at same datum. July 1, 1936, to Mar. 24, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--41 years, 8,048 cfs (5,831,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28,100 cfs Oct. 15 (gage height, 16.08 ft); minimum, 295 cfs Sept. 22 (gage height, 3.85 ft).
Period of record: Maximum discharge, about 400,000 cfs May 28, 1908 (gage height, 43.2 ft), from rating curve extended above 41,000 cfs on basis of records for later years; minimum, 130 cfs Dec. 11, 12, 1956 (gage height, 4.49 ft).

REMARKS.--Records good. Flow regulated since October 1943 by Lake Texoma (station 07331500), 92.8 miles above station.

COOPERATION.--Gage-height record, 36 discharge measurements, and computations of daily discharge furnished by Corps of Engineers; records reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 1241: Drainage area. WSP 1311: 1906-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,590	8,530	3,110	6,390	1,060	2,190	2,130	3,360	3,900	2,260	2,510	1,640
2	2,390	4,320	2,820	6,300	757	2,460	2,020	2,980	2,740	4,110	1,270	1,440
3	2,220	2,660	3,880	6,440	818	2,860	1,120	2,550	3,070	4,410	741	827
4	1,090	2,380	3,830	9,180	1,090	5,630	813	2,100	6,020	3,750	576	907
5	827	2,400	3,970	12,300	1,090	5,570	715	2,660	8,200	3,390	581	726
6	801	1,720	4,180	9,870	931	4,700	694	2,090	7,120	2,590	2,220	1,250
7	914	1,460	3,470	8,300	839	3,340	2,950	1,960	5,820	2,740	1,930	1,430
8	2,580	1,330	2,290	7,280	1,070	2,150	4,190	4,770	2,790	3,780	1,960	1,300
9	3,620	1,750	2,350	7,360	1,690	1,810	4,350	6,320	2,980	3,990	1,620	1,910
10	8,220	1,460	3,770	7,300	3,540	1,550	3,350	5,270	2,460	3,560	3,410	2,180
11	11,500	1,230	3,510	3,990	2,850	1,550	1,700	8,600	1,670	1,260	3,830	1,650
12	20,700	1,310	3,590	2,530	2,580	1,670	907	10,900	2,130	719	4,650	774
13	23,400	1,980	3,740	3,080	4,120	2,410	643	8,010	1,650	1,890	5,560	404
14	24,400	5,040	2,900	3,830	2,590	4,020	512	3,430	1,500	1,020	5,550	731
15	26,900	6,790	1,980	3,100	1,450	5,110	483	2,150	2,540	2,730	4,760	610
16	22,400	4,770	1,560	2,780	1,140	3,290	1,150	1,560	2,410	3,550	4,730	866
17	17,300	3,730	2,760	2,330	1,400	1,960	918	1,230	2,730	3,220	6,270	1,420
18	13,500	4,990	4,000	2,480	1,070	1,680	1,380	1,010	2,000	3,720	4,690	1,270
19	8,580	5,560	5,160	1,810	1,240	1,620	1,650	2,450	2,550	4,170	3,310	720
20	4,150	5,730	5,370	1,630	2,380	1,540	1,580	3,920	3,260	3,630	3,930	392
21	2,980	6,070	4,360	3,050	3,360	1,320	6,430	3,360	2,050	2,950	4,110	320
22	2,710	6,800	5,320	4,400	7,330	1,750	14,100	2,920	1,890	4,080	3,930	344
23	3,140	3,990	5,690	3,590	11,300	1,600	17,500	2,940	1,340	3,530	4,770	410
24	3,420	2,160	5,990	2,320	9,230	1,310	16,400	2,760	895	1,520	4,700	392
25	7,040	2,730	5,760	1,890	7,650	1,410	13,900	1,520	631	1,860	4,760	434
26	8,500	4,870	5,040	1,290	5,050	2,140	11,200	1,600	573	1,560	4,540	518
27	8,740	5,410	5,660	1,050	3,590	2,860	9,290	2,860	994	1,020	3,100	5,660
28	12,800	3,300	5,410	1,370	3,210	2,750	6,370	5,190	1,210	1,360	1,340	8,200
29	16,800	2,020	5,400	1,550	------	2,480	5,950	8,290	2,500	5,200	2,830	4,140
30	15,500	2,860	6,350	2,200	------	2,550	4,690	7,560	1,540	4,230	2,860	2,880
31	11,500	------	6,900	2,420	------	1,570	------	5,260	------	2,230	2,550	------
TOTAL	290,212	109,350	130,120	133,410	84,425	78,850	139,085	121,580	81,163	90,029	103,588	45,745
MEAN	9,362	3,645	4,197	4,304	3,015	2,544	4,636	3,922	2,705	2,904	3,342	1,525
MAX	26,900	8,530	6,900	12,300	11,300	5,630	17,500	10,900	8,200	5,200	6,270	8,200
MIN	801	1,230	1,560	1,050	757	1,310	483	1,010	573	719	576	320
AC-FT	575,600	216,900	258,100	264,600	167,500	156,400	275,900	241,200	161,000	178,600	205,500	90,740

CAL YR 1970 TOTAL 2,294,573 MEAN 6,287 MAX 41,800 MIN 696 AC-FT 4,551,000
WTR YR 1971 TOTAL 1,407,557 MEAN 3,856 MAX 26,900 MIN 320 AC-FT 2,792,000

PEAK DISCHARGE (BASE, 50,000 CFS).--No peak above base.

07336750 Little Pine Creek near Kanawha, Tex.

LOCATION.--Lat 33°50'26", long 95°15'55", Red River County, on right bank at downstream side of bridge on Farm Road 410, 1.6 miles south of Kanawha, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--75.4 sq mi.

PERIOD OF RECORD.--December 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 389.26 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,120 cfs May 10 (gage height, 16.05 ft); no flow at times..
Period of record: Maximum discharge, 16,400 cfs Jan. 30, 1969 (gage height, 18.90 ft), from rating curve extended above 4,400 cfs; no flow at times each year.
Maximum stage since 1948, 20.0 ft in 1966, from information by local resident.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No known diversion or return of water in vicinity of gage. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	.03	1.6	3.0	.10	20	2.5	.02	4.2	.74	4.5	.03
2	10	.01	1.6	3.0	.10	32	2.0	.02	3.3	.59	2.2	.46
3	7.8	0	1.4	5.8	.20	172	2.0	.01	4.2	2.1	1.6	.09
4	6.0	0	1.3	83	8.0	164	2.0	.01	3.6	5.1	2.3	.02
5	4.5	0	1.2	40	7.0	76	1.7	.01	2.3	2.7	13	.01
6	4.1	0	1.2	3.5	.60	39	1.7	.01	2.1	1.4	3.5	.01
7	3.2	0	1.1	3.0	.50	23	1.5	.01	1.5	.85	1.8	.01
8	3.8	4.5	1.1	2.5	.50	15	1.4	.01	1.3	.48	1.4	0
9	4.8	5.5	1.0	2.0	.50	12	1.4	.02	1.1	.29	1.3	0
10	4.8	.20	1.0	1.9	.45	10	1.3	1,250	.85	.16	.85	0
11	8.3	.05	1.0	1.6	9.5	9.8	1.3	1,570	.70	.10	.63	0
12	80	.01	.96	1.2	180	12	1.5	354	.63	.08	.52	0
13	78	20	.85	22	115	74	1.5	38	.55	.03	1.4	0
14	22	80	.74	49	4.0	84	1.7	9.5	.48	.01	3.8	0
15	12	400	.66	15	3.0	33	1.6	5.2	.43	.01	4.7	0
16	7.8	280	.78	5.2	2.5	17	1.5	3.6	.46	0	4.8	0
17	5.2	35	.48	2.7	2.0	13	1.5	2.9	.48	0	2.7	0
18	4.8	7.0	.36	1.9	8.0	9.2	4.4	2.4	.48	0	1.5	0
19	5.2	3.5	.41	1.3	55	7.4	1.8	1.9	.46	0	1.2	0
20	5.2	3.0	.55	.85	35	6.2	1.2	1.6	.36	0	.96	0
21	5.1	2.7	2.8	.60	65	5.6	1.1	1.6	.43	0	.63	0
22	5.0	2.7	294	.45	150	5.0	1.1	1.5	.78	0	.41	.02
23	9.5	2.8	530	.40	90	4.4	1.4	1.5	.78	3.4	.31	.50
24	39	2.7	115	.35	40	4.1	1.2	64	.63	7.7	.36	1.3
25	40	2.6	35	.30	55	3.7	.70	458	.36	55	.38	1.8
26	16	2.5	10	.30	75	3.7	.43	65	.23	45	.34	.85
27	45	2.3	4.5	.25	45	3.7	.21	24	.18	3.2	.29	.36
28	92	2.1	3.0	.20	33	4.1	.11	238	.14	2.1	.23	.17
29	27	2.0	2.6	.15	------	3.8	.05	67	.17	322	.17	.07
30	1.6	1.8	2.5	.10	------	2.9	.02	10	2.7	294	.12	.02
31	.17	------	2.9	.10	------	2.7	------	5.6	------	37	.07	------
TOTAL	568.87	863.00	1,021.59	251.65	984.95	872.3	41.82	4,175.42	35.88	784.04	57.97	5.72
MEAN	18.4	28.8	33.0	8.12	35.2	28.1	1.39	135	1.20	25.3	1.87	.19
MAX	92	400	530	83	180	172	4.4	1,570	4.2	322	13	1.8
MIN	.17	0	.36	.10	.10	2.7	.02	.01	.14	0	.07	0
CFSM	.24	.38	.44	.11	.47	.37	.02	1.79	.02	.34	.02	.003
IN.	.28	.43	.50	.12	.49	.43	.02	2.06	.02	.39	.03	.002
AC-FT	1,130	1,710	2,030	499	1,950	1,730	83	8,280	71	1,560	115	11

CAL YR 1970 TOTAL 24,370.00 MEAN 66.8 MAX 3,270 MIN 0 CFSM .89 IN 12.02 AC-FT 48,340
WTR YR 1971 TOTAL 9,663.21 MEAN 26.5 MAX 1,570 MIN 0 CFSM .35 IN 4.77 AC-FT 19,170

PEAK DISCHARGE (BASE, 1,000 CFS).--May 10 (1900) 4,120 cfs (16.05 ft).

NOTE.--No gage-height record Nov. 4 to Dec. 10 and Jan. 19 to Feb. 27; discharge estimated.

07336800 Pecan Bayou near Clarksville, Tex.

LOCATION.--Lat 33°41'07", long 94°59'41", Red River County, on right bank at downstream side of bridge on Farm Road 1159, 0.2 mile downstream from Tanyard Bayou, 4.3 miles upstream from Little White Oak Creek, and 6.0 miles northeast of Clarksville.

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--January 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 360.00 ft above mean sea level. Prior to Oct. 1, 1970, at datum 5.00 ft higher.

AVERAGE DISCHARGE.--9 years, 65.8 cfs (8.94 inches per year, 47,670 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,310 cfs May 11 (gage height, 11.45 ft); no flow at times.
Period of record: Maximum discharge, 9,530 cfs Jan. 30, 1969 (gage height, 14.53 ft, present datum); no flow at times.
Maximum stage since at least 1910, about 17 ft (present datum) in 1957, from information by local residents.

REMARKS.--Records good, except those below 5.0 cfs for period Oct. 1 to Dec. 15, which are poor. No known diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	5.4	.55	1.5	.62	23	1.3	.19	15	0	21	
2	0	3.3	.50	1.2	.56	23	1.2	.19	11	0	8.1	
3	0	2.0	.45	1.2	.56	51	1.2	.19	9.6	0	10	
4	0	1.0	.40	1.4	.76	75	1.1	.19	6.9	0	2.4	
5	0	1.3	.35	31	.83	75	1.1	.19	5.5	0	7.2	
6	0	1.0	.30	46	.90	51	1.1	.19	4.0	0	14	
7	0	.80	.25	23	.76	28	1.0	.19	3.0	0	8.1	
8	0	.70	.20	12	.76	20	.90	.19	2.0	0	5.2	
9	.20	.60	.20	6.4	.76	16	.90	.19	1.8	0	3.3	
10	.80	.50	.20	4.6	.76	18	.83	99	1.5	0	1.9	
11	1.5	.40	.17	3.3	.99	13	.83	2,380	1.2	0	1.4	
12	.76	.35	.17	2.2	4.3	76	.76	1,520	1.0	0	.90	
13	2.5	3.5	.17	2.2	25	458	.76	433	.85	0	.56	
14	4.0	21	.17	2.9	61	178	.69	111	.60	0	1.0	
15	3.5	30	.28	2.2	41	75	.69	36	.40	0	.90	
16	2.5	46	.28	1.6	21	40	.62	17	.25	0	2.4	
17	2.0	34	.25	1.4	12	23	.62	8.4	.15	0	1.5	
18	1.5	20	.25	1.5	9.0	16	.56	5.9	.05	0	1.3	
19	1.0	12	.25	2.2	8.7	10	.56	3.9	.03	0	.83	
20	.80	5.6	.28	2.2	5.9	8.1	.50	3.0	.01	0	.50	
21	.60	3.9	.32	1.9	25	8.1	.62	2.5	0	0	.28	
22	.50	3.0	.40	1.8	64	7.8	1.3	1.5	0	0	.13	
23	.40	1.5	.40	1.5	50	6.6	.83	1.0	0	0	.06	
24	.30	1.0	3.8	1.3	41	5.0	.50	.75	0	0	0	
25	.20	.90	18	1.2	28	3.9	.32	45	0	0	.01	
26	8.7	.85	12	1.0	47	3.9	.25	202	0	0	0	
27	14	.75	6.4	.83	37	3.5	.19	124	0	0	0	
28	9.0	.70	4.3	.76	27	3.3	.19	47	0	9.1	0	
29	5.2	.65	3.3	.76	------	2.7	.17	46	0	20	0	
30	7.2	.60	2.9	.76	------	2.4	.19	40	0	36	0	
31	9.3	------	2.2	.69	------	1.9	------	23	------	46	0	------
TOTAL	76.46	203.30	59.69	162.50	515.16	1,326.2	21.78	5,151.66	64.84	111.1	92.97	0
MEAN	2.47	6.78	1.93	5.24	18.4	42.8	.73	166	2.16	3.58	3.00	0
MAX	14	46	18	46	64	458	1.3	2,380	15	46	21	0
MIN	0	.35	.17	.69	.56	1.9	.17	.19	0	0	0	0
CFSM	.02	.07	.02	.05	.18	.43	.007	1.66	.02	.04	.03	0
IN.	.03	.08	.02	.06	.19	.49	.008	1.92	.02	.04	.03	0
AC-FT	152	403	118	322	1,020	2,630	43	10,220	129	220	184	0

CAL YR 1970 TOTAL 23,527.42 MEAN 64.5 MAX 1,500 MIN 0 CFSM .65 IN 8.75 AC-FT 46,670
WTR YR 1971 TOTAL 7,785.66 MEAN 21.3 MAX 2,380 MIN 0 CFSM .21 IN 2.90 AC-FT 15,440

PEAK DISCHARGE (BASE, 1,000 CFS).--May 11 (1100) 3,310 cfs (11.45 ft).

07336820 Red River near De Kalb, Tex.

LOCATION.--Lat 33°41'15", long 94°41'39", Bowie (Tex.)-McCurtain (Okla.) County line, near left bank at downstream side of bridge on U.S. Highway 259, 4.8 miles upstream from North Mill Creek, 13 miles north of De Kalb, and at mile 556.9.

DRAINAGE AREA.--47,348 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 302.92 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 31,200 cfs Oct. 30 (gage height, 18.93 ft); minimum, 615 cfs Sept. 23 (gage height, 9.15 ft).
Period of record: Maximum discharge, 112,200 cfs May 9, 1969 (gage height, 27.38 ft); maximum gage height, 29.00 ft May 19, 1968; minimum discharge, 615 cfs Sept. 23, 1971.
Maximum stage since 1957, 32.2 ft in June 1957. Greatest flood since 1936 occurred in February 1938, stage unknown.

REMARKS.--Records good. Flow partly regulated by Lake Texoma (station 07331500), approximately 169 miles upstream. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,060	18,200	2,830	7,360	2,430	5,900	3,160	6,360	5,900	1,940	4,290	3,080
2	3,250	13,800	3,420	7,620	2,350	5,060	2,510	5,060	4,480	1,690	3,160	2,510
3	2,830	9,640	3,250	7,360	1,610	4,670	2,670	4,290	3,590	2,040	2,750	1,850
4	2,830	6,600	3,340	8,460	1,340	4,760	2,510	3,760	3,080	3,500	1,720	1,750
5	2,350	5,260	3,590	15,300	1,410	5,900	1,860	3,340	4,020	3,850	1,140	1,140
6	1,890	4,760	3,850	19,700	1,750	7,360	1,470	3,160	7,100	3,420	960	1,340
7	1,620	4,290	3,850	15,500	1,920	6,840	1,260	3,250	7,360	2,910	960	1,300
8	1,620	3,760	3,930	12,300	1,850	5,900	1,320	2,830	6,360	2,350	1,850	1,370
9	1,820	3,590	3,340	10,900	1,840	4,380	2,670	4,020	4,860	2,350	2,270	1,580
10	3,080	3,420	2,430	9,940	1,850	3,680	3,930	9,940	3,340	3,000	2,670	1,530
11	6,360	3,500	2,510	9,640	2,270	3,340	4,020	12,600	3,160	3,250	2,350	1,910
12	11,600	3,250	3,420	7,620	4,110	3,420	3,160	16,800	2,670	2,830	3,420	2,120
13	21,200	3,250	3,340	4,960	4,480	5,900	2,120	17,300	2,270	1,570	3,760	1,860
14	25,700	4,290	3,340	4,960	4,580	7,620	1,320	13,000	2,350	984	4,290	1,340
15	26,900	6,840	3,420	6,600	5,470	7,360	960	7,620	2,040	1,360	5,470	864
16	27,500	9,940	2,830	6,840	4,200	8,740	864	4,860	1,970	1,200	5,470	840
17	23,900	10,300	1,970	6,120	3,080	7,620	828	3,590	2,510	1,970	4,860	960
18	19,200	8,180	1,680	5,060	2,430	5,470	1,240	3,080	2,670	2,830	5,260	888
19	15,500	6,840	2,510	4,110	2,350	4,020	1,610	2,590	2,670	2,830	5,680	1,270
20	11,600	7,620	3,590	3,590	2,510	3,590	2,120	2,200	2,200	3,080	4,880	1,400
21	6,840	7,360	5,060	2,910	5,680	3,340	2,510	3,160	2,510	3,500	3,590	1,140
22	4,760	7,620	5,900	2,590	7,360	3,080	9,040	3,930	2,910	3,420	3,760	713
23	4,020	7,620	6,360	4,020	13,800	2,910	23,500	3,590	2,270	3,160	3,930	626
24	4,200	6,840	6,840	4,860	20,200	2,910	27,500	3,680	1,910	4,020	3,850	637
25	8,670	4,290	7,620	3,850	16,800	2,750	28,700	3,760	1,480	3,500	4,480	725
26	18,200	3,250	7,620	3,000	13,400	2,430	27,500	3,160	1,090	2,590	4,480	681
27	24,500	3,930	6,840	2,270	10,600	2,510	19,700	2,510	725	3,160	4,580	637
28	24,500	5,260	6,600	1,960	7,360	3,160	13,400	2,830	659	2,830	3,500	725
29	29,300	5,260	6,600	1,750	------	3,590	8,740	3,780	792	2,120	2,750	3,930
30	30,500	3,590	6,360	1,920	------	3,590	6,840	6,120	1,080	3,120	2,430	6,120
31	24,500	------	6,360	1,780	------	3,340	------	7,360	------	5,260	2,670	------
TOTAL	395,800	192,350	134,600	204,850	149,030	145,140	209,032	173,530	90,026	85,634	107,230	46,836
MEAN	12,770	6,412	4,342	6,608	5,323	4,682	6,968	5,598	3,001	2,762	3,459	1,561
MAX	30,500	18,200	7,620	19,700	20,200	8,740	28,700	17,300	7,360	5,260	5,680	6,120
MIN	1,620	3,250	1,680	1,750	1,340	2,430	828	2,200	659	984	960	626
AC-FT	785,100	381,500	267,000	406,300	295,600	287,900	414,600	344,200	178,600	169,900	212,700	92,900

CAL YR 1970 TOTAL 3,200,880 MEAN 8,770 MAX 66,600 MIN 1,180 AC-FT 6,349,000
WTR YR 1971 TOTAL 1,934,058 MEAN 5,299 MAX 30,500 MIN 626 AC-FT 3,836,000

07337000 Red River at Index, Ark.

LOCATION.--Lat 33°33'07", long 94°02'28", in NW¼SW¼ sec.7, T.14 S., R.28 W., Miller County, near right bank on downstream side of bridge on U.S. Highway 71 at Index, 2.2 miles south of Ogden, 20.6 miles upstream from Little River, and at mile 485.3.

DRAINAGE AREA.--48,030 sq mi, of which 5,936 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1936 to current year. Gage-height records collected at same site since 1917 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 246.87 ft above mean sea level. Prior to Dec. 12, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--35 years, 11,720 cfs (8,491,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,800 cfs Oct. 30 (gage height, 12.99 ft); minimum, 976 cfs Sept. 30.
Period of record: Maximum discharge, 297,000 cfs Feb. 23, 1938 (gage height, 34.25 ft); minimum, 378 cfs Nov. 28, 1956.

REMARKS.--Records good. Some regulation since Oct. 31, 1943, by Lake Texoma (station 07331500) 241 miles upstream (capacity, 5,392,000 acre-ft). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,300	21,400	4,170	5,800	2,300	8,340	3,020	8,600	7,360	1,400	4,000	2,420
2	7,840	16,800	3,160	6,220	2,360	6,880	2,880	7,360	7,360	1,690	5,000	2,880
3	5,200	13,500	3,020	6,660	2,810	6,440	2,540	6,440	5,800	2,060	4,260	2,810
4	3,520	10,300	3,230	6,880	2,600	5,600	2,360	5,200	4,440	1,960	3,440	2,360
5	3,160	7,360	3,020	7,360	2,180	5,400	2,420	4,440	3,600	2,300	2,810	2,010
6	3,020	5,600	3,300	14,900	2,060	5,600	2,180	3,920	3,370	3,370	2,480	1,790
7	2,540	4,800	3,520	18,000	2,060	6,880	1,840	3,520	5,560	3,440	2,670	1,490
8	2,360	4,620	3,600	14,500	2,240	7,600	1,640	3,300	8,080	3,160	2,060	1,400
9	2,060	4,080	3,680	11,500	2,300	6,660	1,490	3,160	7,840	2,670	1,790	1,320
10	1,960	3,600	3,600	9,960	2,240	5,400	1,590	3,370	6,660	2,300	2,180	1,400
11	2,360	3,520	2,880	9,120	2,240	4,170	2,670	8,100	4,800	2,480	2,420	1,590
12	5,260	3,300	2,480	8,860	3,020	3,760	3,370	13,500	3,680	2,880	2,480	1,590
13	11,600	3,370	2,810	8,080	4,260	7,840	3,300	16,800	3,370	3,020	2,540	1,790
14	20,600	3,600	3,230	6,000	5,000	11,200	2,670	16,800	2,950	2,420	3,300	1,900
15	24,800	3,680	3,300	4,800	4,800	11,200	1,960	14,100	2,740	1,690	3,840	1,690
16	25,800	5,400	3,370	5,600	5,200	9,680	1,590	9,960	2,600	1,400	4,620	1,400
17	25,300	8,600	3,300	6,220	5,000	9,120	1,400	6,880	2,360	1,590	5,600	1,160
18	21,900	9,960	2,600	6,220	3,920	9,120	1,320	5,000	2,420	1,490	5,600	1,160
19	18,400	8,600	2,180	5,400	3,160	6,880	1,320	3,920	2,670	2,120	5,000	1,160
20	15,600	6,880	2,120	4,620	2,880	5,000	1,540	3,300	2,880	2,540	5,600	1,090
21	12,800	6,660	3,370	4,080	2,810	3,920	1,790	2,880	2,740	2,670	5,600	1,320
22	9,120	7,120	4,170	3,600	4,270	3,440	2,120	2,810	2,540	2,950	4,350	1,490
23	6,440	6,880	5,000	3,160	6,880	3,160	5,700	3,520	2,880	3,230	3,840	1,320
24	5,000	7,120	5,600	3,370	13,900	2,950	20,800	3,840	2,880	3,600	4,170	1,090
25	4,620	6,880	6,000	4,440	18,400	2,880	24,300	3,600	2,420	4,350	4,620	1,030
26	7,920	5,200	6,660	4,350	15,200	2,810	25,300	3,760	2,120	4,260	4,260	1,030
27	17,400	3,760	7,120	3,520	12,400	2,600	22,800	3,760	1,790	3,300	4,620	1,030
28	22,800	3,300	6,660	3,020	10,900	2,420	22,400	3,160	1,540	3,160	5,000	1,030
29	23,300	4,260	6,000	2,600	------	2,480	13,800	2,740	1,400	3,920	4,620	1,030
30	26,800	4,800	6,000	2,360	------	2,880	10,600	3,020	1,320	3,600	3,920	1,320
31	26,800	------	5,800	2,240	------	3,090	------	4,770	------	3,020	2,740	------
TOTAL	376,580	204,950	124,950	203,440	147,390	175,400	192,710	185,530	112,170	84,040	119,430	46,100
MEAN	12,150	6,832	4,031	6,563	5,264	5,658	6,424	5,985	3,739	2,711	3,853	1,537
MAX	26,800	21,400	7,120	18,000	18,400	11,200	25,300	16,800	8,080	4,350	5,600	2,880
MIN	1,960	3,300	2,120	2,240	2,060	2,420	1,320	2,740	1,320	1,400	1,790	1,030
AC-FT	746,900	406,500	247,800	403,500	292,300	347,900	382,200	368,000	222,500	166,700	236,900	91,440

CAL YR 1970 TOTAL 3,501,800 MEAN 9,594 MAX 62,700 MIN 1,810 AC-FT 6,946,000
WTR YR 1971 TOTAL 1,972,690 MEAN 5,405 MAX 26,800 MIN 1,030 AC-FT 3,913,000

07342500 South Sulphur River near Cooper, Tex.

LOCATION.--Lat 33°21'20", long 95°35'39", Hopkins-Delta County line, on left bank of cut channel at downstream side of bridge on State Highway 154, 1.0 mile downstream from Big Creek, 1.0 mile upstream from Brushy Creek, 4.5 miles downstream from Doctors Creek, and 5.6 miles southeast of Cooper.

DRAINAGE AREA.--527 sq mi.

PERIOD OF RECORD.--May 1942 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 371.91 ft (revised) above mean sea level. Prior to Oct. 1, 1970, at datum 3.00 ft higher. May 9, 1942, to Nov. 8, 1949, nonrecording gage and Nov. 9, 1949, to May 13, 1955, water-stage recorder at site 700 ft to right of present gage.

AVERAGE DISCHARGE.--29 years, 377 cfs (9.71 inches per year, 273,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,080 cfs Oct. 13 (gage height, 21.13 ft); no flow July 13-23.
Period of record: Maximum discharge, 31,500 cfs May 7, 1969 (gage height, 22.77 ft); no flow at times.

REMARKS.--Records good. Small diversions upstream from station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	1.8	68	1.7	72	1.1	.68	7.9	.46	34	.90
2	7.6	10	1.8	34	1.6	132	.82	.56	7.3	.34	14	.38
3	5.5	7.6	1.8	19	1.6	793	.68	.46	4.5	.25	7.3	.68
4	4.1	5.5	1.7	62	33	523	.68	.46	3.7	.62	4.5	.90
5	3.7	4.5	1.6	124	145	183	.68	.51	2.7	.42	36	.38
6	63	3.9	1.3	75	89	82	.62	.42	2.2	.28	55	.16
7	822	3.3	1.2	38	28	43	.46	.42	2.1	.18	85	.08
8	340	3.3	1.2	18	14	26	.42	.38	1.8	.07	63	.05
9	959	3.3	1.1	12	9.6	18	.42	.51	1.7	.04	19	.04
10	614	2.5	1.1	8.9	7.0	13	.42	1.3	1.8	.03	11	.46
11	374	2.4	1.1	7.0	5.0	11	.46	2.2	1.8	.02	7.5	.62
12	3,890	2.4	1.1	6.4	55	9.3	.51	7.6	1.7	.01	5.0	.51
13	7,120	8.2	.98	5.8	500	8.2	.62	5.5	1.5	0	3.1	.28
14	3,340	810	.90	6.4	72	7.0	.62	3.7	1.2	0	279	.16
15	1,050	812	.98	7.0	21	6.4	.62	2.9	1.2	0	1,410	.09
16	275	324	.98	8.6	13	5.5	.62	1.9	1.2	0	1,770	.07
17	66	98	1.1	9.6	9.6	4.3	.82	1.5	.90	0	997	.62
18	34	42	1.2	10	7.3	3.5	1.6	1.2	.68	0	104	.46
19	23	23	1.2	9.3	20	3.3	1.7	1.1	.46	0	32	.42
20	16	15	1.3	6.7	202	3.1	2.7	.90	.34	0	20	.28
21	12	10	1.9	5.5	146	2.7	5.0	.68	.20	0	12	.14
22	9.3	8.6	153	4.3	805	2.4	3.9	.55	.18	0	8.9	.12
23	180	6.7	398	3.5	653	2.2	3.1	.56	.12	0	7.3	.12
24	1,250	5.5	98	3.1	149	2.2	2.9	.68	.06	.12	5.0	.75
25	1,500	4.3	50	2.9	63	2.2	2.7	.68	4.3	1.7	49	348
26	435	3.5	22	2.7	526	2.1	1.9	.68	6.7	28	152	412
27	92	3.3	14	2.7	500	1.8	1.5	1.1	3.9	16	22	110
28	67	2.7	10	2.4	163	1.9	.98	1.2	1.9	7.9	11	36
29	195	2.2	7.3	2.4	------	2.1	.75	1.3	1.2	17	6.7	20
30	46	2.1	6.4	2.2	------	1.7	.68	3.3	.82	47	4.1	11
31	20	------	24	2.1	------	1.5	------	5.8	------	41	3.7	------
TOTAL	22,826.2	2,242.8	810.04	568.5	4,240.4	1,969.4	39.98	50.74	65.96	161.44	5,238.2	945.66
MEAN	736	74.8	26.1	18.3	151	63.5	1.33	1.64	2.20	5.21	169	31.5
MAX	7,120	812	398	124	805	793	5.0	7.6	7.9	47	1,770	412
MIN	3.7	2.1	.90	2.1	1.6	1.5	.42	.38	.06	0	3.1	.04
CFSM	1.40	.14	.05	.03	.29	.12	.003	.003	.004	.010	.32	.06
IN.	1.61	.16	.06	.04	.30	.14	.002	.003	.004	.01	.37	.07
AC-FT	45,280	4,450	1,610	1,130	8,410	3,910	79	101	131	320	10,390	1,980

CAL YR 1970 TOTAL 145,193.06 MEAN 398 MAX 9,200 MIN 0 CFSM .76 IN 10.25 AC-FT 288,000
WTR YR 1971 TOTAL 39,159.32 MEAN 107 MAX 7,120 MIN 0 CFSM .20 IN 2.76 AC-FT 77,670

PEAK DISCHARGE (BASE, 8,000 CFS).--Oct. 13 (0300) 9,080 cfs (21.13 ft).

07343000 North Sulphur River near Cooper, Tex.

LOCATION.--Lat 33°28'25", long 95°35'15", Delta-Lamar County line, near center of span at downstream side of downstream bridge on State Highways 19 and 24, 2.3 miles upstream from Auds Creek, 5.5 miles upstream from Hickory Creek, 8.7 miles northeast of Cooper, and at mile 15.6.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE (revised).--Water-stage recorder. Datum of gage is 372.42 ft above mean sea level (levels by Corps of Engineers). Prior to Nov. 8, 1949, nonrecording gage, Nov. 8, 1949, to May 21, 1960, water-stage recorder at site 50 ft upstream at datum 9.00 ft higher and May 22, 1960, to Sept. 30, 1970, at datum 5.00 ft higher.

AVERAGE DISCHARGE.--22 years, 237 cfs (11.66 inches per year, 171,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,200 cfs Oct. 11 (gage height, 17.72 ft); no flow at times.
Period of record: Maximum discharge, 54,000 cfs May 7, 1969 (gage height, 34.00 ft, revised, present datum); no flow at times.
Maximum stage since at least 1915, 35.6 ft (revised) May 2, 1944, present site and datum; flood in 1932 reached about same stage, from information by Corps of Engineers and local residents.

REMARKS.--Records good. In 1928-29 the channel was rectified for a distance of 28 miles upstream and 18 miles downstream from station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	17	5.0	18	7.0	40	23	.47	14	.17	14	0
2	4.3	74	4.6	12	6.2	305	21	.47	7.9	286	10	.01
3	3.7	16	4.3	226	7.0	301	20	.36	5.4	47	9.0	.90
4	2.8	14	4.0	289	53	137	19	.17	3.4	7.9	43	3.4
5	2.3	14	3.7	34	44	60	17	.04	1.8	2.3	238	2.3
6	767	14	3.4	21	18	43	17	.10	1.1	.74	97	1.8
7	43	14	3.1	20	13	36	16	.10	.74	.10	16	.90
8	408	14	3.1	19	8.4	36	15	.04	.25	0	5.0	.60
9	311	13	3.1	19	7.9	36	14	.90	.17	.60	4.0	.25
10	25	12	3.1	19	8.4	35	14	288	.10	.02	3.1	.10
11	3,280	11	3.4	17	8.4	35	14	56	.17	0	4.0	0
12	3,990	11	3.1	13	463	35	13	25	.10	0	55	0
13	362	291	2.8	57	36	41	13	19	.10	0	62	0
14	92	3,310	2.8	134	23	40	13	14	.10	0	3,980	0
15	36	170	3.7	41	18	34	13	12	.10	0	327	0
16	15	47	7.0	19	17	31	13	11	.10	0	43	0
17	14	19	5.8	17	13	30	13	11	.10	0	16	0
18	11	11	4.3	14	16	31	42	11	.10	0	8.4	0
19	11	9.0	4.0	13	503	30	18	11	.10	0	5.0	0
20	9.6	7.0	3.7	10	58	26	8.4	16	.10	0	4.0	0
21	7.9	5.0	4.3	11	1,040	27	8.4	14	.10	0	3.1	0
22	7.0	5.4	958	11	347	28	5.8	9.0	.10	0	2.3	.63
23	1,210	5.4	94	11	72	29	3.7	12	.04	0	1.8	470
24	549	3.4	25	11	38	29	2.5	158	.02	42	1.3	445
25	100	2.8	14	11	92	29	1.5	40	0	67	1.1	132
26	37	3.7	9.6	10	439	29	1.1	22	0	41	.90	44
27	1,230	4.6	8.4	8.4	86	29	.90	237	0	158	.60	12
28	126	4.6	7.9	7.9	44	30	.74	89	0	315	.25	6.6
29	38	4.6	7.9	7.9	------	29	.47	38	0	223	.10	4.3
30	20	4.6	58	8.4	------	27	.47	56	.17	97	.01	2.8
31	19	------	81	7.9	------	25	------	26	------	23	0	------
TOTAL	12,736.6	4,132.1	1,346.1	1,117.5	3,486.3	1,673	361.98	1,177.65	36.36	1,310.83	4,954.96	1,127.59
MEAN	411	138	43.4	36.0	125	54.0	12.1	38.0	1.21	42.3	160	37.6
MAX	3,990	3,310	958	289	1,040	305	42	288	14	315	3,980	470
MIN	2.3	2.8	2.8	7.9	6.2	25	.47	.04	0	0	0	0
CFSM	1.49	.50	.16	.13	.45	.20	.04	.14	.004	.15	.58	.14
IN.	1.72	.56	.18	.15	.47	.23	.05	.16	.004	.18	.67	.15
AC-FT	25,260	8,200	2,670	2,220	6,920	3,320	718	2,340	72	2,600	9,830	2,240

CAL YR 1970 TOTAL 106,373.35 MEAN 291 MAX 10,800 MIN 0 CFSM 1.05 IN 14.34 AC-FT 211,000
WTR YR 1971 TOTAL 33,460.97 MEAN 91.7 MAX 3,990 MIN 0 CFSM .33 IN 4.51 AC-FT 66,370

PEAK DISCHARGE (BASE, 20,000 CFS).--No peak above base.

07343200 Sulphur River near Talco, Tex.

LOCATION.--Lat 33°23'11", long 95°07'57", Red River-Titus County line, on right bank at downstream side of pier of bridge on U.S. Highway 271, 2.2 miles northwest of Talco, and 3.2 miles downstream from Mustang Creek.

DRAINAGE AREA.--1,365 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 290.82 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 1,378 cfs (13.71 inches per year, 998,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,900 cfs Oct. 15 (gage height, 22.67 ft); minimum daily, 0.05 cfs July 17, 18.
Period of record: Maximum discharge, 56,600 cfs Apr. 30, 1966 (gage height, 26.40 ft); no flow at times in 1957, 1964-65, 1970.
Floods in 1908 and 1914 each reached a stage of 27.5 ft, and flood in 1945 reached a stage of 26.5 ft, from information by local residents.

REMARKS.--Records good. At end of year, flow from 17.7 sq mi above this station was partly controlled by 13 floodwater-retarding structures with a total combined capacity of 6,960 acre-ft below the flood-spillway crests, of which 5,930 acre-ft is floodwater-retarding capacity and 1,030 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by the Texas Power and Light Co. show that they diverted 28.5 acre-ft during October 1971 into an off-channel reservoir located 1.0 mile upstream from gage. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	85	26	121	19	329	8.0	3.7	62	22	136	17
2	49	61	25	111	18	206	7.6	2.7	43	3.9	99	12
3	31	46	24	106	19	994	7.6	2.1	27	1.2	78	11
4	25	36	23	462	18	1,680	6.5	1.9	21	.92	89	8.3
5	20	31	21	402	54	1,050	5.6	2.4	17	.64	196	5.6
6	329	27	19	240	174	400	5.2	2.9	12	.53	688	3.4
7	432	24	18	142	154	205	5.0	2.1	8.3	.53	1,020	3.5
8	867	23	16	94	82	123	4.3	1.9	6.2	.38	245	7.3
9	1,090	22	16	65	52	86	4.1	2.1	4.4	.19	157	4.3
10	1,330	22	17	56	43	70	3.2	117	3.5	.16	76	2.9
11	850	20	18	52	37	57	3.0	1,080	2.7	.10	40	2.2
12	5,900	19	19	47	496	50	3.2	554	3.0	.08	35	1.9
13	12,600	22	18	72	821	46	3.0	170	2.6	.10	450	1.7
14	11,700	2,190	16	148	709	55	3.2	84	1.9	.10	883	1.6
15	13,400	7,890	17	147	230	69	3.0	59	1.4	.14	9,330	1.5
16	7,050	2,970	20	77	102	54	2.9	41	1.2	.06	9,810	1.4
17	1,200	766	24	56	73	41	2.9	28	.77	.05	3,870	1.2
18	239	279	31	47	56	31	4.1	19	.58	.05	1,940	1.1
19	119	155	28	41	236	27	35	12	.58	.07	372	1.4
20	85	103	24	38	387	24	58	8.5	.64	.12	125	1.3
21	66	74	24	33	349	18	35	5.8	.64	.10	83	.92
22	54	57	801	31	2,040	14	27	4.3	.58	.92	61	1.0
23	82	48	1,100	30	1,760	14	26	4.4	.43	.34	47	62
24	2,320	40	564	30	976	14	22	70	.34	303	46	404
25	2,920	33	235	28	333	15	17	428	.26	246	48	393
26	2,250	29	134	27	571	17	11	142	.22	189	50	439
27	1,350	26	89	25	1,290	18	6.9	224	.19	121	191	511
28	1,140	28	65	22	863	19	6.7	1,180	.19	171	96	188
29	306	28	54	20	------	19	6.2	276	.38	813	49	94
30	266	27	45	20	------	18	5.0	114	.70	722	29	53
31	156	------	83	20	------	11	------	98	------	288	21	------
TOTAL	68,297	15,181	3,614	2,810	11,962	5,774	338.2	4,740.8	223.70	2,885.68	30,360	2,236.52
MEAN	2,203	506	117	90.6	427	186	11.3	153	7.46	93.1	979	74.6
MAX	13,400	7,890	1,100	462	2,040	1,680	58	1,180	62	813	9,810	511
MIN	20	19	16	20	18	11	2.9	1.9	.19	.05	21	.92
CFSM	1.61	.37	.09	.07	.31	.14	.008	.11	.006	.07	.72	.05
IN.	1.86	.41	.10	.08	.33	.16	.009	.13	.006	.08	.83	.06
AC-FT	135,500	30,110	7,170	5,570	23,730	11,450	671	9,400	444	5,720	60,220	4,440

CAL YR 1970 TOTAL 498,815.31 MEAN 1,367 MAX 25,400 MIN 0 CFSM 1.00 IN 13.59 AC-FT 989,400
WTR YR 1971 TOTAL 148,422.90 MEAN 407 MAX 13,400 MIN .05 CFSM .30 IN 4.04 AC-FT 294,400

PEAK DISCHARGE (BASE, 15,000 CFS).--No peak above base.

07343300 Cuthand Creek near Bogata, Tex.

LOCATION.--Lat 33°32'51", long 95°10'22", Red River County, near center of channel at downstream side of bridge on State Highway 37, 6.0 miles northeast of Bogata, and 8 miles upstream from Scatter Creek.

DRAINAGE AREA.--69 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 352.44 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 58.2 cfs (11.45 inches per year, 42,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 920 cfs May 11 (gage height, 13.37 ft); no flow at times.
Period of record: Maximum discharge, 10,600 cfs Jan. 30, 1969 (gage height, 20.10 ft); no flow at times each year.
Maximum stage since at least 1950, that of Jan. 30, 1969.

REMARKS.--Records good. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.74	.10	1.0	.10	5.6	.44	.14	1.8	0	3.0	.05
2	0	.44	.06	1.9	.06	16	.38	.10	1.1	0	1.5	.80
3	0	.22	.03	1.4	.10	208	.32	.03	.66	0	1.5	.03
4	0	.14	.02	161	.27	93	.32	.03	.32	0	3.2	0
5	0	.14	.01	21	.27	27	.27	.02	.14	0	1.5	0
6	0	.14	0	7.0	.18	14	.22	13	.06	0	11	0
7	0	.06	0	2.8	.18	8.0	.18	0	.02	0	8.7	0
8	2.2	.06	0	1.6	.14	5.9	.18	0	.02	0	3.2	0
9	.14	.03	0	1.2	.10	4.4	.14	.75	.02	0	1.2	0
10	0	.03	0	.83	.10	3.2	.14	192	.01	0	.92	0
11	15	.02	0	.58	.46	2.4	.14	616	.01	0	.70	0
12	105	.01	0	.51	105	2.8	.14	61	.01	0	.60	0
13	11	7.2	0	.66	99	166	.14	15	0	0	.50	0
14	3.2	268	0	.92	17	69	.10	10	0	0	59	0
15	1.0	60	0	1.1	7.7	17	.06	6.1	0	0	92	0
16	.51	14	0	1.8	4.1	7.7	.03	4.1	0	0	9.4	0
17	.27	8.0	0	1.5	2.4	4.9	.14	2.6	0	0	2.0	0
18	.18	4.6	0	1.1	1.8	2.8	.44	1.6	0	0	1.0	0
19	.06	2.4	0	.83	1.5	1.9	.22	1.1	0	0	.70	0
20	.03	1.4	0	.66	1.4	1.6	.27	.92	0	0	.60	0
21	.01	1.1	.01	.58	39	2.1	.18	.66	0	0	.50	0
22	0	.92	.01	.51	174	1.6	.38	.44	0	0	.40	0
23	12	.51	1.6	.38	28	1.4	.58	.32	0	0	.30	0
24	25	.44	4.9	.38	8.2	1.1	.38	7.7	0	54	.30	0
25	5.6	.38	4.1	.32	8.3	.92	.38	62	0	15	.30	0
26	2.1	.27	1.9	.27	120	.92	.27	13	0	.22	.20	0
27	1.5	.22	1.0	.22	41	.92	.22	5.6	0	.70	.15	0
28	.92	.18	.66	.18	12	.83	.18	76	0	192	.12	0
29	.51	.18	.44	.18	------	.74	.22	18	0	197	.10	0
30	.51	.14	.74	.18	------	.58	.22	5.4	0	16	.07	0
31	1.1	------	.38	.14	------	.51	------	2.2	------	7.0	.06	------
TOTAL	187.84	371.97	15.96	212.73	672.36	662.82	7.28	1,115.81	4.17	481.92	204.72	.88
MEAN	6.06	12.4	.51	6.86	24.0	21.4	.24	36.0	.14	15.5	6.60	.029
MAX	105	268	4.9	161	174	208	.58	616	1.8	197	92	.80
MIN	0	.01	0	.14	.06	.51	.03	0	0	0	.06	0
CFSM	.09	.18	.007	.10	.35	.31	.004	.52	.002	.22	.10	.0004
IN.	.10	.20	.008	.11	.36	.36	.003	.60	.002	.26	.11	0
AC-FT	373	738	32	422	1,330	1,310	14	2,210	8.3	956	406	1.8

CAL YR 1970 TOTAL 16,837.46 MEAN 46.1 MAX 2,270 MIN 0 CFSM .67 IN 9.08 AC-FT 33,400
WTR YR 1971 TOTAL 3,938.46 MEAN 10.8 MAX 616 MIN 0 CFSM .16 IN 2.12 AC-FT 7,810

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

07343500 White Oak Creek near Talco, Tex.

LOCATION.--Lat 33°19'20", long 95°05'33", Titus County, near center of main channel on downstream side of bridge on U.S. Highway 271, 0.8 mile downstream from Lewis Creek, 2.4 miles upstream from Ripley Creek, 2.7 miles south of Talco, and at mile 38.4.

DRAINAGE AREA.--494 sq mi.

PERIOD OF RECORD.--December 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 286.45 ft above mean sea level.

AVERAGE DISCHARGE.--21 years (1950-71), 402 cfs (11.05 inches per year, 291,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,940 cfs Oct. 15 (gage height, 16.81 ft); no flow July 3-21.
Period of record: Maximum discharge, 39,200 cfs May 1, 1966 (gage height, 20.28 ft), from rating curve extended above 23,000 cfs; no flow at times in 1954, 1956, 1964-65, and 1969-71.
Maximum stage since at least 1870, 22.9 ft Mar. 31, 1945, from floodmarks, from information furnished by local residents.

REMARKS.--Records good. Several small diversions above station for municipal supply. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1711: Elevation of historical maximum.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	56	13	31	12	333	10	6.3	26	.03	360	14
2	41	33	25	48	11	277	9.9	5.5	15	.01	165	12
3	22	22	21	70	11	253	8.9	6.3	11	0	144	8.1
4	13	16	15	82	11	379	8.4	9.4	8.1	0	100	4.8
5	8.4	13	13	92	12	454	7.6	8.6	6.6	0	348	3.3
6	5.9	10	11	72	12	423	7.0	6.1	5.0	0	350	6.8
7	5.5	9.4	10	48	16	292	6.6	5.0	3.9	0	271	22
8	9.1	8.9	9.4	34	31	200	6.1	3.8	2.7	0	125	20
9	32	7.4	8.9	28	36	156	6.1	3.5	2.4	0	55	12
10	201	6.6	8.4	16	28	96	6.1	5.5	2.0	0	29	6.4
11	301	6.1	8.1	12	21	65	5.9	6.4	1.8	0	24	4.2
12	633	5.5	7.9	9.6	116	60	5.9	5.2	1.4	0	19	3.1
13	1,190	7.9	7.4	13	489	55	5.5	29	1.1	0	24	2.7
14	1,700	134	7.2	35	705	50	5.5	57	1.1	0	16	2.1
15	3,510	441	7.6	114	736	46	5.5	34	.87	0	49	1.8
16	2,690	598	8.4	210	735	38	5.5	21	.60	0	185	1.4
17	1,820	609	8.4	162	567	33	5.7	14	.43	0	343	2.2
18	1,220	652	8.6	93	228	28	6.3	10	.34	0	482	3.0
19	396	584	9.1	54	116	26	5.5	7.8	.30	0	620	2.4
20	90	269	11	35	123	26	6.3	6.2	.24	0	549	2.1
21	43	99	32	26	215	23	8.4	5.0	.21	0	171	1.8
22	28	63	92	21	396	24	12	4.1	.18	.65	49	1.9
23	31	53	70	17	595	24	15	3.5	.15	9.7	24	2.5
24	211	54	51	15	645	21	14	2.7	.15	187	92	2.7
25	424	36	50	14	655	17	11	2.4	.12	518	141	5.0
26	462	23	38	14	642	15	9.1	2.1	.12	494	42	7.6
27	432	17	27	14	402	14	7.6	2.8	.08	908	22	5.5
28	388	16	20	14	332	13	6.3	2.7	.04	1,170	49	11
29	256	16	15	16	------	12	5.5	2.7	.03	1,350	33	162
30	182	13	13	14	------	12	5.0	35	.03	1,350	18	136
31	108	------	15	13	------	11	------	50	------	927	14	------
TOTAL	16,536.9	3,878.8	641.4	1,436.6	7,898	3,476	228.2	363.6	91.99	6,914.39	4,913	470.4
MEAN	533	129	20.7	46.3	282	112	7.61	11.7	3.07	223	158	15.7
MAX	3,510	652	92	210	736	454	15	57	26	1,350	620	162
MIN	5.5	5.5	7.2	9.6	11	11	5.0	2.1	.03	0	14	1.4
CFSM	1.08	.26	.04	.09	.57	.23	.02	.02	.006	.45	.32	.03
IN.	1.25	.29	.05	.11	.59	.26	.02	.03	.006	.52	.37	.04
AC-FT	32,800	7,690	1,270	2,850	15,670	6,890	453	721	182	13,710	9,740	933

CAL YR 1970 TOTAL 174,539.57 MEAN 478 MAX 3,510 MIN .23 CFSM .97 IN 13.14 AC-FT 346,200
WTR YR 1971 TOTAL 46,849.28 MEAN 128 MAX 3,510 MIN 0 CFSM .26 IN 3.53 AC-FT 92,930

PEAK DISCHARGE (BASE, 9,000 CFS).--No peak above base.

07344200 Lake Texarkana near Texarkana, Tex.
(Formerly published as Texarkana Reservoir near Texarkana)

LOCATION.--Lat 33°18'16", long 94°09'38", Bowie-Cass County line, in intake structure of Texarkana Dam on the Sulphur River, 0.5 mile upstream from U.S. Highway 59, and 10 miles southwest of Texarkana.

DRAINAGE AREA.--3,443 sq mi.

PERIOD OF RECORD.--July 1953 to current year. Prior to October 1970, published as Texarkana Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). July 19 to Dec. 31, 1953, nonrecording gage at site about 125 ft upstream at datum 200 ft higher.

EXTREMES.--Current year: Maximum contents, 310,210 acre-ft Aug. 24 (elevation, 226.29 ft); minimum, 150,920 acre-ft Apr. 29 (elevation, 220.21 ft).
Period of record: Maximum contents, 1,912,100 acre-ft May 9, 1966 (elevation, 252.64 ft); minimum since first appreciable storage and after deliberate impoundment began, 137,500 acre-ft Sept. 5, 1958.

REMARKS.--Lake is formed by an 18,500-foot earthfill dam, with a 200-foot uncontrolled concrete spillway, and a mile-long dike. Flood-control outlet works consist of two 20-foot-diameter conduits controlled by four 10- by 20-foot electrically driven broome-type gates. Flow over spillway is discharged into an outlet channel and then to the Sulphur River. Sulphur River was blocked and storage began July 2, 1953; first passage of water through conduits began July 18, 1953; gates closed and impoundment of water began June 27, 1956. Dam completed in December 1957. Figures given herein represent total contents. Lake built for flood control and conservation. Capacity table is based on 1948 survey. Cities of Texarkana, Texas and Arkansas have been allocated 13,400 acre-ft of storage in the lake and during the water year 1971 diverted 8,300 acre-ft. At end of year, flow from 34.3 sq mi above this station was partly controlled by 24 floodwater-retarding structures with a total combined capacity of 13,870 acre-ft below the flood-spillway crests, of which 11,170 acre-ft is floodwater-retarding capacity and 2,700 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	286.0	-
Crest of spillway	259.5	2,654,300
Top of conservation pool	220.0	145,300
Invert of two 20-foot-diameter conduits	200.0	2,600

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 1561: 1957(M). WSP 1711: 1959(M).

Capacity table (elevation, in feet, and total contents, in acre-feet)

220.0	145,300	224.0	240,200
222.0	189,300	226.0	298,500
		228.0	364,100

CONTENTS, IN ACRE-FEET, AT 0700, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276,380	194,050	163,470	159,190	154,730	165,200	156,000	160,680	176,950	169,870	214,860	300,670
2	276,080	189,680	163,260	156,850	154,940	164,770	156,420	161,110	177,400	169,190	221,400	298,810
3	273,380	186,170	162,830	156,850	156,210	168,280	156,420	159,400	178,090	168,970	229,060	297,270
4	266,610	181,770	161,970	158,970	156,850	166,730	156,210	160,680	178,320	169,420	235,980	295,430
5	263,450	178,550	161,970	157,910	157,700	165,850	156,000	160,900	178,550	168,970	245,010	294,510
6	261,160	174,890	159,830	156,210	157,060	169,870	157,270	160,470	178,320	168,280	251,220	293,600
7	258,600	172,380	160,250	156,630	157,060	166,290	156,420	163,260	178,090	169,420	261,450	292,990
8	254,050	171,920	160,250	158,330	159,610	165,420	156,420	164,120	177,860	168,740	266,610	292,690
9	256,040	174,430	159,830	158,970	159,190	164,550	155,360	163,900	177,860	168,740	270,980	292,380
10	249,530	172,610	159,610	157,700	159,190	163,900	155,790	166,510	177,630	168,280	274,280	291,170
11	245,860	172,380	160,250	156,850	159,610	163,040	156,210	168,280	176,950	167,830	277,580	290,250
12	248,110	171,920	158,760	156,850	163,690	161,320	155,360	169,870	177,170	167,610	278,180	290,250
13	245,580	167,830	157,700	157,060	165,850	159,400	155,360	169,420	177,170	166,940	279,080	288,740
14	244,170	172,830	157,480	157,480	166,290	158,970	153,460	171,240	176,260	166,940	279,980	287,220
15	242,200	171,690	156,850	157,480	167,610	159,190	154,510	173,290	176,490	166,510	280,590	285,710
16	240,010	169,420	163,040	157,700	166,070	159,190	154,730	175,340	175,570	165,630	281,190	284,500
17	238,120	168,740	160,250	158,550	164,770	159,610	154,730	175,800	175,120	163,260	282,090	283,900
18	234,910	171,470	159,830	158,970	164,550	158,970	155,570	175,800	174,430	168,280	283,900	282,390
19	231,440	172,610	159,400	159,190	168,060	161,320	155,360	176,490	173,290	168,060	286,620	283,600
20	231,710	174,200	158,760	158,760	167,830	158,970	157,480	175,570	173,290	167,830	289,650	282,390
21	229,060	174,660	160,900	158,970	164,980	157,910	156,630	175,120	173,060	167,380	293,600	280,590
22	224,040	174,200	160,900	158,120	173,750	157,480	156,630	174,660	173,750	167,160	297,880	279,980
23	220,610	170,780	161,970	156,630	169,870	156,420	157,270	174,430	173,290	168,060	302,570	279,080
24	221,140	169,870	158,970	159,830	166,070	155,360	157,060	174,660	172,610	171,690	306,380	277,580
25	218,780	167,380	159,400	160,040	164,330	155,790	156,850	173,750	172,380	174,890	309,570	276,680
26	214,860	166,290	160,040	158,120	165,630	156,420	156,630	173,060	171,690	176,490	308,930	275,780
27	209,080	166,290	160,040	156,630	164,980	156,850	157,270	172,830	171,240	179,700	307,020	274,280
28	201,900	165,630	159,400	157,270	163,040	156,850	156,420	172,610	170,100	189,440	303,840	273,680
29	196,250	164,980	159,610	157,270	------	157,060	155,360	172,830	169,870	196,490	302,890	273,980
30	195,020	164,330	160,040	157,270	------	157,060	158,550	173,970	169,870	203,380	300,980	274,280
31	196,250	------	161,750	154,940	------	156,850	------	174,890	------	209,080	300,980	------
(†)	222.16	220.81	220.63	220.41	220.86	220.47	220.63	221.36	221.06	222.89	226.00	225.12
(*)	-81,300	-31,090	-3,860	-4,680	+9,620	-8,350	+3,410	+16,200	-6,840	+43,650	+88,140	-26,700
(††)	516	491	537	533	489	669	622	708	1,057	951	851	868
MAX	276,380	194,050	163,470	160,040	173,750	169,870	158,550	176,490	178,550	209,080	309,570	300,670
MIN	195,020	164,330	156,850	154,940	154,730	155,360	153,460	159,400	169,870	163,260	214,860	273,680

CAL YR 1970..... * -21,710 †† 7,160 MAX 514,680 MIN 151,140
WTR YR 1971..... * -1,800 †† 8,290 MAX 309,570 MIN 153,460

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Texarkana.

07344500 Big Cypress Creek near Pittsburg, Tex.

LOCATION.--Lat 33°01'15", long 94°52'55", Camp-Titus County line, near center of stream at downstream side of bridge on State Highway 11, 0.5 mile upstream from Louisiana and Arkansas Railway Co. bridge, 1.4 miles upstream from Williamson Creek, 5.2 miles east of Pittsburg, and at mile 110.0.

DRAINAGE AREA.--366 sq mi.

PERIOD OF RECORD.--March 1943 to January 1963 (published as Cypress Creek near Pittsburg), October 1967 to current year. Gage-height records collected at this site September 1963 to December 1967 are published in reports by Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 247.49 ft above mean sea level. Prior to Nov. 12, 1954, water-stage recorder at site 1,900 ft downstream at present datum.

AVERAGE DISCHARGE.--23 years (1943-62, 1967-71), 336 cfs (12.47 inches per year, 243,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 686 cfs Feb. 14 (gage height, 10.62 ft); minimum, 0.71 cfs Oct. 1.
Period of record: Maximum discharge, 58,500 cfs Mar. 30, 1945 (gage height, 28.3 ft, from floodmark and adjusted to present site on basis of record for flood of Apr. 27, 1958), from rating curve extended above 20,000 cfs; no flow Aug. 20 to Oct. 3, 1954, July 19 to Nov. 4, 1956.
Maximum stage since at least 1895, that of Mar. 30, 1945; flood in January 1938 reached a stage of about 25 ft, present site, adjusted as above, from information by local resident.

REMARKS.--Records good. Small diversions upstream for municipal water supply. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	16	9.6	60	30	100	30	37	30	2.2	154	6.8
2	1.4	13	9.1	57	28	73	28	42	21	2.0	56	6.3
3	1.4	9.8	11	51	29	135	27	34	15	2.6	33	5.8
4	1.4	8.6	11	45	33	471	25	26	12	2.8	26	6.9
5	1.2	8.6	11	41	50	456	22	22	9.3	4.4	32	8.4
6	1.5	9.5	10	39	56	199	20	20	8.6	3.6	74	6.5
7	1.5	8.4	9.1	35	48	106	22	18	7.1	3.0	64	6.3
8	2.9	7.2	8.6	33	44	72	22	17	5.8	2.2	37	5.4
9	4.5	6.8	7.9	31	40	57	20	17	4.8	1.8	26	4.9
10	7.9	7.1	9.8	31	39	54	20	21	5.0	1.7	19	4.9
11	5.8	12	10	31	37	53	19	31	6.2	2.3	15	4.0
12	14	18	10	30	161	65	18	46	6.2	2.1	12	4.0
13	100	16	9.6	31	393	67	18	53	5.4	2.2	14	4.4
14	110	30	8.6	34	650	60	20	40	5.0	2.3	18	3.5
15	49	141	8.7	41	382	51	19	31	4.4	1.8	13	2.7
16	30	112	13	45	135	46	18	25	5.2	1.5	10	2.6
17	18	45	27	40	81	43	18	19	4.6	1.3	8.2	2.9
18	10	34	26	37	63	40	20	15	5.3	1.1	6.3	3.8
19	7.4	25	24	32	68	39	24	14	5.0	1.0	8.2	3.9
20	5.4	18	23	32	84	41	25	12	4.1	1.0	8.4	4.0
21	4.2	13	23	32	93	41	26	11	3.8	1.1	6.0	3.3
22	4.8	11	47	32	157	38	29	11	3.5	2.1	5.8	3.0
23	5.1	8.7	46	31	193	36	34	9.8	3.0	4.6	6.3	3.2
24	14	7.7	36	38	111	35	34	8.4	2.5	35	158	4.9
25	64	7.2	31	41	77	34	32	6.9	2.5	102	231	6.0
26	37	7.7	28	35	102	33	35	6.3	3.0	309	136	6.5
27	25	9.6	24	35	189	33	33	8.4	3.2	355	38	7.1
28	26	10	22	34	168	34	26	9.5	3.3	380	23	5.6
29	28	9.6	22	34	------	32	25	12	3.2	373	14	3.7
30	24	10	25	32	------	30	28	12	2.7	649	9.5	3.1
31	21	------	42	32	------	31	------	20	------	422	8.9	------
TOTAL	627.26	640.5	603.0	1,152	3,541	2,605	737	655.3	200.7	2,675.7	1,270.6	144.4
MEAN	20.2	21.4	19.5	37.2	126	84.0	24.6	21.1	6.69	86.3	41.0	4.81
MAX	110	141	47	60	650	471	35	53	30	649	231	8.4
MIN	.86	6.8	7.9	30	28	30	18	6.3	2.5	1.0	5.8	2.6
CFSM	.06	.06	.05	.10	.34	.23	.07	.06	.02	.24	.11	.01
IN.	.06	.07	.06	.12	.36	.26	.07	.07	.02	.27	.13	.01
AC-FT	1,240	1,270	1,200	2,280	7,020	5,170	1,460	1,300	398	5,310	2,520	286

CAL YR 1970 TOTAL 69,560.80 MEAN 191 MAX 3,920 MIN .78 CFSM .52 IN 7.07 AC-FT 138,000
WTR YR 1971 TOTAL 14,852.46 MEAN 40.7 MAX 650 MIN .86 CFSM .11 IN 1.51 AC-FT 29,460

PEAK DISCHARGE (BASE, 3,000 CFS).--No peak above base.

07345000 Boggy Creek near Daingerfield, Tex.

LOCATION.--Lat 33°02'10", long 94°47'15", Morris County, on right bank at downstream side of bridge on State Highway 11, 0.4 mile upstream from Louisiana & Arkansas Railway Co. bridge, 3.8 miles west of Daingerfield, and 9 miles upstream from mouth.

DRAINAGE AREA.--72 sq mi.

PERIOD OF RECORD.--March 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 258.41 ft above mean sea level. Prior to Oct. 1, 1954, at site 1,700 ft downstream at same datum.

AVERAGE DISCHARGE.--28 years, 77.4 cfs (14.60 inches per year, 56,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 400 cfs Feb. 13 (gage height, 9.30 ft); no flow at times.
Period of record: Maximum discharge, 28,900 cfs Apr. 27, 1958 (gage height, 17.80 ft), from rating curve extended above 13,000 cfs; no flow at times.
Maximum stage since at least 1900, that of Apr. 27, 1958; flood in January 1938 reached a stage of 17.5 ft (adjusted to present site), from information by local residents.

REMARKS.--Records good. No known diversion above station.

REVISIONS (WATER YEARS).--WSP 1211: Drainage area. WSP 1561: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.7	5.2	29	12	45	9.0	13	.49	0	27	2.8
2	0	1.2	5.2	20	10	39	8.4	8.6	.28	0	14	2.7
3	0	.87	5.0	15	9.7	52	7.7	5.6	.16	0	23	2.4
4	0	.59	4.9	14	13	83	7.2	3.8	.10	0	60	2.0
5	0	.40	4.9	12	25	76	7.0	3.1	.05	0	62	1.8
6	0	.36	4.6	11	35	54	6.6	2.7	.03	0	96	1.6
7	0	.28	4.3	9.9	24	41	6.1	2.8	0	0	99	1.3
8	0	.25	4.2	9.0	21	33	5.9	2.8	0	0	50	1.1
9	0	.22	4.2	8.8	18	28	5.8	3.0	0	0	24	.87
10	0	.22	4.2	9.0	16	27	5.6	5.6	0	0	14	.69
11	0	.25	4.4	9.0	15	28	5.5	10	0	0	9.7	.49
12	0	.49	4.7	8.8	50	28	5.3	26	0	0	7.5	.44
13	0	1.9	4.6	8.6	293	27	5.0	22	0	0	6.7	.40
14	.91	15	4.4	9.5	290	27	4.6	9.5	0	0	8.8	.32
15	1.8	32	6.2	16	154	24	4.4	5.8	0	0	7.9	.22
16	.69	25	16	16	67	19	4.2	4.0	0	0	6.6	.14
17	.22	14	22	13	47	15	4.2	2.9	0	0	5.0	.07
18	.05	9.5	17	11	39	15	5.8	2.1	0	0	4.0	.02
19	.01	7.7	12	9.9	45	15	10	1.6	0	0	3.0	0
20	0	6.2	10	9.1	66	17	11	1.3	0	0	2.5	0
21	0	5.5	11	8.6	68	16	11	.99	0	0	2.0	0
22	0	5.2	15	8.8	77	15	15	.75	0	0	1.6	0
23	0	4.7	16	9.3	136	14	27	.54	0	0	1.4	0
24	.12	4.3	13	18	89	13	22	.40	0	17	30	0
25	2.3	4.2	10	46	50	12	12	.32	0	59	115	0
26	3.4	4.1	8.2	45	55	12	7.9	.25	0	108	52	0
27	2.3	4.2	7.7	25	79	12	6.1	.36	0	145	13	0
28	3.0	4.3	7.4	18	68	12	5.0	.99	0	167	7.4	0
29	3.1	4.9	7.4	15	------	12	8.8	1.1	0	181	5.2	0
30	3.6	5.3	12	14	------	11	15	.99	0	123	4.0	0
31	2.8	------	27	13	------	9.7	------	.64	------	67	3.1	------
TOTAL	24.30	164.83	282.7	469.3	1,871.7	831.7	259.1	143.53	1.11	867	765.4	19.36
MEAN	.78	5.49	9.12	15.1	66.8	26.8	8.64	4.63	.037	28.0	24.7	.65
MAX	3.6	32	27	46	293	83	27	26	.49	181	115	2.8
MIN	0	.22	4.2	8.6	9.7	9.7	4.2	.25	0	0	1.4	0
CFSM	.01	.08	.13	.21	.93	.37	.12	.06	.0005	.39	.34	.009
IN.	.01	.09	.15	.24	.97	.43	.13	.07	0	.45	.40	.01
AC-FT	48	327	561	931	3,710	1,650	514	285	2.2	1,720	1,520	38

CAL YR 1970 TOTAL 18,539.25 MEAN 50.8 MAX 1,500 MIN 0 CFSM .71 IN 9.58 AC-FT 36,770
WTR YR 1971 TOTAL 5,700.03 MEAN 15.6 MAX 293 MIN 0 CFSM .22 IN 2.95 AC-FT 11,310

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

07345900 Lake O' the Pines near Jefferson, Tex.

LOCATION.--Lat 32°45'04", long 94°29'59", Marion County, in intake structure of Ferrell's Bridge Dam on Big Cypress Creek, on Farm Road 726, 9.0 miles west of Jefferson, and at mile 80.1.

DRAINAGE AREA.--850 sq mi.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Nov. 12, 1957, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 265,900 acre-ft Mar. 6 (elevation, 228.97 ft); minimum, 239,450 acre-ft July 17 (elevation, 227.55 ft).
Period of record: Maximum contents, 694,360 acre-ft May 5, 1966 (elevation, 245.41 ft); minimum since December 1959, 219,700 acre-ft Nov. 16, 1963 (elevation, 226.54 ft).

REMARKS.--Lake is formed by a 10,600-foot rolled earthfill dam and a 200-foot concrete spillway. Flood-control outlet works consist of two 10-foot-diameter conduits controlled by two 8.0- by 12.5-foot electrically driven broome-type gates. Low-flow outlet works consist of one 14-inch pipe and valve. Flow over spillway is discharged into a 2,000-foot channel and then into Cypress Creek. Cofferdam closure was made Aug. 21, 1957; water began flowing through conduits Sept. 25, 1957. Dam completed in December 1957. Deliberate impoundment began in August 1958, and the lake was in full use by December 1959. Capacity table based on 1950 survey. Figures given herein represent total contents. Lake built for flood control, conservation, and water supply. During year, 265 acre-ft was diverted by city of Daingerfield, 225 acre-ft was diverted by city of Hughes Springs, and 3,010 acre-ft was diverted by Southwestern Electric Power Company. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	277.0	-
Crest of spillway	249.5	842,100
Top of conservation storage space	228.5	254,900
Invert of 14-inch intake to wet well	202.5	5,760
Invert of two 10-foot-diameter conduits	200.0	2,860

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

227.0	227,650	229.0	264,280
228.0	245,600	230.0	283,680

CONTENTS, IN ACRE-FEET, AT 0700, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255,700	257,950	257,390	258,330	258,330	257,950	258,900	258,330	256,260	248,200	254,200	262,290
2	255,700	258,520	257,770	258,140	257,010	259,270	258,330	258,330	256,450	247,640	254,950	261,730
3	255,510	257,950	257,770	257,200	257,580	262,290	257,770	257,770	256,450	248,010	257,010	261,730
4	254,760	257,770	258,140	261,920	257,580	259,840	257,770	256,830	256,260	248,200	257,390	261,540
5	254,570	256,070	257,950	259,270	258,520	259,270	258,710	257,390	256,070	247,640	259,650	261,540
6	253,820	255,130	257,950	258,520	258,330	265,900	259,270	257,200	255,890	247,270	260,590	261,160
7	253,820	255,130	257,580	258,330	258,710	261,350	257,770	258,330	255,130	246,350	262,480	261,350
8	253,630	254,760	257,390	258,330	260,400	260,970	257,390	259,080	255,130	245,800	262,670	260,970
9	257,010	258,900	257,580	258,520	259,460	260,030	257,200	258,140	254,760	245,620	263,050	260,780
10	254,760	258,330	257,950	258,330	257,950	260,400	257,010	258,900	254,570	245,250	263,050	260,590
11	254,010	257,950	260,400	258,520	257,580	259,080	257,010	259,270	254,010	244,890	263,050	260,220
12	256,640	258,520	258,140	258,710	262,670	259,080	257,010	260,590	254,200	244,340	263,050	260,220
13	256,450	256,640	257,390	258,710	260,400	258,900	257,390	259,460	254,200	243,980	263,620	260,030
14	256,260	261,160	257,390	258,520	259,270	258,710	257,200	259,460	253,440	243,620	263,430	259,650
15	256,260	260,400	257,010	259,650	260,400	259,270	257,010	259,460	253,070	243,070	263,620	259,270
16	255,700	258,330	262,670	258,330	260,970	259,270	256,830	259,270	253,070	242,530	263,620	258,710
17	255,700	257,390	258,330	258,330	262,100	258,520	256,640	259,080	252,690	241,980	263,430	258,140
18	255,700	258,330	258,520	258,520	262,480	257,580	258,520	259,270	252,320	242,340	263,050	257,390
19	255,700	257,200	258,900	258,520	264,570	260,780	258,710	259,460	251,570	241,980	262,860	257,950
20	255,700	258,140	259,270	257,390	264,000	258,140	260,220	258,900	251,380	241,620	262,480	256,640
21	255,320	257,200	260,220	257,580	262,290	257,010	260,030	258,710	250,820	240,890	261,920	256,070
22	254,950	257,390	260,220	257,950	261,730	257,200	260,220	257,950	251,200	240,710	262,290	256,070
23	255,130	258,900	260,220	257,580	259,650	257,580	260,590	257,200	250,630	243,070	262,290	256,830
24	257,580	257,010	258,330	258,330	258,520	257,390	259,840	258,140	250,260	243,620	262,100	256,640
25	257,390	256,640	258,520	258,330	258,710	258,140	258,710	257,950	249,700	243,800	262,480	256,640
26	257,200	256,830	257,580	258,520	260,220	257,580	257,770	257,770	249,320	245,250	262,480	256,640
27	260,590	257,010	257,580	258,330	259,840	257,390	257,770	258,330	248,760	249,700	262,860	256,640
28	262,290	257,200	257,580	258,520	258,900	257,580	257,580	258,140	248,200	248,200	262,670	256,260
29	260,400	257,390	258,140	258,330	------	259,270	257,010	257,770	247,830	249,320	262,670	256,070
30	259,460	257,390	257,950	258,520	------	258,900	258,330	257,200	248,390	252,320	262,290	255,890
31	258,140	------	260,590	258,330	------	258,520	------	257,010	------	253,070	261,920	------
(†)	228.56	228.51	228.59	228.56	228.60	228.56	228.57	228.46	228.01	228.32	228.76	228.45
(*)	+2,250	-940	+1,510	-570	+760	-760	+190	-2,070	-8,430	+5,800	+8,290	-5,850
MAX	262,290	261,160	262,670	261,920	264,570	265,900	260,590	260,590	256,450	253,070	263,620	262,290
MIN	253,630	254,760	257,010	257,200	257,010	257,010	256,640	256,830	247,830	240,710	254,200	255,890

CAL YR 1970..... * -15,550 MAX 295,950 MIN 253,630
WTR YR 1971..... * +180 MAX 265,900 MIN 240,710

† Elevation, in feet at midnight, at end of month.
* Change in contents, in acre-feet.

07346045 Black Cypress Bayou at Jefferson, Tex.

LOCATION.--Lat 32°46'40", long 94°21'26", Marion County, near center of channel at downstream side of bridge on U.S. Highway 59, 1.1 miles north of Jefferson, 2.0 miles upstream from Texas and Pacific Railway bridge, and at mile 5.2 (revised).

DRAINAGE AREA.--365 sq mi.

PERIOD OF RECORD.--September 1968 to current year. May 1938 to September 1955, daily gage heights, and November 1956 to August 1968, daily gage heights and discharge measurements published by Corps of Engineers as "Black Cypress Creek at Jefferson". September 1964 to August 1968, operated as low-flow partial-record station only.

GAGE.--Water-stage recorder. Datum of gage is 171.47 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum discharge, 362 cfs Mar. 18 (gage height, 9.82 ft); no flow July 9-23.
Period of record: Maximum discharge, 3,420 cfs Apr. 17, 1969 (gage height, 15.41 ft); no flow at times most years.
Maximum stage since 1938, 22.42 ft Apr. 29, 1958, from records by Corps of Engineers.

REMARKS.--Records good. No known regulation or diversion in vicinity of gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	44	57	107	134	226	113	195	20	.13	34	33
2	4.0	43	56	102	129	223	106	164	20	.16	46	28
3	3.5	41	54	104	124	223	101	140	21	.16	64	24
4	3.2	40	53	121	119	223	97	131	19	.16	96	20
5	3.0	37	52	129	116	218	92	128	16	.07	109	16
6	2.4	34	52	135	110	213	87	126	14	.04	124	13
7	2.0	32	51	135	105	209	82	125	12	.01	141	11
8	2.0	30	51	133	104	206	77	118	10	0	168	8.9
9	2.5	35	51	127	104	202	73	104	8.3	0	186	7.7
10	2.8	69	51	120	105	197	70	99	7.4	0	192	6.5
11	3.9	85	52	113	106	193	66	131	6.2	0	184	5.6
12	4.9	71	51	104	116	193	63	155	5.3	0	168	4.9
13	5.6	76	51	97	126	189	61	163	4.6	0	152	4.1
14	10	108	50	93	128	214	60	173	3.8	0	110	3.6
15	13	128	52	89	128	263	58	179	3.3	0	79	3.1
16	13	120	63	85	147	304	57	176	3.0	0	57	2.6
17	16	107	71	81	164	336	58	167	2.5	0	48	2.2
18	18	106	67	80	174	357	73	150	2.2	0	45	1.9
19	18	113	67	78	208	342	83	126	1.9	0	43	1.6
20	18	117	85	77	232	290	79	100	1.9	0	37	1.4
21	16	116	108	77	238	234	84	77	1.7	0	31	1.2
22	15	110	116	78	248	192	110	60	1.9	0	25	1.4
23	15	103	118	78	241	168	164	48	1.4	0	22	2.1
24	17	94	118	79	230	152	184	39	1.2	.04	24	2.3
25	21	84	117	77	226	143	179	34	.95	2.5	25	2.1
26	20	77	116	75	234	137	179	30	.76	3.5	22	2.1
27	23	71	113	75	236	130	194	26	.58	1.9	16	2.3
28	41	67	110	81	234	128	206	24	.42	2.4	17	2.0
29	51	62	106	96	------	138	206	23	.30	14	26	1.9
30	41	59	103	114	------	129	203	21	.22	18	35	3.1
31	43	------	106	128	------	121	------	20	------	22	37	------
TOTAL	452.9	2,279	2,368	3,068	4,566	6,493	3,265	3,252	191.83	65.07	2,363	219.6
MEAN	14.6	76.0	76.4	99.0	163	209	109	105	6.39	2.10	76.2	7.32
MAX	51	128	118	135	248	357	206	195	21	22	192	33
MIN	2.0	30	50	75	104	121	57	20	.22	0	16	1.2
CFSM	.04	.21	.21	.27	.45	.57	.30	.29	.02	.006	.21	.02
IN.	.05	.23	.24	.31	.47	.66	.33	.33	.02	.006	.24	.02
AC-FT	898	4,520	4,700	6,090	9,060	12,880	6,480	6,450	380	129	4,690	436

CAL YR 1970 TOTAL 97,369.70 MEAN 267 MAX 1,760 MIN 1.3 CFSM .73 IN 9.92 AC-FT 193,100
WTR YR 1971 TOTAL 28,583.40 MEAN 78.3 MAX 357 MIN 0 CFSM .21 IN 2.91 AC-FT 56,700

07346050 Little Cypress Creek near Ore City, Tex.

LOCATION.--Lat 32°40'21", long 94°45'03", Gregg-Upshur County line, on right bank at downstream side of bridge on U.S. Highway 259, 4 miles downstream from Clear Creek, 9 miles south of Ore City, and 12 miles north of Longview.

DRAINAGE AREA.--383 sq mi.

PERIOD OF RECORD.--December 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 232.67 ft above mean sea level.

AVERAGE DISCHARGE.--8 years (1963-71), 210 cfs (7.45 inches per year, 152,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 178 cfs Feb. 27 (gage height, 5.60 ft); no flow at times.
Period of record: Maximum discharge, 23,500 cfs Apr. 24, 1966 (gage height, 20.20 ft); no flow at times.
Maximum stage since at least 1902 occurred in March 1945; maximum stage since 1945, that of Apr. 24, 1966. The flood in April 1958 reached a stage of 19.4 ft, or 1.3 ft lower than the flood of March 1945 at a point 6 miles upstream, from information by local resident.

REMARKS.--Records good. No known diversion above station. During water year 1971, the city of Gilmer discharged 347 acre-ft of sewage effluent into tributaries above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	77	34	66	44	150	52	42	12	.03	137	1.5
2	3.2	46	35	67	40	145	47	39	11	.02	127	1.1
3	2.7	30	37	72	38	145	44	38	8.5	.01	111	.79
4	1.2	24	36	66	41	149	42	34	6.7	0	119	.90
5	.95	22	36	55	45	140	40	30	5.1	0	129	.85
6	.95	19	35	49	49	138	37	28	3.9	0	120	.56
7	.90	19	33	46	57	128	35	25	3.4	0	87	.37
8	.95	18	32	43	64	118	34	25	2.9	0	63	.25
9	2.5	57	32	41	63	111	33	22	2.2	0	48	.18
10	5.3	142	32	39	60	112	33	23	1.6	0	45	.11
11	8.5	111	32	39	55	124	32	26	1.1	0	46	.06
12	12	59	31	39	69	122	31	37	.74	0	36	.03
13	14	49	31	39	111	136	31	71	.48	0	25	.01
14	16	121	29	40	117	140	29	81	.31	0	19	0
15	21	158	31	39	122	136	27	68	.28	0	18	0
16	20	129	38	38	130	123	25	51	.31	0	24	0
17	13	104	57	36	127	107	27	38	.25	0	30	0
18	7.6	90	56	35	113	95	45	29	.18	0	36	0
19	5.0	70	53	34	116	87	60	23	.16	0	29	0
20	4.3	53	54	31	119	81	62	19	.14	0	19	0
21	4.0	44	70	31	106	75	71	16	.28	0	17	0
22	4.8	40	75	31	106	69	70	12	.31	0	10	0
23	8.1	38	62	31	111	64	92	11	.25	0	5.9	0
24	14	34	54	32	111	61	135	9.1	.16	0	3.6	0
25	22	32	48	34	121	60	112	8.1	.11	0	7.0	0
26	23	31	42	35	148	59	110	7.0	.08	0	9.1	0
27	47	31	38	38	174	57	96	7.0	.06	6.4	13	0
28	127	31	34	46	154	57	72	8.0	.05	46	8.3	0
29	150	31	34	48	------	66	58	10	.05	90	4.7	0
30	119	31	37	51	------	65	48	9.3	.06	122	2.9	0
31	101	------	56	49	------	57	------	12	------	135	2.7	------
TOTAL	763.55	1,741	1,304	1,340	2,611	3,177	1,630	858.5	62.66	399.46	1,352.2	6.71
MEAN	24.6	58.0	42.1	43.2	93.3	102	54.3	27.7	2.09	12.9	43.6	.22
MAX	150	158	75	72	174	150	135	81	12	135	137	1.5
MIN	.90	18	29	31	38	57	25	7.0	.05	0	2.7	0
CFSM	.06	.15	.11	.11	.24	.27	.14	.07	.006	.03	.11	.0006
IN.	.07	.17	.13	.13	.25	.31	.16	.08	.006	.04	.13	0
AC-FT	1,510	3,450	2,590	2,660	5,180	6,300	3,230	1,700	124	792	2,680	13

CAL YR 1970 TOTAL 83,260.65 MEAN 228 MAX 2,460 MIN 0 CFSM .60 IN 8.09 AC-FT 165,100
WTR YR 1971 TOTAL 15,246.08 MEAN 41.8 MAX 174 MIN 0 CFSM .11 IN 1.48 AC-FT 30,240

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

07346070 Little Cypress Creek near Jefferson, Tex.

LOCATION.--Lat 32°42'46", long 94°20'44", Harrison-Marion County line, near center of channel at downstream side of bridge on U.S. Highway 59, 0.3 mile downstream from Texas and Pacific Railway Co. bridge, 3.3 miles downstream from Grays Creek, and 3.5 miles south of Jefferson.

DRAINAGE AREA.--675 sq mi.

PERIOD OF RECORD.--June 1946 to current year (monthly discharge only for June 1946 to September 1963, published in WSP 1920).

GAGE.--Water-stage recorder. Datum of gage is 174.60 ft above mean sea level. Prior to Sept. 19, 1947, nonrecording gage at upstream side of bridge at same datum.

AVERAGE DISCHARGE.--25 years, 508 cfs (10.22 inches per year, 368,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 279 cfs Feb. 22 (gage height, 6.28 ft); no flow July 21, 22.
Period of record: Maximum discharge, 35,500 cfs Apr. 26, 1966 (gage height, 22.28 ft); no flow at times.
Maximum stage since May 1944, that of Apr. 26, 1966; flood in May 1944 reached a stage of 21.1 ft.

REMARKS.--Records good. During water year 1971, the city of Gilmer discharged about 347 acre-ft of sewage effluent into tributaries above station. No known diversion above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	133	59	109	90	245	126	129	14	.14	.21	22
2	1.3	132	59	116	93	247	123	110	13	.68	7.3	23
3	1.3	124	60	124	94	253	116	94	12	1.5	68	19
4	1.2	111	60	135	95	249	108	80	11	1.2	95	14
5	1.2	93	60	139	100	245	99	70	12	.68	114	11
6	1.2	73	59	143	104	239	92	66	12	.46	142	8.6
7	1.3	55	58	139	106	228	87	65	12	.32	148	6.4
8	2.2	45	58	130	106	221	81	61	10	.21	143	4.5
9	4.0	52	56	119	103	210	77	59	8.8	.15	143	3.1
10	4.0	55	56	111	102	220	74	68	7.4	.10	141	2.3
11	3.5	69	55	107	106	239	71	92	6.1	.07	106	1.4
12	4.2	88	54	104	119	255	69	90	5.5	.06	76	.95
13	4.8	117	53	100	132	264	67	89	4.0	.04	61	.68
14	4.6	176	53	99	143	253	65	81	3.1	.04	49	.43
15	4.6	193	55	97	156	239	63	71	2.2	.03	44	.30
16	9.6	195	58	95	179	222	61	77	1.6	.02	36	8.4
17	18	194	66	95	185	211	62	92	1.0	.02	26	6.7
18	20	190	81	93	186	203	87	92	.80	.02	20	4.2
19	21	186	89	90	209	195	104	77	.56	.01	16	5.5
20	22	178	106	87	243	186	113	62	.46	.01	16	5.2
21	20	163	149	85	262	181	128	51	.40	0	17	3.4
22	18	141	194	83	277	171	130	41	.32	.01	22	4.2
23	16	121	215	82	267	155	184	33	.32	.02	22	13
24	17	99	211	82	246	143	226	26	.20	.07	22	16
25	16	81	187	85	226	133	220	24	.21	1.2	33	14
26	15	71	163	87	233	127	211	21	.30	3.5	21	13
27	37	66	139	86	241	121	199	20	.32	3.6	14	9.2
28	125	63	123	84	245	120	185	21	.26	1.6	10	6.4
29	141	61	112	83	------	173	164	18	.21	.76	7.8	4.8
30	121	59	106	84	------	154	147	16	.16	.50	6.0	3.4
31	130	------	105	86	------	133	------	15	------	.35	4.6	------
TOTAL	786.76	3,384	2,959	3,159	4,648	6,235	3,539	1,911	140.22	17.37	1,630.91	235.06
MEAN	25.4	113	95.5	102	166	201	118	61.6	4.67	.56	52.6	7.84
MAX	141	195	215	143	277	264	226	129	14	3.6	148	23
MIN	.76	45	53	82	90	120	61	15	.16	0	.21	.30
CFSM	.04	.17	.14	.15	.25	.30	.17	.09	.007	.0008	.08	.01
IN.	.04	.19	.16	.17	.26	.34	.20	.11	.007	0	.09	.01
AC-FT	1,560	6,710	5,870	6,270	9,220	12,370	7,020	3,790	278	34	3,230	466

CAL YR 1970 TOTAL 130,369.80 MEAN 357 MAX 2,960 MIN .43 CFSM .53 IN 7.18 AC-FT 258,600
WTR YR 1971 TOTAL 28,645.32 MEAN 78.5 MAX 277 MIN 0 CFSM .12 IN 1.58 AC-FT 56,820

07346140 Frazier Creek near Linden, Tex.

LOCATION.--Lat 33°03'16", long 94°17'22", Cass County, on right bank at downstream side of bridge on U.S. Highway 59, 1.6 miles upstream from Colley Creek, 3.7 miles upstream from Johns Creek, and 5.5 miles northeast of Linden.

DRAINAGE AREA.--48.0 sq mi.

PERIOD OF RECORD.--August 1958 to June 1961 (low-flow partial record only), November 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 228.7 ft above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--6 years (1965-71), 31.5 cfs (8.91 inches per year, 22,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 74 cfs Apr. 23 (gage height, 5.52 ft); no flow at times.
Period of record: Maximum discharge, 2,620 cfs Apr. 24, 1966 (gage height, 12.28 ft); no flow at times each year.
Maximum stage since at least 1945, 15.6 ft Apr. 26, 27, 1958, from information by State Highway Department.

REMARKS.--Records good. No known diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	2.2	6.2	24	13	18	9.8	24	.81	0	1.2	.22
2	.01	1.9	6.3	16	11	17	8.9	14	.64	0	.64	.42
3	0	1.7	6.3	14	12	29	8.1	10	.46	.02	19	.64
4	0	2.0	6.0	17	16	29	8.0	8.3	.34	.01	15	.50
5	0	2.0	5.9	16	22	22	7.8	7.5	.19	.01	25	.34
6	0	2.0	4.9	11	18	20	7.5	8.1	.13	.01	11	.22
7	0	2.0	4.8	9.8	15	17	7.1	18	.08	0	24	.11
8	.02	2.6	4.5	9.3	14	15	7.1	19	.04	0	19	.06
9	.05	7.0	4.5	9.8	13	14	7.3	12	.02	0	7.3	.02
10	.03	8.6	5.1	9.9	12	16	7.1	24	.01	0	4.3	.02
11	.08	4.9	5.5	9.8	12	16	7.0	38	0	0	2.7	.02
12	.42	3.4	5.2	9.0	26	15	7.0	35	0	0	2.0	.02
13	4.0	5.8	4.7	8.7	38	19	6.4	20	0	0	2.2	.02
14	2.5	25	4.3	9.2	24	19	6.2	14	0	0	4.1	.02
15	1.2	32	6.8	9.6	21	15	6.6	10	0	0	2.6	.02
16	.60	15	20	8.3	22	12	6.6	7.8	0	0	1.9	.02
17	.34	10	22	7.4	19	11	6.6	6.2	0	0	1.2	.02
18	.28	8.7	12	7.7	17	11	22	5.3	0	.02	.64	.02
19	.22	7.8	9.3	7.4	24	13	25	4.7	0	.01	.50	.02
20	.25	6.8	9.9	6.4	37	12	16	4.1	0	.02	.34	.02
21	.25	5.9	21	6.3	26	11	18	3.3	0	.01	.22	.02
22	.28	5.5	19	7.4	35	11	20	2.6	0	.02	.13	.02
23	.55	5.1	14	7.8	26	11	66	2.2	0	.02	.15	.03
24	2.0	4.9	11	30	20	10	39	2.1	0	.34	7.8	.02
25	4.5	4.5	8.4	57	19	9.9	18	1.9	0	.13	12	.03
26	2.4	4.5	7.5	29	27	10	13	1.4	0	.08	4.5	.02
27	2.2	5.3	7.0	21	28	10	11	1.2	0	5.7	1.7	.02
28	9.2	6.0	7.0	17	20	10	10	1.7	0	17	.75	.02
29	13	6.0	7.5	16	------	11	11	2.3	0	11	.42	.02
30	5.1	6.0	11	16	------	13	35	1.4	0	6.3	.31	.01
31	2.8	------	32	15	------	10	------	1.1	------	2.4	.19	------
TOTAL	52.29	205.1	299.6	442.8	587	456.9	429.1	311.2	2.72	43.10	172.79	2.96
MEAN	1.69	6.84	9.66	14.3	21.0	14.7	14.3	10.0	.091	1.39	5.57	.099
MAX	13	32	32	57	38	29	66	38	.81	17	25	.64
MIN	0	1.7	4.3	6.3	11	9.9	6.2	1.1	0	0	.13	.01
CFSM	.04	.14	.20	.30	.44	.31	.30	.21	.002	.03	.12	.002
IN.	.04	.16	.23	.34	.45	.35	.33	.24	.002	.03	.13	.002
AC-FT	104	407	594	878	1,160	906	851	617	5.4	85	343	5.9

CAL YR 1970 TOTAL 13,329.10 MEAN 36.5 MAX 350 MIN 0 CFSM .76 IN 10.33 AC-FT 26,440
WTR YR 1971 TOTAL 3,005.56 MEAN 8.23 MAX 66 MIN 0 CFSM .17 IN 2.33 AC-FT 5,960

PEAK DISCHARGE (BASE, 700 CFS).--No peak above base.

08017200 Cowleech Fork Sabine River at Greenville, Tex.

LOCATION.--Lat 33°07'56", long 96°04'40", Hunt County, on right bank at downstream side of downstream bridge on Interstate Highway 30 (U.S. Highway 67), 0.3 mile downstream from Horse Creek, 0.9 mile downstream from Louisiana and Arkansas Railroad Co. bridge, 1.8 miles east of Greenville, and at mile 558.3.

DRAINAGE AREA.--77.7 sq mi.

PERIOD OF RECORD.--February 1959 to current year. Prior to October 1963, published as Sabine River at Greenville.

GAGE.--Water-stage recorder. Datum of gage is 485.07 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 58.2 cfs (10.17 inches per year, 42,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,350 cfs Oct. 12 (gage height, 15.74 ft); minimum daily, 0.08 cfs May 4.
Period of record: Maximum discharge, 10,800 cfs May 7, 1969 (gage height, 17.95 ft); no flow at times in 1964, 1969-70.
Maximum stage since 1895, 22 ft in May 1935, from information by local resident and city engineer of Greenville. Flood of July 3, 1913, reached a stage of 20 ft, from information by local resident.

REMARKS.--Records good. The city of Greenville reported that during the current water 200 acre-ft of water was diverted from city lakes upstream from station and 3,790 acre-ft from Lake Tawakoni for municipal use, and 2,410 acre-ft of sewage effluent was returned to a tributary downstream from station. Extreme low flow is largely sustained by returned water from water treatment plant upstream. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WSP 1732: Drainage area. WSP 1922: 1960. WRD Texas 1968: 1966-67.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.54	.91	2.6	.34	3.6	.92	.40	.20	.51	2.0	.43
2	.69	.31	.69	1.5	.33	79	.64	.21	.24	.73	1.2	.45
3	.34	.39	.76	3.2	.59	54	.89	.09	.26	.87	3.5	.71
4	.56	.51	.62	4.3	4.3	22	.68	.08	.20	.30	18	.54
5	2.4	.53	.54	8.7	1.8	8.7	.79	.30	.31	.35	6.0	.44
6	3.1	.65	.30	3.9	.94	4.7	.73	.33	.24	.42	12	.38
7	.65	.69	.49	1.6	.49	2.9	.88	.27	.26	.55	3.2	.31
8	92	.46	.50	1.3	.40	2.0	.75	.31	.24	.48	1.1	.65
9	72	.41	.83	.94	.54	1.8	.65	8.4	.35	.62	.67	.42
10	7.6	.55	.71	.72	.40	1.5	.67	2.9	.25	.50	.57	.66
11	333	.63	.56	.73	4.7	1.7	.50	.70	.39	.48	1.2	.58
12	1,750	.44	.47	1.5	20	1.8	.56	.47	.32	.45	.56	.57
13	89	8.9	.30	2.4	2.4	1.3	.54	.67	.32	.56	.46	.69
14	11	33	.45	2.2	.96	1.1	.50	.71	.28	.51	811	.44
15	3.6	7.2	1.7	1.5	.48	1.3	.36	.36	.37	.48	748	.56
16	1.2	2.2	.87	1.0	.67	1.1	.55	.37	.29	.72	31	.50
17	.80	1.4	.34	.66	.67	1.4	.39	.45	.56	.66	14	.51
18	.85	1.0	.50	.60	3.3	1.3	5.5	.40	.30	.60	10	.43
19	.61	1.4	.53	.67	33	1.2	.71	1.6	.37	.55	7.7	.34
20	.49	1.0	.38	.35	9.7	1.1	2.2	.52	.36	.51	7.0	.37
21	.49	.53	1.1	.76	89	1.0	.81	.30	.39	.61	5.9	.32
22	.41	.71	1.6	.36	127	.83	.60	.39	.23	.49	4.8	5.5
23	116	.63	.78	.70	15	.97	.73	.23	.38	.55	3.7	13
24	230	.53	.78	.50	6.1	.92	.87	.37	.29	4.1	2.8	231
25	16	.73	.64	.46	20	.77	.36	.50	.36	.71	1.6	34
26	4.9	.90	.62	.88	46	1.2	.48	.48	.30	.47	.99	9.0
27	1.8	.83	.52	.99	22	.73	.46	7.0	.40	1.5	.70	2.5
28	11	.73	.62	.45	7.4	.81	.33	.89	.56	13	.35	.88
29	4.5	.73	.71	.75	------	.86	.74	3.6	.78	7.8	.37	.56
30	1.2	.98	9.6	.72	------	.81	.85	1.4	.96	126	.46	.60
31	.75	------	8.0	.40	------	.66	------	.41	------	9.3	.66	------
TOTAL	2,758.04	69.51	37.42	47.34	418.51	203.06	25.64	35.11	10.76	175.38	1,701.49	307.34
MEAN	89.0	2.32	1.21	1.53	14.9	6.55	.85	1.13	.36	5.66	54.9	10.2
MAX	1,750	33	9.6	8.7	127	79	5.5	8.4	.96	126	811	231
MIN	.34	.31	.30	.35	.33	.66	.33	.08	.20	.30	.35	.31
CFSM	1.15	.03	.02	.02	.19	.08	.01	.01	.005	.07	.71	.13
IN.	1.32	.03	.02	.02	.20	.10	.01	.02	.005	.08	.81	.15
AC-FT	5,470	138	74	94	830	403	51	70	21	348	3,370	610

CAL YR 1970 TOTAL 25,767.42 MEAN 70.6 MAX 3,660 MIN .23 CFSM .91 IN 12.34 AC-FT 51,110
WTR YR 1971 TOTAL 5,789.60 MEAN 15.9 MAX 1,750 MIN .08 CFSM .20 IN 2.77 AC-FT 11,480

PEAK DISCHARGE (BASE, 2,000 CFS).--Oct. 12 (1100) 2,350 cfs (15.74 ft).

08017300 South Fork Sabine River near Quinlan, Tex.

LOCATION.--Lat 32°53'52", long 96°15'11", Hunt County, on right bank at downstream side of bridge on Farm Road 1565, 2.4 miles upstream from Dry Creek, 6.2 miles upstream from Bearpen Creek, and 7 miles southwest of Quinlan.

DRAINAGE AREA.--78.7 sq mi.

PERIOD OF RECORD.--February 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 461.40 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 54.2 cfs (9.35 inches per year, 39,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,900 cfs Oct. 12 (gage height, 15.90 ft); no flow for many days.
Period of record: Maximum discharge, 14,500 cfs May 7, 1969 (gage height, 16.93 ft); no flow at times each year.
Maximum stage since at least 1890, 21 ft July 29, 1902, from information by local resident. Flood of Apr. 27, 1957, reached a stage of 17.76 ft, from floodmarks.

REMARKS.--Records good. Recording rain gage located at station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	.55	.22	1.5	.01	2.7	.02	0	.76	0	1.6	0
2	.35	.28	.22	.90	.02	32	.01	0	.55	0	.83	.62
3	.13	.18	.22	.83	.02	43	.01	0	.07	0	.26	.22
4	.07	.13	.15	1.3	4.3	12	.02	0	.02	0	7.4	.13
5	.07	.11	.13	.90	5.2	5.3	.01	0	0	0	14	.09
6	.62	.09	.11	.18	1.7	3.0	.01	0	0	0	13	.02
7	.48	.07	.11	.13	.69	1.4	.01	0	0	0	40	.01
8	372	.07	.11	.09	.22	.69	.01	0	0	0	6.5	0
9	304	.09	.09	.06	.11	.48	.01	0	0	0	1.5	0
10	11	.09	.09	.06	.07	.42	.01	5.2	0	0	.76	0
11	746	.09	.11	.06	.05	.28	.01	20	0	0	.28	0
12	3,000	.09	.13	.05	.04	.18	.01	3.0	0	0	.03	0
13	232	.22	.09	.69	.06	.13	.01	.83	0	0	1.9	0
14	17	1.7	.13	2.4	.09	.11	.01	.42	0	0	67	0
15	3.5	1.3	.22	1.3	.06	.06	.01	.15	0	0	46	0
16	1.7	.69	.35	.55	.05	.04	.01	.07	0	0	3.6	0
17	.83	.48	.69	.15	.04	.03	.01	.03	0	0	1.0	0
18	.76	.35	.42	.09	.18	.03	.04	.01	0	0	.55	0
19	.62	.28	.22	.06	22	1.0	.01	0	0	0	.18	0
20	.69	.22	.23	.04	4.0	.18	.03	0	0	0	.03	0
21	.28	.18	.21	.03	128	.13	.48	0	0	0	0	0
22	.69	.18	.33	.03	59	.07	.62	0	0	0	0	0
23	206	.13	.47	.03	7.7	.05	.28	0	0	0	0	0
24	214	.11	.28	.02	3.4	.04	.09	0	0	0	28	0
25	16	.11	.20	.03	45	.05	.05	0	0	0	17	180
26	6.9	.09	.14	.03	131	.05	.03	0	0	0	3.8	9.3
27	16	.07	.12	.02	14	.06	.02	9.3	0	0	1.3	1.9
28	5.9	.07	.09	.02	4.9	.05	.01	1.5	0	0	.55	.76
29	2.3	.15	.08	.02	------	.04	.01	1.8	0	2.2	.22	.28
30	1.2	.22	1.8	.02	------	.03	.01	2.4	0	17	.05	.13
31	.83	------	4.1	.01	------	.03	------	.76	------	6.8	.01	------
TOTAL	5,162.61	8.39	11.86	11.60	431.91	103.63	1.87	45.47	1.40	26.0	257.35	193.46
MEAN	167	.28	.38	.37	15.4	3.34	.062	1.47	.047	.84	8.30	6.45
MAX	3,000	1.7	4.1	2.4	131	43	.62	20	.76	17	67	180
MIN	.07	.07	.08	.01	.01	.03	.01	0	0	0	0	0
CFSM	2.12	.004	.005	.005	.20	.04	.0008	.02	.0006	.01	.11	.08
IN.	2.44	.003	.005	.005	.20	.05	0	.02	0	.01	.12	.09
AC-FT	10,240	17	24	23	857	206	3.7	90	2.8	52	510	384

CAL YR 1970 TOTAL 27,866.15 MEAN 76.3 MAX 3,000 MIN 0 CFSM .97 IN 13.17 AC-FT 55,270
WTR YR 1971 TOTAL 6,255.55 MEAN 17.1 MAX 3,000 MIN 0 CFSM .22 IN 2.96 AC-FT 12,410

PEAK DISCHARGE (BASE, 1,800 CFS).--Oct. 12 (2330) 4,900 cfs (15.90 ft).

08017400 Lake Tawakoni near Wills Point, Tex.

LOCATION.--Lat 32°48'40", long 95°54'56", Rains-Van Zandt County line, in stairwell at left end of spillway of Iron Bridge Dam on Sabine River, 750 ft upstream from bridge on Farm Road 47, 3 miles upstream from McBee Creek, 9.0 miles northeast of Wills Point, and at mile 514.5.

DRAINAGE AREA.--756 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 990,100 acre-ft Oct. 13 (elevation, 438.97 ft); minimum, 827,200 acre-ft July 22 (elevation, 434.38 ft).
Period of record: Maximum contents, 1,130,000 acre-ft May 1, 1966 (elevation, 442.58 ft); minimum since lake first filled in May 1965, 827,200 acre-ft July 22, 1971 (elevation, 434.38 ft).

REMARKS.--Lake is formed by a rolled earthfill dam, 31,460 ft long including a 480-foot uncontrolled concrete gravity spillway with ogee weir section. Outlet works consist of two 4- by 6-foot sluice gates and two 20-inch steel pipes controlled by service valves. Closure of earth dam began July 1, 1960, and deliberate impoundment of water began Oct. 7, 1960. Capacity table based on 1956 survey. Records furnished by Sabine River Authority show that during year the city of Dallas diverted 59,370 acre-ft of water for municipal use in the Trinity River basin, the city of Greenville diverted 3,790 acre-ft, and that 18 other users in the Sabine River basin diverted a total of 800 acre-ft. Lake built for water conservation. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	454.0	-
Crest of spillway	437.5	936,200
Invert of lowest intake to wet well	416.5	342,700
Invert of two 4- by 6-foot sluice gates	378.0	0

Capacity table (elevation, in feet, and total contents, in acre-feet)

434.0	814,300	437.0	918,200
435.0	848,200	438.0	954,300
436.0	882,800	439.0	991,200

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	928,700	954,300	932,600	922,900	899,400	900,500	885,600	874,500	869,300	848,900	840,400	843,100
2	928,300	950,700	932,300	922,100	897,600	904,700	883,500	874,100	868,900	848,500	840,100	842,400
3	927,900	948,900	932,600	927,200	898,000	899,800	882,100	872,400	868,600	847,500	839,400	841,400
4	926,500	946,400	931,900	923,600	899,100	897,600	882,800	871,400	867,600	847,200	838,700	840,700
5	927,200	944,200	931,900	921,100	897,600	896,200	885,600	871,000	867,200	846,500	838,700	840,400
6	927,200	943,500	930,500	919,300	898,400	898,400	881,100	872,400	865,800	845,100	838,400	839,700
7	927,200	942,400	929,000	918,200	898,400	896,600	879,000	872,100	865,500	844,100	838,400	838,700
8	931,500	943,800	929,000	916,400	894,500	895,200	877,900	870,700	864,100	843,400	838,000	838,000
9	930,800	941,700	929,000	915,700	892,700	898,000	877,900	878,600	863,400	842,400	837,300	837,300
10	929,700	940,200	928,300	915,700	890,200	895,200	877,200	881,100	862,700	841,100	836,700	836,300
11	943,800	941,700	930,100	915,000	893,000	895,200	876,200	879,300	862,000	839,700	836,300	835,700
12	981,600	938,400	928,300	914,300	895,200	894,800	875,900	878,300	861,300	839,000	836,000	834,600
13	990,100	943,800	927,200	914,600	892,700	894,500	876,900	876,900	860,600	838,000	836,300	833,600
14	985,700	943,500	925,400	915,000	892,700	896,900	875,200	875,900	860,300	837,000	842,400	832,600
15	980,900	940,200	928,300	913,600	892,300	894,100	875,200	875,200	859,600	836,000	853,000	831,600
16	976,100	938,800	926,500	912,900	892,700	893,400	871,000	873,800	858,900	834,600	854,100	830,600
17	972,000	939,500	925,400	912,200	891,300	889,900	874,500	872,400	857,900	833,300	853,700	829,900
18	968,700	938,100	926,100	912,500	893,800	896,600	876,600	872,400	855,800	831,900	853,000	829,900
19	966,500	938,100	926,100	909,300	894,100	892,700	876,600	872,400	855,100	831,300	852,300	830,900
20	963,200	937,000	926,500	906,800	893,000	889,900	876,900	871,400	854,400	829,600	851,600	828,500
21	960,600	937,000	926,500	908,300	902,200	889,500	876,600	870,700	853,700	828,900	850,900	827,500
22	959,100	941,300	927,200	907,600	898,700	890,200	877,900	869,600	853,400	827,200	849,900	828,200
23	962,300	935,200	927,200	906,800	898,000	888,800	877,600	868,900	852,700	827,500	849,200	829,200
24	963,900	931,200	924,700	906,100	897,600	888,100	876,200	868,900	851,600	830,600	848,900	838,700
25	962,800	930,800	924,000	905,400	898,700	887,700	875,900	868,600	850,600	830,900	848,900	843,800
26	961,700	931,900	923,600	905,400	900,500	886,700	875,500	867,900	849,200	831,300	848,200	844,500
27	963,200	932,600	923,200	904,000	900,500	885,600	875,900	871,400	848,200	831,600	847,500	843,800
28	958,000	932,600	923,600	903,300	899,800	887,700	874,500	870,700	849,900	834,300	846,500	843,800
29	955,400	932,600	922,900	902,600	------	886,300	875,200	870,000	849,900	835,000	845,500	843,400
30	954,000	931,200	930,800	903,300	------	885,300	875,200	870,000	849,600	840,700	844,800	842,400
31	953,600	------	923,200	901,500	------	882,800	------	869,600	------	840,700	844,100	------
(†)	437.98	437.36	437.14	436.53	436.48	436.00	435.78	435.62	435.04	434.78	434.88	434.83
(*)	+24,600	-22,400	-8,000	-21,700	-1,700	-17,000	-7,600	-5,600	-20,000	-8,900	+3,400	-1,700
(††)	4,370	3,710	3,030	3,620	4,380	5,590	5,580	5,980	7,400	7,850	5,700	6,750
MAX	990,100	954,300	932,600	927,200	902,200	904,700	885,600	881,100	869,300	848,900	854,100	844,500
MIN	926,500	930,800	922,900	901,500	890,200	882,800	871,000	867,900	848,200	827,200	836,000	827,500

CAL YR 1970..... * +28,000 †† 53,850 MAX 1,022,000 MIN 879,300
WTR YR 1970..... * -86,600 †† 63,960 MAX 990,100 MIN 827,200

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08017410 Sabine River near Wills Point, Tex.

LOCATION.--Lat 32°48'34", long 95°54'46", Van Zandt County, on right bank at downstream side of bridge on Farm Road 47, 750 ft downstream from Iron Bridge Dam which forms Lake Tawakoni, 3.0 miles upstream from McBee Creek, 9.0 miles northeast of Wills Point, and at mile 514.3.

DRAINAGE AREA.--756 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,820 cfs Oct. 15 (gage height, 14.5 ft, from graph based on gage readings); minimum, 0.01 cfs for many days.
Maximum discharge since construction of Iron Bridge Dam in 1960, about 21,000 cfs May 1, 1966, from theoretical rating curve of flow over dam 750 ft upstream.

REMARKS.--Records good except those for period Oct. 1 to Mar. 9, which are fair. Flow regulated by Lake Tawakoni (see station 08017400).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	559	3.4	1.0	280	300	8.5	.01	2.2	1.4	.19	.02
2	15	580	.28	1.0	290	310	.64	.01	.02	.84	.19	.01
3	8.0	728	1.1	15	280	170	.19	.01	.02	.01	5.2	.01
4	3.5	734	.19	40	280	155	.66	3.7	.06	.01	.55	.01
5	2.0	259	1.2	45	300	300	5.0	.06	.19	.01	.19	.01
6	1.5	94	.06	28	285	215	5.1	.01	.19	5.2	.19	.01
7	3.0	92	.06	165	280	6.0	2.6	.01	.55	.06	.19	4.6
8	2.0	101	2.2	310	285	165	.19	.01	4.0	.19	.19	.06
9	1.5	366	.28	305	280	300	.19	24	.55	.64	.06	.01
10	1.0	222	.06	300	290	160	.06	211	.28	.64	.06	.01
11	40	165	.19	295	325	.28	.06	14	.64	.64	4.7	.01
12	1,190	230	.28	290	60	.28	.06	24	.64	.55	.19	.01
13	2,600	118	.28	305	15	.19	3.1	1.4	.37	6.6	1.0	.01
14	2,700	145	.06	300	5.0	6.4	.06	.37	.28	1.4	.37	3.6
15	2,600	147	2.0	290	1.0	1.4	.06	.19	.37	.55	.02	.01
16	1,980	152	.10	285	.80	2.9	.06	.01	.84	1.1	.01	.01
17	1,740	164	.10	280	1.9	.19	.02	.01	.64	.19	4.7	.01
18	1,500	169	.10	280	.46	17	.19	6.7	.55	.01	.06	.06
19	1,300	173	.20	280	.55	9.5	.06	1.2	.46	.01	.02	.64
20	1,070	103	.10	290	.46	1.2	2.4	.37	.74	.06	.01	.01
21	940	99	4.0	280	2.3	.19	.19	.19	.64	5.9	.01	.01
22	865	145	3.5	280	2.5	3.3	.69	.74	.55	.28	.01	3.7
23	870	98	.20	280	100	2.3	4.6	.37	.55	.06	.01	.02
24	980	60	.10	280	300	.28	.64	3.6	5.1	.55	4.6	.47
25	980	34	.10	280	300	.55	.55	6.2	.64	.28	.02	13
26	940	15	.10	290	320	.28	.46	1.8	.46	7.9	.01	11
27	1,100	8.0	.10	280	300	.28	2.9	8.2	.55	169	.01	.01
28	1,120	4.0	.10	280	300	4.3	.06	2.1	1.2	27	.01	4.2
29	801	3.0	3.0	280	------	7.6	.06	2.9	3.9	319	.01	.01
30	625	2.5	.20	280	------	3.8	.01	2.1	1.2	101	.01	.01
31	550	------	.10	280	------	.06	------	2.9	------	1.8	4.8	------
TOTAL	26,563.5	5,769.5	23.74	7,195.0	4,884.97	2,143.28	39.36	318.17	28.38	652.88	27.59	41.55
MEAN	857	192	.77	232	174	69.1	1.31	10.3	.95	21.1	.89	1.39
MAX	2,700	734	4.0	310	325	310	8.5	211	5.1	319	5.2	13
MIN	1.0	2.5	.06	1.0	.46	.06	.01	.01	.02	.01	.01	.01
AC-FT	52,690	11,440	47	14,270	9,690	4,250	78	631	56	1,290	55	82

CAL YR 1970 TOTAL 32,356.74 MEAN 88.6 MAX 2,700 MIN 0 AC-FT 64,180
WTR YR 1971 TOTAL 47,687.92 MEAN 131 MAX 2,700 MIN .01 AC-FT 94,590

08017500 Sabine River near Emory, Tex.

LOCATION.--Lat 32°46'23", long 95°47'56", Rains-Van Zandt County line, on left bank at downstream side of bridge on State Highway 19, 3.7 miles upstream from Sandy Creek, 7.2 miles south of Emory, 12.3 miles downstream from McBee Creek, 13.8 miles downstream from Lake Tawakoni, and at mile 500.7.

DRAINAGE AREA.--888 sq mi, including Little and Yellow Steer Sloughs.

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 350.28 ft above mean sea level (Texas Reclamation Department bench mark).

AVERAGE DISCHARGE.--19 years, 451 cfs (326,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,250 cfs Oct. 15 (gage height, 13.17 ft); no flow for many days.
Period of record: Maximum discharge, 74,000 cfs Apr. 27, 1957 (gage height, 25.06 ft), from rating curve extended above 47,000 cfs; no flow at times. Maximum discharge since construction of Lake Tawakoni dam in 1960, 24,900 cfs May 1, 1966 (gage height, 18.38 ft).
Maximum stage since at least 1900, 25.7 ft in June 1943, from information by local resident and State Highway Department.

REMARKS.--Records good. Flow largely regulated by Lake Tawakoni (see station 08017400) since October 1960. Records include flow in Little and Yellow Steer Sloughs.

REVISIONS (WATER YEARS).--WSP 1562: 1957. WSP 1632: 1957. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	560	6.8	175	275	325	4.0	1.3	2.9	0	132	.08
2	20	700	5.8	57	271	346	35	1.0	1.6	0	39	.01
3	9.9	711	6.4	22	273	466	19	.57	.84	0	16	0
4	5.1	725	16	322	272	218	5.8	.29	.47	0	7.8	0
5	3.0	621	36	326	295	302	2.2	.18	.30	0	5.7	.05
6	2.2	291	142	190	271	382	17	.13	.17	0	3.6	.06
7	2.1	212	145	142	284	262	46	.53	.08	0	3.6	.03
8	2.2	201	73	262	347	57	19	.59	.05	0	3.3	0
9	290	286	34	304	287	228	6.3	61	.02	0	1.3	0
10	259	347	24	299	269	313	3.2	1,080	0	0	.62	0
11	123	179	83	294	265	115	2.5	864	0	0	.37	0
12	681	392	293	293	400	19	1.7	228	0	0	.23	0
13	2,060	241	164	292	409	6.2	1.3	104	0	0	.69	0
14	2,830	455	106	281	147	3.3	.93	30	0	0	145	0
15	3,240	741	43	297	68	4.2	.96	12	0	0	169	0
16	2,990	361	114	288	27	12	2.5	5.4	.01	0	67	0
17	2,520	162	192	267	9.0	4.1	2.3	3.8	.02	0	16	0
18	2,090	168	89	265	7.3	2.9	2.1	3.1	0	0	6.6	0
19	1,810	156	39	333	28	70	1.4	2.0	0	0	4.5	0
20	1,570	189	179	270	50	61	1.3	3.7	0	0	2.6	0
21	1,370	152	109	268	72	19	1.1	3.7	0	0	1.8	.02
22	1,170	84	41	273	424	4.8	2.8	2.3	0	0	1.0	.05
23	1,060	482	30	274	183	2.5	115	1.3	0	0	.57	.06
24	1,080	511	205	273	212	3.6	173	.75	0	0	.33	.12
25	1,190	171	132	272	325	4.9	40	.44	0	0	.17	222
26	1,210	104	207	274	367	2.0	11	.28	0	54	.08	531
27	1,580	61	95	276	382	1.2	5.3	2.4	0	844	.19	123
28	2,940	33	31	273	338	.85	3.5	3.7	0	758	.46	28
29	2,060	18	14	273	------	.72	3.5	11	0	1,220	.26	9.9
30	1,150	11	59	272	------	5.3	1.9	5.9	0	1,880	.11	4.6
31	700	------	218	273	------	6.3	------	4.1	------	904	.11	------
TOTAL	36,057.5	9,325	2,932.0	7,980	6,557.3	3,247.87	531.59	2,437.46	6.46	5,660	629.99	918.98
MEAN	1,163	311	94.6	257	234	105	17.7	78.6	.22	183	20.3	30.6
MAX	3,240	741	293	333	424	466	173	1,080	2.9	1,880	169	531
MIN	2.1	11	5.8	22	7.3	.72	.93	.13	0	0	.08	0
AC-FT	71,520	18,500	5,820	15,830	13,010	6,440	1,050	4,830	13	11,230	1,250	1,820

CAL YR 1970 TOTAL 234,927.72 MEAN 644 MAX 6,970 MIN 0 AC-FT 466,000
WTR YR 1971 TOTAL 76,284.15 MEAN 209 MAX 3,240 MIN 0 AC-FT 151,300

08018200 Grand Saline Creek near Grande Saline, Tex.

LOCATION (revised).--Lat 32°40'20", long 95°36'36", Van Zandt County, on right bank at upstream side of bridge on U.S. Highway 80, 0.3 mile downstream from Texas and Pacific Railway Co. bridge, 1.7 miles upstream from mouth, and 5.5 miles east of Grand Saline.

DRAINAGE AREA.--91.4 sq mi.

PERIOD OF RECORD.--January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 325.5 ft above mean sea level (Texas Highway Department bench mark).

EXTREMES.--Current year: Maximum discharge, 570 cfs Oct. 27 (gage height, 8.87 ft); maximum gage height, 8.98 ft Oct. 29 (backwater from Sabine River); no flow Oct. 7, July 16-23.
Period of record: Maximum discharge, 4,920 cfs May 10, 1968 (gage height, 12.33 ft); no flow at times in 1969-71.
Maximum stage since about 1945, 15.9 ft in April 1957, from information by local residents.

REMARKS.--Records good. No known diversion above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	10	5.0	7.8	4.4	11	3.2	1.8	1.2	2.6	20	.16
2	.05	7.0	4.8	6.8	3.8	10	3.2	1.6	1.0	1.1	10	.14
3	.04	5.6	4.4	6.5	4.2	19	2.8	1.4	.73	.35	4.0	.14
4	.03	4.8	4.8	6.8	6.5	13	2.6	1.1	.42	.22	1.5	.14
5	.02	3.9	5.4	6.3	8.7	11	2.5	.94	.09	.11	1.6	.12
6	.02	3.8	4.4	5.4	8.4	10	2.1	1.3	.18	.07	35	.12
7	0	3.8	3.8	5.0	7.3	8.1	2.0	1.3	.16	.07	7.4	.12
8	.03	4.1	3.8	4.6	5.4	6.3	1.9	1.1	.27	.71	2.8	.11
9	.26	4.2	3.6	4.4	5.2	5.8	1.8	1.6	.32	.32	1.7	.11
10	.42	4.2	3.8	4.4	5.2	6.3	1.7	11	.14	.22	1.1	.12
11	.73	3.6	3.8	4.6	6.5	6.0	1.8	4.8	.16	.12	.78	.11
12	24	3.5	3.8	4.8	33	5.8	1.9	3.2	.08	.11	.56	.09
13	8.8	7.2	3.5	4.4	15	5.6	1.9	2.0	.09	.07	.38	.08
14	3.2	21	3.5	4.8	8.7	5.6	1.9	1.4	.20	.04	.29	.07
15	2.0	12	3.5	5.0	8.1	5.2	1.9	1.1	.27	.01	.27	.06
16	1.5	10	3.9	4.8	8.4	4.8	2.0	1.1	.27	0	.42	.07
17	1.4	9.1	5.2	4.6	8.4	4.2	2.1	.94	2.7	0	.42	.07
18	1.3	7.6	5.2	4.6	7.8	4.2	6.7	.78	.78	0	.29	.07
19	1.2	6.3	4.8	4.6	9.1	5.0	6.0	.68	.27	0	.18	.07
20	1.1	5.4	4.6	4.1	12	4.4	5.6	.64	.14	0	.16	.07
21	1.0	4.6	5.2	3.9	13	4.1	7.3	.56	.14	0	.12	.06
22	1.0	4.4	6.0	4.1	20	4.1	5.2	.42	.14	0	.11	.11
23	7.0	3.9	6.3	4.4	17	4.1	6.8	.48	.14	0	.11	.20
24	4.8	3.5	5.6	5.0	13	3.9	7.3	.94	.14	9.2	.18	.22
25	2.5	3.5	4.8	5.2	11	3.8	4.6	1.2	.14	47	.24	5.9
26	3.9	3.8	4.8	5.4	33	3.8	3.4	.84	.11	77	.27	2.3
27	450	3.9	4.8	4.8	22	3.8	2.4	1.4	.11	353	.24	.78
28	450	3.9	4.6	4.8	16	4.1	2.1	5.2	.12	102	.22	.45
29	160	5.0	4.6	4.4	------	4.1	2.0	1.2	1.7	50	.20	.35
30	50	5.2	5.2	4.6	------	3.6	1.8	1.3	.89	40	.18	.32
31	30	------	7.8	4.6	------	3.2	------	1.1	------	30	.16	------
TOTAL	1,206.35	178.8	145.3	155.5	321.1	193.9	98.5	54.42	13.10	714.32	90.88	12.73
MEAN	38.9	5.96	4.69	5.02	11.5	6.25	3.28	1.76	.44	23.0	2.93	.42
MAX	450	21	7.8	7.8	33	19	7.3	11	2.7	353	35	5.9
MIN	0	3.5	3.5	3.9	3.8	3.2	1.7	.42	.08	0	.11	.06
CFSM	.43	.07	.05	.05	.13	.07	.04	.02	.005	.25	.03	.005
IN.	.49	.07	.06	.06	.13	.08	.04	.02	.005	.29	.04	.005
AC-FT	2,390	355	288	308	637	385	195	108	26	1,420	180	25

CAL YR 1970 TOTAL 15,822.64 MEAN 43.3 MAX 900 MIN 0 CFSM .47 IN 6.44 AC-FT 31,380
WTR YR 1971 TOTAL 3,184.90 MEAN 8.73 MAX 450 MIN 0 CFSM .10 IN 1.30 AC-FT 6,320

PEAK DISCHARGE (BASE, 900 CFS).--No peak above base.

08018500 Sabine River near Mineola, Tex.

LOCATION.--Lat 32°36'46", long 95°29'08", Smith-Wood County line, near center of main channel on downstream side of bridge on U.S. Highway 69, 3.5 miles south of Mineola, 4.5 miles upstream from Missouri Pacific Railway Lines bridge, 16.2 miles upstream from Lake Fork Creek, and at mile 461.1.

DRAINAGE AREA.--1,357 sq mi.

PERIOD OF RECORD.--May 1939 to September 1959, October 1967 to current year. Gage-height records collected at this site since July 1946 are contained in reports published by the U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 304.16 ft above mean sea level. May 12, 1939, to Dec. 11, 1955, at site 55 ft upstream; Dec. 12, 1955, to Dec. 12, 1959, at present site; Oct. 1, 1967, to Sept. 12, 1968, nonrecording gage at present site. All gages at present datum.

AVERAGE DISCHARGE.--24 years (1939-59, 1967-71), 1,053 cfs (762,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,280 cfs Nov. 1 (gage height, 15.62 ft); no flow Sept. 15-22.
Period of record: Maximum discharge, 76,000 cfs Apr. 1, 1945 (gage height, 24.00 ft); maximum gage height, 24.37 ft June 8, 1943; no flow at times.
Maximum stage since at least 1890, that of June 8, 1943.

REMARKS.--Records good. Flow partly regulated by Lake Tawakoni (station 08017400) located 53 miles upstream since October 1960. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	2,250	33	54	261	380	23	22	20	1.2	1,660	1.0
2	47	1,880	30	124	260	336	22	19	22	1.3	2,020	.86
3	28	1,290	28	132	263	320	21	17	20	1.5	1,780	.79
4	19	946	27	82	266	400	23	16	16	1.8	1,040	.72
5	12	766	26	62	272	455	26	14	12	1.6	311	.44
6	8.9	681	25	193	277	328	28	12	9.2	1.0	96	.20
7	7.2	567	24	223	284	275	24	11	7.1	.73	69	.07
8	8.1	326	24	146	277	296	19	9.7	5.8	.51	46	.03
9	18	169	51	98	283	224	19	8.8	4.9	.44	34	.02
10	12	118	53	169	311	123	27	45	4.3	.26	26	.03
11	82	177	37	219	295	182	26	556	3.8	.20	20	.04
12	195	203	30	233	309	224	22	1,060	3.3	.16	15	.04
13	176	158	36	239	330	148	19	1,220	2.8	.13	11	.03
14	397	299	135	243	368	86	17	854	2.2	.10	9.5	.01
15	761	327	106	246	351	58	15	294	1.9	.08	7.9	0
16	1,120	403	70	245	194	45	14	88	1.9	.07	63	0
17	1,390	541	54	255	101	39	15	45	5.3	.06	110	0
18	1,700	424	55	257	68	35	20	31	12	.06	56	0
19	1,990	199	102	246	94	37	22	25	6.0	.06	31	0
20	2,130	105	72	252	85	35	25	21	3.0	.05	20	0
21	2,100	89	51	283	96	43	32	18	1.7	.05	13	0
22	1,950	82	69	273	126	69	36	15	1.1	.07	8.5	0
23	1,730	85	77	261	228	51	43	13	.84	.08	5.7	9.6
24	1,500	65	56	269	364	38	59	13	.67	.30	3.9	20
25	1,320	245	44	271	287	32	82	11	.51	25	2.6	549
26	1,190	321	83	267	283	29	118	11	.35	141	1.6	220
27	1,490	188	91	264	350	28	67	15	.29	236	1.0	163
28	1,960	86	108	263	384	28	38	19	.28	390	.72	259
29	1,950	49	77	264	------	28	28	20	.94	700	.37	155
30	2,030	38	55	263	------	27	25	17	1.4	1,050	.13	59
31	2,210	------	56	263	------	25	------	16	------	1,320	.13	------
TOTAL	29,617.2	13,077	1,785	6,659	7,067	4,424	955	4,536.5	171.58	3,873.81	7,463.05	1,438.88
MEAN	955	436	57.6	215	252	143	31.8	146	5.72	125	241	48.0
MAX	2,210	2,250	135	283	384	455	118	1,220	22	1,320	2,020	549
MIN	7.2	38	24	54	68	25	14	8.8	.28	.05	.13	0
AC-FT	58,750	25,940	3,540	13,210	14,020	8,780	1,890	9,000	340	7,680	14,800	2,850

CAL YR 1970 TOTAL 295,735.46 MEAN 810 MAX 7,270 MIN 0 AC-FT 586,600
WTR YR 1971 TOTAL 81,068.02 MEAN 222 MAX 2,250 MIN 0 AC-FT 160,800

08019000 Lake Fork Creek near Quitman, Tex.

LOCATION.--Lat 32°45'45", long 95°27'48", Wood County, near center of main channel at downstream side of bridge on State Highway 37, 0.3 mile downstream from Dry Creek, 2.4 miles south of Quitman, and 23.4 miles upstream from mouth.

DRAINAGE AREA.--585 sq mi.

PERIOD OF RECORD.--June 1924 to April 1926, February 1939 to current year. Discharge for some high-water periods in 1925-26 published in WSP 1342. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1961 published as Lake Fork Sabine River near Quitman.

GAGE.--Nonrecording gage read twice daily, more often during floods. Datum of gage is 317.42 ft above mean sea level. June 27, 1924, to Apr. 30, 1926, nonrecording gage at site 1,000 ft downstream at same datum.

AVERAGE DISCHARGE.--33 years (1924-25, 1939-71), 419 cfs (9.70 inches per year, 303,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge observed, 2,540 cfs Oct. 16 (gage height, 14.60 ft); no flow July 9-25, Sept. 13-22.

Period of record: Maximum discharge, 75,600 cfs Mar. 30, 1945 (gage height, 29.85 ft, from floodmark), from rating curve extended above 49,000 cfs; no flow at times most years.

Maximum stage since at least 1890, that of Mar. 30, 1945. Flood in July 1895 reached a stage of about 25.9 ft, from information by local resident.

REMARKS.--Records good. No large diversion above station. At end of year, flow from 51.8 sq mi above this station was partly controlled by 18 floodwater-retarding structures with a total combined capacity of 19,550 acre-ft below the flood-spillway crests, of which 17,700 acre-ft is floodwater-retarding capacity and 1,850 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	70	20	58	15	416	24	20	16	.20	255	1.8
2	47	44	21	94	14	291	22	21	13	.17	183	1.2
3	26	35	20	90	16	312	19	20	11	.14	83	.85
4	21	27	19	85	22	416	18	16	9.0	.17	39	.68
5	15	24	19	41	30	478	16	13	7.4	.14	25	.54
6	13	22	18	32	34	374	15	12	6.4	.07	26	.42
7	11	21	18	30	45	264	14	11	5.3	.04	25	.24
8	8.8	20	18	25	56	174	13	9.0	4.6	.01	35	.12
9	11	19	17	23	49	136	13	38	3.9	0	19	.06
10	15	19	17	24	39	122	12	593	3.3	0	13	.03
11	72	18	16	26	32	108	12	1,080	2.6	0	10	.01
12	338	18	15	22	63	90	11	1,190	2.3	0	8.2	.01
13	430	22	15	22	196	80	11	1,260	1.8	0	7.0	0
14	700	75	14	23	477	78	10	705	1.6	0	23	0
15	1,260	142	17	22	680	65	11	205	1.3	0	30	0
16	2,360	324	22	23	706	58	10	70	1.0	0	18	0
17	1,640	360	24	34	374	52	11	50	.85	0	80	0
18	1,080	255	22	51	153	45	13	37	.68	0	255	0
19	680	196	23	35	136	43	15	29	.48	0	255	0
20	340	97	26	27	214	40	24	24	.36	0	80	0
21	153	73	26	24	264	38	48	20	.27	0	32	0
22	97	52	22	22	324	39	42	16	.33	0	24	0
23	80	42	56	20	512	38	60	14	.25	0	18	.01
24	97	33	73	20	584	34	85	15	.18	0	13	.11
25	156	28	58	21	720	30	58	14	.14	0	20	39
26	324	26	41	20	640	28	45	12	.11	1.2	19	28
27	494	25	32	19	430	27	51	16	.10	238	9.6	168
28	430	22	27	19	430	26	25	22	.08	374	5.8	324
29	300	20	24	18	------	26	22	18	.16	462	5.0	336
30	224	19	34	17	------	26	20	20	.24	430	3.8	255
31	125	------	54	16	------	25	------	21	------	300	2.6	------
TOTAL	11,617.8	2,148	828	1,003	7,255	3,979	750	5,591.0	94.73	1,806.14	1,622.0	1,156.08
MEAN	375	71.6	26.7	32.4	259	128	25.0	180	3.16	58.3	52.3	38.5
MAX	2,360	360	73	94	720	478	85	1,260	16	462	255	336
MIN	8.8	18	14	16	14	25	10	9.0	.08	0	2.6	0
CFSM	.64	.12	.05	.06	.44	.22	.04	.31	.005	.10	.09	.07
IN.	.74	.14	.05	.06	.46	.25	.05	.36	.006	.11	.10	.07
AC-FT	23,040	4,260	1,640	1,990	14,390	7,890	1,490	11,090	188	3,580	3,220	2,290

CAL YR 1970 TOTAL 140,345.96 MEAN 385 MAX 5,860 MIN 0 CFSM .66 IN 8.92 AC-FT 278,400
WTR YR 1971 TOTAL 37,850.75 MEAN 104 MAX 2,360 MIN 0 CFSM .18 IN 2.41 AC-FT 75,080

PEAK DISCHARGE (BASE, 6,600 CFS).--No peak above base.

08019300 Lake Winnsboro near Winnsboro, Tex.

LOCATION.--Lat 32°53'11", long 95°20'37", Wood County, near left end of dam on Big Sandy Creek, 0.8 mile upstream from bridge on State Highway 37, 2.5 miles upstream from Indian Creek, and 5.8 miles southwest of Winnsboro.

DRAINAGE AREA.--27.1 sq mi.

PERIOD OF RECORD.--June 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level. Prior to Jan. 19, 1963, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 7,430 acre-ft Mar. 14 (elevation, 418.14 ft); minimum, 6,120 acre-ft Sept. 21, 22 (elevation, 416.34 ft).
Period of record: Maximum contents, 10,020 acre-ft May 7, 1969 (elevation, 421.23 ft); minimum since first appreciable storage, 2,430 acre-ft Jan. 19, 20, 1965 (elevation, 409.79 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 2,500 ft long. Storage began June 11, 1962, and dam was completed in August 1962. Dam was built by Wood County for flood control and recreation. Service spillway is an uncontrolled 20-foot square drop-inlet structure, with crest elevation at 419.0 ft. The crest was raised in April 1966 from elevation 417 to 419 ft. Emergency spillway is a 300-foot cut through natural ground near right end of dam. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	437.0	-
Maximum design water level	433.0	22,500
Crest of emergency spillway	427.0	16,270
Crest of service spillway	419.0	8,110
Bottom of outlet pipe	392.2	0

COOPERATION.--Capacity curve (based on 1960 Geological Survey topographic maps) furnished by Wisenbaker, Fix and Associates, Consulting Engineers for Wood County.

Capacity table (elevation, in feet, and total contents, in acre-feet)

416.0	5,890	418.0	7,330
417.0	6,590	419.0	8,110

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,490	6,490	6,380	6,920	7,330	8,350	8,180	8,190	8,290	8,060	7,510	7,120
2	6,470	6,490	6,370	6,940	7,440	8,430	8,160	8,170	8,240	8,060	7,490	7,200
3	6,470	6,480	6,370	6,920	7,450	8,690	8,160	8,160	8,210	8,030	7,460	7,190
4	6,460	6,490	6,370	6,930	7,460	8,640	8,140	8,160	8,180	8,000	7,460	7,180
5	6,440	6,490	6,430	7,000	7,480	8,520	8,130	8,150	8,170	7,970	7,440	7,150
6	6,430	6,480	6,490	7,030	7,490	8,440	8,130	8,140	8,170	7,950	7,430	7,140
7	6,410	6,480	6,490	7,060	7,500	8,380	8,130	8,110	8,140	7,930	7,420	7,140
8	6,400	6,480	6,490	7,060	7,530	8,330	8,130	8,110	8,130	7,920	7,400	7,120
9	6,390	6,480	6,500	7,060	7,520	8,300	8,130	8,100	8,100	7,920	7,390	7,100
10	6,370	6,480	6,490	7,060	7,530	8,260	8,130	8,090	8,070	7,920	7,360	7,080
11	6,370	6,470	6,480	7,080	7,520	8,270	8,110	8,090	8,060	7,890	7,330	7,060
12	6,420	6,470	6,480	7,080	7,520	8,260	8,110	8,070	8,050	7,840	7,290	7,050
13	6,400	6,440	6,480	7,080	7,540	8,240	8,100	8,060	8,040	7,830	7,300	7,030
14	6,370	6,420	6,480	7,090	7,540	8,230	8,090	8,060	8,030	7,820	7,280	7,030
15	6,370	6,410	6,480	7,100	7,590	8,210	8,090	8,020	8,020	7,800	7,250	7,010
16	6,360	6,410	6,470	7,110	7,620	8,220	8,100	8,000	8,000	7,780	7,240	6,990
17	6,340	6,450	6,470	7,110	7,640	8,540	8,100	7,990	7,980	7,760	7,230	7,000
18	6,330	6,430	6,470	7,100	7,640	8,540	8,110	7,990	7,970	7,750	7,210	7,010
19	6,320	6,420	6,550	7,100	7,640	8,440	8,150	7,980	7,950	7,740	7,200	6,990
20	6,320	6,410	6,550	7,110	7,640	8,440	8,150	7,960	7,930	7,700	7,210	7,060
21	6,320	6,410	6,540	7,100	7,640	8,620	8,140	7,950	7,900	7,690	7,160	7,060
22	6,300	6,410	6,550	7,100	7,640	8,580	8,130	7,930	7,890	7,670	7,140	7,050
23	6,280	6,410	6,540	7,110	7,670	8,480	8,120	7,940	8,020	7,660	7,210	7,030
24	6,270	6,400	6,530	7,120	7,840	8,440	8,110	7,930	8,060	7,640	7,190	7,030
25	6,270	6,400	6,520	7,130	8,070	8,350	8,160	7,910	8,050	7,610	7,180	7,010
26	6,260	6,400	6,520	7,140	8,140	8,310	8,300	7,910	8,110	7,600	7,150	7,010
27	6,250	6,410	6,520	7,140	8,160	8,270	8,270	7,920	8,130	7,600	7,140	6,980
28	6,250	6,390	6,660	7,150	8,290	8,230	8,210	7,910	8,110	7,580	7,120	6,970
29	6,280	6,370	6,800	7,140	------	8,220	8,190	7,890	8,100	7,570	7,100	6,950
30	6,490	6,390	6,880	7,130	------	8,210	8,190	8,090	8,080	7,560	7,090	6,940
31	6,490	------	6,900	7,120	------	8,210	------	8,300	------	7,530	7,090	------
(†)	416.87	416.72	417.43	417.73	419.22	419.12	419.10	419.23	418.96	418.26	417.69	417.49
(‡)	-10	-100	+510	+220	+1,170	-80	-20	+110	-220	-550	-440	-150
MAX	6,490	6,490	6,900	7,150	8,290	8,690	8,300	8,300	8,290	8,060	7,510	7,200
MIN	6,250	6,370	6,370	6,920	7,330	8,210	8,090	7,890	7,890	7,530	7,090	6,940

CAL YR 1969..... ‡ -1,330 MAX 9,940 MIN 6,250
WTR YR 1970..... ‡ +440 MAX 8,690 MIN 6,250

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08019300 Lake Winnsboro near Winnsboro, Tex.--Continued

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,940	7,120	7,040	7,000	6,900	7,220	7,270	7,150	7,150	6,670	6,610	6,360
2	6,930	7,100	7,040	7,000	6,880	7,300	7,240	7,150	7,140	6,650	6,610	6,400
3	6,920	7,080	7,030	7,010	6,880	7,350	7,240	7,120	7,130	6,650	6,610	6,400
4	6,910	7,070	7,020	6,980	6,920	7,370	7,230	7,100	7,120	6,620	6,610	6,400
5	6,900	7,060	7,020	6,970	6,930	7,380	7,210	7,100	7,100	6,620	6,600	6,370
6	6,900	7,050	6,990	6,960	6,920	7,390	7,190	7,100	7,080	6,600	6,600	6,370
7	6,890	7,060	6,990	6,940	6,920	7,370	7,180	7,100	7,070	6,570	6,570	6,360
8	6,920	7,070	6,990	6,940	6,900	7,380	7,160	7,090	7,060	6,560	6,570	6,340
9	6,890	7,060	6,990	6,950	6,880	7,390	7,160	7,270	7,040	6,540	6,550	6,330
10	6,880	7,050	6,990	6,950	6,880	7,390	7,160	7,310	7,020	6,510	6,540	6,300
11	7,110	7,050	6,960	6,940	6,970	7,400	7,150	7,340	7,000	6,500	6,540	6,270
12	7,170	7,040	6,950	6,940	7,010	7,410	7,140	7,330	6,990	6,470	6,520	6,280
13	7,180	7,120	6,940	6,950	7,020	7,420	7,130	7,310	6,970	6,460	6,520	6,260
14	7,180	7,120	6,940	6,970	7,030	7,400	7,120	7,300	6,950	6,440	6,520	6,240
15	7,160	7,100	6,960	6,950	7,050	7,400	7,120	7,300	6,940	6,410	6,500	6,220
16	7,150	7,100	6,960	6,950	7,050	7,400	7,090	7,290	6,940	6,400	6,480	6,210
17	7,130	7,100	6,960	6,950	7,050	7,370	7,110	7,260	6,920	6,370	6,470	6,180
18	7,120	7,100	6,970	6,940	7,070	7,380	7,130	7,250	6,880	6,350	6,460	6,170
19	7,120	7,090	6,950	6,940	7,070	7,350	7,120	7,240	6,840	6,330	6,440	6,140
20	7,100	7,080	6,970	6,920	7,070	7,350	7,140	7,240	6,830	6,300	6,420	6,130
21	7,100	7,080	6,980	6,940	7,090	7,350	7,140	7,220	6,820	6,280	6,420	6,120
22	7,100	7,070	6,990	6,940	7,110	7,350	7,160	7,210	6,820	6,280	6,400	6,130
23	7,170	7,040	6,970	6,940	7,110	7,330	7,180	7,200	6,800	6,280	6,380	6,160
24	7,160	7,030	6,970	6,940	7,120	7,320	7,160	7,180	6,780	6,410	6,470	6,180
25	7,160	7,030	6,940	6,940	7,160	7,310	7,170	7,180	6,760	6,490	6,470	6,240
26	7,160	7,040	6,940	6,940	7,200	7,300	7,160	7,170	6,750	6,490	6,450	6,240
27	7,190	7,050	6,950	6,920	7,210	7,300	7,150	7,210	6,720	6,580	6,430	6,240
28	7,160	7,050	6,940	6,920	7,210	7,310	7,110	7,200	6,720	6,630	6,420	6,220
29	7,150	7,050	6,940	6,930	------	7,300	7,150	7,180	6,710	6,650	6,400	6,210
30	7,130	7,030	7,000	6,930	------	7,280	7,150	7,170	6,690	6,630	6,390	6,200
31	7,130	------	6,990	6,910	------	7,260	------	7,160	------	6,620	6,370	------
(†)	417.74	417.61	417.55	417.44	417.85	417.91	417.77	417.78	417.14	417.04	416.70	416.45
(≠)	+190	-100	-40	-80	+300	+50	-110	+10	-470	-70	-250	-170
MAX	7,190	7,120	7,040	7,010	7,210	7,420	7,270	7,340	7,150	6,670	6,610	6,400
MIN	6,880	7,030	6,940	6,910	6,880	7,220	7,090	7,090	6,690	6,280	6,370	6,120

CAL YR 1970..... ≠ +90 MAX 8,690 MIN 6,880
WTR YR 1971..... ≠ -740 MAX 7,420 MIN 6,120

† Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.

08019500 Big Sandy Creek near Big Sandy, Tex.

LOCATION.--Lat 32°36'12", long 95°05'32", Upshur County, on left bank at downstream side of bridge on State Highway 155, 0.5 mile upstream from St. Louis Southwestern Railway Lines bridge, 1.6 miles northeast of Big Sandy, and 6.5 miles upstream from mouth.

DRAINAGE AREA.--231 sq mi.

PERIOD OF RECORD.--February 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 278.38 ft above mean sea level. Prior to Oct. 5, 1940, nonrecording gage and Oct. 5, 1940, to Nov. 26, 1951, water-stage recorder at site 1.3 miles upstream at datum 3.00 ft higher.

AVERAGE DISCHARGE.--32 years, 176 cfs (127,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 294 cfs Oct. 28 (gage height, 8.77 ft); minimum daily, 11 cfs June 27.
Period of record: Maximum discharge, 24,000 cfs Mar. 31, 1945 (gage height, 24.1 ft, present site and datum, from floodmark), from rating curve extended above 13,000 cfs; minimum, 5.0 cfs Aug. 15, 1956.
Maximum stage since at least 1875, that of Mar. 31, 1945, from information by local residents.

REMARKS.--Records good. Flow partly regulated by Lake Winnsboro (station 08019300) since June 1962.

REVISIONS (WATER YEARS).--WSP 1732: 1941(M), 1945-46, 1956, drainage area. WSP 1922: 1944(M), 1945-46.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	129	53	73	55	97	47	48	32	17	90	20
2	23	92	53	75	53	103	46	46	29	15	82	18
3	23	73	53	84	54	117	44	45	25	14	73	17
4	22	62	53	90	61	109	43	45	23	13	62	16
5	21	57	53	84	72	96	42	42	21	14	89	19
6	21	54	54	78	70	95	41	40	24	12	57	16
7	23	52	53	72	68	98	40	38	21	15	44	14
8	27	53	51	65	69	93	39	35	17	21	42	14
9	39	67	50	61	68	84	40	33	15	20	37	14
10	34	55	50	60	64	81	42	34	15	17	32	17
11	31	51	50	58	60	78	42	42	14	16	32	15
12	45	47	49	57	98	79	41	58	14	15	30	14
13	64	61	48	57	111	87	41	91	13	14	36	13
14	72	118	48	57	109	88	40	118	12	16	35	13
15	74	96	53	56	114	80	39	127	12	37	30	13
16	77	91	71	55	118	80	37	100	12	37	28	12
17	70	94	67	54	114	83	38	66	12	36	25	15
18	54	107	63	54	99	75	66	46	14	36	24	14
19	43	104	62	53	88	64	57	37	13	36	23	13
20	38	82	70	52	84	58	53	32	12	35	22	12
21	35	68	73	52	89	54	58	31	12	44	28	13
22	33	61	69	52	106	53	57	30	13	72	28	14
23	34	56	65	53	121	52	79	26	17	59	25	17
24	45	53	62	53	114	51	88	25	17	55	28	20
25	55	51	61	53	105	50	78	25	15	145	23	25
26	55	51	59	58	128	51	80	27	12	184	22	25
27	173	52	57	67	119	50	89	26	11	215	20	21
28	267	53	56	71	101	49	78	27	12	211	24	19
29	232	53	56	66	------	49	62	28	16	168	24	18
30	256	53	61	62	------	47	53	27	18	123	24	18
31	194	------	75	59	------	46	------	31	------	105	22	------
TOTAL	2,203	2,096	1,798	1,941	2,512	2,297	1,600	1,426	493	1,817	1,161	489
MEAN	71.1	69.9	58.0	62.6	89.7	74.1	53.3	46.0	16.4	58.6	37.5	16.3
MAX	267	129	75	90	128	117	89	127	32	215	90	25
MIN	21	47	48	52	53	46	37	25	11	12	20	12
AC-FT	4,370	4,160	3,570	3,850	4,980	4,560	3,170	2,830	978	3,600	2,300	970

CAL YR 1970 TOTAL 44,239 MEAN 121 MAX 1,260 MIN 14 AC-FT 87,750
WTR YR 1971 TOTAL 19,833 MEAN 54.3 MAX 267 MIN 11 AC-FT 39,340

PEAK DISCHARGE (BASE, 1,500 CFS).--No peak above base.

08020000 Sabine River near Gladewater, Tex.

LOCATION.--Lat 32°31'37", long 94°57'36", Gregg County, on right bank 46 ft downstream from bridge on U.S. Highway 271, 0.4 mile downstream from Glade Creek, 1.2 miles southwest of Gladewater, and at mile 397.5.

DRAINAGE AREA.--2,791 sq mi.

PERIOD OF RECORD.--October 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 243.85 ft above mean sea level (Texas Reclamation Department bench mark based on Geological Survey datum). Prior to Oct. 13, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--39 years, 1,861 cfs (1,348,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,470 cfs Oct. 29 (gage height, 19.16 ft); minimum, 7.0 cfs July 20, 21.
Period of record: Maximum discharge, 138,000 cfs Apr. 2, 1945 (gage height, 44.16 ft, from floodmark), from rating curve extended above 91,000 cfs; minimum, 5.6 cfs Aug. 16, 1939.
Maximum stage since at least 1892, that of Apr. 2, 1945. Flood in May 1914 reached a stage of about 41.7 ft (discharge, 85,900 cfs), from information by local resident.

REMARKS.--Records good. Flow partly regulated by Lake Tawakoni (station 08017400) and five smaller reservoirs, with a combined capacity of 975,500 acre-ft. Many diversions above station for oilfield operations and municipal supply. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08019000.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	3,050	334	410	519	1,310	231	225	126	29	1,240	73
2	380	2,770	298	390	506	1,260	220	198	123	27	1,380	68
3	337	2,530	277	381	504	1,230	208	178	100	29	1,520	60
4	237	2,360	266	414	519	1,190	199	165	92	26	1,700	67
5	171	2,200	254	474	558	1,100	194	157	89	24	1,910	62
6	145	1,820	248	449	591	1,080	183	153	84	25	2,020	60
7	122	1,420	239	392	593	1,130	172	149	80	22	1,790	57
8	113	1,160	231	421	582	1,110	170	144	72	18	819	48
9	146	1,200	226	496	578	1,010	171	142	61	16	409	42
10	149	1,110	226	465	571	938	169	145	54	18	273	39
11	136	822	232	394	573	825	168	150	47	18	232	39
12	157	590	248	395	687	682	163	215	42	16	192	37
13	210	552	247	459	826	679	163	812	38	15	165	34
14	478	1,070	232	497	886	756	164	1,290	34	14	163	31
15	618	1,130	242	514	880	672	158	1,580	31	13	161	31
16	761	1,080	354	511	900	530	156	1,760	30	11	157	31
17	983	953	459	509	996	436	157	1,610	27	8.7	135	27
18	1,230	916	409	507	1,010	397	222	1,060	25	9.8	112	27
19	1,500	1,040	356	509	1,010	374	300	535	24	7.8	174	29
20	1,770	1,100	359	519	928	356	298	272	25	7.4	310	27
21	2,000	949	423	517	813	324	301	192	23	12	381	25
22	2,200	697	472	518	693	304	307	162	23	9.8	345	27
23	2,330	507	436	543	638	294	351	146	28	26	240	36
24	2,370	396	371	552	687	299	348	133	35	31	167	51
25	2,290	354	352	538	780	303	334	121	33	211	139	80
26	2,160	332	334	537	1,120	288	326	106	30	1,450	131	138
27	2,810	395	327	546	1,270	273	360	108	25	1,320	101	554
28	3,420	544	322	544	1,320	264	407	108	22	1,030	86	633
29	3,430	522	342	539	------	279	354	110	22	863	86	459
30	3,430	412	372	532	------	261	275	114	25	994	86	505
31	3,290	------	417	530	------	241	------	122	------	1,110	81	------
TOTAL	39,618	33,981	9,905	15,002	21,538	20,195	7,229	12,362	1,470	7,411.5	16,705	3,397
MEAN	1,278	1,133	320	484	769	651	241	399	49.0	239	539	113
MAX	3,430	3,050	472	552	1,320	1,310	407	1,760	126	1,450	2,020	633
MIN	113	332	226	381	504	241	156	106	22	7.4	81	25
AC-FT	78,580	67,400	19,650	29,760	42,720	40,060	14,340	24,520	2,920	14,700	33,130	6,740

CAL YR 1970 TOTAL 628,730.0 MEAN 1,723 MAX 12,800 MIN 23 AC-FT 1,247,000
WTR YR 1971 TOTAL 188,813.5 MEAN 517 MAX 3,430 MIN 7.4 AC-FT 374,500

08020200 Prairie Creek near Gladewater, Tex.

LOCATION.--Lat 32°28'45", long 94°57'15", Gregg County, on downstream side of bridge on State Highway 135, 1.2 miles upstream from Little Caney Creek, 3.5 miles upstream from mouth, and 3.9 miles south of Gladewater.

DRAINAGE AREA.--48.9 sq mi.

PERIOD OF RECORD.--January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 280.95 ft above mean sea level (State Highway Department bench mark).

EXTREMES.--Maximum and minimum discharges for the water years 1968-71 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1968†	May 10, 1968	4,030	9.91	Sept. 1, 2, 1968	0.03	3.08
1969	Mar. 18, 1969	925	8.55	At times	0	-
1970	Dec. 30, 1969	285	7.66	At times	0	-
1971	Oct. 28, 1970	448	8.09	At times	0	-

† Period January to September 1968.

Period of record: Maximum discharge, 4,030 cfs May 10, 1968 (gage height, 9.91 ft); no flow at times.

REMARKS.--Records good except those above 750 cfs, which are poor. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				-	80	51	25	25	25	21	3.6	.04
2				-	160	35	280	19	23	16	3.0	.04
3				-	120	33	322	23	23	14	2.6	.43
4				-	70	31	146	188	24	14	2.6	9.2
5				-	50	27	83	228	23	12	1.8	16
6				-	40	35	58	83	20	9.5	1.8	8.0
7				-	30	40	47	37	19	8.5	1.8	4.8
8				-	25	35	43	40	17	8.2	2.6	3.6
9				-	24	35	50	62	15	8.5	2.8	6.2
10				-	24	50	50	1,720	13	8.8	3.0	13
11				-	23	50	39	834	12	7.8	2.6	6.2
12				-	21	260	33	276	12	7.2	1.8	4.1
13				-	19	215	78	268	11	13	1.6	3.2
14				-	24	100	115	194	10	24	1.6	2.8
15				-	66	70	66	110	9.0	16	1.6	5.0
16				-	66	60	40	74	9.0	9.8	1.6	16
17				-	38	55	34	83	24	7.5	1.2	9.8
18				-	32	45	31	338	18	6.5	.82	6.2
19				-	31	45	29	233	12	5.5	.56	4.8
20				24	42	47	28	105	12	4.8	.49	3.9
21				23	36	62	26	62	19	5.2	.43	3.4
22				23	38	43	43	48	20	26	.37	3.0
23				26	35	33	42	46	23	22	.33	2.8
24				28	36	29	37	44	32	12	.25	2.6
25				30	35	28	26	34	66	8.2	.21	3.4
26				30	31	27	22	48	164	6.8	.21	5.2
27				25	27	26	19	48	390	5.8	.14	4.1
28				25	40	24	18	34	123	5.0	.11	3.2
29				25	74	24	37	28	36	4.6	.11	3.2
30				25	------	24	47	26	26	4.3	.09	3.0
31		------		40	------	23	------	28	------	4.1	.07	------
TOTAL				-	1,337	1,662	1,914	5,386	1,230.0	326.6	41.79	157.21
MEAN				-	46.1	53.6	63.8	174	41.0	10.5	1.35	5.24
MAX				-	160	260	322	1,720	390	26	3.6	16
MIN				-	19	23	18	19	9.0	4.1	.07	.04
CFSM				-	.94	1.10	1.30	3.56	.84	.21	.03	.11
IN.				-	1.02	1.26	1.46	4.10	.94	.25	.03	.12
AC-FT				-	2,650	3,300	3,800	10,680	2,440	648	83	312

CAL YR 1967 TOTAL - MEAN - MAX - MIN - CFSM - IN - AC-FT -
WTR YR 1968 TOTAL - MEAN - MAX - MIN - CFSM - IN - AC-FT -

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
4- 2	2000	8.25	595
5-10	1700	9.91	4,030
6-27	0300	8.21	551

08020200 Prairie Creek near Gladewater, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.6	38	25	54	44	50	43	15	.76		0
2	2.3	2.6	54	24	58	43	48	40	14	.71		0
3	2.3	6.2	42	24	50	68	46	37	13	.71		0
4	2.3	10	37	24	39	94	51	36	13	.76		0
5	2.6	7.5	32	24	37	68	102	41	13	.76		0
6	3.0	6.2	27	24	37	75	120	64	12	.51		0
7	3.4	5.5	24	23	36	87	72	84	9.7	.43		0
8	2.8	5.8	24	23	34	77	54	160	8.5	.32		0
9	6.1	10	24	23	32	84	54	104	7.7	.23		0
10	28	11	24	23	31	61	118	59	6.6	.20		0
11	24	8.8	24	23	31	50	102	42	6.4	.16		0
12	13	7.5	28	23	31	46	85	36	5.9	.10		0
13	8.8	7.0	43	23	30	44	446	32	5.1	.08		0
14	7.0	7.0	40	23	54	41	260	36	5.1	.05		0
15	5.8	10	29	23	117	61	135	63	4.7	.03		0
16	5.0	19	26	24	114	142	84	40	4.5	.89		2.9
17	4.8	13	25	27	64	148	96	37	4.3	2.2		1.2
18	5.0	10	25	27	48	551	183	57	3.9	.76		.51
19	4.6	8.2	29	27	42	358	128	47	3.6	.47		.09
20	4.1	7.0	28	26	41	164	75	32	3.2	.32		.02
21	3.6	6.8	30	26	74	92	59	27	2.9	.26		.01
22	3.4	6.8	40	26	233	70	52	24	2.4	.20		0
23	3.4	6.8	44	27	218	130	48	21	1.9	.47		0
24	3.4	10	34	26	100	401	45	24	1.7	.32		0
25	3.2	13	28	26	68	182	40	23	1.4	.20		.14
26	3.2	11	28	26	57	92	40	38	1.2	.09		.29
27	2.8	23	29	26	52	70	55	38	.97	.06		.14
28	2.6	42	35	27	49	61	130	29	1.2	.05		.08
29	2.6	42	32	32	------	57	97	24	.97	.03		.03
30	2.6	25	27	38	------	52	54	18	.89	.02		.02
31	2.6	------	26	43	------	51	------	16	------	.01		------
TOTAL	170.9	351.3	976	806	1,831	3,564	2,929	1,372	174.73	12.16	0	5.43
MEAN	5.51	11.7	31.5	26.0	65.4	115	97.6	44.3	5.82	.39	0	.18
MAX	28	42	54	43	233	551	446	160	15	2.2	0	2.9
MIN	2.3	2.6	24	23	30	41	40	16	.89	.01	0	0
CFSM	.11	.24	.64	.53	1.34	2.35	2.00	.91	.12	.008	0	.004
IN.	.13	.27	.74	.61	1.39	2.71	2.23	1.04	.13	.009	0	.004
AC-FT	339	697	1,940	1,600	3,630	7,070	5,810	2,720	347	24	0	11

CAL YR 1968 TOTAL - MEAN - MAX - MIN - CFSM - IN - AC-FT -
WTR YR 1969 TOTAL 12,192.52 MEAN 33.4 MAX 551 MIN 0 CFSM .68 IN 9.28 AC-FT 24,180

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
3-18	1630	8.55	925
3-24	0400	8.20	540
4-13	1100	8.30	650

08020200 Prairie Creek near Gladewater, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	4.1	8.8	120	33	61	33	48	7.9	2.0	.26	0
2	0	2.4	8.5	68	64	59	32	48	37	1.6	.18	.18
3	0	2.2	8.2	54	57	130	28	33	16	1.3	.16	.26
4	0	2.0	7.9	50	36	229	27	27	9.7	.97	.16	.76
5	0	2.0	9.7	50	29	161	26	24	8.2	.82	.16	.29
6	0	2.0	54	66	27	80	26	20	6.9	.71	.14	.10
7	0	1.9	108	75	26	64	25	18	5.4	.61	.14	.03
8	0	1.9	78	53	26	59	24	17	4.5	.66	.14	.02
9	0	1.9	46	41	24	54	24	17	3.9	.66	.14	.01
10	0	1.8	33	37	23	49	36	18	3.6	.71	.14	.43
11	0	1.8	28	37	21	53	41	17	3.2	.61	.14	.97
12	0	1.7	25	36	20	80	34	15	2.8	3.0	.14	.76
13	.10	1.7	22	33	21	72	28	14	2.3	13	.66	.29
14	1.3	1.5	21	31	23	57	24	13	2.3	3.9	.97	.08
15	.76	1.5	20	30	33	49	23	12	2.0	1.9	.97	.03
16	.39	1.5	18	30	68	45	23	11	1.7	1.4	.97	.01
17	.32	12	18	29	64	59	24	9.1	1.6	1.9	.97	.01
18	.26	94	18	28	41	84	24	7.7	1.4	2.4	.97	.01
19	.23	126	23	26	33	66	89	6.6	1.2	1.4	.97	0
20	.23	54	46	25	28	53	206	6.1	1.1	.89	.97	.01
21	.23	24	44	24	25	102	109	5.6	1.0	2.6	.97	5.3
22	.23	17	31	23	25	230	50	5.4	5.9	3.4	1.0	3.4
23	.18	14	25	24	27	120	36	5.6	4.9	2.4	1.4	.97
24	.12	12	22	24	35	70	32	5.1	10	1.6	1.1	.66
25	.10	11	21	24	115	54	44	4.7	10	1.1	.39	.66
26	.10	11	20	24	178	46	121	4.5	6.9	.82	.12	3.6
27	.23	11	19	23	92	39	160	4.5	7.7	.71	.04	3.4
28	.97	12	22	23	61	37	80	4.5	5.9	.71	.02	1.1
29	2.2	11	62	23	------	36	48	4.5	4.3	.71	.01	.71
30	3.7	10	213	21	------	34	39	4.5	3.0	.56	.01	.51
31	12	------	235	19	------	33	------	5.4	------	.39	0	------
TOTAL	23.66	450.9	1,315.1	1,171	1,255	2,365	1,516	435.8	182.3	55.44	14.41	24.56
MEAN	.76	15.0	42.4	37.8	44.8	76.3	50.5	14.1	6.08	1.79	.46	.82
MAX	12	126	235	120	178	230	206	48	37	13	1.4	5.3
MIN	0	1.5	7.9	19	20	33	23	4.5	1.0	.39	0	0
CFSM	.02	.31	.87	.77	.92	1.56	1.03	.29	.12	.04	.009	.02
IN.	.02	.34	1.00	.89	.95	1.80	1.15	.33	.14	.04	.01	.02
AC-FT	47	894	2,610	2,320	2,490	4,690	3,010	864	362	110	29	49

CAL YR 1969 TOTAL 12,483.98 MEAN 34.2 MAX 551 MIN 0 CFSM .70 IN 9.50 AC-FT 24,760
WTR YR 1970 TOTAL 8,809.17 MEAN 24.1 MAX 235 MIN 0 CFSM .49 IN 6.70 AC-FT 17,470

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

08020200 Prairie Creek near Gladewater, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	35	17	10	12	23	13	7.9	1.0	2.6	3.7	4.8
2	.43	20	16	10	11	22	11	6.9	.89	.76	2.8	3.6
3	.43	17	16	20	12	26	10	6.4	.76	.20	2.8	3.0
4	.32	15	15	30	16	25	10	5.6	.66	.08	11	2.9
5	.23	14	14	20	19	22	10	5.4	.56	.02	46	2.8
6	1.5	14	13	15	17	20	10	5.6	.43	.01	15	2.6
7	2.6	13	12	15	15	18	9.4	6.4	.39	0	8.8	2.3
8	2.2	14	12	15	14	16	9.1	7.2	.35	0	5.6	2.2
9	2.2	49	12	15	13	16	8.8	5.9	.29	0	3.7	2.3
10	2.2	77	13	15	13	27	8.8	7.4	.23	0	3.9	2.4
11	1.5	36	12	15	13	25	8.5	32	.18	0	3.6	2.3
12	9.3	23	12	15	26	30	8.5	24	.14	0	3.4	2.1
13	8.5	35	11	15	37	34	7.9	12	.10	0	19	.89
14	4.5	104	11	15	24	25	7.4	8.5	.08	0	8.2	.20
15	3.0	92	13	15	21	21	7.2	6.6	.07	0	7.7	.12
16	2.0	52	24	15	19	18	7.2	5.4	.05	0	4.9	.06
17	1.5	35	21	15	18	16	8.2	4.5	.02	0	3.7	.30
18	1.5	29	17	15	17	16	24	3.9	.01	0	3.4	.20
19	1.0	27	16	15	27	20	26	3.6	.01	0	2.9	.08
20	1.0	24	25	15	34	16	18	3.0	0	0	4.0	.06
21	1.5	22	45	14	26	14	22	2.6	0	0	3.4	.04
22	1.5	22	36	14	26	14	17	2.3	.02	0	2.4	1.8
23	3.5	21	26	14	22	14	14	2.2	.05	0	2.2	3.9
24	20	19	20	14	18	13	13	2.0	.03	0	2.4	4.5
25	6.5	18	15	14	18	13	12	1.8	.02	10	2.4	6.5
26	45	18	10	14	36	14	11	1.5	.01	84	3.4	5.7
27	181	19	10	13	35	13	10	1.5	0	33	3.4	3.5
28	326	18	10	13	26	14	9.1	1.7	0	9.4	3.2	2.9
29	200	17	10	13	------	21	7.9	1.5	0	13	3.0	2.7
30	135	16	15	13	------	16	7.9	1.3	.01	12	2.8	2.3
31	70	------	20	12	------	13	------	1.2	------	6.1	2.8	------
TOTAL	1,036.34	915	519	463	585	595	346.9	187.8	6.36	171.17	195.5	69.05
MEAN	33.4	30.5	16.7	14.9	20.9	19.2	11.6	6.06	.21	5.52	6.31	2.30
MAX	326	104	45	30	37	34	26	32	1.0	84	46	6.5
MIN	.23	13	10	10	11	13	7.2	1.2	0	0	2.2	.04
CFSM	.68	.62	.34	.30	.43	.39	.24	.12	.004	.11	.13	.05
IN.	.79	.70	.39	.35	.45	.45	.26	.14	.004	.13	.15	.05
AC-FT	2,060	1,810	1,030	918	1,160	1,180	688	373	13	340	388	137

CAL YR 1970 TOTAL 9,489.85 MEAN 26.0 MAX 326 MIN 0 CFSM .53 IN 7.22 AC-FT 18,820
WTR YR 1971 TOTAL 5,090.12 MEAN 13.9 MAX 326 MIN 0 CFSM .28 IN 3.87 AC-FT 10,100

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

08020700 Rabbit Creek at Kilgore, Tex.

LOCATION.--Lat 32°23'17", long 94°54'11", Gregg County, near center of channel on downstream side of bridge on State Highway 31 at Kilgore, 0.4 mile upstream from Big Caney Creek, 4.4 miles upstream from Peavine Creek, and 14 miles upstream from mouth.

DRAINAGE AREA.--75.8 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 299.80 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--8 years, 43.4 cfs (7.78 inches per year, 31,440 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,490 cfs Oct. 27 (gage height, 13.82 ft); minimum, 0.12 cfs July 16.
Period of record: Maximum discharge, 15,200 cfs Apr. 24, 1966 (gage height, 16.40 ft); no flow at times in 1964, 1967-68.
Maximum stage since at least 1943, 19.6 ft July 11, 1945, from information by local resident and State Highway Department.

REMARKS.--Records good. Small diversions for oilfield operations upstream from station. Low flow partly sustained by effluents from oilfield operations.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	39	29	32	19	40	19	14	5.4	1.6	1.3	1.8
2	7.2	33	28	30	18	39	19	12	5.4	9.1	.92	1.8
3	6.5	29	28	35	20	44	17	10	5.2	19	.92	3.2
4	6.3	26	27	42	33	39	17	8.8	4.2	4.0	2.6	2.8
5	5.6	25	26	29	37	36	17	8.8	3.6	1.8	6.1	.92
6	9.6	24	26	26	25	35	16	11	3.1	1.2	4.6	.56
7	76	23	24	26	23	32	15	40	2.8	.66	2.4	.45
8	35	23	24	27	22	30	15	22	2.1	.56	1.5	1.8
9	55	39	24	27	20	33	15	13	1.5	.50	.92	.61
10	21	27	25	27	20	45	15	31	1.3	.50	2.5	1.5
11	15	22	25	26	20	37	14	107	.66	.50	3.6	.66
12	70	21	24	25	145	37	14	55	.50	.32	5.3	.45
13	38	60	23	26	82	36	14	26	.85	.20	4.8	.40
14	22	109	23	27	41	33	13	18	.78	.20	4.6	.45
15	16	55	38	25	35	28	12	15	.66	.17	3.2	1.5
16	13	39	58	23	37	25	12	13	.61	.15	1.4	8.5
17	11	38	35	23	31	25	19	12	.78	.17	.78	2.6
18	11	36	30	24	29	25	57	11	1.1	.26	.50	4.2
19	11	35	30	22	191	24	29	10	.61	.26	.40	11
20	11	32	153	21	155	23	22	11	.61	.32	.40	3.1
21	10	30	176	22	68	23	26	8.3	1.1	.36	4.4	1.3
22	9.7	30	77	24	62	24	20	7.7	6.3	.36	2.4	28
23	40	28	75	24	43	23	17	7.5	3.2	.40	.72	60
24	69	26	47	23	38	22	14	7.5	2.1	.56	.61	19
25	24	26	38	23	45	22	13	7.0	1.0	7.9	13	43
26	17	28	32	22	119	23	12	5.8	.61	31	4.4	26
27	2,220	28	31	20	17	22	12	5.8	.32	4.6	1.4	8.5
28	1,470	28	31	20	43	25	12	6.1	4.9	2.4	.50	5.2
29	252	28	31	21	------	26	20	6.1	11	2.3	.36	4.0
30	69	28	38	22	------	22	18	5.8	3.1	2.6	.29	2.9
31	47	------	44	22	------	20	------	5.8	------	1.9	4.4	------
TOTAL	4,675.6	1,015	1,320	786	1,438	918	535	522.0	75.39	95.85	81.22	246.20
MEAN	151	33.8	42.6	25.4	51.4	29.6	17.8	16.8	2.51	3.09	2.62	8.21
MAX	2,220	109	176	42	191	45	57	107	11	31	13	60
MIN	5.6	21	23	20	17	20	12	5.8	.32	.15	.29	.40
CFSM	1.99	.45	.56	.34	.68	.39	.23	.22	.03	.04	.03	.11
IN.	2.29	.50	.65	.39	.71	.45	.26	.26	.04	.05	.04	.12
AC-FT	9,270	2,010	2,620	1,560	2,850	1,820	1,060	1,040	150	190	161	488

CAL YR 1970 TOTAL 19,127.56 MEAN 52.4 MAX 2,220 MIN .78 CFSM .69 IN 9.39 AC-FT 37,940
WTR YR 1971 TOTAL 11,708.26 MEAN 32.1 MAX 2,220 MIN .15 CFSM .42 IN 5.75 AC-FT 23,220

PEAK DISCHARGE (BASE, 800 CFS).--Oct. 27 (1900) 5,490 cfs (13.82 ft).

08021500 Lake Cherokee near Longview, Tex.

LOCATION.--Lat 32°22'36", long 94°38'30", Gregg-Rusk County line, on left wingwall of intake structure of electric generating plant of Southwestern Electric Power Co., 2.3 miles upstream from dam on Cherokee Bayou, 10 miles upstream from Sabine River, and 10.3 miles southeast of Longview.

DRAINAGE AREA.--158 sq mi.

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Nonrecording staff gage. Datum of gage is mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents observed, 51,520 acre-ft Oct. 28 (elevation, 281.2 ft); minimum observed, 37,910 acre-ft Sept. 22 (elevation, 277.6 ft).
Period of record: Maximum contents observed, 71,170 acre-ft May 3, 1959 (elevation, 285.5 ft); minimum observed, 34,620 acre-ft Oct. 16-18, 31, 1956, Aug. 9, 18-21, Aug. 31 to Sept. 8, 11-18, 1958 (elevation, 276.6 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 4,000 ft long with an uncontrolled concrete spillway 828 ft long. Emergency spillway is a 160 ft wide cut in natural ground near right end of dam. Storage began in October 1948 and dam was completed Nov. 19, 1948. Lake was built for recreational purposes, to supply cooling water for generating plant of Southwestern Electric Power Co., and for municipal use by city of Longview. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	295.0	-
Top of design flood pool	291.0	-
Crest of emergency spillway	287.7	-
Crest of service spillway	280.0	46,700
Invert of 18" outlet pipe	260.0	4,510

COOPERATION.--Elevation record furnished by Southwestern Electric Power Co. Record of diversions furnished by city of Longview. Capacity curve data from "Report of Sedimentation of Lake Cherokee, Gregg & Rusk Counties, Apr. 4 to May 13, 1960", by Soil Conservation Service.

REVISIONS.--WSP 1732: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

277.0	35,900	280.0	46,700
278.0	39,300	281.0	50,700
279.0	42,900	282.0	54,900

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43,640	47,480	46,700	47,480	46,700	47,480	46,700	46,700	45,920	42,900	40,000	39,650
2	43,640	47,100	46,700	47,480	46,700	47,480	46,700	46,700	45,540	42,900	40,000	39,650
3	43,640	46,700	46,700	47,480	46,700	47,480	46,700	46,700	45,540	42,900	40,000	39,300
4	43,640	46,700	46,700	47,480	47,100	47,100	46,700	46,700	45,150	42,900	40,710	39,300
5	43,640	46,700	46,700	47,480	47,100	47,100	46,700	46,320	45,150	42,530	40,710	39,300
6	43,640	46,700	46,700	47,100	47,100	47,100	46,320	46,700	45,150	42,530	40,710	39,300
7	43,640	46,700	46,700	46,700	46,700	47,100	46,320	46,700	45,150	42,160	41,070	38,950
8	43,640	46,700	46,700	46,700	46,700	47,100	46,700	46,700	45,150	42,160	41,070	38,950
9	43,640	46,700	46,700	46,700	46,700	47,100	46,320	46,700	45,150	41,790	40,710	38,600
10	43,640	46,700	46,700	46,700	46,700	47,100	46,320	46,700	44,770	41,790	40,710	38,600
11	43,640	46,700	46,700	46,700	46,700	46,700	46,320	47,480	44,390	41,790	40,710	38,600
12	44,010	46,320	46,700	46,700	47,100	47,480	45,920	47,480	44,390	41,430	40,710	38,600
13	44,010	47,480	46,700	46,700	47,100	47,100	45,920	47,480	44,390	41,430	40,710	38,600
14	44,390	47,480	47,100	46,700	47,100	47,100	45,920	47,480	44,390	41,070	41,070	38,600
15	44,390	47,480	47,100	46,700	47,100	47,100	46,320	47,100	44,390	40,710	41,070	38,600
16	44,390	47,480	47,100	46,700	47,100	47,100	46,320	47,100	44,390	40,710	41,070	38,600
17	44,390	47,480	46,700	46,700	47,100	47,100	46,700	46,700	44,010	40,710	41,070	38,600
18	44,390	47,480	46,700	46,700	46,700	47,100	47,100	46,700	44,010	40,710	41,070	38,600
19	44,390	47,480	47,100	46,700	48,270	47,100	47,100	46,700	44,010	40,350	40,710	38,600
20	44,390	47,100	48,270	46,700	48,670	46,700	47,100	46,700	44,010	40,350	40,710	38,250
21	44,390	47,100	48,670	46,700	47,880	46,700	46,700	46,700	44,010	40,000	40,710	38,250
22	44,390	47,100	48,670	46,700	47,480	46,700	46,700	46,700	44,390	40,000	40,350	37,910
23	44,390	47,100	48,270	46,700	47,480	46,700	46,700	46,700	44,390	40,000	40,350	38,600
24	44,390	47,100	47,480	46,700	47,480	46,700	46,700	46,700	43,640	39,650	40,350	38,600
25	44,390	46,700	47,100	46,700	47,480	46,700	46,700	46,700	43,270	40,000	40,350	38,600
26	44,390	46,700	47,480	46,700	47,480	46,700	46,700	46,700	43,270	40,350	40,350	38,600
27	49,880	46,320	47,480	46,700	47,480	46,700	46,700	45,920	42,900	40,000	40,000	38,600
28	51,520	46,320	47,100	46,700	47,480	46,700	46,700	45,920	42,900	40,000	40,000	38,600
29	49,070	46,320	47,480	46,700	------	46,700	46,700	45,920	42,900	40,000	40,000	38,600
30	48,270	46,320	47,480	46,700	------	46,700	46,700	45,920	42,900	40,000	40,000	38,600
31	47,880	------	47,100	46,700	------	46,700	------	45,920	------	40,000	40,000	------
(†)	280.3	279.9	280.1	280.0	280.2	280.0	280.0	279.8	279.0	278.2	278.2	277.8
(≠)	+4,240	-1,560	+780	-400	+780	-780	0	-780	-3,020	-2,900	0	-1,400
(††)	908	758	857	896	826	935	1,050	1,100	1,460	1,610	1,160	1,170
MAX	51,520	47,480	48,670	47,480	48,670	47,480	47,100	47,480	45,920	42,900	41,070	39,650
MIN	43,640	46,320	46,700	46,700	46,700	46,700	45,920	45,920	42,900	39,650	40,000	37,910

CAL YR 1970..... ≠ -1,170 †† 11,820 MAX 51,520 MIN 43,640
WTR YR 1971..... ≠ -5,040 †† 12,740 MAX 51,520 MIN 37,910

† Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Longview.

08022000 Sabine River near Tatum, Tex.

LOCATION.--Lat 32°22'11", long 94°27'28", Rusk County, near right bank on downstream side of pier of bridge on State Highway 43, 5.1 miles northeast of Tatum, 5.2 miles upstream from Potters Creek, 5.6 miles downstream from Cherokee Bayou, and at mile 339.4.

DRAINAGE AREA.--3,493 sq mi.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October 1938 to January 1939, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 204.18 ft above mean sea level (levels by Corps of Engineers). Prior to Sept. 21, 1945, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 2,410 cfs (1,746,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,490 cfs Oct. 30 (gage height, 17.24 ft); minimum observed, 6.7 cfs July 24.
Period of record: Maximum discharge, 123,000 cfs Apr. 4, 1945 (gage height, 33.80 ft, from graph based on gage readings), from rating curve extended above 66,000 cfs on basis of partly estimated measurement of 88,900 cfs; minimum observed, 2.4 cfs Aug. 11, 12, 1964.
Maximum stage since at least 1884, that of Apr. 4, 1945. Flood in May 1884 reached a stage of about 32 ft, from information by local residents.

REMARKS.--Records good. Flow partly regulated by Lake Tawakoni (station 08017400) located 175 miles upstream and six small reservoirs (combined capacity, 1,022,000 acre-ft). Several diversions above station and below Lake Tawakoni for oilfield operation, municipal, and industrial use. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lake Fork Creek near Quitman (station 08019000). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	5,190	614	737	633	1.750	432	398	138	38	1,010	96
2	192	4,370	548	711	616	1,730	398	338	138	41	1,130	142
3	237	3,680	478	667	605	1,670	360	296	136	43	1,350	109
4	332	3,170	435	677	616	1,620	340	262	137	49	1,530	85
5	308	2,850	408	723	696	1,540	320	241	134	42	1,670	75
6	252	2,590	390	681	745	1,440	304	225	124	38	1,850	73
7	203	2,300	368	660	725	1,380	298	221	117	35	1,970	66
8	203	1,930	350	621	737	1,340	282	246	117	33	1,850	62
9	212	1,590	342	590	737	1,330	262	246	112	28	1,340	56
10	200	1,680	350	632	700	1,350	256	228	109	22	755	60
11	200	1,610	336	671	690	1,400	250	262	109	26	428	60
12	201	1,270	344	633	756	1,310	249	376	93	26	320	50
13	245	993	346	583	1,050	1,250	245	415	81	25	290	44
14	294	1,110	344	599	1,200	1,110	239	508	68	24	249	46
15	310	1,690	346	651	1,180	1,060	234	986	49	24	225	50
16	482	1,750	388	669	1,170	1,000	230	1,400	45	23	196	68
17	612	1,560	498	664	1,150	844	236	1,650	45	21	184	142
18	785	1,400	545	659	1,190	703	316	1,710	42	20	173	131
19	1,010	1,270	555	652	1,580	619	418	1,430	42	19	152	106
20	1,280	1,240	746	645	2,050	599	445	914	38	17	138	132
21	1,560	1,310	1,340	636	2,150	548	478	522	29	15	181	96
22	1,800	1,190	1,580	642	2,020	505	472	328	27	14	302	75
23	2,000	997	1,610	656	1,840	470	452	258	37	7.7	346	200
24	2,240	795	1,510	659	1,450	440	500	225	78	6.7	320	360
25	2,400	626	1,210	671	1,140	418	520	184	68	9.1	254	276
26	2,380	535	919	685	1,230	418	450	169	48	21	200	177
27	3,070	502	735	662	1,630	420	408	155	49	618	182	171
28	5,230	508	629	648	1,770	408	398	148	41	1,250	152	218
29	6,790	581	591	651	------	460	432	144	37	1,170	132	502
30	7,290	650	600	663	------	548	438	142	37	1,020	125	515
31	6,230	------	646	659	------	490	------	143	------	962	101	------
TOTAL	48,775	50,937	20,101	20,357	32,056	30,170	10,662	14,770	2,325	5,687.5	19,105	4,243
MEAN	1,573	1,698	648	657	1,145	973	355	476	77.5	183	616	141
MAX	7,290	5,190	1,610	737	2,150	1,750	520	1,710	138	1,250	1,970	515
MIN	192	502	336	583	605	408	230	142	27	6.7	101	44
AC-FT	96,750	101,000	39,870	40,380	63,580	59,840	21,150	29,300	4,610	11,280	37,890	8,420

CAL YR 1970 TOTAL 787,649 MEAN 2,158 MAX 11,200 MIN 24 AC-FT 1,562,000
WTR YR 1971 TOTAL 259,188.5 MEAN 710 MAX 7,290 MIN 6.7 AC-FT 514,100

NOTE.--Gage-height record June 10 to July 26, Aug. 31, Sept. 1, 4-16, 21, 22, from once-daily readings of wire-weight gage.

08022200 Murvaul Lake near Gary, Tex.

LOCATION.--Lat 32°02'04", long 94°25'15", Panola County, at outlet structure of Murvaul Lake Dam on Murvaul Bayou, 3.0 miles west of Gary, and 9.0 miles southwest of Carthage.

DRAINAGE AREA.--115 sq mi.

PERIOD OF RECORD.--December 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 50,830 acre-ft May 12 (elevation, 266.53 ft); minimum, 40,180 acre-ft Oct. 8 (elevation, 263.84 ft).
Period of record: Maximum contents, 58,050 acre-ft Mar. 30, 1965 (elevation, 268.24 ft); minimum since lake first filled in 1958, 26,670 acre-ft about Sept. 19, 1958 (elevation, 259.9 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 8,300 ft long. Spillway is an uncontrolled concrete flat-crested weir section 270 ft long at right end of dam, designed to discharge 26,700 cfs under a 10-foot head. Storage began in November 1957 and dam completed in June 1958. Outlet works consists of an outlet tower and a 36-inch-diameter pipe through the dam with flow controlled by a valve in control tower. The pipe terminates in a tee at downstream side of dam with one branch discharging below the dam and the other branch connected to a pipeline for municipal supply. The lake is the property of Panola County Fresh Water Supply District No. 1, Carthage, and was built to impound water for municipal and industrial use. Records furnished by the Panola County Water District show that 883 acre-ft was diverted for municipal use during the current year. Occasional releases. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	280.0	-
Top of design flood pool	275.0	91,520
Crest of spillway	265.3	45,840
Invert of lowest sluice gate	235.0	25

COOPERATION.--Capacity table from data furnished by Panola County Fresh Water Supply District No. 1, based on survey made in 1955.

REVISIONS.--WSP 1732: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

263.0	37,090	265.0	44,650
264.0	40,790	266.0	48,660
		267.0	52,780

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40,490	42,820	43,480	44,260	44,140	47,040	46,040	46,280	46,160	44,840	43,520	43,320
2	40,450	42,700	43,480	44,260	44,100	47,000	46,000	46,240	46,120	44,840	43,520	43,320
3	40,410	42,620	43,480	44,570	44,100	46,840	45,920	46,160	46,080	44,730	43,680	43,320
4	40,330	42,580	43,400	44,420	44,340	46,760	45,880	46,120	46,040	44,650	43,750	43,280
5	40,300	42,500	43,400	44,340	44,260	46,720	45,840	46,080	45,920	44,570	43,750	43,250
6	40,220	42,470	43,360	44,300	44,340	46,680	45,760	46,120	45,840	44,490	43,830	43,170
7	40,220	42,430	43,320	44,300	44,420	46,600	45,640	46,160	45,760	44,340	43,790	43,090
8	40,640	42,500	43,280	44,300	44,260	46,520	45,600	46,160	45,680	44,260	43,710	43,050
9	40,490	42,500	43,280	44,340	44,220	46,640	45,560	46,080	46,640	44,140	44,260	42,970
10	40,410	42,470	43,280	44,340	44,220	46,600	45,560	48,000	45,560	44,100	44,260	42,900
11	40,790	42,430	43,360	44,340	44,220	46,600	45,520	50,790	45,480	44,030	44,180	42,860
12	41,090	42,350	43,280	44,340	44,490	46,600	45,480	50,140	45,440	43,910	44,060	42,820
13	41,060	43,250	43,280	44,380	44,460	46,600	45,480	49,280	45,360	43,830	44,060	42,740
14	41,020	43,640	43,250	44,420	44,460	46,600	45,360	48,660	45,240	43,560	43,950	42,660
15	40,980	43,680	43,480	44,420	44,530	46,480	45,320	48,210	45,200	43,640	43,910	42,580
16	40,870	43,680	43,400	43,380	44,530	46,440	45,280	47,840	45,280	43,520	43,830	42,580
17	40,790	43,680	43,360	43,380	44,570	46,360	45,800	47,520	45,240	43,400	43,790	42,500
18	40,790	43,680	43,360	44,420	44,610	46,320	46,480	47,320	45,120	43,320	43,710	43,010
19	40,870	43,680	43,480	44,300	45,560	46,240	46,720	47,200	45,080	43,210	43,640	42,970
20	40,830	43,640	43,870	44,260	46,080	46,200	46,800	47,160	45,200	43,090	43,600	42,860
21	40,790	43,600	44,140	44,300	46,400	46,160	46,840	46,920	45,200	43,010	43,560	42,740
22	40,790	43,560	44,260	44,340	46,280	46,160	46,800	46,840	45,320	42,970	43,480	42,820
23	41,320	43,480	44,260	44,300	46,280	46,080	46,600	46,800	45,240	42,930	43,750	42,860
24	41,320	43,440	44,030	44,300	46,280	46,040	46,520	46,760	45,200	43,250	43,950	42,820
25	41,360	43,440	44,220	44,300	46,400	46,040	46,480	46,640	45,080	43,360	43,910	42,780
26	41,360	43,440	44,180	44,300	46,920	46,040	46,480	46,600	45,040	43,360	43,870	42,740
27	42,200	43,480	44,180	44,260	47,040	46,040	46,480	46,440	44,960	43,280	43,790	42,740
28	42,540	43,480	44,180	44,260	47,040	46,160	46,360	46,320	45,040	43,400	43,680	42,700
29	42,620	43,480	44,180	44,260	------	46,120	46,360	46,240	45,000	43,440	43,560	42,660
30	42,620	43,480	44,460	44,260	------	46,120	46,320	46,200	44,960	43,680	43,480	42,580
31	42,580	------	44,300	44,180	------	46,040	------	46,160	------	43,560	43,480	------
(†)	264.47	264.70	264.91	264.88	265.60	265.35	265.42	265.38	265.08	264.75	264.70	264.47
(‡)	+2,020	+900	+820	-120	+2,860	-1,000	+280	-160	-1,200	-1,400	-80	-900
(††)	80.4	62.6	61.4	67.2	62.9	68.7	69.4	61.7	84.4	96.1	77.3	91.2
MAX	42,620	43,680	44,460	44,570	47,040	47,040	46,840	50,790	46,640	44,840	44,260	43,320
MIN	40,220	42,350	43,250	43,380	44,100	46,040	45,280	46,080	44,960	42,930	43,480	42,500

CAL YR 1970..... ‡ -4,240 †† 1,036 MAX 49,600 MIN 40,220
WTR YR 1971..... ‡ -2,020 †† 883 MAX 50,790 MIN 40,220

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by Panola County Fresh Water District No. 1.

08022300 Murvaul Bayou near Gary, Tex.

LOCATION.--Lat 32°02'54", long 94°22'31", Panola County, near center of main channel on downstream side of bridge on Farm Road 10, 0.3 mile downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.0 mile downstream from Indian Creek, 1.5 miles north of Gary, and 3 miles downstream from Murvaul Lake.

DRAINAGE AREA.--134 sq mi.

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 217.82 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 73.2 cfs (53,030 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 720 cfs May 12 (gage height, 10.21 ft); no flow at times.
Period of record: Maximum discharge, 3,590 cfs Mar. 18, 1969 (gage height, 11.57 ft); no flow at times in 1967-71.
Maximum stage since at least 1928, about 14.5 ft in July 1933, from information by local resident.

REMARKS.--Records good. Discharge largely regulated by Murvaul Lake (see preceding page).

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.91	.32	1.9	.26	44	1.4	4.0	2.3	.01	.29	0
2	0	2.1	.36	1.9	.23	41	.91	3.1	2.0	0	.26	0
3	0	1.7	.40	1.7	.23	46	1.2	2.6	1.6	0	.36	0
4	0	.85	.32	1.8	.29	40	.85	1.4	1.1	0	.09	0
5	0	.48	.32	1.7	.97	24	.64	.64	.64	0	.11	0
6	0	.32	.29	1.8	1.6	25	.44	.40	.52	0	.08	0
7	0	.20	.17	1.5	1.7	30	1.2	.44	.29	0	.05	0
8	0	.17	.17	1.2	1.1	16	1.5	.48	.15	0	.02	0
9	0	.20	.15	1.1	.74	9.0	.52	.48	.06	0	.02	0
10	0	.09	.15	1.0	.60	11	.36	4.1	.04	0	2.6	0
11	0	.08	.15	1.0	.52	12	.26	162	.03	0	4.1	6.8
12	2.8	.08	.15	1.0	2.3	11	.17	624	.02	0	.69	7.2
13	2.0	7.5	.13	1.0	5.4	12	.13	582	.01	0	.13	3.2
14	1.4	50	.11	1.0	3.9	12	.11	395	0	0	.03	2.9
15	.29	24	.17	.97	2.7	19	.09	260	0	0	.01	2.9
16	.08	5.3	.69	.79	2.4	10	.08	174	.02	0	0	3.0
17	.03	2.6	.69	.69	2.2	6.9	.09	97	.15	0	0	3.0
18	.01	1.8	.69	.64	2.0	4.4	.48	65	.23	0	0	3.1
19	.01	1.4	.69	.56	22	11	4.3	52	.17	0	0	4.0
20	.01	1.1	2.2	.44	44	11	16	44	.09	0	0	3.6
21	0	.91	8.7	.40	15	3.3	23	36	.07	0	0	3.3
22	0	.69	8.6	.44	26	1.8	23	26	.06	0	0	3.3
23	.02	.56	4.3	.48	21	1.4	25	21	.03	0	.02	3.6
24	6.0	.44	2.7	.48	6.5	1.2	24	18	.01	0	.11	3.4
25	4.8	.40	2.0	.48	4.3	.91	15	18	.01	0	.13	3.0
26	1.7	.40	1.4	.48	14	.74	11	13	0	0	.02	2.2
27	5.1	.44	1.1	.40	47	.64	9.6	9.7	0	0	.02	1.9
28	33	.48	.91	.36	46	.69	8.8	8.4	0	.02	.02	1.6
29	15	.32	.85	.32	------	1.2	6.1	5.0	.01	.02	0	1.4
30	3.9	.29	1.1	.32	------	2.0	4.5	3.6	.01	.01	0	1.4
31	1.8	------	1.8	.36	------	2.2	------	2.8	------	.04	0	------
TOTAL	77.95	105.81	41.78	28.21	274.94	411.38	180.73	2,634.14	9.62	.10	9.16	64.8
MEAN	2.51	3.53	1.35	.91	9.82	13.3	6.02	85.0	.32	.003	.30	2.16
MAX	33	50	8.7	1.9	47	46	25	624	2.3	.04	4.1	7.2
MIN	0	.08	.11	.32	.23	.64	.08	.40	0	0	0	0
AC-FT	155	210	83	56	545	816	358	5,220	19	.2	18	129

CAL YR 1970 TOTAL 15,123.56 MEAN 41.4 MAX 520 MIN 0 AC-FT 30,000
WTR YR 1971 TOTAL 3,838.62 MEAN 10.5 MAX 624 MIN 0 AC-FT 7,610

08022400 Socagee Creek near Carthage, Tex.

LOCATION.--Lat 32°13'54", long 94°05'31", Panola County, on right bank at downstream side of bridge on Farm Road 123, 1.4 miles upstream from Salt Creek, 15 miles east of Carthage, and at mile 20.5.

DRAINAGE AREA.--82.6 sq mi.

PERIOD OF RECORD.--February 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 230.00 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 36.2 cfs (5.95 inches per year, 26,230 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 976 cfs May 12 (gage height, 9.53 ft); no flow for many days.
Period of record: Maximum discharge, 6,300 cfs Apr. 17, 1969 (gage height, 11.58 ft), from rating curve extended above 2,300 cfs on basis of area-velocity study; no flow for many days.

REMARKS.--Records good. No known diversion or regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	9.8	2.2	11	2.1	39	23	1.2	.75	.18	5.4	1.0
2	0	5.8	2.2	12	2.0	26	14	1.1	.65	.05	2.8	.50
3	0	3.8	2.5	10	2.1	20	9.8	.97	.50	.02	1.6	.20
4	0	2.6	2.7	9.3	2.1	16	7.8	.80	.34	0	1.4	.10
5	0	2.1	2.7	9.3	2.0	13	6.1	.70	.22	0	73	.05
6	0	1.7	2.5	12	1.9	12	5.2	.60	.12	0	51	.02
7	0	1.4	2.2	11	3.0	10	4.5	.70	.06	0	17	0
8	0	1.1	2.2	9.0	5.8	9.6	3.9	.65	.02	0	6.7	0
9	0	1.5	1.8	7.9	5.4	9.0	3.5	.65	0	0	3.2	0
10	0	.97	1.6	7.0	4.3	14	3.4	17	0	0	4.7	0
11	0	.80	1.7	6.6	3.5	57	3.2	310	0	0	18	0
12	0	.70	1.7	6.6	4.0	47	3.0	832	0	0	7.6	0
13	0	1.7	1.5	6.4	4.0	50	2.8	401	0	0	3.6	0
14	0	14	1.4	6.1	12	74	2.8	136	0	0	11	0
15	0	65	1.8	5.4	18	48	2.7	42	0	0	24	0
16	0	50	2.3	5.2	29	32	2.5	21	0	0	20	0
17	0	27	2.2	4.8	57	21	2.3	13	.10	0	8.8	0
18	0	15	2.5	4.4	48	15	2.4	9.1	.65	0	3.5	0
19	0	9.8	3.7	3.9	37	11	2.4	6.9	1.3	0	1.5	0
20	0	6.9	24	3.6	177	9.5	3.0	5.6	.97	0	.65	0
21	0	5.2	222	3.4	446	8.4	4.2	4.4	.60	0	.31	0
22	0	4.4	524	3.2	327	7.5	4.5	3.6	.34	0	.15	0
23	0	3.8	290	3.2	128	6.9	5.4	3.0	.20	0	.07	0
24	0	3.2	103	3.0	63	6.3	4.8	2.6	.07	0	.03	0
25	0	2.8	36	3.0	42	6.0	3.4	2.2	.02	0	0	0
26	0	2.7	22	3.0	34	5.7	2.6	1.9	0	19	10	0
27	1.6	2.5	16	2.8	50	5.4	2.2	1.6	0	43	40	0
28	118	2.3	12	2.7	56	5.2	1.8	1.5	0	18	20	0
29	212	2.2	10	2.5	------	13	1.5	1.5	0	18	10	0
30	89	2.1	9.6	2.4	------	54	1.3	1.2	0	10	4.0	0
31	21	------	9.8	2.2	------	38	------	.90	------	9.8	2.0	------
TOTAL	441.6	252.87	1,319.8	182.9	1,566.2	689.5	140.0	1,825.37	6.91	118.05	352.01	1.87
MEAN	14.2	8.43	42.6	5.90	55.9	22.2	4.67	58.9	.23	3.81	11.4	.062
MAX	212	65	524	12	446	74	23	832	1.3	43	73	1.0
MIN	0	.70	1.4	2.2	1.9	5.2	1.3	.60	0	0	0	0
CFSM	.17	.10	.52	.07	.68	.27	.06	.71	.003	.05	.14	.0008
IN.	.20	.11	.59	.08	.71	.31	.06	.82	.003	.05	.16	0
AC-FT	876	502	2,620	363	3,110	1,370	278	3,620	14	234	698	3.7

CAL YR 1970 TOTAL 12,771.85 MEAN 35.0 MAX 888 MIN 0 CFSM .42 IN 5.75 AC-FT 25,330
WTR YR 1971 TOTAL 6,897.08 MEAN 18.9 MAX 832 MIN 0 CFSM .23 IN 3.11 AC-FT 13,680

PEAK DISCHARGE (BASE, 900 CFS).--May 12 (0700) 976 cfs (9.53 ft).

08022500 Sabine River at Logansport, La.

LOCATION.--Lat 31°58'20", long 94°00'22", on De Soto Parish, La.-Shelby County, Tex. State line at Logansport, just upstream from bridge on U.S. Highway 84, 3 miles upstream from Bayou Castor, 111 miles upstream from Toledo Bend Dam, and at mile 267.1.

DRAINAGE AREA.--7,178 sq mi (see station 08025350).

PERIOD OF RECORD.--Gage-height record March 1968 to current year. Discharge record July 1903 to February 1968.

GAGE.--Water-stage recorder. Datum of gage is 147.72 ft above mean sea level. July 1, 1903, to Sept. 30, 1956, nonrecording gage. Oct. 1, 1956, to Jan. 16, 1964, water-stage recorder 4,600 ft upstream. Jan. 16, 1964, to Dec. 10, 1968, water-stage recorder 4,700 ft upstream. All gages to present datum except prior to Dec. 31, 1906, when datum was 2 ft lower.

AVERAGE DISCHARGE.--64 years (1903-67), 3,208 cfs (2,324,000 acre-ft per year).

EXTREMES.--Current year: Maximum gage height, 23.32 ft Nov. 1; minimum, 20.81 ft July 20.
Period of gage-height record 1968-71: Maximum gage height, 32.50 ft Apr. 20, 1969; minimum since initial filling of Toledo Bend Reservoir in June 1968, 19.12 ft Nov. 14, 1969.
Period of discharge record 1903-67: Maximum discharge, 92,000 cfs Apr. 8, 1945 (gage height, 44.07 ft, from floodmark); minimum, 16 cfs Sept. 26-28, Oct. 3, 4, 1939.
Maximum stage since at least 1884, that of Apr. 8, 1945. Flood in May 1884 reached a stage of 39.4 ft, present site and datum.

REMARKS.--Records good. Station discontinued as daily streamflow station on Mar. 1, 1968, due to backwater from storage in Toledo Bend Reservoir (station 08025350). Eight major reservoirs, with a combined capacity of 1,068,000 acre-ft, largely regulate the flow. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lake Fork Creek near Quitman (station 08019000). Numerous diversions above station for oilfield operations, municipal, and industrial use.

REVISIONS (WATER YEARS).--WSP 1312: 1903-6 (monthly and annual means). WSP 1732: 1929(M), 1933(M).

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.06	23.32	22.43	22.45	21.65	22.11	21.90	21.87	22.33	21.48	21.28	21.25
2	21.01	23.29	22.50	22.50	21.65	22.01	21.90	21.86	22.33	21.50	21.35	21.27
3	20.96	23.13	22.47	22.50	21.71	21.94	21.98	21.84	22.24	21.48	21.46	21.26
4	20.96	22.79	22.45	22.30	21.64	22.10	21.89	21.90	22.15	21.46	21.53	21.23
5	21.01	22.54	22.44	22.28	21.65	22.14	21.80	21.95	22.09	21.46	21.58	21.21
6	21.00	22.46	22.42	22.21	21.65	21.84	21.82	21.97	22.09	21.42	21.57	21.19
7	21.00	22.34	22.42	22.18	21.53	21.85	21.86	21.90	22.02	21.39	21.59	21.13
8	20.99	22.35	22.42	22.18	21.62	21.93	21.95	21.88	22.00	21.38	21.62	21.08
9	20.95	22.25	22.40	22.23	21.59	21.99	21.88	21.87	22.01	21.37	21.61	21.03
10	20.96	22.23	22.35	22.22	21.70	21.86	21.88	21.91	21.96	21.41	21.60	21.10
11	21.10	22.26	22.26	22.22	21.73	21.94	21.91	22.30	21.88	21.31	21.53	21.08
12	21.18	22.22	22.25	22.18	21.49	21.91	21.93	22.68	21.78	21.26	21.48	21.07
13	21.17	22.28	22.26	22.18	21.65	21.92	21.85	22.64	21.72	21.26	21.45	21.08
14	21.15	22.27	22.36	22.12	21.78	21.98	21.82	22.61	21.73	21.21	21.40	21.07
15	21.14	22.40	22.39	22.00	21.77	21.88	21.90	22.54	21.73	21.14	21.34	21.10
16	21.12	22.51	22.27	22.08	21.82	21.87	21.94	22.51	21.74	21.10	21.33	21.02
17	21.11	22.56	22.26	22.07	21.80	21.92	21.91	22.60	21.71	21.03	21.33	21.01
18	21.11	22.49	22.23	21.93	21.87	21.83	21.92	22.65	21.70	21.07	21.32	21.06
19	21.16	22.50	22.21	21.87	21.89	21.79	21.95	22.51	21.62	20.93	21.32	20.99
20	21.19	22.42	22.30	21.95	22.15	21.84	21.88	22.45	21.62	20.83	21.33	21.00
21	21.24	22.50	22.55	21.95	22.42	21.93	21.93	22.45	21.60	20.84	21.33	21.00
22	21.32	22.43	22.76	21.87	22.48	21.80	22.04	22.50	21.68	20.91	21.28	20.98
23	21.42	22.26	22.80	21.82	22.37	21.79	21.88	22.46	21.67	20.93	21.21	21.00
24	21.47	22.38	22.75	21.82	22.23	21.88	21.83	22.40	21.65	20.91	21.20	21.01
25	21.57	22.50	22.67	21.85	22.04	21.74	21.88	22.43	21.65	20.94	21.20	21.04
26	21.65	22.47	22.56	21.80	21.98	21.85	22.00	22.47	21.62	20.91	21.18	21.05
27	21.76	22.40	22.50	21.77	22.01	21.94	21.95	22.42	21.64	20.99	21.17	21.04
28	22.09	22.38	22.44	21.74	22.09	21.90	21.87	22.36	21.54	21.01	21.12	21.04
29	22.52	22.38	22.37	21.74	------	21.84	21.85	22.33	21.54	21.20	21.11	20.95
30	22.85	22.45	22.36	21.68	------	21.95	21.86	22.34	21.54	21.48	21.18	20.96
31	23.13	------	22.37	21.65	------	22.13	------	22.34	------	21.30	21.23	------
MEAN	21.37	22.49	22.43	22.04	21.86	21.92	21.90	22.29	21.82	21.19	21.36	21.08
MAX	23.13	23.32	22.80	22.50	22.48	22.14	22.04	22.68	22.33	21.50	21.62	21.27
MIN	20.95	22.22	22.21	21.65	21.49	21.74	21.80	21.84	21.54	20.83	21.11	20.95

CAL YR 1970 MEAN 5.57 MAX 26.85 MIN 20.95
WTR YR 1971 MEAN 21.81 MAX 23.32 MIN 20.83

08023200 Tenaha Creek near Shelbyville, Tex.

LOCATION.--Lat 31°45'56", long 94°05'02", Shelby County, near center of span at downstream side of bridge on State Highway 87, 0.5 mile northwest of Shelbyville, 4.2 miles downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 5.0 miles upstream from Beauchamp Creek.

DRAINAGE AREA.--97.8 sq mi.

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Prior to May 9, 1963, nonrecording gage at same site and datum. Datum of gage is 205.71 ft above mean sea level.

AVERAGE DISCHARGE.--19 years, 74.7 cfs (10.37 inches per year, 54,120 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 253 cfs May 12 (gage height, 5.30 ft); no flow at times.
Period of record: Maximum discharge, 15,200 cfs Mar. 11, 1953 (gage height, 13.85 ft); no flow at times.
Maximum stage since at least 1884, 15 ft Nov. 23, 1940, from information by local residents.

REMARKS.--Records fair except those for June through September, which are poor. The city of Center reported that during the year they diverted 1,200 acre-ft upstream from gage and returned 1,150 acre-ft as sewage effluent 1.0 mile downstream from gage.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	3.9	1.5	21	1.5	13	7.1	.54	.54	.50	16	.12
2	0	2.7	1.7	14	1.2	9.6	4.5	.54	.50	1.0	5.2	.16
3	0	2.4	1.6	10	1.1	8.3	3.3	.50	.50	1.5	62	.14
4	0	2.2	1.4	10	1.3	7.6	3.0	.36	.46	1.0	41	.10
5	0	1.7	1.8	7.8	3.5	7.3	2.7	.30	.42	.80	11	.08
6	0	1.6	.96	4.8	10	8.0	2.1	.27	.39	.40	10	.06
7	0	1.4	.96	3.2	7.8	5.2	1.8	.42	.36	.20	26	.03
8	.02	1.3	1.7	2.9	7.6	5.2	1.7	2.0	.33	.10	9.8	.02
9	.01	1.7	1.4	3.9	6.4	5.4	1.8	1.8	.33	.05	3.9	.02
10	.33	3.8	1.2	6.7	4.5	5.4	1.8	2.0	.30	.02	26	.02
11	.68	7.1	1.2	8.3	5.0	4.6	1.7	59	.30	.01	8.5	.02
12	16	12	1.2	6.4	5.4	5.4	1.6	215	.25	0	2.3	.02
13	17	12	1.3	5.0	5.8	5.8	1.6	158	.22	0	.90	.02
14	3.3	37	2.5	5.4	8.8	6.9	1.6	32	.20	0	23	.02
15	1.6	26	3.2	3.5	11	7.1	1.5	12	.18	0	47	.02
16	1.1	17	2.2	2.5	8.0	4.8	1.4	7.3	.15	0	7.1	.01
17	.84	8.0	2.4	3.2	8.8	3.6	1.4	5.2	.15	0	2.3	.01
18	.73	3.8	3.3	2.4	6.7	3.3	1.5	4.3	.20	0	1.0	.01
19	1.1	2.0	2.8	2.0	12	3.6	2.0	2.7	.30	0	.58	.01
20	2.5	1.1	3.2	1.8	19	4.1	1.7	3.0	.40	0	.36	.01
21	2.0	.68	5.6	2.0	30	4.5	1.5	4.8	.40	0	.33	.02
22	1.5	.54	7.8	2.8	25	4.5	1.5	3.5	.40	0	.16	.39
23	1.6	.30	7.3	3.2	16	4.3	1.5	2.8	.40	0	.10	.22
24	17	.46	6.4	1.7	8.0	3.0	1.3	3.0	.40	0	.07	.16
25	16	.30	6.2	2.5	6.7	2.8	1.2	2.1	1.0	0	.05	.11
26	7.1	.24	4.6	2.8	16	3.0	.96	1.7	.70	0	.36	.08
27	16	.46	3.2	1.5	30	3.0	1.0	1.4	.50	0	1.6	.05
28	31	.96	3.6	1.3	17	3.9	.90	1.1	.40	0	.96	.03
29	26	1.3	3.9	1.3	------	4.6	.84	.84	.30	.02	.46	.04
30	16	1.3	8.0	2.2	------	20	.68	.73	.30	55	.20	.01
31	8.0	------	27	2.5	------	8.3	------	.63	------	121	.14	------
TOTAL	187.43	155.24	121.12	148.6	284.1	186.1	57.18	529.83	11.28	181.60	308.37	2.01
MEAN	6.05	5.17	3.91	4.79	10.1	6.00	1.91	17.1	.38	5.86	9.95	.067
MAX	31	37	27	21	30	20	7.1	215	1.0	121	62	.39
MIN	0	.24	.96	1.3	1.1	2.8	.68	.27	.15	0	.05	.01
CFSM	.06	.05	.04	.05	.10	.06	.02	.17	.004	.06	.10	.0007
IN.	.07	.06	.05	.06	.11	.07	.02	.20	.004	.07	.12	0
AC-FT	372	308	240	295	564	369	113	1,050	22	360	612	4.0

CAL YR 1970 TOTAL 11,547.31 MEAN 31.6 MAX 1,370 MIN 0 CFSM .32 IN 4.39 AC-FT 22,900
WTR YR 1971 TOTAL 2,172.86 MEAN 5.95 MAX 215 MIN 0 CFSM .06 IN .83 AC-FT 4,310

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

08024400 Sabine River near Milam, Tex.
(Formerly published as Toledo Bend Reservoir near Milam, Tex.)

LOCATION.--Lat 31°28'01", long 93°44'41", Sabine Parish, La.-Sabine County, Tex. State line, on right bank at bridge on Texas State Highway 21, 6.5 miles northeast of Milam, 38 miles upstream from Toledo Bend Dam, and at mile 194.8.

DRAINAGE AREA.--7,178 sq mi (see station 08025350).

PERIOD OF RECORD.--Gage-height record, October 1966 to January 1968, December 1968 to current year (published as Toledo Bend Reservoir near Milam, December 1968 to September 1970). Discharge record, October 1923 to September 1925 (published as "Sabine River at Sabinetown"), January 1939 to September 1966.

GAGE.--Water-stage recorder. Datum of gage is 97.96 ft above mean sea level.

EXTREMES.--Current year: Maximum gage height, 72.15 ft May 25; minimum, 70.54 ft July 24.
Period of gage-height record: Maximum gage height, 75.22 ft Mar. 20, 1969; minimum, 68.84 ft Nov. 16, 17, 1969.
Period of discharge record 1923-25, 1939-66: Maximum discharge, 83,400 cfs Apr. 12, 1945 (gage height, 48.87 ft); minimum, 25 cfs Oct. 14-19, 1956.

REMARKS.--Station discontinued as daily streamflow station Sept. 30, 1966, due to backwater from storage in Toledo Bend Reservoir (station 08025350).

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.72	71.42	72.12	72.10	71.30	71.65	71.60	71.58	71.97	71.23	70.94	70.93
2	70.70	71.53	72.14	72.12	71.31	71.62	71.67	71.58	71.90	71.22	71.02	70.92
3	70.67	71.52	72.14	72.07	71.30	71.60	71.65	71.55	71.83	71.19	71.05	70.90
4	70.65	71.58	72.14	72.06	71.33	71.59	71.67	71.54	71.75	71.18	71.10	70.87
5	70.64	71.61	72.14	72.00	71.35	71.55	71.65	71.54	71.72	71.15	71.10	70.87
6	70.67	71.65	72.13	71.95	71.37	71.55	71.64	71.58	71.71	71.15	71.12	70.87
7	70.67	71.69	72.10	71.91	71.28	71.53	71.61	71.57	71.70	71.13	71.14	70.82
8	70.72	71.75	72.07	71.89	71.25	71.50	71.61	71.57	71.68	71.10	71.15	70.82
9	70.68	71.81	72.05	71.90	71.37	71.47	71.61	71.55	71.66	71.08	71.14	70.79
10	70.67	71.83	72.03	71.91	71.38	71.50	71.61	71.58	71.55	71.05	71.13	70.80
11	70.87	71.82	72.01	71.85	71.37	71.50	71.61	71.70	71.47	71.04	71.12	70.80
12	70.94	71.85	72.03	71.85	71.36	71.50	71.60	71.80	71.45	71.03	71.11	70.79
13	70.93	71.98	72.01	71.82	71.41	71.51	71.60	71.90	71.45	70.98	71.10	70.77
14	70.91	71.97	72.00	71.80	71.42	71.53	71.60	71.94	71.42	70.92	71.09	70.76
15	70.87	72.00	72.00	71.75	71.43	71.55	71.60	71.98	71.43	70.85	71.08	70.77
16	70.84	72.02	71.96	71.75	71.44	71.55	71.57	72.03	71.43	70.75	71.07	70.73
17	70.85	72.04	71.94	71.75	71.43	71.55	71.60	72.04	71.35	70.73	71.07	70.71
18	70.85	72.05	71.92	71.63	71.41	71.55	71.60	72.05	71.30	70.70	71.06	70.71
19	70.87	72.06	71.94	71.58	71.45	71.57	71.62	72.02	71.30	70.59	71.06	70.76
20	70.87	72.08	72.00	71.55	71.45	71.57	71.63	72.08	71.32	70.58	71.03	70.77
21	70.89	72.10	71.97	71.53	71.46	71.59	71.63	72.09	71.31	70.56	71.00	70.76
22	70.90	72.07	72.00	71.50	71.48	71.58	71.63	72.08	71.37	70.58	71.00	70.74
23	71.00	71.96	71.96	71.52	71.50	71.57	71.60	72.07	71.37	70.55	70.98	70.74
24	71.02	72.06	72.03	71.55	71.47	71.59	71.60	72.13	71.35	70.60	70.98	70.73
25	71.04	72.06	72.05	71.53	71.47	71.59	71.60	72.13	71.33	70.63	70.98	70.73
26	71.06	72.08	72.07	71.50	71.57	71.60	71.61	72.12	71.31	70.62	70.95	70.73
27	71.16	72.08	72.10	71.45	71.62	71.60	71.61	72.10	71.29	70.68	70.93	70.73
28	71.24	72.09	72.10	71.42	71.60	71.62	71.60	72.05	71.27	70.72	70.88	70.69
29	71.28	72.10	72.06	71.40	------	71.67	71.59	72.03	71.27	70.76	70.88	70.62
30	71.33	72.12	72.11	71.40	------	71.66	71.59	72.02	71.24	70.90	70.87	70.60
31	71.39	------	72.09	71.36	------	71.65	------	72.01	------	70.91	70.94	------
MAX	71.39	72.12	72.14	72.12	71.62	71.67	71.67	72.13	71.97	71.23	71.15	70.93
MIN	70.64	71.42	71.92	71.36	71.25	71.47	71.57	71.54	71.24	70.55	70.87	70.60

CAL YR 1970 MAX 73.54 MIN 70.18
WTR YR 1971 MAX 72.14 MIN 70.55

08025350 Toledo Bend Reservoir near Burkeville, Tex.

LOCATION.--Lat 31°11'47", long 93°34'24", Sabine Parish, La.-Newton County, Tex. State line, on upstream side of dam near right abutment of spillway of Toledo Bend Dam on the Sabine River, 1 mile upstream from Bayou Toro, 15 miles northeast of Burkeville, and at mile 156.5.

DRAINAGE AREA.--7,178 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level (levels by Sabine River Authority). Prior to July 20, 1967, nonrecording gage read once daily at same site and datum.

EXTREMES.--Current year: Maximum contents, 4,207,000 acre-ft Nov. 23 (elevation, 170.49 ft); minimum, 3,887,000 acre-ft July 23, 24 (elevation, 168.60 ft).
Period of record: Maximum contents, 4,739,000 acre-ft Mar. 21, 1969 (elevation, 173.42 ft); minimum since initial filling of reservoir in June 1968, 3,617,000 acre-ft Nov. 16, 17, 1969 (elevation, 166.93 ft).

REMARKS.--Reservoir is formed by a rolled earthfill dam, 11,243 ft long, including dikes. Closure at embankment completed and deliberate impoundment was begun Oct. 3, 1966. Reservoir is operated for hydro-electric power generation and water conservation. A gate controlled, gravity concrete, ogee weir is located near the left abutment of the dam. Net opening of 440 ft is controlled by eleven 40- by 28-foot tainter gates. A low-flow release sluiceway is located in an enlarged gate pier near the center of the spillway structure. This sluiceway is a single 8.33- by 12-foot concrete conduit controlled by a single gate. Two 20-inch-diameter conduits are provided which by-pass the sluice gate. Water for turbines is admitted through four 16.75- by 29-foot penstocks and controlled by vertically operated caterpillar-type gates. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lake Fork Creek near Quitman (station 08019000). For statement regarding regulation by upstream reservoirs, see Sabine River near Logansport (station 08022500). Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	185.0	-
Maximum design water surface	175.3	5,102,000
Top of gates	173.0	4,660,000
Top of power drawdown storage	172.0	4,476,000
Top of power head storage	162.2	2,922,000
Spillway crest (controlled)	145.0	1,162,000
Invert of low-flow release sluiceway	100.0	4,090

COOPERATION.--Capacity table furnished by Sabine River Authority, based on Geological Survey 15-minute quadrangle sheets, scale 1:62,500 with 20-foot contour intervals.

Capacity table (elevation, in feet, and total contents, in acre-feet)

168.6	3,887,000	170.0	4,123,000
169.5	4,037,000	170.5	4,209,000

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,927	4,075	4,170	4,157	4,047	4,087	4,109	4,078	4,132	4,002	3,972	3,967
2	3,923	4,080	4,170	4,154	4,032	4,114	4,098	4,080	4,109	4,001	3,980	3,962
3	3,920	4,073	4,175	4,199	4,029	4,098	4,092	4,078	4,106	4,002	3,985	3,962
4	3,915	4,080	4,175	4,187	4,059	4,059	4,096	4,052	4,096	4,004	3,990	3,962
5	3,908	4,089	4,177	4,170	4,039	4,059	4,099	4,057	4,094	3,996	3,996	3,962
6	3,912	4,087	4,175	4,155	4,046	4,078	4,089	4,062	4,082	4,001	3,997	3,958
7	3,912	4,094	4,164	4,148	4,084	4,071	4,089	4,069	4,082	3,990	4,002	3,953
8	3,928	4,103	4,152	4,126	4,046	4,054	4,075	4,071	4,080	3,984	4,007	3,950
9	3,923	4,123	4,154	4,128	4,042	4,062	4,084	4,068	4,075	3,978	4,012	3,950
10	3,913	4,125	4,148	4,132	4,029	4,062	4,084	4,080	4,052	3,973	4,011	3,951
11	3,950	4,137	4,173	4,128	4,035	4,057	4,078	4,098	4,042	3,972	4,012	3,950
12	3,973	4,125	4,157	4,128	4,069	4,049	4,076	4,133	4,042	3,970	4,016	3,947
13	3,970	4,166	4,152	4,123	4,047	4,061	4,082	4,132	4,042	3,968	4,016	3,945
14	3,970	4,177	4,147	4,118	4,037	4,071	4,084	4,135	4,039	3,960	4,004	3,937
15	3,975	4,152	4,140	4,109	4,049	4,071	4,076	4,143	4,040	3,951	4,002	3,928
16	3,963	4,145	4,148	4,104	4,046	4,078	4,071	4,147	4,040	3,928	4,001	3,940
17	3,958	4,154	4,135	4,111	4,046	4,059	4,075	4,140	4,019	3,927	3,997	3,934
18	3,958	4,159	4,132	4,106	4,035	4,123	4,080	4,140	4,009	3,918	3,994	3,934
19	3,960	4,170	4,140	4,078	4,047	4,078	4,078	4,157	4,012	3,903	3,987	3,955
20	3,958	4,166	4,148	4,054	4,054	4,069	4,087	4,166	4,018	3,901	3,977	3,947
21	3,955	4,157	4,140	4,062	4,071	4,069	4,084	4,145	4,026	3,901	3,972	3,945
22	3,956	4,189	4,140	4,062	4,062	4,094	4,076	4,152	4,032	3,897	3,970	3,942
23	3,978	4,187	4,166	4,064	4,061	4,089	4,099	4,145	4,031	3,887	3,968	3,940
24	3,978	4,154	4,148	4,078	4,059	4,076	4,085	4,161	4,024	3,901	3,973	3,937
25	3,980	4,143	4,166	4,071	4,059	4,098	4,082	4,161	4,023	3,906	3,973	3,930
26	3,984	4,157	4,159	4,066	4,099	4,080	4,078	4,154	4,021	3,908	3,970	3,928
27	4,029	4,162	4,157	4,054	4,082	4,075	4,082	4,152	4,016	3,913	3,968	3,928
28	4,024	4,166	4,162	4,054	4,080	4,089	4,080	4,147	4,016	3,927	3,970	3,922
29	4,026	4,166	4,159	4,047	------	4,101	4,087	4,145	4,011	3,937	3,965	3,913
30	4,029	4,162	4,175	4,051	------	4,089	4,085	4,138	4,007	3,973	3,955	3,912
31	4,042	------	4,162	4,057	------	4,078	------	4,133	------	3,970	3,970	------
(†)	169.53	170.23	170.23	169.62	169.75	169.74	169.78	170.06	169.32	169.10	160.10	168.75
(‡)	+110,000	+120,000	0	-105,000	+23,000	-2,000	+7,000	+48,000	-126,000	-37,000	0	-58,000
MAX	4,042	4,189	4,177	4,199	4,099	4,123	4,109	4,166	4,132	4,004	4,016	3,967
MIN	3,908	4,073	4,132	4,047	4,029	4,049	4,071	4,052	4,007	3,887	3,955	3,912

CAL YR 1970..... ‡ +323,000 MAX 4,440 MIN 3,839
WTR YR 1971..... ‡ -20,000 MAX 4,199 MIN 3,887

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08026000 Sabine River below Toledo Bend, near Burkeville, Tex.

LOCATION.--Lat 31°03'50", long 93°31'10", Newton County, Tex.-Vernon Parish, La. State line, near left edge of low-water channel at downstream side of bridge on State Highway 63, about 200 ft downstream from Pearl Creek, 10 miles northeast of Burkeville, 16 miles downstream from Bayou Toro, and at mile 139.7.

DRAINAGE AREA.--7,482 sq mi.

PERIOD OF RECORD.--September 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 70.59 ft above mean sea level. Prior to Aug. 23, 1958, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years, 4,200 cfs (3,043,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,300 cfs June 10 (gage height, 16.05 ft); minimum daily, 109 cfs June 15.
Period of record: Maximum discharge, 52,900 cfs May 15, 1957 (gage height, 32.43 ft); minimum daily, 38 cfs Sept. 14-15, 1967.
Maximum stage since at least 1860, 35.9 ft in May 1884, from information by local resident. Flood of Apr. 15, 1945, reached a stage of 35.8 ft, and flood of May 23, 1953, reached a stage of 35.3 ft, from floodmarks.

REMARKS.--Records good. Flow regulated by Toledo Bend Reservoir (station 08025350), 16.8 miles upstream (capacity, 4,660,000 acre-ft). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,710	252	216	1,280	1,330	2,500	279	167	594	817	259	184
2	947	231	216	395	2,360	2,590	265	164	3,160	217	306	238
3	1,150	2,290	214	315	2,350	3,570	259	162	4,350	191	387	188
4	1,090	1,720	212	1,180	1,120	3,760	248	158	4,120	189	584	177
5	183	267	212	3,330	218	3,300	685	161	3,340	186	489	187
6	159	209	278	4,870	150	2,530	395	378	1,430	249	349	176
7	145	201	1,240	4,990	135	2,240	225	1,690	265	763	321	1,040
8	129	198	2,140	4,970	125	3,600	217	2,410	213	703	315	1,030
9	139	216	2,370	2,100	273	2,860	216	319	199	299	279	218
10	125	210	2,380	374	429	2,010	211	794	3,880	191	280	185
11	167	200	2,460	2,700	971	2,000	208	2,920	6,990	182	410	186
12	818	211	1,160	3,290	1,120	2,400	205	1,530	2,630	171	276	181
13	1,350	237	425	3,240	408	1,230	204	470	446	166	236	172
14	761	944	1,320	3,540	233	312	201	385	245	1,850	2,340	168
15	235	490	2,320	3,800	617	271	200	306	109	2,760	3,240	168
16	1,220	1,350	2,350	1,550	1,630	262	199	251	119	3,920	369	172
17	597	1,140	2,400	289	1,650	246	209	225	1,880	2,690	235	172
18	192	534	2,330	3,610	2,110	296	216	218	4,570	338	222	180
19	909	782	1,010	6,300	2,300	1,940	211	1,380	1,240	3,100	211	239
20	666	601	306	4,750	2,270	1,030	208	2,380	262	4,430	1,080	239
21	198	243	2,790	2,810	2,230	394	208	662	225	1,690	725	212
22	180	230	3,620	2,620	2,910	341	207	251	211	355	213	188
23	285	810	2,460	1,290	3,570	312	196	218	206	290	2,670	177
24	402	539	1,020	232	3,940	285	187	220	196	222	2,590	172
25	264	234	308	1,420	4,000	276	185	251	187	232	345	170
26	215	228	255	2,510	3,270	271	188	262	183	230	992	168
27	774	226	241	2,510	3,170	267	179	1,330	181	229	904	169
28	1,110	222	1,220	2,530	2,800	265	177	2,650	1,340	271	244	855
29	526	220	2,930	2,550	------	527	175	1,930	1,170	291	202	3,450
30	370	216	3,390	1,240	------	453	170	310	1,250	306	186	2,410
31	292	------	3,480	208	------	319	------	226	------	278	178	------
TOTAL	18,308	15,451	47,273	76,793	47,689	42,657	6,933	24,778	45,191	27,806	21,437	13,471
MEAN	591	515	1,525	2,477	1,703	1,376	231	799	1,506	897	692	449
MAX	2,710	2,290	3,620	6,300	4,000	3,760	685	2,920	6,990	4,430	3,240	3,450
MIN	125	198	212	208	125	246	170	158	109	166	178	168
AC-FT	36,310	30,650	93,770	152,300	94,590	84,610	13,750	49,150	89,640	55,150	42,520	26,720

CAL YR 1970 TOTAL 1,024,903 MEAN 2,808 MAX 15,600 MIN 125 AC-FT 2,033,000
WTR YR 1971 TOTAL 387,787 MEAN 1,062 MAX 6,990 MIN 109 AC-FT 769,200

08028500 Sabine River near Bon Wier, Tex.

LOCATION.--Lat 30°44'49", long 93°36'30", Beauregard Parish, La.-Newton County, Tex. State line, near left bank at downstream side of bridge on U.S. Highway 190, 0.7 mile upstream from Quicksand Creek, 0.8 mile upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.0 miles east of Bon Wier, 2.4 miles upstream from Caney Creek, and at mile 97.7.

DRAINAGE AREA.--8,229 sq mi.

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1312. Gage-height records collected in this vicinity since 1913 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 46.42 ft above mean sea level. Prior to July 8, 1931, nonrecording gage at site 0.8 mile downstream at same datum. July 8, 1931, to Oct. 15, 1958, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--48 years, 6,528 cfs (4,730,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,430 cfs Jan. 20 (gage height, 8.26 ft); minimum daily, 350 cfs Sept. 14, 15. Period of record: Maximum discharge, 115,000 cfs May 19, 1953 (gage height, 25.70 ft); minimum daily, 134 cfs Nov. 9, 1966. Maximum stage since at least 1833, 30.5 ft Apr. 23 or 24, 1913, from information by Gulf, Colorado, and Santa Fe Railway Co. and local residents. Flood in May 1884 reached a stage of 26 ft. Floods occurring about 1844 and 1860 were higher than flood in May 1884, from information by local residents.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Flow regulated by Toledo Bend Reservoir (station 08025350) located 58.8 miles upstream.

REVISIONS (WATER YEARS).--WSP 1342: 1953. WSP 1442: 1924, 1926-27(M), 1929(M), 1939. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,300	1,480	460	4,970	1,100	4,320	1,150	394	500	1,200	622	504
2	3,000	1,290	450	2,470	2,100	4,240	905	390	1,000	800	560	489
3	1,500	1,180	445	1,250	3,000	5,770	800	387	3,000	600	720	514
4	2,000	3,300	437	1,110	3,000	6,510	732	377	4,500	500	950	542
5	1,500	2,230	417	2,290	1,800	5,620	684	368	4,000	450	1,200	484
6	600	983	425	4,810	1,000	4,690	970	362	3,000	450	1,100	438
7	515	728	420	5,730	800	3,750	890	600	2,000	500	1,120	436
8	512	648	1,080	5,780	700	3,490	640	2,800	1,000	800	962	868
9	501	530	2,330	5,460	650	4,520	604	2,550	600	1,200	745	1,310
10	491	550	2,630	2,720	700	3,930	608	850	500	844	635	550
11	535	600	2,660	1,300	943	3,480	616	1,680	4,000	652	654	394
12	1,310	560	2,750	3,560	1,660	3,220	632	3,460	6,000	635	787	380
13	2,900	540	1,460	3,870	2,250	3,560	604	2,620	3,000	655	696	360
14	2,710	1,000	715	4,010	1,750	2,150	628	1,550	1,000	705	655	350
15	1,530	1,200	1,310	4,230	1,060	1,180	644	995	600	2,260	3,080	350
16	777	2,000	2,750	4,500	1,430	946	644	744	500	3,620	3,050	360
17	1,480	1,500	3,100	2,200	2,380	784	608	628	600	4,000	1,030	380
18	1,070	1,000	3,050	956	2,580	752	608	560	2,000	2,400	714	400
19	567	800	2,920	4,600	2,960	1,710	632	520	4,500	1,100	662	440
20	1,050	900	1,550	6,660	3,430	3,790	644	1,920	1,500	4,010	643	385
21	1,230	700	752	4,650	3,700	2,620	628	2,410	800	4,610	1,380	523
22	924	550	3,440	3,540	3,470	1,550	596	1,080	600	2,230	1,310	469
23	1,100	500	3,890	3,360	4,150	1,200	544	604	550	935	636	435
24	1,770	800	3,110	1,890	4,570	1,020	492	524	520	655	3,120	417
25	2,160	937	1,570	874	4,800	900	457	516	500	579	2,770	385
26	1,620	567	736	2,120	5,440	810	426	524	500	585	958	384
27	1,320	506	587	3,210	5,840	768	412	550	500	568	1,260	382
28	3,720	490	554	3,220	5,350	744	412	1,300	500	561	1,340	392
29	4,230	480	1,360	3,260	------	792	408	2,800	1,400	600	663	1,100
30	2,970	470	3,630	3,250	------	1,920	401	2,000	1,400	631	544	3,780
31	1,930	------	4,990	1,860	------	1,730	------	700	------	653	528	------
TOTAL	49,822	29,019	55,978	103,710	72,613	82,466	19,019	36,763	51,070	39,988	35,094	18,201
MEAN	1,607	967	1,806	3,345	2,593	2,660	634	1,186	1,702	1,290	1,132	607
MAX	4,230	3,300	4,990	6,660	5,840	6,510	1,150	3,460	6,000	4,610	3,120	3,780
MIN	491	470	417	874	650	744	401	362	500	450	528	350
AC-FT	98,820	57,560	111,000	205,700	144,000	163,600	37,720	72,920	101,300	79,320	69,610	36,100

CAL YR 1970 TOTAL 1,181,629 MEAN 3,237 MAX 15,400 MIN 394 AC-FT 2,344,000
WTR YR 1971 TOTAL 593,743 MEAN 1,627 MAX 6,660 MIN 350 AC-FT 1,178,000

NOTE.--No gage-height record May 27 to July 7.

08029500 Big Cow Creek near Newton, Tex.

LOCATION.--Lat 30°49'08", long 93°47'07", Newton County, near center of span at downstream side of bridge on State Highway 87, 2.6 miles southwest of Newton, 5.0 miles downstream from Melhomes Creek, and 8.0 miles upstream from Whiteoak Creek.

DRAINAGE AREA.--128 sq mi.

PERIOD OF RECORD.--April 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 134.69 ft above mean sea level (levels by Topographic Division). Prior to Dec. 19, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 92.5 cfs (9.81 inches per year, 67,020 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs Oct. 28 (gage height, 14.04 ft); minimum daily, 10 cfs July 7, 8, 21-23.
Period of record: Maximum discharge, 20,200 cfs Apr. 29, 1953 (gage height, 19.45 ft); minimum daily, 10 cfs July 7, 8, 21-23, 1971.
Maximum stage since at least 1907, 27.5 ft in April 1922, from information by local resident.

REMARKS.--Records good except those for periods of no gage-height record and those for August, which are fair. No known diversion above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	60	36	114	32	38	39	21	20	12	41	13
2	17	52	36	72	30	178	38	20	19	12	26	71
3	17	48	35	62	30	172	38	19	18	11	25	33
4	17	45	34	77	32	109	36	19	18	11	57	24
5	17	41	34	65	53	80	34	19	17	11	57	18
6	19	39	33	54	57	69	32	22	17	11	47	17
7	44	38	31	48	45	63	31	29	16	10	55	16
8	45	37	30	50	41	81	31	67	16	10	40	16
9	41	47	30	54	38	51	31	43	15	12	29	15
10	39	59	30	60	34	120	30	33	15	14	24	14
11	47	50	33	67	35	126	30	38	15	13	27	14
12	359	42	38	62	43	84	29	68	16	13	24	14
13	253	47	47	54	43	69	29	83	17	13	20	14
14	111	342	40	51	40	61	28	56	16	12	18	14
15	58	200	42	48	37	54	27	39	15	12	17	14
16	44	95	43	47	36	48	26	32	14	12	17	14
17	36	65	38	42	35	44	28	27	14	11	16	18
18	32	56	36	40	34	61	30	25	16	11	16	18
19	31	50	35	40	35	255	36	24	22	11	15	18
20	30	45	36	37	38	161	33	23	26	11	15	34
21	32	42	48	36	42	84	31	22	22	10	15	34
22	30	39	88	37	66	67	29	22	20	10	14	30
23	49	38	56	40	59	59	28	22	18	10	14	24
24	370	36	46	40	44	53	25	25	16	11	14	20
25	150	35	40	40	40	50	24	30	15	12	14	18
26	71	36	36	37	318	46	23	33	14	11	14	18
27	196	36	34	35	471	44	22	28	13	15	13	24
28	889	36	33	33	135	43	22	26	13	21	13	19
29	379	36	36	32	------	46	22	24	13	21	13	17
30	123	36	100	33	------	46	21	22	12	37	12	16
31	76	------	191	33	------	43	------	21	------	50	12	------
TOTAL	3,640	1,828	1,425	1,540	1,943	2,505	883	982	498	441	734	629
MEAN	117	60.9	46.0	49.7	69.4	80.8	29.4	31.7	16.6	14.2	23.7	21.0
MAX	889	342	191	114	471	255	39	83	26	50	57	71
MIN	17	35	30	32	30	38	21	19	12	10	12	13
CFSM	.91	.48	.36	.39	.54	.63	.23	.25	.13	.11	.19	.16
IN.	1.06	.53	.41	.45	.56	.73	.26	.29	.14	.13	.21	.18
AC-FT	7,220	3,630	2,830	3,050	3,850	4,970	1,750	1,950	988	875	1,460	1,250

CAL YR 1970 TOTAL 22,931 MEAN 62.8 MAX 961 MIN 17 CFSM .49 IN 6.66 AC-FT 45,480
WTR YR 1971 TOTAL 17,048 MEAN 46.7 MAX 889 MIN 10 CFSM .36 IN 4.95 AC-FT 33,810

NOTE.--No gage-height record May 29 to July 26.

08030000 Cypress Creek near Buna, Tex.

LOCATION.--Lat 30°25'52", long 93°54'28", Jasper County, near center of span at downstream side of bridge on Farm Road 253, 0.3 mile downstream from Boggy Creek, 3.2 miles east of Buna, and 9.5 miles upstream from Little Cypress Creek.

DRAINAGE AREA.--69.2 sq mi.

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 46.16 ft above mean sea level. Prior to Oct. 23, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 62.5 cfs (12.27 inches per year, 45,280 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,800 cfs Oct. 27 (gage height, 13.19 ft); no flow for many days.
Period of record: Maximum discharge, 7,100 cfs Sept. 18, 1963 (gage height, 13.28 ft); no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No known diversions above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.7	108	1.1	65	.90	73	1.6	0	.02		0	0
2	.3	43	.95	40	.67	119	1.4	0	.01		0	1.0
3	.1	24	.85	30	.51	308	1.1	0	0		0	2.0
4	0	14	.62	50	.58	166	.95	0	0		0	2.0
5	0	8.5	.51	50	1.8	139	.85	0	0		0	1.0
6	0	5.5	.40	40	7.6	99	.67	.02	0		3.5	.50
7	.1	3.9	.40	30	13	55	.54	.03	0		13	.15
8	.1	2.8	.40	28	23	34	.44	.02	0		7.4	.05
9	.1	2.7	.40	43	12	21	.37	.11	0		2.8	.02
10	3.6	23	.40	57	5.8	17	.29	.12	0		1.8	.01
11	6.0	14	2.2	59	3.7	23	.17	.26	0		.40	0
12	85	7.4	7.5	49	24	18	.14	.37	0		.08	0
13	144	6.5	5.0	37	40	15	.11	.47	0		.02	0
14	41	120	2.5	30	17	12	.09	1.4	0		.01	0
15	13	121	2.0	29	9.6	9.5	.08	1.0	0		0	0
16	7.2	70	6.0	23	6.5	6.6	.06	.44	0		0	.19
17	4.9	58	4.5	14	4.6	4.3	.14	.15	0		0	1.7
18	3.8	25	3.2	9.5	3.5	3.3	.14	.06	0		0	.40
19	2.4	17	2.0	7.1	2.7	26	.11	.04	0		0	.76
20	1.7	11	1.5	5.1	2.2	42	.07	.02	0		0	1.0
21	1.2	8.6	4.0	3.9	3.6	19	.06	.01	0		0	.37
22	.9	6.3	17	3.1	5.7	13	.06	.01	0		0	.15
23	2.0	4.5	10	4.2	7.5	9.6	.05	0	0		0	.07
24	155	3.3	7.0	6.5	7.0	7.1	.03	.01	0		0	.07
25	127	2.9	4.0	5.7	7.2	5.1	.03	.04			0	.04
26	40	2.5	3.0	3.9	186	3.9	.02	.02	0		0	.01
27	2,780	2.1	2.5	2.9	254	3.4	.01	.01	0		0	0
28	3,970	1.6	2.0	2.1	111	2.9	.01	.04	0		0	0
29	1,520	1.4	25	1.6	------	2.4	.01	.04	0		0	0
30	783	1.2	35	1.3	------	1.8	0	.12	0		0	0
31	395	------	100	1.2	------	1.6	------	.06	------		0	------
TOTAL	10,088.1	719.7	251.93	732.1	761.66	1,260.5	9.60	4.87	.03	0	29.01	11.42
MEAN	325	24.0	8.13	23.6	27.2	40.7	.32	.16	.001	0	.94	.38
MAX	3,970	121	100	65	254	308	1.6	1.4	.02	0	13	2.0
MIN	0	1.2	.40	1.2	.51	1.6	0	0	0	0	0	0
CFSM	.48	.04	.01	.04	.04	.06	.0005	.0002	0	0	.001	.0006
IN.	.56	.04	.01	.04	.04	.07	0	0	0	0	.001	0
AC-FT	20,010	1,430	500	1,450	1,510	2,500	19	9.7	.06	0	58	23

CAL YR 1970 TOTAL 17,363.29 MEAN 47.6 MAX 3,970 MIN 0 CFSM .07 IN .96 AC-FT 34,440
WTR YR 1971 TOTAL 13,868.92 MEAN 38.0 MAX 3,970 MIN 0 CFSM .06 IN .76 AC-FT 27,510

PEAK DISCHARGE (BASE, 1,000 CFS).--Oct. 27 (2200) 6,800 cfs (13.19 ft).

NOTE.--No gage-height record Dec. 6 to Jan. 6.

08030500 Sabine River near Ruliff, Tex.

LOCATION.--Lat 30°18'13", long 93°44'37", Calcasieu Parish, La.-Newton County, Tex. State line, at downstream side of bridge on Texas State Highway 12, 2.4 miles north of Ruliff, 4.2 miles upstream from the Kansas City Southern Railway Co. bridge, 4.5 miles downstream from Cypress Creek, and at mile 40.2.

DRAINAGE AREA.--9,329 sq mi.

PERIOD OF RECORD.--October 1924 to current year.

GAGE.--Water-stage recorder and Water Quality Monitor System. Datum of gage is 4.08 ft above mean sea level. Prior to Mar. 1, 1941, nonrecording gage at Kansas City Southern Railway Co. bridge, 4.2 miles downstream and at datum 2.02 ft lower. Mar. 1, 1941, to Dec. 8, 1948, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--47 years, 8,071 cfs (5,847,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 31,000 cfs Oct. 29 (gage height, 15.03 ft); minimum daily, 456 cfs Sept. 15.
Period of record: Maximum discharge, 121,000 cfs May 22, 1953 (gage height, 19.98 ft); minimum, 270 cfs Sept. 27-30, Oct. 1-3, 17-20, 1956.
Maximum stage since at least 1835, 22.2 ft in May or June 1884 (adjusted to present site and datum on basis of slope of flood of June 8-9, 1950); flood of Apr. 26-29, 1913, reached a stage of 19.5 ft, present site and datum, from information by local resident.

REMARKS.--Records fair. Flow partly regulated by Toledo Bend Reservoir (station 08025350) 116.3 miles upstream. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1282: 1941(M), 1942. WSP 1442: 1925-29, 1937-39, 1943. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,140	13,600	975	4,660	2,980	10,900	2,310	623	1,890	1,510	755	738
2	1,880	8,520	953	5,810	1,840	10,600	2,010	609	1,150	1,620	764	644
3	2,850	5,320	932	5,430	1,570	9,300	1,630	600	855	1,690	813	615
4	2,590	3,660	915	3,690	2,660	9,590	1,440	585	2,010	1,190	988	609
5	1,810	3,520	897	2,450	3,300	11,100	1,330	570	3,960	796	1,390	692
6	1,980	3,950	875	2,600	2,970	12,000	1,220	588	4,650	610	1,520	641
7	1,420	2,890	848	4,060	2,120	11,300	1,190	811	4,640	565	1,580	550
8	961	2,030	824	5,490	1,730	9,310	1,420	861	3,440	518	1,470	520
9	854	1,650	906	6,410	1,500	7,350	1,230	1,650	1,900	587	1,310	529
10	841	1,520	1,870	6,850	1,300	6,720	1,040	3,020	1,100	1,100	1,310	1,290
11	930	1,460	2,640	5,980	1,150	6,590	970	2,340	850	1,150	1,310	1,200
12	5,120	1,460	2,960	3,910	2,000	6,000	931	1,850	2,000	936	995	809
13	5,430	1,440	3,120	3,500	2,970	5,430	900	3,100	4,800	778	946	587
14	5,100	1,530	2,780	4,620	3,250	5,170	875	3,530	5,100	744	936	496
15	5,070	2,060	1,910	5,200	2,920	4,570	851	2,780	2,960	744	831	456
16	4,120	3,290	1,600	5,570	2,210	3,140	829	1,990	1,720	1,150	1,390	478
17	2,650	3,580	2,530	5,620	1,770	2,320	827	1,500	1,080	2,650	3,160	543
18	2,000	3,240	3,450	4,750	2,230	2,030	838	1,190	750	3,730	2,300	552
19	2,100	3,070	3,710	2,860	2,650	2,050	839	1,010	1,090	4,150	1,370	582
20	1,570	2,580	3,680	3,200	3,050	2,430	848	888	3,380	2,600	1,010	587
21	1,280	2,040	3,130	5,460	3,570	4,340	859	1,000	3,240	2,330	887	576
22	1,650	2,000	2,080	6,460	4,160	4,990	838	2,350	1,920	4,160	957	614
23	1,560	1,670	2,450	5,660	4,330	3,810	808	2,070	1,190	3,930	1,560	641
24	1,750	1,370	4,130	4,640	4,530	2,730	782	1,370	871	2,290	1,280	621
25	2,390	1,260	4,120	3,600	5,050	2,110	751	979	731	1,290	1,560	581
26	3,290	1,550	3,270	2,230	6,460	1,780	717	858	667	913	3,040	529
27	8,080	1,400	2,060	1,910	8,640	1,610	680	865	620	753	2,190	495
28	24,200	1,150	1,450	2,960	10,200	1,510	659	836	580	673	1,410	474
29	29,800	1,040	1,240	3,420	------	1,440	650	977	557	636	1,640	473
30	25,600	1,000	1,390	3,550	------	1,390	641	2,400	656	646	1,320	504
31	19,000	------	2,950	3,580	------	1,810	------	2,840	------	747	910	------
TOTAL	169,016	84,850	66,645	136,130	93,110	165,420	30,913	46,640	60,357	47,186	42,902	18,626
MEAN	5,452	2,828	2,150	4,391	3,325	5,336	1,030	1,505	2,012	1,522	1,384	621
MAX	29,800	13,600	4,130	6,850	10,200	12,000	2,310	3,530	5,100	4,160	3,160	1,290
MIN	841	1,000	824	1,910	1,150	1,390	641	570	557	518	755	456
AC-FT	335,200	168,300	132,200	270,000	184,700	328,100	61,320	92,510	119,700	93,590	85,100	36,940

CAL YR 1970 TOTAL 1,705,055 MEAN 4,671 MAX 29,800 MIN 747 AC-FT 3,382,000
WTR YR 1971 TOTAL 961,795 MEAN 2,635 MAX 29,800 MIN 456 AC-FT 1,908,000

08031000 Cow Bayou near Mauriceville, Tex.

LOCATION.--Lat 30°11'10", long 93°54'30", Orange County, near center of span at downstream side of bridge on State Highway 12, 0.4 mile upstream from Kansas City Southern Railway Co. bridge, and 2.7 miles southwest of Mauriceville.

DRAINAGE AREA.--83.3 sq mi.

PERIOD OF RECORD.--March 1952 to current year (October 1956 to September 1957, monthly discharge only).

GAGE.--Water-stage recorder. Datum of gage is 4.73 ft above mean sea level. Prior to Oct. 23, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 87.0 cfs (14.18 inches per year, 63,030 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,420 cfs Oct. 28 (gage height, 18.16 ft); minimum daily, 0.02 cfs Sept. 5, 6.
Period of record: Maximum discharge, 4,600 cfs Sept. 19, 1963 (gage height, 18.15 ft); no flow at times.
Maximum stage since at least 1940, 18.16 ft Oct. 28, 1970.

REMARKS.--Records fair. No large diversion above station. Base flow partly sustained by springs.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1,200	2.9	6.9	3.2	364	2.8	.08	1.5	.08	.40	.03
2	1.7	989	2.8	5.8	2.8	362	2.3	.08	4.2	.08	.21	.03
3	1.2	812	2.5	5.2	2.6	341	1.8	.06	9.6	.08	1.7	.03
4	.9	630	2.2	5.8	5.2	269	1.5	.06	8.4	.06	37	.03
5	.6	367	1.9	6.0	18	221	1.2	.06	5.4	.10	44	.02
6	1.2	227	1.5	5.4	14	183	.88	.08	3.2	.32	17	.02
7	1.7	143	1.4	4.9	36	146	.67	1.8	1.9	.57	11	.03
8	1.1	76	1.2	5.4	40	111	.40	1.7	1.2	1.1	6.7	.04
9	1.4	49	.99	5.8	31	85	.26	54	.77	.48	4.9	.05
10	1.9	34	.77	8.7	25	61	.16	163	.40	.32	4.3	.10
11	222	22	.88	12	22	43	.10	199	.21	.21	3.1	.32
12	1,280	15	1.5	11	352	29	.08	235	.12	.12	2.0	.48
13	998	18	1.7	11	320	22	.06	216	.10	.10	1.4	.21
14	780	66	2.5	113	328	18	.06	181	.08	.06	.88	.08
15	453	56	3.1	126	328	14	.06	135	.06	.05	.57	.26
16	239	44	3.4	79	279	12	.05	86	.06	.05	.32	5.2
17	130	37	3.5	65	213	9.6	.12	45	.06	.05	.21	5.4
18	67	31	3.8	58	154	18	.12	20	.10	.05	.12	4.3
19	41	26	3.8	46	97	70	.10	11	.32	.04	.10	55
20	24	21	3.8	38	66	44	.08	7.3	.40	.04	.08	70
21	15	18	4.0	22	54	31	.08	5.1	.16	.06	.06	46
22	10	15	3.8	17	47	24	.08	3.2	.12	.05	.04	27
23	9.9	11	4.0	14	30	18	.08	2.2	.10	.05	.03	15
24	24	9.1	9.6	12	22	14	.06	1.7	.08	.05	.06	8.9
25	21	7.3	8.2	10	16	11	.06	1.8	.08	.04	1.1	5.6
26	15	5.6	5.4	8.7	438	8.9	.06	1.4	.06	.04	.21	4.0
27	823	4.7	4.2	7.1	393	7.1	.06	1.1	.06	.21	.10	2.9
28	3,940	4.2	3.4	5.8	354	5.6	.06	1.1	.06	1.4	.12	3.4
29	3,050	3.7	3.2	5.1	------	4.9	.06	1.9	.12	.57	.06	3.4
30	2,050	3.2	4.9	4.7	------	4.0	.06	.99	.10	.99	.04	2.5
31	1,460	------	7.5	4.0	------	3.2	------	.67	------	1.1	.03	------
TOTAL	15,665.8	4,944.8	104.34	729.3	3,690.8	2,554.3	13.46	1,377.38	39.02	8.52	137.84	260.33
MEAN	505	165	3.37	23.5	132	82.4	.45	44.4	1.30	.27	4.45	8.68
MAX	3,940	1,200	9.6	126	438	364	2.8	235	9.6	1.4	44	70
MIN	.60	3.2	.77	4.0	2.6	3.2	.05	.06	.06	.04	.03	.02
CFSM	6.06	1.98	.04	.28	1.58	.99	.005	.53	.02	.003	.05	.10
IN.	7.00	2.21	.05	.33	1.65	1.14	.006	.62	.02	.003	.06	.12
AC-FT	31,070	9,810	207	1,450	7,320	5,070	27	2,730	77	17	273	516

CAL YR 1970 TOTAL 24,947.02 MEAN 68.3 MAX 3,940 MIN 0 CFSM .82 IN 11.14 AC-FT 49,480
WTR YR 1971 TOTAL 29,525.89 MEAN 80.9 MAX 3,940 MIN .02 CFSM .97 IN 13.19 AC-FT 58,560

PEAK DISCHARGE (BASE, 900 CFS).--Oct. 12 (0600) 1,380 cfs (14.42 ft); Oct. 28 (1200) 4,420 cfs (18.16 ft).

08031200 Kickapoo Creek near Brownsboro, Tex.

LOCATION.--Lat 32°18'34", long 95°36'19", Henderson County, on left bank 94 ft downstream from bridge on Farm Road 314 and 1.0 mile northeast of Brownsboro.

DRAINAGE AREA.--232 sq mi.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 358.62 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 118 cfs (6.91 inches per year, 85,490 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,220 cfs Oct. 28 (gage height, 12.53 ft); no flow for many days.
Period of record: Maximum discharge, 14,800 cfs Apr. 27, 1966 (gage height, 14.79 ft); maximum gage height, 15.34 ft May 11, 1968; no flow for many days.
Maximum stage since 1935, 16.4 ft in 1936 or 1937, from information by local residents.

REMARKS.--Records good except those below 400 cfs, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	465	63	70	42	139	38	32	14	.20	16	3.7
2	2.1	360	65	74	42	143	36	30	13	.11	38	2.8
3	1.7	280	63	79	44	147	34	26	9.4	.08	45	2.7
4	1.4	200	61	82	49	131	32	23	6.4	.04	39	2.3
5	1.4	131	59	82	54	120	32	21	5.0	.01	22	2.0
6	1.4	87	58	74	58	108	30	20	3.6	0	17	1.6
7	1.4	65	54	65	61	96	29	21	2.6	0	30	1.2
8	2.3	56	52	59	65	84	29	23	1.8	0	45	.95
9	4.2	111	49	56	63	74	29	23	1.1	0	47	.81
10	8.4	87	49	52	56	67	28	24	.51	0	30	.64
11	10	76	47	50	50	65	28	28	.35	0	19	.39
12	42	65	47	50	56	67	27	27	.35	0	14	.25
13	139	111	45	50	70	74	27	25	.30	0	15	.13
14	143	200	45	50	74	79	26	25	.23	0	14	.07
15	90	251	45	50	79	82	25	24	.18	0	15	.02
16	58	221	49	50	90	79	24	22	.11	0	21	0
17	35	192	54	50	87	70	26	20	.07	0	30	0
18	22	178	54	50	74	61	34	18	.03	0	27	0
19	15	164	52	49	74	56	44	16	.01	0	20	0
20	13	139	59	47	93	52	52	15	0	0	16	0
21	11	114	70	45	105	49	59	14	0	0	13	0
22	9.6	96	74	45	120	47	59	13	0	0	11	0
23	20	82	76	45	147	47	54	12	0	0	9.0	0
24	81	70	74	44	164	45	49	12	0	0	8.6	0
25	96	63	72	45	169	44	42	13	0	.18	7.4	0
26	51	56	65	45	182	44	32	12	0	.59	7.3	0
27	2,180	52	59	45	169	44	27	11	0	.55	7.0	0
28	4,310	52	54	47	147	44	24	12	0	.88	6.6	28
29	3,380	54	50	47	------	42	24	14	.01	.94	5.6	42
30	1,380	61	52	45	------	42	29	13	.33	.51	5.1	33
31	686	------	59	44	------	40	------	14	------	.35	4.4	------
TOTAL	12,798.1	4,139	1,775	1,686	2,484	2,282	1,029	603	59.38	4.44	605.0	122.56
MEAN	413	138	57.3	54.4	88.7	73.6	34.3	19.5	1.98	.14	19.5	4.09
MAX	4,310	465	76	82	182	147	59	32	14	.94	47	42
MIN	1.4	52	45	44	42	40	24	11	0	0	4.4	0
CFSM	1.78	.59	.25	.23	.38	.32	.15	.08	.009	.0006	.08	.02
IN.	2.05	.66	.28	.27	.40	.37	.16	.10	.009	0	.10	.02
AC-FT	25,390	8,210	3,520	3,340	4,930	4,530	2,040	1,200	118	8.8	1,200	243

CAL YR 1970 TOTAL 56,527.39 MEAN 155 MAX 4,310 MIN 0 CFSM .67 IN 9.06 AC-FT 112,100
WTR YR 1971 TOTAL 27,587.48 MEAN 75.6 MAX 4,310 MIN 0 CFSM .33 IN 4.42 AC-FT 54,720

PEAK DISCHARGE (BASE, 1,000 CFS).--Oct. 28 (1800) 5,220 cfs (12.53 ft).

08031290 Flat Creek Reservoir near Athens, Tex.

LOCATION.--Lat 32°12'15", long 95°43'30", Henderson County, at upstream side of dam on Flat Creek, 8 miles east of Athens, 5 miles downstream from Underwood Lake, and 18 miles upstream from Neches River.

DRAINAGE AREA.--21.6 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 33,180 acre-ft Feb. 25 (elevation, 440.25 ft); minimum, 30,400 acre-ft Sept. 22 (elevation, 438.40 ft).
Period of record: Maximum contents, 36,500 acre-ft May 10, 1968 (elevation, 442.37 ft); minimum since operating level was reached (May 7, 1968), 30,400 acre-ft Sept. 22, 1971 (elevation, 438.40 ft).

REMARKS.--Reservoir is formed by compacted earthfill embankment 3,000 ft long. The uncontrolled emergency spillway is a 300-foot wide trapzoidal-shaped ditch cut in clay. Deliberate impoundment began Nov. 1, 1962; dam was completed in May 1963. A 72-inch square drop inlet (elevation, 440.0 ft) will maintain the normal operation level (32,790 acre-ft). Total capacity, 42,600 acre-ft (elevation, 446.0 ft, crest of spillway). Area and capacity tables furnished by city of Athens and computed from Geological Survey topographic maps dated 1949 and 1950. Water used for municipal purposes by the city of Athens.

Capacity table (elevation, in feet, and total contents, in acre-feet)

438.0	29,820	440.0	32,790
439.0	31,290	441.0	34,340

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30,710	32,480	32,920	33,040	32,950	33,130	32,810	32,860	32,460	31,560	31,440	30,980
2	30,700	32,460	32,950	33,040	32,930	33,110	32,790	32,860	32,430	31,530	31,410	30,950
3	30,680	32,430	32,900	33,050	32,950	33,130	32,780	32,820	32,400	31,500	31,360	30,920
4	30,670	32,400	32,900	33,050	32,990	33,110	32,750	32,780	32,370	31,470	31,350	30,920
5	30,650	32,410	32,900	33,040	32,990	33,110	32,730	32,780	32,340	31,440	31,330	30,850
6	30,650	32,410	32,880	33,040	32,990	33,070	32,690	32,860	32,310	31,410	31,300	30,850
7	30,620	32,410	32,880	33,020	32,930	33,050	32,700	32,860	32,290	31,380	31,290	30,850
8	30,700	32,540	32,880	33,020	32,950	33,020	32,670	32,840	32,280	31,350	31,270	30,800
9	30,680	32,540	32,880	33,010	32,920	33,040	32,670	32,860	32,260	31,330	31,260	30,770
10	30,670	32,580	32,880	33,010	32,920	33,040	32,660	32,870	32,250	31,300	31,240	30,730
11	31,100	32,550	32,860	32,990	32,950	33,050	32,660	32,870	32,250	31,290	31,230	30,700
12	31,290	32,550	32,860	32,990	33,020	33,050	32,630	32,840	32,230	31,270	31,230	30,680
13	31,350	32,760	32,860	33,010	33,040	33,070	32,640	32,840	32,200	31,260	31,260	30,680
14	31,390	32,840	32,860	33,020	33,050	33,020	32,630	32,820	32,170	31,230	31,290	30,620
15	31,380	32,880	32,880	32,990	33,050	33,020	32,610	32,790	32,140	31,180	31,320	30,610
16	31,380	32,900	32,900	32,990	33,050	33,020	32,610	32,760	32,110	31,140	31,300	30,580
17	31,350	32,920	32,930	32,990	33,050	32,990	32,670	32,750	32,070	31,080	31,300	30,550
18	31,330	32,920	32,930	32,960	33,110	32,950	32,730	32,750	32,020	31,020	31,290	30,540
19	31,330	32,920	32,920	32,960	33,160	32,930	32,760	32,720	31,980	30,960	31,260	30,460
20	31,330	32,920	33,010	32,960	33,130	32,920	32,810	32,700	31,930	30,920	31,230	30,450
21	31,320	32,920	33,020	32,980	33,080	32,920	32,820	32,690	31,900	30,890	31,220	30,420
22	31,330	32,870	33,040	32,990	33,100	32,920	32,860	32,640	31,870	30,840	31,170	30,420
23	31,560	32,840	33,040	32,990	33,100	32,880	32,840	32,690	31,840	30,800	31,160	30,480
24	31,570	32,840	33,040	32,990	33,100	32,870	32,810	32,670	31,810	30,770	31,140	30,570
25	31,600	32,840	33,010	32,990	33,180	32,870	32,810	32,640	31,780	30,900	31,080	30,760
26	31,630	32,840	33,020	33,010	33,160	32,860	32,810	32,640	31,740	30,990	31,080	30,770
27	32,370	32,840	32,990	32,960	33,160	32,860	32,810	32,600	31,710	30,990	31,070	30,770
28	32,430	32,840	33,020	32,960	33,140	32,880	32,870	32,550	31,660	31,200	31,040	30,790
29	32,460	32,880	33,020	32,990	------	32,870	32,870	32,570	31,620	31,250	31,010	30,790
30	32,490	32,900	33,040	32,990	------	32,870	32,870	32,520	31,590	31,330	30,990	30,820
31	32,490	------	33,040	32,990	------	32,820	------	32,490	------	31,330	30,990	------
(†)	439.80	440.07	440.16	440.13	440.23	440.02	440.05	439.80	439.20	439.02	438.80	438.68
(≠)	+1,730	+410	+140	-50	+150	-320	+50	-380	-900	-260	-340	-170
(††)	80.6	67.6	65.0	68.5	58.9	74.5	93.6	107	160	189	129	116
MAX	32,490	32,920	33,040	33,050	33,180	33,130	32,870	32,870	32,460	31,560	31,440	30,980
MIN	30,620	32,400	32,860	32,960	32,920	32,820	32,610	32,490	31,590	30,770	30,990	30,420

CAL YR 1970..... ≠ -170 †† 1,126 MAX 33,760 MIN 30,620
WTR YR 1971..... ≠ +60 †† 1,210 MAX 33,180 MIN 30,420

† Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Athens.

08031400 Lake Palestine near Frankston, Tex.

LOCATION.--Lat 32°03'12", long 95°26'12", Anderson-Cherokee County line, in outlet tower near right bank, 140 ft upstream from Blackburn Crossing Dam on Neches River, 5 miles east of Frankston, 11 miles upstream from gage, Neches River near Neches, and at mile 354.0.

DRAINAGE AREA.--839 sq mi.

PERIOD OF RECORD.--February 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 20, 1962, nonrecording gage read once daily.

EXTREMES.--Current year: Maximum contents, 37,830 acre-ft Nov. 2 (elevation, 318.64 ft); minimum, 11,450 acre-ft Nov. 28 (elevation, 310.00 ft).
Period of record: Maximum contents, 118,700 acre-ft May 12, 1968 (elevation, 328.78 ft); minimum since first appreciable storage, 11,450 acre-ft Nov. 28, 1970.

REMARKS.--Lake is formed by a rolled-earthfill embankment 4,000 ft long, including a 450-foot uncontrolled emergency spillway near the left end of dam. Outlet works consist of a gated concrete tower, connected to a 8-1/2-foot-diameter conduit through the dam. Outflow is also controlled by two 36-inch-diameter cast-iron pipes connected to tower structure for low-flow releases. Dam completed and deliberate impoundment of water began May 1, 1962. Capacity table furnished by Upper Neches River Municipal Water Authority, based on Geological Survey quadrangle sheets dated 1946, 1948-49. No large diversions above station. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	343.3	-
Crest of emergency spillway	322.0	57,550
Maximum operating level	317.0	30,500
Invert of low-flow outlet	309.5	10,600
Invert of 8-1/2-foot diameter conduit	298.0	550

Capacity table (elevation, in feet, and total contents, in acre-feet)

310.0	11,450	315.0	23,420
311.0	13,350	317.0	30,500
313.0	17,800	319.0	39,560

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,210	37,250	12,250	12,130	12,700	23,210	28,770	34,660	37,160	35,620	33,560	34,200
2	17,190	37,780	12,300	12,020	12,860	24,220	28,920	35,040	37,010	35,620	33,600	34,110
3	17,170	36,910	12,380	12,460	13,080	24,650	29,040	35,090	37,110	35,470	33,560	34,070
4	17,120	35,660	12,420	12,590	13,560	25,080	29,560	34,800	37,060	35,420	33,900	33,980
5	17,100	34,070	12,530	12,720	13,880	25,320	29,490	35,130	37,010	35,330	34,160	33,980
6	17,050	32,460	12,480	12,860	14,420	26,050	29,530	35,470	36,910	35,230	34,200	33,940
7	17,050	30,670	12,610	12,880	14,990	26,320	29,530	35,760	36,870	35,090	34,320	33,820
8	17,260	29,040	12,670	12,820	15,300	26,420	29,300	35,760	36,770	35,180	34,450	33,940
9	17,260	26,680	12,840	12,760	15,800	26,940	29,530	35,760	36,630	34,990	34,500	33,900
10	17,120	24,980	12,970	12,760	16,250	27,080	29,490	36,390	36,480	34,660	34,540	33,770
11	17,210	23,030	13,100	12,650	16,770	27,200	29,270	36,670	36,530	34,660	34,620	33,640
12	17,330	20,510	13,160	12,550	17,450	27,310	29,190	36,870	36,480	34,580	34,580	33,600
13	17,400	19,340	13,240	12,510	17,780	27,460	29,490	36,960	36,430	34,540	34,850	33,480
14	17,450	18,120	13,290	12,510	18,330	27,920	29,340	37,110	36,390	34,320	34,850	33,350
15	17,560	16,530	13,370	12,380	18,990	27,690	29,230	37,250	36,390	34,200	34,850	33,350
16	17,680	15,010	13,410	12,290	19,660	27,730	29,640	37,160	36,290	34,030	34,750	33,300
17	17,990	13,810	13,370	12,380	20,370	27,390	30,420	37,010	36,140	33,820	34,750	33,220
18	17,170	13,050	13,480	12,610	20,950	28,140	30,920	37,200	35,950	33,730	34,660	33,520
19	16,790	12,610	11,750	12,610	21,490	27,650	31,180	37,540	35,900	33,770	34,580	33,300
20	17,050	12,290	13,200	12,610	21,010	27,580	31,650	37,440	35,900	33,600	34,450	33,050
21	17,260	12,020	12,650	12,670	21,640	27,420	32,030	37,400	35,860	33,350	34,450	32,960
22	17,380	11,790	12,610	12,720	21,990	27,730	32,280	37,300	35,860	33,220	34,450	33,260
23	17,170	11,810	12,650	12,650	22,440	27,580	32,920	37,440	35,860	33,140	34,370	33,350
24	16,060	11,920	12,630	12,650	22,800	27,310	33,180	37,490	35,710	33,220	34,500	33,260
25	16,180	11,720	12,700	12,530	22,970	27,460	33,430	37,400	35,520	33,140	34,540	33,220
26	16,460	11,620	12,740	12,500	22,020	27,390	33,690	37,350	35,420	33,140	34,540	33,220
27	16,810	11,510	12,700	12,400	21,900	27,500	34,070	37,440	35,330	33,050	34,500	33,220
28	14,170	11,700	12,630	12,440	22,470	28,210	34,070	37,350	35,470	33,260	34,410	33,260
29	11,940	11,960	12,420	12,500	------	28,140	34,540	36,820	35,810	33,350	34,280	33,300
30	19,890	12,040	12,400	12,570	------	28,210	34,660	37,010	35,710	33,480	34,200	33,260
31	32,200	------	12,250	12,650	------	28,030	------	37,160	------	33,480	34,240	------
(†)	317.40	310.31	310.42	310.63	314.68	316.34	317.98	318.50	318.20	317.70	317.88	317.65
(‡)	+14,940	-20,160	+210	+400	+9,820	+5,560	+6,630	+2,500	-1,450	-2,230	+760	-980
MAX	32,220	37,780	13,480	12,880	22,970	28,210	34,660	37,540	37,160	35,620	34,850	34,200
MIN	11,940	11,510	11,750	12,020	12,700	23,210	28,770	34,660	35,330	33,050	33,560	32,960

CAL YR 1970..... ‡ -6,160 MAX 51,340 MIN 11,510
WTR YR 1971..... ‡ +16,000 MAX 37,780 MIN 11,510

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08032000 Neches River near Neches, Tex.

LOCATION.--Lat 31°53'32", long 95°25'50", Anderson-Cherokee County line, on left bank downstream from bridge on U.S. Highway 79, 1.0 mile downstream from Missouri Pacific Railroad Co. bridge, 1.4 miles downstream from Walnut Creek, 4.4 miles northeast of Neches, and at mile 333.2.

DRAINAGE AREA.--1,145 sq mi.

PERIOD OF RECORD.--February 1939 to current year.

GAGE.--Water-stage recorder and Conductance Monitor System. Datum of gage is 264.06 ft above mean sea level. Prior to Oct. 27, 1945, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--32 years, 726 cfs (526,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,470 cfs Nov. 6-8 (gage height, 13.04 ft); minimum daily, 19 cfs June 15, July 7.
Period of record: Maximum discharge, 45,500 cfs Apr. 2, 1945 (gage height, 22.07 ft); no flow Oct. 3-5, 1939.
Flood in May 1908, stage 24.3 ft, was the highest since flood in May 1884, which was probably higher.

REMARKS.--Records good. Some regulation by Lake Palestine (station 08031400) 11 miles upstream and Flat Creek Reservoir (station 08031290) 50 miles upstream (total capacity, 100,200 acre-ft). No large diversion above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	939	278	455	262	579	99	73	28	26	31	27
2	64	1,000	269	429	245	377	95	66	27	24	27	29
3	63	1,090	265	407	238	323	88	61	27	23	27	34
4	58	1,210	264	395	228	311	85	57	25	21	28	33
5	46	1,380	261	369	244	285	83	54	24	21	32	31
6	44	1,470	256	353	231	301	82	55	24	20	34	30
7	41	1,470	252	346	171	307	76	63	23	19	34	28
8	42	1,470	235	364	153	299	72	71	22	22	37	27
9	50	1,440	214	393	151	294	70	65	21	24	36	28
10	64	1,420	211	396	145	299	69	84	21	24	33	32
11	72	1,400	210	390	131	311	68	400	20	24	32	31
12	79	1,370	209	385	131	310	66	456	20	24	29	29
13	86	1,340	207	384	142	315	64	265	21	23	105	28
14	92	1,350	206	371	140	321	62	173	20	22	89	27
15	87	1,340	209	351	139	312	61	108	19	23	54	27
16	84	1,310	226	342	138	303	59	79	22	23	39	26
17	82	1,280	243	339	126	296	71	65	24	22	33	26
18	81	1,230	240	312	121	289	116	56	27	22	30	26
19	250	1,190	225	275	167	286	149	50	29	22	28	34
20	342	1,140	291	264	491	286	133	46	28	22	27	45
21	140	1,090	601	264	739	284	121	42	25	22	31	34
22	87	1,020	796	282	549	283	112	39	29	22	32	34
23	96	924	744	301	374	282	102	39	26	22	29	54
24	245	816	616	305	308	278	98	39	24	23	28	55
25	480	651	541	306	299	276	90	36	23	25	35	43
26	267	541	503	303	485	277	80	34	23	25	39	34
27	164	492	479	298	761	233	75	28	21	26	38	31
28	425	458	469	295	833	155	71	31	21	35	33	29
29	737	393	464	284	------	130	72	30	23	33	30	28
30	870	304	464	270	------	119	77	29	25	46	28	28
31	898	------	472	270	------	108	------	28	------	43	27	------
TOTAL	6,202	32,528	10,920	10,498	8,142	8,829	2,566	2,722	712	773	1,135	968
MEAN	200	1,084	352	339	291	285	85.5	87.8	23.7	24.9	36.6	32.3
MAX	898	1,470	796	455	833	579	149	456	29	46	105	55
MIN	41	304	206	264	121	108	59	28	19	19	27	26
AC-FT	12,300	64,520	21,660	20,820	16,150	17,510	5,090	5,400	1,410	1,530	2,250	1,920

CAL YR 1970 TOTAL 218,201 MEAN 598 MAX 3,240 MIN 13 AC-FT 432,800
WTR YR 1971 TOTAL 85,995 MEAN 236 MAX 1,470 MIN 19 AC-FT 170,600

08032500 Neches River near Alto, Tex.

LOCATION.--Lat 31°34'45", long 95°09'55", Houston-Cherokee County line, near left bank on downstream side of pier of bridge on State Highway 21, 600 ft downstream from Bowles Creek, 7.5 miles southwest of Alto, and at mile 273.9.

DRAINAGE AREA.--1,945 sq mi.

PERIOD OF RECORD.--January 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 198.29 ft above mean sea level.

AVERAGE DISCHARGE.--27 years, 1,133 cfs (820,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,700 cfs May 13 (gage height, 13.16 ft); minimum daily, 12 cfs July 20-23. Period of record: Maximum discharge, 42,800 cfs Apr. 4, 1945 (gage height, 26.85 ft); minimum, 0.1 cfs Sept. 27, 28, 1954. Maximum stage since at least 1861, 28.2 ft in May 1884, from information by local residents (discharge, about 50,000 cfs).

REMARKS.--Records good. Flow partly regulated since 1962 by Flat Creek Reservoir (station 08031290) and Lake Palestine (station 08031400); minor regulation by Lake Jacksonville since 1957; total combined capacity, 130,700 acre-ft. During the current year, Upper Neches River Municipal Water Authority diverted 2,650 acre-ft from stream at Rocky Point Crossing 50 miles upstream for municipal and industrial use in the Palestine area. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	470	564	565	318	645	245	120	98	50	160	31
2	99	548	514	549	310	753	222	124	92	40	156	27
3	91	619	459	535	306	825	206	121	86	38	90	31
4	86	683	412	520	299	778	189	111	80	36	71	30
5	80	743	385	500	295	633	177	101	73	33	66	36
6	80	802	370	474	302	518	166	94	69	29	64	45
7	84	868	358	448	310	462	158	145	65	26	84	39
8	82	954	351	427	312	430	154	192	60	23	79	33
9	87	1,070	344	412	295	420	151	214	56	20	67	29
10	116	1,180	333	402	252	431	145	227	53	18	58	26
11	108	1,250	320	403	221	443	139	939	49	17	51	36
12	139	1,280	305	415	216	442	135	1,440	46	17	48	32
13	167	1,320	295	422	214	449	131	1,670	42	18	44	33
14	172	1,410	291	423	211	469	128	1,610	40	17	43	34
15	163	1,440	294	422	201	461	125	1,430	37	17	46	31
16	158	1,390	306	420	201	443	122	1,050	35	16	74	28
17	146	1,350	322	411	202	429	144	661	36	15	84	25
18	133	1,320	330	398	202	415	372	444	38	14	71	24
19	129	1,300	331	386	238	404	513	330	35	13	52	27
20	129	1,280	352	376	442	397	410	293	40	12	39	44
21	138	1,250	381	359	669	386	419	317	42	12	36	38
22	186	1,220	442	333	647	381	343	279	63	12	39	28
23	259	1,180	506	318	658	379	288	219	104	12	41	73
24	358	1,140	602	315	704	374	238	194	77	13	37	247
25	432	1,090	691	325	671	373	202	186	69	15	45	130
26	359	1,030	716	335	634	374	178	170	56	22	45	83
27	348	951	677	338	652	374	165	152	45	26	51	82
28	405	843	607	335	612	373	152	133	39	26	40	84
29	417	725	550	333	------	368	140	121	36	30	41	71
30	364	629	532	331	------	334	127	106	49	41	39	59
31	383	------	547	327	------	284	------	101	------	84	36	------
TOTAL	6,005	31,335	13,487	12,557	10,594	14,247	6,284	13,294	1,710	762	1,897	1,536
MEAN	194	1,045	435	405	378	460	209	429	57.0	24.6	61.2	51.2
MAX	432	1,440	716	565	704	825	513	1,670	104	84	160	247
MIN	80	470	291	315	201	284	122	94	35	12	36	24
AC-FT	11,910	62,150	26,750	24,910	21,010	28,260	12,460	26,370	3,390	1,510	3,760	3,050

CAL YR 1970 TOTAL 307,845.3 MEAN 843 MAX 3,630 MIN 8.7 AC-FT 610,600
WTR YR 1971 TOTAL 113,708.0 MEAN 312 MAX 1,670 MIN 12 AC-FT 225,500

08033000 Neches River near Diboll, Tex.

LOCATION.--Lat 31°07'59", long 94°48'36", Angelina-Polk County line, near center of main span on upstream side of upstream bridge on U.S. Highway 59, 630 ft downstream from Texas and New Orleans Railroad Co. bridge, 3.2 miles downstream from Alabama Creek, 3.8 miles south of Diboll, and at mile 203.5.

DRAINAGE AREA.--2,724 sq mi.

PERIOD OF RECORD.--October 1923 to September 1925, March 1939 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage read twice daily. Datum of gage is 134.46 ft above mean sea level. Prior to July 10, 1925, nonrecording gage at site 630 ft upstream, July 10 to Aug. 31, 1925, and Mar. 30, 1939, to Sept. 24, 1943, nonrecording gage at site 500 ft upstream, all at present datum.

AVERAGE DISCHARGE.--34 years (1923-25, 1939-71), 1,608 cfs (1,165,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,200 cfs May 19; maximum gage height observed, 8.00 ft May 19; minimum daily, 19 cfs July 24, 25.
Period of record: Maximum discharge, 49,900 cfs May 4, 1944 (gage height, 18.70 ft); no flow Aug. 15-22, 1925.
Maximum stage since at least 1874, 21 ft in May 1884 (discharge, about 110,000 cfs from rating curve extended above 40,000 cfs); flood in 1900 reached a stage of 19.9 ft (discharge, about 80,000 cfs); from information by local residents.

REMARKS.--Records poor. No large diversion above station. For regulation by upstream reservoirs, see Neches River near Alto (station 08032500).

REVISIONS (WATER YEARS).--WSP 1242: 1950. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	425	1,010	720	380	820	362	172	156	80	44	61
2	107	398	904	740	362	780	326	160	141	67	45	61
3	103	398	800	760	362	760	274	148	128	69	57	84
4	100	452	660	740	362	780	242	142	118	77	114	71
5	95	524	580	720	362	820	218	140	114	74	153	55
6	86	580	506	680	353	840	196	138	109	66	139	46
7	83	640	443	680	353	840	186	134	103	58	112	43
8	97	700	416	700	344	740	176	124	98	54	96	40
9	102	740	398	600	353	640	168	125	94	51	94	42
10	96	800	380	580	362	580	156	152	86	48	84	48
11	101	860	371	560	362	542	153	234	80	44	85	52
12	218	882	362	542	344	524	148	317	75	40	86	51
13	266	948	353	524	317	542	144	560	71	34	77	48
14	210	970	344	524	290	542	141	840	68	31	70	43
15	202	992	326	524	282	542	138	948	69	28	64	42
16	194	1,040	326	524	274	524	131	1,010	77	26	58	48
17	183	1,060	326	524	266	524	135	1,080	98	24	55	55
18	172	1,080	326	524	250	506	138	1,150	85	23	53	56
19	168	1,100	326	506	242	488	159	1,200	77	23	55	52
20	158	1,150	362	488	250	470	524	1,100	68	23	71	44
21	146	1,180	380	488	258	452	580	800	60	23	80	40
22	132	1,180	398	470	335	434	560	542	59	22	71	38
23	162	1,180	416	452	524	425	542	452	59	20	61	40
24	452	1,180	452	434	640	407	488	389	73	19	55	46
25	560	1,180	524	416	680	398	407	335	82	19	53	52
26	700	1,150	580	398	720	398	335	266	89	20	54	59
27	620	1,150	680	380	760	389	274	234	102	24	68	117
28	560	1,150	740	380	800	389	242	218	97	29	59	153
29	488	1,100	760	389	------	380	210	201	91	29	58	121
30	452	1,080	840	398	------	371	190	186	88	34	58	98
31	443	------	760	380	------	380	------	171	------	46	62	------
TOTAL	7,560	27,269	16,049	16,745	11,187	17,227	7,943	13,668	2,715	1,225	2,289	1,806
MEAN	244	909	518	540	400	556	265	441	90.5	39.5	73.8	60.2
MAX	700	1,180	1,010	760	800	840	580	1,200	156	80	153	153
MIN	83	398	326	380	242	371	131	124	59	19	44	38
AC-FT	15,000	54,090	31,830	33,210	22,190	34,170	15,750	27,110	5,390	2,430	4,540	3,580

CAL YR 1970 TOTAL 325,269 MEAN 891 MAX 3,650 MIN 15 AC-FT 645,200
WTR YR 1971 TOTAL 125,683 MEAN 344 MAX 1,200 MIN 19 AC-FT 249,300

08033300 Piney Creek near Groveton, Tex.

LOCATION.--Lat 31°08'25", long 95°05'11", Trinity County, on left bank at downstream side of bridge on State Highway 94, 6.3 miles northeast of Groveton, and 7.3 miles upstream from Caney Creek.

DRAINAGE AREA.--79.0 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 251.40 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 23.5 cfs (4.04 inches per year, 17,030 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 165 cfs Oct. 24 (gage height, 7.18 ft); no flow at times.
Period of record: Maximum discharge, 5,520 cfs May 7, 1969 (gage height, 15.26 ft); no flow at times.
Maximum stage since at least 1921, 17 ft in May 1942, from information by local residents.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.28	0	.03	0	0	0	0	0	0	0	.04
2	0	.20	0	.02	0	0	0	0	0	0	0	.01
3	0	.13	0	.01	0	0	0	0	0	0	0	0
4	0	.10	0	.01	0	0	0	0	0	0	0	0
5	0	.06	0	.01	0	0	0	0	0	0	0	0
6	0	.04	0	.01	0	0	0	0	0	0	0	0
7	0	.03	0	.01	0	0	0	0	0	0	0	0
8	.01	.02	0	.01	0	0	0	0	0	0	0	0
9	0	.03	0	.01	0	0	0	0	0	0	0	0
10	0	.02	0	.01	0	0	0	.02	0	0	0	0
11	.15	.02	0	.01	0	0	0	.67	0	0	0	0
12	4.0	.01	0	.01	0	0	0	1.5	0	0	0	0
13	11	.02	0	.01	0	0	0	.72	0	0	0	0
14	2.6	.04	0	.01	0	0	0	.59	0	0	0	0
15	1.2	.04	0	.01	0	0	0	.28	0	0	0	0
16	.57	.03	0	.01	0	0	0	.10	4.0	0	0	0
17	.19	.02	0	.01	0	.02	0	.02	10	0	0	0
18	.07	.02	0	0	0	.01	.02	.01	2.1	0	0	0
19	.12	.02	0	0	0	.01	.01	0	1.1	0	0	0
20	.06	.01	0	0	0	.01	.01	.01	.52	0	0	0
21	.04	.01	0	0	0	.01	.02	.04	.32	0	0	0
22	.02	.01	0	0	0	.01	.01	.01	.16	0	0	0
23	14	.01	0	0	0	0	.01	.01	.08	0	0	0
24	135	.01	0	0	0	0	.01	.01	.05	0	0	0
25	46	.01	0	0	0	0	0	.01	.03	0	.02	0
26	10	0	0	0	0	0	0	0	.02	0	.01	0
27	3.8	0	0	0	0	0	0	0	.01	0	0	0
28	2.1	0	0	0	0	0	0	0	0	0	0	0
29	1.3	0	0	0	------	0	0	0	0	0	0	0
30	.77	0	.03	0	------	0	0	0	0	0	0	0
31	.44	------	.06	0	------	0	------	0	------	0	.05	------
TOTAL	233.44	1.19	.09	.20	0	.07	.09	4.00	18.39	0	.08	.05
MEAN	7.53	.040	.003	.007	0	.002	.003	.13	.61	0	.003	.002
MAX	135	.28	.06	.03	0	.02	.02	1.5	10	0	.05	.04
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.10	.0005	0	.0001	0	0	0	.002	.008	0	0	0
IN.	.11	0	0	0	0	0	0	.001	.008	0	0	0
AC-FT	463	2.4	.2	.4	0	.1	.2	7.9	36	0	.2	.1

CAL YR 1970 TOTAL 1,767.39 MEAN 4.84 MAX 142 MIN 0 CFSM .06 IN .83 AC-FT 3,510
WTR YR 1971 TOTAL 257.60 MEAN .71 MAX 135 MIN 0 CFSM .009 IN .12 AC-FT 511

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

08033500 Neches River near Rockland, Tex.

LOCATION.--Lat 31°01'45", long 94°23'46", Tyler-Jasper County line, on left bank 2,100 ft upstream from Texas and New Orleans Railroad Co. bridge, 2,200 ft downstream from bridge on U.S. Highway 69, 1.0 mile north of Rockland, and 3.6 miles downstream from Billams Creek.

DRAINAGE AREA.--3,637 sq mi.

PERIOD OF RECORD.--July 1903 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage read twice daily. Datum of gage is 91.41 ft above mean sea level.

AVERAGE DISCHARGE.--68 years, 2,241 cfs (1,624,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,240 cfs Oct. 28 (gage height, 2.70 ft, from graph based on gage readings); minimum daily, 21 cfs July 24, 25.
Period of record: Maximum discharge, 49,800 cfs May 6, 1944 (gage height, 31.84 ft); minimum observed during period of daily records, 1.6 cfs Sept. 28-30, Oct. 1, 2, 1956.
Historical flood information begins with flood in May 1884 which reached a stage of 34.9 ft, from information by local resident (discharge, about 62,000 cfs).

REMARKS.--Records good. No large diversion above station. For regulation by upstream reservoirs, see Neches River near Alto (station 08032500).

REVISIONS (WATER YEARS).--WSP 878: 1926-27. WSP 1342: 1922(M), 1935. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	573	1,040	702	357	791	370	224	202	92	27	62
2	113	474	988	680	357	814	367	207	185	94	27	71
3	120	438	935	702	354	791	348	191	172	80	41	71
4	122	404	837	658	351	746	322	174	152	70	58	75
5	122	414	615	658	351	724	290	162	139	65	89	86
6	120	463	552	615	344	746	264	158	128	70	130	96
7	115	512	552	615	344	768	240	164	124	70	176	74
8	113	573	478	594	338	768	222	156	116	64	158	57
9	116	702	431	573	338	724	207	154	111	57	130	48
10	128	837	404	532	338	658	191	141	104	52	113	47
11	198	814	387	512	338	573	180	174	97	48	99	44
12	404	814	370	485	344	512	176	357	94	45	118	44
13	435	837	360	467	338	485	174	335	86	44	111	50
14	615	910	354	449	329	482	168	460	81	38	99	56
15	504	837	344	438	298	497	164	768	74	36	88	54
16	431	910	335	435	275	493	158	910	71	33	75	53
17	322	935	322	442	270	485	160	960	70	30	68	54
18	258	960	316	449	261	497	158	988	74	26	59	54
19	292	988	313	442	256	493	158	1,070	94	24	57	86
20	256	1,020	316	438	247	478	158	1,120	89	24	56	104
21	224	1,040	332	435	250	456	219	1,150	81	25	56	97
22	261	1,070	341	421	250	442	474	1,010	77	26	59	104
23	290	1,070	354	411	261	431	552	702	80	23	74	88
24	814	1,070	367	407	373	418	512	512	68	21	80	68
25	1,150	1,100	390	394	552	404	512	463	63	21	70	60
26	960	1,100	418	384	680	397	449	414	63	22	60	57
27	1,070	1,070	474	364	746	394	387	354	74	23	60	56
28	1,180	1,070	532	344	768	387	332	298	91	25	58	57
29	1,100	1,070	615	338	------	384	287	272	100	26	63	97
30	910	1,040	680	344	------	380	256	261	104	27	63	147
31	702	------	724	357	------	373	------	232	------	29	53	------
TOTAL	13,551	25,115	15,476	15,085	10,308	16,991	8,455	14,541	3,064	1,330	2,475	2,117
MEAN	437	837	499	487	368	548	282	469	102	42.9	79.8	70.6
MAX	1,180	1,100	1,040	702	768	814	552	1,150	202	94	176	147
MIN	106	404	313	338	247	373	158	141	63	21	27	44
AC-FT	26,880	49,820	30,700	29,920	20,450	33,700	16,770	28,840	6,080	2,640	4,910	4,200

CAL YR 1970 TOTAL 376,895.00 MEAN 1,033 MAX 1,180 MIN 0 AC-FT 747,600
WTR YR 1971 TOTAL 128,508.00 MEAN 352 MAX 1,180 MIN 21 AC-FT 254,900

08033900 East Fork Angelina River near Cushing, Tex.

LOCATION.--Lat 31°51'36", long 94°49'23", Rusk County, near left bank on downstream side of bridge on Farm Road 225, 0.1 mile downstream from Everett Branch, 0.9 mile upstream from Reagan Branch, 3.5 miles north of Cushing, and 8 miles upstream from Angelina River.

DRAINAGE AREA.--158 sq mi.

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 275.29 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 86.7 cfs (7.45 inches per year, 62,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,470 cfs May 11 (gage height, 10.82 ft); minimum, 2.4 cfs July 21.
Period of record: Maximum discharge, 11,100 cfs July 23, 1968 (gage height, 11.66 ft), from rating curve extended above 4,600 cfs; minimum, 0.7 cfs Aug. 14, 1964.

REMARKS.--Records good except those for October and March, which are fair. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	26	19	41	24	60	35	23	24	8.6	30	5.9
2	6.4	24	19	35	23	50	31	22	24	8.4	15	11
3	6.2	25	18	33	23	45	28	20	23	9.0	13	7.1
4	5.8	22	18	34	25	42	26	18	21	17	14	6.7
5	5.8	20	18	35	36	40	25	17	18	9.4	19	8.2
6	5.8	20	17	32	32	40	23	17	16	6.9	22	7.8
7	5.5	19	17	30	28	50	22	18	15	6.0	23	5.4
8	7.0	20	16	29	29	80	21	22	14	5.2	17	4.3
9	10	23	16	30	25	80	21	19	13	5.0	13	3.8
10	8.0	27	17	31	24	60	21	256	13	4.7	10	3.7
11	15	24	17	31	24	45	20	2,450	12	4.4	9.6	4.1
12	30	21	18	30	28	40	19	1,400	11	4.3	8.8	4.0
13	25	73	18	30	39	45	19	728	11	4.1	7.6	4.1
14	20	186	17	30	33	40	18	361	10	3.8	11	3.8
15	17	125	19	30	28	36	18	127	9.4	3.6	13	4.7
16	15	52	29	28	28	33	18	81	9.4	3.3	9.8	6.5
17	14	32	29	27	28	30	25	63	26	3.0	7.8	5.7
18	13	29	24	27	27	29	252	54	26	2.9	6.7	5.8
19	12	27	22	27	80	28	271	49	12	2.8	5.8	39
20	11	24	38	26	167	67	162	51	13	2.6	5.4	22
21	11	23	70	25	97	27	169	56	14	2.5	6.4	11
22	10	22	58	27	57	27	99	43	14	2.6	7.1	9.6
23	10	21	39	27	45	27	55	39	12	3.3	6.4	13
24	20	19	34	28	39	26	40	39	11	4.7	5.8	23
25	50	18	29	28	39	25	33	46	13	6.9	7.1	16
26	40	19	27	27	133	26	30	37	11	11	5.7	15
27	30	20	25	25	137	26	29	32	8.4	10	4.7	12
28	60	20	25	24	80	26	28	29	8.2	7.4	4.4	10
29	150	19	25	24	------	78	26	27	22	8.8	4.1	8.2
30	124	19	29	26	------	116	24	26	8.6	12	4.1	7.4
31	43	------	47	26	------	49	------	24	------	73	3.7	------
TOTAL	787.2	1,019	814	903	1,378	1,393	1,608	6,194	443.0	257.2	321.0	288.8
MEAN	25.4	34.0	26.3	29.1	49.2	44.9	53.6	200	14.8	8.30	10.4	9.63
MAX	150	186	70	41	167	116	271	2,450	26	73	30	39
MIN	5.5	18	16	24	23	25	18	17	8.2	2.5	3.7	3.7
CFSM	.16	.22	.17	.18	.31	.28	.34	1.27	.09	.05	.07	.06
IN.	.19	.24	.19	.21	.32	.33	.38	1.46	.10	.06	.08	.07
AC-FT	1,560	2,020	1,610	1,790	2,730	2,760	3,190	12,290	879	510	637	573

CAL YR 1970 TOTAL 18,655.9 MEAN 51.1 MAX 451 MIN 1.5 CFSM .32 IN 4.39 AC-FT 37,000
WTR YR 1971 TOTAL 15,406.2 MEAN 42.2 MAX 2,450 MIN 2.5 CFSM .27 IN 3.63 AC-FT 30,560

PEAK DISCHARGE (BASE, 600 CFS).--May 11 (1600) 4,470 cfs (10.82 ft).

08034000 Lake Tyler near Whitehouse, Tex.

LOCATION.--Lat 32°14'30", long 95°10'33", Smith County, at city of Tyler pumphouse, 2.0 miles north of Whitehouse Dam on Prairie Creek, 3.0 miles northwest of Mud Creek Dam on Mud Creek, and 3.2 miles northeast of Whitehouse.

DRAINAGE AREA.--107 sq mi. Prior to May 29, 1968, 45.3 sq mi.

PERIOD OF RECORD.--March 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (city of Tyler bench mark). Prior to May 3, 1949, nonrecording gage at dam. May 3, 1949, to July 11, 1951, nonrecording gage at pumphouse. July 12, 1951, to Feb. 1, 1968, water-stage recorder at intake tower in lake 660 ft south of pumphouse. All gages at same datum.

EXTREMES.--Current year: Maximum contents, 79,810 acre-ft May 10 (elevation, 375.17 ft); minimum, 67,410 acre-ft Sept. 18 (elevation, 372.45 ft).
Period of record: Maximum contents, 84,710 acre-ft Apr. 13, 1969; maximum elevation, 378.3 ft Apr. 24, 1966, prior to joining of lakes; minimum contents since first appreciable storage in 1950, 29,200 acre-ft Oct. 25 to Nov. 29, 1964 (elevation, 368.9 ft), prior to joining of lakes.

REMARKS.--Lake is formed by earthfill dams (4,708 ft and 4,700 ft long), Lake Tyler on Prairie Creek, and Lake Tyler East on Mud Creek. These dams are connected by an excavated canal. The west spillway is a concrete flume 200 ft wide located 800 ft left of Whitehouse Dam. The east spillway is a concrete weir 300 ft wide located near center of Mud Creek Dam. Storage at original lake began Jan. 8, 1949, and dam completed May 13, 1949. Dam was closed on Mud Creek in January 1967, and lakes were joined through interconnecting canal on May 29, 1968. Capacity tables furnished and based on surveys made by city of Tyler in 1948-49 and 1966-67. Data regarding dams and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	390.0	-
Crest of spillway	375.4	80,900
Invert of upper sluice gate, Mud Creek Dam	362.0	30,420
Invert of middle sluice gate, Whitehouse Dam	356.0	16,340
Bottom of canal between lakes	355.0	14,480
Invert of lower sluice gate, Whitehouse Dam	350.0	-
Invert of low-flow outlet, Mud Creek Dam	346.75	-

Capacity table (elevation, in feet, and total contents, in acre-feet)

372.0	65,470	374.0	74,330
373.0	69,820	375.0	79,000
		376.0	83,820

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69,290	74,380	74,510	76,410	76,180	78,760	78,660	79,000	78,050	75,250	71,610	69,470
2	69,250	74,380	74,610	76,410	76,180	78,760	78,760	79,000	78,050	75,110	71,520	69,290
3	69,160	74,240	74,650	76,410	76,180	78,810	78,710	78,860	78,050	75,020	71,390	69,200
4	69,070	74,150	74,650	76,460	76,410	78,760	78,660	78,660	78,050	74,930	71,390	69,070
5	68,980	74,200	74,700	76,410	76,640	78,760	78,570	78,710	78,050	74,790	71,520	68,940
6	69,470	74,150	74,650	76,360	76,640	78,810	78,430	78,900	78,050	74,650	71,520	68,810
7	69,420	74,060	74,650	76,590	76,640	78,760	78,380	79,000	77,580	74,510	71,480	68,720
8	69,510	74,240	74,510	76,360	76,640	78,760	78,280	78,950	77,580	74,380	71,390	68,590
9	69,380	74,150	74,610	76,460	76,640	78,760	78,280	78,900	77,580	74,200	71,250	68,460
10	69,290	74,200	74,470	76,550	76,640	78,810	78,280	79,710	77,300	74,060	71,210	68,370
11	69,560	74,150	74,330	76,590	76,640	78,860	78,240	79,470	77,200	73,970	71,070	68,190
12	69,600	74,150	74,290	76,640	76,640	78,950	78,190	79,470	77,020	73,780	71,030	68,100
13	69,600	74,610	74,240	76,730	76,640	79,000	78,190	79,470	76,970	73,600	71,160	67,980
14	69,510	74,650	74,290	76,880	76,640	79,000	78,100	79,470	76,830	73,420	71,340	67,850
15	69,470	74,650	74,510	76,780	76,640	79,000	78,050	79,470	76,640	73,280	71,250	67,800
16	69,340	74,650	74,790	76,780	76,640	79,000	77,960	79,470	76,500	73,060	71,120	67,630
17	69,290	74,650	74,740	76,830	76,640	78,810	78,860	79,470	76,460	72,870	71,030	67,540
18	69,200	74,650	74,790	76,780	77,340	78,810	79,090	79,470	76,270	72,690	70,890	67,980
19	69,120	74,650	74,840	76,780	77,960	78,760	79,140	79,470	76,090	72,510	70,800	67,930
20	69,120	74,650	75,760	76,690	78,050	78,660	79,190	79,470	76,180	72,330	70,670	67,760
21	69,070	74,650	75,900	76,730	78,050	78,660	79,240	79,470	76,180	72,150	70,580	67,670
22	69,120	74,650	76,270	76,780	78,050	78,760	79,240	79,470	76,090	71,970	70,440	68,190
23	69,510	74,470	76,270	76,830	78,050	78,660	79,190	79,000	76,040	71,930	70,360	68,540
24	69,510	74,420	76,270	76,880	78,100	78,570	79,090	79,000	75,900	71,840	70,270	68,680
25	69,510	74,240	76,130	76,880	78,520	78,660	79,140	79,000	75,760	72,150	70,180	68,680
26	69,560	74,420	76,090	76,550	78,660	78,620	79,090	79,000	75,570	72,020	70,090	68,810
27	74,060	74,470	76,180	76,460	78,660	78,520	79,090	79,000	75,430	71,930	69,960	68,760
28	74,380	74,470	76,230	76,460	78,710	78,860	79,140	79,000	75,430	72,200	69,820	68,850
29	74,420	74,510	76,270	76,410	------	78,860	79,140	78,520	75,530	72,020	69,690	68,720
30	74,420	74,510	76,320	76,300	------	78,810	79,050	78,520	75,430	71,840	69,510	68,370
31	74,420	------	76,360	76,250	------	78,710	------	78,520	------	71,700	69,470	------
(†)	374.02	374.04	374.44	374.41	374.94	374.94	375.01	374.90	374.24	373.42	372.92	372.67
(*)	+5,040	+90	+1,850	-110	+2,460	±0	+340	-530	-3,090	-3,730	-2,230	-1,100
(††)	965	826	843	874	735	911	960	1,188	1,599	1,614	1,273	1,304
MAX	74,420	74,650	76,360	76,880	78,710	79,000	79,240	79,710	78,050	75,250	71,610	69,470
MIN	68,980	74,060	74,240	76,250	76,180	78,520	77,960	78,520	75,430	71,700	69,470	67,540

CAL YR 1970..... * -3,680 †† 11,981 MAX 82,740 MIN 68,980
WTR YR 1971..... * -1,010 †† 13,092 MAX 79,710 MIN 67,540

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, by city of Tyler.

08034500 Mud Creek near Jacksonville, Tex.

LOCATION.--Lat 31°58'35", long 95°09'38", Cherokee County, on right bank on downstream side of pile bent of bridge on U.S. Highway 79, 0.6 mile downstream from Caney Creek, 3.9 miles downstream from another Caney Creek, 4 miles downstream from Missouri Pacific Railroad Co. bridge, 6.9 miles east of Jacksonville, and 25.9 miles upstream from mouth.

DRAINAGE AREA.--376 sq mi.

PERIOD OF RECORD.--May 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 271.64 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 254 cfs (184,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,340 cfs May 11 (gage height, 7.57 ft); no flow July 22, 23, and 27.
Period of record: Maximum discharge, 27,500 cfs Apr. 25, 1966 (gage height, 15.20 ft); no flow at times.
Maximum stage since May 1884, 20 ft in May 1908 and December 1913; flood in May 1884 was higher, stage unknown, from information by local residents.

REMARKS.--Records fair. Some regulation by Lake Tyler (station 08034000, capacity 80,900 acre-ft). Several diversions above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	325	31	103	56	186	62	34	9.8	7.6	3.6	2.0
2	11	173	32	103	53	144	51	37	8.8	8.7	3.5	2.6
3	8.4	79	31	97	51	106	44	30	8.1	8.2	4.1	2.8
4	7.5	50	30	91	56	97	40	23	7.4	5.1	3.9	1.9
5	7.0	40	30	88	69	94	39	20	6.8	3.8	4.0	1.8
6	7.0	36	29	82	77	94	36	20	6.2	2.6	4.7	1.6
7	7.0	33	27	76	77	85	35	28	5.7	2.1	4.9	1.4
8	8.6	32	25	71	71	77	34	34	5.3	1.7	7.5	1.2
9	12	33	24	71	62	74	33	37	4.9	1.4	7.3	.98
10	13	31	24	72	57	79	33	144	4.6	1.0	4.9	.89
11	12	30	25	74	56	85	32	1,210	4.4	.87	3.7	1.0
12	18	33	26	74	57	85	31	958	4.4	.89	2.9	1.0
13	19	44	26	72	69	82	30	443	4.0	.77	2.4	.81
14	16	101	24	71	91	82	29	139	3.8	.61	2.0	.64
15	15	109	25	71	97	79	27	79	3.6	.51	2.2	.52
16	14	106	34	69	91	69	26	57	4.0	.42	2.8	.45
17	12	103	46	66	75	61	42	45	5.1	.34	2.8	.38
18	12	103	45	65	69	57	179	37	3.9	.24	3.0	.32
19	12	82	42	62	106	53	178	32	3.7	.13	2.9	.64
20	11	60	82	60	338	51	140	28	3.8	.06	2.8	2.5
21	11	49	263	59	432	49	91	24	3.8	.02	3.1	4.9
22	10	44	315	59	450	50	73	21	4.9	0	2.5	6.1
23	18	39	335	62	267	49	70	19	5.0	0	2.1	6.0
24	35	35	288	63	140	48	62	18	4.5	.06	1.8	8.4
25	28	33	183	63	106	46	44	17	3.8	.10	1.4	17
26	24	32	116	62	148	46	36	15	3.3	.01	1.1	23
27	76	32	103	59	240	47	33	13	3.1	0	.70	25
28	280	32	94	57	250	48	30	12	3.0	.02	1.8	14
29	348	31	88	55	------	60	32	11	2.8	.06	4.6	7.4
30	372	31	88	56	------	75	34	10	4.1	.79	3.1	5.2
31	372	------	100	57	------	70	------	10	------	3.7	2.3	------
TOTAL	1,810.5	1,961	2,631	2,190	3,711	2,328	1,626	3,605	146.6	51.80	100.40	142.43
MEAN	58.4	65.4	84.9	70.6	133	75.1	54.2	116	4.89	1.67	3.24	4.75
MAX	372	325	335	103	450	186	179	1,210	9.8	8.7	7.5	25
MIN	7.0	30	24	55	51	46	26	10	2.8	0	.70	.32
AC-FT	3,590	3,890	5,220	4,340	7,360	4,620	3,230	7,150	291	103	199	283

CAL YR 1970 TOTAL 57,142.30 MEAN 157 MAX 1,280 MIN .03 AC-FT 113,300
WTR YR 1971 TOTAL 20,303.73 MEAN 55.6 MAX 1,210 MIN 0 AC-FT 40,270

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

08036500 Angelina River near Alto, Tex.

LOCATION.--Lat 31°40'10", long 94°57'24", Nacogdoches-Cherokee County line, near center of rectified channel at downstream side of pier of bridge on State Highway 21, 0.4 mile upstream from Allen Creek, 1.5 miles upstream from Bingham Creek, 7.5 miles east of Alto, and at mile 149.3.

DRAINAGE AREA.--1,276 sq mi.

PERIOD OF RECORD.--May to August 1940 (discharge measurements only), September 1940 to March 1949 (fragmentary for 1941-42, 1944-49), February 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 204.30 ft above mean sea level. May 9, 1940, to Mar. 31, 1949, nonrecording gage on bridge at natural channel 1,400 ft to right at same datum. Feb. 18 to Sept. 15, 1959, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--13 years (1942-43, 1959-71), 711 cfs (515,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,870 cfs May 16 (gage height, 15.35 ft); minimum, 4.5 cfs July 23, 24.
Period of record: Maximum discharge, 30,600 cfs Apr. 28, 1966 (gage height, 21.51 ft), but may have been higher during period of no gage-height record in November 1940; minimum, 2.0 cfs Aug. 14, 15, 1964.
Maximum stage since at least 1905, about 22 ft in May 1908, from information by local residents. Flood in 1932 reached a stage of 21.5 ft and flood in May 1958 reached a stage of 20.3 ft, from floodmarks and information by local residents.

REMARKS.--Records good. No large diversion above station. Flow partly regulated by Striker Creek Reservoir 35.5 miles upstream and Lake Tyler 69.9 miles upstream (total capacity, 107,900 acre-ft). Recording rain gage located at station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	442	119	318	270	778	401	138	71	16	34	16
2	50	414	117	374	165	709	340	267	65	15	61	16
3	43	330	117	481	131	577	248	177	60	15	77	16
4	39	312	114	506	123	464	198	100	55	15	52	17
5	37	338	114	428	124	405	165	80	52	15	43	23
6	34	362	112	291	159	352	139	69	49	16	49	24
7	32	331	109	249	318	348	174	66	45	19	68	22
8	32	315	106	226	354	493	290	62	41	17	64	21
9	38	295	104	201	242	586	356	59	38	14	60	21
10	43	195	102	187	190	512	351	90	36	12	57	20
11	64	132	100	178	170	320	204	516	33	11	48	24
12	109	117	99	175	162	279	104	1,010	30	9.7	40	36
13	104	194	97	174	147	294	88	1,420	29	9.1	34	39
14	100	338	99	171	164	289	80	1,980	27	8.5	31	40
15	113	372	103	168	230	267	75	2,640	26	7.6	32	41
16	110	439	112	165	250	249	70	2,850	25	7.3	64	45
17	86	544	119	192	255	232	77	2,600	24	6.8	62	47
18	65	584	214	330	356	212	183	2,110	22	6.5	72	45
19	59	510	327	325	397	195	242	1,600	21	6.0	60	49
20	55	333	428	199	471	176	378	1,180	31	5.5	41	49
21	52	244	429	157	635	162	569	848	34	5.0	30	55
22	51	212	351	144	717	157	610	565	26	4.8	25	73
23	62	187	418	136	765	152	558	303	24	4.5	22	100
24	91	157	495	135	772	147	446	224	26	4.8	21	93
25	99	139	547	138	767	147	308	193	27	14	21	80
26	174	196	579	138	812	148	224	157	25	37	22	69
27	231	248	617	136	841	145	172	137	23	44	20	67
28	216	241	692	133	817	142	132	121	23	46	18	62
29	176	163	698	130	------	154	108	101	21	59	17	51
30	248	125	524	154	------	207	96	88	18	61	16	45
31	363	------	346	270	------	349	------	77	------	47	16	------
TOTAL	3,040	8,809	8,508	7,009	10,804	9,647	7,386	21,828	1,027	559.1	1,277	1,306
MEAN	98.1	294	274	226	386	311	246	704	34.2	18.0	41.2	43.5
MAX	363	584	698	506	841	778	610	2,850	71	61	77	100
MIN	32	117	97	130	123	142	70	59	18	4.5	16	16
AC-FT	6,030	17,470	16,880	13,900	21,430	19,130	14,650	43,300	2,040	1,110	2,530	2,590

CAL YR 1970 TOTAL 199,070.0 MEAN 545 MAX 3,140 MIN 32 AC-FT 394,900
WTR YR 1971 TOTAL 81,200.1 MEAN 222 MAX 2,850 MIN 4.5 AC-FT 161,100

08037000 Angelina River near Lufkin, Tex.

LOCATION.--Lat 31°27'26", long 94°43'34", Angelina-Nacogdoches County line, near right bank at downstream side of bridge on U.S. Highway 59, 200 ft upstream from Procella Creek, 1.5 miles downstream from Bayou Loco, 1.5 miles upstream from Southern Pacific Lines bridge, 8 miles north of Lufkin, and at mile 109.5.

DRAINAGE AREA.--1,600 sq mi.

PERIOD OF RECORD.--October 1923 to September 1934, July 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 164.72 ft above mean sea level. Oct. 29, 1923, to Jan. 17, 1926, nonrecording gage at Southern Pacific Lines bridge 1.5 miles downstream at datum 1.39 ft lower; Jan. 18, 1926, to Sept. 30, 1934, nonrecording gage at Lufkin-Nacogdoches highway bridge 1,400 ft upstream at present datum.

AVERAGE DISCHARGE.--43 years, 1,174 cfs (850,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,200 cfs May 21 (gage height, 9.86 ft); minimum daily, 9.3 cfs July 21.
Period of record: Maximum discharge, 38,200 cfs Feb. 24, 1932; maximum gage height, 18.55 ft May 7, 1944; minimum discharge, 0.8 cfs Oct. 29, 30, 1956.
Flood in May 1884 reached a stage of 26.5 ft and is the highest since at least that date, and flood in May 1908 reached a stage of 25 ft; from information by local residents.

REMARKS.--Records fair. No large diversion above station. For statement regarding regulation of flow, see Angelina River near Alto (station 08036500). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 718: 1924, 1926. WSP 1312: 1924(M). WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	210	195	596	186	856	217	152	137	39	67	15
2	94	261	166	446	237	856	289	137	125	32	58	18
3	89	283	151	364	242	832	328	166	116	28	41	20
4	75	287	146	385	205	768	300	214	109	28	42	18
5	61	262	151	427	178	662	248	187	101	25	65	16
6	52	240	151	443	168	530	210	144	92	23	61	14
7	49	249	148	401	169	430	183	123	85	22	44	14
8	49	262	146	314	202	364	166	115	79	22	37	17
9	50	263	143	265	269	367	187	115	73	22	48	22
10	59	282	141	240	282	450	254	113	67	24	55	21
11	56	262	139	226	238	528	301	175	61	24	66	24
12	73	197	138	211	203	490	279	382	56	22	55	27
13	99	153	136	203	189	378	206	638	51	19	42	24
14	116	163	135	198	192	322	158	817	47	16	34	25
15	71	221	135	194	185	309	133	1,000	43	15	28	35
16	109	282	137	192	190	297	130	1,160	43	14	25	41
17	111	294	142	189	219	280	127	1,320	43	13	23	52
18	112	336	148	186	237	265	131	1,530	40	12	37	47
19	104	391	158	213	267	246	190	1,750	38	11	58	50
20	91	410	205	277	330	231	245	2,030	36	10	70	61
21	93	403	283	279	391	217	288	2,170	34	9.3	71	63
22	82	330	328	230	450	202	392	2,070	37	10	57	57
23	86	258	344	196	545	192	480	1,620	49	12	40	73
24	124	237	327	182	632	185	520	1,050	47	11	30	108
25	148	206	350	174	698	181	518	578	38	11	24	114
26	131	184	401	169	757	178	445	339	35	13	22	106
27	120	171	462	167	799	177	321	255	35	14	20	95
28	153	187	500	166	840	177	240	212	34	18	20	84
29	206	215	533	164	------	176	199	190	34	67	19	76
30	205	221	553	163	------	173	176	172	37	70	18	70
31	186	------	650	163	------	178	------	152	------	66	16	------
TOTAL	3,145	7,720	7,782	8,023	9,500	11,497	7,861	21,076	1,822	722.3	1,293	1,407
MEAN	101	257	251	259	339	371	262	680	60.7	23.3	41.7	46.9
MAX	206	410	650	596	840	856	520	2,170	137	70	71	114
MIN	49	153	135	163	168	173	127	113	34	9.3	16	14
AC-FT	6,240	15,310	15,440	15,910	18,840	22,800	15,590	41,800	3,610	1,430	2,560	2,790

CAL YR 1970 TOTAL 229,583.0 MEAN 629 MAX 3,060 MIN 36 AC-FT 455,400
WTR YR 1971 TOTAL 81,848.3 MEAN 224 MAX 2,170 MIN 9.3 AC-FT 162,300

08037050 Bayou LaNana at Nacogdoches, Tex.

LOCATION.--Lat 31°36'58", long 94°38'28", Nacogdoches County, on right bank at downstream side of bridge on Farm Road 1878 in Nacogdoches and 14.5 miles above mouth.

DRAINAGE AREA.--31.3 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 264.23 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 23.4 cfs (10.15 inches per year, 16,950 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 152 cfs Sept. 22 (gage height, 8.39 ft); no flow on many days.
Period of record: Maximum discharge, 2,870 cfs May 7, 1969 (gage height, 17.29 ft); no flow at times.
Maximum stage since at least 1956, 19.6 ft in April 1957, from information furnished by Texas Highway Department and local resident.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.34	.61	2.8	1.0	4.9	1.1	.06	1.3	.08	.24	.08
2	.04	.88	.61	2.8	1.0	4.4	1.1	.04	.46	6.1	.10	.06
3	.13	.46	.61	3.2	1.0	3.7	.88	.04	.16	.69	.40	.04
4	.02	.34	.53	2.8	1.0	3.0	.88	.04	.10	.16	1.1	.02
5	.02	.34	.61	1.9	3.0	3.0	.78	.06	.08	.06	.46	0
6	.04	.29	.78	1.2	1.5	3.0	.78	.10	.06	.04	.16	0
7	.02	.20	.46	1.2	5.0	2.5	.69	1.5	.06	.04	.10	0
8	7.5	8.4	.46	1.8	2.0	2.1	.61	.24	.06	.04	.08	.01
9	.69	11	.53	1.6	1.7	5.0	.61	.08	.06	.04	9.9	.04
10	.13	1.8	.78	1.5	1.6	5.4	.61	28	.06	.06	1.8	.20
11	4.0	.98	.98	1.5	1.5	3.2	.61	76	.06	.04	.24	.40
12	8.4	.61	.98	1.5	8.4	3.0	.61	20	.08	.04	.16	.04
13	.69	6.5	.69	1.5	4.6	3.0	.53	8.6	.06	.04	.10	.02
14	.29	9.4	.98	1.2	2.5	2.6	.46	3.7	.06	.04	.08	0
15	.13	3.4	1.8	1.2	1.9	2.1	.46	2.1	.08	.04	.08	.01
16	.13	1.6	1.8	1.2	1.8	1.8	.40	1.2	.08	.02	.06	.04
17	.10	1.2	1.5	1.1	1.6	1.5	.98	.78	.06	.02	.04	.01
18	.06	.98	1.3	1.1	1.5	1.6	1.5	.53	.04	.01	.02	1.4
19	2.6	.98	1.2	1.1	13	1.8	1.2	.40	.04	.01	.02	.53
20	.46	.78	2.8	1.1	11	1.5	1.1	11	.13	.01	.02	.10
21	.34	.69	1.8	1.1	7.2	1.5	1.2	2.8	.10	.01	.01	.04
22	.34	.61	1.6	1.1	5.1	1.6	.78	1.1	2.1	.02	0	11
23	28	.61	1.8	2.0	3.7	1.5	.53	.78	.16	.01	0	11
24	8.1	.53	1.3	1.5	2.8	1.3	.29	1.2	.06	.53	.04	.40
25	1.1	.40	.98	1.2	2.8	1.6	.16	.78	.04	.46	.02	.10
26	.53	.61	.78	1.1	24	1.6	.13	.46	.04	.20	.01	.06
27	9.7	.69	.78	1.0	11	1.5	.10	.34	.04	16	0	.02
28	20	.61	.78	1.0	6.3	1.6	.10	.24	.06	12	0	.02
29	2.5	.46	.78	1.0	------	1.8	.08	.20	1.5	1.1	.20	.01
30	.78	.53	9.4	1.0	------	1.3	.08	.20	.34	2.5	.40	0
31	.40	------	5.1	1.0	------	1.2	------	.16	------	1.6	.34	------
TOTAL	97.26	56.22	45.11	46.3	129.5	75.6	19.34	162.73	7.53	42.01	16.18	25.65
MEAN	3.14	1.87	1.46	1.49	4.62	2.44	.64	5.25	.25	1.36	.52	.86
MAX	28	11	9.4	3.2	24	5.4	1.5	76	2.1	16	9.9	11
MIN	.02	.20	.46	1.0	1.0	1.2	.08	.04	.04	.01	0	0
CFSM	.10	.06	.05	.05	.15	.08	.02	.17	.007	.04	.02	.03
IN.	.12	.07	.05	.06	.15	.09	.02	.19	.008	.05	.02	.03
AC-FT	193	112	89	92	257	150	38	323	15	83	32	51

CAL YR 1970 TOTAL 3,145.01 MEAN 8.62 MAX 204 MIN 0 CFSM .28 IN 3.74 AC-FT 6,240
WTR YR 1971 TOTAL 723.43 MEAN 1.98 MAX 76 MIN 0 CFSM .06 IN .86 AC-FT 1,430

PEAK DISCHARGE (BASE, 1,100 CFS).--No peak above base.

08038000 Attoyac Bayou near Chireno, Tex.

LOCATION.--Lat 31°30'15", long 94°18'15", Nacogdoches-San Augustine County line, on right bank on downstream side of pier of bridge on State Highway 21, 2.2 miles upstream from Amaladeros Creek, 2.8 miles east of Chireno, 5.4 miles downstream from Arenoso Creek, and 41 miles upstream from mouth.

DRAINAGE AREA.--503 sq mi.

PERIOD OF RECORD.--January 1924 to September 1925, July 1939 to November 1954, and October 1955 to current year. Monthly discharge only for some periods, published in WSP 1312 and 1732.

GAGE.--Water-stage recorder. Datum of gage is 169.58 ft above mean sea level. Jan. 24, 1924, to Aug. 29, 1925, and Sept. 6, 1957, to Oct. 27, 1958, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 436 cfs (11.77 inches per year, 315,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 719 cfs May 18 (gage height, 11.21 ft); minimum, 5.2 cfs July 20, 22.
Period of record: Maximum discharge, 31,900 cfs Nov. 24, 1940 (gage height, 25.97 ft); minimum, 0.8 cfs Aug. 26, 27, 1956.
Maximum stage since at least 1865, 29.9 ft June 29, 1902, from information by local residents. Flood in July 1933 reached a stage of 25.2 ft, from information by local residents.

REMARKS.--Records good. At end of year, flow from 8.60 sq mi above this station was partly controlled by two floodwater-retarding structures with a total combined capacity of 3,480 acre-ft below the flood-spillway crests, of which 3,350 acre-ft is floodwater-retarding capacity and 138 acre-ft is sediment-pool capacity. These structures were built during the current year. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	361	62	176	68	272	140	37	36	39	243	16
2	27	232	63	151	66	216	123	35	36	30	208	19
3	24	126	64	137	64	162	95	33	35	38	212	17
4	22	95	64	126	66	134	80	31	32	69	187	15
5	20	80	62	113	80	123	71	30	30	130	130	13
6	19	68	61	104	110	110	66	28	29	71	111	16
7	18	63	60	92	98	107	60	30	27	43	173	25
8	20	60	58	90	98	98	56	34	24	31	114	19
9	27	60	56	90	95	92	56	38	22	22	76	15
10	48	71	56	92	90	101	54	42	21	17	56	14
11	47	113	56	101	84	98	54	114	19	14	68	15
12	92	107	56	101	87	95	52	351	18	15	51	22
13	179	87	58	95	98	113	52	492	17	14	37	25
14	126	126	57	92	140	126	51	534	17	11	33	19
15	104	193	56	90	158	110	50	567	15	9.4	29	16
16	90	240	56	87	130	98	49	626	15	8.3	27	15
17	64	240	66	82	113	90	48	690	16	7.5	23	16
18	48	193	67	80	98	82	50	685	19	6.7	21	16
19	43	134	70	77	98	82	53	370	21	6.2	22	17
20	50	101	80	74	130	84	56	146	22	5.5	23	21
21	64	84	84	72	176	80	107	132	27	5.6	27	27
22	54	77	84	72	248	77	137	128	39	5.5	22	25
23	57	70	87	74	256	74	93	94	30	8.0	25	29
24	104	66	92	77	216	72	76	83	39	7.6	32	26
25	162	60	101	77	172	70	69	72	30	9.6	17	27
26	168	58	87	77	154	70	57	62	27	11	17	39
27	148	58	74	74	179	72	49	54	22	14	38	37
28	162	59	68	71	248	71	45	50	27	23	32	29
29	232	60	66	69	------	72	41	48	31	106	24	23
30	361	61	72	68	------	107	38	44	40	184	17	20
31	390	------	141	69	------	144	------	39	------	178	17	------
TOTAL	3,002	3,403	2,184	2,850	3,620	3,302	2,028	5,719	783	1,139.9	2,112	633
MEAN	96.8	113	70.5	91.9	129	107	67.6	184	26.1	36.8	68.1	21.1
MAX	390	361	141	176	256	272	140	690	40	184	243	39
MIN	18	58	56	68	64	70	38	28	15	5.5	17	13
CFSM	.19	.22	.14	.18	.26	.21	.13	.37	.05	.07	.14	.04
IN.	.22	.25	.16	.21	.27	.24	.15	.42	.06	.08	.16	.05
AC-FT	5,950	6,750	4,330	5,650	7,180	6,550	4,020	11,340	1,550	2,260	4,190	1,260

CAL YR 1970 TOTAL 61,953.0 MEAN 170 MAX 1,350 MIN 11 CFSM .34 IN 4.58 AC-FT 122,900
WTR YR 1971 TOTAL 30,775.9 MEAN 84.3 MAX 690 MIN 5.5 CFSM .17 IN 2.28 AC-FT 61,040

PEAK DISCHARGE (BASE, 2,500 CFS).--No peak above base.

08039100 Ayish Bayou near San Augustine, Tex.

LOCATION.--Lat 31°23'46", long 94°09'03", San Augustine County, near center of span at downstream side of pier of bridge on State Highway 103, 3.0 miles upstream from Turkey Creek, and 9.5 miles south of San Augustine.

DRAINAGE AREA.--89.0 sq mi.

PERIOD OF RECORD.--February 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 190.22 ft above mean sea level. Prior to June 2, 1959, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 65.9 cfs (10.06 inches per year, 47,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 225 cfs Aug. 6 (gage height, 6.97 ft); minimum, 0.10 cfs July 27.
Period of record: Maximum discharge, 13,200 cfs Apr. 9, 1968 (gage height, 16.82 ft); no flow at times.
Maximum discharge since October 1957, 15,900 cfs Sept. 21 or 22, 1958 (gage height, 17.5 ft, from floodmarks).

REMARKS.--Records good. No known diversion above station. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WRD Texas 1967: 1966(M). WSP 1922: 1959(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.4	5.1	30	3.3	18	8.2	1.9	2.3	1.9	18	9.3
2	1.3	3.6	4.7	18	3.0	16	6.6	1.7	2.0	2.1	9.5	10
3	.95	3.0	5.2	11	2.7	14	6.2	1.7	1.8	4.7	3.2	11
4	.82	2.7	5.1	8.1	2.7	13	5.8	1.6	1.7	3.7	3.9	10
5	1.2	2.8	5.0	6.7	2.9	12	5.3	1.6	1.7	3.7	3.6	8.7
6	1.4	2.6	4.8	6.0	6.6	11	4.8	1.5	1.5	3.0	99	6.6
7	1.3	2.7	4.7	5.2	7.6	10	4.5	1.8	1.3	1.7	69	4.8
8	1.2	2.9	4.4	5.0	5.6	9.4	4.4	1.9	1.1	1.1	20	3.7
9	1.4	4.6	4.3	5.0	4.6	8.7	4.2	2.6	.94	.79	9.7	2.6
10	1.3	4.0	4.3	6.4	3.5	14	4.2	2.8	.80	.64	6.2	2.0
11	1.9	4.6	4.2	7.6	3.1	19	4.2	12	.74	.36	4.5	1.8
12	7.0	4.2	4.2	8.0	11	15	4.2	49	.63	.28	3.9	1.6
13	18	6.1	5.0	7.3	9.4	13	3.9	48	.56	.30	3.2	1.9
14	19	11	5.1	6.2	11	12	3.8	25	.50	.33	2.7	2.9
15	8.1	24	4.8	5.7	8.7	11	3.6	14	.39	.28	2.3	2.7
16	4.4	18	4.6	5.1	6.7	9.8	3.3	9.5	.38	.28	1.9	2.3
17	3.1	10	4.4	4.5	5.6	8.4	3.8	6.8	.38	.25	1.6	1.9
18	2.4	6.6	5.0	4.2	5.2	8.4	4.2	5.2	.34	.23	1.5	1.4
19	2.6	5.3	5.2	4.0	5.1	9.1	5.3	4.5	.33	.22	1.3	2.0
20	2.6	4.6	5.0	3.8	11	10	5.3	4.8	.75	.20	1.2	2.5
21	5.2	4.2	4.8	3.6	23	10	4.6	5.6	.95	.19	1.1	3.9
22	6.0	4.1	5.2	3.6	15	9.1	4.4	8.1	.98	.18	.97	6.2
23	11	3.9	5.4	4.9	11	8.6	4.0	7.1	.78	.18	.92	5.2
24	12	3.2	5.0	6.2	8.6	8.0	3.3	5.3	.85	.15	3.9	3.7
25	20	3.1	4.7	5.7	7.0	7.5	2.8	4.4	1.7	.14	4.4	2.9
26	13	3.3	4.4	5.1	39	7.3	2.3	4.0	1.6	.14	2.2	2.5
27	7.2	3.5	4.0	4.4	47	7.3	2.2	4.0	1.2	.10	1.6	2.3
28	8.3	3.6	3.8	3.6	27	7.5	2.1	3.4	.89	.88	1.1	2.2
29	8.5	4.0	3.9	3.3	------	7.5	2.1	3.0	.67	10	.77	2.0
30	8.6	4.5	7.4	3.2	------	7.7	2.1	2.7	.66	42	.62	1.9
31	6.0	------	25	3.3	------	9.3	------	2.5	------	72	4.7	------
TOTAL	187.47	165.1	168.7	204.7	296.9	331.6	125.7	248.0	30.42	152.02	288.48	122.5
MEAN	6.05	5.50	5.44	6.60	10.6	10.7	4.19	8.00	1.01	4.90	9.31	4.08
MAX	20	24	25	30	47	19	8.2	49	2.3	72	99	11
MIN	.82	2.6	3.8	3.2	2.7	7.3	2.1	1.5	.33	.10	.62	1.4
CFSM	.07	.06	.06	.07	.12	.12	.05	.09	.01	.06	.10	.05
IN.	.08	.07	.07	.09	.12	.14	.05	.10	.01	.06	.12	.05
AC-FT	372	327	335	406	589	658	249	492	60	302	572	243

CAL YR 1970 TOTAL 10,205.30 MEAN 28.0 MAX 1,100 MIN .02 CFSM .31 IN 4.27 AC-FT 20,240
WTR YR 1971 TOTAL 2,321.59 MEAN 6.36 MAX 99 MIN .10 CFSM .07 IN .97 AC-FT 4,600

PEAK DISCHARGE (BASE, 1,200 CFS).--No peak above base.

08039300 Sam Rayburn Reservoir near Jasper, Tex.

LOCATION.--Lat 31°03'38", long 94°06'21", Jasper County, in the powerhouse-intake structure of Sam Rayburn Dam on the Angelina River, 10 miles northwest of Jasper, and 25.2 miles upstream from mouth.

DRAINAGE AREA.--3,449 sq mi.

PERIOD OF RECORD.--January 1965 to current year.

GAGE.--Stevens type AP recording transmitter. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Apr. 20, 1965, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 2,511,000 acre-ft Mar. 19-21 (elevation, 160.87 ft); minimum, 2,194,000 acre-ft Sept. 17 (elevation, 157.72 ft).
Period of record: Maximum contents, 3,574,000 acre-ft May 17, 1969 (elevation, 169.91 ft); minimum since conservation storage was reached in 1968, 2,194,000 acre-ft Sept. 17, 1971 (elevation, 157.72 ft).

REMARKS.--Reservoir is formed by a rolled earthfill dam, 19,430 ft long including spillway and dikes. Closure of embankment section started on Jan. 15, 1965. Deliberate impoundment began on Mar. 29, 1965. Reservoir is operated for flood control and power generation. Flood-control outlet works consist of two 10- by 20-foot rectangular concrete lined conduits controlled by two 10- by 20-foot tractor type service gates and one 10- by 20-foot tractor type emergency gate. Water for turbines is admitted through four 18- by 26-foot penstocks and controlled by two wheeled-leaf type headgates. The emergency spillway is an uncontrolled broad-crested weir 2,200 ft wide on right bank 7,000 ft to right of outlet works designed to discharge 125,300 cfs at maximum design water level of 183.0 ft. Surface area and capacity tables are based on topographic maps and detailed sedimentation ranges established in 1961. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	190.0	-
Maximum design water surface	183.0	5,610,000
Crest of emergency spillway	176.0	4,442.400
Top of flood-control pool	173.0	3,997,600
Top of power designated power pool (top of conservation storage)	164.0	2,852,600
Top of power head and sediment pool	149.0	1,452,000
Invert of flood-control outlet works	105.0	21,940

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

157.0	2,125,000	159.0	2,319,000
158.0	2,221,000	160.0	2,421,000
		161.0	2,524,000

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,438	2,462	2,456	2,464	2,461	2,493	2,480	2,408	2,425	2,340	2,270	2,227
2	2,434	2,462	2,456	2,462	2,460	2,494	2,477	2,407	2,419	2,338	2,277	2,224
3	2,432	2,455	2,456	2,467	2,459	2,495	2,477	2,402	2,412	2,336	2,281	2,222
4	2,428	2,453	2,459	2,473	2,460	2,496	2,477	2,398	2,403	2,334	2,284	2,222
5	2,427	2,451	2,460	2,469	2,463	2,497	2,474	2,394	2,397	2,332	2,288	2,222
6	2,425	2,449	2,459	2,462	2,465	2,499	2,470	2,394	2,395	2,328	2,286	2,219
7	2,419	2,448	2,458	2,461	2,465	2,500	2,467	2,389	2,391	2,324	2,285	2,219
8	2,413	2,451	2,456	2,459	2,464	2,501	2,464	2,382	2,387	2,320	2,284	2,214
9	2,413	2,459	2,457	2,459	2,464	2,505	2,461	2,381	2,383	2,315	2,283	2,211
10	2,413	2,459	2,457	2,459	2,461	2,506	2,461	2,383	2,380	2,313	2,282	2,210
11	2,439	2,459	2,459	2,460	2,461	2,507	2,461	2,393	2,378	2,311	2,281	2,207
12	2,451	2,459	2,459	2,461	2,461	2,507	2,458	2,396	2,376	2,307	2,280	2,206
13	2,451	2,462	2,459	2,461	2,462	2,507	2,455	2,396	2,368	2,304	2,278	2,203
14	2,450	2,462	2,459	2,461	2,462	2,506	2,452	2,396	2,362	2,300	2,277	2,198
15	2,450	2,461	2,457	2,462	2,462	2,506	2,448	2,396	2,365	2,296	2,277	2,198
16	2,443	2,461	2,457	2,463	2,462	2,506	2,442	2,398	2,364	2,293	2,272	2,197
17	2,440	2,461	2,457	2,464	2,462	2,505	2,442	2,399	2,360	2,291	2,269	2,194
18	2,440	2,461	2,457	2,463	2,462	2,510	2,442	2,400	2,359	2,288	2,265	2,196
19	2,445	2,460	2,458	2,460	2,470	2,511	2,438	2,404	2,359	2,283	2,260	2,202
20	2,443	2,459	2,459	2,458	2,474	2,511	2,435	2,409	2,359	2,281	2,257	2,203
21	2,440	2,459	2,457	2,456	2,475	2,511	2,431	2,409	2,360	2,279	2,256	2,203
22	2,439	2,459	2,457	2,456	2,475	2,507	2,428	2,409	2,361	2,276	2,250	2,203
23	2,458	2,459	2,456	2,459	2,475	2,503	2,424	2,416	2,360	2,272	2,247	2,202
24	2,456	2,458	2,455	2,461	2,474	2,500	2,423	2,428	2,357	2,271	2,249	2,201
25	2,456	2,453	2,460	2,462	2,475	2,497	2,422	2,429	2,352	2,271	2,248	2,200
26	2,456	2,453	2,455	2,462	2,490	2,494	2,419	2,429	2,352	2,268	2,244	2,200
27	2,460	2,456	2,455	2,461	2,490	2,494	2,415	2,430	2,350	2,266	2,240	2,200
28	2,462	2,456	2,458	2,461	2,491	2,494	2,412	2,428	2,351	2,270	2,237	2,201
29	2,462	2,456	2,460	2,461	------	2,490	2,409	2,428	2,348	2,273	2,236	2,197
30	2,462	2,456	2,473	2,462	------	2,486	2,405	2,427	2,343	2,274	2,233	2,195
31	2,462	------	2,464	2,462	------	2,482	------	2,426	------	2,271	2,230	------
(†)	160.40	160.34	160.42	160.40	160.68	160.59	159.85	160.05	159.23	158.51	158.09	157.73
(*)	+23.0	-6.0	+8.0	-2.0	+29.0	-9.0	-77.0	+21.0	-83.0	-72.0	-41.0	-35.0
MAX	2,462	2,462	2,473	2,473	2,491	2,511	2,480	2,430	2,425	2,340	2,288	2,227
MIN	2,413	2,448	2,455	2,456	2,459	2,482	2,405	2,381	2,343	2,266	2,230	2,194

CAL YR 1970..... * +91.0 MAX 2,769 MIN 2,372
WTR YR 1971..... * -244.0 MAX 2,511 MIN 2,194

† Elevation, in feet, at end of month.
* Change in contents, in thousands of acre-feet.

08039500 Angelina River at Horger, Tex.

LOCATION.--Lat 31°02'08", long 94°07'48", Jasper County, on right bank 0.4 mile downstream from Jordans Creek, 4 miles northeast of the abandoned town of Horger, and 7.6 miles downstream from Sam Rayburn Dam.

DRAINAGE AREA.--3,486 sq mi (3,449 sq mi at Sam Rayburn Dam).

PERIOD OF RECORD.--March 1928 to April 1951, February 1958 to current year (1958-65 medium- and high-water records only).

GAGE.--Water-stage recorder. Auxiliary water-stage recorder 3.2 miles downstream. Datum of gage is 68.54 ft above mean sea level. Mar. 7, 1928, to Apr. 16, 1951, nonrecording gage and Feb. 19, 1958, to July 13, 1962, water-stage recorder 4.8 miles downstream at same datum. Water-stage recorder for B. A. Steinhagen Lake (station 08040000) used as auxiliary gage for this station Feb. 19, 1958, to July 13, 1962. July 14, 1962, to Oct. 16, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--6 years (1965-71) 1,304 cfs (944,700 acre-ft per year); after completion of Sam Rayburn Reservoir; 22 years (1928-50), 3,280 cfs (2,375,000 acre-ft per year); prior to completion of Sam Rayburn Reservoir.

EXTREMES.--Current year: Maximum discharge, 7,500 cfs June 4 (gage height, 19.93 ft); no flow at times
Period of record: Maximum discharge, 49,900 cfs May 6, 1944 (gage height, 36.90 ft); minimum observed prior to closure of Sam Rayburn Dam, 13 cfs Sept. 22, 1937; no release at times.
Maximum stage since 1885, 39.5 ft (at site 4.8 miles downstream) in August 1915 (discharge, 82,000 cfs, from rating curve extended above 50,000 cfs), from information by local residents. Floods in 1884 and 1885 probably were higher, from information by local residents.

REMARKS.--Discharges since March 1965 are releases from Sam Rayburn Reservoir. Local runoff between the dam and this gage is not included in these records. Recording rain gage located at auxiliary gage.

COOPERATION.--Records of releases furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS (WATER YEAR).--WSP 928: 1932 (yearly runoff only, in acre-ft). WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	277	0	1,580	0	0	892	0	875
2	1,460	0	15	0	0	0	1,580	0	2,160	888	875	875
3	1,370	3,600	55	0	0	0	0	1,580	3,000	0	0	875
4	0	0	0	0	0	0	0	1,580	4,030	0	88	0
5	0	0	0	2,320	0	0	1,560	1,610	2,100	0	0	0
6	0	0	0	3,770	0	0	1,580	1,580	0	938	855	0
7	3,580	0	0	258	0	0	1,660	2,280	1,050	1,020	0	875
8	1,280	0	0	0	0	0	1,400	3,100	1,080	938	0	875
9	0	0	0	5.0	0	0	1,580	192	1,260	1,600	5.0	875
10	0	0	0	0	0	0	0	1,580	1,050	0	5.0	875
11	0	0	0	0	5.0	0	0	1,350	1,010	0	0	1,450
12	510	0	0	0	0	0	1,420	0	0	917	0	0
13	189	1,250	0	0	0	0	1,380	0	2,860	958	5.0	875
14	0	160	0	0	0	0	1,540	0	2,040	1,910	0	1,350
15	0	0	686	0	0	0	1,580	0	0	798	0	379
16	1,480	398	0	0	0	0	1,580	0	0	646	813	0
17	0	0	0	0	0	0	0	0	1,260	0	1,030	0
18	0	0	0	0	0	0	0	0	0	0	1,010	0
19	129	571	0	1,190	0	0	1,610	933	0	992	1,050	0
20	359	0	0	942	0	0	1,580	525	0	917	1,060	0
21	994	0	1,690	975	0	0	1,580	238	0	913	0	0
22	0	0	280	0	0	1,480	1,580	0	0	919	1,980	5.0
23	5.0	0	0	0	5.0	1,710	1,580	0	0	985	1,020	0
24	0	0	0	0	0	1,580	0	0	883	0	1,010	0
25	0	0	0	0	0	1,580	0	0	367	0	938	0
26	367	0	0	0	0	1,580	1,610	0	0	942	1,020	0
27	0	3.0	0	0	0	0	1,610	0	0	950	1,050	0
28	0	0	5.0	5.0	0	0	1,830	983	0	958	0	0
29	10	0	208	0	------	1,580	1,430	0	1,200	910	0	1,130
30	0	0	2,340	0	------	1,580	1,580	0	2,130	896	1,050	0
31	0	------	367	0	------	1,580	------	0	------	0	1,050	------
TOTAL	11,733.0	5,982.0	5,646.0	9,465.0	287.0	12,670	34,430	17,531	27,480	20,887	15,914.0	11,314.0
MEAN	378	199	182	305	10.2	409	1,148	566	916	674	513	377
MAX	3,580	3,600	2,340	3,770	277	1,710	1,830	3,100	4,030	1,910	1,980	1,450
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	23,270	11,870	11,200	18,770	569	25,130	68,290	34,770	54,510	41,430	31,570	22,440

CAL YR 1970 TOTAL 287,259.00 MEAN 787 MAX 6,270 MIN 0 AC-FT 569,800
WTR YR 1971 TOTAL 173,339.00 MEAN 475 MAX 4,030 MIN 0 AC-FT 343,800

08040000 B. A. Steinhagen Lake at Town Bluff, Tex.

LOCATION.--Lat 30°47'43", long 94°10'48", Tyler County, near right bank 70 ft upstream from outlet structure of Town Bluff Dam on Neches River, 0.4 mile north of Town Bluff, and at mile 113.7 (revised).

DRAINAGE AREA.--7,573 sq mi.

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1967, published as Dam B Reservoir at Town Bluff.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 25, 1954, at site 490 ft upstream at same datum.

EXTREMES.--Current year: Maximum contents, 93,980 acre-ft Nov. 14 (elevation, 82.98 ft); minimum, 27,400 acre-ft July 19 (elevation, 75.90 ft).
Period of record: Maximum contents, 128,400 acre-ft May 22, 1953 (elevation, 85.21 ft); no storage Sept. 18 to Oct. 13, 1954.

REMARKS.--Lake is formed by earthfill dam with a concrete section. Total length of dam, 6,698 ft including concrete spillway and nonoverflow section. There is a 6,100-foot uncontrolled emergency spillway on left bank with crest at elevation 85.0 ft. There is also a 326-foot gated spillway with six 40- by 35-foot tainter gates with sill at elevation 50.0 ft. Capacity of service spillway, 80,000 cfs with pool level at 85.0 ft. Total spillway capacity, 218,300 cfs at elevation 93.0 ft, maximum design level. Capacity curve based on survey made in 1945. Dam completed in June 1951, and deliberate impoundment of water began Apr. 16, 1951. Water used for industrial, municipal, and irrigation supplies. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Maximum design level	93.0	-
Uncontrolled spillway and top of tainter gates	85.0	124,700
Normal operating level (top of conservation storage)	83.0	94,200
Invert of sluice intake	52.0	20
Sill, six tainter gates	50.0	0

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WSP 1732: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

74.0	17,510	80.0	59,320
76.0	27,960	82.0	81,280
78.0	41,830	84.0	108,700

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57,660	79,650	85,820	76,980	77,210	52,400	51,940	57,110	69,910	56,740	33,880	60,150
2	58,310	79,070	85,430	76,400	76,050	53,230	52,030	54,250	70,020	56,460	37,480	60,980
3	61,400	85,690	85,430	77,220	74,430	53,410	50,270	53,880	72,460	53,230	38,880	62,020
4	59,950	86,980	84,780	77,220	74,890	53,690	47,280	54,520	77,210	50,090	39,620	60,980
5	59,050	86,600	84,260	80,460	73,270	53,600	47,030	55,720	80,810	46,040	40,500	60,050
6	58,120	87,370	82,960	86,470	72,230	54,340	47,200	59,050	79,770	44,390	43,070	59,050
7	62,950	88,540	82,180	88,150	71,410	54,340	47,280	62,530	79,300	43,650	43,810	60,150
8	66,670	89,710	81,280	87,240	69,570	54,250	47,280	69,670	78,610	42,240	44,390	61,290
9	65,540	92,040	80,700	86,980	68,230	54,430	47,860	71,180	77,680	42,080	45,130	63,050
10	64,400	93,080	80,120	86,600	66,880	54,430	45,960	73,150	76,980	39,470	45,710	64,500
11	65,540	93,600	80,000	86,210	65,950	53,970	43,400	78,490	76,050	35,860	46,120	66,780
12	68,640	93,470	78,720	85,690	65,530	52,950	43,320	80,460	72,810	34,760	46,210	66,360
13	70,260	93,860	77,450	84,910	63,570	52,310	43,730	80,690	74,890	34,460	45,960	67,400
14	71,530	89,060	76,640	84,520	61,910	51,750	44,310	80,000	76,290	34,980	45,300	69,260
15	73,040	85,690	77,100	83,870	60,880	51,010	45,380	79,530	73,620	35,940	44,560	69,670
16	76,640	86,210	76,170	82,830	59,640	49,350	45,790	78,720	70,250	34,610	44,890	70,020
17	76,980	86,850	75,010	82,440	58,220	48,910	45,050	78,260	69,260	32,320	46,460	69,360
18	76,870	87,110	74,080	81,920	56,090	49,260	43,070	78,840	67,290	29,520	47,530	69,910
19	78,030	88,800	73,270	81,280	55,820	47,280	44,640	82,570	65,530	28,870	48,270	70,140
20	78,490	88,540	72,690	83,610	54,610	45,880	46,700	84,520	63,980	29,590	49,020	69,670
21	80,120	88,020	75,480	85,300	53,510	44,310	48,770	84,260	63,770	29,070	47,940	70,020
22	80,000	87,500	75,480	84,780	51,750	44,470	51,470	82,440	63,260	29,590	49,430	69,670
23	83,220	86,980	75,480	84,000	51,010	46,790	55,170	79,880	62,740	31,080	52,400	69,470
24	85,170	86,720	73,620	83,220	49,840	47,690	54,980	78,840	62,950	30,430	53,880	69,360
25	86,980	86,470	73,160	82,700	49,260	49,680	54,250	77,100	61,810	29,460	55,350	69,260
26	89,450	86,470	71,760	81,790	51,750	51,290	56,180	75,590	59,430	29,200	56,460	68,950
27	91,140	86,470	70,720	80,580	51,840	49,430	58,120	74,890	57,480	29,520	57,850	68,850
28	85,690	86,210	70,260	80,000	52,030	47,610	58,590	75,940	55,630	30,630	57,480	68,740
29	82,830	86,080	70,600	79,070	------	48,850	59,320	75,470	55,910	32,120	56,550	71,180
30	81,920	85,690	74,900	78,380	------	50,460	59,320	73,970	57,110	33,810	57,750	72,230
31	80,700	------	77,100	77,800	------	51,470	------	72,340	------	33,880	59,320	------
(†)	81.95	82.34	81.64	81.70	79.21	79.15	80.00	81.23	79.76	76.91	80.00	81.22
(‡)	+21,740	+4,990	-8,590	+700	-25,770	-560	+7,850	+13,020	-15,230	-23,230	+25,440	+12,910
MAX	91,140	93,860	85,820	88,150	77,210	54,430	59,320	84,520	80,810	56,740	59,320	72,230
MIN	57,660	79,070	70,260	76,400	49,260	44,310	43,070	53,880	55,630	28,870	33,880	59,050

CAL YR 1970..... ‡ -6,640 MAX 102,800 MIN 36,450
WTR YR 1971..... ‡ +13,270 MAX 93,860 MIN 28,870

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08040500 Neches River at Town Bluff, Tex.

LOCATION.--Lat 30°47'36", long 94°10'28", Jasper-Tyler County line, on left bank 0.3 mile downstream from Town Bluff Dam, 0.5 mile northeast of Town Bluff, 2.5 miles upstream from Walnut Run, 8 miles downstream from Wolf Creek, and at mile 113.4.

DRAINAGE AREA.--7,573 sq mi.

PERIOD OF RECORD.--March 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 21, 1953, water-stage recorder and May 21, 1953, to Dec. 3, 1954, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--20 years, 3,977 cfs (2,881,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,070 cfs Oct. 28 (elevation, 56.59 ft); minimum daily, 23 cfs Aug. 10.
Period of record: Maximum discharge, 90,900 cfs May 21, 22, 1953 (elevation, 82.85 ft); no flow at times due to regulation of B. A. Steinhagen Lake.
Flood of May 1884 (stage about 86.8 ft, discharge about 120,000 cfs) is the highest since at least that date, from information by Corps of Engineers.

REMARKS.--Records good. Flow regulated by B. A. Steinhagen Lake 0.3 mile upstream (see preceding page) and Sam Rayburn Reservoir (station 08039300) 37.9 miles upstream. Some diversions above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	692	1,530	1,290	973	891	875	1,810	1,640	1,310	1,480	122	615
2	691	1,100	1,290	987	895	858	1,780	1,630	1,650	1,270	150	585
3	691	391	1,290	974	893	927	1,790	1,560	1,720	1,470	162	541
4	693	380	1,280	955	928	878	1,770	1,470	1,500	1,800	157	539
5	693	310	1,280	965	1,090	841	1,750	1,270	1,250	1,790	109	535
6	694	59	1,270	972	1,100	813	1,770	995	1,250	1,680	40	532
7	709	49	1,100	982	1,080	810	1,830	704	1,250	1,560	34	475
8	734	46	962	983	1,070	856	1,840	387	1,460	1,560	34	397
9	717	59	955	987	1,070	917	1,750	387	1,670	1,550	32	332
10	710	205	955	979	1,080	908	1,530	556	1,670	1,560	23	165
11	718	743	951	982	1,080	1,010	1,460	606	1,670	1,550	24	358
12	550	833	956	978	1,060	1,100	1,470	231	1,670	1,350	72	360
13	249	1,830	959	974	1,090	1,090	1,470	316	1,660	1,130	252	358
14	118	4,790	957	967	1,100	1,090	1,470	727	1,540	1,130	456	360
15	105	3,390	959	958	1,090	1,070	1,470	826	1,460	1,130	484	291
16	92	1,080	949	963	1,080	1,070	1,550	1,030	1,630	1,130	483	240
17	86	996	957	955	1,080	1,070	1,390	1,030	1,380	1,130	484	88
18	83	977	954	948	1,080	1,080	1,090	804	1,460	1,120	597	375
19	185	978	944	949	1,070	1,180	1,080	580	1,200	1,060	727	386
20	432	1,110	953	963	1,070	1,400	939	581	978	868	741	250
21	345	1,330	953	959	1,060	1,350	731	1,070	777	868	686	119
22	344	1,320	953	956	969	1,430	798	1,840	476	869	618	171
23	360	1,320	953	954	862	1,630	793	2,150	393	738	519	170
24	360	1,330	951	951	858	1,670	798	1,830	736	572	422	171
25	360	1,330	943	922	853	1,620	801	1,490	1,060	558	423	171
26	360	1,320	950	899	907	1,490	799	1,230	1,060	771	424	171
27	1,310	1,320	949	899	1,080	1,470	1,200	852	1,060	992	424	141
28	4,380	1,310	941	900	929	1,460	1,980	805	1,050	808	430	72
29	3,240	1,310	935	895	------	1,450	1,780	676	1,050	614	429	172
30	1,790	1,300	952	892	------	1,500	1,610	818	1,380	533	423	239
31	1,550	------	970	890	------	1,590	------	1,010	------	270	508	------
TOTAL	24,041	34,046	31,661	29,511	28,415	36,503	42,299	31,101	38,420	34,911	10,489	9,379
MEAN	776	1,135	1,021	952	1,015	1,178	1,410	1,003	1,281	1,126	338	313
MAX	4,380	4,790	1,290	987	1,100	1,670	1,980	2,150	1,720	1,800	741	615
MIN	83	46	935	890	853	810	731	231	393	270	23	72
AC-FT	47,690	67,530	62,800	58,540	56,360	72,400	83,900	61,690	76,210	69,250	20,800	18,600

CAL YR 1970 TOTAL 755,190 MEAN 2,069 MAX 10,900 MIN 46 AC-FT 1,498,000
WTR YR 1971 TOTAL 350,776 MEAN 961 MAX 4,790 MIN 23 AC-FT 695,800

08041000 Neches River at Evadale, Tex.

LOCATION.--Lat 30°21'22", long 94°05'36", Jasper-Hardin County line, near center of channel on downstream side of pier of bridge on U.S. Highway 96 at Evadale, 0.8 mile upstream from Mill Creek, 16 miles upstream from Village Creek, and at mile 55.6.

DRAINAGE AREA.--7,951 sq mi.

PERIOD OF RECORD.--July 1904 to December 1906, April 1921 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 8.25 ft above mean sea level. July 1, 1904, to Dec. 31, 1906, nonrecording gage on Gulf, Colorado, and Santa Fe Railway Co. bridge at site 1.2 miles downstream at datum 5.50 ft lower; Apr. 1, 1921, to Dec. 7, 1948, nonrecording gages at site 1.2 miles downstream at present datum; Dec. 8, 1948, to Nov. 8, 1963, water-stage recorder at site 1.2 miles downstream at present datum.

AVERAGE DISCHARGE.--52 years, 5,932 cfs (4,298,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,890 cfs Oct. 30 (gage height, 11.72 ft); minimum daily, 82 cfs Aug. 14.
Period of record: Maximum discharge, 92,100 cfs May 11, 1944 (gage height, 23.58 ft, from floodmark, at site then in use); minimum daily, 63 cfs Nov. 26-28, 1956.
Flood in May 1884 (stage, 26.2 ft at former site, discharge, about 125,000 cfs) and flood in August 1915 (stage, 24.5 ft at former site, discharge, about 102,000 cfs) are the highest since at least 1884. Stages by Gulf, Colorado, and Santa Fe Railway Co.

REMARKS.--Records good. Flow regulated by B. A. Steinhagen Lake (station 08040000) 58.1 miles upstream (capacity, 124,700 acre-ft) and Sam Rayburn Reservoir (station 08039300) 95.7 miles upstream (capacity, 4,442,000 acre-ft). Some diversions upstream for municipal use. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 718: 1929. WSP 1342: 1905-7, 1924. WSP 1732: Drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	861	2,900	1,310	1,410	966	1,580	1,590	1,890	1,030	1,290	558	454
2	809	2,140	1,310	1,460	959	1,400	1,800	1,850	1,190	1,540	408	550
3	769	1,720	1,310	1,330	963	1,600	1,870	1,840	1,550	1,410	326	595
4	752	1,030	1,310	1,270	972	1,770	1,880	1,800	1,770	1,510	337	575
5	749	697	1,320	1,220	982	1,550	1,890	1,690	1,750	1,820	351	545
6	748	604	1,320	1,180	1,080	1,290	1,880	1,570	1,470	1,900	331	537
7	769	512	1,310	1,150	1,180	1,140	1,880	1,330	1,360	1,830	299	534
8	806	381	1,270	1,160	1,190	1,030	1,920	1,140	1,350	1,710	227	531
9	799	321	1,120	1,150	1,160	980	1,950	844	1,410	1,670	194	480
10	795	295	1,070	1,160	1,160	1,010	1,940	704	1,680	1,680	167	450
11	785	282	1,060	1,160	1,150	1,030	1,790	713	1,780	1,670	133	430
12	909	451	1,060	1,160	1,190	1,040	1,620	904	1,800	1,660	110	380
13	975	715	1,060	1,150	1,180	1,130	1,590	765	1,800	1,570	94	430
14	810	1,230	1,060	1,140	1,180	1,160	1,590	618	1,800	1,340	82	427
15	602	3,340	1,070	1,120	1,180	1,140	1,590	717	1,760	1,220	240	417
16	468	4,150	1,100	1,100	1,180	1,110	1,600	899	1,590	1,200	464	419
17	394	2,810	1,100	1,090	1,170	1,090	1,650	1,040	1,720	1,190	495	371
18	352	1,530	1,100	1,080	1,150	1,090	1,700	1,120	1,580	1,190	499	270
19	326	1,190	1,090	1,070	1,150	1,160	1,430	1,100	1,590	1,180	506	266
20	306	1,100	1,080	1,050	1,170	1,290	1,290	885	1,530	1,160	621	401
21	394	1,070	1,090	1,050	1,180	1,500	1,240	786	1,220	1,010	687	429
22	506	1,250	1,130	1,050	1,190	1,500	1,070	841	1,130	916	692	356
23	506	1,330	1,150	1,060	1,160	1,480	1,010	1,460	921	899	637	280
24	593	1,330	1,120	1,050	1,040	1,610	1,000	2,060	753	868	600	278
25	710	1,320	1,080	1,050	975	1,720	1,000	2,170	740	743	520	273
26	801	1,320	1,060	1,040	1,120	1,740	1,000	1,810	1,030	674	460	267
27	975	1,320	1,050	1,010	1,450	1,630	1,010	1,580	1,140	689	448	265
28	2,950	1,320	1,050	988	1,720	1,550	1,100	1,210	1,160	913	446	261
29	5,400	1,320	1,070	988	------	1,530	1,790	1,060	1,150	971	459	247
30	5,710	1,320	1,110	986	------	1,520	2,030	970	1,160	806	453	224
31	4,460	------	1,220	982	------	1,540	------	907	------	686	446	------
TOTAL	36,789	40,298	35,560	34,864	32,147	41,910	46,700	38,273	41,914	38,915	12,290	11,942
MEAN	1,187	1,343	1,147	1,125	1,148	1,352	1,557	1,235	1,397	1,255	396	398
MAX	5,710	4,150	1,320	1,460	1,720	1,770	2,030	2,170	1,800	1,900	692	595
MIN	306	282	1,050	982	959	980	1,000	618	740	674	82	224
AC-FT	72,970	79,930	70,530	69,150	63,760	83,130	92,630	75,910	83,140	77,190	24,380	23,690

CAL YR 1970 TOTAL 858,573 MEAN 2,352 MAX 11,700 MIN 37 AC-FT 1,703,000
WTR YR 1971 TOTAL 411,602 MEAN 1,128 MAX 5,710 MIN 82 AC-FT 816,400

08041500 Village Creek near Kountze, Tex.

LOCATION.--Lat 30°23'52", long 94°15'48", Hardin County, at downstream side of bridge on Farm Road 418, 1.6 miles upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.1 miles upstream from Cypress Creek, 3.4 miles northeast of Kountze, and 4.3 miles downstream from Beech Creek.

DRAINAGE AREA.--860 sq mi.

PERIOD OF RECORD.--May 1924 to September 1927, October 1927 to November 1929 (discharge measurements only), April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 25.12 ft above mean sea level. Prior to Apr. 30, 1939, nonrecording gage at site 1.6 miles downstream at different datum. Apr. 30, 1939, to Sept. 30, 1966, water-stage recorder at site 2,000 ft downstream at present datum.

AVERAGE DISCHARGE.--35 years, 744 cfs (11.75 inches per year, 539,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,520 cfs Oct. 29 (gage height, 12.75 ft); minimum, 18 cfs July 20.
Period of record: Maximum discharge, 67,200 cfs Nov. 26, 1940 (gage height, 27.6 ft, former site, from floodmark), from rating curve extended above 32,000 cfs; minimum not determined, probably occurred during period of no gage-height record Sept. 16 to Oct. 3, 1956; minimum daily, 16 cfs Oct. 1, 2, 1956.
Maximum stage since 1884, about 34 ft in August 1915 at site 2,000 ft downstream at present datum. Flood of May 27, 1929, reached a stage of about 32 ft at site 2,000 ft downstream at present datum. Above stages were determined on basis of information by engineers of Gulf, Colorado, and Santa Fe Railway Co. for site 1.6 miles downstream.

REMARKS.--Records good. Small diversions above station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	899	138	507	140	680	141	67	194	46	56	51
2	56	479	138	547	138	613	134	67	160	44	57	55
3	51	341	138	481	134	723	129	63	131	45	86	70
4	48	281	138	384	130	640	124	60	114	45	170	98
5	46	246	137	340	133	486	118	58	102	45	292	95
6	45	225	134	305	149	389	114	56	90	41	358	76
7	44	207	133	272	169	312	110	56	80	37	393	64
8	43	184	130	251	185	261	106	55	74	36	392	58
9	45	172	128	242	184	228	99	112	67	33	316	51
10	49	168	122	248	167	210	95	180	62	32	216	49
11	65	179	124	270	156	209	93	232	58	32	176	56
12	123	197	126	291	152	215	91	437	55	30	141	104
13	185	258	134	293	149	221	90	880	52	28	125	139
14	265	389	140	282	145	219	86	1,110	50	27	113	152
15	384	422	148	263	139	211	86	1,200	49	25	99	141
16	337	443	154	240	136	199	84	899	49	24	86	112
17	218	422	169	223	132	184	86	735	48	22	77	92
18	159	352	170	208	130	170	96	300	44	21	69	84
19	130	284	163	194	128	192	120	236	49	20	63	115
20	114	236	155	181	133	334	136	202	57	20	58	100
21	102	210	155	169	152	406	148	191	64	24	54	106
22	97	194	183	161	160	365	135	181	59	30	51	102
23	109	178	203	158	166	288	118	195	58	25	48	101
24	272	167	212	157	165	236	104	204	56	21	47	110
25	475	157	200	160	158	209	95	188	55	21	51	106
26	629	148	180	162	211	189	86	180	64	22	49	92
27	784	143	165	161	408	179	80	170	61	25	44	84
28	1,710	141	153	156	550	167	75	178	56	25	44	79
29	2,350	139	147	149	------	160	72	164	54	28	47	75
30	2,210	138	171	142	------	156	70	149	49	40	55	73
31	1,550	------	306	141	------	150	------	179	------	51	54	------
TOTAL	12,755	7,999	4,894	7,738	4,899	9,201	3,121	8,984	2,161	965	3,887	2,690
MEAN	411	267	158	250	175	297	104	290	72.0	31.1	125	89.7
MAX	2,350	899	306	547	550	723	148	1,200	194	51	393	152
MIN	43	138	122	141	128	150	70	55	44	20	44	49
CFSM	.48	.31	.18	.29	.20	.35	.12	.34	.08	.04	.15	.10
IN.	.55	.35	.21	.33	.21	.40	.14	.39	.09	.04	.17	.12
AC-FT	25,300	15,870	9,710	15,350	9,720	18,250	6,190	17,820	4,290	1,910	7,710	5,340

CAL YR 1970 TOTAL 122,009 MEAN 334 MAX 3,600 MIN 27 CFSM .39 IN 5.28 AC-FT 242,000
WTR YR 1971 TOTAL 69,294 MEAN 190 MAX 2,350 MIN 20 CFSM .22 IN 3.00 AC-FT 137,400

08041700 Pine Island Bayou near Sour Lake, Tex.

LOCATION.--Lat 30°06'21", long 94°20'04", Jefferson-Hardin County line, on right bank at downstream side of bridge on county road and 5.1 miles southeast of Sour Lake.

DRAINAGE AREA.--336 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,250 cfs Oct. 30 (elevation, 27.80 ft); minimum daily, 2.0 cfs Feb. 3.
Period of record: Maximum discharge, 4,250 cfs Oct. 30, 1970 (elevation, 27.80 ft); minimum daily, 0.58 cfs Nov. 8, 1967.
Maximum stage since at least 1917, about 31 ft in September 1963, from information by local residents.

REMARKS.--Records good. No known diversions. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	2,750	30	3.8	2.3	261	71	15	32	28	40	42
2	33	2,180	25	3.8	2.2	279	47	20	27	27	33	36
3	28	1,660	20	3.2	2.0	302	77	26	23	27	49	34
4	26	1,370	18	3.2	2.2	311	77	32	20	29	131	36
5	22	1,000	15	4.2	2.6	339	48	36	20	29	330	41
6	21	720	11	6.4	2.5	299	25	59	21	31	380	38
7	21	446	7.8	6.2	7.2	222	30	142	29	34	466	36
8	21	236	6.2	6.2	9.0	152	44	89	34	50	504	31
9	29	156	5.0	6.0	7.0	98	60	127	36	58	608	32
10	29	125	4.4	6.6	9.0	67	78	128	33	59	648	52
11	87	114	22	7.2	9.5	50	74	218	33	61	563	50
12	734	101	36	7.2	48	42	53	546	29	55	417	46
13	856	134	35	6.4	63	37	42	409	29	52	257	44
14	803	409	32	6.4	68	32	55	386	32	63	135	40
15	691	508	31	6.2	53	37	49	380	27	73	80	32
16	542	600	29	5.1	38	56	30	329	29	85	54	42
17	373	622	23	4.1	28	34	130	266	33	101	37	50
18	224	574	11	3.5	24	26	215	238	27	79	28	66
19	128	498	4.7	11	22	47	211	223	54	58	22	74
20	80	425	3.2	5.3	19	53	185	170	79	62	25	61
21	55	347	2.8	3.5	17	62	134	124	82	80	21	61
22	40	257	2.6	3.6	13	66	89	95	83	70	17	51
23	40	166	2.5	3.8	9.8	37	63	72	89	56	17	40
24	176	114	2.5	3.8	7.6	30	53	58	77	52	15	32
25	335	87	2.3	3.6	6.6	37	70	59	58	40	16	30
26	470	70	2.5	3.3	77	36	48	52	42	43	32	31
27	799	56	2.3	3.0	191	50	31	45	33	56	32	26
28	2,230	47	2.1	2.9	249	113	26	44	30	60	31	20
29	3,680	40	2.1	2.7	------	104	33	39	30	72	37	17
30	4,000	35	2.5	2.6	------	45	23	36	29	51	38	14
31	3,330	------	3.0	2.5	------	35	------	35	------	53	47	------
TOTAL	19,946	15,847	396.5	147.3	989.5	3,359	2,171	4,498	1,200	1,694	5,110	1,205
MEAN	643	528	12.8	4.75	35.3	108	72.4	145	40.0	54.6	165	40.2
MAX	4,000	2,750	36	11	249	339	215	546	89	101	648	74
MIN	21	35	2.1	2.5	2.0	26	23	15	20	27	15	14
CFSM	1.91	1.57	.04	.01	.11	.32	.22	.43	.12	.16	.49	.12
IN.	2.21	1.75	.04	.02	.11	.37	.24	.50	.13	.19	.57	.13
AC-FT	39,560	31,430	786	292	1,960	6,660	4,310	8,920	2,380	3,360	10,140	2,390

CAL YR 1970 TOTAL 79,779.9 MEAN 219 MAX 4,000 MIN 2.1 CFSM .65 IN 8.83 AC-FT 158,200
WTR YR 1971 TOTAL 56,563.3 MEAN 155 MAX 4,000 MIN 2.0 CFSM .46 IN 6.26 AC-FT 112,200

08042000 Taylor Bayou near LaBelle, Tex.

LOCATION.--Lat 29°52'30", long 94°09'34", Jefferson County, near center of stream at downstream side of bridge on county road, 0.7 mile south of LaBelle, 6.0 miles upstream from Hillebrandt Bayou, 7.2 miles upstream from State Highway 73, and 11.2 miles upstream from salt-water gates and barge locks. Distances are measured along rectified channel.

DRAINAGE AREA.--262 sq mi.

PERIOD OF RECORD.--April 1954 to current year (all discharges above 1,000 cfs and complete records for storms of 1 inch or more runoff, except for the period Sept. 10-22, 1961).

GAGE.--Water-stage recorder. Datum of gage is 4.63 ft below mean sea level (determined by several comparisons of water surface with auxiliary water-stage recorder 7.2 miles downstream during times of no flow and ideal weather conditions).

EXTREMES.--Current year: Maximum discharge, 5,420 cfs Oct. 13 (gage height, 8.93 ft); maximum gage height, 8.95 ft Oct. 13; minimum discharge not determined (affected by tides and pumping); minimum gage height, 4.12 ft Nov. 4.
Period of record: Maximum discharge, 9,590 cfs Sept. 22, 1963; maximum gage height, 11.78 ft Sept. 20, 1963 (backwater from Hillebrandt Bayou); minimum discharge not determined (affected by tides and pumping); minimum gage height, 2.31 ft July 17, 1954.
Maximum stage since at least 1941, that of Sept. 20, 1963. Flood in 1941 reached a stage of 11.3 ft, from information by Corps of Engineers; flood in 1946 reached a stage of 10.4 ft, from county bridge plans; flood of Sept. 13, 1961 (Hurricane Carla), reached a stage of 11.51 ft.

REMARKS.--Records fair. Discharge above 1,000 cfs computed using fall as a factor. Discharge below 1,000 cfs not computed because of insufficent fall or estimated using storm recession. Low flow regulated by drainage from ricefields and operation of salt-water gates and barge locks. An unknown amount of water is diverted above and below gage for rice irrigation.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	1,900									-	
2	-	200									-	
3	-	-									350	
4	-	-									1,720	
5	-	-									3,470	
6	450	-									3,380	
7	1,330	-									2,500	
8	400	-									1,170	
9	-	-									100	
10	-	-									-	
11	400	-									-	
12	3,520	-									-	
13	5,200	-									-	
14	5,000	-									-	
15	3,490	-									-	
16	2,050	-									-	
17	200	-									-	
18	-	-									-	
19	-	-									-	
20	-	-									-	
21	-	-									-	
22	-	-									-	
23	200	-									-	
24	1,300	-									-	
25	1,140	-									-	
26	100	-									-	
27	400	-									-	
28	3,420	-									-	
29	4,720	-									-	
30	4,550	-			-------						-	
31	3,850	-----			-------		-------		-------		-	-------
MAX	5,200	1,900									3,470	

CAL YR 1970..... MAX 5,200
WTR YR 1971..... MAX 5,200

08042500 Hillebrandt Bayou near Lovell Lake, Tex.

LOCATION.--Lat 29°55'44", long 94°06'35", Jefferson County, near center of stream at downstream side of bridge on county road, 1.3 miles southeast of Lovell Lake, and 4.4 miles upstream (along rectified channel) from Taylor Bayou.

DRAINAGE AREA.--128 sq mi.

PERIOD OF RECORD.--April 1954 to current year (all discharges above 1,000 cfs and complete records for storms of 1 inch or more runoff, except for the period Sept. 11-18, 1961).

GAGE.--Water-stage recorder. Auxiliary water-stage recorder 3.0 miles downstream. Datum of gage is 4.63 ft below sea level (determined by comparisons of water surface with Taylor Bayou near LaBelle, auxiliary gage, 5.6 miles downstream, during times of no flow and ideal weather conditions). Prior to Aug. 28, 1963, auxiliary water-stage recorder on Taylor Bayou 1.2 miles downstream from Hillebrandt Bayou, nonrecording gages on Taylor Bayou 2.3 and 5.2 miles downstream from Hillebrandt Bayou.

EXTREMES.--Current year: Maximum discharge, 5,470 cfs Oct. 12; maximum gage height, 8.99 ft, Oct. 12; minimum discharge not determined (affected by tides and pumping).
Period of record: Maximum discharge, 15,000 cfs Sept. 18, 1963; maximum gage height, 12.34 ft Sept. 19, 1963; minimum discharge not determined (affected by tides and pumping); minimum gage height, 2.33 ft July 17, 1954.
Maximum stage since 1941, 12.34 ft Sept. 19, 1963. A stage of 11.56 ft occurred Sept. 13, 1961 (backwater caused by Hurricane Carla).

REMARKS.--Records fair. Discharge above 1,000 cfs computed using fall as a factor. Discharge below 1,000 cfs not computed because of insufficent fall or estimated using storm recession. Low flow regulated by drainage from ricefields and operation of salt-water gates and barge locks. An unknown amount of water is diverted above and below gage for rice irrigation.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-										-	
2	-										-	
3	-										-	
4	-										1,340	
5	-										3,050	
6	1,300										990	
7	1,440										100	
8	300										-	
9	-										-	
10	-										-	
11	850										-	
12	5,140										-	
13	3,870										-	
14	2,100										-	
15	500										-	
16	-										-	
17	-										-	
18	-										-	
19	-										-	
20	-										-	
21	-										-	
22	-										-	
23	-										-	
24	-										-	
25	-										-	
26	-										-	
27	600										-	
28	3,110										-	
29	3,640										-	
30	2,190				-------						-	
31	200	-------			-------		-------		-------		-	-------
MAX	5,140										3,050	

CAL YR 1970..... MAX 5,140
WTR YR 1971..... MAX 5,140

08042700 North Creek near Jacksboro, Tex.

LOCATION.--Lat 33°16'57", long 98°17'53", Jack County, near left bank on downstream side of bridge on U.S. Highway 281, 1.5 miles upstream from Henderson Creek, 9.3 miles northwest of Jacksboro, and 14 miles upstream from mouth.

DRAINAGE AREA.--21.6 sq mi.

PERIOD OF RECORD.--August 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,016.33 ft above mean sea level (State Highway Department bench mark), unadjusted.

AVERAGE DISCHARGE.--15 years, 5.42 cfs (3.41 inches per year, 3,930 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 450 cfs July 26 (gage height, 9.25 ft); no flow for many days.
Period of record: Maximum discharge, 6,990 cfs Apr. 28, 1957 (gage height, 24.45 ft); no flow at times each year.
Flood of May 3, 1956, reached a stage of 21.58 ft, from floodmarks.

REMARKS.--Records fair. No diversion above station. Five rain gages (2 nonrecording and 3 recording) were operated in the basin during the current year. At end of year, flow from 8.08 sq mi above this station was partly controlled by three floodwater-retarding structures with a total combined capacity of 2,120 acre-ft below the flood-spillway crests, of which 1,940 acre-ft is floodwater-retarding capacity and 180 acre-ft is sediment-pool capacity. These structures were built during the current year. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0							0		0	0	0
2	0							0		21	0	0
3	0							0		2.7	0	0
4	0							0		0	0	0
5	0							0		0	0	0
6	0							0		0	.71	0
7	0							0		0	1.4	0
8	0							0		0	0	0
9	0							0		0	0	0
10	0							0		0	0	0
11	0							0		0	0	0
12	0							0		0	0	0
13	0							0		0	0	0
14	0							0		0	2.0	0
15	0							0		0	1.2	0
16	0							0		0	.03	0
17	0							0		0	0	0
18	0							0		0	0	7.0
19	0							0		0	0	1.9
20	0							0		0	0	.10
21	0							0		0	0	0
22	0							0		0	0	45
23	.16							0		42	0	51
24	0							0		.56	9.1	9.4
25	0							0		0	4.5	1.2
26	0							0		37	.34	.07
27	0							0		11	.05	0
28	0							0		25	0	0
29	0				------			0		.87	0	0
30	0				------			12		0	0	0
31	0	------			------		------	.35	------	0	0	------
TOTAL	.16	0	0	0	0	0	0	12.35	0	140.13	19.33	115.67
MEAN	.005	0	0	0	0	0	0	.40	0	4.52	.62	3.86
MAX	.16	0	0	0	0	0	0	12	0	42	9.1	51
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.0002	0	0	0	0	0	0	.02	0	.21	.03	.18
IN.	0	0	0	0	0	0	0	.02	0	.24	.03	.20
AC-FT	.3	0	0	0	0	0	0	25	0	278	38	229

CAL YR 1970 TOTAL 831.45 MEAN 2.28 MAX 483 MIN 0 CFSM .11 IN 1.43 AC-FT 1,650
WTR YR 1971 TOTAL 287.64 MEAN .79 MAX 51 MIN 0 CFSM .04 IN .50 AC-FT 571

08042800 West Fork Trinity River near Jacksboro, Tex.

LOCATION.--Lat 33°17'36", long 98°04'43", Jack County, near left bank on downstream side of bridge on State Highway 24, 4 miles downstream from North Creek, 7 miles upstream from Carroll Creek, and 7 miles northeast of Jacksboro.

DRAINAGE AREA.--683 sq mi.

PERIOD OF RECORD.--March 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 869.28 ft above mean sea level (State Highway Department bench mark). Sept. 20, 1960, to May 30, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--15 years, 106 cfs (76,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 883 cfs Sept. 25 (gage height, 13.10 ft); no flow at times.
Period of record: Maximum discharge, 35,100 cfs Apr. 27, 1957 (gage height, 32.10 ft, from floodmark); no flow at times each year.
Maximum stage since at least 1900, that of Apr. 27, 1957. Flood in June 1941 reached a stage of 30 ft, from information by local residents.

REMARKS.--Records good. At end of year, flow from 54.1 sq mi above this station was partly controlled by 16 floodwater-retarding structures with a total combined capacity of 18,220 acre-ft below the flood-spillway crests, of which 15,790 acre-ft is floodwater-retarding capacity and 2,430 acre-ft is sediment-pool capacity. Four structures were built during the current year and have a total combined capacity below flood-spillway crests of 2,390 acre-ft, of which 209 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.03		0				0	107	0	.32	12
2	.28	.02		0				0	63	0	.10	5.8
3	.16	.01		0				0	31	0	.03	3.8
4	.09	0		0				0	16	0	.01	14
5	.06	0		22				0	9.4	0	0	14
6	.04	0		15				0	5.4	0	0	5.5
7	.03	0		5.5				0	3.3	0	99	117
8	.05	0		3.4				0	2.2	0	21	54
9	.04	0		1.5				0	1.4	0	3.0	22
10	.03	0		.95				0	.84	0	1.2	12
11	.03	0		.50				0	.48	0	.57	6.1
12	.02	0		.36				0	.25	0	.25	3.2
13	.01	0		.25				0	.12	0	.14	2.0
14	.01	0		.16				0	.34	0	.09	.95
15	.01	0		.09				0	.27	0	442	.57
16	.01	0		.06				0	.09	0	827	.28
17	.02	0		.04				0	10	0	437	.16
18	.02	0		.03				0	7.4	0	125	.82
19	.01	0		.03				0	4.4	0	61	7.7
20	0	0		.02				0	26	0	28	20
21	0	0		.01				0	28	0	18	6.8
22	.01	0		.01				0	7.9	0	8.4	101
23	.45	0		.01				0	3.4	15	4.4	498
24	1.9	0		.01				0	2.1	78	36	779
25	1.1	0		0				0	1.2	17	80	874
26	.32	0		0				0	.59	2.0	356	758
27	.12	0		0				0	.23	.40	441	168
28	.07	0		0				0	.08	37	135	35
29	.05	0		0	------			.11	.03	63	79	22
30	.03	0		0	------			85	.01	16	33	11
31	.03	------		0	------		------	213	------	11	18	------
TOTAL	5.45	.06	0	49.93	0	0	0	298.11	332.43	239.40	3,254.51	3,554.68
MEAN	.18	.002	0	1.61	0	0	0	9.62	11.1	7.72	105	118
MAX	1.9	.03	0	22	0	0	0	213	107	78	827	874
MIN	0	0	0	0	0	0	0	0	.01	0	0	.16
AC-FT	11	.1	0	99	0	0	0	591	659	475	6,460	7,050

CAL YR 1970 TOTAL 20,381.75 MEAN 55.8 MAX 3,720 MIN 0 AC-FT 40,430
WTR YR 1971 TOTAL 7,734.57 MEAN 21.2 MAX 874 MIN 0 AC-FT 15,340

PEAK DISCHARGE (BASE, 1,200 CFS).--No peak above base.

08043000 Bridgeport Reservoir above Bridgeport, Tex.

LOCATION.--Lat 33°13'22", long 97°49'54", Wise County, at left end of Bridgeport Dam on West Fork Trinity River, 4.6 miles west of Bridgeport, and 13 miles upstream from Big Sandy Creek.

DRAINAGE AREA.--1,111 sq mi.

PERIOD OF RECORD.--April 1932 to current year (prior to October 1950, monthly figures only).

GAGE.--Nonrecording gage read once daily. Datum of gage is 0.06 ft above mean sea level. Prior to Jan. 26, 1944, nonrecording gages at various sites in vicinity of present gage at present datum.

EXTREMES (at 0730).--Current year: Maximum contents observed, 245,200 acre-ft Oct. 1-6 (gage height, 823.5 ft); minimum observed, 143,000 acre-ft Sept. 22 (gage height, 811.4 ft).
Period of record: Maximum contents observed, 407,600 acre-ft Apr. 29-30, 1942 (gage height, 836.2 ft); minimum since first appreciable storage in 1935, 7,170 acre-ft Oct. 12-16, 1956.

REMARKS.--Reservoir is formed by a rolled-fill earthen dam 1,900 ft long including a concrete spillway with three 20-foot bays, two of which are equipped with vertical lift gates and the other left open. There are two emergency spillways of natural ground. Outlet works consist of two concrete conduits through the dam with flow through one controlled by two 48-inch-diameter valves and through the other by one 48-inch- and one 30-inch-diameter valve. Dam completed Dec. 15, 1931; storage began Apr. 1, 1932. Reservoir used for flood control and municipal supply for city of Fort Worth. Water is released to flow downstream to Eagle Mountain Reservoir (station 08045000). During year, several small diversions, totaling about 2,390 acre-ft, were made from lake for municipal and industrial use. Figures given herein represent total contents. Capacities based on surveys made in 1956 and 1968. At end of year, flow from 63.5 sq mi above this station was partly controlled by 20 floodwater-retarding structures with a total combined capacity of 20,670 acre-ft below the flood-spillway crests, of which 17,730 acre-ft is floodwater-retarding capacity and 2,940 acre-ft is sediment-pool capacity. Four structures were built during the current year and have a total combined capacity below flood-spillway crests of 2,390 acre-ft, of which 209 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Crest of service spillway (top of conservation storage).....	826.1	271,400
Invert of three 48-inch valves.....	751.4	0

COOPERATION.--Gage-height record furnished by Tarrant County Water Control and Improvement District No. 1.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (gage height, in feet, and total contents, in acre-feet)

811.0	140,200	819.0	203,500
813.0	154,800	821.0	221,500
815.0	170,200	823.0	240,300
817.0	186,400	824.0	250,100

CONTENTS, IN ACRE-FEET, AT 0730, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245,200	242,300	238,400	236,500	227,000	217,800	212,400	200,000	190,600	174,200	155,500	157,800
2	245,200	242,300	238,400	236,500	227,000	217,800	211,500	200,000	189,800	173,400	155,500	157,000
3	245,200	242,300	238,400	236,500	227,000	217,800	211,500	199,200	189,800	172,600	155,500	156,200
4	245,200	241,300	238,400	236,500	227,000	217,800	210,600	199,200	189,800	171,800	155,500	155,500
5	245,200	241,300	238,400	236,500	227,000	217,800	210,600	198,300	188,900	171,800	155,500	154,800
6	245,200	241,300	238,400	236,500	227,000	217,800	209,700	198,300	188,100	171,000	155,500	154,800
7	244,200	241,300	238,400	235,500	227,000	217,800	209,700	197,400	188,100	170,200	156,200	154,000
8	244,200	241,300	238,400	234,600	227,000	217,800	208,800	197,400	187,300	169,400	157,000	153,200
9	244,200	241,300	238,400	233,600	227,000	217,800	208,800	197,400	186,400	168,600	156,200	152,500
10	244,200	240,300	238,400	231,700	227,000	217,800	208,800	196,600	185,600	167,800	156,200	151,800
11	243,200	240,300	238,400	229,900	227,000	217,800	207,900	200,000	184,800	167,000	156,200	151,000
12	243,200	240,300	238,400	228,900	226,100	216,900	207,900	200,000	183,900	167,000	156,200	150,300
13	243,200	240,300	237,400	228,000	226,100	216,900	207,000	199,200	184,800	164,700	156,200	149,500
14	243,200	240,300	237,400	228,000	226,100	216,900	206,200	198,300	184,800	163,900	156,200	148,800
15	243,200	240,300	237,400	228,000	225,200	216,900	205,300	198,300	183,900	162,400	157,000	148,100
16	243,200	240,300	237,400	228,000	225,200	216,900	204,400	197,400	183,100	161,600	157,800	147,400
17	243,200	239,400	237,400	228,000	223,300	216,900	205,300	196,600	183,100	160,000	159,300	146,600
18	242,300	239,400	237,400	228,000	223,300	216,000	204,400	196,600	182,300	158,500	160,000	145,900
19	242,300	239,400	237,400	228,000	221,500	216,000	204,400	196,600	181,500	157,800	160,000	145,200
20	242,300	239,400	237,400	228,000	221,500	215,100	204,400	195,700	184,600	156,200	160,000	144,400
21	242,300	239,400	237,400	228,000	220,600	215,100	203,500	194,900	179,800	155,500	160,000	143,700
22	242,300	239,400	237,400	228,000	220,600	215,100	203,500	194,000	179,800	154,800	160,000	143,000
23	243,200	239,400	236,500	228,000	218,700	214,200	203,500	193,200	179,000	153,200	160,000	145,200
24	243,200	239,400	236,500	228,000	217,800	214,200	202,600	193,200	179,000	153,200	160,000	145,900
25	243,200	238,400	236,500	228,000	218,700	213,300	201,800	192,300	178,200	152,500	161,600	146,600
26	243,200	238,400	236,500	228,000	218,700	213,300	201,800	191,500	177,400	151,000	160,800	147,400
27	243,200	238,400	236,500	228,000	217,800	213,300	201,800	191,500	176,600	151,000	160,000	148,100
28	243,200	238,400	236,500	227,000	217,800	213,300	200,900	190,600	175,800	150,300	160,000	148,800
29	243,200	238,400	236,500	227,000	------	212,400	200,900	189,800	175,000	151,000	160,000	148,100
30	242,300	238,400	236,500	227,000	------	212,400	200,900	190,600	175,000	154,000	159,300	147,400
31	242,300	------	236,500	227,000	------	212,400	------	190,600	------	155,500	158,500	------
(†)	823.2	822.8	822.6	821.6	820.6	820.0	818.7	817.5	815.6	813.1	813.5	812.0
(*)	-2,900	-3,900	-1,900	-9,500	-9,200	-5,400	-11,500	-10,300	-15,600	-19,500	+3,000	-11,100
MAX	245,200	242,300	238,400	236,500	227,000	217,800	212,400	200,000	190,600	174,200	161,600	157,800
MIN	242,300	238,400	236,500	227,000	217,800	212,400	200,900	189,800	175,000	150,300	155,500	143,000

CAL YR 1970..... * -36,900 MAX 321,900 MIN 230,800
WTR YR 1971..... * -97,800 MAX 245,200 MIN 143,000

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.

08044000 Big Sandy Creek near Bridgeport, Tex.

LOCATION.--Lat 33°13'54", long 97°41'40", Wise County, on downstream side of bridge on U.S. Highway 380 (revised), 1.9 miles upstream from Greathouse Branch, 4.0 miles east of Bridgeport, and 4.4 miles upstream from mouth.

DRAINAGE AREA.--333 sq mi.

PERIOD OF RECORD.--October 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 727.44 ft above mean sea level.

AVERAGE DISCHARGE.--35 years, 75.2 cfs (54,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 250 cfs Sept. 23 (gage height, 5.80 ft); no flow for many days.
Period of record: Maximum discharge, 53,000 cfs June 10, 1941 (gage height, 15.69 ft, from floodmark), from rating curve extended above 22,000 cfs; no flow at times.
Maximum stage since at least 1887 occurred in 1908 and 1915 and reached about same stage as that of June 10, 1941.

REMARKS.--Records good. Since May 1, 1956, runoff from 103 sq mi above station partly controlled by Amon Carter Reservoir 30 miles upstream, capacity 15,240 acre-ft (revised) at elevation 920.0 ft (service spillway). Records furnished by city of Bowie show that during the year 566 acre-ft of water was diverted from Amon Carter Reservoir for municipal use and 396 acre-ft of sewage effluent was discharged into a tributary above station. At end of year, flow from 37.5 sq mi above this station was partly controlled by 13 floodwater-retarding structures with a total combined capacity of 10,840 acre-ft below the flood-spillway crests, of which 9,440 acre-ft is floodwater-retarding capacity and 1,400 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 1,630 acre-ft, of which 70 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1148: Drainage area. WRD Texas 1969: 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.1	3.1	6.2	3.8	5.6	3.4	2.1	7.7	1.9	56	.21
2	8.1	2.9	3.4	6.2	3.4	5.8	3.4	1.9	2.8	.51	15	.01
3	6.4	2.9	3.2	6.0	3.1	6.6	3.1	1.6	1.4	3.0	7.2	0
4	5.2	2.8	2.9	6.0	3.7	7.0	2.8	1.4	.64	1.9	4.5	0
5	4.7	2.7	2.9	5.6	4.7	7.6	2.7	1.4	.14	.29	6.5	0
6	4.3	2.8	2.8	5.2	5.8	7.6	2.8	1.2	0	0	21	0
7	4.1	3.2	2.6	4.5	4.8	6.2	2.8	1.4	0	0	93	0
8	3.8	3.4	2.7	4.0	4.5	5.2	2.7	1.2	0	0	59	0
9	3.5	3.2	3.1	4.3	3.7	5.2	2.9	1.9	0	0	38	0
10	3.5	3.2	3.4	5.4	3.7	5.6	3.1	2.4	0	0	5.8	0
11	3.8	2.9	3.5	5.4	4.0	5.8	3.1	50	0	0	3.2	0
12	3.5	2.7	3.1	3.8	4.3	6.0	2.8	8.4	0	0	2.2	0
13	3.5	3.5	3.2	4.7	4.1	6.0	2.8	3.4	0	0	1.6	0
14	3.5	3.4	2.9	6.0	3.7	5.8	2.8	2.4	7.4	0	1.6	0
15	3.4	3.8	3.4	4.7	3.5	5.2	2.4	2.1	50	0	38	0
16	3.2	3.4	4.0	4.0	4.7	4.7	3.2	1.9	21	0	135	0
17	3.2	2.6	4.1	3.8	5.4	4.0	9.0	1.4	2.4	0	28	0
18	3.5	2.4	4.0	3.7	4.5	4.0	13	1.2	1.1	0	6.7	0
19	3.8	2.7	3.7	3.7	4.7	4.7	8.1	1.0	.29	0	3.5	0
20	3.5	3.1	3.4	3.5	5.0	9.1	5.8	.64	0	0	2.3	0
21	3.4	2.8	3.5	3.4	5.2	4.7	5.8	.34	0	0	1.8	0
22	3.4	3.1	4.1	3.5	11	4.1	5.0	.25	0	0	1.6	24
23	19	2.8	4.5	4.1	10	4.1	4.1	.21	0	0	1.1	210
24	40	2.7	3.8	4.1	7.4	4.0	3.1	3.0	0	0	.77	160
25	7.3	2.6	3.2	3.8	7.0	4.1	2.8	2.3	0	0	.64	107
26	5.0	2.6	3.4	3.8	7.6	4.5	2.7	.92	0	0	1.4	51
27	4.0	2.7	3.1	3.5	6.8	4.7	2.7	.91	0	2.2	11	18
28	3.4	2.7	3.5	3.4	5.8	4.5	2.4	4.2	0	8.6	5.7	4.5
29	2.9	2.7	3.8	3.8	------	4.1	2.3	3.1	.06	42	1.9	2.3
30	2.9	2.8	5.0	4.5	------	3.7	2.3	2.1	3.5	136	1.6	1.4
31	3.1	------	6.0	4.5	------	3.4	------	5.2	------	190	.92	------
TOTAL	183.9	88.2	109.3	139.1	145.9	163.6	115.9	111.47	98.43	386.40	556.53	578.42
MEAN	5.93	2.94	3.53	4.49	5.21	5.28	3.86	3.60	3.28	12.5	18.0	19.3
MAX	40	3.8	6.0	6.2	11	9.1	13	50	50	190	135	210
MIN	2.9	2.4	2.6	3.4	3.1	3.4	2.3	.21	0	0	.64	0
AC-FT	365	175	217	276	289	325	230	221	195	766	1,100	1,150

CAL YR 1970 TOTAL 13,169.35 MEAN 36.1 MAX 1,820 MIN 0 AC-FT 26,120
WTR YR 1971 TOTAL 2,677.15 MEAN 7.33 MAX 210 MIN 0 AC-FT 5,310

08044500 West Fork Trinity River near Boyd, Tex.

LOCATION.--Lat 33°05'08", long 97°33'30", Wise County, on right bank at downstream side of bridge on Farm Road 730, 0.6 mile northeast of Boyd, 3.5 miles downstream from Boggy Creek, and at mile 602.

DRAINAGE AREA.--1,725 sq mi.

PERIOD OF RECORD.--January 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 660.57 ft above mean sea level. Prior to Dec. 14, 1954, water-stage recorder at site 2.2 miles downstream at datum 5.48 ft lower.

AVERAGE DISCHARGE.--24 years, 225 cfs (163,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 817 cfs July 30 (gage height, 11.99 ft); minimum, 3.2 cfs Aug. 25.
Period of record: Maximum discharge, 27,300 cfs Oct. 5, 1959 (gage height, 22.17 ft); no flow at times.
Maximum stage since at least 1880, 25 ft (present site and datum) in May 1908, from information by local residents, who also report a flood of about the same height in the period 1870-80. Flood in April 1942 reached a stage of 20.6 ft (present site and datum), from information by State Highway Department.

REMARKS.--Records good. Flow largely regulated by Bridgeport Reservoir (station 08043000) since 1932 and Amon Carter Reservoir near Bowie since May 1956; combined capacity, 286,100 acre-ft. Sustained flow during several periods was released water from Bridgeport Reservoir 21 miles upstream. At end of year, flow from 72.3 sq mi above this station was partly controlled by 26 floodwater-retarding structures with a total combined capacity of 21,900 acre-ft below the flood-spillway crests, of which 19,530 acre-ft is floodwater-retarding capacity and 2,370 acre-ft is sediment-pool capacity. Two structures were built during the current year and have a total combined capacity below flood-spillway crests of 2,920 acre-ft, of which 110 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Some diversions above station.

REVISIONS (WATER YEARS).--WSP 1392: 1947(M), 1948, 1949(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	6.6	16	12	6.3	12	105	153	195	261	186	294
2	34	6.6	40	12	5.8	11	104	152	192	252	70	296
3	26	6.7	15	12	5.6	12	105	150	183	250	38	300
4	21	7.2	9.7	11	6.0	12	106	149	180	253	31	297
5	20	7.6	8.0	12	6.1	13	105	152	178	248	21	298
6	38	7.9	7.4	11	5.9	13	104	152	174	245	63	298
7	22	8.2	7.4	11	6.8	12	105	150	175	244	140	297
8	14	8.4	7.3	381	6.5	10	104	148	174	243	101	297
9	12	8.0	7.5	765	6.3	8.7	105	148	222	244	142	297
10	9.7	7.0	7.8	769	6.3	7.9	130	150	250	243	66	299
11	8.8	7.1	8.0	767	5.9	8.2	188	236	250	242	24	299
12	8.6	7.1	8.3	763	5.5	8.3	190	215	252	242	12	298
13	9.0	7.7	8.0	327	5.3	8.1	266	157	258	322	7.9	297
14	9.0	8.1	7.8	37	142	7.8	292	151	283	336	6.4	296
15	9.0	7.9	8.0	25	376	7.4	296	147	308	365	5.7	296
16	8.8	9.7	8.3	19	465	37	305	145	312	370	73	295
17	8.7	10	8.3	16	485	102	322	144	262	393	102	296
18	8.8	9.1	8.6	14	492	104	322	143	250	421	31	299
19	8.8	9.9	8.9	12	496	104	317	142	249	421	12	302
20	9.0	9.7	8.5	11	495	107	315	142	249	422	7.6	303
21	8.9	9.7	8.4	10	501	109	310	267	262	426	15	300
22	8.6	10	8.6	9.5	486	106	195	297	254	428	9.3	381
23	28	9.3	8.8	8.7	111	105	162	302	252	447	4.4	696
24	53	9.0	12	8.1	31	106	159	309	249	463	3.7	595
25	45	9.5	9.7	7.7	22	107	157	305	247	437	68	499
26	18	10	8.0	7.1	19	107	156	302	247	445	248	387
27	13	10	7.7	6.9	16	108	155	344	246	667	322	341
28	10	11	7.6	6.4	13	108	153	324	248	496	317	307
29	9.0	14	7.7	6.2	------	106	154	337	268	411	301	297
30	8.1	12	10	6.2	------	105	154	245	270	695	295	294
31	7.1	------	11	6.4	------	106	------	195	------	347	294	------
TOTAL	538.9	265.0	308.3	4,070.2	4,228.3	1,778.4	5,641	6,353	7,139	11,279	3,017.0	10,051
MEAN	17.4	8.83	9.95	131	151	57.4	188	205	238	364	97.3	335
MAX	53	14	40	769	501	109	322	344	312	695	322	696
MIN	7.1	6.6	7.3	6.2	5.3	7.4	104	142	174	242	3.7	294
AC-FT	1,070	526	612	8,070	8,390	3,530	11,190	12,600	14,160	22,370	5,980	19,940

CAL YR 1970 TOTAL 85,906.88 MEAN 235 MAX 3,660 MIN .86 AC-FT 170,400
WTR YR 1971 TOTAL 54,669.10 MEAN 150 MAX 769 MIN 3.7 AC-FT 108,400

08045000 Eagle Mountain Reservoir above Fort Worth, Tex.

LOCATION (revised).--Lat 32°52'39", long 97°28'29", Tarrant County, at right end of main section (left) of Eagle Mountain Dam on West Fork Trinity River and 11.8 miles northwest of Fort Worth.

DRAINAGE AREA.--1,970 sq mi.

PERIOD OF RECORD.--February 1934 to current year (prior to October 1950, monthly figures only).

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level. Prior to Feb. 24, 1943, nonrecording gages at several sites within 1.0 mile of present site at present datum.

EXTREMES (at 0800).--Current year: Maximum contents observed, 186,800 acre-ft Oct. 1 (elevation, 648.7 ft); minimum observed, 166,600 acre-ft July 13-23 (elevation, 646.4 ft).
Period of record: Maximum contents, 333,500 acre-ft Apr. 26, 1942 (elevation, 659.9 ft); minimum since first appreciable storage in 1935, 57,690 acre-ft Nov. 19, 20, 1956.

REMARKS.--Reservoir is formed by a composite rolled-fill and hydraulic-fill earthen dam in two sections. The main section at the river channel contains the outlet works which consist of two concrete conduits with two 48-inch-diameter valves in each conduit. The section to right of main dam is across a saddle and contains a concrete spillway with four 25-foot bays, three of which are equipped with vertical lift gates and the fourth left open. There is an emergency spillway of natural ground. Dam completed Oct. 24, 1932, and storage began Feb. 28, 1934. Reservoir is used for flood control and to maintain level of Lake Worth from which the city of Fort Worth derives its municipal water supply. The Texas Electric Service Company generating plant uses the reservoir water for cooling purposes and diverted about 1,750 acre-ft for makeup water. The Tarrant County Water Supply Corporation diverted about 1,630 acre-ft for nearby residential development. Capacities based on survey made in 1968. For storage above reservoir, see REMARKS for West Fork Trinity River near Boyd (station 08044500). Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Crest of Burgess Gap emergency spillway	676.0	558,000
Crest of service spillway	649.1	190,400
Invert of four 48-inch-diameter valves	599.9	94

COOPERATION.--Records of daily elevations furnished by Tarrant County Water Control and Improvement District No. 1.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

646.0	163,300	648.0	180,400
647.0	171,700	649.0	189,500

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186,800	181,300	177,800	170,900	171,700	175,200	169,200	171,700	170,900	169,200	172,600	170,000
2	185,800	181,300	177,800	170,900	171,700	175,200	169,200	170,900	170,900	169,200	173,400	170,000
3	185,800	181,300	177,800	170,900	170,900	175,200	168,300	170,900	170,900	169,200	173,400	170,000
4	185,800	180,400	177,800	170,900	170,900	174,300	168,300	170,900	171,700	169,200	173,400	170,000
5	185,800	180,400	176,900	170,900	170,900	174,300	168,300	170,000	171,700	168,300	172,600	170,000
6	184,900	180,400	176,900	170,900	170,900	174,300	168,300	170,900	171,700	168,300	172,600	170,000
7	184,900	180,400	176,900	170,000	170,900	173,400	168,300	170,900	171,700	168,300	172,600	170,900
8	184,900	180,400	176,900	170,000	170,000	173,400	168,300	170,900	171,700	168,300	172,600	170,900
9	184,900	180,400	176,000	169,200	170,000	173,400	167,500	170,000	171,700	167,500	172,600	170,900
10	184,000	180,400	176,000	170,900	170,000	172,600	167,500	170,000	171,700	167,500	172,600	170,900
11	184,000	180,400	176,000	171,700	169,200	172,600	167,500	170,000	170,900	167,500	172,600	170,900
12	184,000	180,400	175,200	173,400	169,200	172,600	167,500	170,000	170,900	167,500	172,600	170,900
13	184,000	180,400	175,200	174,300	169,200	172,600	167,500	170,000	170,900	166,600	172,600	170,900
14	184,000	180,400	175,200	175,200	168,300	171,700	167,500	169,200	170,900	166,600	172,600	170,900
15	183,100	180,400	174,300	175,200	168,300	171,700	168,300	169,200	170,900	166,600	172,600	170,900
16	183,100	180,400	174,300	175,200	169,200	171,700	168,300	169,200	170,900	166,600	171,700	170,900
17	183,100	179,600	174,300	174,300	170,000	170,900	170,000	168,300	170,900	166,600	171,700	170,900
18	183,100	179,600	173,400	174,300	170,900	170,900	170,000	168,300	170,900	166,600	171,700	170,900
19	183,100	179,600	173,400	174,300	171,700	170,900	170,900	168,300	170,900	166,600	171,700	170,900
20	182,200	179,600	173,400	174,300	172,600	170,900	170,900	167,500	170,900	166,600	170,900	170,900
21	182,200	179,600	173,400	173,400	174,300	170,000	171,700	167,500	170,000	166,600	170,900	170,900
22	182,200	178,700	172,600	173,400	175,200	170,000	171,700	167,500	170,000	166,600	170,000	170,000
23	182,200	179,600	172,600	173,400	175,200	170,000	171,700	168,300	170,000	166,600	170,000	170,900
24	183,100	178,700	172,600	173,400	175,200	170,000	171,700	168,300	170,000	167,500	169,200	171,700
25	182,200	178,700	172,600	173,400	175,200	170,000	171,700	168,300	170,000	167,500	168,300	172,600
26	182,200	178,700	171,700	172,600	175,200	170,000	171,700	168,300	170,000	167,500	168,300	173,400
27	182,200	177,800	171,700	172,600	175,200	169,200	171,700	169,200	169,200	168,300	169,200	173,400
28	182,200	177,800	171,700	172,600	175,200	169,200	171,700	169,200	169,200	169,200	169,200	174,300
29	182,200	177,800	171,700	171,700	------	169,200	171,700	170,000	169,200	170,000	169,200	174,300
30	181,300	177,800	171,700	171,700	------	169,200	171,700	170,900	169,200	171,700	170,000	174,300
31	181,300	------	170,900	171,700	------	169,200	------	170,900	------	172,600	170,000	------
(†)	648.1	647.7	646.9	647.0	647.4	646.7	647.0	646.9	646.7	647.1	646.8	647.3
(*)	-6,400	-3,500	-6,900	+800	+3,500	-6,000	+2,500	-800	-1,700	+3,400	-2,600	+4,300
MAX	186,800	181,300	177,800	175,200	175,200	175,200	171,700	171,700	171,700	172,600	173,400	174,300
MIN	181,300	177,800	170,900	169,200	168,300	169,200	167,500	167,500	169,200	166,600	168,300	170,000

CAL YR 1970..... * -6,900 MAX 198,800 MIN 170,900
WTR YR 1971..... * -13,400 MAX 186,800 MIN 166,600

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08046000 Clear Fork Trinity River near Aledo, Tex.

LOCATION.--Lat 32°38'25", long 97°33'50", Parker County, on left bank 3 miles downstream from Turkey Creek, 3.5 miles upstream from bridge on U.S. Highway 377, 4 miles southeast of Aledo, and 11.8 miles upstream from Benbrook Dam.

DRAINAGE AREA.--251 sq mi.

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 723.33 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--24 years, 37.4 cfs (27,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 727 cfs July 30 (gage height, 6.09 ft); no flow June 17-20, July 5-23, 27, 28, Sept. 16-22.
Period of record: Maximum discharge, 34,000 cfs May 25, 1957 (gage height, 29.00 ft); no flow at times.
Maximum stage since at least 1858, 34 ft in April 1922, from information by local resident.

REMARKS.--Records good. Since Dec. 15, 1956, Lake Weatherford, located about 15 miles upstream, has partly controlled runoff from 105 sq mi above station. Lake Weatherford has a capacity of 19,600 acre-ft at elevation 896.0 ft (fixed glory hole outlet) and 35,180 acre-ft at elevation 906.0 ft (emergency flood spillway). At end of year, flow from 37.6 sq mi above this station was partly controlled by 12 floodwater-retarding structures with a total combined capacity of 12,820 acre-ft below flood-spillway crests, of which 11,160 acre-ft is floodwater-retarding capacity and 1,660 acre-ft is sediment-storage capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. During the year, the city of Weatherford diverted 1,670 acre-ft from Lake Weatherford for municipal use and returned 1,250 acre-ft of sewage effluent into a tributary above station.

REVISIONS (WATER YEARS).--WSP 1312: 1949(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.4	9.6	11	8.9	8.5	6.5	6.8	8.4	.30	4.6	3.7
2	4.3	5.5	8.5	10	8.9	8.3	5.7	5.8	5.4	.20	3.1	1.4
3	3.5	5.6	11	11	7.6	12	5.1	4.8	3.8	.06	2.8	10
4	3.8	5.8	10	11	11	9.6	6.0	4.2	2.7	.01	2.9	3.3
5	4.1	5.8	10	9.6	14	9.0	5.3	3.3	1.8	0	2.3	1.8
6	6.2	6.5	9.4	9.1	9.6	8.5	5.0	3.3	1.4	0	2.9	.95
7	8.5	6.1	9.3	9.0	8.9	7.3	5.4	18	.89	0	5.6	.50
8	4.3	6.8	9.7	8.8	7.9	7.6	5.7	12	.63	0	5.1	.24
9	3.2	6.7	11	11	7.5	7.8	4.6	5.9	.33	0	2.3	.12
10	4.6	5.2	9.1	10	8.0	7.3	5.0	5.1	.20	0	1.4	.15
11	4.0	5.8	7.9	9.9	7.8	7.4	5.4	4.7	.09	0	.85	.20
12	4.9	6.0	8.9	9.2	6.6	7.9	5.3	3.9	.05	0	.60	.19
13	5.1	7.9	8.9	11	7.0	8.2	5.0	2.7	.03	0	1.2	.20
14	5.0	8.3	8.8	13	7.9	7.2	4.9	2.1	.01	0	8.3	.09
15	4.8	12	9.4	10	7.8	6.2	4.2	2.3	.10	0	22	.01
16	4.0	7.9	9.4	9.6	8.4	6.1	5.6	1.9	.05	0	4.6	0
17	4.6	7.5	10	10	8.2	5.8	12	1.5	0	0	2.4	0
18	5.5	7.2	9.2	9.9	7.2	5.8	14	1.1	0	0	1.8	0
19	5.4	7.2	8.2	9.1	8.4	5.3	11	.53	0	0	1.3	0
20	3.6	6.7	9.2	9.0	8.8	6.5	7.6	.60	0	0	.65	0
21	4.5	6.8	9.0	8.8	11	7.2	10	.55	3.1	0	.28	0
22	4.6	8.6	8.7	8.9	17	7.7	7.5	1.0	6.2	0	.44	0
23	23	7.6	9.1	10	9.7	7.3	6.8	1.3	2.5	0	.41	14
24	36	7.1	8.8	10	8.6	7.4	6.0	.93	.63	7.2	.24	18
25	9.5	7.6	8.7	9.5	9.1	7.1	6.1	.32	.52	.30	.34	4.0
26	6.8	8.4	8.4	8.8	14	6.9	5.9	.22	.19	.01	6.8	2.8
27	6.1	9.8	8.7	8.6	11	7.0	5.7	.15	.08	0	13	2.4
28	5.4	9.3	8.6	9.1	9.1	7.6	5.8	.93	.03	0	2.5	1.3
29	5.4	9.7	8.6	9.6	------	7.1	4.4	92	.03	18	1.1	1.4
30	5.6	9.6	11	10	------	6.3	4.3	57	.02	298	10	1.4
31	5.3	------	17	9.7	------	5.4	------	16	------	11	31	------
TOTAL	207.1	220.4	294.1	304.2	259.9	229.3	191.8	260.93	39.18	335.08	142.81	68.15
MEAN	6.68	7.35	9.49	9.81	9.28	7.40	6.39	8.42	1.31	10.8	4.61	2.27
MAX	36	12	17	13	17	12	14	92	8.4	298	31	18
MIN	3.2	5.2	7.9	8.6	6.6	5.3	4.2	.15	0	0	.24	0
AC-FT	411	437	583	603	516	455	380	518	78	665	283	135

CAL YR 1970 TOTAL 24,500.77 MEAN 67.1 MAX 1,280 MIN 0 AC-FT 48,600
WTR YR 1971 TOTAL 2,552.95 MEAN 6.99 MAX 298 MIN 0 AC-FT 5,060

08046500 Benbrook Lake near Benbrook, Tex.
(Formerly published as Benbrook Reservoir near Benbrook)

LOCATION.--Lat 32°39'02", long 97°26'54", Tarrant County, in intake structure of Benbrook Dam on Clear Fork Trinity River, 2.5 miles south of Benbrook, 3.5 miles upstream from Marys Creek, and 14.6 miles upstream from mouth.

DRAINAGE AREA.--429 sq mi.

PERIOD OF RECORD.--September 1952 to current year. Prior to October 1970, published as Benbrook Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 82,850 acre-ft Oct. 1 (elevation, 692.54 ft); minimum, 69,550 acre-ft July 23 (elevation, 688.70 ft).
Period of record: Maximum contents, 185,000 acre-ft June 6, 1957 (elevation, 713.35 ft); minimum since lake first filled in 1957, 64,630 acre-ft Sept. 15, 1964 (elevation, 687.18 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 9,130 ft long including a 500-foot uncontrolled off-channel concrete gravity spillway with ogee weir section with a 100-foot notch in center. Outlet works consist of a 13-foot-diameter concrete conduit controlled by two 6.5- by 13-foot broome-type gates and two 30-inch steel pipes controlled by slide gates. Deliberate impoundment of water began Sept. 29, 1952. From August 1950 to Sept. 28, 1952, lake operated as detention basin only. Figures given herein represent total contents. Capacities are from survey made in 1945. Lake built for flood control, navigation, and low-flow regulation. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08046000. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Crest of spillway	724.0	258,600
Crest of notch in spillway	710.0	164,800
Top of conservation storage	694.0	88,250
Inverts at intake to wet wells	656.0	6,550
Invert of two 6.5- by 13-foot broome-type gates	622.0	12

COOPERATION.--Records of elevation and contents furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

688.0	67,250	691.0	77,350
689.0	70,530	692.0	80,890
690.0	73,900	693.0	84,530

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82,820	82,020	81,150	80,400	79,120	78,980	75,970	75,760	74,380	72,210	71,510	71,140
2	82,780	81,950	81,150	80,400	79,120	78,480	75,930	75,730	74,340	72,210	71,470	71,070
3	82,750	81,840	81,150	80,430	79,190	77,990	75,900	75,660	74,240	72,010	71,440	71,070
4	82,710	81,800	81,150	80,360	79,260	77,450	75,860	75,590	74,240	71,670	71,410	71,000
5	82,710	81,800	81,150	80,290	79,260	76,900	75,830	75,590	74,170	71,370	71,410	70,900
6	82,670	81,730	81,150	80,220	79,190	76,620	75,790	75,660	74,100	71,240	71,470	70,870
7	82,670	81,730	81,150	80,250	79,160	76,620	75,760	75,730	74,000	71,140	71,440	70,800
8	82,530	81,690	81,070	80,250	79,120	76,620	75,690	75,520	73,900	71,070	71,370	70,770
9	82,380	81,660	81,070	80,250	79,120	76,620	75,660	75,350	73,830	70,970	71,340	70,670
10	82,350	81,620	81,070	80,220	79,120	76,590	75,590	75,210	73,730	70,870	71,300	70,600
11	82,380	81,550	81,040	80,220	79,120	76,590	75,550	75,170	73,660	70,800	71,240	70,530
12	82,380	81,550	81,000	79,900	79,050	76,590	75,480	75,070	73,590	70,670	71,170	70,460
13	82,350	81,550	81,000	79,620	79,050	76,590	75,450	75,030	73,590	70,560	71,610	70,400
14	82,270	81,580	81,000	79,400	79,050	76,550	75,410	74,970	73,560	70,460	71,640	70,330
15	82,240	81,550	81,000	79,300	79,050	76,520	75,350	74,930	73,490	70,300	71,710	70,270
16	82,200	81,510	80,970	79,260	79,080	76,520	75,790	74,900	73,460	70,100	71,670	70,200
17	82,160	81,440	80,930	79,260	79,080	76,490	76,210	74,790	73,390	70,010	71,640	70,100
18	82,130	81,440	80,930	79,230	79,120	76,420	76,310	74,720	73,320	69,870	71,610	69,970
19	82,090	81,360	80,930	79,260	79,160	76,350	76,350	74,720	73,020	69,740	71,540	69,870
20	82,060	81,330	80,890	79,260	79,160	76,280	76,450	74,660	72,680	69,710	71,470	69,840
21	82,090	81,360	80,860	79,260	79,230	76,240	76,420	74,660	72,720	69,680	71,410	69,810
22	82,060	81,260	80,790	79,260	79,300	76,210	76,420	74,660	72,750	69,610	71,370	69,940
23	82,240	81,180	80,500	79,260	79,260	76,170	76,380	74,590	72,680	69,550	71,270	70,140
24	82,200	81,110	80,330	79,260	79,300	76,140	76,170	74,450	72,620	70,070	71,240	70,170
25	82,240	81,150	80,330	79,230	79,370	76,110	75,970	74,380	72,550	70,040	71,340	70,200
26	82,270	81,110	80,290	79,190	79,400	76,110	75,860	74,380	72,450	70,040	71,340	70,200
27	82,270	81,070	80,250	79,190	79,400	76,070	75,790	74,410	72,380	70,040	71,300	70,170
28	82,240	81,070	80,250	79,190	79,400	76,040	75,790	74,340	72,350	70,240	71,300	70,140
29	82,160	81,110	80,290	79,260	------	76,040	75,790	74,760	72,310	71,100	71,200	70,100
30	82,130	81,150	80,430	79,260	------	76,040	75,790	74,690	72,280	71,540	71,200	70,040
31	82,130	------	80,430	79,160	------	76,040	------	74,450	------	71,540	71,200	------
(†)	692.34	692.07	691.87	691.51	691.58	690.62	690.55	690.16	689.52	689.30	689.20	688.85
(#)	-720	-980	-720	-1,270	+240	-3,360	-250	-1,340	-2,170	-740	-340	-1,160
MAX	82,820	82,020	81,150	80,430	79,400	78,980	76,450	75,760	74,380	72,210	71,710	71,140
MIN	82,060	81,070	80,250	79,160	79,050	76,040	75,350	74,340	72,280	69,550	71,170	69,810

CAL YR 1970..... # -12,770 MAX 108,200 MIN 80,250
WTR YR 1971..... # -12,810 MAX 82,820 MIN 69,550

† Elevation, in feet, at end of month.
# Change in contents, in acre-feet.

08047000 Clear Fork Trinity River near Benbrook, Tex.

LOCATION.--Lat 32°39'54", long 97°26'30", Tarrant County, on left bank 1.5 miles downstream from Benbrook Dam, 1.7 miles southeast of Benbrook, 2.9 miles upstream from Marys Creek, and at mile 13.1 upstream from West Fork Trinity River.

DRAINAGE AREA.--431 sq mi.

PERIOD OF RECORD.--July 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 604.22 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--24 years, 64.5 cfs (46,730 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 405 cfs July 29 (gage height, 4.33 ft); no flow at times.
Period of record: Maximum discharge, 82,900 cfs May 17, 1949 (gage height, 28.72 ft), from rating curve extended above 11,000 cfs on basis of velocity-area studies and slope-area measurement of 82,900 cfs; no flow at times. Maximum discharge since construction of Benbrook Dam in 1952, 4,350 cfs June 26, 1957 (gage height, 11.28 ft).
Maximum stage known since at least 1922, that of May 17, 1949.

REMARKS.--Records good. Flow regulated by Benbrook Lake (station 08046500, revised) since September 1952. Diversion 1.0 mile upstream from Benbrook Golf Course.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.26	.02	.20	.06	169	.11	.40	45	0	.11	.11
2	.63	.20	.02	.20	.08	267	.11	.40	.26	0	.20	.08
3	.82	.15	.01	.26	.08	263	.15	.32	.20	67	.20	.04
4	.82	.11	0	.26	.11	263	.20	.20	.20	120	.15	.01
5	.63	.08	0	.32	.11	263	.20	.20	.15	120	.11	.01
6	1.0	.08	0	.26	.11	98	.20	.50	.08	47	.08	0
7	1.6	.06	0	.20	.11	.26	.20	.50	.06	.08	.08	0
8	1.6	.06	0	.15	.11	.20	.26	73	.06	.02	.06	0
9	1.6	.06	0	.15	.11	.20	.26	106	.02	.06	.06	0
10	1.0	.04	0	.15	.11	.15	.20	40	.01	.06	.04	0
11	2.0	.04	0	.15	.15	.15	.20	.20	0	.01	.04	0
12	1.6	.04	0	141	.15	.15	.15	.08	0	0	.04	0
13	.82	.02	0	155	.15	.20	.15	.08	0	0	.26	0
14	.63	.02	0	108	.15	.32	.15	.08	0	0	.08	.52
15	.63	.02	0	58	.15	.20	.20	.08	0	49	.15	.82
16	.63	.02	0	.11	.11	.15	.50	.08	0	30	.11	2.9
17	.63	.02	0	.08	.08	.15	4.8	.06	0	5.3	.11	.20
18	.63	.02	0	.06	.08	.20	1.3	.04	0	8.1	.11	.06
19	.63	.02	0	.06	.08	.11	.20	.04	66	15	.11	.08
20	.82	.02	0	.06	.08	.15	.26	.04	125	7.8	.11	.06
21	1.0	.02	0	.08	.15	.20	.20	.04	48	.08	.08	.06
22	3.2	.04	9.6	.06	.08	.20	.20	.02	.20	.06	.06	.11
23	3.5	.04	141	.06	.08	.15	.20	.02	.11	.04	.04	.15
24	.82	.04	62	.06	.08	.11	86	.01	.08	.32	.04	.11
25	.63	.02	.50	.06	.11	.20	146	.01	.02	.11	.08	.11
26	1.3	.02	.15	.06	.15	.20	56	.01	.01	.04	.11	.11
27	1.0	.02	.04	.06	.15	.20	.32	.02	0	.01	.11	.06
28	.50	.02	1.0	.06	.20	.20	.20	.02	0	2.9	.11	.04
29	.82	.02	.20	.06	------	.20	.20	69	0	27	.08	.02
30	.63	.02	.26	.06	------	.15	.32	110	0	3.2	.08	.01
31	.32	------	.15	.06	------	.11	------	113	------	.15	.15	------
TOTAL	33.26	1.60	214.95	465.35	3.17	1,327.51	299.44	514.45	285.46	503.34	3.15	5.67
MEAN	1.07	.053	6.93	15.0	.11	42.8	9.98	16.6	9.52	16.2	.10	.19
MAX	3.5	.26	141	155	.20	267	146	113	125	120	.26	2.9
MIN	.32	.02	0	.06	.06	.11	.11	.01	0	0	.04	0
AC-FT	66	3.2	426	923	6.3	2,630	594	1,020	566	998	6.3	11

CAL YR 1970 TOTAL 47,916.23 MEAN 131 MAX 2,220 MIN 0 AC-FT 95,040
WTR YR 1971 TOTAL 3,657.35 MEAN 10.0 MAX 267 MIN 0 AC-FT 7,250

08047500 Clear Fork Trinity River at Fort Worth, Tex.

LOCATION.--Lat 32°43'56", long 97°21'31", Tarrant County, at Fort Worth pumping station on left bank, 240 ft upstream from the Texas and Pacific Railway Co. bridge in Fort Worth, 830 ft upstream from East-West Expressway bridge, 2.5 miles upstream from mouth, 5 miles downstream from Marys Creek, and 10 miles downstream from Benbrook Dam.

DRAINAGE AREA.--518 sq mi.

PERIOD OF RECORD.--March 1924 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 532.91 ft above mean sea level. Prior to Apr. 3, 1970, various nonrecording and recording gages within 650 ft of present site at different datums.

AVERAGE DISCHARGE.--47 years, 99.9 cfs (72,380 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 4,450 cfs July 29 (gage height, 11.68 ft); no flow July 15-19, result of pumping from pool at gage.
Period of record: Maximum discharge, 107,000 cfs May 17, 1949 (gage height, 28.20 ft, present datum), from rating curve extended above 16,000 cfs on basis of contracted-opening measurement of 107,000 cfs; no flow at times.
Maximum stage since at least 1900, 28.20 ft May 17, 1949, present datum. Flood of Apr. 25, 1922, reached a stage of 27.5 ft present datum (discharge, 74,300 cfs by slope-area measurement of peak flow, data furnished by city engineer of Fort Worth).

REMARKS.--Records good. Flow largely regulated by Benbrook Lake (station 08046500). The city of Fort Worth reported that during year 164 acre-ft was diverted above station for irrigation and 153 acre-ft was diverted from pool at gage for municipal and industrial use.

REVISIONS (WATER YEARS).--WSP 1392: 1924-25, 1927. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	4.1	2.8	6.1	1.8	83	2.8	2.8	75	2.9	12	2.8
2	6.1	3.6	2.8	4.1	2.3	260	1.8	2.8	22	32	7.9	3.0
3	5.0	3.6	2.8	12	3.2	246	2.3	1.8	6.6	24	5.6	2.5
4	5.0	3.6	2.8	7.8	22	246	2.8	1.4	4.4	108	4.4	1.1
5	4.6	4.1	2.8	6.1	11	246	3.6	7.7	2.8	105	4.0	.51
6	5.0	4.1	2.3	5.6	7.8	160	3.2	21	2.2	81	11	.26
7	6.1	3.6	2.3	5.6	6.1	32	4.9	23	1.2	19	9.4	.16
8	4.6	4.1	2.3	5.0	5.0	17	5.4	29	.44	8.0	5.5	.27
9	3.6	3.6	2.3	5.0	5.0	11	1.4	100	.23	2.7	3.2	.73
10	3.6	2.8	2.3	4.6	4.6	9.4	1.4	84	.15	.47	2.1	.41
11	48	3.2	2.3	4.1	3.6	8.3	1.4	22	.10	9.1	1.9	2.1
12	24	3.6	2.8	71	3.6	6.6	.18	7.2	.11	1.6	1.1	2.1
13	12	8.4	2.8	196	4.1	6.1	.06	2.3	.14	.07	55	.59
14	7.2	11	3.2	51	4.6	4.6	.18	2.3	1.3	.01	148	.08
15	6.1	5.6	6.1	44	4.1	3.2	.50	1.8	.66	0	35	.04
16	5.6	5.0	5.0	15	4.1	3.2	96	.30	.26	0	16	.05
17	5.0	5.0	4.1	7.2	4.6	4.1	180	.03	.10	0	8.2	.14
18	5.6	4.6	3.6	4.6	6.1	4.1	121	.02	.04	0	5.3	.38
19	5.6	2.8	3.2	4.1	7.8	3.6	23	.10	.77	0	4.0	.64
20	5.6	3.2	3.2	3.6	5.6	3.6	35	.10	108	8.8	3.1	.60
21	6.1	3.2	3.6	3.2	37	3.6	17	.18	144	13	2.5	.25
22	6.1	2.8	3.6	3.2	29	3.2	10	.18	28	7.0	2.3	19
23	70	2.3	129	2.8	14	3.2	7.8	.10	10	12	1.1	54
24	31	2.3	118	2.8	9.4	4.1	34	.10	4.3	26	1.3	15
25	15	3.6	20	2.3	18	4.6	144	.10	1.9	38	32	4.1
26	10	3.6	8.3	1.8	18	4.6	99	.10	.50	15	18	.50
27	7.2	3.2	5.6	2.8	13	4.6	17	69	1.2	8.9	12	.10
28	5.6	3.2	4.1	2.8	12	4.6	8.8	9.4	4.3	80	7.3	.06
29	5.6	3.2	4.1	2.8	------	3.6	4.1	368	7.2	474	4.7	.06
30	4.6	3.2	33	3.2	------	3.6	4.1	132	7.6	221	3.9	.06
31	4.6	------	12	2.3	------	3.2	------	120	------	29	2.3	------
TOTAL	340.7	120.2	403.1	492.5	267.4	1,400.7	832.72	1,008.81	435.50	1,326.55	430.1	111.59
MEAN	11.0	4.01	13.0	15.9	9.55	45.2	27.8	32.5	14.5	42.8	13.9	3.72
MAX	70	11	129	196	37	260	180	368	144	474	148	54
MIN	3.6	2.3	2.3	1.8	1.8	3.2	.06	.02	.04	0	1.1	.04
AC-FT	676	238	800	977	530	2,780	1,650	2,000	864	2,630	853	221

CAL YR 1970 TOTAL 66,689.10 MEAN 183 MAX 2,660 MIN 0 AC-FT 132,300
WTR YR 1971 TOTAL 7,169.87 MEAN 19.6 MAX 474 MIN 0 AC-FT 14,220

08048000 West Fork Trinity River at Fort Worth, Tex.

LOCATION.--Lat 32°45'39", long 97°19'56", Tarrant County, on left bank 125 ft upstream from Texas Electric Service Co.'s concrete dam, 980 ft downstream from centerline of Paddock Viaduct (North Main Street) at Fort Worth, 2,600 ft downstream from Clear Fork Trinity River, and at mile 556.8.

DRAINAGE AREA.--2,615 sq mi.

PERIOD OF RECORD.--October 1920 to current year. Gage-height records collected in this vicinity since 1910 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder and concrete dam control with angle-iron-crested notch for flow below 50 cfs. Datum of gage is 519.24 ft above mean sea level (Texas Reclamation Department bench mark based on Coast and Geodetic Survey datum). Prior to Aug. 22, 1954, at site 1,200 ft upstream at same datum. Aug. 22, 1954, to Oct. 15, 1955, at site 2,000 ft upstream at same datum.

AVERAGE DISCHARGE.--51 years, 381 cfs (276,000 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,530 cfs July 29 (gage height, 3.05 ft); minimum, 2.8 cfs July 17, Sept. 16.
Period of record: Maximum discharge, 85,000 cfs Apr. 25, 1922 (gage height, 23.95 ft, site then in use), by slope-area measurement of peak flow by city engineer of Fort Worth; maximum gage height, 25.91 ft (site then in use) May 17, 1949 (discharge, 64,300 cfs); no flow at times.
Maximum stage since at least 1866, that of May 17, 1949. Maximum stages have been affected by levee construction, levee breaks, and channel rectification.

REMARKS.--Records good. Flow largely regulated by six major upstream reservoirs with a total combined capacity of 686,900 acre-ft, of which 76,550 acre-ft is for flood control. Records furnished by city of Fort Worth show that during year 82,460 acre-ft was diverted above station for municipal and industrial use, and 55,560 acre-ft of sewage effluent was returned to river below station. Many small diversions above station.

REVISIONS (WATER YEARS).--WSP 1392: 1925. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	619	16	16	22	13	64	11	12	121	11	24	12
2	435	14	16	20	13	364	9.6	12	38	47	18	14
3	209	15	16	44	14	344	9.1	12	23	43	17	13
4	96	16	16	29	66	300	8.9	12	16	88	16	8.5
5	44	18	16	18	31	303	9.4	24	11	111	14	7.9
6	32	18	14	16	21	253	9.4	80	8.7	94	32	7.7
7	26	19	14	16	16	32	8.5	66	8.0	29	23	7.5
8	41	20	14	16	13	19	11	30	7.1	15	13	7.9
9	44	19	15	16	12	16	12	124	6.4	12	12	6.4
10	21	18	16	16	12	14	11	115	5.3	8.6	9.9	8.1
11	88	19	17	17	13	15	11	34	5.2	9.6	8.2	8.7
12	59	17	16	63	13	15	9.5	22	5.7	9.2	7.2	7.5
13	30	25	17	301	12	15	8.6	15	7.2	6.6	120	6.3
14	25	39	15	106	12	15	7.7	14	9.9	5.7	351	4.9
15	21	22	19	159	12	11	8.1	13	9.7	4.6	73	3.7
16	20	17	21	44	11	11	242	14	9.0	4.3	32	3.1
17	21	18	17	27	12	12	388	16	7.9	3.6	19	3.8
18	20	18	14	19	14	14	330	15	6.8	4.5	15	5.3
19	20	19	12	17	18	14	36	14	6.3	11	15	5.7
20	21	17	11	16	15	12	74	15	77	31	14	7.2
21	21	18	12	15	110	11	34	15	182	27	13	8.7
22	20	16	12	14	35	12	22	15	39	26	10	37
23	209	13	110	14	22	12	18	16	19	63	9.0	130
24	48	12	160	13	17	11	16	15	12	47	9.8	40
25	28	13	38	13	29	13	168	12	8.1	51	51	39
26	22	15	21	12	32	17	155	9.9	7.2	26	36	28
27	19	15	16	13	20	17	31	143	7.5	29	27	18
28	18	15	14	14	19	15	18	29	8.2	108	18	14
29	18	16	13	14	------	14	12	736	17	475	13	13
30	17	15	103	15	------	13	12	172	18	456	13	11
31	17	------	35	14	------	11	------	143	------	41	13	------
TOTAL	2,329	532	846	1,133	627	1,989	1,700.8	1,964.9	707.2	1,897.7	1,046.1	487.9
MEAN	75.1	17.7	27.3	36.5	22.4	64.2	56.7	63.4	23.6	61.2	33.7	16.3
MAX	619	39	160	301	110	364	388	736	182	475	351	130
MIN	17	12	11	12	11	11	7.7	9.9	5.2	3.6	7.2	3.1
AC-FT	4,620	1,060	1,680	2,250	1,240	3,950	3,370	3,900	1,400	3,760	2,070	968

CAL YR 1970 TOTAL 156,117.0 MEAN 428 MAX 4,120 MIN 6.0 AC-FT 309,700
WTR YR 1971 TOTAL 15,260.6 MEAN 41.8 MAX 736 MIN 3.1 AC-FT 30,270

08048520 Sycamore Creek at Interstate Highway 35-W, Fort Worth, Tex.

LOCATION.--Lat 32°39'55", long 97°19'16", Tarrant County, on left bank at upstream side of bridge on frontage road on upstream side of Interstate Highway 35-W, 5.8 miles south of Fort Worth City Hall, and 8.9 miles upstream from mouth.

DRAINAGE AREA.--17.7 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,100 cfs July 29 (elevation, 636.16 ft); no flow at times.
Period of record: Maximum discharge, 2,100 cfs July 29, 1971 (elevation, 636.16 ft); no flow at times.
Flood of May 6, 1969, reached an elevation of 640.1 ft, from floodmarks (discharge not determined). Flood in 1908 reached an elevation of 645.9 ft (discharge not determined), and flood in 1938 reached an elevation of 644.4 ft (discharge not determined), from information by State Highway Department.

REMARKS.--Records good. Flow is slightly affected by several small farm ponds on tributaries above station. At times, low flow may be sustained by effluents from commercial establishments. Two recording rain gages are operated in basin above this station, and one recording rain gage is located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.35	.07	.35	.01	.45	.04	.03	.97	.50	.81	.03
2	.12	.07	.07	.12	.01	.35	.04	.03	.62	.53	.54	.03
3	.12	.02	.07	1.5	.01	.45	.03	.02	.35	1.1	.17	.05
4	.07	.02	.07	.87	6.8	.35	.02	.01	.27	.30	.17	.02
5	.07	.02	.12	.26	.87	.26	.03	.01	.23	.10	4.5	0
6	.12	.02	.04	.18	.35	.26	.03	4.9	.16	.04	2.3	0
7	.12	.01	.04	.12	.07	.12	.04	4.2	.11	.03	.49	0
8	.26	.01	.07	.12	.04	.12	.03	.40	.06	.82	.25	0
9	.12	.02	.12	.18	.04	.14	.08	.08	.06	.04	.09	0
10	.07	.04	.12	.26	.04	.29	.06	.11	.05	.01	.05	0
11	17	.02	.12	.18	.07	.35	.05	.05	.05	0	.04	0
12	4.4	.02	.04	.26	.07	.23	.26	.03	.06	0	.03	0
13	1.0	2.5	.04	.35	.12	.05	.03	.03	.05	0	22	0
14	.45	1.2	.04	.26	.45	.03	.03	.03	.13	0	39	0
15	.18	.18	1.0	.18	.35	.03	.02	.03	.15	0	3.3	0
16	.07	.04	.57	.18	.35	.08	32	.01	.10	0	.84	0
17	.02	.02	.26	.07	.26	.05	31	0	.05	0	.24	0
18	.02	.04	.12	.07	5.1	.06	22	0	.03	.94	.11	0
19	.04	.04	.07	.07	2.2	.10	2.2	.03	.02	3.2	.05	0
20	.02	.02	.04	.07	.57	.05	8.9	.03	.03	4.0	.04	0
21	.02	.01	.12	.07	5.4	.05	2.8	.03	83	.44	.02	0
22	.02	.01	.18	.07	1.0	.03	1.3	.04	5.4	.29	.02	5.2
23	22	.02	.12	.26	.57	.04	.45	.04	1.7	.49	0	15
24	1.7	.02	.04	.07	.45	.05	.23	.04	.63	3.1	11	1.9
25	.26	.04	.02	.07	6.5	.03	.13	.03	.25	2.4	19	8.3
26	.18	.04	.02	.07	2.0	.04	.08	.03	.16	.74	1.7	.83
27	.35	.04	.02	.07	.71	.04	.05	17	.11	1.9	1.1	.25
28	.12	.07	.04	.07	.45	.05	.04	1.3	.16	30	.27	.10
29	.07	.07	.35	.04	------	.04	.04	89	.24	178	.09	.05
30	.04	.07	12	.02	------	.04	.04	6.3	.57	18	.05	.04
31	.26	------	.87	.01	------	.03	------	2.0	------	2.1	.04	------
TOTAL	49.64	5.05	16.87	6.47	34.86	4.26	102.05	125.84	95.77	249.07	108.31	31.80
MEAN	1.60	.17	.54	.21	1.25	.14	3.40	4.06	3.19	8.03	3.49	1.06
MAX	22	2.5	12	1.5	6.8	.45	32	89	83	178	39	15
MIN	.02	.01	.02	.01	.01	.03	.02	0	.02	0	0	0
CFSM	.09	.01	.03	.01	.07	.008	.19	.23	.18	.45	.20	.06
IN.	.10	.01	.04	.01	.07	.008	.21	.26	.20	.52	.23	.07
AC-FT	98	10	33	13	69	8.5	202	250	190	494	215	63

CAL YR 1970 TOTAL 3,316.17 MEAN 9.09 MAX 315 MIN 0 CFSM .51 IN 6.97 AC-FT 6,580
WTR YR 1971 TOTAL 829.99 MEAN 2.27 MAX 178 MIN 0 CFSM .13 IN 1.74 AC-FT 1,650

PEAK DISCHARGE (BASE, 800 CFS).--July 29 (2115) 2,100 cfs (636.16 ft).

08048530 Sycamore Creek tributary above Seminary South Shopping Center, Fort Worth, Tex.

LOCATION.--Lat 32°41'08", long 97°19'44", Tarrant County, on right bank near entrance to culvert under Missouri, Kansas, and Texas Railroad (revised), 0.2 mile northeast of intersection of Hemphill Street and Seminary Drive in Fort Worth, 1.8 miles upstream from mouth, and 4.5 miles south of Fort Worth City Hall.

DRAINAGE AREA.--0.97 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and culvert control. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum discharge, 400 cfs July 29 (elevation, 654.20 ft); minimum daily, 0.01 cfs at times.
Period of record: Maximum discharge, 400 cfs July 29, 1971 (elevation, 654.20 ft); no flow at times.
Maximum stage since 1966, about 656.0 ft in August 1966 (discharge not determined), from information by local resident.

REMARKS.--Records fair. Low flow sustained by effluent from commercial establishments above station. One recording rain gage is operated in basin above station, and one is located below station in Seminary South Shopping Center. Records of precipitation and hydrologic data for selected storms are published elsewhere in supplementary basic-data reports.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.03	.08	.04	.01	.01	.08	.01	.02	.01	.17	.07
2	.01	.04	.06	.04	.04	.19	.04	.01	.02	.93	.14	.07
3	.01	.05	.09	.86	.06	.18	.06	.01	.02	.04	.14	.05
4	.01	.05	.06	.03	2.1	.01	.06	.01	.02	.01	.18	.05
5	.01	.06	.07	.04	.04	.02	.03	.03	.02	.37	1.0	.06
6	.01	.02	.05	.03	.05	.02	.04	1.6	.02	.01	.09	.06
7	.01	.01	.06	.03	.10	.01	.04	.02	.02	.01	.06	.07
8	.10	.01	.07	.05	.08	.02	.05	.01	.02	.01	.06	.04
9	.01	.01	.08	.05	.09	.01	.04	.02	.01	.01	.06	.01
10	.01	.03	.12	.02	.08	.01	.06	.01	.02	.01	.06	.01
11	3.3	.03	.13	.01	.17	.02	.02	.01	.02	.01	.06	.01
12	.05	.01	.04	.14	.10	.01	.03	.01	.01	.01	.06	.01
13	.01	1.1	.02	.16	.15	.01	.03	.01	.13	.01	3.6	.14
14	.05	.03	.02	.19	.12	.02	.02	.01	.02	.01	8.8	.03
15	.01	.06	.63	.16	.12	.02	.03	.01	.01	.01	.16	.01
16	.01	.18	.01	.16	.13	.02	6.6	.01	.01	.02	.07	.01
17	.05	.01	.01	.16	.06	.02	3.5	.01	.01	.59	.04	.01
18	.08	.01	.01	.19	.84	.47	.24	.10	.01	.01	.02	.01
19	.01	.02	.01	.18	.01	.03	.09	.02	.01	1.7	.02	.03
20	.05	.03	.01	.01	.01	.04	1.0	.01	.36	.06	.03	.01
21	.01	.07	.01	.01	2.2	.06	.05	.01	4.5	.07	.08	.01
22	.01	.07	.01	.01	.03	.08	.04	.01	.01	.01	.12	3.0
23	3.1	.05	.01	.01	.05	.06	.02	.01	.01	.15	.09	2.4
24	.01	.08	.01	.01	.12	.06	.02	.01	.01	.87	2.5	.07
25	.01	.08	.01	.01	1.4	.06	.02	.01	.01	.02	2.9	1.7
26	.01	.08	.01	.01	.02	.05	.02	.01	.01	.12	.31	.07
27	.01	.08	.01	.22	.01	.05	.02	3.1	.01	.14	.11	.05
28	.04	.08	.05	.18	.06	.06	.03	.01	.01	7.5	.08	.02
29	.02	.09	.01	.01	------	.06	.24	8.9	.27	14	.06	.02
30	.04	.09	2.2	.02	------	.08	.02	.07	.01	.55	.05	.02
31	.09	------	.09	.01	------	.08	------	.04	------	.22	.05	------
TOTAL	7.16	2.56	4.05	3.05	8.25	1.84	12.54	14.11	5.63	27.49	21.17	8.12
MEAN	.23	.085	.13	.098	.29	.059	.42	.46	.19	.89	.68	.27
MAX	3.3	1.1	2.2	.86	2.2	.47	6.6	8.9	4.5	14	8.8	3.0
MIN	.01	.01	.01	.01	.01	.01	.02	.01	.01	.01	.02	.01
CFSM	.24	.09	.13	.10	.30	.06	.43	.47	.20	.92	.70	.28
IN.	.27	.10	.16	.12	.32	.07	.48	.54	.22	1.05	.81	.31
AC-FT	14	5.1	8.0	6.1	16	3.7	25	28	11	55	42	16

CAL YR 1970 TOTAL 240.04 MEAN .66 MAX 23 MIN 0 CFSM .68 IN 9.21 AC-FT 476
WTR YR 1971 TOTAL 115.97 MEAN .32 MAX 14 MIN .01 CFSM .33 IN 4.45 AC-FT 230

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
5-27	0355	652.79	250	7-28	1225	653.28	308
5-29	0720	653.05	283	7-29	1950	654.20	400
				8-14	1120	653.03	281

08048540 Sycamore Creek tributary at Interstate Highway 35-W, Fort Worth, Tex.

LOCATION.--Lat 32°14'18", long 97°19'11", Tarrant County, on left bank at culvert on downstream side of access road to Interstate Highway 35-W, 0.3 mile north of Seminary Drive in Fort Worth, 1.2 miles upstream from mouth, and 4.3 miles south of Fort Worth City Hall.

DRAINAGE AREA.--1.35 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum discharge, 780 cfs July 29 (elevation, 625.84 ft); minimum daily, 0.01 cfs for many days.
Period of record: Maximum discharge, 780 cfs July 29, 1971 (elevation, 625.84 ft); minimum daily, 0.01 cfs for many days.
Maximum elevation since 1969, 627.2 ft (backwater from culvert), from floodmarks, in May 1969 (discharge not determined).
Flood in August 1966 probably equaled or exceeded the flood of May 1969, based on information at upstream station 08048530.

REMARKS.--Records fair. Records include runoff from a shopping center. Low flows sustained by effluents. Two recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.13	.13	.08	.01	.02	.06	.03	.09	.01	.08	.06
2	.11	.08	.13	.08	.01	.07	.04	.02	.06	.60	.06	.06
3	.11	.12	.13	2.1	.01	.16	.03	.02	.04	.03	.06	.08
4	.11	.07	.12	.09	3.2	.04	.05	.02	.06	.01	.09	.04
5	.11	.07	.05	.08	.02	.05	.03	.07	.02	.60	1.6	.04
6	.10	.04	.02	.06	.02	.09	.03	3.2	.02	.01	.08	.04
7	.11	.04	.04	.09	.02	.09	.03	.01	.09	.01	.02	.03
8	.29	.04	.05	.11	.02	.07	.05	.01	.02	.04	.02	.03
9	.11	.05	.09	.08	.02	.06	.03	.01	.04	.91	.03	.02
10	.11	.09	.12	.06	.02	.03	.02	.01	.07	.04	.03	.03
11	7.8	.11	.17	.07	.10	.03	.04	.01	.07	.05	.03	.03
12	.10	.08	.05	.14	.02	.03	.04	.01	.02	.07	.03	.03
13	.04	1.7	.05	.15	.04	.06	.05	.02	.39	.17	6.9	.17
14	.07	.06	.04	.19	.01	.04	.16	.01	.03	.17	16	.06
15	.02	.04	1.5	.14	.01	.06	.03	.01	.03	.18	.16	.06
16	.02	.14	.04	.18	.01	.06	14	.01	.01	.21	.10	.07
17	.13	.03	.04	.20	.01	.05	8.6	.01	.04	.51	.19	.04
18	.06	.04	.05	.22	1.7	.83	.02	.02	.08	.02	.11	.04
19	.02	.05	.04	.16	.03	.03	.07	.01	.01	4.3	.11	.15
20	.04	.05	.06	.05	.02	.03	.52	.01	.08	.20	.09	.02
21	.01	.06	.07	.05	2.5	.03	.07	.01	12	.20	.09	.03
22	.02	.07	.07	.05	.03	.04	.06	.01	.02	.06	.13	5.2
23	6.8	.03	.05	.04	.04	.03	.04	.01	.09	.43	.07	4.7
24	.02	.06	.05	.03	.09	.04	.06	.01	.03	1.4	7.0	.28
25	.01	.07	.04	.03	1.8	.04	.02	.02	.01	.06	6.0	4.8
26	.03	.07	.04	.02	.05	.04	.03	.06	.01	.20	.24	.12
27	.01	.08	.04	.09	.03	.03	.04	10	.24	.55	.08	.08
28	.02	.13	.07	.06	.07	.03	.06	.05	.03	17	.06	.05
29	.02	.08	.06	.01	------	.04	1.4	21	.12	30	.04	.02
30	.10	.12	5.3	.01	------	.05	.06	.02	.02	.54	.05	.02
31	.16	------	.15	.01	------	.05	------	.03	------	.12	.05	------
TOTAL	16.74	3.80	8.86	4.73	9.91	2.32	25.74	34.74	13.84	58.70	39.60	16.40
MEAN	.54	.13	.29	.15	.35	.075	.86	1.12	.46	1.89	1.28	.55
MAX	7.8	1.7	5.3	2.1	3.2	.83	14	21	12	30	16	5.2
MIN	.01	.03	.02	.01	.01	.02	.02	.01	.01	.01	.02	.02
CFSM	.40	.10	.21	.11	.26	.06	.64	.83	.34	1.40	.95	.41
IN.	.46	.10	.24	.13	.27	.06	.71	.96	.38	1.62	1.09	.45
AC-FT	33	7.5	18	9.4	20	4.6	51	69	27	116	79	33

CAL YR 1970 TOTAL 391.97 MEAN 1.07 MAX 36 MIN .01 CFSM .79 IN 10.80 AC-FT 777
WTR YR 1971 TOTAL 235.38 MEAN .64 MAX 30 MIN .01 CFSM .47 IN 6.49 AC-FT 467

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-23	0950	622.43	248	7-28	1230	624.13	619
4-16	1515	621.19	209	7-29	1950	625.84	780
5-27	0350	623.47	531	8-14	1120	622.94	451
5-29	0720	623.26	499	8-24	1635	622.20	340
6-21	1135	622.03	314	9-25	0400	621.68	268

08048600 Dry Branch at Fain Street, Fort Worth, Tex.

LOCATION.--Lat 32°46'34", long 97°17'18", Tarrant County, on right bank 30 ft upstream from culvert on Fain Street, at intersection of Fain and Beach Streets in Fort Worth, 1.1 miles upstream from mouth, and 2.9 miles northeast of Tarrant County Courthouse.

DRAINAGE AREA.--2.15 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and concrete culvert control. Datum of gage is 537.51 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 264 cfs Aug. 15 (gage height, 4.37 ft); minimum daily, 0.02 cfs June 25.
Period of record: Maximum discharge, 338 cfs May 30, 1970 (gage height, 4.98 ft); minimum daily, 0.02 cfs June 25, 1971.
Maximum stage since April 1964, 9.0 ft in April 1966 at upstream side of Fain Street culvert, from information by local resident (discharge not determined).

REMARKS.--Records good above 1 cfs and fair below. Low flow sustained by effluent from commercial establishments and industry above station. Two recording rain gages are operated in basin above station.

REVISIONS.--WRD Texas 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.08	.08	.22	.13	.22	.09	.13	.13	.05	.08	.13
2	.13	.08	.09	.22	.13	.92	.08	.13	.13	.25	.08	.13
3	.12	.08	.08	2.4	.13	1.1	.10	.13	.13	.03	.17	.13
4	.08	.08	.08	.31	4.8	.40	.11	.08	.10	.03	.20	.13
5	.08	.08	.08	.22	.43	.22	.13	.85	.05	.03	.30	.13
6	.08	.08	.08	.22	.38	.14	.13	2.7	.05	.03	1.7	.13
7	.08	.08	.08	.22	.38	.13	.18	.41	.05	.03	.63	.13
8	.19	.08	.07	.22	.38	.13	.31	.13	.08	.03	.11	.13
9	.08	.08	.08	.22	.38	.13	.20	.13	.08	.03	.08	.13
10	.08	.08	.07	.22	.38	.13	.13	.08	.13	.03	.08	.13
11	4.2	.08	.07	.25	.38	.13	.13	.05	.14	.03	.13	.13
12	.50	.09	.08	.39	.31	.13	.08	.09	.13	.13	.13	.13
13	.08	1.6	.08	2.2	.25	.13	.13	.08	.13	.13	3.8	.13
14	.08	.39	.08	.24	.38	.13	.38	.08	.34	.17	13	.13
15	.08	.13	.50	.22	.38	.08	.38	.08	.22	.18	25	.13
16	.08	.13	.16	.18	.49	.08	20	.11	.22	.13	1.0	.13
17	.08	.13	.13	.13	.38	.08	10	.13	.22	.21	.03	.13
18	.08	.13	.11	.13	.62	.40	5.4	.13	.13	.13	.03	.13
19	.08	.13	.08	.13	.24	.08	.48	.08	.13	.52	.03	.13
20	.08	.13	.08	.13	.16	.08	3.2	.13	1.3	.15	.03	.13
21	.08	.20	.08	.13	5.4	.08	.20	.13	2.8	.66	.03	.13
22	.08	.22	.08	.13	.26	.08	.13	.13	.05	.12	.03	4.9
23	9.9	.23	.08	.13	.22	.08	.31	.13	.04	4.0	.03	6.9
24	.24	.26	.08	.13	.22	.08	.38	.10	.03	1.3	.89	.38
25	.11	.22	.08	.17	1.9	.08	.15	.08	.02	.12	1.9	2.1
26	.08	.22	.08	.22	.37	.11	.13	.08	.03	.05	.23	.23
27	.08	.22	.08	.18	.18	.08	.10	4.8	.03	.57	.19	.20
28	.08	.40	.09	.13	.75	.08	.10	.18	.37	1.5	.14	.07
29	.08	.16	.13	.13	------	.08	.13	15	1.5	5.2	.13	.06
30	.08	.11	4.9	.13	------	.08	.13	.36	.08	2.2	.13	.05
31	.08	------	.30	.13	------	.14	------	.13	------	.14	.13	------
TOTAL	17.28	5.98	8.14	10.08	20.41	5.81	43.40	26.85	8.84	18.18	50.44	17.62
MEAN	.56	.20	.26	.33	.73	.19	1.45	.87	.29	.59	1.63	.59
MAX	9.9	1.6	4.9	2.4	5.4	1.1	20	15	2.8	5.2	25	6.9
MIN	.08	.08	.07	.13	.13	.08	.08	.05	.02	.03	.03	.05
CFSM	.26	.09	.12	.15	.34	.09	.67	.40	.13	.27	.76	.27
IN.	.30	.10	.14	.17	.35	.10	.75	.46	.15	.31	.87	.30
AC-FT	34	12	16	20	40	12	86	53	18	36	100	35
(††)	1.64	.32	.70	.41	1.23	.26	2.88	2.58	1.14	2.35	4.31	1.66

CAL YR 1970 TOTAL 514.26 MEAN 1.41 MAX 45 MIN .05 CFSM .66 IN 8.90 AC-FT 1,020 †† 30.96
WTR YR 1971 TOTAL 233.03 MEAN .64 MAX 25 MIN .02 CFSM .30 IN 4.03 AC-FT 462 †† 19.48

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-23	1045	2.86	111
5-29	0745	3.14	136
8-15	1800	4.37	264

†† Weighted-mean rainfall, in inches, based on two rain gages.

08048800 Big Fossil Creek at Haltom City, Tex.

LOCATION.--Lat 32°48'26", long 97°14'54", Tarrant County, at center of channel at downstream side of downstream bridge on State Highways 121 and 183 near east boundary of Haltom City, 1.5 miles upstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, 2.0 miles upstream from Little Fossil Creek, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--52.8 sq mi.

PERIOD OF RECORD.--January 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 489.48 ft above mean sea level. Prior to Oct. 1, 1967, at same site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--12 years, 20.4 cfs (14,780 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,070 cfs Aug. 15 (gage height, 3.68 ft); no flow Apr. 15, May 26, June 29 to July 18.
Period of record: Maximum discharge, 27,000 cfs Sept. 7, 1962 (gage height, 26.90 ft, present datum), from rating curve extended above 16,500 cfs on basis of contracted-opening measurement of peak flow; no flow at times most years.
Maximum stage since at least 1900 and prior to channel rectification, that of Sept. 7, 1962.

REMARKS.--Records poor. Low flows are generally sustained by waste water. Recording rain gage located at station. Channel rectification and improvement completed in vicinity of gage during 1966 water year.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.26	.81	.61	1.2	1.8	.13	.43	.26	0	.43	1.0
2	1.2	.26	1.0	.81	1.2	1.8	.13	.61	.26	0	.43	.81
3	.81	.26	1.4	2.2	1.4	1.8	.06	.61	.26	0	.43	.81
4	.81	.13	1.4	1.6	4.3	2.0	.02	.81	.13	0	4.3	.61
5	.61	.06	1.6	1.4	2.0	2.4	.01	.81	.13	0	.61	.61
6	.61	.43	1.4	1.2	1.6	1.8	.01	1.4	.13	0	.61	.43
7	.61	.26	1.4	1.4	1.4	1.0	.01	.81	.13	0	.61	.26
8	.61	.26	1.4	1.2	1.2	1.0	.01	.81	.13	0	.06	.13
9	.13	.26	1.4	1.4	1.0	1.8	.01	.81	.13	0	.06	.13
10	.26	.13	1.4	1.4	1.2	1.6	.01	.81	.26	0	.06	.13
11	4.4	.43	1.2	1.2	1.8	1.6	.01	.81	.13	0	.01	.26
12	1.8	.61	.81	.81	1.6	1.8	.01	.81	.13	0	.01	.43
13	1.2	.77	.61	2.5	1.2	1.8	.01	.81	.26	0	.53	.43
14	1.2	.43	1.0	2.4	1.2	1.6	.01	.43	.43	0	47	.13
15	1.0	.26	1.4	3.0	1.4	1.6	0	.06	.43	0	181	.02
16	1.0	.61	.61	2.7	1.4	1.4	13	.13	.13	0	1.4	.01
17	.81	.61	.81	2.7	1.2	1.2	13	.43	.06	0	.43	.01
18	.61	.81	.81	2.2	1.2	1.4	59	.43	.02	0	.43	.06
19	.43	.81	1.4	2.2	1.2	1.0	4.9	.13	.13	2.8	.26	.13
20	.43	.81	.61	2.2	2.0	1.2	4.2	.26	.43	.43	.43	.13
21	.43	1.0	.61	2.4	5.2	1.4	3.0	.06	2.3	.61	.43	.13
22	.43	.81	1.4	2.4	2.4	1.4	2.4	.06	1.6	.43	.43	1.3
23	24	.26	1.4	2.4	2.0	1.4	1.4	.02	1.4	10	.61	5.1
24	7.5	.43	.61	2.0	1.8	1.2	1.2	.02	1.4	1.5	.81	26
25	3.8	.43	.43	1.8	2.4	.61	1.0	.01	1.0	.43	1.8	5.0
26	2.7	.61	.43	1.2	2.0	.13	.81	0	.43	.43	.81	1.8
27	1.6	.61	.43	1.4	1.2	.13	.61	1.7	1.0	.43	.81	1.6
28	.43	.81	.61	1.4	2.2	.26	.61	.26	.81	1.4	.43	1.4
29	.26	1.6	.61	1.6	------	.43	.61	13	0	.61	.43	1.2
30	.43	1.4	3.9	1.6	------	.26	.43	1.2	0	.61	.81	1.2
31	.81	------	1.4	1.6	------	.06	------	1.8	------	.43	1.0	------
TOTAL	62.32	16.42	34.30	54.93	49.9	38.88	106.61	30.34	13.91	20.11	247.47	51.26
MEAN	2.01	.55	1.11	1.77	1.78	1.25	3.55	.98	.46	.65	7.98	1.71
MAX	24	1.6	3.9	3.0	5.2	2.4	59	13	2.3	10	181	26
MIN	.13	.06	.43	.61	1.0	.06	0	0	0	0	.01	.01
AC-FT	124	33	68	109	99	77	211	60	28	40	491	102

CAL YR 1970 TOTAL 18,260.08 MEAN 50.0 MAX 2,270 MIN 0 AC-FT 36,220
WTR YR 1971 TOTAL 726.45 MEAN 1.99 MAX 181 MIN 0 AC-FT 1,440

PEAK DISCHARGE (BASE, 1,800 CFS).--Aug. 15 (1830) 2,070 cfs (3.68 ft).

08048850 Little Fossil Creek at Mesquite Street, Fort Worth, Tex.

LOCATION.--Lat 32°48'33", long 97°17'28", Tarrant County, on right bank at intersection of Mesquite Street and Broadway Avenue in Fort Worth, 150 ft upstream from bridge on Alta Vista Road (Beach Street), 4.3 miles northeast of county courthouse, and approximately 4.3 miles upstream from Big Fossil Creek.

DRAINAGE AREA.--12.3 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 548.62 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 603 cfs Aug. 15 (gage height, 5.61 ft); no flow at times.
Period of record: Maximum discharge, 1,530 cfs May 6, 1969 (gage height, 8.30 ft); no flow at times each year.
Maximum stage since 1955, 10.5 ft (at Alta Vista Road) in September 1962, from information by local resident (discharge not determined). Flood of Mar. 20, 1968, reached a stage of 8.7 ft (discharge, 1,600 cfs), from floodmarks at upstream side of Alta Vista Road Bridge.

REMARKS.--Records good. Flow slightly regulated by several small floodwater-retarding structures on tributaries above station. Low flow sustained at times by effluent from industrial park 2.6 miles upstream. Three recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.17	.25	.41	.17	.51	.50	.90	.64	0	0	0
2	.57	.17	.30	.32	.17	1.4	.44	.79	.44	0	0	0
3	.57	.17	.21	2.2	.17	1.5	.38	.67	.32	0	0	0
4	.51	.17	.19	1.3	1.8	1.2	.26	.64	.21	0	0	0
5	.45	.17	.16	.66	.88	.92	.32	1.3	.17	0	0	0
6	.50	.17	.13	.39	.60	.81	.26	1.5	.10	0	7.7	0
7	.50	.17	.17	.27	.34	.58	.17	1.2	.07	0	.90	0
8	.38	.17	.17	.21	.32	.44	.21	.58	.02	0	.17	0
9	.26	.16	.24	.21	.32	.50	.26	.48	0	0	.05	0
10	.26	.13	.32	.27	.32	.57	.21	.34	0	0	.01	0
11	.51	.13	.31	.19	.23	.57	.26	.32	.07	0	0	0
12	.84	.10	.23	.17	.21	.57	.21	.19	0	0	0	0
13	.79	.67	.21	3.8	.26	.57	.13	.20	.10	0	.44	0
14	.49	1.0	.17	1.6	.24	.57	.17	.24	0	0	6.1	0
15	.38	.44	.42	.71	.21	.50	.21	.17	0	0	51	0
16	.34	.28	.43	.47	.21	.26	9.7	.16	0	0	2.0	0
17	.26	.28	.32	.32	.22	.32	17	.10	0	0	.38	0
18	.29	.26	.21	.32	.27	.32	43	.09	0	0	.17	0
19	.32	.18	.26	.26	.50	.44	3.4	.05	0	0	.17	0
20	.29	.15	.25	.26	.50	.38	3.6	.04	.17	0	.07	0
21	.26	.19	.18	.21	6.0	.26	2.3	.05	.13	0	.03	0
22	.26	.17	.17	.21	2.0	.32	1.3	.10	.17	0	.05	.11
23	9.4	.17	.17	.21	.88	.26	1.1	.21	0	.05	.01	1.6
24	2.2	.17	.17	.21	.57	.32	.90	.16	0	0	.07	.74
25	.89	.17	.16	.21	1.1	.26	.90	.13	0	0	.21	.25
26	.61	.23	.13	.21	1.5	.32	.82	.05	0	0	.54	.09
27	.38	.23	.13	.10	.74	.50	.81	1.6	0	0	.21	.05
28	.36	.19	.15	.07	.65	.44	.81	.55	.10	0	.08	.02
29	.32	.19	.14	.17	------	.32	.83	43	0	.05	.04	0
30	.32	.19	2.4	.17	------	.32	.90	4.5	0	.13	.02	0
31	.28	------	.79	.17	------	.32	------	1.1	------	.03	0	------
TOTAL	24.45	7.04	9.54	16.28	21.38	16.57	91.36	61.41	2.71	.26	70.42	2.86
MEAN	.79	.23	.31	.53	.76	.53	3.05	1.98	.090	.008	2.27	.095
MAX	9.4	1.0	2.4	3.8	6.0	1.5	43	43	.64	.13	51	1.6
MIN	.26	.10	.13	.07	.17	.26	.13	.04	0	0	0	0
CFSM	.06	.02	.03	.04	.06	.04	.25	.16	.007	.0007	.18	.008
IN.	.07	.02	.03	.05	.06	.05	.28	.19	.008	0	.21	.008
AC-FT	49	14	19	32	42	33	181	122	5.4	.5	140	5.7
(††)	1.51	.27	.64	.83	1.33	.33	3.30	3.03	.93	1.87	3.39	1.66

CAL YR 1970 TOTAL 2,397.19 MEAN 6.57 MAX 345 MIN 0 CFSM .53 IN 7.25 AC-FT 4,750 †† 29.41
WTR YR 1971 TOTAL 324.28 MEAN .89 MAX 51 MIN 0 CFSM .07 IN .98 AC-FT 643 †† 19.09

PEAK DISCHARGE (BASE, 290 CFS).--Aug. 15 (1815) 603 cfs (5.61 ft).

†† Weighted-mean rainfall, in inches, based on three rain gages.

08049200 Lake Arlington at Arlington, Tex.

LOCATION.--Lat 32°43'04", long 97°11'36", Tarrant County, in pumphouse at right end of Arlington Dam on Village Creek near western boundary of Arlington, 1.5 miles upstream from The Texas and Pacific Railway Co. bridge, and 7 miles upstream from West Fork Trinity River.

DRAINAGE AREA.--143 sq mi.

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level. Prior to Sept. 9, 1957, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 36,540 acre-ft Oct. 1 (elevation, 545.56 ft); minimum, 18,340 acre-ft Sept. 30 (elevation, 534.45 ft).
Period of record: Maximum contents, 56,620 acre-ft May 1, 1966 (elevation, 554.65 ft); minimum since lake first filled in April 1957, 18,340 acre-ft Sept. 30, 1971 (elevation, 534.45 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 6,482 ft long. Service spillway is an uncontrolled circular drop inlet designed to discharge 4,000 cfs through 10-foot-diameter concrete conduit. Emergency spillway 882 ft wide is cut through natural ground near right end of dam. Dam completed and storage began Mar. 31, 1957. Capacities based on 1955 survey. Dam built by city of Arlington to impound water for municipal and industrial use. Records furnished by city of Arlington show that during year, 15,200 acre-ft of water was diverted for municipal use and 8,600 acre-ft of sewage effluent was discharged into West Fork Trinity River. Several small municipalities operate sewage disposal plants in basin above lake. Water is circulated for cooling purposes from lake to generating plant of Texas Electric Service Co. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Crest of emergency spillway	559.7	70,140
Crest of service spillway	550.0	45,710
Invert of lowest valve	505.0	180

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

534.0	17,770	540.0	26,520
536.0	20,390	542.0	29,950
538.0	23,320	544.0	33,570
		546.0	37,390

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36,480	35,270	33,720	32,140	30,640	29,670	27,480	27,090	25,510	22,190	20,450	20,200
2	36,420	35,190	33,740	32,120	30,560	29,630	27,390	26,960	25,420	22,090	20,400	20,140
3	36,340	35,120	33,630	32,090	30,540	29,600	27,260	26,890	25,330	22,030	20,360	20,040
4	36,300	35,040	33,570	32,070	30,590	29,530	27,140	26,810	25,220	21,920	20,310	19,920
5	36,270	34,980	33,480	32,030	30,500	29,530	27,040	26,720	25,120	21,790	20,430	19,870
6	36,210	34,930	33,420	32,000	30,450	29,390	26,970	26,740	25,030	21,700	20,580	19,770
7	36,150	34,890	33,390	31,940	30,340	29,330	26,940	26,670	24,910	21,580	20,550	19,660
8	35,980	34,850	33,330	31,920	30,310	29,280	26,810	26,620	24,720	21,420	20,520	19,570
9	35,840	34,780	33,290	31,870	30,270	29,210	26,740	26,540	24,600	21,290	20,480	19,480
10	35,750	34,720	33,260	31,810	30,240	29,180	26,650	26,450	24,470	21,140	20,400	19,370
11	35,880	34,640	33,150	31,760	30,250	29,100	26,590	26,320	24,340	20,990	20,340	19,260
12	35,860	34,590	33,090	31,700	30,130	29,070	26,450	26,240	24,230	20,840	20,270	19,180
13	35,820	34,550	33,040	31,630	30,060	29,040	26,350	26,100	24,120	20,670	20,380	19,090
14	35,770	34,530	32,980	31,610	30,000	28,920	26,290	25,990	24,040	20,530	21,090	18,990
15	35,690	34,490	32,930	31,580	29,950	28,860	26,200	25,890	23,900	20,380	21,110	18,870
16	35,610	34,450	32,830	31,580	29,930	28,780	26,540	25,770	23,770	20,210	21,090	18,800
17	35,580	34,400	32,780	31,580	29,920	28,730	26,960	25,670	23,610	19,990	21,070	18,710
18	35,540	34,340	32,760	31,580	29,950	28,590	27,390	25,530	23,460	19,820	21,060	18,580
19	35,500	34,280	32,670	31,470	29,930	28,500	27,380	25,450	23,300	19,730	20,940	18,520
20	35,440	34,230	32,650	31,330	29,920	28,430	27,480	25,370	23,260	19,670	20,890	18,450
21	35,380	34,230	32,630	31,250	29,920	28,360	27,440	25,280	23,260	19,660	20,800	18,400
22	35,360	34,080	32,610	31,220	29,770	28,300	27,460	25,200	23,180	19,580	20,730	18,460
23	35,560	33,980	32,500	31,180	29,740	28,210	27,530	25,040	23,080	19,610	20,620	18,490
24	35,520	33,950	32,470	31,150	29,700	28,120	27,500	24,930	22,960	19,780	20,560	18,490
25	35,500	33,910	32,380	31,110	29,840	28,060	27,430	24,820	22,830	19,770	20,660	18,570
26	35,480	33,780	32,340	31,160	29,810	28,010	27,340	24,960	22,680	19,710	20,630	18,540
27	35,630	33,830	32,300	30,980	29,770	27,960	27,260	24,900	22,540	19,700	20,590	18,490
28	35,560	33,810	32,290	30,880	29,720	27,850	27,140	25,220	22,470	20,160	20,530	18,450
29	35,520	33,780	32,200	30,820	------	27,770	27,190	25,610	22,400	20,530	20,450	18,400
30	35,440	33,760	32,180	30,800	------	27,700	27,160	25,610	22,310	20,530	20,380	18,340
31	35,360	------	32,180	30,750	------	27,550	------	25,540	------	20,490	20,290	------
(†)	544.95	544.10	543.24	542.45	541.87	540.61	540.38	539.41	537.33	536.07	535.93	534.45
(*)	-1,180	-1,600	-1,580	-1,430	-1,030	-2,170	-390	-1,620	-3,230	-1,820	-200	-1,950
(††)	937	882	955	1,090	932	1,310	1,490	1,710	1,860	1,830	899	1,300
MAX	36,480	35,270	33,740	32,140	30,640	29,670	27,530	27,090	25,510	22,190	21,110	20,200
MIN	35,360	33,760	32,180	30,750	29,720	27,550	26,200	24,820	22,310	19,580	20,270	18,340

CAL YR 1970..... * -2,500 †† 13,770 MAX 48,830 MIN 32,180
WTR YR 1971..... * -18,200 †† 15,200 MAX 36,480 MIN 18,340

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08049500 West Fork Trinity River at Grand Prairie, Tex.

LOCATION (revised).--Lat 32°45'46", long 96°59'42", Dallas County, on left bank at upstream side of bridge on Belt Line Road, 1.3 miles northeast of Grand Prairie, 3.7 miles upstream from Bear Creek, 6.5 miles upstream from Mountain Creek, and at mile 514.6.

DRAINAGE AREA.--3,065 sq mi.

PERIOD OF RECORD.--March 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 410.42 ft above mean sea level. Prior to Dec. 6, 1933, nonrecording gage at bridge on old channel 2,500 ft southeast of present site at datum 2.56 ft higher. Dec. 6, 1933, to May 24, 1956, water-stage recorder at site 440 ft downstream from site of nonrecording gage at datum 2.56 ft higher than present datum. May 25, 1956, to Apr. 18, 1957, nonrecording gage at site 1.5 miles downstream at different datum. Apr. 19 to Aug. 13, 1957, nonrecording gage on bridge at present site and datum.

AVERAGE DISCHARGE.--46 years, 540 cfs (391,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,750 cfs Apr. 18 (gage height, 7.68 ft); minimum daily, 78 cfs July 19.
Period of record: Maximum discharge, 62,000 cfs May 17, 1949 (gage height, 28.00 ft, site and datum then in use), from rating curve extended above 36,000 cfs; minimum observed, 3.2 cfs June 6, 1925.
Maximum stage since at least 1900, 30.6 ft (former site and datum) in May 1908, from information by local resident. Flood in April 1922 reached a stage of 29.0 ft (former site and datum), from floodmarks.

REMARKS.--Records good. Flow largely regulated by seven major reservoirs with a total combined capacity of 732,600 acre-ft, of which 76,550 acre-ft is for flood control. For amount of sewage effluent discharged between station at Fort Worth and this station by cities of Fort Worth and Arlington, see stations 08048000 and 08049200. Several diversions above Arlington for municipal and other uses. The river channel at station was relocated in 1956. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 628: 1925. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	741	118	128	152	100	129	127	105	270	125	175	125
2	638	108	127	127	106	196	127	98	242	128	136	133
3	458	120	126	121	108	452	123	92	155	172	136	134
4	299	114	126	174	121	416	117	100	130	146	218	128
5	212	116	123	150	245	382	120	98	120	170	214	105
6	182	120	114	132	144	390	122	141	108	207	405	88
7	163	122	115	130	119	306	126	330	102	201	235	92
8	171	110	123	129	108	151	127	170	102	134	161	112
9	154	105	126	127	112	141	120	120	102	118	140	115
10	169	113	127	128	118	136	120	197	98	107	139	102
11	526	113	130	122	113	135	119	200	100	103	131	102
12	734	112	126	128	118	140	117	128	98	88	132	105
13	229	122	123	166	112	141	119	105	98	105	246	102
14	159	179	120	332	103	132	128	98	90	106	1,300	102
15	140	157	131	192	100	123	125	95	102	102	906	118
16	126	126	152	227	108	130	127	86	102	105	630	112
17	117	123	140	146	114	131	1,000	82	98	101	212	110
18	115	122	132	128	125	134	2,030	86	95	93	163	108
19	121	125	131	121	154	143	498	86	90	87	147	108
20	126	119	117	117	134	127	312	86	86	122	141	105
21	124	116	114	121	162	121	372	86	203	168	143	108
22	129	110	129	120	309	119	207	84	403	156	127	130
23	332	107	134	116	158	130	176	82	173	151	115	292
24	623	112	190	108	135	131	141	82	125	436	134	420
25	212	119	234	105	180	131	117	86	108	328	264	366
26	155	116	136	108	270	129	221	88	98	175	322	285
27	165	108	117	109	171	130	232	382	86	158	180	152
28	155	110	113	108	134	129	132	333	102	785	152	140
29	136	108	122	111	------	124	115	670	115	691	131	131
30	131	112	243	111	------	127	110	1,210	130	1,520	128	121
31	127	------	314	107	------	132	------	312	------	405	125	------
TOTAL	7,869	3,562	4,383	4,273	3,981	5,438	7,627	5,918	3,931	7,493	7,788	4,351
MEAN	254	119	141	138	142	175	254	191	131	242	251	145
MAX	741	179	314	332	309	452	2,030	1,210	403	1,520	1,300	420
MIN	115	105	113	105	100	119	110	82	86	87	115	88
AC-FT	15,610	7,070	8,690	8,480	7,900	10,790	15,130	11,740	7,800	14,860	15,450	8,630

CAL YR 1970 TOTAL 260,496 MEAN 714 MAX 7,210 MIN 105 AC-FT 516,700
WTR YR 1971 TOTAL 66,614 MEAN 183 MAX 2,030 MIN 82 AC-FT 132,100

08049550 Big Bear Creek near Grapevine, Tex.

LOCATION.--Lat 32°54'48", long 97°07'44", Tarrant County, at downstream side of bridge on State Highway 121, 100 ft downstream from St. Louis Southwestern Railway Lines bridge, 3.5 miles southwest of Grapevine, and 7 miles upstream from confluence with Little Bear Creek.

DRAINAGE AREA.--29.6 sq mi.

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 554.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 88 cfs Apr. 18 (gage height, 4.34 ft); no flow for many days.
Period of record: Maximum discharge, 2,600 cfs May 6, 1969 (gage height, 14.35 ft); no flow at times each year.
Maximum stage since at least 1930, about 20 ft on Sept. 21, 1964, from information by local residents.

REMARKS.--Records good. No known diversion or regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.12	.12	.08	.28	.28	.12	.14	.02	0	0	0
2	.25	.12	.14	.08	.25	.22	.12	.12	.01	0	0	0
3	.22	.12	.25	.12	.28	.25	.12	.10	0	0	0	0
4	.19	.12	.25	.12	.39	.39	.14	.10	0	0	0	0
5	.19	.12	.22	.08	.53	.39	.14	.06	0	0	0	0
6	.22	.12	.10	.10	.48	.35	.14	.16	0	0	0	0
7	.22	.12	.12	.08	.39	.25	.14	.19	0	0	0	0
8	.22	.12	.14	.08	.31	.25	.14	.14	0	0	0	0
9	.22	.12	.16	.08	.28	.25	.16	.12	0	0	0	0
10	.25	.12	.19	.10	.25	.22	.14	.16	0	0	0	0
11	.31	.12	.14	.10	.25	.28	.14	.16	0	0	0	0
12	.43	.12	.12	.10	.22	.35	.14	.14	0	0	0	0
13	.39	.12	.12	.16	.22	.48	.10	.35	0	0	0	0
14	.39	.12	.12	.22	.28	.63	.16	.16	0	0	2.1	0
15	.31	.12	.14	.28	.28	.53	.16	.16	0	0	0	0
16	.28	.08	.12	.28	.28	.48	.39	.16	0	0	0	0
17	.28	.10	.06	.28	.35	.48	6.0	.16	0	0	0	0
18	.28	.12	.06	.25	.35	.53	18	.08	0	0	0	0
19	.28	.12	.06	.25	.22	.58	2.6	.03	0	0	0	0
20	.28	.10	.06	.28	.25	.58	1.5	.03	0	0	0	0
21	.28	.43	.10	.35	.35	.53	1.2	.03	0	0	0	0
22	.35	.16	.12	.35	.35	.48	.90	.03	0	0	0	0
23	3.0	.08	.08	.35	.43	.43	.53	.04	0	0	0	0
24	1.1	.12	.08	.35	.31	.25	.28	.03	0	0	0	7.4
25	.31	.12	.10	.35	.28	.22	.28	.01	0	0	0	.32
26	.14	.12	.08	.35	.31	.19	.25	0	0	0	0	0
27	.14	.12	.08	.35	.28	.16	.22	.01	0	0	0	0
28	.14	.12	.06	.35	.31	.14	.16	.02	0	0	0	0
29	.12	.12	.06	.35	------	.12	.19	.28	0	0	0	0
30	.12	.12	.12	.39	------	.12	.19	.14	0	0	0	0
31	.12	------	.10	.39	------	.12	------	.06	------	0	0	------
TOTAL	11.28	3.83	3.67	7.05	8.76	10.53	34.75	3.37	.03	0	2.1	7.72
MEAN	.36	.13	.12	.23	.31	.34	1.16	.11	.001	0	.068	.26
MAX	3.0	.43	.25	.39	.53	.63	18	.35	.02	0	2.1	7.4
MIN	.12	.08	.06	.08	.22	.12	.10	0	0	0	0	0
CFSM	.01	.004	.004	.008	.01	.01	.04	.004	0	0	.002	.009
IN.	.01	.004	.004	.008	.01	.01	.04	.004	0	0	.002	.009
AC-FT	22	7.6	7.3	14	17	21	69	6.7	.06	0	4.2	15

CAL YR 1970 TOTAL 3,431.98 MEAN 9.40 MAX 401 MIN 0 CFSM .32 IN 4.31 AC-FT 6,810
WTR YR 1971 TOTAL 93.09 MEAN .26 MAX 18 MIN 0 CFSM .009 IN .12 AC-FT 185

PEAK DISCHARGE (BASE, 600 CFS).--No peak above base.

08049600 Mountain Creek near Cedar Hill, Tex.

LOCATION.--Lat 32°35'03", long 97°01'23", Dallas County, on right bank 50 ft downstream from county road bridge, 3.5 miles downstream from Texas and New Orleans Railroad Co. bridge, 4.5 miles southwest of Cedar Hill, and 12 miles upstream from Mountain Creek Lake Dam.

DRAINAGE AREA.--119 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 478.31 ft above mean sea level. Prior to Nov. 25, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 45.9 cfs (33,250 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,700 cfs Apr. 23 (gage height, 20.00 ft, from floodmark); no flow at times.
Period of record: Maximum discharge, 28,300 cfs May 7, 1969 (gage height, 25.10 ft), from rating curve extended above 14,000 cfs; no flow at times each year.
Maximum stage since at least 1910, 30 ft May 25, 1922, from information by local resident.

REMARKS.--Records good. At end of year, flow from 14.2 sq mi above this station was partly controlled by three floodwater-retarding structures with a total combined capacity of 6,750 acre-ft below flood-spillway crests, of which 5,550 acre-ft is floodwater-retarding capacity and 1,200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	6.1	1.5	2.1	1.0	2.0	.41	16	6.3	0	0	6.6
2	2.5	5.3	1.4	1.7	1.0	3.6	.37	10	5.2	0	0	1.7
3	1.7	3.9	1.2	1.7	1.0	4.0	.33	7.6	3.6	0	0	1.1
4	.91	2.5	1.2	1.5	1.0	2.5	.27	6.5	2.8	0	0	.07
5	.73	2.1	1.2	1.3	.97	2.2	.24	5.6	2.4	0	0	.02
6	1.9	2.0	1.2	1.1	.97	1.8	.21	5.5	2.2	0	0	0
7	2.8	1.9	1.1	1.1	.97	1.2	.21	5.5	1.9	0	0	0
8	3.0	2.7	1.0	1.1	.97	1.0	.21	5.0	1.9	0	0	0
9	2.7	2.8	1.0	1.1	.97	1.0	.21	4.5	1.9	0	0	0
10	2.4	2.0	1.2	1.1	.91	.97	.21	4.2	1.8	0	0	0
11	7.2	2.0	1.2	1.1	.97	.91	.21	4.2	1.8	0	0	0
12	30	1.9	1.2	1.1	.97	.85	.21	3.6	1.8	.46	0	0
13	13	2.9	1.1	1.2	.97	.85	.21	3.2	1.7	.84	0	0
14	7.8	6.2	1.2	1.5	.91	.79	.21	2.9	1.7	.72	2.4	0
15	3.7	3.6	1.3	1.3	.91	.63	.21	2.7	1.2	.27	26	0
16	1.8	2.4	1.5	1.2	.91	.63	1.9	2.4	.66	.18	2.6	0
17	1.2	2.2	1.4	1.2	.91	.68	22	2.3	.30	0	.84	0
18	1.0	2.2	1.6	1.2	.91	.68	953	2.2	.13	0	.42	0
19	.97	5.1	1.3	1.2	3.7	.58	24	2.0	0	0	.18	0
20	.91	5.6	1.2	1.2	2.0	.58	8.5	2.0	0	0	.04	0
21	.79	2.0	1.2	1.1	20	.63	4.0	1.9	0	0	0	0
22	.73	2.4	1.2	1.1	6.8	.68	51	1.9	0	0	0	0
23	122	1.4	1.2	1.1	2.3	.63	1,290	1.8	0	0	0	0
24	100	1.2	1.2	1.1	1.5	.58	47	1.7	0	0	0	0
25	13	1.2	1.2	1.1	3.5	.58	21	1.5	0	0	0	0
26	98	1.2	1.2	1.1	20	.58	12	1.4	0	0	0	0
27	1,220	1.4	1.1	1.1	5.1	.58	9.0	7.0	0	0	0	0
28	113	1.3	1.2	1.0	2.7	.55	7.0	11	0	0	0	0
29	26	1.3	1.2	1.0	------	.55	433	462	0	0	0	0
30	13	1.5	2.3	1.0	------	.50	46	87	0	0	0	0
31	8.5	------	2.7	1.0	------	.50	------	12	------	0	28	------
TOTAL	1,804.64	80.3	40.7	37.7	84.82	33.81	2,933.12	687.1	39.29	2.47	60.48	9.49
MEAN	58.2	2.68	1.31	1.22	3.03	1.09	97.8	22.2	1.31	.080	1.95	.32
MAX	1,220	6.2	2.7	2.1	20	4.0	1,290	462	6.3	.84	28	6.6
MIN	.73	1.2	1.0	1.0	.91	.50	.21	1.4	0	0	0	0
AC-FT	3,580	159	81	75	168	67	5,820	1,360	78	4.9	120	19

CAL YR 1970 TOTAL 29,793.32 MEAN 81.6 MAX 3,870 MIN 0 AC-FT 59,100
WTR YR 1971 TOTAL 5,813.92 MEAN 15.9 MAX 1,290 MIN 0 AC-FT 11,530

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-27	1300	17.57	2,570
4-18	about 0600	a18.06	2,920
4-23	about 0600	a20.00	4,700

a From floodmark.

08049700 Walnut Creek near Mansfield, Tex.

LOCATION (revised).--Lat 32°34'51", long 97°06'06", Tarrant County, on right bank at downstream side of bridge on county road, 2.6 miles northeast of Mansfield, 3.3 miles downstream from Texas and New Orleans Railroad Co. bridge, and 10.2 miles upstream from mouth.

DRAINAGE AREA.--62.8 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 531.08 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 13.2 cfs (9,560 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,480 cfs May 29 (gage height, 18.01 ft); no flow at times.
Period of record: Maximum discharge, 6,820 cfs May 7, 1969 (gage height, 28.05 ft); no flow at times each year.

REMARKS.--Records good. The city of Mansfield reported the discharge of about 370 acre-ft of sewage effluent into tributary 2.5 miles upstream from station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.19	.11	.26	.16	.29	.08	1.1	1.3		0	
2	.04	.19	.13	.22	.16	.34	.06	.59	.68		0	
3	.04	.16	.13	.29	.19	.39	.05	.34	.29		0	
4	.03	.13	.13	.39	.26	.26	.05	.22	.22		3.0	
5	.03	.11	.15	.16	.22	.26	.04	.16	.16		.63	
6	.03	.11	.15	.13	.19	.26	.02	.34	.11		1.0	
7	.03	.11	.20	.13	.19	.22	.04	.78	.09		.02	
8	.04	.11	.22	.13	.19	.22	.08	.16	.60		0	
9	.02	.09	.22	.16	.19	.26	.04	.16	.38		0	
10	0	.09	.26	.19	.19	.26	.04	.16	.22		0	
11	36	.08	.22	.19	.22	.26	.04	.19	.08		0	
12	15	.08	.19	.19	.22	.26	.04	.13	.05		0	
13	.72	.11	.16	.22	.19	.26	.03	.11	.04		0	
14	.06	.34	.16	.26	.19	.26	.03	.09	.04		0	
15	.04	.11	.22	.19	.19	.22	.04	.08	.03		0	
16	.03	.09	.29	.16	.19	.16	.84	.09	.02		0	
17	.03	.08	.22	.16	.19	.13	33	.09	0		0	
18	.03	.08	.19	.16	.13	.19	300	.08	0		0	
19	.03	.08	.19	.16	.08	.29	9.4	.08	0		0	
20	.03	.08	.19	.16	.06	.16	5.0	.08	0		0	
21	.03	.08	.19	.19	4.2	.16	2.8	.08	.12		0	
22	.04	.08	.26	.19	.45	.19	14	.08	.13		0	
23	24	.06	.26	.19	.26	.19	212	.06	.05		0	
24	16	.06	.26	.22	.22	.16	7.6	.05	.01		0	
25	.34	.08	.22	.19	1.9	.19	3.0	.04	0		0	
26	212	.08	.19	.19	1.4	.19	1.6	.03	0		0	
27	146	.09	.19	.16	.34	.16	1.0	.26	0		0	
28	2.5	.09	.22	.16	.29	.16	.68	.08	.02		0	
29	.39	.09	.26	.19	------	.13	19	497	.05		0	
30	.22	.11	2.6	.22	------	.09	3.8	26	0		0	
31	.19	------	.52	.19	------	.08	------	3.6	------		0	------
TOTAL	453.98	3.24	8.90	6.00	12.66	6.65	614.40	532.31	4.69	0	4.65	0
MEAN	14.6	.11	.29	.19	.45	.21	20.5	17.2	.16	0	.15	0
MAX	212	.34	2.6	.39	4.2	.39	300	497	1.3	0	3.0	0
MIN	0	.06	.11	.13	.06	.08	.02	.03	0	0	0	0
AC-FT	900	6.4	18	12	25	13	1,220	1,060	9.3	0	9.2	0
(††)	3.9	.4	.7	.3	1.2	.3	4.2	4.2	1.8	3.1	2.5	0

CAL YR 1970 TOTAL 6,282.10 MEAN 17.2 MAX 1,370 MIN 0 AC-FT 12,460 †† 33.4
WTR YR 1971 TOTAL 1,647.48 MEAN 4.51 MAX 497 MIN 0 AC-FT 3,270 †† 22.6

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-26	2200	17.41	1,320	4-23	0600	14.22	712
4-18	0100	14.74	795	5-29	1200	18.01	1,480

†† Rainfall, in inches.

08049900 Mountain Creek near Duncanville, Tex.

LOCATION.--Lat 32°39'43", long 96°58'56", Dallas County, at downstream side of bridge on Farm Road 1382, 2.3 miles downstream from Walnut Creek, 4.5 miles west of Duncanville, and 5.5 miles upstream from Mountain Creek Lake Dam.

DRAINAGE AREA.--225 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum elevation, 462.60 ft Apr. 18; minimum, 454.90 ft July 28.

REMARKS.--This station is used as an aid in the operation of Mountain Creek Lake.

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	456.65	456.65	456.34	456.50	456.21	456.45	456.04	457.09	456.92	455.85	454.99	456.94
2	456.61	456.57	456.33	456.45	456.20	456.45	456.02	456.84	456.78	455.85	454.98	456.71
3	456.56	456.50	456.34	456.45	456.20	456.63	456.03	456.70	456.67	455.80	454.96	456.56
4	456.49	456.45	456.33	456.43	456.21	456.51	456.07	456.67	456.62	455.75	454.95	456.30
5	456.39	456.40	456.31	456.39	456.22	456.52	456.06	456.58	456.60	455.69	455.27	456.18
6	456.35	456.40	456.28	456.38	456.23	456.51	456.02	456.53	456.63	455.63	455.60	456.10
7	456.43	456.41	456.25	456.35	456.24	456.44	456.01	456.56	456.67	455.60	455.67	456.03
8	456.49	456.42	456.25	456.33	456.24	456.39	455.98	456.52	456.68	455.55	455.68	455.97
9	456.54	456.43	456.25	456.34	456.24	456.37	455.97	456.44	456.67	455.50	455.67	455.92
10	456.57	456.41	456.27	456.32	456.24	456.36	455.97	456.39	456.69	455.45	455.64	455.88
11	456.58	456.40	456.26	456.30	456.26	456.36	455.96	456.37	456.69	455.40	455.60	455.84
12	457.68	456.41	456.25	456.30	456.27	456.35	455.95	456.32	456.68	455.35	455.56	455.79
13	456.94	456.46	456.25	456.30	456.26	456.37	455.96	456.25	456.60	455.30	455.58	455.75
14	456.73	456.55	456.25	456.33	456.27	456.30	455.96	456.20	456.56	455.25	456.36	455.70
15	456.61	456.54	456.26	456.32	456.28	456.21	455.98	456.15	456.53	455.21	457.06	455.65
16	456.50	456.49	456.28	456.31	456.29	456.15	456.10	456.12	456.46	455.16	456.71	455.62
17	456.40	456.45	456.28	456.31	456.31	456.12	456.64	456.07	456.38	455.11	456.50	455.58
18	456.32	456.42	456.30	456.30	456.35	456.15	460.85	456.03	456.30	455.06	456.36	455.55
19	456.25	456.38	456.25	456.27	456.60	456.17	457.94	455.99	456.22	455.03	456.25	455.51
20	456.16	456.53	456.28	456.24	456.51	456.18	457.75	455.95	456.16	455.02	456.19	455.48
21	456.15	456.47	456.27	456.24	457.48	456.21	457.55	455.93	456.25	455.00	456.13	455.44
22	456.15	456.47	456.29	456.25	457.08	456.25	457.18	455.90	456.22	454.97	456.07	455.46
23	458.92	456.40	456.28	456.25	456.63	456.27	459.04	455.90	456.18	455.96	456.03	455.48
24	457.75	456.36	456.27	456.25	456.42	456.29	457.67	455.89	456.14	454.96	456.04	455.47
25	456.87	456.40	456.25	456.25	456.42	456.32	457.25	455.86	456.09	454.95	456.04	455.45
26	461.16	456.50	456.25	456.24	457.49	456.28	456.93	455.89	456.04	454.91	456.00	455.43
27	461.28	456.57	456.24	456.22	456.92	456.22	456.73	456.15	455.98	454.91	455.96	455.40
28	458.16	456.60	456.25	456.21	456.59	456.18	456.60	456.57	455.96	455.05	455.92	455.36
29	457.34	456.48	456.26	456.23	------	456.12	458.80	461.80	455.92	455.06	455.88	455.33
30	456.92	456.37	456.42	456.24	------	456.08	457.57	458.05	455.89	455.04	455.84	455.30
31	456.74	------	456.53	456.22	------	456.05	------	457.18	------	455.01	456.95	------
MEAN	457.05	456.46	456.29	456.31	456.45	456.30	456.82	456.54	456.41	455.30	455.89	455.77
MAX	461.28	456.65	456.53	456.50	457.49	456.63	460.85	461.80	456.92	455.96	457.06	456.94
MIN	456.15	456.36	456.24	456.21	456.20	456.05	455.95	455.86	455.89	454.91	454.95	455.30

CAL YR 1970 MEAN 115.09 MAX 461.28 MIN .00
WTR YR 1971 MEAN 456.30 MAX 461.80 MIN 454.91

08050050 Mountain Creek Lake near Grand Prairie, Tex.

LOCATION.--Lat 32°43'55", long 96°56'35", Dallas County, at right end of spillway in Mountain Creek Dam on Mountain Creek, 2.5 miles upstream from Texas and Pacific Railway Co. bridge, and 3.7 miles southeast of Grand Prairie.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level. Prior to Oct. 21, 1960, nonrecording gage at powerplant at same datum.

EXTREMES.--Current year: Maximum contents, 22,300 acre-ft May 30 (elevation, 456.79 ft); minimum, 18,170 acre-ft July 22 (elevation, 455.12 ft).
Period of record: Maximum contents, 25,790 acre-ft May 7, 1969 (elevation, 458.02 ft); minimum, 16,420 acre-ft Jan. 12, 1964 (elevation, 454.34 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 5,800 ft long including a gated spillway with six 34- by 27-foot tainter gates. Dam completed about Jan. 1, 1937, and deliberate impoundment of water began on Mar. 24, 1937. Capacity curve based on survey made in 1963 and furnished by Dallas Power and Light Co. Lake built and operated by Dallas Power and Light Co. to supply cooling water for generating plant. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Mountain Creek near Cedar Hill (station 08049600). Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	467.0	-
Top of tainter gates	458.0	25,720
Top of dry weather conservation storage	457.0	22,840
Top of wet weather conservation storage	456.0	20,260
Sill of tainter gates	431.0	-

Capacity table (elevation, in feet, and total contents, in acre-feet)

455.0	17,890	456.0	20,260
455.5	19,080	456.5	21,550
		457.0	22,840

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20,240	20,540	20,360	20,240	19,900	20,020	19,190	21,240	21,400	19,670	19,550	20,240
2	20,210	20,540	20,390	20,240	19,900	20,120	19,190	21,220	21,400	19,640	19,550	20,210
3	20,190	20,520	20,340	20,260	19,930	20,140	19,150	21,160	21,290	19,620	19,520	20,140
4	20,190	20,490	20,340	20,210	19,930	20,160	19,050	21,160	21,340	19,500	19,550	20,090
5	20,190	20,520	20,260	20,140	19,930	20,240	19,000	21,140	21,290	19,430	19,640	20,050
6	20,160	20,520	20,260	20,120	19,860	20,070	18,960	21,240	21,190	19,380	20,050	19,980
7	20,140	20,540	20,260	20,140	19,830	20,050	18,960	21,700	21,140	19,310	20,020	19,930
8	20,140	20,540	20,260	20,260	19,790	20,020	18,910	21,450	21,060	19,240	20,000	19,860
9	20,020	20,470	20,290	20,260	19,810	20,000	18,860	21,190	21,010	19,170	20,020	19,760
10	20,000	20,440	20,290	20,160	19,810	20,020	18,840	21,220	20,930	19,170	20,050	19,690
11	20,310	20,390	20,160	20,160	19,740	20,000	18,840	21,160	20,850	19,080	20,020	19,640
12	20,520	20,390	20,160	20,160	19,690	20,000	18,810	21,110	20,800	18,930	20,000	19,600
13	20,600	20,490	20,160	20,240	19,690	20,000	18,650	21,030	20,700	18,810	20,120	19,550
14	20,570	20,470	20,140	20,190	19,670	19,900	18,650	20,960	20,670	18,720	20,700	19,500
15	20,540	20,490	20,240	20,210	19,690	19,900	18,600	20,900	20,620	18,620	20,700	19,410
16	20,540	20,520	20,160	20,160	19,670	19,830	18,770	20,900	20,520	18,600	20,670	19,360
17	20,540	20,490	20,210	20,190	19,670	19,900	19,240	20,800	20,470	18,440	20,620	19,340
18	20,540	20,490	20,160	20,120	19,810	19,670	21,010	20,650	20,390	18,390	20,600	19,170
19	20,520	20,440	20,090	20,140	19,760	19,670	20,520	20,650	20,260	18,320	20,470	19,150
20	20,520	20,440	20,120	20,240	19,690	19,640	20,720	20,620	20,160	18,290	20,420	19,100
21	20,520	20,520	20,140	20,120	20,020	19,620	20,800	20,570	20,310	18,270	20,360	19,050
22	20,540	20,210	20,160	20,090	19,880	19,550	20,900	20,520	20,290	18,170	20,290	19,150
23	19,340	20,290	20,090	20,120	19,880	19,520	21,190	20,420	20,240	18,200	20,190	19,220
24	19,720	20,310	20,160	20,120	19,900	19,480	21,700	20,360	20,140	18,670	20,340	19,260
25	19,810	20,440	20,050	20,090	20,070	19,480	21,730	20,260	20,070	18,620	20,620	19,310
26	19,500	20,470	20,020	20,020	20,050	19,450	21,730	20,260	20,000	18,600	20,620	19,290
27	19,950	20,310	20,020	20,050	20,070	19,480	21,760	20,780	19,930	18,620	20,600	19,260
28	20,390	20,340	20,020	20,050	20,140	19,430	21,290	20,780	19,880	19,430	20,520	19,220
29	20,540	20,340	20,020	20,120	------	19,410	20,930	20,960	19,810	19,640	20,440	19,190
30	20,600	20,420	20,240	20,000	------	19,360	21,190	21,240	19,790	19,670	20,360	19,170
31	20,570	------	20,240	19,930	------	19,310	------	21,370	------	19,620	20,340	------
(†)	456.12	456.06	455.99	455.86	455.95	455.60	456.36	456.43	455.80	455.73	456.03	455.54
(‡)	+330	-150	-180	-310	+210	-830	+1,880	+180	-1,580	-170	+720	-1,070
MAX	20,600	20,540	20,390	20,260	20,140	20,240	21,760	21,700	21,400	19,670	20,700	20,240
MIN	19,340	20,210	20,020	19,930	19,670	19,310	18,600	20,260	19,790	18,170	19,520	19,050

CAL YR 1970..... ‡ -1,700 MAX 22,680 MIN 17,310
WTR YR 1971..... ‡ -1,070 MAX 21,760 MIN 18,170

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08050100 Mountain Creek at Grand Prairie, Tex.

LOCATION.--Lat 32°44'52", long 96°55'33", Dallas County, on right bank at downstream side of downstream bridge on Jefferson Street, 1,000 ft upstream from bridge on U.S. Highway 80, 1.2 miles upstream from Texas and Pacific Railroad Co. bridge, 1.5 miles downstream from Mountain Creek Lake Dam, and 4.4 miles east of Grand Prairie.

DRAINAGE AREA.--298 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 407.31 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 85.0 cfs (61,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,780 cfs Oct. 23 (gage height, 12.06 ft); minimum daily, 0.05 cfs Aug. 12.
Period of record: Maximum discharge, 35,000 cfs May 7, 1969 (gage height, 24.62 ft); no flow Jan. 25-28, 1964.

REMARKS.--Records good. Flow regulated by Mountain Creek Lake (station 08050050).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.74	.50	.80	.80	.63	.41	1.3	1.1	.29	.32	.50
2	.54	.99	.46	.68	.74	1.1	.50	.74	.58	.24	.16	.46
3	.58	.99	.41	1.2	.80	1.6	.50	.99	.50	.29	.10	.46
4	.58	.92	.46	1.3	.80	1.1	.41	1.1	.50	.26	.09	.46
5	.54	.92	.46	1.4	.74	1.1	.50	.92	.50	.18	.12	.41
6	.63	.80	.54	1.1	.63	.92	.50	.80	.46	.16	2.4	.38
7	.58	.68	.63	1.1	.80	.74	.50	.92	.46	.16	.63	.35
8	.54	.68	.63	1.1	1.1	.80	.41	.68	.41	.24	.22	.32
9	.86	.58	.54	.99	.99	.68	.35	.63	.46	.24	.13	.38
10	.80	.68	.54	.74	.92	.63	.32	.68	.46	.24	.14	.35
11	2.9	.68	.63	.68	.74	.58	.26	.68	.41	.22	.13	.35
12	2.9	.74	.92	.68	.63	.54	.32	.68	.46	.22	.05	.35
13	.99	1.1	.80	.80	.74	.46	.35	.99	.38	.14	.15	.38
14	.74	1.1	.74	.63	.74	.38	13	1.1	.50	.13	40	.32
15	.74	.99	.80	.58	.68	.54	1.8	.86	.50	.13	4.3	.32
16	.74	.99	.63	.80	.68	.46	1.3	.68	.46	.13	.86	.32
17	.74	.68	.68	.68	.63	.41	2.7	.68	.46	.13	.50	.38
18	.86	.68	.63	.68	.68	.41	6.6	.80	.38	.10	.38	.50
19	.74	.99	.50	.86	.80	.46	920	.74	.38	.16	34	.80
20	.68	.80	.68	.99	.58	.50	14	.80	.46	.58	4.0	.99
21	.58	.68	.74	.80	2.8	.54	2.3	.68	1.2	.46	3.0	.86
22	.58	.54	.54	.68	1.5	.46	1.1	.68	.86	.32	2.9	.99
23	902	.68	.50	.68	.86	.46	466	.68	.54	.32	2.6	1.2
24	4.9	1.1	.86	.74	1.5	.50	4.0	.58	.41	6.2	1.4	.86
25	.99	1.2	.80	.68	1.6	.50	1.9	.50	.29	2.1	7.9	.86
26	153	2.0	.92	.68	8.4	.50	1.4	.46	.24	.54	2.1	.74
27	1,490	.80	.86	.74	1.8	.50	1.1	3.5	.26	.38	.74	.63
28	495	.54	.68	1.4	.86	.38	144	.74	.41	22	.50	.58
29	2.1	.50	.63	.80	------	.35	476	596	.50	4.0	.46	.63
30	1.2	.50	1.6	.58	------	.41	3.7	815	.41	2.9	.54	.86
31	.86	------	.99	.58	------	.38	------	7.6	------	.74	.54	------
TOTAL	3,069.47	25.27	21.30	26.15	34.54	19.02	2,066.23	1,443.19	14.94	44.20	111.36	16.99
MEAN	99.0	.84	.69	.84	1.23	.61	68.9	46.6	.50	1.43	3.59	.57
MAX	1,490	2.0	1.6	1.4	8.4	1.6	920	815	1.2	22	40	1.2
MIN	.54	.50	.41	.58	.58	.35	.26	.46	.24	.10	.05	.32
AC-FT	6,090	50	42	52	69	38	4,100	2,860	30	88	221	34

CAL YR 1970 TOTAL 47,439.21 MEAN 130 MAX 8,510 MIN .01 AC-FT 94,100
WTR YR 1971 TOTAL 6,892.66 MEAN 18.9 MAX 1,490 MIN .05 AC-FT 13,670

08050200 Elm Fork Trinity River subwatershed No. 6-O near Muenster, Tex.

LOCATION.--Lat 33°37'13", long 97°24'15", Cooke County, near center of earthfill dam on unnamed tributary of Elm Fork Trinity River, 1.0 mile west of Farm Road 373, and 2.6 miles southwest of Muenster.

DRAINAGE AREA.--0.77 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder and flat-crested weir on concrete drop inlet. Datum of gage is 941.75 ft above mean sea level (Soil Conservation Service bench mark).

AVERAGE INFLOW.--15 years, 319 acre-ft per year.

AVERAGE OUTFLOW.--15 years, 279 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 7.86 cfs Aug. 14 (gage height, 24.20 ft); no outflow at times. Maximum inflow, 178 cfs (average for 5-minute interval) Aug. 14, computed from outflow and change in pool contents and adjusted for rainfall on pool surface during time of peak inflow; no inflow at times.
Period of record: Maximum outflow, 14.1 cfs Apr. 29, 1957 (gage height, 28.77 ft); maximum gage height, 33.16 ft Nov. 19, 1964; no outflow for many days each year. Maximum inflow, 842 cfs (average for 15-minute interval) Oct. 3, 1959; no inflow at times.

REMARKS.--Records good. The pool is formed by a rolled earthfill dam 800 ft long with an emergency spillway located at the left end of dam. The dam was completed in August 1956 and storage began in December 1956, although the first appreciable storage did not begin until Apr. 25, 1957. The outlet structure is a 2.5-foot square concrete drop inlet connected to a 17-inch concrete pipe. The concrete pipe has a steel baffle plate with an 8-inch circular opening at entrance. The crest of the drop inlet is at gage height 19.83 ft; crest of emergency spillway is at gage height 34.2 ft. There is also a valve-controlled 8-inch-diameter water-supply outlet at the bottom of the drop-inlet structure at gage height 9.33 ft. The capacity of pool at crest of the emergency spillway is 279 acre-ft, at crest of the drop inlet 75.1 acre-ft, and at the controlled outlet pipe 17.8 acre-ft. The capacity table was computed by the end-area method from a surface area table furnished by the Soil Conservation Service and was based on a sedimentation survey dated July 1964. A recording rain gage is located at the station.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	6.7	1.1	0.7	1.0	0.9	1.2	2.6	2.5	2.2	0.8	84.0	1.9
Outflow	4.0	0	0	0	0	0	0	0	0	0	63.6	0
(†)	-.66	-1.07	-1.27	-.93	-.93	-2.62	-1.71	-2.51	-4.56	-4.84	+20.3	-1.86
(††)	1.49	.20	.49	.12	.79	.10	1.89	1.84	1.30	2.04	8.74	3.35

CAL YR 1970: INFLOW 290 OUTFLOW 256 † -3.3 †† 28.28
WTR YR 1971: INFLOW 106 OUTFLOW 67.6 † -2.64 †† 22.35

PEAK INFLOW (BASE, 100 CFS).--Aug. 14 (1205) 178 cfs (5-minute increment).

1/ Inflow adjusted for rainfall on pool and pool losses.
† Change in contents, in acre-feet.
†† Weighted-mean rainfall, in inches.

08050300 Elm Fork Trinity River near Muenster, Tex.

LOCATION.--Lat 33°36'36", long 97°22'57", Cooke County, on left bank 40 ft upstream from bridge on Farm Road 373, 2.5 miles south of Muenster, 2.5 miles downstream from Long Branch, and 6.5 miles upstream from Brushy Elm Creek.

DRAINAGE AREA.--46.0 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 889.33 ft above mean sea level (Soil Conservation Service bench mark).

AVERAGE DISCHARGE.--15 years, 19.0 cfs (5.61 inches per year, 13,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,690 cfs Aug. 14 (gage height, 17.27 ft); no flow at times.
Period of record: Maximum discharge, 5,900 cfs May 1, 1958 (gage height, 20.20 ft), from rating curve extended above 1,300 cfs on basis of indirect measurement of 3,440 cfs; no flow at times.
Maximum stage since at least 1900, about 23 ft in May 1935, from information by local resident.

REMARKS.--Records good. At end of year, flow from 33.5 sq mi above this station was partly controlled by 14 floodwater-retarding structures with a total combined capacity of 12,380 acre-ft below the flood-spillway crests, of which 10,500 acre-ft is floodwater-retarding capacity and 1,880 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Station operated as part of Elm Fork Trinity River basin hydrologic cooperative program to evaluate rainfall-runoff relation, soil conservation practices, and the effects of floodwater-retarding structures. Four recording and one nonrecording rain gages are located in watershed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	1.9	2.3	2.5	1.8	2.6	1.5	.80	.13		0	.24
2	5.0	1.8	1.9	2.4	1.8	2.6	1.4	.75	.09		0	.16
3	4.0	1.9	1.7	2.4	1.8	3.4	1.6	.68	.06		0	.11
4	2.9	2.1	1.5	3.5	1.8	3.1	1.5	.60	.05		0	.09
5	2.7	1.9	1.6	3.3	2.1	2.6	1.4	.67	.03		.01	.06
6	2.6	1.9	1.4	2.5	2.3	2.1	1.4	.56	.02		.64	.05
7	2.4	2.0	1.5	2.1	2.2	2.3	1.4	.68	.01		.01	.04
8	4.4	1.8	1.7	2.0	2.3	2.2	1.5	.57	.01		0	.03
9	3.0	1.7	1.8	2.0	2.0	2.0	1.6	.36	0		0	.03
10	2.3	1.6	1.8	1.9	1.6	1.8	1.7	.38	0		0	.02
11	2.1	1.6	1.5	2.0	1.8	2.0	1.6	.36	0		0	.02
12	2.1	1.6	1.6	1.9	1.6	1.8	1.5	.25	0		0	.01
13	2.4	2.5	1.9	2.3	1.9	1.7	1.6	.20	0		0	.01
14	1.8	2.6	1.6	2.1	2.0	1.5	1.6	.18	.03		840	.01
15	1.7	3.0	1.9	1.9	1.7	1.3	1.6	.15	.03		108	.01
16	1.6	2.3	1.7	1.9	1.7	1.5	2.1	.13	.02		63	.01
17	2.0	2.0	1.4	1.9	1.6	1.3	4.7	.10	.02		46	.01
18	2.0	2.1	1.6	1.8	1.9	1.2	2.7	.07	0		36	.02
19	1.8	2.6	1.4	1.5	2.0	1.1	2.2	.07	0		30	.03
20	1.6	2.4	1.4	1.8	2.1	1.5	1.9	.05	0		26	.03
21	1.6	2.2	1.8	1.6	3.6	1.4	1.2	.05	0		18	.03
22	1.8	2.3	1.6	1.6	3.7	1.4	1.1	.04	0		5.7	1.4
23	6.0	1.6	1.5	1.9	3.3	1.3	1.0	.05	0		4.2	.48
24	4.7	2.0	1.7	1.9	3.0	1.4	.94	.04	0		3.9	.16
25	2.7	2.5	1.8	1.7	3.0	1.4	1.1	.03	0		10	24
26	2.0	2.4	1.7	1.6	3.2	1.3	1.1	.03	0		53	4.5
27	2.1	2.3	1.7	1.5	2.9	1.3	.90	.11	0		23	.94
28	1.9	2.1	1.6	1.7	2.7	1.3	.79	.07	0		6.2	.24
29	2.2	2.1	1.5	1.8	------	1.3	.81	.16	0		2.7	.16
30	1.9	2.3	2.2	2.0	------	1.3	.82	.24	0		1.6	.11
31	1.9	------	2.4	1.9	------	1.6	------	.24	------		.82	------
TOTAL	83.0	63.1	52.7	62.9	63.4	54.6	46.26	8.67	.50	0	1,278.78	33.01
MEAN	2.68	2.10	1.70	2.03	2.26	1.76	1.54	.28	.017	0	41.3	1.10
MAX	6.0	3.0	2.4	3.5	3.7	3.4	4.7	.80	.13	0	840	24
MIN	1.6	1.6	1.4	1.5	1.6	1.1	.79	.03	0	0	0	.01
CFSM	.06	.05	.04	.04	.05	.04	.03	.006	.0004	0	.90	.02
IN.	.07	.05	.04	.05	.05	.04	.04	.007	0	0	1.03	.03
AC-FT	165	125	105	125	126	108	92	17	1.0	0	2,540	65

CAL YR 1970 TOTAL 7,162.69 MEAN 19.6 MAX 272 MIN 0 CFSM .43 IN 5.79 AC-FT 14,210
WTR YR 1971 TOTAL 1,746.92 MEAN 4.79 MAX 840 MIN 0 CFSM .10 IN 1.41 AC-FT 3,470

08050500 Elm Fork Trinity River near Sanger, Tex.

LOCATION.--Lat 33°23'11", long 97°05'05", Denton County, on right bank on downstream side of pier of bridge on Farm Road 455, 4.1 miles downstream from Spring Creek, 5.0 miles upstream from Isle du Bois Creek, and 5.4 miles northeast of Sanger.

DRAINAGE AREA.--381 sq mi.

PERIOD OF RECORD.--April 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 553.72 ft above mean sea level. Prior to May 7, 1955, at site 500 ft downstream at same datum.

AVERAGE DISCHARGE.--22 years, 141 cfs (102,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,740 cfs Aug. 15 (gage height, 19.47 ft); minimum, 1.0 cfs July 7.
Period of record: Maximum discharge, 35,000 cfs Feb. 9, 1966 (gage height, 27.71 ft); no flow at times.
Maximum stage since at least 1903, 30.7 ft in May 1908, from information by local residents. Flood of May 18, 1935, reached a stage of 29.7 ft, from floodmarks.

REMARKS.--Records good. At end of year, flow from 94.7 sq mi above this station was partly controlled by 41 floodwater-retarding structures with a total combined capacity of 30,920 acre-ft below the flood-spillway crests, of which 26,790 acre-ft is floodwater-retarding capacity and 4,130 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	16	14	15	11	12	6.5	6.9	11	5.7	1.8	13
2	58	15	14	14	11	13	5.8	6.2	9.5	7.5	2.0	12
3	50	14	14	23	11	15	5.7	6.4	7.9	7.7	2.2	9.8
4	44	14	13	21	14	15	6.0	6.0	7.4	3.1	2.1	8.6
5	40	14	13	15	14	14	7.0	5.8	7.4	1.9	3.7	8.7
6	37	15	13	14	14	12	5.8	6.2	5.6	1.3	21	10
7	34	15	13	13	12	11	5.9	6.0	4.0	1.1	43	10
8	35	15	13	14	11	10	5.8	6.9	3.6	1.4	10	8.8
9	35	15	13	14	11	10	5.8	6.9	3.7	1.2	8.4	9.2
10	31	14	14	14	11	9.9	6.3	8.4	3.9	1.4	4.6	9.8
11	29	14	13	13	11	9.6	6.3	19	3.7	1.8	3.7	9.7
12	28	14	13	13	11	9.8	6.1	8.2	4.1	1.9	2.5	10
13	27	14	13	13	11	9.7	5.7	6.0	4.5	2.1	2.9	11
14	25	17	13	14	10	9.5	5.6	4.6	6.2	2.3	1,280	11
15	24	19	14	14	10	9.3	6.0	4.0	5.9	2.4	1,710	11
16	23	17	14	13	10	8.8	6.2	4.4	5.7	2.7	260	12
17	22	16	14	13	10	8.5	7.2	4.2	7.7	2.7	157	13
18	21	16	13	13	15	8.2	24	3.7	7.8	2.5	103	14
19	21	16	13	13	14	7.5	15	3.7	6.7	2.4	76	15
20	21	15	13	12	15	6.9	13	3.9	6.0	2.4	67	15
21	20	15	13	13	128	6.5	15	3.6	57	2.9	62	17
22	19	14	14	13	69	6.6	11	3.9	18	2.5	56	27
23	172	14	14	12	23	6.5	9.1	6.1	7.2	3.6	44	129
24	140	13	13	13	17	6.9	8.2	8.8	4.4	5.7	41	40
25	38	13	12	12	16	8.7	7.4	10	3.7	6.7	130	354
26	28	14	12	12	16	7.6	7.2	5.4	3.3	7.7	64	222
27	24	14	12	12	13	7.6	7.0	10	3.0	41	57	48
28	20	14	12	11	13	7.8	6.5	20	3.3	42	48	27
29	18	15	12	11	------	7.3	6.2	109	4.2	31	32	18
30	17	14	13	11	------	6.9	7.3	46	3.8	6.9	22	14
31	16	------	16	11	------	7.2	------	15	------	2.5	16	------
TOTAL	1,216	445	410	419	532	289.3	240.6	365.2	230.2	208.0	4,332.9	1,117.6
MEAN	39.2	14.8	13.2	13.5	19.0	9.33	8.02	11.8	7.67	6.71	140	37.3
MAX	172	19	16	23	128	15	24	109	57	42	1,710	354
MIN	16	13	12	11	10	6.5	5.6	3.6	3.0	1.1	1.8	8.6
AC-FT	2,410	883	813	831	1,060	574	477	724	457	413	8,590	2,220

CAL YR 1970 TOTAL 75,888.7 MEAN 208 MAX 7,360 MIN 3.1 AC-FT 150,500
WTR YR 1971 TOTAL 9,805.8 MEAN 26.9 MAX 1,710 MIN 1.1 AC-FT 19,450

PEAK DISCHARGE (BASE, 4,000 CFS).--No peak above base.

08051000 Isle du Bois Creek near Pilot Point, Tex.

LOCATION.--Lat 33°24'23", long 97°00'45", Denton County, on left bank at downstream side of bridge on Farm Road 372, 2.4 miles downstream from Wolf Creek, 3.0 miles west of Pilot Point, and 6.3 miles upstream from mouth.

DRAINAGE AREA.--266 sq mi.

PERIOD OF RECORD.--April 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 555.48 ft above mean sea level (Corps of Engineers bench mark). Prior to Feb. 8, 1958, water-stage recorder, at site 1 mile upstream at datum 4.22 ft higher.

AVERAGE DISCHARGE.--22 years, 110 cfs (79,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs Aug. 15 (gage height, 12.50 ft); no flow at times.
Period of record: Maximum discharge, 22,700 cfs Apr. 26, 1957 (gage height, 28.2 ft, present site and datum); no flow at times in each year.
Maximum stage since at least 1900, 30.4 ft in May 1908, present site and datum, from information by local resident.

REMARKS.--Records good. No known diversion above station.

REVISIONS (WATER YEARS).--WSP 1512: 1950. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	2.0	1.5	2.7	3.8	4.0	1.4	.82	15	.05	8.1	.15
2	13	1.7	1.5	2.9	3.4	3.8	1.2	.82	4.5	.03	2.4	.19
3	9.7	4.3	1.6	4.3	4.0	4.5	1.0	.73	2.4	19	1.2	.13
4	8.3	2.3	1.5	29	6.1	6.0	.96	.55	1.3	5.7	.63	.06
5	7.5	1.8	1.5	15	7.2	5.0	.91	.55	.91	1.3	.27	0
6	5.4	2.0	1.5	6.8	4.8	4.2	.82	.55	.73	.36	.10	0
7	4.5	2.0	1.4	4.2	5.1	3.4	.64	.55	.55	.06	.07	0
8	5.1	1.7	1.4	3.5	3.0	3.0	.64	.39	.47	.03	.05	0
9	20	1.4	1.8	3.0	2.5	3.5	.64	.47	.42	.02	.02	0
10	22	1.2	1.9	3.2	2.5	3.3	.73	.73	.32	0	0	0
11	8.5	1.2	1.8	3.0	2.2	2.7	.82	75	.22	0	0	0
12	5.2	1.2	1.8	2.9	2.0	2.4	.82	13	.12	0	0	0
13	4.6	1.4	1.8	3.0	1.8	2.6	1.0	6.4	.07	0	0	0
14	4.1	1.8	1.8	3.2	1.8	2.4	1.4	3.5	.14	0	388	0
15	3.0	2.7	2.0	4.1	1.9	2.1	1.4	2.2	.15	0	1,280	0
16	6.0	3.8	2.5	4.0	2.0	1.9	1.3	1.6	.08	0	249	0
17	4.2	2.7	2.4	4.6	1.8	2.1	1.4	1.3	.04	0	22	0
18	2.9	2.2	2.4	4.8	1.9	2.4	2.7	1.0	.03	0	7.0	0
19	2.4	2.1	2.4	4.2	9.3	1.7	9.3	.91	.02	0	3.0	0
20	2.0	1.7	2.2	3.7	6.8	1.4	5.1	.82	.02	0	1.6	0
21	1.8	1.6	2.4	3.9	5.2	1.3	4.0	.47	.04	0	.90	0
22	1.7	1.5	2.5	4.0	72	1.3	3.2	.25	73	0	.45	0
23	8.7	1.5	2.5	4.0	46	1.3	2.7	1.8	10	0	.17	1.3
24	106	6.8	2.4	4.0	22	1.3	1.9	48	3.6	0	.09	.48
25	32	3.3	2.2	4.1	13	1.3	1.6	36	1.4	0	36	318
26	12	2.0	2.2	4.1	9.3	1.3	1.5	12	.64	0	101	1,190
27	6.8	1.6	2.2	4.0	6.8	1.4	1.3	161	.28	0	11	384
28	6.6	1.5	2.4	3.7	4.8	1.5	1.1	309	.17	96	5.6	28
29	5.5	1.4	2.4	3.7	------	1.5	1.0	292	.10	364	1.9	8.6
30	3.6	1.4	2.5	3.9	------	1.4	.91	723	.08	37	.97	3.3
31	2.5	------	2.9	4.0	------	1.3	------	88	------	48	.41	------
TOTAL	343.6	63.8	63.3	155.5	253.0	77.3	53.39	1,783.41	116.80	571.55	2,121.93	1,934.21
MEAN	11.1	2.13	2.04	5.02	9.04	2.49	1.78	57.5	3.89	18.4	68.4	64.5
MAX	106	6.8	2.9	29	72	6.0	9.3	723	73	364	1,280	1,190
MIN	1.7	1.2	1.4	2.7	1.8	1.3	.64	.25	.02	0	0	0
AC-FT	682	127	126	308	502	153	106	3,540	232	1,130	4,210	3,840

CAL YR 1970 TOTAL 58,972.21 MEAN 162 MAX 9,850 MIN 0 AC-FT 117,000
WTR YR 1971 TOTAL 7,537.79 MEAN 20.7 MAX 1,280 MIN 0 AC-FT 14,950

PEAK DISCHARGE (BASE, 2,500 CFS).--No peak above base.

08051500 Clear Creek near Sanger, Tex.

LOCATION.--Lat 33°20'09", long 97°10'44", Denton County, on right bank at downstream side of bridge on county road (formerly U.S. Highway 77), 1,000 ft downstream from Interstate Highway 35 and U.S. Highway 77, 1,350 ft downstream from Duck Creek, 1.1 miles upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 1.8 miles south of Sanger.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--March 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 587.23 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--22 years, 74.7 cfs (54,120 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 710 cfs Aug. 14 (gage height, 5.08 ft); no flow June 28 to Aug. 8, Aug. 13, 24.
Period of record: Maximum discharge, 18,200 cfs Sept. 13, 1950 (gage height, 24.80 ft); no flow at times in most years. Maximum stage since at least 1880, 31.5 ft in May 1908, from information by Gulf, Colorado, and Santa Fe Railway Co. Flood in May 1935 reached a stage of 29.0 ft, from information by State Highway Department.

REMARKS.--Records good. No appreciable diversion above station. At end of year, flow from 153 sq mi above this station was partly controlled by 65 floodwater-retarding structures with a total capacity of 44,480 acre-ft below the flood-spillway crests, of which 39,310 acre-ft is floodwater-retarding capacity and 5,170 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	12	11	11	11	11	6.7	5.5	14		0	1.8
2	58	11	11	15	11	12	6.4	5.5	9.2		0	3.5
3	46	11	11	15	11	13	6.3	4.9	6.0		0	2.2
4	34	11	11	17	14	13	6.3	4.5	4.1		0	1.8
5	28	11	11	16	14	15	6.2	4.3	2.7		0	1.5
6	23	11	11	11	14	12	6.1	4.3	1.6		0	1.3
7	23	11	10	9.2	13	10	6.1	5.1	.71		0	1.2
8	23	12	10	9.4	11	9.5	8.1	7.2	.42		0	.96
9	21	12	11	9.6	11	9.6	8.2	7.3	.27		9.5	.83
10	19	11	11	15	13	9.7	8.0	5.7	.19		4.6	.73
11	16	11	12	14	13	9.6	6.7	5.4	.13		1.4	.70
12	16	11	10	12	13	9.9	6.1	5.2	.11		.29	.57
13	17	11	9.4	12	12	10	5.5	4.2	.10		0	.49
14	16	13	8.8	13	12	10	5.3	3.3	.08		151	.43
15	15	16	10	13	12	9.5	5.5	2.8	.08		129	.37
16	14	13	13	11	13	9.5	6.6	2.5	.06		109	.32
17	14	11	12	11	13	9.3	15	2.1	.05		21	.30
18	15	11	11	12	16	9.3	31	2.0	.04		5.9	.25
19	15	11	11	11	15	8.8	17	2.2	.04		1.8	.26
20	14	10	11	11	14	8.8	12	1.6	.42		.60	.22
21	14	10	11	11	60	8.9	11	1.0	1.2		.16	.20
22	14	10	11	12	32	10	11	.82	.94		.08	3.1
23	28	9.9	21	11	21	11	8.5	1.5	.83		.02	36
24	61	9.5	13	11	16	11	7.2	10	.73		0	20
25	30	9.2	12	12	15	11	6.7	7.2	.58		43	53
26	22	10	11	11	15	11	6.7	3.1	.16		96	33
27	19	11	11	11	13	11	6.7	2.7	.01		23	8.5
28	16	11	12	11	12	10	6.2	2.5	0		9.1	4.2
29	13	11	12	11	------	8.9	5.6	109	0		4.8	2.8
30	12	11	14	12	------	7.8	5.5	62	0		2.8	1.7
31	12	------	15	12	------	7.3	------	26	------		2.1	------
TOTAL	743	333.6	359.2	373.2	440	317.4	254.2	311.42	44.75	0	615.15	182.23
MEAN	24.0	11.1	11.6	12.0	15.7	10.2	8.47	10.0	1.49	0	19.8	6.07
MAX	75	16	21	17	60	15	31	109	14	0	151	53
MIN	12	9.2	8.8	9.2	11	7.3	5.3	.82	0	0	0	.20
AC-FT	1,470	662	712	740	873	630	504	618	89	0	1,220	361

CAL YR 1970 TOTAL 38,604.15 MEAN 106 MAX 2,700 MIN 0 AC-FT 76,570
WTR YR 1971 TOTAL 3,974.15 MEAN 10.9 MAX 151 MIN 0 AC-FT 7,880

PEAK DISCHARGE (BASE, 3,000 CFS).--No peak above base.

08052630 Little Elm Creek subwatershed No. 10 near Gunter, Tex.

LOCATION.--Lat 33°24'33", long 96°48'41", Grayson County, near center of dam on Walnut Fork tributary to Little Elm Creek, 1.6 miles upstream from mouth, and 4.7 miles southwest of Gunter.

DRAINAGE AREA.--2.10 sq mi.

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 615.51 ft above mean sea level (Soil Conservation Service bench mark).

AVERAGE INFLOW.--5 years, 857 acre-ft per year.

AVERAGE OUTFLOW.--5 years, 761 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 0.26 cfs Oct. 1 (gage height, 20.13 ft); no outflow most of time. Maximum inflow, 80 cfs (estimated for 15-minute interval) Aug. 24; no inflow most of time.
Period of record: Maximum outflow, 31.9 cfs Apr. 30, 1966 (gage height, 27.09 ft); no outflow most of time each year. Maximum inflow, 3,240 cfs (average for 5-minute interval) May 30, 1967, computed and adjusted as above; no inflow at times.

REMARKS.--Records good to July 25, poor thereafter. Dam completed Mar. 16, 1966, and storage began in April 1966. Pool is formed by rolled-fill earthen dam 1,588 ft long, with a 130-foot wide emergency spillway at left end of dam, with crest at gage height 29.2 ft. Outlet structure is a 2.0- by 4.0-foot uncontrolled concrete drop-inlet structure with crest at gage height 20.00 ft and connected to a 24-inch concrete pipe with invert at gage height 13.0 ft. There is also a 12-inch controlled slide gate used as a water-supply outlet that is connected to the drop inlet at gage height 13.5 ft. Pool capacity is 868 acre-ft at spillway crest, 159 acre-ft at crest of drop inlet, and 40 acre-ft at controlled slide gate. Capacity table is based on Soil Conservation Service map prepared prior to construction and adjusted for borrow by the Geological Survey. Recording rain gage located at station. Records of precipitation and hydrologic data for selected storms are published elsewhere in supplementary basic-data reports.

REVISIONS.--WRD Texas 1968: Drainage area.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	7.9	4.6	2.1	3.8	2.5	4.3	1.6	39.8	3.4	8.8	42.2	37.3
Outflow	1.6	0	0	0	0	0	2.7	0	0	52.8	5.5	0
(††)	1.44	.26	.45	.59	.98	.10	1.60	3.55	.43	3.60	4.87	3.15

CAL YR 1970: Inflow 1,330 Outflow 1,240 †† 30.28
WTR YR 1971: Inflow 158 Outflow 62.6 †† 21.02

PEAK INFLOW (BASE, 100 CFS).--No peak above base.

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted-mean rainfall, in inches, based on one rain gage.

08052650 Little Elm Creek near Celina, Tex.

LOCATION.--Lat 33°21'55", long 96°49'25", Collin County, on left bank at downstream side of bridge on Farm Road 455, 3.6 miles northwest of Celina, and 10 miles upstream from Mustang Creek.

DRAINAGE AREA.--46.7 sq mi.

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 582.4 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--5 years, 27.8 cfs (8.08 inches per year, 20,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 388 cfs Aug. 25 (gage height, 8.85 ft); no flow for many days.
Period of record: Maximum discharge, 5,340 cfs May 31, 1967 (gage height, 13.32 ft); no flow for many days each year.

REMARKS.--Records good. Small diversions for irrigation above station. Four standard and two recording rain gages are located in basin above station. At end of year, flow from 28.4 sq mi above this station was partly controlled by 12 floodwater-retarding structures with a total combined capacity of 9,490 acre-ft below the flood-spillway crests, of which 7,960 acre-ft is floodwater-retarding capacity and 1,530 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WRD Texas 1970: 1968-69, Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	.22			0	0		0	11	0	.09	.71
2	3.8	.19			0	.05		0	6.5	0	.02	.44
3	2.7	.13			0	.11		0	3.9	0	0	.26
4	2.0	.09			1.0	.09		0	2.3	0	0	.18
5	1.2	.05			.53	.05		0	1.4	0	27	.10
6	1.1	.03			.17	.04		0	.88	0	12	.04
7	.80	.01			.11	.01		0	.50	0	.66	0
8	.53	.01			.05	.01		0	.22	0	.15	0
9	.40	0			.04	.01		0	.10	0	.02	0
10	.26	0			.03	0		0	.04	0	0	0
11	.16	0			.03	0		0	.01	0	0	0
12	.12	0			.02	0		0	0	0	0	0
13	.08	0			.01	0		0	0	0	0	0
14	.05	0			0	0		0	0	0	44	0
15	.02	0			0	0		0	0	0	40	0
16	.01	0			0	0		0	0	0	19	0
17	0	0			0	0		0	0	0	9.0	0
18	0	0			0	0		0	0	0	5.1	0
19	0	0			0	0		0	0	0	2.8	0
20	0	0			0	0		0	5.9	0	1.6	0
21	0	0			0	0		0	8.7	0	.86	0
22	0	0			0	0		0	.20	0	.43	.21
23	.01	0			0	0		12	.04	0	.16	6.6
24	1.6	0			0	0		29	0	0	51	2.0
25	2.2	0			0	0		4.8	0	0	190	50
26	1.5	0			0	0		1.5	0	0	48	52
27	1.1	0			0	0		156	0	0	16	25
28	.90	0			0	0		39	0	0	7.1	12
29	.62	0			------	0		56	0	9.4	3.6	7.1
30	.41	0			------	0		50	0	42	2.0	4.3
31	.26	------			------	0	------	24	------	.67	1.2	------
TOTAL	27.23	.73	0	0	1.99	.37	0	372.3	41.69	52.07	481.79	160.94
MEAN	.88	.024	0	0	.071	.012	0	12.0	1.39	1.68	15.5	5.36
MAX	5.4	.22	0	0	1.0	.11	0	156	11	42	190	52
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.02	.0005	0	0	.002	.0003	0	.26	.03	.04	.33	.11
IN.	.02	0	0	0	.001	0	0	.30	.03	.04	.38	.13
AC-FT	54	1.5	0	0	4.0	.7	0	738	83	103	956	319

CAL YR 1970 TOTAL 13,876.17 MEAN 38.0 MAX 1,390 MIN 0 CFSM .81 IN 11.05 AC-FT 27,520
WTR YR 1971 TOTAL 1,139.11 MEAN 3.12 MAX 190 MIN 0 CFSM .07 IN .91 AC-FT 2,260

08052700 Little Elm Creek near Aubrey, Tex.

LOCATION.--Lat 33°17'00", long 96°53'33", Denton County, on left bank at downstream side of bridge on Farm Road 1385, 1.5 miles upstream from Mustang Creek, 5.5 miles east of Aubrey, and 18 miles upstream from Lewisville Dam.

DRAINAGE AREA.--75.5 sq mi.

PERIOD OF RECORD.--June 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 534.76 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--15 years, 39.7 cfs (28,760 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 341 cfs Aug. 26 (gage height, 10.90 ft); no flow for many days.
Period of record: Maximum discharge, 7,830 cfs Apr. 26, 1957 (gage height, 17.34 ft); no flow at times each year.
Maximum stage since about 1900, 18.2 ft in May 1941, from information by local residents.

REMARKS.--Records good. Small diversions for irrigation above station. Ten rain gages, six standard and four recording gages, are operated in basin above station. At end of year, flow from 35.7 sq mi above this station was partly controlled by 16 floodwater-retarding structures with a total combined capacity of 12,340 acre-ft below the flood-spillway crests, of which 10,260 acre-ft is floodwater-retarding capacity and 2,080 acre-ft is sediment-pool capacity. Five structures were built during the current year and have a total combined capacity below flood-spillway crests of 2,440 acre-ft, of which 460 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	.68	0	.22	.04	.07	0	0	16	.03	1.7	.54
2	6.7	.39	.09	.19	.01	1.1	0	0	11	0	.26	.15
3	4.9	.24	.07	.36	0	2.4	0	0	8.2	0	.08	.09
4	3.4	.18	.06	.44	1.0	1.3	0	0	5.8	0	.06	.04
5	2.0	.13	.04	.23	.55	.51	0	0	4.0	0	.09	.02
6	1.4	.09	.04	.15	.27	.24	0	0	2.1	0	38	0
7	1.0	.09	.01	.12	.15	.09	0	0	1.1	0	9.5	0
8	.75	.08	0	.11	.09	.03	0	0	.55	0	2.7	0
9	.49	.09	0	.16	.08	.02	0	0	.15	0	.27	0
10	.31	.09	0	.24	.09	.03	0	0	.08	0	.11	0
11	.25	.07	.03	.24	.11	.02	0	0	0	0	.05	0
12	.28	.07	.03	.21	.15	.01	0	0	0	0	0	0
13	.25	.11	.05	.29	.13	.02	0	0	0	0	0	0
14	.24	.11	.05	2.0	.08	.01	0	0	0	0	11	0
15	.22	.12	.11	.38	.05	.01	0	0	0	0	68	0
16	.11	.08	.35	.13	.06	0	0	0	0	0	31	0
17	.09	.07	.18	.12	.08	0	0	0	0	0	17	0
18	.08	.08	.12	.10	.09	0	1.8	0	0	0	10	0
19	.05	.05	.13	.08	.21	0	.91	0	0	0	6.9	0
20	.03	.06	.11	.04	.21	0	.39	0	0	0	4.0	0
21	.01	.03	.09	.05	2.3	0	.18	0	9.4	0	1.7	0
22	0	.06	.10	.07	2.0	0	.15	0	7.2	0	.47	0
23	.18	.07	.14	.07	.33	0	.09	0	3.4	0	.10	5.1
24	.72	.01	.11	.06	.11	0	.04	28	1.5	0	.07	7.9
25	.83	0	.13	.06	.11	0	.01	13	.61	0	197	20
26	2.4	0	.07	.06	.15	0	0	6.4	.27	0	129	72
27	22	0	.10	.02	.09	0	0	159	.12	0	27	33
28	4.7	0	.10	.01	.07	0	0	70	3.0	0	13	19
29	2.4	0	.13	.04	------	0	0	47	4.0	0	7.5	12
30	1.5	0	.21	.05	------	0	0	73	.16	45	4.3	7.5
31	1.1	------	.26	.07	------	0	------	31	------	9.3	1.8	------
TOTAL	67.79	3.04	2.91	6.37	8.61	5.86	3.57	427.4	78.64	54.33	582.66	177.34
MEAN	2.19	.10	.094	.21	.31	.19	.12	13.8	2.62	1.75	18.8	5.91
MAX	22	.68	.35	2.0	2.3	2.4	1.8	159	16	45	197	72
MIN	0	0	0	.01	0	0	0	0	0	0	0	0
AC-FT	134	6.0	5.8	13	17	12	7.1	848	156	108	1,160	352

CAL YR 1970 TOTAL 19,893.26 MEAN 54.5 MAX 1,770 MIN 0 AC-FT 39,460
WTR YR 1971 TOTAL 1,418.52 MEAN 3.89 MAX 197 MIN 0 AC-FT 2,810

08052800 Lewisville Lake near Lewisville, Tex.
(Formerly published as Garza-Little Elm Reservoir near Lewisville)

LOCATION.--Lat 33°04'09", long 96°57'51", Denton County, in intake structure of Lewisville Dam on Elm Fork Trinity River, 2 miles upstream from bridge on State Highway 121, 2.4 miles northeast of Lewisville, 12 miles upstream from Denton Creek, and at mile 30.0.

DRAINAGE AREA.--1,660 sq mi.

PERIOD OF RECORD.--November 1954 to current year. Prior to October 1970, published as Garza-Little Elm Reservoir near Lewisville.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 17, 1955, nonrecording gage at site 4,000 ft upstream at same datum.

EXTREMES.--Current year: Maximum contents, 479,200 acre-ft Oct. 1 (elevation, 515.62 ft); minimum, 336,500 acre-ft July 26 (elevation, 508.75 ft).
Period of record: Maximum contents, 1,146,000 acre-ft June 3, 1957 (elevation, 535.57 ft); minimum since initial filling in 1957, 307,200 acre-ft Feb. 29, 1964 (elevation, 507.00 ft).

REMARKS.--Lake is formed by a rolled-fill dam, 32,888 ft long including a 560-foot uncontrolled off-channel concrete gravity spillway with ogee weir section. Outlet works consist of a 16-foot-diameter conduit controlled by three 6.5- by 13-foot broome-type gates and two 60-inch steel pipes controlled by service valves. Deliberate impoundment of water began Nov. 1, 1954, and main dam was completed in August 1955. Lake built for flood control and water conservation. The city of Dallas derives most of its water for municipal use from this lake. Figures given herein represent total contents. Capacity table based on survey made in 1960. At end of year, flow from 290 sq mi above this station was partly controlled by 125 floodwater-retarding structures with a total combined capacity of 90,130 acre-ft below the flood-spillway crests, of which 78,420 acre-ft is floodwater-retarding capacity and 11,710 acre-ft is sediment-pool capacity. Eight structures were built during the current year and have a total combined capacity below flood-spillway crests of 4,840 acre-ft, of which 801 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	560.0	-
Crest of spillway	532.0	989,700
Top of conservation storage	515.0	464,500
Inverts of lowest intakes to wet wells	481.0	44,080
Invert of three 6.5- by 13-foot broome-type gates	448.0	33

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

508.0	323,800	512.0	397,600
509.0	340,800	513.0	419,300
510.0	358,300	514.0	441,600
511.0	377,100	515.0	464,500
		516.0	488,200

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	473,100	458,100	445,100	435,600	428,400	421,700	404,300	393,100	384,900	360,600	346,900	352,500
2	468,600	457,700	445,100	434,900	427,800	421,300	403,900	392,300	384,500	359,700	346,600	352,200
3	466,700	457,200	444,800	435,800	427,800	420,900	403,200	391,400	384,100	358,900	346,400	351,700
4	464,800	456,100	444,600	435,800	427,600	420,000	402,400	390,000	383,500	357,800	346,000	351,100
5	463,900	454,900	444,400	435,400	427,600	419,300	401,500	390,200	382,600	357,100	345,900	350,800
6	463,600	454,700	444,100	434,900	427,300	418,900	400,800	390,400	381,800	356,100	346,600	350,400
7	463,200	454,200	443,900	434,500	426,900	418,400	400,000	390,000	381,200	355,000	346,400	349,700
8	462,900	454,700	443,500	434,000	426,400	417,800	399,300	389,400	380,200	354,000	346,200	348,900
9	462,300	453,500	443,000	433,600	426,000	417,600	398,700	388,800	379,000	352,500	345,700	348,300
10	461,600	453,100	442,500	433,100	425,500	416,900	398,000	389,400	378,100	351,100	345,300	347,800
11	461,800	452,900	442,100	432,900	424,900	416,700	397,200	389,400	377,100	349,900	344,600	347,100
12	461,800	452,400	441,600	432,900	424,200	416,500	396,400	388,600	376,200	348,900	343,900	346,200
13	461,300	454,000	441,200	433,800	423,300	416,000	395,900	388,000	375,600	347,600	343,600	345,300
14	461,100	453,500	440,700	433,600	422,600	415,800	395,500	387,100	374,700	346,400	346,800	344,500
15	460,600	451,500	440,700	433,100	422,200	415,200	395,100	386,300	373,900	345,200	349,900	343,800
16	459,700	450,100	440,700	432,900	422,000	414,500	395,100	385,300	372,800	343,900	353,800	343,200
17	459,300	451,200	440,300	432,900	421,500	413,900	397,200	384,700	371,700	342,900	354,700	342,500
18	459,000	450,100	440,100	432,500	422,000	413,400	397,600	384,100	370,500	341,500	354,500	341,800
19	458,600	450,300	439,800	432,000	422,000	412,600	397,600	383,700	369,200	339,900	354,100	341,100
20	458,100	450,100	439,600	431,600	422,000	412,300	397,600	382,800	368,100	339,400	353,400	340,300
21	457,400	449,200	439,400	431,400	422,600	412,100	397,000	381,600	368,100	338,900	353,200	339,600
22	457,200	449,400	439,200	431,600	422,400	411,700	397,000	381,200	367,700	337,700	352,700	342,200
23	460,200	449,000	438,900	431,100	422,000	411,000	396,600	380,800	367,000	337,700	352,200	342,900
24	460,400	447,800	438,700	430,900	422,000	409,700	395,900	380,600	366,200	337,400	352,000	343,900
25	460,400	445,500	438,000	430,700	422,000	409,100	395,500	379,600	364,700	337,000	354,100	345,200
26	460,600	445,500	437,600	430,500	422,000	408,400	395,100	378,800	363,400	340,100	354,700	347,300
27	460,900	446,200	437,400	430,000	421,700	407,800	394,700	380,400	362,300	340,400	354,800	349,400
28	459,700	446,000	437,200	429,600	421,500	407,100	394,300	381,000	361,900	342,400	354,500	349,900
29	458,800	445,500	436,500	429,300	------	406,900	393,900	382,600	361,700	346,400	354,100	349,700
30	458,100	445,100	436,300	429,100	------	406,100	393,500	384,500	361,300	347,800	353,800	349,400
31	458,400	------	436,300	428,900	------	405,200	------	384,900	------	347,300	353,100	------
(†)	514.73	514.15	513.76	513.43	513.10	512.35	511.80	511.38	510.16	509.37	509.70	509.49
(*)	-20,800	-13,300	-8,800	-7,400	-7,400	-16,300	-11,700	-8,600	-23,600	-14,000	+5,800	-3,700
(††)	626	590	582	577	554	692	714	747	1,022	1,204	786	65
MAX	473,100	458,100	445,100	435,800	428,400	421,700	404,300	393,100	384,900	360,600	354,800	352,500
MIN	457,200	445,100	436,300	428,900	421,500	405,200	393,500	378,800	361,300	337,000	343,600	339,600

CAL YR 1970..... * +28,900 †† 8,463 MAX 667,900 MIN 376,000
WTR YR 1971..... * -129,800 †† 8,159 MAX 473,100 MIN 337,000

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Denton.

08053000 Elm Fork Trinity River near Lewisville, Tex.

LOCATION.--Lat 33°02'43", long 96°57'41", Denton County, on left bank at downstream side of pier of bridge on State Highway 121, 1.8 miles east of Lewisville, 1.9 miles downstream from Lewisville Lake (formerly Garza-Little Elm Reservoir), and 8.3 miles upstream from Denton Creek.

DRAINAGE AREA.--1,673 sq mi.

PERIOD OF RECORD.--March 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 432.39 ft above mean sea level (Corps of Engineers bench mark). Prior to Jan. 6, 1950, nonrecording (revised) gage 0.6 mile upstream at datum 3.26 ft lower.

AVERAGE DISCHARGE.--22 years, 550 cfs (398,500 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,260 cfs Oct. 1 (gage height, 17.94 ft); minimum, 7.8 cfs Sept. 23.
Period of record: Maximum discharge, 21,700 cfs Sept. 15, 1950 (gage height, 30.75 ft); minimum daily, 0.8 cfs Jan. 19, 1955. Maximum discharge since construction of Lewisville Dam in 1954, 11,400 cfs May 27, 1957 (includes about 4,000 cfs passing over spillway of Lewisville dam and bypassing gage).
Maximum stage since at least 1907, 33.8 ft in 1908, present site and datum, from information by local resident.

REMARKS.--Records good. Flow regulated by Lewisville Lake (see preceding page) since November 1954. Most of flow is used by city of Dallas for municipal supply (see station 08055500).

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,260	124	144	200	124	176	216	132	162	158	124	144
2	2,850	124	144	200	124	180	216	132	144	273	102	140
3	998	124	144	200	128	180	211	153	166	238	56	106
4	936	124	144	163	128	180	211	190	171	200	87	106
5	541	124	144	132	128	185	211	162	166	255	55	106
6	132	124	144	132	128	185	211	162	166	328	58	110
7	124	124	144	132	128	176	211	162	200	341	96	173
8	124	124	144	132	128	176	206	162	309	341	110	222
9	128	128	144	132	128	176	206	162	341	367	96	190
10	124	128	144	132	173	176	206	162	285	354	83	128
11	124	128	144	132	267	176	206	166	279	354	191	113
12	124	132	144	132	267	176	206	162	279	354	158	174
13	120	132	144	138	267	176	206	162	309	354	96	250
14	120	132	144	136	267	176	185	185	341	341	100	238
15	120	132	144	132	233	176	162	211	341	394	40	211
16	120	132	144	132	185	176	136	216	341	394	30	176
17	120	132	140	132	171	176	136	216	341	380	104	216
18	116	132	140	132	171	176	140	216	341	394	148	166
19	116	136	140	132	176	176	136	222	341	394	96	87
20	116	136	140	132	176	176	136	216	341	216	133	124
21	120	136	136	132	176	176	136	216	267	162	180	122
22	120	136	136	132	176	176	132	211	195	132	120	55
23	132	140	136	132	176	171	132	211	180	132	147	16
24	120	140	136	132	176	171	132	216	222	135	181	78
25	120	140	136	132	176	171	132	238	303	112	71	105
26	120	148	136	132	176	171	132	303	436	148	72	54
27	124	144	136	128	176	171	132	233	380	76	113	113
28	124	144	163	128	176	171	132	171	261	75	91	132
29	124	144	200	128	------	166	132	153	176	61	96	132
30	124	144	200	128	------	178	132	158	124	158	120	132
31	124	------	200	128	------	216	------	176	------	96	136	------
TOTAL	11,765	3,988	4,579	4,317	4,905	5,488	5,078	5,837	7,908	7,717	3,290	4,119
MEAN	380	133	148	139	175	177	169	188	264	249	106	137
MAX	3,260	148	200	200	267	216	216	303	436	394	191	250
MIN	116	124	136	128	124	166	132	132	124	61	30	16
AC-FT	23,340	7,910	9,080	8,560	9,730	10,890	10,070	11,580	15,690	15,310	6,530	8,170

CAL YR 1970 TOTAL 332,472 MEAN 911 MAX 4,460 MIN 116 AC-FT 659,500
WTR YR 1971 TOTAL 68,991 MEAN 189 MAX 3,260 MIN 16 AC-FT 136,800

08053500 Denton Creek near Justin, Tex.

LOCATION.--Lat 33°07'08", long 97°17'25", Denton County, on right bank at downstream side of bridge on Farm Road 156, 100 ft upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.2 miles north of Justin, 3.0 miles upstream from Olivers Creek, 12.9 miles upstream from Harriet Creek, and 32.9 miles upstream from Grapevine Dam.

DRAINAGE AREA.--400 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 606.66 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 81.5 cfs (59,050 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 402 cfs Sept. 23 (gage height, 5.29 ft); no flow at times.
Period of record: Maximum discharge, 29,800 cfs May 24, 1957 (gage height, 17.64 ft); no flow at times.
Flood in May 1935 was the highest flood since 1908 and reached a stage of 20.6 ft at site about 1,500 ft upstream, from information by local resident. Flood in May 1908 reached a stage about 1.0 ft higher than flood in May 1935, from information by local resident.

REMARKS.--Records good. Several small diversions above station. At end of year, flow from 167 sq mi above this station was partly controlled by 85 floodwater-retarding structures with a total combined capacity of 51,110 acre-ft below the flood-spillway crests, of which 44,430 acre-ft is floodwater-retarding capacity and 6,680 acre-ft is sediment-pool capacity. Eight structures were built during the current year and have a total combined capacity below flood-spillway crests of 3,760 acre-ft, of which 665 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1732: 1950(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	8.7	12	14	12	13	6.6	6.7	9.4	0	4.6	.01
2	45	9.0	12	13	11	13	6.5	6.4	7.4	0	1.9	.02
3	38	9.2	11	14	11	14	6.5	6.1	4.6	0	.77	0
4	32	9.3	11	16	13	15	6.5	5.6	3.7	0	.43	0
5	28	9.8	10	16	15	17	7.0	5.3	2.9	.60	6.3	0
6	27	9.9	9.7	12	16	15	8.4	6.1	2.2	2.8	18	0
7	26	10	9.4	11	14	14	7.1	6.4	1.8	.77	105	0
8	24	11	9.6	11	13	12	7.4	28	1.2	.04	37	0
9	23	11	10	11	11	12	6.8	13	.77	0	30	0
10	21	10	11	13	12	11	8.5	7.1	.43	0	11	0
11	24	9.3	10	14	12	12	9.9	6.6	.17	0	5.0	0
12	22	9.0	10	13	13	12	9.3	5.8	.07	0	2.8	0
13	21	10	9.3	13	13	13	8.7	6.4	.03	0	1.7	0
14	20	13	9.2	14	12	13	8.4	4.6	0	0	3.2	0
15	18	13	10	15	12	12	9.0	3.9	0	0	154	0
16	17	13	10	13	13	11	11	3.4	0	0	136	0
17	17	13	11	12	13	11	20	3.1	7.9	0	41	0
18	19	11	11	13	13	10	36	3.0	3.5	0	18	0
19	19	11	10	13	17	9.7	22	2.7	1.2	0	9.8	0
20	18	11	10	12	17	9.8	16	3.5	.25	0	4.8	0
21	18	11	11	12	49	9.5	12	3.1	.07	0	2.6	0
22	18	10	12	13	23	10	12	2.6	.03	0	1.5	0
23	35	9.9	13	13	22	10	11	2.3	0	0	.74	162
24	94	9.7	12	12	16	8.8	8.9	5.9	0	0	.46	123
25	28	9.4	11	13	15	8.3	8.0	11	0	0	.68	85
26	19	10	10	13	16	8.7	7.5	7.4	0	0	.86	65
27	15	11	10	12	15	10	7.5	5.6	0	0	.41	31
28	13	12	11	11	14	9.7	7.4	8.4	0	6.6	.23	15
29	11	11	11	11	------	9.1	6.7	13	0	12	.10	8.1
30	9.9	11	13	12	------	9.0	6.6	13	0	8.0	.03	4.7
31	8.9	------	13	12	------	7.1	------	16	------	2.4	.01	------
TOTAL	786.8	316.2	333.2	397	433	349.7	309.2	222.0	47.62	33.21	598.92	493.83
MEAN	25.4	10.5	10.7	12.8	15.5	11.3	10.3	7.16	1.59	1.07	19.3	16.5
MAX	94	13	13	16	49	17	36	28	9.4	12	154	162
MIN	8.9	8.7	9.2	11	11	7.1	6.5	2.3	0	0	.01	0
AC-FT	1,560	627	661	787	859	694	613	440	94	66	1,190	980

CAL YR 1970 TOTAL 38,537.25 MEAN 106 MAX 3,060 MIN 0 AC-FT 76,440
WTR YR 1971 TOTAL 4,320.68 MEAN 11.8 MAX 162 MIN 0 AC-FT 8,570

PEAK DISCHARGE (BASE, 3,000 CFS).--No peak above base.

08054500 Grapevine Lake near Grapevine, Tex.
(Formerly published as Grapevine Reservoir near Grapevine)

LOCATION.--Lat 32°58'21", long 97°03'22", Tarrant County, in intake structure of Grapevine Dam on Denton Creek, 2.7 miles northeast of Grapevine, 4.3 miles upstream from bridge on State Highway 121, and 11.7 miles upstream from mouth.

DRAINAGE AREA.--695 sq mi.

PERIOD OF RECORD.--July 1952 to current year. Prior to October 1970, published as Grapevine Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 16, 1953, nonrecording gage at site 1,000 ft upstream at present datum.

EXTREMES.--Current year: Maximum contents, 202,700 acre-ft Oct. 1 (elevation, 536.87 ft); minimum, 129,500 acre-ft Sept. 22 (elevation, 526.04 ft).
Period of record: Maximum contents, 445,800 acre-ft June 6, 1957 (elevation, 560.80 ft); minimum since lake first filled in 1957, 114,000 acre-ft Mar. 6, 1964 (elevation, 523.33 ft).

REMARKS.--Lake is formed by a rolled earthfill dam, 12,850 ft long including a 500-foot uncontrolled off-channel concrete gravity spillway with ogee weir section. Dam completed in June 1952 and deliberate impoundment of water began July 3, 1952. Figures given herein represent total contents. Capacities based on survey made in May 1946. Lake built for flood control, navigation, and water conservation. The city of Dallas uses part of this water for their municipal supply. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Denton Creek near Justin (station 08053500). Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	588.0	-
Crest of spillway	560.0	435,500
Top of conservation storage	535.0	188,500
Inverts of lowest intakes to wet wells	500.5	24,750
Invert of two 6.5- by 13-foot broome-type gates sill	475.0	830

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

526.0	129,300	532.0	167,300
527.0	135,300	533.0	174,200
528.0	141,400	534.0	181,300
529.0	147,600	535.0	188,500
530.0	154,000	536.0	196,000
531.0	160,500	537.0	203,700

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201,100	187,100	183,300	180,500	177,900	177,000	163,600	157,800	153,200	144,900	138,700	134,500
2	198,500	186,800	183,200	180,500	177,700	175,600	163,100	157,600	153,100	144,700	138,500	134,300
3	196,100	186,600	183,100	180,700	177,600	173,700	162,700	157,100	152,800	144,500	138,300	134,200
4	193,500	186,400	183,000	180,600	177,600	171,900	162,500	156,800	152,500	144,200	138,100	133,900
5	191,500	186,100	182,900	180,500	177,600	170,500	162,100	156,700	152,300	144,000	137,900	133,700
6	190,300	185,800	182,900	180,300	177,600	169,400	161,800	156,700	152,000	143,600	137,800	133,400
7	189,900	185,700	182,800	180,100	177,500	169,300	161,300	156,500	151,800	143,300	137,800	133,200
8	189,500	185,600	182,700	179,800	177,500	169,300	160,900	156,500	151,400	143,000	137,700	133,100
9	189,100	185,600	182,600	179,700	177,400	169,200	160,700	156,300	150,900	142,700	137,500	132,800
10	188,800	185,300	182,400	179,600	177,400	169,100	160,300	156,200	150,500	142,400	137,300	132,500
11	188,400	185,200	182,300	179,500	177,300	169,100	159,900	156,100	150,200	142,100	137,200	132,300
12	188,300	184,900	182,100	179,500	177,300	169,000	159,600	155,900	149,900	141,800	136,800	132,000
13	188,000	185,200	182,100	179,600	177,100	168,800	159,300	155,800	149,600	141,600	136,800	131,700
14	188,000	185,000	181,900	179,600	177,100	168,600	159,000	155,500	149,300	141,200	137,400	131,500
15	187,700	184,700	181,800	179,400	177,100	168,400	158,600	155,200	149,000	140,900	137,500	131,300
16	187,400	184,500	181,600	179,300	177,100	168,100	158,600	155,000	148,800	140,700	137,600	131,000
17	187,200	184,500	181,500	179,200	177,100	167,700	159,700	154,600	148,300	140,400	137,600	130,800
18	187,100	184,400	181,500	179,100	177,300	167,500	159,900	154,500	147,800	140,100	137,500	130,500
19	186,900	184,300	181,400	178,900	177,400	167,000	160,000	154,300	147,400	139,700	137,300	130,200
20	186,900	184,200	181,200	178,800	177,400	166,800	160,100	154,300	147,000	139,500	137,000	130,000
21	186,600	184,200	181,000	178,800	177,600	166,400	159,900	153,900	147,200	139,200	136,700	129,600
22	186,600	184,100	181,000	178,700	177,600	166,300	159,700	153,800	147,000	139,000	136,500	130,200
23	187,800	183,800	181,000	178,600	177,500	166,000	159,700	153,700	146,800	138,900	136,200	130,400
24	188,000	183,600	180,900	178,600	177,500	165,800	159,400	153,500	146,500	138,800	136,000	131,100
25	188,000	183,400	180,700	178,400	177,700	165,600	159,200	153,100	146,100	138,700	136,100	131,600
26	188,100	183,400	180,400	178,300	177,700	165,400	159,100	152,700	145,700	138,900	135,900	131,800
27	188,000	183,400	180,300	178,300	177,600	165,200	158,800	152,900	145,400	138,900	135,700	131,800
28	187,700	183,400	180,300	178,100	177,600	164,900	158,400	152,800	145,100	139,100	135,400	131,700
29	187,500	183,400	180,400	178,100	------	164,600	158,100	153,300	145,000	139,200	135,200	131,600
30	187,200	183,300	180,600	178,100	------	164,200	158,000	153,300	145,100	139,000	135,000	131,400
31	187,200	------	180,500	178,000	------	163,800	------	153,300	------	138,800	134,700	------
(†)	534.82	534.28	533.89	533.54	533.49	531.49	530.61	529.90	528.60	527.58	526.91	526.35
(*)	-15,500	-3,900	-2,800	-2,500	-400	-13,800	-5,800	-4,700	-8,200	-6,300	-4,100	-3,300
(††)	45	44	46	48	45	52	60	64	84	99	60	857
MAX	201,100	187,100	183,300	180,700	177,900	177,000	163,600	157,800	153,200	144,900	138,700	134,500
MIN	186,600	183,300	180,300	178,000	177,100	163,800	158,000	152,700	145,000	138,700	134,700	129,600

CAL YR 1970..... * +3,200 †† 632 MAX 238,300 MIN 165,200
WTR YR 1971..... * -71,300 †† 1,504 MAX 201,100 MIN 129,600

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Grapevine.

08055000 Denton Creek near Grapevine, Tex.

LOCATION.--Lat 32°59'13", long 97°00'45", Denton County, on left bank at downstream side of left pier of bridge on State Highway 121, 1.3 miles downstream from Bakers Branch, 4.3 miles downstream from Grapevine Dam, 5.0 miles northeast of Grapevine, and 6.1 miles upstream from mouth.

DRAINAGE AREA.--705 sq mi.

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 439.11 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 140 cfs (101,400 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,350 cfs Oct. 3 (gage height, 14.84 ft); minimum, 1.3 cfs July 31.
Period of record: Maximum discharge, 13,900 cfs Feb. 26, 1948 (gage height, 30.38 ft), from rating curve extended above 6,000 cfs on basis of conveyance-slope study; no flow at times. Maximum discharge since construction of Grapevine Dam in 1952, 6,430 cfs Sept. 21, 1964 (gage height, 26.50 ft).
Flood in May 1908 was slightly higher than the flood in April 1942, which reached a stage of 35.9 ft, from floodmarks, from information by local resident.

REMARKS.--Records good. Flow regulated by Grapevine Lake since July 1952 (see preceding page). Much of flow is used by city of Dallas for municipal supply (see station 08055500).

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	870	68	72	1.5	28	277	124	48	26	56	58	58
2	1,080	60	49	1.7	29	780	123	88	35	76	60	60
3	1,350	35	33	2.1	29	780	124	134	74	58	60	59
4	1,250	35	32	21	28	780	125	118	108	57	60	58
5	950	49	32	60	28	780	124	57	57	56	60	58
6	585	67	32	60	28	534	124	57	58	105	66	59
7	214	67	32	60	27	24	125	56	97	62	61	59
8	166	68	33	60	27	18	124	56	128	62	60	59
9	160	70	68	60	27	12	126	55	126	61	60	59
10	148	50	126	61	22	12	126	54	125	62	60	59
11	148	35	32	61	10	12	125	55	113	62	59	59
12	146	52	32	61	10	54	125	54	77	62	59	59
13	106	72	32	62	10	98	125	53	100	60	60	59
14	67	72	44	61	11	98	124	53	125	60	64	59
15	67	52	87	61	11	98	124	70	93	59	38	59
16	67	34	67	61	12	98	106	104	84	59	57	59
17	67	34	33	61	12	98	67	106	125	58	57	57
18	66	34	60	62	13	98	74	81	123	59	57	58
19	37	33	87	55	14	99	66	49	123	59	57	61
20	20	34	86	29	14	99	66	49	124	59	58	61
21	62	34	60	29	13	100	65	47	89	61	57	61
22	63	34	34	36	12	100	65	47	54	61	58	62
23	72	34	33	62	13	100	65	48	53	64	59	43
24	64	50	47	61	14	100	65	48	52	48	59	21
25	65	72	67	45	14	100	66	86	77	36	50	33
26	66	49	67	28	13	100	77	130	124	62	38	18
27	67	32	67	28	13	101	130	77	119	51	58	32
28	57	32	46	28	13	101	129	14	101	19	59	32
29	32	32	2.0	28	------	102	93	16	57	19	59	32
30	50	40	2.0	28	------	111	61	16	58	39	59	33
31	69	------	1.5	28	------	123	------	21	------	22	59	------
TOTAL	8,231	1,430	1,495.5	1,362.3	495	5,987	3,063	1,947	2,705	1,734	1,786	1,546
MEAN	266	47.7	48.2	43.9	17.7	193	102	62.8	90.2	55.9	57.6	51.5
MAX	1,350	72	126	62	29	780	130	134	128	105	66	62
MIN	20	32	1.5	1.5	10	12	61	14	26	19	38	18
AC-FT	16,330	2,840	2,970	2,700	982	11,880	6,080	3,860	5,370	3,440	3,540	3,070

CAL YR 1970 TOTAL 104,503.5 MEAN 286 MAX 1,350 MIN 1.5 AC-FT 207,300
WTR YR 1971 TOTAL 31,781.8 MEAN 87.1 MAX 1,350 MIN 1.5 AC-FT 63,040

08055500 Elm Fork Trinity River near Carrollton, Tex.

LOCATION.--Lat 32°57'57", long 96°56'39", Dallas County, near left bank at downstream side of bridge on Sandy Lake Road (revised), 40 ft upstream from Carrollton Dam, 0.3 mile downstream from Denton Creek, 1.0 mile upstream from St. Louis Southwestern Railway Lines bridge, 2.3 miles northwest of Carrollton, and at mile 18.2.

DRAINAGE AREA.--2,459 sq mi.

PERIOD OF RECORD.--January 1907 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to November 1923, published as "near Dallas".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 433.40 ft above mean sea level. Prior to November 1923, non-recording gage at site 15.5 miles downstream at different datum. Nov. 1, 1923, to Nov. 13, 1934, nonrecording gage and Nov. 14, 1934, to July 6, 1938, water-stage recorder at present site and datum. July 7, 1938, to Apr. 14, 1939, nonrecording gage at site 9.3 miles downstream at datum 22.94 ft lower. Apr. 15, 1939, to Sept. 30, 1955, water-stage recorder at site 8.5 miles downstream at datum 22.94 ft lower.

AVERAGE DISCHARGE.--64 years, 779 cfs (564,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,400 cfs Oct. 2 (gage height, 4.76 ft); no flow part of July 31, Aug. 17, 26, Sept. 24.
Period of record: Maximum gage height, about 17 ft May 25, 1908, present site and datum, from information by local resident (discharge not determined); maximum gage height subsequent to 1908, 14.5 ft Apr. 26, 1942, present site and datum, from observation by U.S. Weather Bureau (discharge at site 8.5 miles downstream, 90,700 cfs); no flow at times.
Flood in 1866 reached about the same stage as flood of May 25, 1908.

REMARKS.--Records good. Flow largely regulated by Lewisville Lake (station 08052800, formerly published as Garza-Little Elm Reservoir) since November 1954 and by Grapevine Lake (station 08054500, formerly published as Grapevine Reservoir) since July 1952. Records furnished by Dallas show that during year 72,310 acre-ft was diverted from pool at gage, and 58,560 acre-ft was diverted from river channel 14 miles downstream for municipal use. About 400 acre-ft was returned from a water treatment plant to the river below this station. Records furnished by the Dallas Power and Light Co. show that during year 4,528 acre-ft was diverted from pool at gage to North Lake for cooling water at electric generating plant.

REVISIONS (WATER YEARS).--WSP 788: 1924. WSP 1148: Drainage area at former site. WSP 1632: 1908(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,220	101	104	123	70	190	333	87	100	82	100	101
2	4,180	114	107	119	79	878	260	91	89	166	90	111
3	2,280	72	80	123	91	900	236	170	115	179	49	99
4	2,070	51	77	85	91	894	235	207	168	108	40	84
5	1,460	73	82	96	95	888	244	141	108	116	68	88
6	672	101	79	98	89	806	231	108	107	191	6.9	60
7	190	112	80	91	105	117	206	126	98	195	53	56
8	184	116	82	96	73	75	228	112	188	175	80	143
9	207	111	104	100	34	57	233	136	216	236	61	149
10	171	107	212	97	48	52	237	135	153	200	23	78
11	196	84	98	90	148	46	225	141	119	195	124	53
12	197	74	80	97	152	42	221	128	89	193	128	54
13	163	110	89	106	152	142	250	139	110	191	84	97
14	111	107	78	96	155	127	234	116	190	145	365	82
15	103	107	131	98	110	133	195	146	185	182	58	75
16	107	76	125	95	82	132	177	169	132	211	10	38
17	109	80	70	97	42	209	136	168	144	180	5.6	60
18	115	80	59	96	41	233	128	185	145	184	93	111
19	108	81	110	95	64	242	121	125	146	209	42	24
20	75	76	118	65	58	245	124	133	164	135	25	51
21	92	74	117	65	72	246	137	115	177	121	101	81
22	90	75	82	61	63	255	138	118	111	91	65	17
23	131	73	58	92	63	297	148	120	91	179	11	8.1
24	122	91	77	103	63	325	161	113	109	96	108	.35
25	115	114	128	80	63	327	128	125	143	37	68	84
26	106	121	133	77	71	331	141	225	347	134	2.0	5.2
27	143	92	133	73	62	328	202	184	297	85	64	22
28	98	91	145	74	82	333	199	69	207	28	83	62
29	83	100	121	74	------	332	150	80	123	20	67	45
30	87	73	129	60	------	342	108	84	96	189	94	53
31	100	------	109	74	------	408	------	95	------	12	110	------
TOTAL	18,085	2,737	3,197	2,796	2,318	9,932	5,766	4,091	4,467	4,465	2,278.5	1,991.65
MEAN	583	91.2	103	90.2	82.8	320	192	132	149	144	73.5	66.4
MAX	4,220	121	212	123	155	900	333	225	347	236	365	149
MIN	75	51	58	60	34	42	108	69	89	12	2.0	.35
AC-FT	35,870	5,430	6,340	5,550	4,600	19,700	11,440	8,110	8,860	8,860	4,520	3,950

CAL YR 1970 TOTAL 411,182.00 MEAN 1,127 MAX 5,930 MIN 51 AC-FT 815,600
WTR YR 1971 TOTAL 62,124.15 MEAN 170 MAX 4,220 MIN .35 AC-FT 123,200

08055700 Bachman Branch at Dallas, Tex.

LOCATION.--Lat 32°51'39", long 96°49'53", Dallas County, on left bank at end of Bluffview Boulevard in Dallas, 1,300 ft downstream from bridge on Northwest Highway, 1.9 miles upstream from Bachman Lake Dam, and 6.0 miles northwest of Dallas City Hall. Prior to May 1, 1970, at bridge on Midway Road, 2,300 ft downstream.

DRAINAGE AREA.--9.58 sq mi. Area at site used prior to May 1, 1970, 10.0 sq mi.

PERIOD OF RECORD.--October 1963 to current year. Records since May 1, 1970, are equivalent to earlier records.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 1, 1970, at site 2,300 ft downstream at same datum.

AVERAGE DISCHARGE.--8 years, 9.14 cfs (12.96 inches per year, 6,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,480 cfs Aug. 14 (elevation, 466.57 ft, from floodmarks), from rating curve extended above 1,330 cfs; minimum, 0.02 cfs Sept. 18.
Period of record: Maximum discharge, 16,000 cfs Apr. 28, 1966 (elevation, 467.97 ft, former site), from rating curve extended above 4,000 cfs on basis of contracted-opening measurements of 5,300, 9,200, and 16,000 cfs; no flow at times most years.
Maximum stage since at least 1900, that of Apr. 28, 1966. Flood of Oct. 8, 1962, the second highest flood since 1900, reached an elevation of 465.6 ft (discharge, 9,200 cfs) at former site.

REMARKS.--Records fair. Flow slightly regulated by several small channel dams above station. Two recording rain gages are operated in the basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.87	1.1	1.1	.88	2.6	1.1	1.5	1.1	.63	3.5	1.1
2	1.5	.81	1.0	1.1	.83	5.6	1.2	1.2	.88	.50	2.3	7.7
3	1.4	.81	1.1	3.1	.88	4.2	1.2	1.4	.58	.46	1.1	2.1
4	1.3	.81	1.4	1.5	4.1	2.9	1.4	1.1	.58	.43	92	1.1
5	1.6	.76	1.0	1.2	1.4	2.2	1.6	1.2	.54	.43	15	.73
6	2.2	.87	.93	1.2	1.1	2.1	1.4	1.2	.46	.37	3.3	.58
7	1.1	1.0	.93	1.3	1.1	2.0	1.3	1.2	.46	.26	1.6	.46
8	10	.81	1.1	1.3	1.1	2.1	1.4	1.0	.50	.26	1.3	.70
9	1.2	1.0	1.1	1.3	1.0	2.0	1.3	1.1	.68	.23	.94	.68
10	1.0	1.0	1.1	1.2	1.0	2.0	1.1	1.6	.68	.23	.73	.37
11	78	1.1	1.1	1.1	1.1	2.2	1.2	2.5	.58	.19	.58	.37
12	11	.87	1.2	1.0	1.6	1.8	1.4	.68	.54	.17	.54	.31
13	3.4	8.0	1.1	1.6	1.2	1.8	1.8	.54	.50	.17	1.1	.34
14	2.5	4.8	.93	1.1	1.3	2.0	1.4	.73	.54	.14	307	.19
15	2.0	1.3	5.2	.94	1.4	1.6	1.4	.68	.58	.12	5.5	.11
16	1.6	1.1	2.0	.94	1.4	1.4	11	.68	.54	.12	4.0	.04
17	1.6	1.1	1.0	.94	1.4	1.5	56	.63	.54	.12	2.1	.07
18	1.6	1.9	1.0	.94	28	1.6	40	.54	.54	.12	1.5	.14
19	1.3	.93	1.1	.88	3.7	1.2	4.5	.58	.50	3.3	1.3	.23
20	1.1	.81	1.1	.94	2.1	1.2	13	.54	.43	1.7	1.2	.19
21	1.0	1.0	8.6	1.1	76	1.2	4.5	.58	78	.19	1.2	.26
22	1.1	1.1	2.1	1.2	4.0	1.2	3.3	.54	1.7	.19	1.1	22
23	91	1.5	1.1	1.1	3.3	1.2	2.9	.68	1.0	2.0	1.1	9.8
24	4.3	1.5	1.0	1.1	2.9	1.2	2.2	.63	.83	23	7.5	8.4
25	2.7	1.5	.93	1.1	17	1.3	2.1	.68	.68	.94	11	8.2
26	2.4	1.7	1.1	1.0	4.5	1.6	2.0	.68	.58	.54	2.3	1.4
27	2.0	1.4	1.0	.88	2.6	1.5	1.8	159	.54	18	1.8	.94
28	1.6	1.5	1.0	.88	2.8	1.4	1.5	1.3	12	318	1.5	.63
29	1.4	1.4	1.0	.94	------	1.5	2.9	42	1.4	51	1.2	.54
30	1.1	1.4	28	.94	------	1.2	1.7	2.3	1.1	8.6	1.2	.78
31	1.2	------	1.6	.94	------	1.2	------	1.3	------	4.3	1.1	------
TOTAL	236.9	44.65	73.92	35.86	169.69	58.5	169.6	230.29	109.58	436.71	477.59	70.46
MEAN	7.64	1.49	2.38	1.16	6.06	1.89	5.65	7.43	3.65	14.1	15.4	2.35
MAX	91	8.0	28	3.1	76	5.6	56	159	78	318	307	22
MIN	1.0	.76	.93	.88	.83	1.2	1.1	.54	.43	.12	.54	.04
CFSM	.80	.16	.25	.12	.63	.20	.59	.78	.38	1.47	1.61	.25
IN.	.92	.17	.29	.14	.66	.23	.66	.89	.43	1.70	1.85	.27
AC-FT	470	89	147	71	337	116	336	457	217	866	947	140
(††)	3.00	.36	.96	.16	2.26	.34	2.46	3.48	1.82	5.60	5.01	2.36

CAL YR 1970 TOTAL 3,758.77 MEAN 10.3 MAX 354 MIN 0 CFSM 1.08 IN 14.60 AC-FT 7,460 †† 36.26
WTR YR 1971 TOTAL 2,113.75 MEAN 5.79 MAX 318 MIN .04 CFSM .60 IN 8.21 AC-FT 4,190 †† 27.81

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-23	1100	464.07	1,450	6-21	1100	463.73	1,380
2-21	0900	463.20	1,060	7-28	1300	466.26	3,230
5-27	0430	464.83	2,110	8- 4	1630	464.57	1,930
				8-14	1400	a466.57	3,480

a From floodmark.

†† Weighted-mean rainfall, in inches, based on two rain gages.

08056500 Turtle Creek at Dallas, Tex.

LOCATION.--Lat 32°48'26", long 96°48'08", Dallas County, on left bank 68 ft upstream from Hall Street Dam, 210 ft upstream from Hall Street in Dallas, and 2.0 miles north of Dallas County Courthouse.

DRAINAGE AREA.--7.98 sq mi.

PERIOD OF RECORD.--Annual maximums, water years 1948-51. October 1951 to current year. Daily discharge records for April 1948 to September 1951, published in WSP 1392, are unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 428.13 ft above mean sea level. Prior to Dec. 17, 1951, at site 52 ft upstream at same datum.

AVERAGE DISCHARGE.--20 years, 7.54 cfs (12.83 inches per year, 5,460 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,400 cfs Aug. 14 (gage height, 5.87 ft); minimum daily, 0.52 cfs May 21.
Period of record: Maximum discharge, 12,200 cfs Apr. 28, 1966 (gage height, 10.54 ft), from rating curve extended above 2,460 cfs on basis of contracted-opening measurement of 12,200 cfs; no flow at times.
Maximum stage since at least 1903, that of April 28, 1966.

REMARKS.--Records good. Records include flow released on Oct. 7, 13 through valve in Hall Street Dam. Flow slightly regulated by eight small channel dams above station. Five recording rain gages are operated in basin above station.

REVISIONS (WATER YEARS).--See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.5	1.1	2.2	1.1	2.1	.83	1.5	2.4	1.2	1.7	1.4
2	1.7	1.4	1.2	1.6	.72	14	.75	1.3	2.2	1.3	1.6	37
3	1.7	1.2	1.2	11	.87	5.8	1.1	.91	1.7	1.1	1.5	4.3
4	1.8	1.0	.95	2.4	7.0	2.2	1.7	.79	1.8	.92	54	1.9
5	3.6	1.5	1.2	1.2	1.5	2.0	3.4	.91	1.7	.83	6.6	1.6
6	3.1	1.4	.95	1.4	.99	1.7	1.0	1.9	1.8	.88	3.9	1.7
7	1.9	3.3	.86	1.5	.88	1.1	.84	1.7	1.4	.72	2.4	1.2
8	11	1.4	.78	1.5	.86	1.3	.84	.90	.92	.83	2.1	.90
9	1.9	.95	.95	1.6	.94	1.3	.84	.85	.92	.88	2.5	.80
10	1.2	.78	1.0	1.5	1.2	1.2	1.2	1.0	.91	1.0	2.4	.87
11	67	.95	1.2	1.4	1.1	1.7	1.3	1.3	.82	.88	1.6	.86
12	11	1.2	.86	1.2	.92	1.3	1.2	.86	.75	.79	1.3	.80
13	2.5	18	.71	1.8	.66	1.5	.85	.76	.68	.68	5.7	1.1
14	1.0	3.8	.78	1.8	.88	1.4	.69	.62	.70	.79	217	1.3
15	1.5	1.5	4.2	1.2	.92	1.1	.73	.63	.80	.77	5.8	.80
16	1.5	1.4	1.9	1.2	.82	.82	12	.62	1.1	.72	3.5	.68
17	1.5	1.5	1.6	1.2	1.0	.82	100	.57	.96	.82	2.7	.74
18	1.8	1.4	1.6	1.0	9.3	3.0	39	.61	.79	1.1	2.4	.72
19	1.5	1.2	1.4	.86	3.3	1.5	4.3	1.4	.65	3.7	2.1	.54
20	1.4	.86	.86	.86	1.3	1.0	21	.65	.64	2.5	1.8	.64
21	1.4	.86	1.2	1.2	40	1.5	3.6	.52	79	1.2	1.6	.90
22	1.5	2.0	1.4	1.0	2.2	1.5	2.9	.54	3.3	1.2	1.5	30
23	62	1.2	1.0	.86	1.5	.83	2.4	.61	2.2	5.9	1.2	18
24	3.2	.89	.71	1.2	1.8	.80	1.8	.60	1.5	23	78	65
25	2.2	1.1	.78	1.2	19	1.1	1.6	.55	1.3	3.1	39	18
26	5.9	1.2	.75	1.0	3.6	1.4	1.2	.55	1.1	1.7	4.6	3.0
27	3.2	1.3	.75	.86	1.6	1.3	1.1	146	1.1	4.9	2.9	2.1
28	1.6	1.3	.86	1.0	2.4	1.6	1.5	2.9	18	120	2.4	1.7
29	1.5	1.3	.83	.95	------	1.3	9.2	68	3.6	21	2.0	1.4
30	1.6	1.6	36	.85	------	.70	2.2	4.5	1.4	4.2	1.8	1.4
31	1.5	------	2.8	1.3	------	.85	------	2.8	------	2.3	1.7	------
TOTAL	206.1	58.99	72.45	49.84	108.36	59.72	221.07	247.35	136.14	210.91	459.3	201.35
MEAN	6.65	1.97	2.34	1.61	3.87	1.93	7.37	7.98	4.54	6.80	14.8	6.71
MAX	67	18	36	11	40	14	100	146	79	120	217	65
MIN	1.0	.78	.71	.85	.66	.70	.69	.52	.64	.68	1.2	.54
CFSM	.83	.25	.29	.20	.49	.24	.92	1.00	.57	.85	1.85	.84
IN.	.96	.27	.34	.23	.51	.28	1.03	1.15	.63	.98	2.14	.94
AC-FT	409	117	144	99	215	118	438	491	270	418	911	399
(††)	2.62	.51	.96	.28	1.62	.46	2.94	3.33	1.78	3.42	5.50	2.95

CAL YR 1970 TOTAL 3,310.78 MEAN 9.07 MAX 333 MIN .32 CFSM 1.14 IN 15.43 AC-FT 6,570 †† 35.45
WTR YR 1971 TOTAL 2,031.58 MEAN 5.57 MAX 217 MIN .52 CFSM .70 IN 9.47 AC-FT 4,030 †† 26.37

PEAK DISCHARGE (BASE, 1,200 CFS, REVISED)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-27	0430	5.82	2,360	8-14	1430	5.87	2,400
7-28	0930	4.61	1,360	8-24	1530	4.96	1,640

†† Weighted-mean rainfall, in inches, based on five rain gages.

08057000 Trinity River at Dallas, Tex.

LOCATION.--Lat 32°46'31", long 96°49'11", Dallas County, on left bank on downstream side of left pier of Commerce Street viaduct in Dallas, 5.2 miles downstream from confluence of West and Elm Forks, and at mile 500.3.

DRAINAGE AREA.--6,106 sq mi.

PERIOD OF RECORD.--October 1898 to December 1899 (gage heights only published in WSP 28 and 37), July 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 368.02 ft above mean sea level. Oct. 1, 1898, to Dec. 31, 1899, nonrecording gage at site 2 miles upstream at different datum. July 1, 1903, to July 20, 1930, nonrecording gage at present site and datum. July 21, 1930, to Sept. 30, 1932, nonrecording gage at site 6 miles downstream at datum 3.08 ft lower.

AVERAGE DISCHARGE.--68 years, 1,478 cfs (1,071,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,650 cfs Aug. 15 (gage height, 23.30 ft); minimum, 140 cfs June 19.
Period of record: Maximum discharge, 184,000 cfs May 25, 1908 (gage height, 52.6 ft), from rating curve extended above 109,000 cfs; minimum observed for periods 1903-6, 1920-71, 1.2 cfs July 4, 1953, result of storage behind temporary dam 4 miles upstream.
Maximum stage since at least 1840, that of May 25, 1908. Flood in 1866 reached about the same stage.

REMARKS.--Records good. Flow is largely regulated by 11 major upstream reservoirs having a total combined capacity of 2,201,000 acre-ft of which 848,800 acre-ft is for flood control. The city of Dallas reported the diversion for municipal use during the year of 130,900 acre-ft of water from the Elm Fork, 59,430 acre-ft from Lake Tawakoni (on Sabine River), the purchase of 8,140 acre-ft from North Texas Municipal Water District (from the East Fork), and the return of 131,100 acre-ft of sewage effluent to river 4 miles downstream from station. For other diversions and effluent returns above station see records for stations 08048000 and 08049200.

REVISIONS (WATER YEARS).--WSP 850: 1903-6 (monthly and annual means). WSP 1732: 1937(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,380	207	175	291	175	276	268	194	402	181	276	181
2	4,550	188	220	268	175	943	247	181	323	207	220	266
3	3,570	181	247	284	181	1,400	240	175	254	233	207	230
4	2,520	175	220	299	220	1,370	240	195	214	214	349	188
5	2,100	163	214	268	315	1,340	276	200	220	200	315	169
6	1,140	169	214	240	254	1,270	291	220	181	240	509	163
7	565	188	220	233	207	585	268	315	169	247	284	157
8	420	181	214	233	207	284	233	315	163	207	247	163
9	402	188	214	233	226	261	247	214	169	207	226	163
10	375	175	220	233	214	247	233	254	188	200	226	163
11	1,040	169	291	220	247	233	233	340	169	188	207	163
12	1,620	163	233	194	299	233	233	261	157	181	200	157
13	565	200	194	233	291	291	220	220	157	169	395	163
14	340	315	181	402	291	276	261	181	152	163	1,860	152
15	284	276	194	284	284	254	261	181	181	157	3,700	157
16	276	220	207	291	247	226	306	175	163	152	796	157
17	254	181	194	291	226	247	1,360	169	152	157	200	157
18	261	175	175	240	268	261	3,000	188	152	146	195	152
19	268	175	169	220	375	261	1,610	200	146	169	180	152
20	220	169	169	220	233	240	1,310	181	157	220	195	152
21	220	169	188	214	233	226	685	175	598	207	195	146
22	240	163	233	200	291	247	447	169	605	188	200	294
23	1,610	157	188	194	299	276	730	169	291	207	188	443
24	1,420	157	181	214	276	299	356	169	181	770	593	773
25	414	163	261	233	452	299	247	163	163	484	962	861
26	359	181	261	200	505	268	240	163	194	240	824	447
27	1,830	188	207	181	291	276	299	1,700	291	268	344	233
28	883	169	188	181	284	247	261	629	351	2,070	233	200
29	233	169	188	181	------	233	805	1,420	284	1,570	200	188
30	284	169	540	188	------	240	271	2,980	200	1,620	181	175
31	194	------	525	181	------	284	------	845	------	977	181	------
TOTAL	32,837	5,543	7,125	7,344	7,566	13,393	15,678	12,941	7,027	12,439	14,888	7,165
MEAN	1,059	185	230	237	270	432	523	417	234	401	480	239
MAX	4,550	315	540	402	505	1,400	3,000	2,980	605	2,070	3,700	861
MIN	194	157	169	181	175	226	220	163	146	146	180	146
AC-FT	65,130	10,990	14,130	14,570	15,010	26,560	31,100	25,670	13,940	24,670	29,530	14,210

CAL YR 1970 TOTAL 722,208 MEAN 1,979 MAX 18,400 MIN 157 AC-FT 1,432,000
WTR YR 1971 TOTAL 143,946 MEAN 394 MAX 4,550 MIN 146 AC-FT 285,500

08057100 White Rock Creek at Keller Springs Road, Dallas, Tex.

LOCATION.--Lat 32°58'13", long 96°48'19", Dallas County, on left bank at downstream side of bridge on Keller Springs Road, 0.5 mile upstream from St. Louis Southwestern Railway Lines bridge, 0.9 mile upstream from Spanky Branch, and 13 miles north of Dallas County Courthouse.

DRAINAGE AREA.--29.4 sq mi.

PERIOD OF RECORD.--August 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 25, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--10 years, 17.7 cfs (8.18 inches per year, 12,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,100 cfs Aug. 14 (elevation, 556.10 ft); no flow at times.
Period of record: Maximum discharge, 37,900 cfs Sept. 21, 1964 (elevation, 574.51 ft), from rating curve extended above 5,000 cfs on basis of contracted-opening measurement of 37,900 cfs; no flow for many days most years.
Maximum elevation since at least 1886, that of Sept. 21, 1964. Flood of Apr. 19, 1942, reached an elevation of 569.6 ft, from information by local resident.

REMARKS.--Records good except those for periods when stage-discharge relation was indefinite, which are poor. The Preston Trail Golf Club, 0.5 mile upstream, diverted 243 acre-ft during year for irrigation. Flow slightly regulated by two small floodwater-retarding structures above station. Three recording rain gages are operated in the basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	1.0	1.0	1.7	.70	2.4	.17	.03	.19	0	0	.63
2	3.2	1.0	1.0	1.4	.70	2.4	.10	.19	.16	0	0	.88
3	3.2	1.7	1.0	1.4	.70	2.6	.10	.31	.04	0	0	.88
4	3.2	1.7	1.0	1.4	1.0	2.3	.10	.19	0	0	0	.53
5	2.8	1.7	1.0	1.2	.91	2.3	.10	.37	0	0	7.7	.37
6	3.2	1.7	1.0	1.2	.90	2.2	.10	.63	0	0	34	.37
7	2.8	1.7	1.0	1.2	.90	2.2	.05	.88	0	0	17	.37
8	2.8	2.0	1.0	1.0	.80	2.1	.04	.63	0	0	.37	.36
9	2.8	1.0	.90	1.0	.80	2.1	.03	.53	0	0	.05	.36
10	2.0	.68	1.0	1.0	.80	2.0	.02	.40	0	0	.01	.36
11	3.2	.68	1.4	1.0	2.0	2.0	.02	14	0	0	0	.35
12	6.0	.78	1.4	.90	1.4	1.9	.02	.80	0	0	0	.35
13	2.4	1.7	1.2	.90	1.1	1.9	.01	.40	0	0	0	.34
14	1.7	5.2	.78	2.0	1.0	1.8	.01	.27	0	0	561	.34
15	1.7	2.8	1.7	1.7	.90	1.7	.01	.17	0	0	19	.33
16	1.7	2.0	1.7	1.4	.90	1.6	.02	.11	0	0	1.7	.33
17	1.7	2.0	1.7	1.2	.90	1.5	3.0	.07	0	0	1.0	.32
18	1.7	2.4	1.4	1.2	3.0	1.4	1.5	.05	0	0	.63	.32
19	1.7	1.4	1.2	1.2	1.5	1.3	.88	.04	0	0	.44	.31
20	1.4	1.2	1.0	1.0	1.0	1.2	.53	.03	0	0	.37	.31
21	1.2	1.7	1.4	.90	5.0	1.1	.37	.03	.10	0	.37	.30
22	1.2	1.7	2.4	.90	3.0	1.0	.44	.02	0	0	.31	2.0
23	66	1.4	1.7	.90	2.6	.90	.53	.02	0	0	.11	4.8
24	16	1.4	1.4	.90	2.4	.80	.53	.01	0	0	19	1.5
25	3.8	1.4	1.0	.90	4.0	.70	.37	.01	0	0	47	25
26	2.0	1.4	1.0	.78	3.0	.60	.19	.01	0	0	11	8.4
27	1.2	1.4	1.0	.78	2.6	.50	.13	.05	0	0	2.4	2.0
28	1.2	1.2	1.0	.78	2.4	.40	.06	.10	0	.10	1.5	1.5
29	1.2	1.0	1.0	.78	------	.30	.03	1.0	0	0	1.0	1.5
30	1.2	1.0	2.4	.80	------	.30	.02	.74	0	0	1.0	1.2
31	1.2	------	2.0	.80	------	.20	------	.37	------	0	.88	------
TOTAL	149.2	47.94	39.68	34.22	46.91	45.70	9.48	22.46	.49	.10	727.84	56.61
MEAN	4.81	1.60	1.28	1.10	1.68	1.47	.32	.72	.016	.003	23.5	1.89
MAX	66	5.2	2.4	2.0	5.0	2.6	3.0	14	.19	.10	561	25
MIN	1.2	.68	.78	.78	.70	.20	.01	.01	0	0	0	.30
CFSM	.16	.05	.04	.04	.06	.05	.01	.02	.0005	.0001	.80	.06
IN.	.19	.06	.05	.04	.06	.06	.01	.03	0	0	.92	.07
AC-FT	296	95	79	68	93	91	19	45	1.0	.2	1,440	112
(††)	2.50	.49	.97	.50	1.80	.32	2.54	3.54	1.01	3.72	7.96	2.82

CAL YR 1970 TOTAL 6,210.34 MEAN 17.0 MAX 729 MIN 0 CFSM .58 IN 7.86 AC-FT 12,320 †† 37.02
WTR YR 1971 TOTAL 1,180.63 MEAN 3.23 MAX 561 MIN 0 CFSM .11 IN 1.49 AC-FT 2,340 †† 28.17

PEAK DISCHARGE (BASE, 1,500 CFS).--Aug. 14 (1430) 3,100 cfs (556.10 ft).

†† Weighted-mean rainfall, in inches, based on three rain gages.
NOTE.--Stage-discharge relation indefinite Jan. 30 to Apr. 18.

08057200 White Rock Creek at Greenville Avenue, Dallas, Tex.

LOCATION.--Lat 32°53'21", long 96°45'23", Dallas County, on left bank 20 ft downstream from bridge on Greenville Avenue in Dallas, 1.1 miles downstream from Texas and New Orleans Railroad Co. bridge, 1.2 miles downstream from Cottonwood Creek, 2.9 miles upstream from White Rock Lake, and 8.2 miles northeast of Dallas County Courthouse.

DRAINAGE AREA.--66.4 sq mi.

PERIOD OF RECORD.--August 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 24, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--10 years, 57.1 cfs (11.68 inches per year, 41,370 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,160 cfs July 28 (elevation, 485.25 ft); minimum daily, 0.01 cfs June 27, July 14.
Period of record: Maximum discharge, 38,100 cfs Sept. 21, 1964 (elevation, 490.43 ft); minimum daily, 0.01 cfs July 8, 1970, June 27, July 14, 1971.
Maximum elevation since at least 1886, that of Sept. 21, 1964.

REMARKS.--Records fair. Some regulation at low flow by on- and off-channel dams from which many small diversions are made. The Royal Oaks Country Club, 0.1 mile upstream, diverted 102 acre-ft during water year. The city of Richardson reported a discharge of 2,400 acre-ft of sewage effluent into two tributaries above station. Twelve recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	9.0	9.3	6.0	18	5.5	4.4	5.9	2.1	9.8	7.3
2	12	9.0	9.6	8.7	5.8	31	5.8	5.3	5.6	1.8	8.9	42
3	9.9	9.0	9.3	12	6.5	26	7.0	3.6	4.5	1.5	8.5	13
4	8.7	9.0	8.1	6.2	23	17	8.1	3.0	1.9	2.4	113	8.0
5	12	8.0	8.4	5.5	6.2	17	8.1	4.7	1.5	1.8	130	6.4
6	11	8.0	9.6	9.0	7.0	17	8.1	4.9	6.6	.81	53	6.2
7	9.0	8.0	8.4	5.5	8.1	15	8.1	3.8	2.4	.75	57	5.2
8	27	8.0	7.5	5.5	7.2	16	7.8	3.2	4.8	2.1	12	4.4
9	14	8.0	8.0	8.4	7.8	13	8.7	8.2	1.4	1.7	8.2	3.5
10	13	8.0	8.0	11	12	12	7.8	7.2	1.2	1.1	6.6	3.9
11	60	8.0	8.1	8.1	11	14	8.7	55	1.5	1.9	5.8	3.6
12	18	8.0	8.0	5.8	14	11	4.4	5.9	1.6	1.2	7.1	3.8
13	15	20	8.0	8.1	7.2	7.8	3.7	3.9	2.2	.03	8.9	4.2
14	13	13	8.0	7.0	6.8	7.8	1.9	3.2	3.1	.01	1,120	2.6
15	11	11	15	7.5	4.6	7.2	2.7	2.6	1.1	.12	93	2.2
16	10	10	19	7.0	5.2	7.8	5.3	3.3	.98	.42	30	2.6
17	10	9.9	15	7.5	14	7.0	106	2.1	1.7	.33	21	3.0
18	9.0	9.3	9.3	7.8	64	8.4	132	1.6	1.5	.78	16	2.8
19	9.0	8.1	8.1	6.0	19	8.0	18	1.8	2.0	11	13	4.1
20	8.0	7.2	7.5	5.0	7.5	8.7	53	1.9	2.2	24	11	3.7
21	8.0	7.8	32	4.4	145	9.2	15	2.1	235	2.6	9.9	3.2
22	8.0	8.7	34	5.0	24	7.1	17	2.0	15	1.1	9.3	98
23	200	7.8	6.2	4.4	19	8.2	13	2.6	10	8.7	8.1	61
24	25	7.2	7.5	6.0	24	8.2	7.0	2.2	9.8	120	104	40
25	15	8.7	6.5	5.8	67	12	6.7	1.4	2.1	11	211	94
26	13	10	6.5	5.0	28	12	5.8	.68	.02	3.4	48	28
27	12	9.3	6.8	4.0	24	12	5.2	177	.01	45	18	13
28	11	9.5	7.2	3.8	18	12	3.4	5.4	55	618	13	11
29	11	10	6.2	4.6	------	9.2	8.4	161	7.7	143	10	8.7
30	10	9.6	79	5.5	------	4.8	4.9	14	3.1	31	9.9	8.1
31	10	------	13	5.8	------	6.2	------	8.9	------	12	8.4	------
TOTAL	614.6	278.1	396.8	205.2	591.9	370.6	497.1	506.88	391.41	1,051.65	2,182.4	497.5
MEAN	19.8	9.27	12.8	6.62	21.1	12.0	16.6	16.4	13.0	33.9	70.4	16.6
MAX	200	20	79	12	145	31	132	177	235	618	1,120	98
MIN	8.0	7.2	6.2	3.8	4.6	4.8	1.9	.68	.01	.01	5.8	2.2
CFSM	.30	.14	.19	.10	.32	.18	.25	.25	.20	.51	1.06	.25
IN.	.34	.16	.22	.11	.33	.21	.28	.28	.22	.59	1.22	.28
AC-FT	1,220	552	787	407	1,170	735	986	1,010	776	2,090	4,330	987
(††)	2.66	.44	1.17	.30	1.94	.31	2.35	3.33	1.65	4.25	6.26	2.58

CAL YR 1970 TOTAL 20,313.71 MEAN 55.7 MAX 2,250 MIN .01 CFSM .84 IN 11.38 AC-FT 40,290 †† 35.76
WTR YR 1971 TOTAL 7,584.14 MEAN 20.8 MAX 1,120 MIN .01 CFSM .31 IN 4.25 AC-FT 15,040 †† 27.24

PEAK DISCHARGE (BASE, 2,900 CFS).--July 28 (1430) 4,160 cfs (485.25 ft); Aug. 14 (1700) 4,140 cfs (485.23 ft).

†† Weighted-mean rainfall, in inches, based on 12 rain gages.
NOTE.--No elevation record Oct. 17 to Nov. 16.

08057300 White Rock Creek at White Rock Lake, Dallas, Tex.

LOCATION.--Lat 32°48'31", long 96°43'32", Dallas County, on right bank 500 ft upstream from right end of White Rock Lake spillway, 1,500 ft upstream from bridge on Garland Road (State Highway 78) in Dallas, and 10.3 miles upstream from mouth.

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and flat-crested concrete dam. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--9 years, 70.0 cfs (9.50 inches per year, 50,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,690 cfs Aug. 15 (elevation, 459.23 ft); no flow at times.
Period of record: Maximum discharge, 28,300 cfs Sept. 21, 1964 (elevation, 465.60 ft); no flow at times each year.
Maximum elevation since 1910, that of Sept. 21, 1964. Flood of Apr. 20, 1942, reached an elevation of 465.2 ft, from information by city of Dallas.

REMARKS.--Records poor. Discharge is outflow of White Rock Lake (capacity, 10,700 acre-ft in 1970 at spillway crest) and includes water released from storage by removal of flashboards in dam. Storage began in White Rock Lake in 1910 and has been used at times by city of Dallas as a source of municipal water supply. Records furnished by city of Dallas show that during year 10 acre-ft was diverted for irrigation. Thirteen recording rain gages are operated in watershed above this station, and one recording gage is located at station. The Soil Conservation Service made a reservoir-sedimentation survey in October 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	30	18		0	52		0	6.5	6.5	34	2.8
2	54	26	17		0	49		0	3.6	2.1	26	26
3	49	25	16		0	45		0	2.8	1.6	26	66
4	45	27	13		0	41		0	1.6	.40	57	30
5	41	25	12		0	33		0	.75	.30	123	17
6	39	21	8.0		0	32		0	.50	.20	158	14
7	35	17	0		0	32		0	.40	.20	94	6.5
8	34	14	0		0	32		0	.30	.20	48	3.6
9	34	22	0		0	30		0	.20	.20	34	3.6
10	30	31	0		0	27		0	.20	.20	23	2.1
11	40	29	0		0	26		0	.20	.20	17	2.1
12	80	26	0		0	23		0	.20	.20	14	1.1
13	78	27	0		0	20		0	.20	.20	14	1.1
14	69	32	0		0	18		0	.20	.20	617	.75
15	58	30	0		0	15		0	.20	.20	703	.30
16	52	26	0		0	14		0	.20	.20	94	.20
17	48	24	0		0	12		0	.20	.20	43	.20
18	43	22	0		0	10		0	.20	.20	10	.20
19	39	18	0		0	8.8		0	.20	.20	3.6	.20
20	12	16	0		60	7.6		0	.20	.20	2.8	.20
21	3.3	14	0		107	6.8		0	116	.20	1.6	.20
22	3.7	14	0		109	6.2		0	94	.20	1.1	.67
23	22	15	0		96	6.0		0	30	.20	.75	23
24	55	21	0		83	5.8		0	14	.20	149	61
25	55	18	0		75	6.0		0	6.5	.20	537	226
26	54	18	0		77	4.0		0	2.1	.20	245	66
27	51	19	0		68	0		.94	.50	.20	60	26
28	46	19	0		62	0		2.1	9.5	336	26	17
29	42	19	0		------	0		138	26	620	14	14
30	39	18	0		------	0		90	10	232	6.5	4.6
31	34	------	0		------	0	------	23	------	54	4.6	------
TOTAL	1,342.0	663	84.0	0	737	562.2	0	254.04	327.45	1,257.30	3,186.95	616.42
MEAN	43.3	22.1	2.71	0	26.3	18.1	0	8.19	10.9	40.6	103	20.5
MAX	80	32	18	0	109	52	0	138	116	620	703	226
MIN	3.3	14	0	0	0	0	0	0	.20	.20	.75	.20
CFSM	.43	.22	.03	0	.26	.18	0	.08	.11	.41	1.03	.21
IN.	.50	.25	.03	0	.27	.21	0	.09	.12	.47	1.19	.23
AC-FT	2,660	1,320	167	0	1,460	1,120	0	504	650	2,490	6,320	1,220

CAL YR 1970 TOTAL 32,486.15 MEAN 89.0 MAX 2,520 MIN 0 CFSM .89 IN 12.08 AC-FT 64,440
WTR YR 1971 TOTAL 9,030.36 MEAN 24.7 MAX 703 MIN 0 CFSM .25 IN 3.36 AC-FT 17,910

NOTE.--Stage-discharge relation indefinite at times throughout the year due to seepage and intermittent removal and installation of flashboards in dam.

08057400 White Rock Creek at Scyene Road, Dallas, Tex.

LOCATION.--Lat 32°45'57", long 96°43'49", Dallas County, on left bank 30 ft downstream from Texas and New Orleans Railroad Co. bridge, 125 ft downstream from Scyene Road (State Highway 352) in Dallas, 4.5 miles east of Dallas County Courthouse, and 5.8 miles upstream from mouth.

DRAINAGE AREA.--122 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Dec. 7, 1962, nonrecording gage 30 ft upstream at same datum.

AVERAGE DISCHARGE.--9 years, 94.4 cfs (10.51 inches per year, 68,390 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,080 cfs Aug. 4 (elevation, 399.67 ft); minimum daily, 1.4 cfs for several days.
Period of record: Maximum discharge, 30,200 cfs Sept. 21, 1964 (elevation, 404.30 ft), from rating curve extended above 20,000 cfs on basis of contracted-opening measurement of 30,200 cfs; minimum daily, 0.4 cfs Aug. 2, 3, 1964.
Maximum elevation since at least 1886, 409.2 ft May 26, 1908 (affected by backwater from the Trinity River); maximum discharge since at least 1886, that of Sept. 21, 1964; the second highest discharge occurred Apr. 20, 1942 (28,000 cfs), from Geological Survey Open-File Report "Frequency and Extent of Flooding on Lower White Rock Creek at Dallas, Tex."

REMARKS.--Records good. Flows affected by regulation and release of water due to intermittent removal of flashboards for construction purposes at White Rock Lake (capacity, 10,700 acre-ft, revised, at normal level) 4.5 miles upstream. The Dallas Power and Light Company reported diversion of 1,790 acre-ft to off-channel reservoir at generating plant 0.8 mile upstream from station. Low flow sustained by wastewater and splash-over at spillway at White Rock Lake due to wind action. Fourteen recording rain gages above station and one at station are operated in basin.

REVISIONS.--WRD Texas 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	53	9.4	11	2.0	75	1.5	1.6	39	12	47	4.6
2	63	49	11	8.7	2.6	115	1.4	1.5	18	32	22	50
3	44	46	12	24	3.3	81	1.6	1.4	7.1	8.6	12	44
4	40	44	58	8.0	14	66	1.7	1.5	1.6	4.3	191	51
5	41	33	20	5.2	2.5	59	2.2	1.8	1.6	2.5	122	45
6	39	7.8	19	3.4	2.0	56	1.5	3.3	1.6	2.4	155	24
7	42	17	19	2.8	2.7	53	1.4	2.6	1.6	2.6	98	17
8	56	5.0	18	2.9	3.4	50	1.4	1.5	1.6	2.4	66	14
9	41	31	15	2.9	3.5	45	1.4	1.7	1.6	2.4	47	10
10	40	100	5.9	3.1	3.3	39	1.5	3.1	1.6	2.3	26	5.3
11	118	56	3.4	3.2	3.7	43	1.5	14	1.7	2.1	15	4.1
12	135	52	2.3	3.3	3.8	44	1.6	1.9	1.7	2.0	6.8	3.5
13	90	56	2.4	4.4	2.9	43	2.2	1.9	1.6	2.0	14	3.0
14	82	44	2.3	2.7	3.3	39	2.1	1.9	1.7	2.7	749	3.4
15	75	31	14	1.7	2.6	34	1.8	1.7	2.0	2.6	1,260	3.0
16	67	29	7.3	1.6	3.4	28	5.9	1.7	2.0	2.7	157	2.5
17	62	29	3.8	2.4	3.8	17	180	1.6	2.0	2.2	68	2.4
18	58	28	3.4	2.3	17	4.3	159	2.2	2.0	2.0	46	2.3
19	52	28	3.5	1.8	8.3	2.4	39	2.4	2.2	5.6	34	1.9
20	22	28	3.1	1.7	4.2	1.4	35	2.2	2.0	4.9	18	1.9
21	6.5	27	6.1	2.1	137	1.7	10	2.8	29	1.9	6.7	2.0
22	4.8	28	5.7	2.6	111	2.4	13	2.7	108	1.9	6.8	25
23	104	29	3.7	2.1	71	1.6	23	2.5	51	3.1	8.4	39
24	67	16	2.6	1.9	57	9.0	2.2	2.4	27	6.4	197	387
25	68	3.5	3.0	2.0	189	61	1.9	2.5	11	3.6	842	481
26	160	3.4	3.0	2.6	117	13	2.3	2.7	5.3	1.7	425	109
27	129	3.3	2.9	6.2	96	5.9	2.5	177	3.2	30	99	51
28	65	5.7	3.2	2.1	85	3.3	1.9	4.9	64	300	53	45
29	62	6.2	3.5	2.5	------	3.2	2.3	338	38	717	42	35
30	59	8.8	68	3.0	------	1.4	2.0	196	32	329	23	20
31	56	------	13	2.1	------	1.4	------	58	------	75	12	------
TOTAL	1,953.5	897.7	347.5	126.3	955.3	999.0	504.8	841.0	462.7	1,569.9	4,868.7	1,486.9
MEAN	63.0	29.9	11.2	4.07	34.1	32.2	16.8	27.1	15.4	50.6	157	49.6
MAX	160	100	68	24	189	115	180	338	108	717	1,260	481
MIN	4.8	3.3	2.3	1.6	2.0	1.4	1.4	1.4	1.6	1.7	6.7	1.9
CFSM	.52	.25	.09	.03	.28	.26	.14	.22	.13	.41	1.29	.41
IN.	.60	.27	.11	.04	.29	.30	.15	.26	.14	.48	1.48	.45
AC-FT	3,870	1,780	689	251	1,890	1,980	1,000	1,670	918	3,110	9,660	2,950

CAL YR 1970 TOTAL 39,465.7 MEAN 108 MAX 3,260 MIN 1.8 CFSM .89 IN 12.03 AC-FT 78,280
WTR YR 1971 TOTAL 15,013.3 MEAN 41.1 MAX 1,260 MIN 1.4 CFSM .34 IN 4.58 AC-FT 29,780

08057410 Trinity River below Dallas, Tex.

LOCATION.--Lat 32°42'27", long 96°44'08", Dallas County, on left bank at downstream side of bridge on South Loop Highway 12, 1.0 mile downstream from White Rock Creek, 1.5 miles upstream from Fivemile Creek, 6.4 miles southeast of Dallas County Courthouse in Dallas, and at mile 491.8.

DRAINAGE AREA.--6,278 sq mi.

PERIOD OF RECORD.--November 1956 to September 1961 (monthly records only), October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 365.89 ft above mean sea level.

AVERAGE DISCHARGE.--14 years (1957-71), 1,547 cfs (1,121,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,430 cfs Aug. 15 (gage height, 18.85 ft); minimum, 212 cfs Nov. 28.
Period of record: Maximum discharge, 65,700 cfs May 27, 1957 (gage height, 32.02 ft); minimum daily, 131 cfs Dec. 9, 1956. Flood of May 25, 1908, reached a stage of 41.1 ft, from information by Corps of Engineers, and is the highest since that time. Floods in 1866 and 1908 reached about same stage at Dallas.

REMARKS.--Records good. Flow largely regulated by reservoirs above Dallas (see station 08057000) and White Rock Lake (capacity, 12,500 acre-ft. Cities of Fort Worth and Dallas divert water for municipal use and return sewage effluent above station (see stations 08057000 and 08048000). Low flows largely maintained by sewage effluent. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,040	370	304	461	328	501	424	345	767	461	643	461
2	4,300	370	354	406	328	1,120	397	328	643	451	531	540
3	3,880	362	388	424	345	1,720	379	336	531	511	491	715
4	2,560	354	362	461	397	1,660	362	328	461	481	583	491
5	2,210	336	320	424	461	1,580	406	388	471	415	897	461
6	1,420	336	280	397	379	1,540	433	388	406	501	949	415
7	897	336	288	388	320	1,120	415	511	406	511	715	424
8	666	328	296	388	345	531	370	511	406	481	597	424
9	666	328	296	379	362	461	388	354	406	451	531	433
10	597	345	296	370	354	433	362	406	424	451	531	424
11	982	370	362	379	379	415	345	574	424	415	461	415
12	2,000	345	296	354	433	415	379	442	397	424	451	397
13	1,000	370	280	388	406	424	362	370	370	415	574	415
14	666	491	288	574	397	461	415	345	379	415	2,660	406
15	551	415	312	501	406	451	406	328	406	415	4,570	397
16	531	370	328	451	370	406	370	320	424	406	1,890	397
17	491	345	320	442	354	397	1,370	320	397	406	975	406
18	491	336	304	406	439	406	3,200	345	388	388	666	406
19	511	336	288	397	643	406	2,060	362	379	397	597	362
20	451	336	280	379	354	397	1,730	336	370	531	574	388
21	424	328	320	379	913	354	897	336	771	461	511	388
22	451	304	362	370	975	370	597	320	1,180	451	481	554
23	1,440	296	312	354	643	406	933	312	689	471	481	767
24	1,940	304	288	362	491	442	613	336	491	977	877	978
25	712	304	362	388	723	461	379	328	433	921	1,450	1,750
26	756	296	354	354	1,100	481	415	328	424	511	1,660	1,000
27	2,300	288	312	345	666	406	501	1,920	531	551	923	643
28	1,160	258	304	345	491	406	433	1,090	636	1,970	620	531
29	471	265	312	345	------	379	920	1,660	772	2,510	531	501
30	406	296	788	336	------	379	575	3,070	501	1,990	491	471
31	370	------	767	312	------	397	------	1,570	------	1,640	481	------
TOTAL	39,340	10,118	10,723	12,259	13,802	19,325	20,836	18,907	15,283	21,379	28,392	16,360
MEAN	1,269	337	346	395	493	623	695	610	509	690	916	545
MAX	4,300	491	788	574	1,100	1,720	3,200	3,070	1,180	2,510	4,570	1,750
MIN	370	258	280	312	320	354	345	312	370	388	451	362
AC-FT	78,030	20,070	21,270	24,320	27,380	38,330	41,330	37,500	30,310	42,410	56,320	32,450

CAL YR 1970 TOTAL 779,994 MEAN 2,137 MAX 13,800 MIN 258 AC-FT 1,547,000
WTR YR 1971 TOTAL 226,724 MEAN 621 MAX 4,570 MIN 258 AC-FT 449,700

08057450 Tenmile Creek at Lancaster, Tex.

LOCATION.--Lat 32°34'42", long 96°45'21", Dallas County, on left bank at downstream side of bridge on State Highway 342, 0.1 mile downstream from Missouri, Kansas, and Texas Railroad bridge, 0.5 mile downstream from Deep Branch, 1.0 mile south of Lancaster, and 14.1 miles upstream from mouth.

DRAINAGE AREA.--52.8 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum discharge, 3,190 cfs Oct. 26 (elevation, 457.98 ft), from rating curve extended above 2,600 cfs on basis of contracted-opening measurement of peak flow; no flow July 14-24, Aug. 23, Sept. 13-22.
Period of record: Maximum discharge, 7,870 cfs Apr. 25, 1970 (elevation, 462.85 ft); no flow at times in 1971.
Maximum elevation since 1942, 468.4 ft June 1, 1964 (discharge not determined), from information by Corps of Engineers.
Other outstanding floods occurred in 1908, 1942, 1949, 1957, and 1966 (elevations and discharges unknown) according to the Corps of Engineers. The flood of May 6, 1969, reached an elevation of 466.0 ft, from floodmarks at downstream side of bridge, and a discharge of 12,900 cfs, on the basis of a contracted-opening measurement of peak flow.

REMARKS.--Records good. Flow is slightly regulated by numerous small stock ponds above station. Low flows are partly sustained by effluent from the municipalities of Duncanville and De Soto. Five recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	6.0	6.0	2.3	6.0	3.5	8.6	4.7	.65	.23	.06
2	11	14	5.5	5.6	2.2	10	3.4	7.9	3.9	.34	.17	.06
3	8.6	14	5.8	5.4	2.3	13	3.0	7.3	2.9	.25	1.8	.02
4	8.6	14	6.0	5.1	6.0	8.1	3.1	6.7	1.7	.15	.41	.05
5	7.2	13	6.0	4.1	3.8	7.0	3.9	6.1	1.4	.11	1.8	.05
6	8.6	12	5.5	4.0	3.2	6.8	3.4	33	1.2	.09	2.1	.03
7	6.5	12	5.1	4.0	2.6	5.6	3.1	33	1.2	.07	.49	.02
8	8.7	13	5.0	4.2	2.2	5.7	3.6	11	1.3	.07	.28	.01
9	7.9	12	4.4	4.4	2.2	5.8	4.4	8.1	1.0	.07	.18	.01
10	5.6	11	5.1	4.6	2.6	5.1	3.8	7.2	.53	.06	.12	.01
11	13	11	5.4	4.4	2.9	5.0	3.4	6.0	.46	.04	.05	.01
12	25	11	4.9	4.8	5.3	5.0	2.9	4.4	.43	.03	.05	.01
13	14	13	4.9	4.5	3.5	4.7	2.8	3.6	.32	.01	9.0	0
14	9.6	18	4.9	4.0	2.8	4.2	2.7	2.9	.36	0	8.3	0
15	9.2	14	5.4	3.5	2.8	4.0	2.4	2.5	.34	0	2.6	0
16	8.1	10	7.8	3.1	2.8	3.8	2.5	2.3	.39	0	.49	0
17	7.9	8.4	5.3	3.1	2.8	4.1	26	2.2	.38	0	.28	0
18	7.4	8.6	5.4	3.1	4.5	4.4	88	1.7	.20	0	.23	0
19	7.2	8.1	5.4	3.1	17	4.5	15	1.5	.14	0	.16	0
20	7.2	6.7	5.4	2.8	5.4	3.6	18	1.5	.05	0	.08	0
21	7.4	6.4	5.4	3.0	17	3.5	17	1.5	.14	0	.04	0
22	7.4	7.0	5.4	3.3	11	3.5	23	1.5	2.1	0	.02	0
23	38	5.4	5.4	3.2	5.5	3.5	41	1.2	1.1	0	0	.29
24	18	4.9	4.9	3.2	4.1	3.5	14	1.2	.45	0	44	1.7
25	7.7	5.9	4.9	5.4	19	3.5	11	1.5	.22	.02	27	24
26	274	7.2	4.9	4.0	21	3.9	11	1.1	.14	.04	7.8	1.5
27	245	7.2	4.9	3.0	8.1	3.7	11	55	.09	.04	.74	.62
28	27	9.5	4.9	3.0	6.7	4.0	8.7	6.8	.09	46	.28	.46
29	22	6.0	4.9	3.4	------	3.5	9.1	66	1.6	9.8	.15	.74
30	19	6.0	14	2.8	------	2.9	9.3	16	1.5	1.7	.07	.95
31	17	------	10	2.8	------	3.0	------	6.8	------	.78	.05	------
TOTAL	875.8	305.3	178.8	120.9	171.6	154.9	354.0	316.1	30.33	60.32	108.97	30.60
MEAN	28.3	10.2	5.77	3.90	6.13	5.00	11.8	10.2	1.01	1.95	3.52	1.02
MAX	274	18	14	6.0	21	13	88	66	4.7	46	44	24
MIN	5.6	4.9	4.4	2.8	2.2	2.9	2.4	1.1	.05	0	0	0
CFSM	.54	.19	.11	.07	.12	.09	.22	.19	.02	.04	.07	.02
IN.	.62	.22	.13	.09	.12	.11	.25	.22	.02	.04	.08	.02
AC-FT	1,740	606	355	240	340	307	702	627	60	120	216	61
(††)	4.32	.37	.87	.19	2.31	.59	3.37	3.61	1.07	3.15	3.87	2.17

CAL YR 1970 TOTAL 12,406.20 MEAN 34.0 MAX 1,460 MIN 1.0 CFSM .64 IN 8.74 AC-FT 24,610 †† -
WTR YR 1971 TOTAL 2,707.62 MEAN 7.42 MAX 274 MIN 0 CFSM .14 IN 1.91 AC-FT 5,370 †† 25.89

PEAK DISCHARGE (BASE, 700 CFS).--Oct. 26 (2315) 3,190 cfs (457.98 ft).

†† Weighted-mean rainfall, in inches, based on five rain gages.

08057500 Honey Creek subwatershed No. 11 near McKinney, Tex.

LOCATION.--Lat 33°18'12", long 96°41'22", Collin County, near center of dam on unnamed tributary of Honey Creek, 1.5 miles west of Farm Road 543, and 8.4 miles northwest of McKinney.

DRAINAGE AREA.--2.14 sq mi.

PERIOD OF RECORD.--September 1952 to current year.

GAGE.--Water-stage recorder and concrete drop inlet. Datum of gage is 629.00 ft above mean sea level (Soil Conservation Service bench mark).

AVERAGE INFLOW.--19 years, 859 acre-ft per year.

AVERAGE OUTFLOW.--19 years, 664 acre-ft per year.

EXTREMES.--Current year: No uncontrolled outflow. Maximum inflow, 64 cfs (average for 15-minute interval) July 29, computed from outflow and change in pool contents and adjusted for rainfall on pool surface during time of peak inflow.
Period of record: Maximum outflow, 716 cfs May 26, 1957 (gage height, 28.77 ft); no outflow at times each year. Maximum inflow, 3,360 cfs (average for 5-minute interval) Apr. 30, 1966, computed and adjusted as above.

REMARKS.--Records fair. The pool is formed by a rolled earthfill dam, 1,303 ft long with an emergency spillway located at right end of dam. The dam was completed Feb. 9, 1952, but no appreciable storage began until April 1952. The first outflow occurred on Apr. 21, 1957. The outlet structure consists of an uncontrolled 2.5-foot square concrete drop-inlet structure that is connected to a 12-inch concrete outlet pipe. The emergency spillway crest is at gage height 26.8 ft; crest of drop-inlet structure is at gage height 14.84 ft; and invert at bottom of outlet pipe is at gage height 4.8 ft. There is also an 8-inch controlled outlet pipe connected to the drop inlet at gage height 4.8 ft. Pool capacity is 1,170 acre-ft at crest of emergency spillway, 428 acre-ft at crest of drop inlet, and 123 acre-ft at the controlled outlet pipe. The area and capacity tables presently in use are based on a sedimentation survey by the Soil Conservation Service in July 1967. The dam was built by the Soil Conservation Service for flood control and conservation. A recording rain gage is located at the station.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	1.4	0.1	4.8	3.9	4.8	0.8	4.2	2.5	2.9	1.8	5.6	0.4
Outflow	0	0	0	0	0	0	0	0	0	0	0	0
(††)	1.34	.44	.50	1.17	1.34	.20	2.32	2.66	.33	3.94	1.66	4.17

CAL YR 1970:	Inflow	1,320	Outflow	1,210	††	31.74
WTR YR 1971:	Inflow	33.2	Outflow	0	††	20.07

PEAK INFLOW (BASE, 100 CFS).--No peak above base.

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Rainfall, in inches.

08058000 Honey Creek subwatershed No. 12 near McKinney, Tex.

LOCATION.--Lat 33°18'20", long 96°40'12", Collin County, near center of dam on unnamed tributary of Honey Creek, 0.5 mile west of Farm Road 543, and 7.8 miles northwest of McKinney.

DRAINAGE AREA.--1.26 sq mi.

PERIOD OF RECORD.--September 1952 to current year.

GAGE.--Water-stage recorder and concrete drop inlet. Datum of gage is 623.00 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--19 years, 511 acre-ft per year.

AVERAGE OUTFLOW.--19 years, 431 acre-ft per year.

EXTREMES.--Current year: No uncontrolled outflow. Maximum inflow, 34 cfs (average for 15-minute interval) July 29 computed from change in pool contents and adjusted for rainfall on pool surface during time of peak inflow.
Period of record: Maximum outflow, 766 cfs May 26, 1957 (gage height, 29.23 ft); no outflow most of time each year. Maximum inflow, 1,490 cfs (average for 15-minute interval) May 21, 1957, computed and adjusted as above.

REMARKS.--Records good. The pool is formed by a rolled earthfill dam, 1,253 ft long with an emergency spillway located at right end of dam. The dam was completed Jan. 11, 1952, but no appreciable storage began until April 1952. The first outflow occurred on May 12, 1954. The outlet structure consists of an uncontrolled 2.5-foot square concrete drop-inlet structure that is connected to a 12-inch concrete outlet pipe. The emergency spillway crest is at gage height 27.0 ft; crest of drop-inlet structure is at gage height 14.99 ft; and invert at bottom of outlet pipe is at gage height 5.0 ft. There is also an 8-inch controlled outlet pipe connected to the drop inlet at gage height 5.0 ft. Pool capacity is 477 acre-ft at the emergency spillway crest, 104 acre-ft at the crest of drop inlet, and zero acre-ft at the controlled outlet pipe. The area and capacity tables presently in use are based on a sedimentation survey completed by the Soil Conservation Service in July 1969. The dam was built by the Soil Conservation Service for flood control and conservation. One recording rain gage above station and one at station are operated in basin.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	1.4	0.6	1.6	2.2	7.3	2.7	5.3	2.8	0	3.5	2.7	4.8
Outflow	0	0	0	0	0	0	0.	0	0	0	0	0
(††)	1.61	.49	.58	1.01	1.82	.14	2.38	2.23	.30	3.70	2.86	3.84

CAL YR 1970: Inflow 602 Outflow 591 †† 30.77
WTR YR 1971: Inflow 34.9 Outflow 0 †† 20.96

PEAK INFLOW (BASE, 100 CFS).--No peak above base.

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted-mean rainfall, in inches, based on two rain gages.

08058500 Honey Creek near McKinney, Tex.

LOCATION.--Lat 33°16'42", long 96°39'27", Collin County, on right bank at downstream side of bridge on county road, 4.5 miles downstream from Haw Branch, 5.6 miles upstream from mouth, and 6.0 miles northwest of McKinney.

DRAINAGE AREA.--39.0 sq mi.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 563.68 ft above mean sea level (Soil Conservation Service reference mark).

AVERAGE DISCHARGE.--20 years, 18.3 cfs (6.37 inches per year, 13,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 248 cfs May 27 (gage height, 4.00 ft); no flow at times.
Period of record: Maximum discharge, 7,920 cfs May 26, 1957 (gage height, 20.29 ft); no flow at times each year.
Maximum stage since at least 1930, 23.0 ft in spring of 1950, from information by local resident.

REMARKS.--Records good. Station operated as part of the Honey Creek basin hydrologic cooperative program of the Geological Survey and Soil Conservation Service to evaluate rainfall-runoff relations and the effects of floodwater-retarding structures. At end of year, flow from 24.6 sq mi above this station was partly controlled by 13 floodwater-retarding structures with a total combined capacity of 9,080 acre-ft below the flood-spillway crests, of which 6,930 acre-ft is floodwater-retarding capacity and 2,150 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Diversions for irrigation above station. Six recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	.89	.07	.62	.53	.72	.34	.31	7.7	0	0	0
2	4.0	.72	.06	.57	.51	.77	.29	.24	5.6	0	0	0
3	3.8	.72	.45	.71	.59	1.5	.29	.19	3.1	0	0	0
4	1.4	.64	.91	1.2	.85	1.3	.31	.18	1.5	0	0	0
5	1.2	.64	.78	.76	1.1	.94	.35	.24	2.3	0	0	0
6	1.3	.84	.09	.57	.90	.77	.36	.29	1.2	0	0	0
7	1.1	.87	1.2	.50	.75	.72	.32	.17	.53	0	0	0
8	2.4	.92	.98	.53	.65	.67	.30	.12	.17	0	0	0
9	3.4	.78	.80	.55	.62	.67	.27	.18	.04	0	0	0
10	2.8	.73	.48	.59	.66	.60	.26	.42	.01	0	0	0
11	3.0	.77	.35	.62	.74	.53	.26	.35	0	0	0	0
12	3.0	.72	.32	.56	.75	.59	.26	.22	0	0	0	0
13	1.8	1.1	.32	2.0	.62	.59	.25	.16	0	0	0	0
14	1.4	1.8	.32	2.0	.57	.58	.21	.11	0	0	.17	0
15	.02	1.0	.46	.97	.55	.41	.43	.08	0	0	1.0	0
16	0	.94	.73	.80	.54	.37	.43	.06	0	0	.01	0
17	0	.95	.55	.80	.56	.37	1.1	.03	0	0	0	0
18	0	.98	.43	.77	.59	.37	16	.01	0	0	0	0
19	0	.90	.38	.67	1.3	.40	2.4	.06	0	0	0	0
20	0	.72	.34	.64	1.0	.38	1.8	.16	0	0	0	0
21	0	.76	.42	.69	6.0	.35	1.5	.05	0	0	0	0
22	0	.76	.43	.72	2.4	.43	1.1	0	0	0	0	0
23	.80	.56	.41	.69	1.1	.40	1.1	1.6	0	0	0	0
24	.15	.56	.34	.71	.91	.38	.80	9.2	0	0	0	0
25	.11	.67	.34	.65	.97	.43	.72	.90	0	0	0	3.2
26	.27	.78	.31	.64	1.2	.41	.72	.26	0	0	0	1.2
27	17	.80	.31	.60	.85	.43	.62	61	0	0	0	.09
28	3.2	.80	.37	.64	.74	.43	.52	18	0	0	0	0
29	1.7	.72	.37	.65	------	.38	.32	20	0	0	0	0
30	1.1	.67	.54	.69	------	.33	.32	18	0	11	0	0
31	1.0	------	.88	.65	------	.36	------	11	------	.03	0	------
TOTAL	58.95	24.71	14.74	23.76	28.55	17.58	33.95	143.59	22.15	11.03	1.18	4.49
MEAN	1.90	.82	.48	.77	1.02	.57	1.13	4.63	.74	.36	.038	.15
MAX	17	1.8	1.2	2.0	6.0	1.5	16	61	7.7	11	1.0	3.2
MIN	0	.56	.06	.50	.51	.33	.21	0	0	0	0	0
AC-FT	117	49	29	47	57	35	67	285	44	22	2.3	8.9

CAL YR 1970	TOTAL	10,124.21	MEAN	27.7	MAX	760	MIN	0	AC-FT 20,080
WTR YR 1971	TOTAL	384.68	MEAN	1.05	MAX	61	MIN	0	AC-FT 763

08059000 East Fork Trinity River near McKinney, Tex.

LOCATION.--Lat 33°12'13", long 96°35'44", Collin County, on right bank at downstream side of bridge on State Highway 24, 1.2 miles northeast of McKinney, 4.2 miles downstream from Honey Creek, 11 miles upstream from Wilson Creek, 22 miles upstream from Lavon Dam, and at mile 82.4.

DRAINAGE AREA.--190 sq mi.

PERIOD OF RECORD.--August 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 511.69 ft above mean sea level. Since Feb. 21, 1966, supplementary water-stage recorder on overflow channel, 3,680 ft to left of main channel.

AVERAGE DISCHARGE.--22 years, 102 cfs (73,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 500 cfs May 27 (gage height, 11.50 ft); no flow July 13-23.
Period of record: Maximum discharge not determined; maximum gage height, 17.23 ft June 11, 1950; maximum discharge measured, 23,900 cfs May 26, 1957 (gage height, 16.65 ft); no flow at times.
Maximum stage since at least 1913, 21 ft in April 1942, from information by local residents.

REMARKS.--Records fair. Low flow is partly sustained by sewage effluent from U.S. Government training facility upstream from station. Small diversions for irrigation above station. At end of year, flow from 88.5 sq mi above this station was partly controlled by 50 floodwater-retarding structures with a total combined capacity of 32,780 acre-ft below the flood-spillway crests, of which 26,030 acre-ft is floodwater-retarding capacity and 6,750 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1512: 1950, 1951(P). WSP 1732: 1950-54(P), 1956(P). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	8.3	12	12	7.8	11	6.8	5.0	29	.24	5.4	1.3
2	27	8.0	12	12	8.3	12	6.0	4.5	19	.24	2.2	.84
3	27	8.0	11	13	8.0	15	5.8	4.0	14	.31	1.3	.72
4	25	8.3	9.6	17	9.3	23	5.8	3.2	11	.27	.78	.42
5	20	8.5	8.8	17	9.3	19	5.0	2.8	9.6	.17	.56	.24
6	18	9.0	8.8	10	11	17	4.3	3.2	8.8	.11	.46	.15
7	19	9.6	8.0	9.9	13	13	5.8	3.2	7.3	.08	15	.13
8	18	9.9	9.3	6.8	11	12	5.6	2.8	4.8	.05	14	.27
9	19	8.5	10	6.8	9.0	11	5.2	5.6	3.8	.02	4.3	.17
10	20	8.0	9.9	7.3	8.3	11	5.6	6.5	2.9	.01	2.5	.10
11	21	7.5	9.9	9.3	8.3	10	5.4	5.6	2.5	.02	1.1	.07
12	25	7.5	9.3	8.0	8.3	9.6	5.4	4.3	2.2	.01	.56	.06
13	23	10	8.5	17	8.3	9.0	5.4	3.5	1.8	0	.34	.02
14	21	16	8.0	25	8.5	7.8	5.2	2.6	1.4	0	21	.02
15	19	23	9.6	22	7.8	8.3	5.0	2.5	1.3	0	90	.02
16	16	21	10	14	7.5	12	6.3	2.9	1.1	0	14	.02
17	15	17	11	12	7.5	8.3	7.9	2.8	.98	0	10	.04
18	15	13	12	11	7.8	8.0	73	2.6	.91	0	8.8	.06
19	16	11	12	11	9.0	7.8	55	2.5	.72	0	6.8	.06
20	12	8.5	10	9.3	10	8.0	27	12	.46	0	5.0	.06
21	11	9.0	9.9	9.0	55	7.8	25	8.0	.38	0	3.6	.06
22	10	10	9.9	9.0	105	7.8	20	4.5	.46	0	2.5	22
23	46	11	9.9	8.8	37	7.8	15	3.0	1.6	.04	1.7	120
24	24	14	9.9	8.5	22	7.8	13	139	1.7	.56	1.1	26
25	16	11	9.3	9.0	19	7.8	9.9	49	.98	.42	39	140
26	12	9.9	8.3	8.0	18	7.8	8.3	26	.61	.51	21	191
27	29	11	8.0	8.3	16	7.8	8.0	164	.38	1.1	11	76
28	30	11	8.0	7.8	13	8.3	7.8	154	.46	2.3	6.0	46
29	13	11	8.3	7.8	------	7.8	6.8	86	.38	6.3	3.5	24
30	9.9	11	11	7.8	------	8.0	5.6	105	.27	26	2.1	16
31	8.5	------	11	7.8	------	7.5	------	50	------	12	1.7	------
TOTAL	615.4	329.5	303.2	342.2	463.0	319.0	370.9	870.6	130.79	50.76	297.30	665.83
MEAN	19.9	11.0	9.78	11.0	16.5	10.3	12.4	28.1	4.36	1.64	9.59	22.2
MAX	46	23	12	25	105	23	73	164	29	26	90	191
MIN	8.5	7.5	8.0	6.8	7.5	7.5	4.3	2.5	.27	0	.34	.02
AC-FT	1,220	654	601	679	918	633	736	1,730	259	101	590	1,320

CAL YR 1970 TOTAL 67,397.95 MEAN 185 MAX 6,200 MIN .07 AC-FT 133,700
WTR YR 1971 TOTAL 4,758.48 MEAN 13.0 MAX 191 MIN 0 AC-FT 9,440

08059500 Sister Grove Creek near Princeton, Tex.

LOCATION.--Lat 33°11'35", long 96°28'32", Collin County, on right bank at upstream side of bridge on Farm Road 1377, 1.4 miles northeast of Princeton, 2.3 miles downstream from Stiff Creek, 5 miles upstream from mouth, and 15 miles upstream from Lavon Dam.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--September 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 487.52 ft above mean sea level (Corps of Engineers bench mark), unadjusted.

AVERAGE DISCHARGE.--22 years, 63.0 cfs (45,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 163 cfs July 30 (gage height, 9.06 ft); no flow at times.
Period of record: Maximum discharge, 9,080 cfs Apr. 26, 1957 (gage height, 16.28 ft), from rating curve extended above 5,200 cfs on basis of contracted-opening measurement of 7,560 cfs; maximum gage height, 16.55 ft Apr. 30, 1966; no flow at times each year except 1968.
Maximum stage since at least 1865, 22 ft in July 1913, from information by local residents.

REMARKS.--Records good. At end of year, flow from 57.6 sq mi above this station was partly controlled by 37 floodwater-retarding structures with a total combined capacity of 19,870 acre-ft below the flood-spillway crests, of which 15,600 acre-ft is floodwater-retarding capacity and 4,270 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1392: 1950, 1951(P). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.56	3.3	3.2	2.6	6.0	2.1	4.7	3.2	0	1.5	0
2	1.0	.25	3.3	3.6	2.5	5.3	1.8	4.6	2.9	0	2.0	0
3	.74	.23	3.3	4.6	2.6	5.9	1.5	4.5	2.0	0	1.1	0
4	.49	2.8	3.3	4.1	3.0	5.7	1.9	4.3	1.4	0	.93	0
5	.29	3.2	3.2	3.5	3.4	6.2	2.5	3.1	1.4	0	.32	0
6	.21	1.7	3.1	3.3	3.4	6.4	2.5	2.9	1.1	0	.08	0
7	.17	.94	3.1	3.4	3.3	6.0	2.5	3.1	.93	0	.01	0
8	.14	.67	3.0	3.3	3.4	5.6	2.5	2.7	.56	0	0	0
9	.11	.36	3.1	3.2	3.4	5.6	2.4	2.9	.28	0	0	0
10	.11	.24	2.9	3.0	3.3	5.3	2.6	3.6	.11	0	0	0
11	.42	.22	3.0	2.9	3.2	5.0	3.0	2.1	.05	0	0	0
12	6.1	.13	3.2	2.8	3.1	4.9	2.9	1.6	.01	0	0	0
13	4.5	.38	3.1	2.9	3.0	4.9	2.3	1.3	0	0	0	0
14	2.7	1.1	3.0	3.7	3.1	4.7	2.0	1.2	0	0	0	0
15	3.1	1.4	3.0	6.5	3.3	4.6	2.3	1.0	0	0	0	0
16	3.0	2.2	3.3	6.9	3.3	4.5	1.8	1.2	0	0	0	0
17	2.5	3.5	3.5	5.3	3.2	4.4	1.9	1.6	0	0	0	0
18	2.1	3.4	3.5	4.4	3.1	4.3	2.9	1.2	0	0	0	0
19	1.7	2.8	3.6	3.9	4.6	4.1	13	.86	0	0	0	0
20	1.2	2.0	3.5	3.6	3.7	3.7	14	.53	0	0	0	0
21	.98	1.9	3.8	3.5	15	3.6	7.9	.36	0	0	0	0
22	.76	2.0	3.8	3.6	23	3.2	6.4	1.9	0	0	0	0
23	23	1.9	3.4	3.5	25	2.9	6.6	1.4	0	0	0	32
24	14	1.8	3.2	3.3	14	2.7	6.4	.85	0	0	0	21
25	1.7	1.8	3.2	3.4	10	2.7	6.8	21	0	0	0	38
26	.42	2.1	2.8	3.3	11	2.8	6.0	6.4	0	0	11	69
27	.56	2.5	2.4	3.1	7.2	2.8	5.3	5.1	0	0	3.2	17
28	.49	2.8	2.0	3.0	6.2	2.7	4.6	24	0	0	1.2	3.1
29	.19	3.0	2.1	2.9	------	2.9	5.3	13	0	0	.30	2.2
30	.74	3.3	3.0	2.9	------	2.7	5.5	6.0	0	48	.04	1.6
31	.97	------	3.4	2.7	------	2.4	------	3.8	------	18	0	------
TOTAL	75.89	51.18	97.4	113.3	175.9	134.5	129.2	132.80	13.94	66	21.68	183.9
MEAN	2.45	1.71	3.14	3.65	6.28	4.34	4.31	4.28	.46	2.13	.70	6.13
MAX	23	3.5	3.8	6.9	25	6.4	14	24	3.2	48	11	69
MIN	.11	.13	2.0	2.7	2.5	2.4	1.5	.36	0	0	0	0
AC-FT	151	102	193	225	349	267	256	263	28	131	43	365

CAL YR 1970 TOTAL 28,727.88 MEAN 78.7 MAX 2,360 MIN 0 AC-FT 56,980
WTR YR 1971 TOTAL 1,195.69 MEAN 3.28 MAX 69 MIN 0 AC-FT 2,370

PEAK DISCHARGE (BASE, 1,800 CFS).--No peak above base.

08060500 Lavon Lake near Lavon, Tex.
(Formerly published as Lavon Reservoir near Lavon)

LOCATION.--Lat 33°01'54", long 96°28'56", Collin County, in right abutment of spillway in dam on East Fork Trinity River, 3,850 ft upstream from St. Louis Southwestern Railway Lines bridge, 4,000 ft upstream from bridge on State Highway 78, 2.9 miles west of Lavon, and at mile 55.9.

DRAINAGE AREA.--770 sq mi.

PERIOD OF RECORD.--September 1953 to current year. Prior to October 1970, published as Lavon Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Jan. 20, 1954, nonrecording gage in the approach channel at same datum.

EXTREMES.--Current year: Maximum contents, 136,300 acre-ft Oct. 27 (elevation, 471.33 ft); minimum, 87,980 acre-ft Sept. 22 (elevation, 466.27 ft).
Period of record: Maximum contents, 462,800 acre-ft May 26, 1957 (elevation, 491.90 ft); minimum since lake first filled in 1957, 87,980 acre-ft Sept. 22, 1971 (elevation, 466.27 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 9,499 ft long, including a 568-foot gated spillway with twelve 40- by 28-foot tainter gates. The low-flow outlets consist of five 36-inch-diameter gate-controlled sluices with inverts at elevation 453.0 ft. Deliberate impoundment of water began Sept. 14, 1953, and dam completed in October 1953. Figures given herein represent total contents. Lake is designed for flood control and water conservation. Capacity table is based on survey made in 1952. Water for municipal supply can be withdrawn to elevation 453 ft. At end of year, flow from 230 sq mi above this station was partly controlled by 139 floodwater-retarding structures with a total combined capacity of 82,780 acre-ft below the flood-spillway crests, of which 65,880 acre-ft is floodwater-retarding capacity and 16,900 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	502.0	-
Top of tainter gates	490.0	423,400
Top of conservation storage	472.0	143,600
Crest of spillway (sill of tainter gates)	462.0	56,290
Invert of lowest intake	453.0	14,330

COOPERATION.--Records furnished by the Corps of Engineers and reviewed by the Geological Survey.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

466.0	85,690	469.0	112,500
467.0	94,180	470.0	122,400
468.0	103,100	471.0	132,700
		472.0	143,600

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130,000	135,700	131,800	129,200	126,800	128,000	123,600	119,400	116,500	106,100	98,650	94,180
2	130,000	135,400	131,800	129,200	126,200	128,100	123,400	119,200	116,300	105,900	98,380	93,920
3	129,800	135,200	131,900	129,200	126,100	128,000	123,200	119,000	116,100	105,600	98,120	93,670
4	129,400	134,700	131,500	129,000	126,300	127,900	123,100	118,600	115,800	105,200	97,850	93,240
5	129,500	134,600	131,300	129,000	126,400	127,700	122,700	118,500	115,500	104,800	97,760	93,070
6	129,300	134,400	131,100	128,900	126,400	127,600	122,200	118,300	115,100	104,400	97,580	92,990
7	129,100	134,100	130,700	128,600	126,300	127,500	122,000	118,400	114,700	104,000	97,400	92,740
8	129,100	134,100	130,800	128,400	126,100	127,500	121,700	118,200	114,300	103,400	97,310	92,570
9	129,200	134,100	130,600	128,400	126,000	127,500	121,600	118,700	113,900	102,900	97,040	92,230
10	128,800	133,800	130,500	128,300	125,900	127,400	121,300	118,700	113,600	102,300	96,680	91,970
11	131,300	133,800	130,500	128,200	125,700	127,300	121,000	118,700	113,200	101,800	96,500	91,460
12	132,400	133,500	130,400	128,300	125,700	127,300	120,800	118,500	112,800	101,400	96,150	91,210
13	133,400	134,100	130,100	128,300	125,500	127,300	120,600	118,400	112,500	101,100	96,590	90,780
14	133,700	134,000	129,900	128,300	125,300	127,100	120,500	118,100	112,300	100,500	96,860	90,440
15	133,400	133,500	129,900	128,100	125,200	127,000	120,300	117,700	112,000	99,910	97,760	90,100
16	133,100	133,200	129,800	128,100	125,000	126,900	120,500	117,400	111,600	99,280	97,850	89,760
17	133,100	133,300	129,600	128,000	124,800	126,700	120,900	117,000	111,100	98,740	97,760	89,420
18	132,800	133,200	130,000	128,000	125,500	126,500	121,000	116,700	110,700	98,210	97,850	89,080
19	132,700	133,100	129,800	128,000	125,800	126,300	121,100	116,500	109,900	98,290	97,670	88,660
20	132,700	132,800	129,600	127,900	125,700	126,100	121,200	116,300	109,400	98,120	97,310	88,320
21	132,300	132,800	129,600	127,700	125,600	125,900	121,100	116,100	109,300	97,850	96,770	88,060
22	132,100	132,700	129,600	127,800	126,200	125,700	121,000	115,900	109,100	97,490	96,420	88,230
23	134,200	132,400	129,600	127,600	126,700	125,500	120,900	115,700	108,800	97,220	96,060	88,570
24	135,300	132,100	129,500	127,300	127,100	125,400	120,800	115,400	108,400	97,310	95,790	90,020
25	135,800	131,100	129,500	127,200	127,300	125,300	120,600	115,100	107,900	97,130	95,700	90,530
26	136,200	131,900	129,100	127,300	127,600	125,100	120,500	114,700	107,400	96,950	95,700	91,380
27	136,200	131,900	129,100	127,000	127,700	125,000	120,200	115,600	106,900	96,680	95,610	91,970
28	136,000	131,900	129,000	126,800	128,000	124,800	120,000	115,800	106,900	97,040	95,430	92,230
29	135,700	131,900	129,100	126,900	------	124,600	120,000	116,500	106,700	97,760	95,160	92,310
30	135,700	131,800	129,400	126,900	------	124,300	119,500	116,600	106,500	98,650	94,800	92,310
31	135,700	------	129,100	126,800	------	123,900	------	116,600	------	98,650	94,360	------
(†)	471.27	470.91	470.65	470.43	470.54	470.15	469.71	469.41	468.36	467.50	467.02	466.78
(*)	+5,600	-3,900	-2,700	-2,300	+1,200	-4,100	-4,400	-2,900	-10,100	-7,850	-4,290	-2,050
(††)	2,965	2,653	2,765	2,932	2,485	2,941	3,123	3,587	4,857	5,789	4,722	3,586
MAX	136,200	135,700	131,900	129,200	128,000	128,100	123,600	119,400	116,500	106,100	98,650	94,180
MIN	128,800	131,100	129,000	126,800	124,800	123,900	119,500	114,700	106,500	96,680	94,360	88,060

CAL YR 1970..... * +8,800 †† 41,160 MAX 258,700 MIN 121,400
WTR YR 1971..... * -37,790 †† 42,400 MAX 136,200 MIN 88,060

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal and industrial use by North Texas Municipal Water District.

08061000 East Fork Trinity River near Lavon, Tex.

LOCATION.--Lat 33°01'25", long 96°28'31", Collin County, on left bank at downstream side of St. Louis Southwestern Railway Lines bridge, 150 ft upstream from bridge on State Highway 78, 3,550 ft downstream from Lavon Dam, 2.5 miles west of Lavon, and at mile 54.9.

DRAINAGE AREA.--773 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 429.58 ft above mean sea level. Prior to Oct. 1, 1969, at site 150 ft downstream at same datum.

AVERAGE DISCHARGE.--18 years, 352 cfs (255,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6.1 cfs Oct. 12 (gage height, about 9.30 ft); no flow for many days.
Period of record: Maximum discharge, 39,000 cfs May 26, 27, 1957, from records of released flow from Lavon Lake (revised) furnished by Corps of Engineers; maximum gage height, 17.34 ft May 26, 1957; no flow at times each year.
Maximum stage since at least 1894, 22.3 ft in 1913 and in April 1942, from information by St. Louis Southwestern Railway Lines and local residents.

REMARKS.--Records good except those for period Oct. 8 to Dec. 7, which are poor. Flow regulated by Lavon Lake (station 08060500).

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.15	.22	.55	.22						
2	0	0	.16	.22	.55	.55						
3	0	0	.16	0	.84	.35						
4	0	0	.16	.22	1.6	.35						
5	0	0	.18	.35	.84	.22						
6	0	0	.18	.22	.55	.12						
7	0	0	.22	.12	.84	.06						
8	0	0	.22	.12	.55	.06						
9	0	0	.35	.55	.55	.06						
10	0	0	.55	.35	.12	.06						
11	.64	0	.55	.12	.06	.06						
12	3.3	0	.55	.22	.35	.06						
13	1.2	0	.55	.35	.12	.06						
14	1.0	0	.55	.35	.06	.12						
15	.80	.05	.84	1.6	.06	.03						
16	.60	.10	.84	2.0	.12	.01						
17	.40	.10	.84	2.6	.12	.01						
18	.20	.10	.84	2.0	.22	.01						
19	.10	.10	.84	2.6	.35	.01						
20	.10	.10	.55	2.0	.12	0						
21	.10	.10	.84	.84	.55	0						
22	.05	.10	1.2	.84	.22	0						
23	.05	.12	.55	.84	.12	0						
24	.05	.12	.35	1.2	.12	0						
25	0	.12	.35	1.6	.22	0						
26	0	.12	.35	1.6	.35	0						
27	0	.12	.35	.84	.22	0						
28	0	.15	.84	.84	.12	0						
29	0	.15	.55	.84	------	0						
30	0	.15	1.2	1.2	------	0						
31	0	------	.35	.84	------	0	------		------			------
TOTAL	8.59	1.80	16.21	27.69	10.49	2.42	0	0	0	0	0	0
MEAN	.28	.060	.52	.89	.37	.078	0	0	0	0	0	0
MAX	3.3	.15	1.2	2.6	1.6	.55	0	0	0	0	0	0
MIN	0	0	.15	0	.06	0	0	0	0	0	0	0
AC-FT	17	3.6	32	55	21	4.8	0	0	0	0	0	0

CAL YR 1970 TOTAL 178,359.34 MEAN 489 MAX 5,700 MIN 0 AC-FT 353,800
WTR YR 1971 TOTAL 67.20 MEAN .18 MAX 3.3 MIN 0 AC-FT 133

08061540 Rowlett Creek near Sachse, Tex.

LOCATION.--Lat 32°57'35", long 96°36'51", Dallas County, on left bank at downstream side of bridge on State Highway 78, 150 ft downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 250 ft downstream from Spring Creek, and 1.5 miles southwest of Sachse.

DRAINAGE AREA.--120 sq mi.

PERIOD OF RECORD.--March 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 450.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,130 cfs Aug. 25 (gage height, 16.67 ft); minimum, 0.09 cfs July 12.
Period of record: Maximum discharge, 24,400 cfs May 7, 1969 (gage height, 28.54 ft); no flow Aug. 24 to Sept. 2, 1969.
Maximum stage since at least 1942, 35.4 ft in 1942, from information by Texas Highway Department.

REMARKS.--Records good. No known diversion above station. The city of Plano reported the discharge of 2,040 acre-ft of sewage effluent into a tributary above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	22	18	17	8.8	14	8.2	14	12	2.0	7.7	12
2	21	21	17	15	8.8	19	5.8	13	11	1.7	5.7	17
3	19	21	17	16	9.2	21	6.1	11	8.9	17	5.5	14
4	18	20	16	19	16	17	6.0	10	7.4	4.8	8.4	11
5	20	19	15	14	14	15	7.2	9.2	7.0	1.1	15	9.4
6	24	19	15	12	11	14	7.6	14	5.6	.56	10	7.9
7	19	19	15	12	9.6	13	7.5	15	3.6	.65	7.6	7.7
8	29	19	15	12	9.0	12	7.9	11	3.7	.70	8.4	7.1
9	21	19	16	13	9.1	12	7.9	12	3.1	.68	4.0	6.8
10	15	18	17	13	9.4	12	7.6	32	2.7	.76	3.2	6.3
11	104	18	16	12	10	13	7.2	288	2.4	.71	2.7	5.9
12	78	18	15	11	18	12	7.0	25	2.3	.35	2.3	5.8
13	33	22	15	12	11	12	8.0	15	2.3	.79	3.4	5.4
14	27	34	15	15	9.4	13	8.5	12	1.5	1.1	472	5.3
15	23	20	19	12	8.8	12	7.1	10	2.3	.96	97	4.8
16	19	17	24	11	9.1	11	7.8	9.5	2.1	1.3	18	4.9
17	21	17	18	11	8.8	11	138	7.9	2.9	1.2	11	4.9
18	21	17	16	11	11	12	433	7.4	2.2	.99	8.6	5.3
19	20	17	17	10	30	13	44	6.9	2.0	.81	7.0	5.7
20	18	17	16	9.7	12	9.5	40	8.4	1.9	3.8	5.9	5.5
21	17	18	16	10	90	9.5	35	7.0	7.9	1.5	5.2	6.3
22	18	19	61	10	36	10	25	5.7	11	1.3	4.6	32
23	257	18	19	10	16	9.8	22	5.6	4.4	1.3	3.5	61
24	74	17	14	10	13	9.1	20	5.0	3.3	34	110	38
25	40	17	13	10	21	9.8	18	4.5	3.0	6.6	526	108
26	35	18	12	9.8	31	9.8	16	3.9	1.9	1.2	83	65
27	31	19	12	9.3	16	9.2	16	93	3.6	13	31	24
28	28	19	13	8.8	14	9.9	15	24	3.0	145	21	18
29	26	18	14	9.0	------	8.8	14	123	10	92	17	15
30	24	17	40	9.9	------	7.7	14	53	3.1	197	13	14
31	22	------	27	9.8	------	8.0	------	18	------	16	13	------
TOTAL	1,143	574	573	364.3	470.0	369.1	967.4	874.0	138.1	550.86	1,530.7	534.0
MEAN	36.9	19.1	18.5	11.8	16.8	11.9	32.2	28.2	4.60	17.8	49.4	17.8
MAX	257	34	61	19	90	21	433	288	12	197	526	108
MIN	15	17	12	8.8	8.8	7.7	5.8	3.9	1.5	.35	2.3	4.8
AC-FT	2,270	1,140	1,140	723	932	732	1,920	1,730	274	1,090	3,040	1,060

CAL YR 1970 TOTAL 34,630.50 MEAN 94.9 MAX 2,340 MIN 2.8 AC-FT 68,690
WTR YR 1971 TOTAL 8,088.46 MEAN 22.2 MAX 526 MIN .35 AC-FT 16,040

PEAK DISCHARGE (BASE, 2,000 CFS).--Aug. 25 (1430) 2,130 cfs (16.67 ft).

08061550 Lake Ray Hubbard near Forney, Tex.

LOCATION.--Lat 32°48'00", long 96°29'45", Kaufman County, near right end of spillway in Forney Dam on East Fork Trinity River, 0.5 mile upstream from Duck Creek, 1.8 miles upstream from bridge on Interstate Highway 20, 3.8 miles northwest of Forney, 24 miles downstream from Lavon Dam, and at mile 31.8.

DRAINAGE AREA.--1,071 sq mi.

PERIOD OF RECORD.--January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 417,100 acre-ft Oct. 27 (elevation, 432.15 ft); minimum; 371,000 acre-ft July 23 (elevation, 429.85 ft).
Period of record: Maximum contents, 420,200 acre-ft June 21, 1970 (elevation, 432.30 ft); minimum since first appreciable filling following closure of gates on March 22, 1970, 371,000 acre-ft July 23, 1971 (elevation, 429.85 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 12,500 ft long, including a 664-foot gated spillway with fourteen 40- by 28-foot tainter gates. Low-flow releases are through three 4.5- by 6.75-foot sluiceways, with inverts at elevation 388.0 ft. Flow in each sluiceway can be controlled by three sluice gates. One gate is 4- by 6-foot with invert at elevation 388.0 ft, one is 2- by 3-foot with invert at elevation 409.0 ft, and one is 1.5- by 2-foot with invert at elevation 409.0 ft. Closure of dam was made in September 1967 but gates were left open and lake functioned as a detention basin until Mar. 22, 1970, when tainter gates were closed. Area and capacity tables were prepared by Forrest and Cotton, Consulting Engineers, for the city of Dallas, from surveys made in 1953 and 1959. The lake was built by the city of Dallas for municipal water supply. No water was diverted from lake during year. Figures given herein represent total contents. At end of year, flow from 44.5 sq mi above this station and below Lavon Lake (station 08060500) was partly controlled by 14 floodwater-retarding structures with a total combined capacity of 14,470 acre-ft below the flood-spillway crests, of which 12,520 acre-ft is floodwater-retarding capacity and 1,950 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	448.0	-
Design flood level	440.5	611,500
Top of tainter gates	437.5	536,700
Top of conservation storage	435.5	489,900
Crest of spillway (sill of tainter gates)	409.5	83,130
Invert of three 4- by 6-foot sluice gates	388.0	80

Capacity table (elevation, in feet, and total contents, in acre-feet)

429.0	354,700	431.0	393,700
430.0	373,900	432.0	414,000
		433.0	435,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	409,300	414,600	409,300	393,700	390,900	393,300	389,700	389,100	388,100	380,200	377,300	380,000
2	409,300	414,600	408,700	393,700	390,500	393,700	389,500	388,900	388,100	379,800	376,900	379,800
3	409,300	414,400	407,700	393,700	390,700	394,100	389,100	388,500	387,500	379,400	376,500	379,400
4	408,900	413,800	406,900	393,500	391,100	393,700	388,900	387,900	387,500	379,200	376,500	379,200
5	408,500	412,800	406,100	393,500	391,100	393,300	388,700	387,700	387,300	379,000	376,500	378,800
6	408,500	412,800	405,300	393,300	391,100	393,300	388,300	387,700	386,900	378,600	376,500	378,800
7	408,300	412,400	404,500	393,100	390,900	393,300	387,900	388,100	386,700	378,400	376,900	378,600
8	408,500	412,800	403,400	392,700	390,700	393,300	387,300	387,700	386,300	378,000	376,700	378,600
9	407,900	412,800	402,600	392,700	390,500	393,300	387,100	387,700	386,000	377,400	376,300	378,400
10	407,500	412,800	401,800	392,700	390,300	392,900	386,900	387,700	385,600	376,900	375,900	378,200
11	412,000	412,600	401,000	392,700	390,300	392,900	386,500	389,300	385,200	376,300	375,900	377,400
12	413,600	412,200	400,800	392,900	390,100	392,700	386,200	388,900	385,000	375,900	375,500	377,300
13	414,000	412,800	400,600	392,900	389,700	392,700	386,200	388,700	385,000	375,300	376,500	376,700
14	414,600	412,400	400,200	392,900	389,700	392,700	386,200	388,300	384,800	374,900	379,000	376,100
15	414,900	412,000	399,800	392,900	390,100	392,900	386,000	387,900	384,600	374,500	379,400	375,500
16	413,000	411,600	399,000	392,900	389,900	392,900	385,800	387,300	384,200	373,900	379,400	375,100
17	412,800	411,200	397,900	392,900	389,700	392,700	387,700	386,900	383,800	373,300	379,000	374,700
18	412,600	410,800	396,100	392,900	390,900	392,700	388,700	386,700	383,200	372,700	378,800	374,300
19	412,200	410,400	395,300	392,500	391,300	392,300	388,700	386,500	382,600	373,500	378,400	373,900
20	411,800	410,400	394,300	391,900	391,300	391,900	389,300	386,200	382,200	373,300	377,800	372,900
21	411,400	410,600	393,700	391,900	391,700	391,700	389,300	386,000	382,200	372,900	377,400	372,700
22	411,200	410,400	393,700	391,900	391,900	391,700	389,300	385,800	381,800	372,400	377,100	373,500
23	414,000	410,100	393,700	391,900	392,100	391,900	389,700	385,600	381,400	372,900	376,900	374,300
24	414,600	409,500	393,100	391,900	392,100	391,700	389,900	385,400	381,000	372,900	378,600	375,500
25	414,900	409,500	393,100	391,900	393,700	391,300	390,100	385,200	380,600	373,300	381,800	376,900
26	415,100	409,500	392,500	391,900	393,700	390,900	390,300	384,800	380,200	374,300	381,800	377,100
27	415,300	409,500	393,100	391,700	393,700	390,900	390,300	387,700	379,800	374,300	382,000	377,100
28	415,300	409,500	392,900	391,700	393,300	390,700	390,100	387,500	381,000	375,900	382,000	377,100
29	415,100	409,500	392,700	391,700	------	390,300	389,700	388,500	380,800	377,800	381,400	376,900
30	414,000	409,500	394,700	391,700	------	390,100	389,300	388,500	380,600	378,000	380,800	376,700
31	414,600	------	394,300	391,700	------	389,700	------	388,500	------	377,600	380,400	------
(†)	432.03	431.78	431.03	430.90	430.98	430.80	430.78	430.74	430.34	430.19	430.33	430.14
(*)	+4,700	-5,100	-15,200	-2,600	+1,600	-3,600	-400	-800	-7,900	-3,000	+2,800	-3,700
MAX	415,300	414,600	409,300	393,700	393,700	394,100	390,300	389,300	388,100	380,200	382,000	380,000
MIN	407,500	409,500	392,500	391,700	389,700	389,700	385,800	384,800	379,800	372,400	375,500	372,700

CAL YR 1970..... * +312,030 MAX 419,500 MIN 82,450
WTR YR 1971..... * -33,200 MAX 415,300 MIN 372,400

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08061700 Duck Creek near Garland, Tex.

LOCATION.--Lat 32°49'59", long 96°35'43", Dallas County, on right bank at downstream side of bridge on Belt Line Road, 6.0 miles southeast of Garland, and 7.7 miles upstream from mouth.

DRAINAGE AREA.--31.6 sq mi.

PERIOD OF RECORD.--January 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 430.02 ft above mean sea level. Prior to Oct. 1, 1962, at datum 4.00 ft higher.

AVERAGE DISCHARGE.--13 years, 22.5 cfs (9.67 inches per year, 16,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,560 cfs Aug. 25 (gage height, 15.88 ft); no flow July 12-19, Aug. 11, 12.
Period of record: Maximum discharge, 16,000 cfs July 27, 1962 (gage height, 20.80 ft, present datum); no flow at times.
Maximum stage since about 1895, 21.5 ft, present datum, June 13, 1949, from information by local residents.

REMARKS.--Records good except those below 2.0 cfs prior to May 18, which are fair. Flow slightly regulated by several small on-channel dams. Small diversion for irrigation of golf course above station. Low flows may be sustained by effluents from city of Garland. Three recording rain gages above station and one at station are operated in basin.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	1.8	1.2	2.8	.82	3.1	.54	1.4	2.8	.28	2.2	.66
2	.45	2.4	1.6	2.1	.98	28	.51	.93	1.4	.12	1.3	36
3	.36	2.4	1.6	6.5	1.6	15	.46	.66	.98	.08	1.5	12
4	.28	1.4	1.2	5.2	11	7.5	.46	.41	4.8	.03	1.3	3.0
5	6.5	1.4	1.4	2.1	3.6	4.0	.36	.43	1.4	.02	.74	1.6
6	4.2	1.4	.98	1.6	1.8	3.1	.36	.71	1.0	.02	2.6	.87
7	.68	1.6	.68	1.4	.98	2.6	.35	.94	.90	.02	.95	.55
8	17	1.4	.68	1.4	.98	1.8	.26	.53	.80	.01	.73	.29
9	6.0	1.2	.82	1.6	.98	1.8	.49	.67	.72	.06	.05	.14
10	3.6	1.8	.98	1.4	.98	1.6	.57	1.9	.68	.02	.01	.12
11	133	.98	1.2	1.4	.98	2.7	.32	1.2	.60	.01	0	.11
12	105	.98	.82	1.4	3.4	1.8	.27	.79	.50	0	0	.08
13	11	7.5	.82	1.6	1.6	1.9	.53	.49	.38	0	5.3	.03
14	4.0	15	.82	2.1	2.4	2.0	.59	.47	.30	0	130	.03
15	2.8	3.1	8.5	1.4	1.2	.83	.82	.49	.25	0	13	.05
16	2.4	1.6	4.2	1.4	.82	1.0	.74	.23	.20	0	3.6	.03
17	1.8	1.8	2.1	.98	.98	.89	66	.13	.16	0	1.8	.03
18	2.1	.98	1.2	.98	14	6.0	145	.07	.12	0	1.0	.03
19	1.6	.82	1.4	1.2	14	3.0	7.4	2.2	.08	0	.86	.03
20	1.2	.68	.98	.98	3.6	1.4	27	.45	.06	9.2	.47	.33
21	1.2	.56	1.8	.98	91	.88	8.8	.31	40	.49	.26	.09
22	.98	.68	2.6	1.2	11	.77	3.9	.07	4.2	.13	.17	30
23	202	.68	1.6	1.4	4.0	.57	7.7	.07	1.6	.86	.10	26
24	17	.68	.98	1.2	3.6	.89	2.6	.08	.82	22	85	122
25	6.0	.98	.82	1.4	25	1.6	1.7	.03	.36	5.2	453	212
26	9.1	1.4	.56	1.4	17	1.2	1.3	.55	.23	3.0	20	8.7
27	14	.98	.68	1.2	4.6	.79	1.3	135	.13	.22	6.6	4.1
28	4.2	.98	.68	.98	3.4	.79	.96	9.7	6.1	173	3.3	3.5
29	3.4	.98	.82	1.2	------	.73	8.7	121	5.0	198	2.2	2.1
30	2.8	1.2	64	1.4	------	.79	3.9	17	.61	37	1.4	1.4
31	2.4	------	5.6	.98	------	.51	------	5.5	------	6.0	1.0	------
TOTAL	567.87	59.36	113.32	52.88	226.30	99.54	293.89	304.41	77.18	455.77	740.44	465.87
MEAN	18.3	1.98	3.66	1.71	8.08	3.21	9.80	9.82	2.57	14.7	23.9	15.5
MAX	202	15	64	6.5	91	28	145	135	40	198	453	212
MIN	.28	.56	.56	.98	.82	.51	.26	.03	.06	0	0	.03
CFSM	.58	.06	.12	.05	.26	.10	.31	.31	.08	.47	.76	.49
IN.	.67	.07	.13	.06	.27	.12	.35	.36	.09	.54	.87	.55
AC-FT	1,130	118	225	105	449	197	583	604	153	904	1,470	924
(††)	3.46	.43	.98	.25	1.71	.52	2.44	2.29	1.21	4.30	4.27	3.39

CAL YR 1970 TOTAL 10,991.45 MEAN 30.1 MAX 791 MIN 0 CFSM .95 IN 12.94 AC-FT 21,800 †† 37.30
WTR YR 1971 TOTAL 3,456.83 MEAN 9.47 MAX 453 MIN 0 CFSM .30 IN 4.07 AC-FT 6,860 †† 25.25

PEAK DISCHARGE (BASE, 2,000 CFS).--Aug. 25 (1415) 2,560 cfs (15.88 ft).

†† Weighted-mean rainfall, in inches, based on four rain gages.

08061950 South Mesquite Creek at Mercury Road near Mesquite, Tex.

LOCATION.--Lat 32°43'32", long 96°34'12", Dallas County, on left bank at downstream side of bridge on Mercury Road, 3.3 miles southeast of Mesquite, and 3.6 miles upstream from mouth.

DRAINAGE AREA.--23.0 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 389.91 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 640 cfs Oct. 27 (gage height, 7.60 ft); no flow at times.
Period of record: Maximum discharge, 5,260 cfs May 7, 1969 (gage height, 12.06 ft), from rating curve extended above 1,300 cfs; no flow at times.
Maximum stage since about 1918, 14.3 ft Apr. 27, 1957 (discharge not determined), from information by Corps of Engineers. Floods in April 1942, April 1958, and in 1962 reached stages almost as high as that of flood of Apr. 27, 1957, from information by Corps of Engineers.

REMARKS.--Records fair. Flow slightly affected by numerous small stock ponds. Three recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	1.3	1.4	2.5	1.2	1.6	.98	1.2	2.6	6.8	1.8	0
2	.52	1.2	1.5	1.6	1.1	29	.98	1.1	3.5	1.2	.68	0
3	.43	1.3	1.4	1.7	1.3	12	.79	.82	2.2	.17	.12	12
4	.32	1.4	1.5	4.1	11	4.3	.85	.68	.92	.01	12	2.4
5	.16	1.3	1.4	2.3	4.9	1.9	.85	1.1	.35	0	10	.80
6	2.4	1.3	1.5	1.6	2.2	1.5	.92	1.1	.08	0	6.6	.95
7	2.1	1.4	1.4	1.4	1.7	1.5	.79	.90	.02	0	2.8	.53
8	2.5	1.5	1.4	1.4	1.5	1.6	.72	.77	0	0	4.0	.69
9	5.4	1.6	1.4	1.5	1.3	1.8	.47	.79	0	0	2.0	.43
10	1.3	1.8	1.7	2.0	1.3	1.7	.73	.85	0	0	1.4	.40
11	26	2.0	2.1	1.7	1.4	1.4	.67	26	0	0	1.2	.18
12	166	2.1	1.4	1.5	1.7	1.5	.47	2.4	0	0	.32	.17
13	5.3	2.9	1.3	4.1	1.7	1.6	.47	1.4	0	0	2.9	.05
14	2.1	7.3	1.3	3.6	1.9	1.7	.43	1.1	0	0	54	0
15	1.3	3.6	1.6	1.9	1.9	1.6	.18	.53	0	0	34	0
16	1.1	2.2	5.2	1.5	1.8	1.9	.14	.23	0	0	2.3	0
17	1.0	1.6	2.2	2.3	1.8	1.5	.23	.27	0	0	.68	0
18	.98	1.6	1.4	1.5	9.5	1.8	51	.39	0	0	.32	0
19	.98	2.0	1.4	1.4	38	3.8	3.2	.23	0	0	.11	0
20	.92	1.6	1.3	1.3	3.0	1.6	17	.09	0	2.5	.03	0
21	.92	1.5	1.3	1.5	58	1.7	6.8	.02	0	1.8	.01	0
22	.88	1.6	2.7	1.4	10	1.5	1.9	.02	.03	.35	0	0
23	65	1.5	2.1	1.4	2.4	1.1	12	.13	2.0	.05	0	16
24	18	1.3	1.8	1.2	1.9	1.3	2.5	.01	.47	6.4	8.3	38
25	2.5	1.3	1.3	1.2	35	1.2	1.4	0	.10	8.5	86	271
26	46	1.4	1.2	1.2	24	1.0	1.3	0	0	3.4	30	6.8
27	245	1.4	1.3	1.2	2.9	1.0	1.5	89	0	7.0	2.2	2.2
28	5.0	1.4	1.5	1.1	1.8	1.0	1.2	8.9	0	89	.78	1.1
29	2.5	1.4	1.5	1.1	------	.98	1.7	76	16	67	.19	.47
30	1.8	1.4	33	1.1	------	.85	1.6	30	2.6	15	.03	.30
31	1.5	------	7.5	1.2	------	.92	------	4.5	------	2.9	.01	------
TOTAL	610.53	55.2	89.0	54.5	226.2	87.85	113.77	250.53	30.87	212.08	264.78	354.47
MEAN	19.7	1.84	2.87	1.76	8.08	2.83	3.79	8.08	1.03	6.84	8.54	11.8
MAX	245	7.3	33	4.1	58	29	51	89	16	89	86	271
MIN	.16	1.2	1.2	1.1	1.1	.85	.14	0	0	0	0	0
CFSM	.86	.08	.12	.08	.35	.12	.16	.35	.04	.30	.37	.51
IN.	.99	.09	.14	.09	.37	.14	.18	.41	.05	.34	.43	.57
AC-FT	1,210	109	177	108	449	174	226	497	61	421	525	703
(††)	4.48	.52	1.17	.14	2.98	.67	2.12	3.41	.87	3.92	4.06	3.91

CAL YR 1970 TOTAL 8,065.22 MEAN 22.1 MAX 669 MIN 0 CFSM .96 IN 13.04 AC-FT 16,000 †† 37.61
WTR YR 1971 TOTAL 2,349.78 MEAN 6.44 MAX 271 MIN 0 CFSM .28 IN 3.80 AC-FT 4,660 †† 28.25

PEAK DISCHARGE (BASE, 800 CFS).--No peak above base.

†† Weighted-mean rainfall, in inches, based on three rain gages.

08062000 East Fork Trinity River near Crandall, Tex.

LOCATION.--Lat 32°38'18", long 96°29'05", Kaufman County, on right bank at downstream side of bridge on U.S. Highway 175, 0.7 mile downstream from Mustang Creek, 1.8 miles northwest of Crandall, 4.0 miles upstream from Buffalo Creek, and at mile 11.0.

DRAINAGE AREA.--1,256 sq mi.

PERIOD OF RECORD.--June 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 343.69 ft above mean sea level.

AVERAGE DISCHARGE.--22 years, 565 cfs (409,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 998 cfs Oct. 27 (gage height, 12.17 ft); minimum, 17 cfs July 6.
Period of record: Maximum discharge, 33,000 cfs May 28, 1957 (gage height, 22.81 ft); no flow at times.

REMARKS.--Records good. Flow largely regulated by Lake Ray Hubbard (station 08061550) since Mar. 22, 1970, when all gates were closed. At end of year, flow from 39.2 sq mi above this station and below Lake Ray Hubbard was partly controlled by 20 floodwater-retarding structures with a total combined capacity of 13,670 acre-ft below the flood-spillway crests, of which 11,750 acre-ft is floodwater-retarding capacity and 1,920 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	82	41	74	39	57	30	39	40	32	58	27
2	67	72	242	48	37	54	30	34	31	28	37	28
3	46	74	350	42	41	135	30	31	31	24	33	34
4	42	58	350	42	42	108	28	30	28	22	32	62
5	39	49	350	47	91	73	28	30	27	20	45	35
6	41	44	349	44	83	57	26	30	25	19	44	26
7	49	43	349	41	71	49	26	33	23	21	35	24
8	55	43	350	41	68	42	28	30	22	23	32	24
9	122	41	350	40	65	40	28	32	24	22	30	25
10	90	42	350	40	66	41	28	32	24	23	29	25
11	214	42	352	42	67	39	27	41	23	23	29	24
12	840	41	352	40	64	39	25	57	23	22	29	24
13	733	43	350	40	41	38	26	35	23	21	32	23
14	328	53	350	46	36	37	28	31	22	22	44	23
15	212	68	356	43	35	35	28	30	22	24	155	24
16	181	53	363	41	35	33	28	29	24	23	94	24
17	132	47	362	40	37	34	29	27	25	22	45	24
18	116	58	352	41	38	33	89	27	24	22	34	25
19	98	46	349	39	106	34	183	30	23	22	30	23
20	86	43	349	39	94	36	67	30	23	22	30	23
21	89	43	350	40	98	35	76	29	22	22	28	22
22	80	41	341	41	272	33	61	29	28	23	28	24
23	86	40	49	41	113	33	80	30	49	25	26	34
24	303	40	41	41	64	31	52	28	32	26	27	76
25	167	40	40	41	59	31	37	27	26	37	80	466
26	115	41	37	39	243	31	32	29	24	48	392	337
27	829	42	34	41	142	32	31	47	23	37	149	74
28	476	42	36	41	78	30	32	152	22	58	53	43
29	174	41	37	41	------	31	49	75	30	169	37	37
30	118	40	45	41	------	38	39	160	36	233	31	33
31	96	------	103	41	------	34	------	85	------	138	28	------
TOTAL	6,081	1,452	7,729	1,318	2,225	1,373	1,301	1,349	799	1,273	1,776	1,693
MEAN	196	48.4	249	42.5	79.5	44.3	43.4	43.5	26.6	41.1	57.3	56.4
MAX	840	82	363	74	272	135	183	160	49	233	392	466
MIN	39	40	34	39	35	30	25	27	22	19	26	22
AC-FT	12,060	2,880	15,330	2,610	4,410	2,720	2,580	2,680	1,580	2,530	3,520	3,360

CAL YR 1970 TOTAL 126,585 MEAN 347 MAX 3,200 MIN 23 AC-FT 251,100
WTR YR 1971 TOTAL 28,369 MEAN 77.7 MAX 840 MIN 19 AC-FT 56,270

08062500 Trinity River near Rosser, Tex.

LOCATION.--Lat 32°25'36", long 96°27'44", Ellis-Kaufman County line, on left bank at downstream side of left pier of bridge on State Highway 34, 2.5 miles south of Rosser, 8.5 miles downstream from East Fork Trinity River, and at mile 451.4.

DRAINAGE AREA.--8,146 sq mi.

PERIOD OF RECORD.--July 1924 to September 1925, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 302.65 ft above mean sea level. July 25, 1924, to Sept. 30, 1925, nonrecording gage at abandoned lock and dam No. 7, 1.7 miles upstream from present site at datum 6.94 ft higher.

AVERAGE DISCHARGE.--34 years, 2,490 cfs (1,804,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,830 cfs Oct. 28 (gage height, 21.89 ft); minimum, 251 cfs Sept. 20.
Period of record: Maximum discharge not determined, occurred Apr. 23 or 24, 1942, following numerous breaks in levee system along both banks; maximum gage height, 41.55 ft Apr. 22, 1942, just prior to levee breaks; maximum daily discharge, 133,000 cfs Apr. 23, 1942; minimum discharge, 32 cfs for several days in 1924-25.
Flood in May 1908 reached a stage of about 33 ft, present site and datum, from information by Corps of Engineers (discharge believed to have been about the same as that of Apr. 23 or 24, 1942).

REMARKS.--Records good. Flow is largely regulated by 14 major upstream reservoirs having a total capacity of 3,131,000 acre-ft (1,129,000 acre-ft for flood control). A levee system constructed in 1916 extends several miles upstream and downstream from station. At end of year, flow from 76.7 sq mi above this station and below stations Trinity River at Dallas (station 08057000) and Lake Ray Hubbard near Forney (station 08061550) was partly controlled by 38 floodwater-retarding structures with a total combined capacity of 26,870 acre-ft below flood-spillway crests, of which 22,690 acre-ft is floodwater-retarding capacity and 4,180 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. The cities of Fort Worth and Dallas and several small cities divert considerable water for municipal use, of which about 60 percent is returned as effluent from sewage disposal plants. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,000	694	358	920	358	642	490	559	1,310	538	1,380	406
2	4,350	629	394	590	370	616	526	382	776	478	668	394
3	4,500	590	603	490	370	1,360	478	335	629	466	551	532
4	3,750	564	694	526	394	1,830	466	335	526	502	514	519
5	2,640	514	720	538	502	1,670	442	335	466	466	733	454
6	2,110	478	694	490	603	1,600	478	394	454	406	890	382
7	1,310	466	668	454	490	1,530	526	490	394	478	1,010	358
8	832	466	694	454	418	1,010	502	590	394	502	694	358
9	694	418	694	454	430	616	442	502	394	478	577	358
10	748	418	720	442	454	551	466	382	394	442	526	358
11	904	442	694	442	442	502	442	478	418	430	478	346
12	,340	454	776	442	490	502	418	590	394	382	454	335
13	+,840	442	804	406	538	502	442	466	370	382	473	313
14	2,230	526	776	466	490	514	430	370	346	382	941	335
15	1,280	616	804	629	478	538	490	335	358	370	4,110	324
16	980	538	832	551	490	538	478	324	406	358	4,320	324
17	832	478	860	514	442	490	524	300	406	358	1,850	335
18	720	430	832	490	430	478	2,270	302	382	346	873	324
19	681	430	804	442	581	502	3,310	335	370	313	629	313
20	668	406	776	430	776	490	2,110	346	346	346	564	271
21	577	394	776	430	577	478	1,470	324	335	490	502	300
22	538	382	804	418	1,270	430	920	324	785	442	430	300
23	642	346	655	406	1,130	454	832	313	950	406	406	564
24	2,400	358	490	394	776	478	1,070	302	668	466	394	776
25	1,870	358	442	406	642	526	603	313	502	1,040	1,270	1,600
26	980	370	514	430	1,010	551	430	302	418	890	2,150	1,910
27	4,320	370	490	406	1,190	551	466	666	418	590	1,790	1,220
28	6,080	382	442	382	832	502	514	2,160	538	1,030	968	668
29	2,250	358	454	382	------	502	790	1,100	732	3,330	564	514
30	1,040	346	502	394	------	478	1,160	2,750	694	2,640	478	454
31	804	------	1,040	382	------	466	------	3,060	------	2,500	418	------
TOTAL	65,910	13,663	20,806	14,600	16,973	21,897	23,985	19,764	15,573	22,247	31,605	15,645
MEAN	2,126	455	671	471	606	706	800	638	519	718	1,020	522
MAX	6,340	694	1,040	920	1,270	1,830	3,310	3,060	1,310	3,330	4,320	1,910
MIN	538	346	358	382	358	430	418	300	335	313	394	271
AC-FT	130,700	27,100	41,270	28,960	33,670	43,430	47,570	39,200	30,890	44,130	62,690	31,030

CAL YR 1970 TOTAL 1,031,526 MEAN 2,826 MAX 15,500 MIN 346 AC-FT 2,046,000
WTR YR 1971 TOTAL 282,668 MEAN 774 MAX 6,340 MIN 271 AC-FT 560,700

08062650 Cedar Creek Reservoir Spillway Outflow near Trinidad, Tex.

LOCATION.--Lat 32°14'18", long 96°08'38", Henderson County, near center of channel at downstream side of bridge on State Highway 274, 0.2 mile downstream from Cedar Creek Reservoir Spillway, 1.8 miles upstream from mouth of cut channel at Trinity River, and 7.6 miles north of Trinidad.

DRAINAGE AREA.--1,007 sq mi (that of Cedar Creek Reservoir).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to July 9, 1966, nonrecording gage at same site and datum. Auxiliary water-stage recorder 6,000 ft downstream from base gage at same datum.

AVERAGE DISCHARGE.--6 years, 420 cfs (304,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16,400 cfs Oct. 27 (elevation, 285.98 ft); maximum elevation, 286.91 ft Oct. 28 (backwater from Trinity River); minimum discharge, 0.10 cfs Sept. 5-7, 19 (elevation, 277.68 ft).
Period of record: Maximum discharge, 81,200 cfs May 8, 1969 (elevation, 299.80 ft), from rating curve extended above 55,000 cfs on basis of velocity-area study; no flow at times.

REMARKS.--Records good above 10 cfs and fair below. Except for a small amount of local runoff and seepage around gates, flow is water released from Cedar Creek Reservoir (station 08063010). During year, 34,540 acre-ft of water released from reservoir was diverted by Industrial Generating Company at a point on Trinity River 44 miles downstream from Trinity River at Trinidad (station 08062700).

CORRECTIONS.--WRD Texas 1970: The 1969 calendar year data is as follows: TOTAL 272,739.84 MEAN 747 MAX 55,500 MIN 0 AC-FT 541,000.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.2	432	44	5.0	14	152	373	94	8.0	66	63	.22
2	.2	1,080	39	5.0	62	78	87	136	6.5	68	1.0	.15
3	.2	338	42	5.0	12	74	92	98	93	59	1.0	.15
4	.2	4.5	63	10	60	74	96	99	74	59	1.0	.15
5	.2	.50	1.0	10	27	82	97	107	69	63	3.0	.10
6	.2	.50	69	10	75	80	72	116	70	61	249	.10
7	.2	.50	39	53	12	96	77	104	68	51	1.0	.10
8	.2	1.0	48	8.0	88	223	86	105	69	57	.50	.22
9	.2	.50	45	50	23	94	99	98	68	1.5	.50	1.0
10	2.0	.50	44	6.5	77	82	100	103	69	54	.22	2.0
11	1.0	.50	48	106	17	447	163	156	74	1.0	.15	.50
12	.3	.50	45	160	76	690	258	94	77	53	.15	.30
13	.2	2.0	1.0	51	12	680	99	99	67	1.5	.50	.22
14	.2	3.0	43	5.0	76	690	102	99	70	52	.30	.22
15	.2	122	47	5.0	14	690	104	103	69	1.5	.30	.22
16	.2	.50	42	6.5	75	700	102	104	71	49	.30	.22
17	4.0	.50	54	55	74	720	17	97	70	1.0	.22	.22
18	.2	.50	46	18	74	720	30	112	67	59	.30	.15
19	.3	.50	43	110	90	720	98	109	73	1.5	.30	.10
20	.3	.50	2.0	8.0	75	720	89	115	79	63	.50	.15
21	.3	.50	50	56	78	730	97	111	87	1.5	.50	.22
22	.3	1.0	2.0	10	65	730	100	17	81	55	1.0	.50
23	.5	5.0	44	45	61	740	96	14	58	1.5	1.5	1.0
24	.3	70	15	10	63	740	95	17	55	100	1.5	.50
25	.3	1.0	51	119	61	740	99	14	77	1.0	1.5	1.0
26	.5	1.0	3.0	174	75	730	99	10	69	1.0	1.0	.22
27	9,820	1.0	51	68	80	730	105	20	71	1.5	1.0	.22
28	12,900	1.0	4.0	12	79	730	124	17	71	57	3.0	.22
29	4,040	1.0	44	69	------	720	127	12	64	3.0	2.0	.22
30	176	46	5.0	14	------	720	97	10	71	50	1.5	.22
31	1.0	------	52	67	------	720	------	8.0	------	1.0	.30	------
TOTAL	26,949.9	2,116.00	1,126.0	1,331.0	1,595	15,842	3,280	2,398.0	2,015.5	1,094.5	338.04	10.81
MEAN	869	70.5	36.3	42.9	57.0	511	109	77.4	67.2	35.3	10.9	.36
MAX	12,900	1,080	69	174	90	740	373	156	93	100	249	2.0
MIN	.20	.50	1.0	5.0	12	74	17	8.0	6.5	1.0	.15	.10
AC-FT	53,460	4,200	2,230	2,640	3,160	31,420	6,510	4,760	4,000	2,170	671	21

CAL YR 1970 TOTAL 215,875.97 MEAN 591 MAX 12,900 MIN 0 AC-FT 428,200
WTR YR 1971 TOTAL 58,096.75 MEAN 159 MAX 12,900 MIN .10 AC-FT 115,200

08062700 Trinity River at Trinidad, Tex.

LOCATION.--Lat 32°08'05", long 96°06'20", Navarro-Henderson County line, on left bank at pumping station of Texas Power and Light Co., near southwest boundary of Trinidad, 0.5 mile downstream from St. Louis Southwestern Railway Lines bridge, 0.9 mile downstream from bridge on State Highway 31, 8 miles upstream from Cedar Creek, and at mile 391.2.

DRAINAGE AREA.--8,538 sq mi, not including 1,007 sq mi upstream from Cedar Creek Reservoir.

PERIOD OF RECORD.--October 1964 to current year. Records of gage height collected in this vicinity for period October 1913 to September 1915 are contained in reports of Corps of Engineers, and records collected since October 1915 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 239.21 ft above mean sea level. Prior to May 3, 1967, at site 0.9 mile upstream at datum 1.28 ft higher.

AVERAGE DISCHARGE.--7 years, 3,521 cfs (2,551,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,600 cfs Oct. 29 (gage height, 33.55 ft); minimum daily, 343 cfs Sept. 21, 22.
Period of record: Maximum discharge, 83,000 cfs May 8, 1969 (gage height, 44.10 ft); minimum daily, 325 cfs Jan. 12, 19, 1966.
Maximum stage since at least 1908, 49.8 ft Apr. 25, 1942 (present site and datum), from records of U.S. Weather Bureau. Flood in 1908 reached a stage of 48.3 ft (present site and datum), from records of U.S. Weather Bureau.

REMARKS.--Records good. For regulation by upstream reservoirs, see Trinity River near Rosser (station 08062500). The spillway outflow from Cedar Creek Reservoir (station 08062650) enters the Trinity River 13 miles upstream from station. At end of year, flow from 126 sq mi above this station and below Trinity River at Dallas (station 08057000) and Lake Ray Hubbard near Forney (station 08061550) was partly controlled by 62 floodwater-retarding structures with a total combined capacity of 46,410 acre-ft below the flood-spillway crests, of which 38,690 acre-ft is floodwater-retarding capacity and 7,720 acre-ft is sediment-pool capacity. Many diversions above station for municipal supply for cities of Fort Worth, Dallas, and several small towns. Sewage effluent from the Fort Worth-Dallas area maintains low flows.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,750	1,530	498	925	405	1,030	1,140	1,310	3,310	756	2,830	480
2	4,030	2,090	464	1,020	407	743	617	859	1,680	559	1,840	460
3	4,470	1,670	497	735	387	726	634	542	881	481	889	444
4	4,630	807	690	546	412	1,310	614	474	704	445	761	514
5	4,010	738	811	527	411	1,880	583	453	591	482	673	629
6	2,910	684	887	571	507	1,830	564	464	480	475	1,190	527
7	2,240	621	877	550	623	1,710	569	506	445	413	1,220	453
8	1,450	596	853	517	609	1,710	622	574	395	452	1,070	410
9	948	596	852	505	453	1,200	624	698	393	459	835	404
10	764	564	868	482	462	735	578	679	399	474	662	400
11	828	542	879	511	470	731	560	580	392	416	564	406
12	1,300	548	877	647	499	1,130	597	537	388	445	528	399
13	6,000	591	891	510	481	1,150	499	710	390	405	525	390
14	5,720	591	871	446	587	1,150	502	628	390	415	527	379
15	2,950	719	846	449	513	1,170	508	509	386	397	947	383
16	1,560	771	851	614	496	1,210	532	467	404	408	3,700	390
17	1,100	704	898	659	502	1,210	533	440	417	383	4,260	374
18	940	620	927	539	486	1,200	529	429	415	401	2,200	368
19	823	558	912	608	494	1,180	2,110	420	406	373	1,030	368
20	769	547	855	485	538	1,210	3,550	445	399	385	723	366
21	737	530	867	477	832	1,230	2,620	470	412	356	611	343
22	670	508	821	450	641	1,220	1,800	421	398	473	556	343
23	624	485	864	450	1,180	1,200	1,150	406	628	446	486	371
24	788	520	753	434	1,260	1,220	945	402	947	495	453	507
25	2,530	463	573	447	912	1,260	1,180	396	756	474	443	843
26	2,290	467	457	574	745	1,300	893	390	538	909	1,040	1,480
27	6,300	472	513	486	942	1,350	591	404	453	1,010	1,930	1,910
28	13,500	478	508	434	1,260	1,370	577	638	424	1,100	1,890	1,340
29	16,800	485	475	432	------	1,310	655	2,120	517	1,520	1,130	774
30	11,100	513	446	412	------	1,300	857	1,420	645	3,500	676	564
31	4,050	------	504	427	------	1,280	------	2,700	------	3,290	549	------
TOTAL	109,581	21,008	22,885	16,869	17,514	38,255	27,733	21,491	18,983	22,597	36,738	17,019
MEAN	3,535	700	738	544	626	1,234	924	693	633	729	1,185	567
MAX	16,800	2,090	927	1,020	1,260	1,880	3,550	2,700	3,310	3,500	4,260	1,910
MIN	624	463	446	412	387	726	499	390	386	356	443	343
AC-FT	217,400	41,670	45,390	33,460	34,740	75,880	55,010	42,630	37,650	44,820	72,870	33,760

CAL YR 1970 TOTAL 439,012 MEAN 1,203 MAX 32,300 MIN 439 AC-FT 870,800
WTR YR 1971 TOTAL 370,673 MEAN 1,016 MAX 16,800 MIN 343 AC-FT 735,200

08062800 Cedar Creek near Kemp, Tex.

LOCATION.--Lat 32°30'12", long 96°06'45", Kaufman County, on left bank at downstream side of bridge on Farm Road 1836, 3 miles upstream from Williams Creek, 8 miles northeast of Kemp, and at mile 51.5.

DRAINAGE AREA.--189 sq mi.

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 341.48 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 103 cfs (74,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,820 cfs July 29 (gage height, 13.71 ft); no flow June 9 to July 23, Sept. 6-22. Period of record: Maximum discharge, 29,000 cfs Apr. 26, 1966 (gage height, 16.00 ft); no flow at times each year. Maximum stage since at least 1889, about 20.5 ft in 1945, from information by State Highway Department and local residents.

REMARKS.--Records good. Flow is partly regulated by Terrell Municipal Lake, capacity 8,300 acre-ft. Records furnished by city of Terrell show that during year the city diverted 2,600 acre-ft from Terrell Municipal Lake for municipal use and returned an estimated 1,950 acre-ft of sewage effluent into a tributary of Kings Creek which enters downstream from station. At end of year, flow from 44.8 sq mi above this station was partly controlled by 13 floodwater-retarding structures with a total combined capacity of 17,050 acre-ft below the flood-spillway crests, of which 15,930 acre-ft is floodwater-retarding capacity and 1,120 acre-ft is sediment-pool capacity. Two structures were built during the current year and have a total combined capacity below flood-spillway crests of 7,120 acre-ft, of which 298 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. A recording rain gage is located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	62	.09	4.4	1.5	22	1.5	.78	1.0	0	540	.11
2	1.6	37	.09	4.8	1.5	18	1.2	.72	.75	0	314	.06
3	.70	27	.07	3.1	1.5	103	1.2	.61	.63	0	207	.04
4	.35	22	.09	2.2	2.0	51	1.1	.44	.49	0	151	.04
5	.25	17	.32	1.8	2.2	26	1.1	.38	.24	0	100	.01
6	.18	13	.36	1.3	2.1	18	1.1	.44	.10	0	112	0
7	.14	9.5	.36	1.2	2.1	14	1.4	.45	.03	0	48	0
8	.14	7.8	.37	1.0	2.0	12	1.2	.51	.01	0	40	0
9	.09	7.0	.36	.78	1.9	9.4	1.1	.55	0	0	30	0
10	14	5.4	.61	.68	1.8	7.8	1.0	23	0	0	21	0
11	10	4.6	.87	.63	2.1	6.8	.96	98	0	0	17	0
12	180	3.1	.95	.58	4.3	6.1	.88	48	0	0	15	0
13	680	3.0	.95	.40	46	5.6	.84	35	0	0	15	0
14	482	8.4	1.3	.68	30	4.9	.84	22	0	0	46	0
15	87	16	1.5	.96	18	4.1	.82	13	0	0	55	0
16	39	13	1.7	.96	14	3.5	.77	7.6	0	0	20	0
17	21	8.5	1.7	.96	11	3.1	.81	4.6	0	0	11	0
18	13	4.8	1.6	.90	9.1	2.7	.82	2.4	0	0	7.2	0
19	10	2.8	2.4	.84	7.7	2.3	.74	1.7	0	0	4.7	0
20	8.2	1.7	3.0	.76	22	2.3	.85	1.2	0	0	3.4	0
21	6.7	1.0	3.0	.73	23	2.3	.80	.83	0	0	2.4	0
22	5.0	.68	3.0	.73	148	2.2	.76	.56	0	0	2.1	0
23	6.7	.48	2.9	.68	102	2.0	.94	.42	0	0	1.6	.04
24	29	.38	2.7	1.2	43	1.9	20	.52	0	15	1.3	.09
25	36	.31	2.6	1.5	29	1.9	17	.27	0	704	.96	14
26	16	.24	2.5	1.5	58	1.8	6.3	.16	0	733	1.7	59
27	622	.23	2.5	1.3	62	1.7	3.2	.92	0	2,470	2.2	27
28	2,470	.14	2.6	1.4	37	1.7	1.9	.64	0	1,780	1.4	14
29	2,100	.09	2.6	1.5	------	1.7	1.2	.42	0	3,180	.80	8.7
30	326	.09	2.9	1.5	------	1.6	.94	1.1	0	1,570	.47	5.7
31	110	------	3.1	1.5	------	1.6	------	1.3	------	881	.20	------
TOTAL	7,278.35	277.24	49.09	42.47	684.8	343.0	73.27	268.52	3.25	11,333	1,772.43	128.79
MEAN	235	9.24	1.58	1.37	24.5	11.1	2.44	8.66	.11	366	57.2	4.29
MAX	2,470	62	3.1	4.8	148	103	20	98	1.0	3,180	540	59
MIN	.09	.09	.07	.40	1.5	1.6	.74	.16	0	0	.20	0
AC-FT	14,440	550	97	84	1,360	680	145	533	6.5	22,480	3,520	255

CAL YR 1970 TOTAL 40,998.53 MEAN 112 MAX 2,590 MIN 0 AC-FT 81,320
WTR YR 1971 TOTAL 22,254.21 MEAN 61.0 MAX 3,180 MIN 0 AC-FT 44,140

PEAK DISCHARGE (BASE, 2,000 CFS).--Oct. 28 (1900) 3,090 cfs (13.07 ft); July 29 (0500) 4,820 cfs (13.71 ft).

08062900 Kings Creek near Kaufman, Tex.

LOCATION.--Lat 32°30'47", long 96°19'43", Kaufman County, on left bank at downstream side of bridge on Farm Road 1388, 3 miles upstream from Big Cottonwood Creek, 4 miles downstream from Big Brushy Creek, and 5 miles south of Kaufman.

DRAINAGE AREA.--233 sq mi.

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 343.24 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--8 years, 140 cfs (101,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,600 cfs Oct. 28 (gage height, 18.34 ft); minimum, 0.15 cfs Jan. 28.
Period of record: Maximum discharge, 33,800 cfs May 7, 1969 (gage height, 23.34 ft), from rating curve extended above 17,000 cfs; no flow at times.
Maximum stage since at least 1942, 23.34 ft May 7, 1969. Flood in 1949 reached a stage of 23.1 ft, from information by State Highway Department.

REMARKS.--Records good. During the water year, the city of Terrell diverted 2,600 acre-ft from Cedar Creek basin and returned an estimated 1,950 acre-ft of sewage effluent into the basin above this station. The city of Kaufman is estimated to have diverted approximately 500 acre-ft from Big Cottonwood Creek (enters Kings Creek below gage) and returned approximately 400 acre-ft of sewage effluent above gage. At end of year, flow from 22.2 sq mi above this station was partly controlled by 15 floodwater-retarding structures with a total combined capacity of 9,200 acre-ft below the flood-spillway crests, of which 7,680 acre-ft is floodwater-retarding capacity and 1,520 acre-ft is sediment-pool capacity. Eight structures were built during the current year and have a total combined capacity below flood-spillway crests of 1,780 acre-ft, of which 431 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	36	2.9	20	1.0	19	2.0	5.8	5.4	2.0	85	2.0
2	9.8	22	3.2	19	.74	11	2.6	4.2	3.6	1.9	46	2.4
3	7.0	16	3.6	10	.74	70	2.0	3.1	2.9	1.9	34	13
4	5.5	13	4.0	8.8	3.0	65	2.7	2.2	2.0	1.9	40	2.9
5	4.5	10	3.8	5.6	6.5	28	2.6	1.4	1.9	1.8	60	2.2
6	3.0	8.3	3.6	5.2	12	18	2.0	2.4	1.9	1.8	44	1.9
7	2.0	7.2	3.6	5.2	6.1	10	2.0	3.2	1.9	1.8	20	2.0
8	15	6.3	4.6	6.1	4.0	7.8	1.9	3.2	1.8	1.6	41	3.4
9	20	5.4	4.6	4.2	5.8	6.3	1.8	3.6	1.8	1.6	20	2.7
10	85	4.2	4.2	3.8	3.6	5.4	2.9	155	1.6	1.4	13	3.1
11	55	4.0	6.9	3.1	3.1	5.2	3.1	110	1.6	1.4	8.8	2.7
12	350	3.8	5.4	1.4	7.4	5.0	3.2	33	1.6	1.4	6.9	1.9
13	1,100	6.7	5.4	.86	17	4.8	3.2	19	1.6	1.4	22	1.8
14	500	34	5.4	1.4	7.8	4.4	2.6	12	1.4	1.3	33	2.0
15	130	73	5.6	3.8	4.4	4.2	1.9	9.5	1.4	1.3	9.0	1.3
16	55	28	6.3	4.6	2.2	3.6	2.7	8.6	2.0	1.3	28	1.9
17	35	14	6.5	2.7	2.0	3.2	3.2	7.8	1.9	1.3	9.5	1.9
18	20	11	7.6	1.4	2.0	3.6	4.2	6.5	1.9	1.3	8.1	2.0
19	15	7.8	5.6	1.0	6.2	4.0	9.1	5.4	1.8	1.2	7.6	2.0
20	12	6.3	4.6	.80	20	3.2	7.4	4.6	1.8	1.2	8.1	2.2
21	10	4.2	5.8	.80	28	3.4	4.2	5.2	1.8	1.2	8.8	2.4
22	9.0	2.9	3.8	1.0	248	3.4	6.9	5.0	1.8	1.1	9.8	2.2
23	30	2.0	5.4	1.0	56	3.4	30	5.0	1.6	1.1	7.4	2.9
24	60	1.6	5.6	1.0	10	2.6	68	4.4	1.6	4.7	6.5	5.0
25	75	1.2	6.5	1.1	5.6	3.6	14	3.4	1.6	17	7.8	27
26	55	1.6	6.1	1.8	233	3.2	6.7	2.4	1.4	127	32	31
27	1,430	2.0	7.2	1.4	149	3.1	4.6	4.0	1.4	335	16	7.4
28	2,740	2.4	6.7	.40	38	3.2	3.1	8.9	2.2	1,010	7.2	4.2
29	449	2.9	5.4	.40	------	3.4	3.1	6.5	3.6	2,240	4.6	3.1
30	108	2.7	7.4	.74	------	2.9	3.2	3.1	2.9	537	3.4	3.8
31	64	------	15	1.0	------	1.8	------	6.5	------	144	1.9	------
TOTAL	7,468.8	340.5	172.3	119.60	883.18	315.7	206.9	454.9	61.7	4,448.9	649.4	144.3
MEAN	241	11.4	5.56	3.86	31.5	10.2	6.90	14.7	2.06	144	20.9	4.81
MAX	2,740	73	15	20	248	70	68	155	5.4	2,240	85	31
MIN	2.0	1.2	2.9	.40	.74	1.8	1.8	1.4	1.4	1.1	1.9	1.3
AC-FT	14,810	675	342	237	1,750	626	410	902	122	8,820	1,290	286

CAL YR 1970 TOTAL 69,978.70 MEAN 192 MAX 4,810 MIN 1.0 AC-FT 138,800
WTR YR 1971 TOTAL 15,266.18 MEAN 41.8 MAX 2,740 MIN .40 AC-FT 30,280

PEAK DISCHARGE (BASE, 3,000 CFS).--Oct. 28 (0400) 3,600 cfs (18.34 ft).

08063010 Cedar Creek Reservoir near Trinidad, Tex.

LOCATION.--Lat 32°14'34", long 96°08'28", Henderson County, at site of future pump station 1,000 ft north of spillway, 5.5 miles upstream from Joe B. Hogsett Dam on Cedar Creek, and 8.0 miles northwest of Trinidad.

DRAINAGE AREA.--1,007 sq mi.

PERIOD OF RECORD.--January 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 696,400 acre-ft Oct. 27 (elevation, 322.50 ft); minimum, 574,800 acre-ft July 23 (elevation, 318.74 ft).
Period of record: Maximum contents, 696,400 acre-ft Oct. 27, 1970 (elevation, 322.50 ft); minimum since first appreciable storage in 1966, 332,900 acre-ft Mar. 19, 1967 (elevation, 309.42 ft).

REMARKS.--Reservoir is formed by a rolled earthfill dam 3 miles long. The spillway is located on the right bank 5.5 miles upstream from the dam and discharges into the Trinity River through a cut channel 2 miles long. The spillway is 472 ft long and has eight 40- by 24-foot radial gates and two automatically operated 40- by 8.5-foot hinged gates. Water may be released through a 5-foot-diameter conduit in the dam. Deliberate impoundment of water began July 2, 1965. Dam is property of Tarrant County Water Control and Improvement District No. 1 and was built for municipal and industrial supply and recreation. Capacity table prepared from a survey made during the period 1940 to 1958. Records furnished by Tarrant County Water Control and Improvement District No. 1 show that the city of Trinidad diverted 2,070 acre-ft and 12 other permitters diverted 630 acre-ft directly from reservoir during year. At end of year, flow from 124 sq mi above this station was partly controlled by 50 floodwater-retarding structures with a total combined capacity of 47,110 acre-ft below the flood-spillway crests, of which 40,840 acre-ft is floodwater-retarding capacity and 6,270 acre-ft is sediment-pool capacity. Ten structures were built during the current year and have a total combined capacity below flood-spillway crests of 8,900 acre-ft, of which 729 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Figures given herein represent total contents. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	340.0	-
Top of 8 radial gates	325.0	785,100
Top of 2 automatic gates	322.5	696,400
Top of conservation pool	322.0	679,200
Crest of weir for automatic gates	314.0	441,000
Crest of weir for radial gates	302.0	197,800
Invert of conduit in dam	263.5	430

Capacity table (elevation, in feet, and total contents, in acre-feet)

318.0	552,300	321.0	646,000
319.0	582,600	322.0	679,200
320.0	613,800	323.0	713,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	625,100	681,300	672,300	665,300	657,600	665,000	629,000	621,200	612,300	593,600	658,300	663,300
2	624,800	677,200	671,900	665,600	657,000	667,600	627,400	620,900	611,600	593,200	659,600	662,300
3	624,800	676,200	672,600	669,300	657,000	663,600	627,000	619,600	611,300	592,300	661,000	662,000
4	623,800	675,600	671,300	666,900	657,600	662,300	627,400	618,000	610,100	591,400	662,300	661,600
5	623,800	674,900	672,600	665,300	657,000	661,600	627,400	618,000	609,800	590,700	668,000	661,000
6	623,800	674,900	670,900	664,000	658,300	663,300	625,400	618,700	608,800	590,400	669,600	661,000
7	623,500	674,600	669,900	663,000	659,000	662,600	624,100	619,600	608,500	589,500	670,300	660,300
8	624,500	675,900	669,900	662,000	656,300	660,300	622,500	618,700	607,900	588,200	669,900	660,000
9	624,100	675,600	669,600	661,600	655,000	662,000	623,200	618,700	607,000	587,600	668,600	659,300
10	623,500	675,200	669,900	662,300	654,300	661,000	622,800	619,300	606,000	586,400	668,900	658,600
11	628,600	675,900	669,900	662,000	657,600	660,600	621,900	619,900	605,400	585,800	668,600	657,600
12	632,200	674,200	668,900	661,600	657,300	658,300	620,900	619,300	605,100	584,800	667,300	657,300
13	642,800	678,600	668,600	662,000	655,300	658,300	622,200	618,300	604,200	583,900	671,300	656,600
14	651,300	678,200	667,300	662,300	656,000	656,000	620,900	618,000	603,800	582,600	671,900	656,000
15	652,300	675,600	668,600	662,000	656,000	655,300	620,300	617,400	602,900	582,600	672,300	656,300
16	652,000	674,200	668,300	661,600	656,000	653,700	620,300	616,400	602,300	581,400	671,600	656,600
17	651,700	674,900	667,300	661,300	655,700	649,400	620,900	615,100	601,400	581,400	671,300	656,000
18	651,300	674,200	667,600	662,600	660,300	655,700	622,500	615,400	599,800	579,300	670,600	656,300
19	651,000	674,900	667,900	660,300	659,000	647,400	622,500	614,800	599,500	578,400	669,600	654,700
20	650,700	674,200	667,600	658,000	658,300	646,000	623,800	614,200	598,800	577,800	669,300	652,000
21	650,300	672,900	667,600	659,600	660,600	644,100	623,800	613,200	598,200	576,000	668,300	652,000
22	650,000	677,600	667,900	660,300	660,000	643,800	623,500	612,600	598,200	576,000	667,600	653,000
23	654,000	673,900	668,600	659,600	660,300	641,800	623,200	612,600	597,300	576,600	667,300	657,300
24	654,300	670,900	666,600	660,000	659,600	639,600	622,200	613,800	596,400	578,700	667,300	661,600
25	654,300	669,900	666,600	659,600	663,300	638,900	621,600	613,200	595,400	580,200	667,300	662,300
26	656,000	671,600	666,000	659,600	663,600	636,400	621,200	612,600	594,500	583,900	666,900	662,300
27	690,900	671,900	666,000	658,600	664,000	634,800	621,600	613,800	593,900	592,000	666,600	662,000
28	673,600	672,300	666,000	658,300	663,600	635,700	621,200	613,800	595,100	611,000	666,300	661,600
29	676,200	672,300	666,000	658,300	------	633,200	622,800	613,500	594,500	636,400	665,300	661,300
30	678,900	671,300	667,600	659,000	------	630,300	621,600	612,900	594,200	650,300	664,600	661,000
31	679,900	------	666,000	658,600	------	628,300	------	612,600	------	655,700	664,000	------
(†)	322.02	321.76	321.60	321.38	321.53	320.45	320.24	319.96	319.37	321.29	321.54	321.45
(*)	+54,800	-8,600	-5,300	-7,400	+5,000	-35,300	-6,700	-9,000	-18,400	+61,500	+8,300	-3,000
MAX	690,900	681,300	672,600	669,300	664,000	667,600	629,000	621,200	612,300	655,700	672,300	663,300
MIN	623,500	669,900	666,000	658,000	654,300	628,300	620,300	612,600	593,900	576,000	658,300	652,000

CAL YR 1970..... * -3,300 MAX 690,900 MIN 612,900
WTR YR 1971..... * +35,900 MAX 690,900 MIN 576,000

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08063020 Cedar Creek at Trinidad, Tex.

LOCATION.--Lat 32°09'24", long 96°03'45", Henderson County, near center of channel on downstream side of bridge on State Highway 31, at east boundary of Trinidad, 0.4 mile upstream from St. Louis Southwestern Railway bridge, 2.5 miles downstream from Joe B. Hogsett Dam, and 8 miles upstream from mouth.

DRAINAGE AREA.--1,011 sq mi, of which 1,007 sq mi is above Cedar Creek Reservoir.

PERIOD OF RECORD.--November 1964 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 252.33 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 5.20 cfs (3,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 530 cfs Oct. 27 (gage height, 10.10 ft); minimum, 0.01 cfs July 7-22.
Period of record: Maximum discharge, 2,010 cfs May 19, 1965 (gage height, 15.00 ft); maximum gage height, 23.10 ft May 9, 1969 (backwater from Trinity River); no flow at times.

REMARKS.--Records poor. Flow regulated by Cedar Creek Reservoir (see preceding page). All flow during current year was runoff from 4 square miles downstream from Joe B. Hogsett Dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.5	.55	.68	.76	.95	1.4	.81	.45	.08	.17	.38
2	1.0	1.3	.55	.72	.81	1.2	1.4	.86	.45	.07	.14	.33
3	1.0	1.2	.55	.81	.90	1.8	1.4	.76	.45	.07	.14	.28
4	1.0	1.1	.52	.81	1.2	1.5	1.4	.76	.46	1.4	.68	.24
5	5.3	1.0	.55	.72	1.2	1.4	1.4	.76	.38	.34	26	.21
6	1.8	1.0	.55	.76	1.1	1.4	1.4	.72	.35	.02	53	.18
7	1.0	1.0	.55	.86	1.1	1.3	1.4	.72	.33	.01	7.2	.17
8	2.2	1.0	.55	.95	.95	1.2	1.4	.72	.35	.01	1.8	.15
9	2.6	.95	.59	.95	.90	1.3	1.4	.68	.38	.01	.86	.14
10	1.9	.95	.59	.95	.90	1.4	1.3	.76	.38	.01	.72	.14
11	3.0	.95	.55	.90	.95	1.5	1.3	.72	.38	.01	.59	.13
12	49	.90	.52	.90	1.4	2.8	1.3	.68	.35	.01	.52	.13
13	4.2	4.6	.49	.90	1.3	3.3	1.3	.68	.33	.01	2.2	.13
14	1.5	4.8	.49	1.0	1.2	2.7	1.3	.63	.30	.01	3.3	.12
15	1.2	2.1	.52	.95	1.1	2.1	1.2	.63	.28	.01	1.3	.12
16	1.1	1.4	.52	.81	1.1	1.8	1.2	.59	.26	.01	.72	.11
17	1.0	1.0	.49	.72	1.0	1.7	1.2	.59	.24	.01	.59	.10
18	1.0	.90	.49	.72	1.0	1.8	1.2	.59	.23	.01	2.7	.08
19	1.0	.86	.49	.68	9.7	1.9	1.1	.55	.21	.01	.72	.05
20	1.0	.86	.49	.63	1.9	1.5	1.1	.55	.19	.01	.63	.05
21	.95	.86	.49	.72	1.6	1.5	1.0	.55	.18	.01	.55	.05
22	.95	.81	.49	.72	1.7	1.5	1.0	.55	.17	.01	.49	.05
23	1.6	.76	.49	.76	1.3	1.5	1.0	.55	.15	.02	.43	6.2
24	2.0	.72	.46	.81	1.0	1.5	.90	.50	.13	.03	.38	5.4
25	1.3	.68	.46	.76	1.2	1.6	.90	.50	.12	.05	.52	16
26	1.8	.63	.46	.72	2.7	1.7	.90	.50	.11	.06	.46	1.8
27	251	.68	.46	.63	1.5	1.7	.80	.50	.10	.05	.40	1.4
28	100	.63	.49	.59	1.1	1.7	.76	.50	.10	10	.35	1.1
29	40	.59	.49	.63	------	1.7	.86	.50	.09	8.0	.30	.90
30	10	.55	.59	.68	------	1.6	.81	.45	.08	.23	.26	.76
31	4.0	------	.63	.76	------	1.5	------	.45	------	.19	.35	------
TOTAL	496.40	36.28	16.11	24.20	42.57	52.05	35.03	19.31	7.98	20.77	108.47	36.90
MEAN	16.0	1.21	.52	.78	1.52	1.68	1.17	.62	.27	.67	3.50	1.23
MAX	251	4.8	.63	1.0	9.7	3.3	1.4	.86	.46	10	53	16
MIN	.95	.55	.46	.59	.76	.95	.76	.45	.08	.01	.14	.05
AC-FT	985	72	32	48	84	103	69	38	16	41	215	73

CAL YR 1970 TOTAL 1,431.65 MEAN 3.92 MAX 251 MIN .11 AC-FT 2,840
WTR YR 1971 TOTAL 896.07 MEAN 2.45 MAX 251 MIN .01 AC-FT 1,780

08063050 Navarro Mills Lake near Dawson, Tex.
(Formerly published as Navarro Mills Reservoir near Dawson)

LOCATION.--Lat 31°57'27", long 96°41'21", Navarro County, in left abutment of spillway of Navarro Mills Dam on Richland Creek, 1.7 miles upstream from bridge on State Highway 31, 3.0 miles upstream from St. Louis Southwestern Railway Lines bridge, 4.2 miles upstream from Post Oak Creek, 4.6 miles north of Dawson, and at mile 63.9.

DRAINAGE AREA.--320 sq mi.

PERIOD OF RECORD.--August 1962 to current year. Prior to October 1970, published as Navarro Mills Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Oct. 8, 1962, nonrecording gage in low-water channel at same datum.

EXTREMES.--Current year: Maximum contents, 69,440 acre-ft Nov. 1 (elevation, 425.67 ft); minimum, 54,350 acre-ft Oct. 10, 11 (elevation, 422.66 ft).
Period of record: Maximum contents, 183,300 acre-ft May 18, 1968 (elevation, 440.36 ft); minimum since initial filling in May 1965, 48,840 acre-ft Apr. 10, 1967 (elevation, 421.47 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 7,570 ft long, including an off-channel 240-foot gated spillway with six 40- by 29-foot tainter gates with sill at elevation 414.0 ft. The low-flow outlet works consist of two 36-inch-diameter gate-controlled conduits with inverts at elevation 400.0 ft. Deliberate impoundment began Mar. 15, 1963. From Aug. 27, 1962, to Mar. 14, 1963, the lake was operated as a detention basin only. Capacities are from survey made in February 1956 by the Corps of Engineers. The lake was built for flood control and water conservation. At end of year, flow from 46.9 sq mi above this station was partly controlled by 27 floodwater-retarding structures with a total combined capacity of 15,730 acre-ft below the flood-spillway crests, of which 13,400 acre-ft is floodwater-retarding capacity and 2,330 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	457.0	-
Top of tainter gates	443.0	212,200
Top of conservation pool	424.5	63,300
Crest of spillway	414.0	22,100
Invert of two 36-inch-diameter conduits	400.0	2,370

COOPERATION.--Records furnished by the Corps of Engineers and reviewed by the Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

422.0	51,250	424.0	60,820
423.0	55,940	425.0	65,890
		426.0	71,180

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54,960	69,440	63,150	62,140	61,220	63,150	61,480	67,000	67,000	61,780	60,430	59,890
2	54,910	68,750	63,200	62,090	61,120	63,100	61,380	66,890	66,580	61,680	60,530	59,790
3	54,860	67,110	63,150	62,040	61,170	63,100	61,320	66,630	65,990	61,480	60,480	59,700
4	54,770	65,230	63,150	61,980	61,170	63,050	61,220	66,420	65,580	61,580	60,530	59,650
5	54,770	64,270	63,100	61,930	61,170	62,950	61,070	66,260	64,970	61,320	60,570	59,500
6	54,680	64,010	63,050	61,830	61,220	63,000	60,970	65,990	64,470	61,220	60,670	59,450
7	54,630	63,810	63,000	61,780	61,220	62,950	60,870	65,740	64,160	61,070	60,620	59,360
8	54,680	63,660	63,000	61,830	61,170	62,950	60,770	65,480	63,910	60,920	60,530	59,260
9	54,440	63,510	63,000	61,780	61,070	62,950	60,670	65,230	63,760	60,770	60,430	59,060
10	54,350	63,450	62,950	61,780	61,070	62,850	60,570	64,970	63,610	60,620	60,380	58,920
11	54,440	63,510	63,000	61,780	61,070	62,850	60,570	64,720	63,500	60,430	60,280	58,820
12	55,760	63,400	62,950	61,730	60,970	62,850	60,530	64,470	63,350	60,280	60,430	58,820
13	55,850	63,660	62,850	61,780	60,870	62,850	60,430	64,210	63,300	60,090	61,170	58,720
14	55,940	63,610	62,800	61,780	60,870	62,850	60,330	64,010	63,250	59,890	61,430	58,620
15	55,900	63,660	62,800	61,730	60,820	62,740	60,230	63,960	63,200	59,700	61,430	58,480
16	55,900	63,610	62,750	61,730	60,820	62,640	60,330	63,860	63,100	59,550	61,380	58,380
17	55,850	63,400	62,690	61,730	60,820	62,540	61,120	63,760	63,000	59,360	61,320	58,230
18	55,900	63,400	62,490	61,680	61,480	62,440	63,760	63,660	62,850	59,210	61,220	58,090
19	55,850	63,300	62,240	61,580	62,090	62,340	64,010	63,560	62,740	59,060	61,120	57,990
20	55,800	63,250	62,190	61,530	62,030	62,240	64,470	63,500	62,640	58,870	60,970	57,700
21	55,800	63,250	62,190	61,530	62,340	62,190	64,570	63,400	62,790	58,770	60,920	57,450
22	55,760	63,200	62,140	61,530	62,850	62,140	64,670	63,350	62,790	58,720	60,770	57,500
23	57,160	63,050	62,140	61,530	62,850	62,090	64,570	63,860	62,740	58,620	60,620	57,550
24	57,840	63,000	62,140	61,530	62,850	62,030	64,470	64,370	62,590	59,010	60,570	57,840
25	57,990	63,000	62,040	61,530	63,150	61,930	64,420	64,270	62,440	59,360	60,670	57,790
26	58,140	63,000	61,980	61,480	63,150	61,880	64,370	64,160	62,340	59,360	60,720	57,750
27	67,800	63,000	61,980	61,430	63,150	61,880	64,270	64,110	62,190	59,500	60,620	57,750
28	68,590	63,050	61,980	61,430	63,150	61,830	64,770	64,110	62,140	60,090	60,570	57,650
29	68,960	63,150	61,980	61,380	------	61,880	66,890	64,370	62,090	60,720	60,380	57,600
30	69,010	63,150	62,290	61,380	------	61,830	67,000	66,420	61,980	60,620	60,280	57,500
31	69,230	------	62,140	61,330	------	61,730	------	67,000	------	60,530	60,180	------
(†)	425.63	424.46	424.26	424.10	424.46	424.18	425.21	425.21	424.23	423.94	423.87	423.32
(*)	+14,180	-6,080	-1,010	-810	+1,820	-1,420	+5,270	0	-5,020	-1,450	-350	-2,680
(††)	282	247	253	257	228	279	307	323	445	479	346	370
MAX	69,230	69,440	63,200	62,140	63,150	63,150	67,000	67,000	67,000	61,780	61,430	59,890
MIN	54,350	63,000	61,980	61,330	60,820	61,730	60,230	63,350	61,980	58,620	60,180	57,450

CAL YR 1970..... * +3,270 †† 3,550 MAX 111,800 MIN 53,410
WTR YR 1971..... * +2,450 †† 3,820 MAX 69,440 MIN 54,350

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by cities of Dawson and Corsicana.

08063100 Richland Creek near Dawson, Tex.

LOCATION.--Lat 31°56'18", long 96°40'52", Navarro County, at downstream side of bridge on State Highway 31, 1.3 miles upstream from St. Louis Southwestern Railway Lines bridge, 1.5 miles downstream from Navarro Mills Dam, 2.5 miles upstream from Post Oak Creek, and 3.6 miles northeast of Dawson.

DRAINAGE AREA.--333 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370.52 ft above mean sea level. Prior to Nov. 21, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 990 cfs Nov. 3 (gage height, 13.03 ft); no flow at times.
Period of record: Maximum discharge, 25,500 cfs July 3, 1961 (gage height, 22.50 ft), from rating curve extended above 14,000 cfs; no flow at times. Maximum discharge since completion of Navarro Mills Dam in 1963, 3,650 cfs Sept. 22-24, 27-30, 1968 (gage height, 19.83 ft).
Maximum stage since about 1895, about 28 ft June 19, 1929, from information by local residents. Floods in 1946 and 1957 reached a stage of about 23 ft, from information by local residents.

REMARKS.--Records fair. Flow regulated since Mar. 15, 1963, by Navarro Mills Lake (station 08063050, revised). There are diversions from Navarro Mills Lake for municipal use. At end of year, flow from 1.28 sq mi above this station was partly controlled by one floodwater-retarding structure with a total combined capacity of 382 acre-ft below the flood-spillway crest, of which 297 acre-ft is floodwater-retarding capacity and 85 acre-ft is sediment-pool capacity. This structure was built during the current year. The capacity in this pool allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	.30	.30	.21	.30	.20	.30	.41	.04	0	.21	63
2	.79	337	.18	.21	.30	.20	.24	.41	42	0	.15	69
3	.46	990	.18	.24	.30	.25	.21	37	234	0	.33	.70
4	.24	975	.21	.21	.46	.20	.24	115	234	0	.51	.24
5	.15	522	.24	.21	.57	.20	.41	115	238	0	.88	.04
6	.01	129	.24	.21	.51	.20	.37	118	238	0	.88	.01
7	.04	133	.24	.21	.51	.20	.24	118	150	0	.57	0
8	.15	137	.24	.21	.63	.20	.24	118	65	0	.46	0
9	.27	65	.24	.21	.57	.20	.27	118	44	0	.37	0
10	.10	.27	.24	.21	.51	.20	.27	118	.37	0	3.6	0
11	.24	.21	.24	1.9	.46	.20	.24	118	.12	0	1.9	0
12	1.7	.18	.24	.57	.63	.20	.21	118	.24	0	.70	0
13	.97	.21	.21	.24	.46	.20	.15	80	.18	0	3.4	0
14	.46	.30	.21	.21	.41	.20	.15	1.2	.15	15	3.1	0
15	.27	.25	.21	.24	.37	.20	.15	.33	.12	2.2	5.1	0
16	.12	.20	.27	.24	.33	.20	.15	.33	.10	.15	1.4	0
17	.12	.20	.24	.24	.33	.20	.27	.33	.04	.02	.88	0
18	.10	.20	61	.24	.51	.25	1.6	.30	0	0	.88	0
19	.10	.20	153	.24	.51	.20	.57	.30	0	0	.79	0
20	.10	.18	85	.24	.35	.20	.51	.27	0	0	.70	23
21	.04	.18	41	.24	.25	.36	.57	.27	.83	0	.63	91
22	.15	.18	.41	.24	.25	.21	.41	.24	1.2	0	.57	12
23	.64	.18	.37	.24	.20	.21	.30	.27	.51	5.8	.57	4.8
24	8.4	.18	.33	.24	.20	.21	.24	.24	.30	55	.51	.79
25	.50	.18	.27	.33	.25	.24	.24	.24	.15	23	1.3	1.5
26	.40	.18	.24	.46	.30	.24	.27	.21	.06	.51	1.1	.57
27	.30	.18	.21	.24	.20	.24	.21	.18	0	.21	.63	.41
28	.21	.21	.21	.27	.20	.24	.27	.18	0	.51	.46	.30
29	.18	.24	.21	.30	------	.21	27	.15	0	.51	.27	.27
30	.21	.24	.21	.46	------	.24	.24	.15	0	.46	.21	.24
31	.30	------	.21	.27	------	.24	------	.12	------	.30	.24	------
TOTAL	18.69	3,292.65	346.60	9.78	10.87	6.74	36.54	1,179.13	1,249.41	103.67	33.30	267.87
MEAN	.60	110	11.2	.32	.39	.22	1.22	38.0	41.6	3.34	1.07	8.93
MAX	8.4	990	153	1.9	.63	.36	27	118	238	55	5.1	91
MIN	.01	.18	.18	.21	.20	.20	.15	.12	0	0	.15	0
AC-FT	37	6,530	687	19	22	13	72	2,340	2,480	206	66	531

CAL YR 1970 TOTAL 37,276.47 MEAN 102 MAX 1,510 MIN 0 AC-FT 73,940
WTR YR 1971 TOTAL 6,555.25 MEAN 18.0 MAX 990 MIN 0 AC-FT 13,000

08063200 Pin Oak Creek near Hubbard, Tex.

LOCATION.--Lat 31°48'01", long 96°43'02", Limestone County (revised), on right bank 85 ft downstream from bridge on State Highway 171, 5.8 miles southeast of Hubbard, and 11 miles upstream from Elm Creek.

DRAINAGE AREA.--17.6 sq mi.

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,240.97 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 10.9 cfs (8.41 inches per year, 7,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 93 cfs Oct. 23 (gage height, 3.51 ft); no flow for many days.
Period of record: Maximum discharge, 4,340 cfs Aug. 24, 1958 (gage height, 13.86 ft); no flow at times each year.
Maximum stage since at least 1900, about 17 ft in August 1919, from information by local resident.

REMARKS.--Records good. Since 1964, flow from 9.68 sq mi above this station has been partly controlled by six floodwater-retarding structures with a total combined capacity of 3,480 acre-ft below the flood-spillway crests, of which 2,850 acre-ft is floodwater-retarding capacity and 630 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Three recording and two standard rain gages are located in the basin above the station, and one recording rain gage is located at the station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.02	0	.11	.08	.08	.01	0			0	.02
2	.75	.01	0	.04	.06	.12	.01	0			0	.03
3	.51	.01	0	.07	.06	.10	.01	0			0	.14
4	.24	0	0	.10	.25	.04	.01	0			.06	.01
5	.05	0	0	.06	.21	.03	0	0			1.9	0
6	.02	.12	0	.03	.25	.04	0	0			.07	0
7	.01	1.3	0	.03	.22	.02	0	.38			.01	0
8	2.4	.27	0	.04	.11	.02	0	.02			0	0
9	1.3	.87	0	.07	.09	.02	0	.01			0	0
10	.11	2.0	0	.08	.07	.02	0	.70			0	0
11	.15	.53	0	.10	.07	.02	0	.62			0	0
12	4.9	.13	0	.11	.14	.03	0	.19			.18	0
13	.79	.15	0	.07	.09	.04	0	.03			2.6	0
14	.18	.27	0	.11	.07	.04	0	.01			2.9	0
15	.04	.15	0	.11	.13	.03	0	.01			.58	0
16	.01	.10	.06	.08	.42	.02	0	0			.07	0
17	.01	.05	.10	.09	.10	.01	.13	0			.01	0
18	.01	.03	.06	.12	.05	.02	2.7	0			0	0
19	0	.02	.05	.09	.08	.06	.33	0			0	0
20	0	.01	.07	.05	.13	.04	.79	0			0	0
21	0	.01	.12	.05	.16	.02	.94	0			0	0
22	0	.01	.21	.08	.09	.02	.27	0			0	0
23	22	0	.10	.10	.08	.04	.08	0			0	0
24	13	0	.06	.10	.05	.03	.03	0			0	.43
25	4.8	0	.05	.09	.10	.04	.01	0			0	4.0
26	3.4	0	.02	.08	1.2	.03	0	0			0	1.3
27	1.7	0	.03	.07	.19	.07	0	0			0	.26
28	.53	0	.03	.06	.06	.07	0	0			0	.03
29	.20	0	.05	.08	------	.09	0	0			0	.01
30	.07	0	.11	.08	------	.04	0	0			0	0
31	.03	------	.80	.12	------	.02	------	0	------		.12	------
TOTAL	58.71	6.06	1.92	2.47	4.61	1.27	5.32	1.97	0	0	8.50	6.23
MEAN	1.89	.20	.062	.080	.16	.041	.18	.064	0	0	.27	.21
MAX	22	2.0	.80	.12	1.2	.12	2.7	.70	0	0	2.9	4.0
MIN	0	0	0	.03	.05	.01	0	0	0	0	0	0
CFSM	.11	.01	.004	.005	.009	.002	.01	.004	0	0	.02	.01
IN.	.12	.01	.004	.005	.009	.002	.01	.004	0	0	.02	.01
AC-FT	116	12	3.8	4.9	9.1	2.5	11	3.9	0	0	17	12

CAL YR 1970 TOTAL 3,028.88 MEAN 8.30 MAX 369 MIN 0 CFSM .47 IN 6.40 AC-FT 6,010
WTR YR 1971 TOTAL 97.06 MEAN .27 MAX 22 MIN 0 CFSM .02 IN .21 AC-FT 193

08063500 Richland Creek near Richland, Tex.

LOCATION.--Lat 31°57'00", long 96°25'17", Navarro County, at downstream side of bridge on U.S. Highway 75, 800 ft downstream from Texas and New Orleans Railroad Co. bridge, 1.0 mile north of Richland, 3.5 miles downstream from Pin Oak Creek, and at mile 36.7.

DRAINAGE AREA.--734 sq mi.

PERIOD OF RECORD.--December 1924 to February 1925 (discharge measurements and gage heights only), March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 299.12 ft above mean sea level. Dec. 11, 1924, to Feb. 11, 1925, nonrecording gage at site 800 ft upstream. Mar. 17, 1939, to Feb. 14, 1958, water-stage recorder at site 50 ft upstream. Feb. 15, 1958, to Jan. 28, 1959, nonrecording gage at present site. June 8, 1955, to Feb. 14, 1958, and since Feb. 6, 1959, supplementary water-stage recorder in overflow channel, 3,900 ft to right of main channel gage. All gages at present datum.

AVERAGE DISCHARGE.--32 years (1939-71), 379 cfs (274,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,400 cfs Oct. 28 (gage height, 17.97 ft); no flow for many days.
Period of record: Maximum discharge, 58,900 cfs May 12, 1948 (gage height, 24.16 ft); no flow at times.
Maximum stage since at least 1899, 25.5 ft in December 1913 (discharge not determined), from information by Texas and New Orleans Railroad Co.

REMARKS.--Records good. Since October 1962, flow partly regulated by Navarro Mills Lake (station 08063050, revised) located 25 miles upstream. At end of year, flow from 110 sq mi above this station was partly controlled by 60 floodwater-retarding structures with a total combined capacity of 38,830 acre-ft below the flood-spillway crests, of which 32,340 acre-ft is floodwater-retarding capacity and 6,490 acre-ft is sediment-pool capacity. Six structures were built during the current year and have a total combined capacity below flood-spillway crests of 3,360 acre-ft, of which 593 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	72	.29	.68	.13	2.5	.02	9.3	2.2	0	2.6	.04
2	4.8	56	.24	.57	.13	4.0	.01	10	1.0	0	1.2	.48
3	2.9	530	.19	.51	.16	3.3	.02	8.9	12	.01	.57	57
4	1.7	873	.18	.46	.27	2.4	.10	12	171	.01	.57	16
5	.94	849	.18	.40	.08	2.0	.01	105	179	.01	.46	6.7
6	.68	281	.18	.35	.11	1.7	.01	133	179	.01	.30	4.0
7	.38	125	.18	.30	.09	1.2	.01	119	179	0	.24	2.8
8	.22	120	.18	.30	.08	1.1	.01	112	103	0	.18	2.1
9	.12	117	.18	.28	.14	.95	.01	110	54	0	.12	1.1
10	.03	68	.15	.25	.12	.83	.01	113	45	0	.08	.74
11	.04	14	.12	.31	.15	.69	.01	125	15	0	.08	.55
12	20	5.7	.12	.31	.15	.58	.01	129	5.9	0	.08	.32
13	74	3.8	.12	.35	.07	.52	.01	114	2.6	0	.24	.09
14	20	2.4	.10	.47	.06	.42	.01	83	1.2	0	.24	.02
15	8.8	1.5	.12	.67	.31	.25	.01	21	.46	1.8	.18	.01
16	4.7	1.0	.09	1.1	.08	.19	.02	8.2	.18	15	.12	.01
17	2.8	.77	.08	1.3	.03	.16	.01	4.4	.05	5.4	.05	0
18	1.7	.68	.08	1.1	.03	.14	45	2.4	.02	2.0	.03	0
19	.91	.68	23	.93	.22	.15	32	1.3	.01	.46	.02	0
20	.47	.57	110	.75	.34	.11	19	.88	0	.18	.01	0
21	.23	.51	75	.80	.63	.08	15	.42	.01	.08	.01	0
22	.09	.57	53	.91	.85	.10	12	.35	.02	.03	.01	23
23	16	.39	13	.66	1.1	.07	8.9	.48	.01	.01	0	23
24	286	.24	4.8	.41	1.3	.04	6.0	.31	.01	.02	.01	7.8
25	120	.24	2.1	.30	1.5	.05	4.9	.08	0	17	6.6	16
26	46	.24	1.2	.18	1.9	.05	3.1	3.2	0	37	6.5	20
27	759	.24	1.0	.15	1.8	.05	1.7	3.8	0	14	1.4	11
28	1,080	.30	1.0	.10	.90	.06	1.0	2.2	0	5.4	.36	5.9
29	192	.30	1.0	.09	------	.03	2.7	23	0	15	.21	3.7
30	157	.23	1.2	.10	------	.02	3.5	16	0	15	.12	2.4
31	114	------	.84	.10	------	.02	------	4.8	------	6.7	.06	------
TOTAL	2,923.31	3,125.36	289.92	15.19	12.73	23.76	155.09	1,276.02	950.67	135.12	22.65	204.76
MEAN	94.3	104	9.35	.49	.45	.77	5.17	41.2	31.7	4.36	.73	6.83
MAX	1,080	873	110	1.3	1.9	4.0	45	133	179	37	6.6	57
MIN	.03	.23	.08	.09	.03	.02	.01	.08	0	0	0	0
AC-FT	5,800	6,200	575	30	25	47	308	2,530	1,890	268	45	406

CAL YR 1970 TOTAL 91,995.70 MEAN 252 MAX 7,110 MIN 0 AC-FT 182,500
WTR YR 1971 TOTAL 9,134.58 MEAN 25.0 MAX 1,080 MIN 0 AC-FT 18,120

08063700 Bardwell Lake near Ennis, Tex.
(Formerly published as Bardwell Reservoir near Ennis)

LOCATION.--Lat 32°15'00", long 96°38'49", Ellis County, in intake structure of Bardwell Dam on Waxahachie Creek, 5 miles south of Ennis, and 5.6 miles upstream from mouth.

DRAINAGE AREA.--178 sq mi.

PERIOD OF RECORD.--November 1965 to current year. Prior to October 1970, published as Bardwell Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Prior to Apr. 25, 1966, nonrecording gage on intake structure at same datum.

EXTREMES.--Current year: Maximum contents, 66,420 acre-ft Nov. 2 (elevation, 424.08 ft); minimum, 51,280 acre-ft Oct. 8 (elevation, 419.98 ft).
Period of record: Maximum contents, 103,300 acre-ft May 19, 1969 (elevation, 432.35 ft); minimum since initial filling, 45,840 acre-ft Sept. 4, 1967 (elevation, 418.35 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 15,400 ft long including a 350-foot uncontrolled off-channel concrete gravity spillway with ogee weir section. Outlet works consist of a 10-foot-diameter concrete conduit with two 5- by 10-foot sluice gates. Lake built for flood control and water conservation. Deliberate impoundment of water began Nov. 20, 1965. Figures given herein represent total contents. Capacity curve based on survey completed in 1962. Flow from 81.4 sq mi above the lake modified by Lake Waxahachie (capacity, 13,500 acre-ft, at spillway elevation) on South Prong Creek. During the year, the city of Waxahachie diverted 1,520 acre-ft from Lake Waxahachie. At end of year, flow from 51.4 sq mi above this station was partly controlled by 22 floodwater-retarding structures with a total combined capacity of 18,040 acre-ft below the flood-spillway crests, of which 15,040 acre-ft is floodwater-retarding capacity and 3,000 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	460.0	-
Maximum design water surface	455.9	268,400
Top of flood-control pool (spillway crest)	439.0	140,000
Top of conservation pool	421.0	54,900
Invert of lowest intake	391.0	1,320

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

419.0	47,950	422.0	58,500
420.0	51,350	423.0	62,240
421.0	54,870	424.0	66,100
		425.0	70,090

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51,380	66,380	56,030	54,900	54,800	56,060	55,050	56,610	55,450	53,920	52,930	52,860
2	51,420	65,830	56,060	54,870	54,720	56,240	55,050	56,720	55,370	53,880	52,930	52,830
3	51,420	64,330	56,140	55,010	54,800	56,210	54,970	56,680	55,260	53,780	52,900	52,830
4	51,420	62,590	56,170	54,980	54,870	56,100	54,900	56,570	55,190	53,670	52,860	52,760
5	51,380	60,970	56,210	54,980	54,870	56,060	54,830	56,460	55,120	53,600	52,970	52,720
6	51,380	59,320	56,170	54,940	54,900	56,060	54,760	56,460	54,970	53,490	53,000	52,650
7	51,320	57,730	56,140	54,870	54,900	56,100	54,690	56,460	54,900	53,390	52,970	52,580
8	51,420	56,250	56,210	54,800	54,870	56,100	54,580	56,430	54,800	53,320	52,930	52,540
9	51,420	55,120	56,140	54,760	54,800	56,140	54,550	56,430	54,720	53,210	52,860	52,470
10	51,350	55,050	56,140	54,760	54,720	56,100	54,510	56,540	54,620	53,070	52,830	52,400
11	52,330	55,120	56,140	54,760	54,720	56,100	54,480	56,430	54,580	53,000	52,720	52,300
12	54,550	55,160	56,320	54,830	54,760	56,140	54,440	56,280	54,550	52,900	52,930	52,230
13	54,660	55,670	56,320	54,870	54,650	56,140	54,410	56,140	54,480	52,860	53,000	52,190
14	54,760	55,590	56,280	55,010	54,690	56,170	54,410	56,060	54,440	52,650	53,210	52,120
15	54,760	55,520	56,350	54,940	54,690	56,140	54,370	55,950	54,410	52,510	53,280	52,050
16	54,760	55,410	56,350	54,940	54,690	55,950	54,370	55,810	54,370	52,440	53,250	52,020
17	54,760	55,520	56,320	54,940	54,690	55,770	54,720	55,660	54,300	52,370	53,210	51,950
18	54,760	55,520	56,280	54,940	54,970	55,590	55,010	55,520	54,230	52,260	53,140	51,840
19	54,760	55,670	56,210	54,830	55,160	55,480	55,120	55,560	54,160	52,160	53,040	51,700
20	54,730	55,670	56,030	54,800	55,080	55,410	55,340	55,480	54,230	52,050	53,000	51,490
21	54,730	55,670	55,850	54,870	55,340	55,370	55,370	55,370	54,200	52,020	52,900	51,450
22	54,760	55,740	55,700	54,900	55,590	55,340	55,450	55,300	54,160	51,910	52,830	51,450
23	55,410	55,700	55,590	54,870	55,590	55,300	55,480	55,450	54,160	51,980	52,760	51,490
24	55,520	55,590	55,190	54,870	55,590	55,260	55,590	55,520	54,090	52,090	52,720	51,700
25	55,630	55,590	55,080	54,870	55,920	55,260	55,410	55,480	54,020	52,120	52,970	51,700
26	56,140	55,700	54,830	54,870	55,950	55,230	55,480	55,410	53,950	52,160	53,180	51,670
27	61,900	55,810	54,730	54,870	55,990	55,230	55,480	55,520	53,880	52,830	53,140	51,630
28	63,630	55,880	54,760	54,870	55,990	55,190	55,560	55,560	54,060	53,000	53,040	51,630
29	64,440	55,880	54,800	54,870	------	55,160	56,350	55,520	54,020	53,140	53,000	51,590
30	65,140	55,920	54,980	54,870	------	55,120	56,500	55,520	53,950	53,040	52,930	51,520
31	65,720	------	54,940	54,870	------	55,050	------	55,450	------	52,930	52,900	------
(†)	423.90	421.29	421.02	421.00	421.31	421.05	421.45	421.16	420.74	420.45	420.44	420.05
(‡)	+14,340	-9,800	-980	-70	+1,120	-940	+1,450	-1,050	-1,500	-1,020	-30	-1,380
(††)	110	110	108	110	97	107	122	117	157	198	138	143
MAX	65,720	66,380	56,350	55,010	55,990	56,240	56,500	56,720	55,450	53,920	53,280	52,860
MIN	51,320	55,050	54,730	54,760	54,650	55,050	54,370	55,300	53,880	51,910	52,720	51,450

CAL YR 1970..... ‡ +2,610 †† 1,460 MAX 80,090 MIN 49,890
WTR YR 1971..... ‡ +140 †† 1,520 MAX 66,380 MIN 51,320

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Ennis.

08063800 Waxahachie Creek near Bardwell, Tex.

LOCATION.--Lat 32°14'28", long 96°38'20", Ellis County, on right bank 1.0 mile downstream from Bardwell Dam, 3.8 miles upstream from mouth, 3.8 miles southeast of Bardwell, and 4.0 miles downstream from bridge on State Highway 34.

DRAINAGE AREA.--178 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370.18 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--8 years, 66.8 cfs (48,400 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 732 cfs Nov. 3 (gage height, 11.57 ft); no flow at times.
Period of record: Maximum discharge, 2,960 cfs Feb. 9, 1965 (gage height, 17.55 ft); no flow at times each year.
Maximum stage since at least 1944, about 23 ft in 1944 and 1945, from information by Corps of Engineers.

REMARKS.--Records fair. Flow regulated by Bardwell Lake (station 08063700, revised) 1.0 mile upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.12	1.2	4.1	1.4	.80	.40	.12	20	0	.01	0
2	.70	287	1.2	4.1	1.4	.80	.27	.12	20	0	0	0
3	1.2	720	1.2	3.4	1.4	.70	.27	15	20	0	0	0
4	1.4	708	1.1	2.5	1.5	.62	.22	35	19	0	0	0
5	.99	708	.99	2.3	1.5	.53	.18	35	19	0	0	0
6	.80	696	.99	2.3	1.5	.46	.15	35	19	0	0	0
7	.80	696	.99	2.1	1.5	.46	.15	35	10	0	0	0
8	.99	696	1.1	2.0	1.4	.53	.15	35	3.0	0	0	0
9	.90	518	1.1	2.0	1.4	.62	.15	35	1.6	0	0	.85
10	.90	76	.99	2.0	1.2	.70	.15	49	.06	0	0	.75
11	2.9	3.4	.99	2.0	1.2	.70	.15	48	.02	0	0	1.1
12	2.9	2.7	.99	2.0	1.4	.80	.15	45	0	0	0	.81
13	.46	2.7	1.1	2.0	1.5	.80	.15	30	0	0	.05	.04
14	.27	2.5	1.1	2.0	1.4	.99	.15	19	0	0	.07	0
15	.22	2.1	1.2	2.0	1.2	2.0	.15	19	0	0	.09	.13
16	.18	1.5	1.1	1.8	.90	34	.15	19	0	0	.04	.07
17	.15	1.4	1.1	1.8	.99	107	.32	19	0	0	.01	.01
18	.15	1.2	27	1.8	.70	75	.46	19	0	0	.01	.07
19	.15	1.1	97	1.8	.80	1.5	.27	19	0	0	0	.22
20	.15	1.1	94	1.8	.80	1.4	.39	19	0	0	0	.16
21	.15	.90	94	1.8	.80	1.2	.39	19	0	0	0	.22
22	.22	.80	94	1.8	.62	1.1	.45	19	0	0	0	.09
23	1.1	.80	94	1.8	.62	.99	.32	20	0	0	0	.22
24	.46	.90	94	1.8	.62	.90	.27	20	0	0	0	.07
25	.22	.99	94	1.8	.53	.90	.27	19	0	0	.78	.53
26	.37	.90	94	1.8	.62	.80	.27	19	0	0	.22	.32
27	72	.70	43	1.6	.39	.80	.27	19	0	.44	.04	.15
28	1.8	.80	4.1	1.6	.46	.70	.22	19	0	.48	.01	.18
29	.12	.99	3.8	1.6	------	.62	.22	19	0	.53	0	.18
30	.12	1.1	3.8	1.6	------	.53	.12	19	0	.18	0	.03
31	.12	------	3.8	1.5	------	.46	------	20	------	.02	0	------
TOTAL	93.21	5,133.70	858.94	64.5	29.75	239.41	7.23	742.24	131.68	1.65	1.33	6.20
MEAN	3.01	171	27.7	2.08	1.06	7.72	.24	23.9	4.39	.053	.043	.21
MAX	72	720	97	4.1	1.5	107	.46	49	20	.53	.78	1.1
MIN	.12	.12	.99	1.5	.39	.46	.12	.12	0	0	0	0
AC-FT	185	10,180	1,700	128	59	475	14	1,470	261	3.3	2.6	12

CAL YR 1970 TOTAL 36,521.75 MEAN 100 MAX 1,810 MIN .01 AC-FT 72,440
WTR YR 1971 TOTAL 7,309.84 MEAN 20.0 MAX 720 MIN 0 AC-FT 14,500

08064500 Chambers Creek near Corsicana, Tex.

LOCATION (revised).--Lat 32°06'29", long 96°22'14", Navarro County, near center of channel at downstream side of downstream bridge on State Highway 31, 430 ft upstream from St. Louis Southwestern Railway Lines bridge, 6,000 ft upstream from city of Corsicana diversion dam, 5.3 miles east of Corsicana, 17 miles upstream from Richland Creek, and at mile 23.0.

DRAINAGE AREA.--963 sq mi.

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 294.28 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 438 cfs (317,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,700 cfs Oct. 28 (gage height, 24.42 ft); no flow July 8-26, Sept. 13-30.
Period of record: Maximum discharge, 48,000 cfs May 3, 1944; maximum gage height, 28.10 ft May 3, 1958; no flow at times. Maximum stage since at least 1870, 30 ft Aug. 27, 1887, from information by local residents. Flood in December 1913 reached a stage of 27.5 ft, from information by local residents.

REMARKS.--Records good. Flow partly regulated by Bardwell Lake (station 08063700, revised) since November 1965. At end of year, flow from 257 sq mi above this station was partly controlled by 90 floodwater-retarding structures with a total combined capacity of 91,270 acre-ft below the flood-spillway crests, of which 74,290 acre-ft is floodwater-retarding capacity and 16,980 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records of city of Corsicana show that the city diverted 41 acre-ft of water for municipal supply from pool in which gage is located. Discharge given herein does not include that diverted by the city. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	570	30	20	11	73	12	25	33	.27	6.7	.90
2	20	407	27	23	11	51	11	25	29	.13	2.9	.55
3	14	773	26	20	11	141	11	19	37	.07	1.6	.38
4	10	1,030	24	20	12	110	10	29	35	.04	.92	.27
5	8.1	972	23	23	15	56	9.1	53	27	.04	.92	.40
6	6.0	938	22	19	16	46	8.7	53	23	.02	.74	.34
7	4.2	918	36	16	19	38	8.7	53	21	.01	170	.18
8	3.4	896	24	15	17	33	8.7	53	18	0	138	.10
9	3.3	876	22	14	15	29	8.3	53	7.1	0	40	.07
10	2.7	616	20	14	14	27	7.9	53	4.2	0	22	.04
11	3.8	154	20	15	14	25	7.5	65	2.5	0	12	.02
12	534	70	22	15	16	20	7.1	70	1.3	0	7.5	.01
13	1,250	61	29	15	13	21	6.7	58	.59	0	5.9	0
14	261	63	23	15	12	23	6.7	46	.31	0	6.5	0
15	147	62	23	14	12	20	6.7	33	.19	0	36	0
16	107	59	22	14	14	18	5.9	27	.11	0	297	0
17	83	50	22	18	15	78	5.1	27	.07	0	140	0
18	68	45	23	16	14	117	14	25	.04	0	34	0
19	56	41	57	15	95	75	1,200	24	.02	0	18	0
20	46	37	114	15	126	17	1,640	23	.01	0	11	0
21	39	35	115	14	70	14	359	23	.01	0	6.3	0
22	34	32	115	13	412	13	241	24	.01	0	3.4	0
23	37	31	114	13	145	13	141	25	2.5	0	1.6	0
24	380	29	114	13	91	12	91	42	1.7	0	.87	0
25	265	26	116	13	64	13	63	309	.67	0	.52	0
26	120	25	115	17	95	13	46	208	.31	0	33	0
27	4,420	24	112	16	138	13	35	78	.17	7.3	28	0
28	9,960	25	54	13	129	14	29	50	.22	171	13	0
29	5,840	28	20	11	------	14	25	70	.44	84	7.2	0
30	2,940	34	20	11	------	14	25	135	.38	44	3.5	0
31	1,110	------	20	11	------	13	------	43	------	16	1.7	------
TOTAL	27,799.5	8,927	1,524	481	1,616	1,164	4,050.1	1,821	245.85	322.88	1,050.77	3.26
MEAN	897	298	49.2	15.5	57.7	37.5	135	58.7	8.20	10.4	33.9	.11
MAX	9,960	1,030	116	23	412	141	1,640	309	37	171	297	.90
MIN	2.7	24	20	11	11	12	5.1	19	.01	0	.52	0
AC-FT	55,140	17,710	3,020	954	3,210	2,310	8,030	3,610	488	640	2,080	6.5

CAL YR 1970 TOTAL 173,141.84 MEAN 474 MAX 9,960 MIN 0 AC-FT 343,400
WTR YR 1971 TOTAL 49,005.36 MEAN 134 MAX 9,960 MIN 0 AC-FT 97,200

PEAK DISCHARGE (BASE, 13,000 CFS).--No peak above base.

08064700 Tehuacana Creek near Streetman, Tex.

LOCATION.--Lat 31°50'54", long 96°17'23", Freestone County, on downstream side of bridge on U.S. Highway 75, 2.8 miles southeast of Streetman, 3.1 miles downstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, and 3.8 miles upstream from Caney Creek.

DRAINAGE AREA.--142 sq mi.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 287.58 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 3,000 cfs Oct. 12 (gage height, 21.65 ft); no flow for many days.
Period of record: Maximum discharge, 23,100 cfs May 10, 1968 (gage height, 25.00 ft); no flow at times each year.
Maximum stage since at least 1932, that of May 10, 1968. Flood in September 1932 reached a stage of about 24 ft, from information by State Highway Department.

REMARKS.--Records good. At end of year, flow from 5.75 sq mi above this station was partly controlled by one floodwater-retarding structure with a capacity of 2,500 acre-ft below the flood-spillway crest, of which 2,300 acre-ft is floodwater-retarding capacity and 200 acre-ft is sediment-pool capacity. The capacity in this pool allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. No other known regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	.35	.22	.03	5.0		0	0	.07	.12	0
2	.92	1.5	.32	.22	.02	3.5		0	0	.06	.08	0
3	.68	1.3	.30	.22	.02	2.5		0	0	.04	.08	0
4	.60	1.3	.28	.20	.02	1.6		0	0	.02	.08	0
5	.48	1.2	.26	.21	.02	1.0		0	0	.01	.08	0
6	.38	1.2	.24	.22	.02	.70		0	0	0	.08	0
7	.35	1.2	.24	.20	.01	.40		0	0	0	.05	0
8	1.2	1.1	.24	.20	.01	.20		0	0	0	.80	0
9	1.7	.97	.22	.18	.01	.10		0	0	0	.56	0
10	1.9	.92	.22	.16	.01	.05		.43	0	0	.24	0
11	4.0	.92	.24	.14	.01	0		.08	0	0	.12	0
12	1,960	.88	.22	.14	.08	0		.04	0	0	.05	0
13	397	1.1	.20	.12	.04	0		.03	0	0	.13	0
14	26	.88	.20	.11	.02	0		.02	0	0	.09	0
15	9.0	.80	.22	.11	.02	0		.01	0	0	.10	0
16	5.2	.72	.20	.10	.02	0		.01	0	0	.09	0
17	3.5	.68	.18	.09	.02	0		.01	0	0	.07	0
18	2.4	.64	.16	.09	.02	0		0	0	0	.06	0
19	1.8	.60	.14	.09	.04	0		0	0	0	.06	0
20	1.4	.56	.16	.08	.04	0		0	0	0	.06	0
21	1.6	.56	.20	.08	.28	0		0	.10	0	.04	0
22	1.8	.60	.24	.08	.04	0		0	.48	0	.02	0
23	123	.56	.24	.07	.03	0		0	.28	0	.01	.94
24	373	.52	.22	.07	.02	0		0	.16	0	.01	4.9
25	35	.48	.18	.07	.29	0		0	.09	0	.01	1,380
26	11	.48	.14	.06	76	0		0	.06	0	.01	75
27	6.8	.48	.12	.06	17	0		0	.03	0	.01	8.2
28	4.3	.44	.12	.05	8.0	0		0	.01	0	.01	3.5
29	2.8	.41	.11	.04	------	0		0	.01	1.0	.01	2.0
30	1.9	.38	.18	.04	------	0		0	.03	.26	0	1.3
31	1.3	------	.24	.03	------	0	------	0	------	.22	0	------
TOTAL	2,982.31	24.88	6.58	3.75	102.14	15.05	0	.63	1.25	1.68	3.13	1,475.84
MEAN	96.2	.83	.21	.12	3.65	.49	0	.020	.042	.054	.10	49.2
MAX	1,960	1.5	.35	.22	76	5.0	0	.43	.48	1.0	.80	1,380
MIN	.35	.38	.11	.03	.01	0	0	0	0	0	0	0
CFSM	.68	.006	.002	.0008	.03	.004	0	.0001	.0003	.0004	.0007	.35
IN.	.78	.006	.001	0	.03	.003	0	0	0	0	0	.39
AC-FT	5,920	49	13	7.4	203	30	0	1.3	2.5	3.3	6.2	2,930

CAL YR 1970 TOTAL 9,480.14 MEAN 26.0 MAX 1,960 MIN 0 CFSM .18 IN 2.48 AC-FT 18,800
WTR YR 1971 TOTAL 4,617.24 MEAN 12.7 MAX 1,960 MIN 0 CFSM .09 IN 1.21 AC-FT 9,160

PEAK DISCHARGE (BASE, 2,500 CFS).--Oct. 12 (1100) 3,000 cfs (21.65 ft); Sept. 25 (0900) 2,550 cfs (21.03 ft).

08064800 Catfish Creek near Tennessee Colony, Tex.

LOCATION.--Lat 31°52'51", long 95°52'07", Anderson County, on left bank 47 ft downstream from bridge on U.S. Highway 287, 2 miles upstream from Beaver Creek, 3.5 miles northwest of Tennessee Colony, 12 miles downstream from Coon Creek Lake, and 12 miles upstream from mouth.

DRAINAGE AREA.--207 sq mi.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 234.93 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 85.2 cfs (61,730 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 460 cfs Dec. 20 (gage height, about 10.0 ft); minimum daily, 2.1 cfs July 21.
Period of record: Maximum discharge, 7,550 cfs May 11, 1968 (gage height, 15.90 ft); minimum daily, 0.8 cfs Aug. 19-21, 1964.
Maximum stage since 1927, 22 ft in June 1944 as a result of dam failure at Coon Creek Lake, from information by local residents.

REMARKS.--Records poor. Some regulation upstream by Coon Creek Lake. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	58	44	65	43	132	28	29	7.0	4.5	9.9	12
2	14	49	45	65	44	100	26	30	6.8	3.9	7.9	12
3	13	44	46	65	42	87	26	30	6.6	3.7	7.2	12
4	13	41	46	62	44	84	26	28	6.5	3.6	6.8	12
5	13	38	45	60	49	81	25	26	6.4	3.4	7.8	12
6	14	35	44	58	54	74	24	26	6.4	3.2	14	11
7	15	31	42	56	55	71	25	24	6.4	3.2	19	11
8	17	29	40	54	54	70	26	24	6.4	3.1	18	10
9	20	28	38	52	54	66	24	22	6.5	3.1	15	10
10	25	28	37	50	51	61	22	32	6.9	3.2	12	10
11	30	28	36	48	47	58	22	100	7.5	3.0	9.9	10
12	50	28	35	48	48	56	21	75	7.8	2.7	7.9	10
13	100	31	34	50	63	59	20	50	7.9	3.2	23	12
14	110	49	34	52	89	59	20	40	7.5	3.5	48	14
15	90	61	33	54	90	56	20	30	7.3	3.2	42	18
16	75	74	33	56	76	54	21	23	6.8	2.8	29	20
17	65	79	35	58	68	52	26	20	6.8	2.4	23	22
18	54	68	40	60	64	48	39	17	6.8	2.2	21	22
19	46	59	45	58	71	42	46	15	6.8	2.2	18	21
20	40	56	260	56	82	42	48	13	6.8	2.2	16	20
21	36	52	190	54	94	42	52	12	6.6	2.1	15	19
22	33	50	110	52	100	39	54	11	6.9	2.2	14	20
23	43	45	123	50	93	36	56	10	6.1	2.5	13	25
24	63	44	116	49	90	33	54	11	5.5	2.5	12	32
25	64	48	97	48	96	33	48	12	4.3	3.5	12	45
26	69	43	79	46	133	33	42	11	3.4	4.9	17	50
27	66	39	71	45	142	33	37	9.5	2.5	6.1	17	50
28	57	38	61	44	151	32	33	8.5	2.3	7.5	16	47
29	56	41	56	42	------	32	31	8.0	3.4	9.0	16	40
30	62	43	56	41	------	32	30	7.6	4.5	15	14	33
31	66	------	60	43	------	31	------	7.2	------	12	13	------
TOTAL	1,435	1,357	2,031	1,641	2,087	1,728	972	761.8	183.4	129.6	514.4	642
MEAN	46.3	45.2	65.5	52.9	74.5	55.7	32.4	24.6	6.11	4.18	16.6	21.4
MAX	110	79	260	65	151	132	56	100	7.9	15	48	50
MIN	13	28	33	41	42	31	20	7.2	2.3	2.1	6.8	10
AC-FT	2,850	2,690	4,030	3,250	4,140	3,430	1,930	1,510	364	257	1,020	1,270

CAL YR 1970 TOTAL 28,841.7 MEAN 79.0 MAX 470 MIN 3.8 AC-FT 57,210
WTR YR 1971 TOTAL 13,482.2 MEAN 36.9 MAX 260 MIN 2.1 AC-FT 26,740

PEAK DISCHARGE (BASE, 1,400 CFS).--No peak above base.

08065000 Trinity River near Oakwood, Tex.

LOCATION.--Lat 31°38'50", long 95°47'20", Anderson-Freestone County line, on left bank at downstream side of bridge on U.S. Highways 79 and 84, 1.5 miles upstream from Missouri Pacific Railroad Co. bridge, 6 miles northeast of Oakwood, and at mile 313.4.

DRAINAGE AREA.--12,833 sq mi.

PERIOD OF RECORD.--October 1923 to September 1924 (monthly discharge only), October 1924 to current year. Records of January 1905 to September 1923, published in WSP 850 and 878, have been found unreliable and should not be used. Gage-height records collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 175.06 ft above mean sea level. Prior to July 15, 1932, nonrecording gage at site 1.5 miles downstream at datum 1.06 ft lower. July 15, 1932, to Oct. 7, 1934, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--48 years (1923-71), 4,689 cfs (3,397,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,000 cfs Nov. 1 (gage height, 32.44 ft); minimum daily, 318 cfs June 18.
Period of record: Maximum discharge, 153,000 cfs Apr. 29, 1942 (gage height, 51.64 ft); minimum observed, 28 cfs Aug. 24, 1925.
Flood in May 1890 reached a stage of 53 ft (discharge, about 180,000 cfs) and was the highest since that date, from information in local newspapers. Flood of June 4, 1908, reached a stage of 52.2 ft, present site and datum, from information by U.S. Weather Bureau (discharge, about 164,000 cfs).

REMARKS.--Records good. Twenty-one major reservoirs with a total capacity of 4,200,000 acre-ft (of which 1,362,000 acre-ft is flood control) partly regulate the flow. At end of year, flow from 547 sq mi above this station was partly controlled by 223 floodwater-retarding structures with a total combined capacity of 198,100 acre-ft below the flood-spillway crests, of which 165,100 acre-ft is floodwater-retarding capacity and 33,000 acre-ft is sediment-pool capacity. Six structures were built during the current year and have a total combined capacity below flood-spillway crests of 3,360 acre-ft, of which 593 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1442: 1934. See also PERIOD OF RECORD. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,080	13,900	559	665	535	1,630	1,200	690	1,990	481	3,730	738
2	2,070	12,200	570	659	518	1,690	1,160	1,010	2,990	629	3,340	594
3	3,220	6,680	582	1,000	520	1,390	921	1,230	2,700	677	2,790	522
4	4,030	3,610	580	1,140	514	1,070	614	871	1,570	535	1,840	486
5	4,370	2,770	591	985	519	1,120	570	603	931	437	1,200	467
6	4,290	2,820	702	768	520	1,860	546	524	743	389	980	556
7	3,550	2,710	868	693	533	2,140	514	509	794	415	898	644
8	2,750	2,260	934	712	566	2,060	490	612	705	413	1,490	563
9	2,140	1,870	946	714	671	1,980	495	706	643	347	1,390	475
10	1,460	1,740	928	681	700	1,810	534	1,010	581	381	1,330	417
11	994	1,700	930	643	667	1,330	538	1,880	474	412	999	401
12	1,110	1,370	933	626	607	920	498	1,410	415	414	752	392
13	2,920	902	934	619	602	1,030	495	1,170	404	398	845	393
14	6,100	786	936	690	604	1,300	531	1,060	392	398	1,010	387
15	7,540	791	980	672	630	1,310	465	1,070	367	394	932	367
16	5,310	800	1,050	623	674	1,310	455	906	389	389	844	362
17	3,330	898	1,080	612	699	1,320	541	711	337	380	2,010	365
18	1,840	922	1,010	692	681	1,320	628	581	318	370	3,340	367
19	1,340	849	966	769	893	1,290	627	504	332	360	3,100	356
20	1,090	739	1,040	713	892	1,300	940	465	377	350	2,160	335
21	935	661	1,150	699	804	1,310	3,880	440	405	340	1,190	335
22	849	631	1,140	687	947	1,280	4,500	491	377	340	809	337
23	918	602	1,240	629	1,160	1,240	3,120	537	488	360	678	360
24	1,160	574	1,270	603	1,240	1,200	2,090	490	401	422	607	395
25	1,520	582	1,250	585	1,750	1,170	1,360	456	674	424	540	397
26	2,570	594	1,170	573	1,750	1,170	1,220	441	862	454	513	655
27	3,210	573	977	561	1,430	1,200	1,280	510	714	499	576	1,770
28	5,450	556	823	611	1,340	1,240	952	706	541	922	1,410	2,210
29	10,300	553	755	626	------	1,270	682	562	418	1,100	2,060	1,990
30	12,200	555	753	599	------	1,270	656	1,150	402	2,170	1,760	1,410
31	13,100	------	719	555	------	1,220	------	1,880	------	3,100	1,130	------
TOTAL	113,446	66,198	28,366	21,404	22,966	42,750	32,502	25,185	22,734	18,700	46,253	19,046
MEAN	3,660	2,207	915	690	820	1,379	1,083	812	758	603	1,492	635
MAX	13,100	13,900	1,270	1,140	1,750	2,140	4,500	1,880	2,990	3,100	3,730	2,210
MIN	849	553	559	555	514	920	455	440	318	340	513	335
AC-FT	225,000	131,300	56,260	42,450	45,550	84,790	64,470	49,950	45,090	37,090	91,740	37,780

CAL YR 1970 TOTAL 1,764,659 MEAN 4,835 MAX 35,500 MIN 423 AC-FT 3,500,000
WTR YR 1971 TOTAL 459,550 MEAN 1,259 MAX 13,900 MIN 318 AC-FT 911,500

08065200 Upper Keechi Creek near Oakwood, Tex.

LOCATION.--Lat 31°34'11", long 96°53'17", Leon County, at right bank 20 ft downstream from bridge on U.S. Highway 79, 1.9 miles upstream from Missouri Pacific Railroad Co. bridge, 2 miles southwest of Oakwood, 11 miles upstream from Buffalo Creek, and 21 miles upstream from mouth.

DRAINAGE AREA.--150 sq mi.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 240.11 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 65.2 cfs (5.90 inches per year, 47,240 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 362 cfs May 11 (gage height, 10.78 ft); no flow for many days.
Period of record: Maximum discharge, 24,000 cfs May 16, 1965, and Apr. 25, 1966; maximum gage height, 14.91 ft May 16, 1965, from rating curve extended above 5,800 cfs; no flow at times.
Maximum stage since 1900, about 21 ft in 1932, from information by local residents.

REMARKS.--Records poor. No known diversions or regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	2.1	3.0	14	7.0	26	5.9	2.7	3.2	.05	26	1.4
2	0	2.0	3.6	11	6.6	20	5.4	2.6	2.6	0	33	2.1
3	0	2.0	4.0	11	6.5	18	5.2	2.6	2.0	0	9.4	3.8
4	0	2.1	4.5	11	8.3	16	5.0	2.6	1.5	0	16	1.5
5	0	2.1	5.2	9.2	9.6	15	7.8	2.6	1.1	0	6.0	.65
6	0	3.3	5.3	8.1	9.8	14	6.8	2.6	.85	0	4.9	.47
7	.05	2.8	5.6	7.8	9.0	12	5.7	3.5	.61	0	4.1	.29
8	.04	3.3	5.7	7.3	8.0	11	4.9	5.0	.47	0	3.4	.31
9	.97	4.0	5.4	7.1	7.3	11	4.0	6.0	.33	0	2.7	.33
10	.61	4.7	5.7	7.3	6.8	12	3.6	38	.61	0	2.0	.09
11	.27	5.6	5.9	7.6	6.8	12	3.2	291	.61	0	1.5	.02
12	34	4.9	6.0	7.3	7.1	12	3.0	156	.47	0	9.4	0
13	54	5.6	5.3	7.1	6.6	15	2.8	46	.31	0	94	0
14	49	11	5.0	7.1	9.2	15	3.1	22	.22	0	68	0
15	7.6	9.4	5.4	6.8	9.6	12	5.3	14	.27	0	32	0
16	3.0	6.3	6.8	6.3	7.3	10	4.9	9.8	.31	0	9.4	0
17	1.3	5.9	7.1	5.9	6.5	8.9	22	6.8	.16	0	5.6	0
18	.69	6.6	6.6	5.6	6.3	8.3	65	5.3	.07	0	4.0	0
19	.53	6.2	6.5	5.4	190	8.1	24	4.6	.01	0	2.7	0
20	.53	5.3	26	5.3	73	7.8	15	4.6	1.4	0	2.0	0
21	.50	5.0	37	5.0	29	7.4	10	5.0	.85	0	1.4	0
22	.35	4.7	20	5.2	27	9.2	8.3	5.3	.85	0	.81	0
23	25	4.6	15	5.4	17	8.7	6.2	5.7	1.7	0	.50	.85
24	211	4.4	11	5.4	13	7.4	5.0	6.8	1.5	3.0	.31	2.8
25	253	4.2	8.1	12	13	7.4	4.2	6.5	.57	2.4	.27	4.5
26	139	4.0	6.5	8.7	105	8.0	3.7	6.3	.27	1.1	5.6	3.6
27	15	3.8	5.9	7.3	106	8.0	3.4	5.6	.12	.03	11	3.0
28	9.2	3.4	5.9	6.6	47	8.3	3.2	5.2	.06	0	9.6	2.1
29	6.0	3.0	5.7	6.6	------	8.0	3.0	4.6	.07	4.5	5.4	.81
30	4.0	2.8	6.6	7.3	------	6.8	2.8	4.2	.10	12	3.4	.33
31	2.8	------	17	7.3	------	6.5	------	3.8	------	60	2.4	------
TOTAL	818.44	135.1	267.3	235.0	758.3	349.8	252.4	687.3	23.19	83.08	376.79	28.95
MEAN	26.4	4.50	8.62	7.58	27.1	11.3	8.41	22.2	.77	2.68	12.2	.96
MAX	253	11	37	14	190	26	65	291	3.2	60	94	4.5
MIN	0	2.0	3.0	5.0	6.3	6.5	2.8	2.6	.01	0	.27	0
CFSM	.18	.03	.06	.05	.18	.08	.06	.15	.005	.02	.08	.006
IN.	.20	.03	.07	.06	.19	.09	.06	.17	.006	.02	.09	.007
AC-FT	1,620	268	530	466	1,500	694	501	1,360	46	165	747	57

CAL YR 1970 TOTAL 18,267.13 MEAN 50.0 MAX 2,000 MIN 0 CFSM .33 IN 4.53 AC-FT 36,230
WTR YR 1971 TOTAL 4,015.65 MEAN 11.0 MAX 291 MIN 0 CFSM .07 IN 1.00 AC-FT 7,970

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

08065350 Trinity River near Crockett, Tex.

LOCATION (revised).--Lat 31°20'08", long 95°39'27", Houston-Leon County Line, on right bank 30 ft downstream from bridge on State Highway 7, 7.1 miles downstream from Upper Keechi Creek, 11.9 miles west of Crockett, and at mile 265.2.

DRAINAGE AREA.--13,911 sq mi.

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 136.59 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 5,459 cfs (3,955,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,800 cfs Nov. 2 (gage height, 26.47 ft); minimum daily, 374 cfs July 23.
Period of record: Maximum discharge, 78,000 cfs May 15, 1969 (gage height, 52.24 ft); minimum, 275 cfs Aug. 13, 1964.
Maximum stage since at least 1900, 56.1 ft Apr. 30 or May 1, 1942, from information by State Highway Department.

REMARKS.--Records good. For statement regarding regulation by upstream reservoirs and by Soil Conservation Service floodwater-retarding structures, see Trinity River near Oakwood (station 08065000). Also regulated by Houston County Lake near Crockett (capacity, 19,500 acre-ft). Diversions above station for irrigation, municipal, and industrial use. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,170	12,000	624	841	669	2,200	1,430	821	1,690	457	3,350	1,190
2	1,830	12,700	624	770	646	2,310	1,390	829	2,020	502	3,680	826
3	2,060	9,900	639	855	643	1,910	1,350	1,150	2,770	620	3,400	680
4	3,060	5,410	643	1,150	657	1,530	1,150	1,250	2,350	665	2,790	604
5	3,680	3,070	638	1,180	659	1,390	901	968	1,460	557	2,210	562
6	3,950	2,630	670	1,000	664	1,850	828	748	967	478	1,640	536
7	3,740	2,610	811	854	663	2,300	800	660	794	439	1,220	601
8	3,070	2,430	913	826	662	2,300	771	659	800	447	1,130	688
9	2,440	2,010	968	847	748	2,210	751	760	718	450	1,570	632
10	1,870	1,730	966	834	832	2,120	748	929	655	414	1,510	547
11	1,340	1,620	958	790	825	1,800	762	1,660	602	422	1,400	499
12	1,060	1,540	955	766	745	1,600	766	2,220	521	456	1,100	473
13	1,280	1,270	952	746	705	1,280	743	1,790	463	468	916	465
14	3,350	1,020	953	777	709	1,360	732	1,540	454	456	1,010	461
15	6,150	945	979	838	728	1,560	755	1,500	444	461	1,150	457
16	6,230	896	1,030	781	759	1,600	715	1,320	445	448	1,110	447
17	4,200	900	1,030	739	830	1,560	748	1,030	439	431	1,060	428
18	2,510	973	1,000	755	809	1,560	917	814	416	410	2,690	428
19	1,650	972	990	871	1,720	1,560	1,150	671	403	388	3,960	428
20	1,270	906	1,050	873	2,290	1,520	1,040	625	405	382	3,340	422
21	1,060	828	1,200	819	1,610	1,520	1,510	612	432	383	2,090	408
22	923	761	1,250	839	1,600	1,560	3,680	581	507	388	1,270	409
23	1,050	713	1,290	791	1,930	1,520	3,790	583	523	374	909	433
24	1,710	651	1,370	743	1,870	1,480	2,880	617	579	383	759	439
25	1,410	642	1,320	727	1,930	1,440	2,060	585	503	463	673	467
26	1,720	652	1,260	709	2,590	1,440	1,510	555	655	496	603	474
27	2,790	662	1,100	691	2,400	1,400	1,370	536	842	508	572	782
28	3,240	639	954	698	2,010	1,440	1,350	578	732	577	662	1,810
29	6,540	622	849	766	------	1,480	1,090	737	585	989	1,540	2,180
30	9,650	618	867	743	------	1,480	853	636	484	1,310	2,060	1,910
31	10,600	------	878	687	------	1,470	------	1,160	------	2,430	1,740	------
TOTAL	97,603	72,320	29,731	25,306	32,903	51,750	38,540	29,124	24,658	17,652	53,114	20,686
MEAN	3,148	2,411	959	816	1,175	1,669	1,285	939	822	569	1,713	690
MAX	10,600	12,700	1,370	1,180	2,590	2,310	3,790	2,220	2,770	2,430	3,960	2,180
MIN	923	618	624	687	643	1,280	715	536	403	374	572	408
AC-FT	193,600	143,400	58,970	50,190	65,260	102,600	76,440	57,770	48,910	35,010	105,400	41,030

CAL YR 1970 TOTAL 1,875,085 MEAN 5,137 MAX 32,600 MIN 450 AC-FT 3,719,000
WTR YR 1971 TOTAL 493,387 MEAN 1,352 MAX 12,700 MIN 374 AC-FT 978,600

08065500 Trinity River near Midway, Tex.

LOCATION.--Lat 31°04'38", long 95°41'57", Madison-Houston County line, near center of channel at upstream side of bridge on State Highway 21, 4.7 miles northeast of Midway, 8.0 miles downstream from Boggy Creek, 22.3 miles upstream from Bedias Creek, and at mile 230.2.

DRAINAGE AREA.--14,450 sq mi.

PERIOD OF RECORD.--April 1939 to November 1970 (discontinued).

GAGE.--Nonrecording gage read twice daily. Datum of gage is 118.05 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, 5,779 cfs (4,187,000 acre-ft per year).

EXTREMES.--Maximum discharge during period October to November 1970, 14,200 cfs Nov. 3 (gage height, 20.68 ft); minimum daily during period, 1,220 cfs Oct. 13, 22.

Period of record: Maximum discharge, 146,000 cfs May 1, 1942 (gage height, 48.58 ft); minimum observed, 87 cfs July 27, 1956.

Maximum stage since at least 1866 and prior to construction of levees in 1916, 45 ft in May 1890 (discharge not determined). Floods in 1866 and June 9, 1908, were about the same stage. Flood of June 9, 1908, reached a stage of 44.3 ft, from floodmarks. Flood of May 27, 1930, was greatest flood during period 1916-38 and reached a stage of 46.7 ft, from floodmark (flow confined within levees). All flood information furnished by local residents.

REMARKS.--Records good. Station discontinued Nov. 13, 1970, as result of backwater from storage in Livingston Reservoir. For statement regarding regulation by upstream reservoirs and Soil Conservation Service floodwater-retarding structures, see Trinity River near Oakwood (station 08065000). Also regulated by Houston County Lake near Crockett (capacity 19,500 acre-ft). Diversions above station for municipal supplies, industrial use, and irrigation.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,280	12,800										
2	2,220	13,900										
3	2,040	13,900										
4	2,760	10,000										
5	3,730	5,460										
6	4,380	3,730										
7	4,440	3,360										
8	3,920	3,300										
9	3,120	2,940										
10	2,400	2,460										
11	1,800	2,160										
12	1,350	1,980										
13	1,220	1,800										
14	2,220	-										
15	4,970	-										
16	7,240	-										
17	6,580	-										
18	4,380	-										
19	2,580	-										
20	1,800	-										
21	1,400	-										
22	1,200	-										
23	1,920	-										
24	3,860	-										
25	2,940	-										
26	2,460	-										
27	3,000	-										
28	3,800	-										
29	4,840	-			------							
30	8,960	-			-------							
31	11,200	-----			-------		-------		-------			-------
TOTAL	111,010	-										
MEAN	3,580	-										
MAX	11,200	-										
MIN	1,200	-										
AC-FT	220,200	-										

08065700 Caney Creek near Madisonville, Tex.

LOCATION.--Lat 30°56'12", long 95°56'07", Madison County, near center of span at downstream side of pier of bridge on U.S. Highway 190, 0.2 mile downstream from Mustang Creek, 1.5 miles southwest of Madisonville, and 13.2 miles upstream from Bedias Creek.

DRAINAGE AREA.--112 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 213.74 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 52.6 cfs (6.38 inches per year, 38,110 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,020 cfs Oct. 23 (gage height, 15.33 ft); no flow at times.
Period of record: Maximum discharge, 15,000 cfs Apr. 12, 1969 (gage height, 17.76 ft); no flow at times each year.
Maximum stages since 1900, 22 ft in 1929, and 21.4 ft in November 1946, from information by local residents.

REMARKS.--Records good. No diversion above station.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1966(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.70	.70	.28	.09	.09	.04	0	.01			
2	0	.52	.70	.22	.02	.11	.02	0	.01			
3	0	.46	.64	.18	.01	.08	.01	0	0			
4	0	.46	.58	.22	.02	.07	.01	0	0			
5	0	.55	.58	.18	.02	.08	.02	0	0			
6	0	.58	.55	.17	.02	.12	.01	0	0			
7	0	.49	.55	.17	.03	.14	.01	0	0			
8	0	.52	.49	.17	.04	.12	.01	0	0			
9	0	.43	.49	.16	.03	.09	0	0	0			
10	0	.38	.43	.16	.05	.10	.01	0	0			
11	0	.49	.43	.14	.02	.12	.01	0	0			
12	0	.52	.38	.12	.01	.16	.01	3.2	0			
13	0	.93	.38	.12	.01	.18	0	.89	0			
14	0	1.0	.38	.14	.01	.20	0	.30	0			
15	0	1.8	.38	.14	.01	.17	.01	.08	0			
16	0	1.1	.38	.16	.01	.20	.01	.02	0			
17	0	.85	.38	.14	.01	.16	.01	.01	0			
18	0	.67	.38	.14	.01	.17	.01	.01	0			
19	0	.65	.38	.12	.02	.14	.01	.01	0			
20	0	.65	.38	.12	.02	.11	.01	7.9	1.1			
21	0	.60	.38	.14	.02	.16	.01	7.4	1.4			
22	0	.60	.43	.14	.02	.17	.01	2.0	.02			
23	105	.67	.38	.16	.02	.14	.01	.30	1.9			
24	1,010	.73	.24	.16	.02	.12	.02	.30	.28			
25	329	.73	.24	.14	.03	.16	.01	.14	.02			
26	20	.70	.24	.14	.61	.12	0	.04	.01			
27	6.6	.70	.24	.12	.24	.14	0	.02	0			
28	2.7	.70	.20	.18	.11	.14	0	.02	0			
29	1.5	.70	.20	.04	------	.10	0	.02	0			
30	1.1	.70	.22	.03	------	.07	0	.02	0			
31	.85	------	.23	.03	------	.04	------	.01	------			------
TOTAL	1,476.75	20.58	12.56	4.53	1.53	3.97	.28	22.69	4.75	0	0	0
MEAN	47.6	.69	.41	.15	.055	.13	.009	.73	.16	0	0	0
MAX	1,010	1.8	.70	.28	.61	.20	.04	7.9	1.9	0	0	0
MIN	0	.38	.20	.03	.01	.04	0	0	0	0	0	0
CFSM	.43	.006	.004	.001	.0004	.001	.0001	.007	.001	0	0	0
IN.	.49	.006	.004	.002	.0005	.001	0	.008	.002	0	0	0
AC-FT	2,930	41	25	9.0	3.0	7.9	.6	45	9.4	0	0	0

CAL YR 1970 TOTAL 12,713.27 MEAN 34.8 MAX 1,240 MIN 0 CFSM .31 IN 4.22 AC-FT 25,220
WTR YR 1971 TOTAL 1,547.64 MEAN 4.24 MAX 1,010 MIN 0 CFSM .04 IN .51 AC-FT 3,070

PEAK DISCHARGE (BASE, 1,400 CFS).--Oct. 23 (0900) 2,020 cfs (15.33 ft).

08065800 Bedias Creek near Madisonville, Tex.

LOCATION.--Lat 30°53'03", long 95°46'39", Madison-Walker County line, on right bank at downstream side of bridge on U.S. Highways 75 and 190, 0.5 mile upstream from Interstate Highway 45, 1.5 miles downstream from Caney Creek, and 9.5 miles southeast of Madisonville.

DRAINAGE AREA.--321 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 5,400 cfs Oct. 24 (gage height, 18.78 ft); no flow at times.
Period of record: Maximum discharge, 31,000 cfs Apr. 13, 1969 (gage height, 24.60 ft); no flow at times.
Maximum stage since at least 1910, 34 ft in May 1922 (discharge unknown), from information by local resident.

REMARKS.--Records good. At end of year, flow from 1.32 sq mi above this station was partly controlled by two floodwater-retarding structures with a total combined capacity of 1,270 acre-ft below the flood-spillway crests, of which 834 acre-ft is floodwater-retarding capacity and 436 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.1	23	1.8	6.2	1.1	39	.65	.57	4.0	1.7	0	.11
2	.1	18	1.8	8.5	1.0	18	.65	.50	2.2	1.0	0	.53
3	.1	15	2.2	5.0	1.1	6.6	.65	.48	1.4	.57	0	.32
4	0	11	2.2	3.7	1.2	3.4	.65	.45	1.2	.45	9.6	.15
5	0	10	2.2	2.6	1.2	2.4	.65	.42	1.0	.35	52	.09
6	0	7.5	2.2	2.2	1.0	1.7	.65	.40	.83	.28	31	.06
7	0	6.6	2.2	2.0	1.0	1.4	.65	.38	.75	.21	22	.01
8	0	5.4	2.2	2.0	.92	1.1	.65	.35	.68	.17	79	0
9	0	5.8	2.2	2.0	.92	1.1	.65	24	.62	.13	87	0
10	0	5.4	1.8	1.8	.92	1.1	.65	56	.53	.11	36	0
11	0	4.3	1.4	1.6	1.0	1.0	.62	613	.48	.09	12	0
12	0	2.9	1.1	1.8	1.2	1.0	.62	738	.45	.08	4.3	0
13	0	2.4	1.0	1.6	1.0	1.2	.62	690	.40	.06	2.0	0
14	0	2.0	.92	1.6	1.0	1.4	.62	309	.32	.02	1.6	0
15	.4	4.6	.92	1.6	1.0	1.7	.57	68	.23	0	.68	0
16	1.2	3.2	.92	1.4	1.1	1.7	.68	36	.19	0	.45	0
17	.5	4.0	.92	1.4	1.1	1.5	22	22	.13	0	.32	0
18	.2	3.2	.92	1.4	1.2	1.3	44	14	.11	0	.19	0
19	.2	3.2	.92	1.2	1.4	1.2	16	9.0	.09	0	.13	0
20	.2	3.2	1.0	1.2	1.1	1.1	9.0	36	.09	0	.07	0
21	2.0	2.6	1.1	1.2	1.0	1.0	5.0	77	.14	0	.04	0
22	9.5	2.4	1.4	1.1	.92	.90	3.2	68	9.0	0	.02	0
23	1,020	2.0	1.6	1.1	.92	.80	2.0	41	10	0	0	0
24	4,420	1.8	1.2	1.0	1.0	.75	1.4	26	9.0	0	0	0
25	3,170	1.7	1.1	.83	1.2	.70	1.1	24	5.8	0	0	0
26	1,900	1.7	.92	.85	19	.68	1.0	27	4.3	0	0	0
27	558	1.6	.92	.90	34	.68	.92	19	5.4	0	0	0
28	112	1.6	1.1	.91	72	.68	.83	19	5.8	0	0	0
29	63	1.6	1.4	.92	------	.68	.75	18	4.6	0	0	0
30	41	1.8	3.2	1.0	------	.68	.68	8.0	2.9	0	0	0
31	30	------	3.2	1.1	------	.68	------	7.0	------	0	0	------
TOTAL	11,328.5	159.5	47.96	61.71	151.50	97.13	118.11	2,952.55	72.64	5.22	338.40	1.27
MEAN	365	5.32	1.55	1.99	5.41	3.13	3.94	95.2	2.42	.17	10.9	.042
MAX	4,420	23	3.2	8.5	72	39	44	738	10	1.7	87	.53
MIN	0	1.6	.92	.83	.92	.68	.57	.35	.09	0	0	0
CFSM	1.14	.02	.005	.006	.02	.010	.01	.30	.008	.0005	.03	.0001
IN.	1.31	.02	.005	.007	.02	.01	.01	.34	.008	0	.04	0
AC-FT	22,470	316	95	122	301	193	234	5,860	144	10	671	2.5

CAL YR 1970 TOTAL 56,298.41 MEAN 154 MAX 4,420 MIN 0 CFSM .48 IN 6.52 AC-FT 111,700
WTR YR 1971 TOTAL 15,334.49 MEAN 42.0 MAX 4,420 MIN 0 CFSM .13 IN 1.78 AC-FT 30,420

PEAK DISCHARGE (BASE, 3,000 CFS).--Oct. 24 (1500) 5,400 cfs (18.78 ft).

08066000 Trinity River at Riverside, Tex.

LOCATION.--Lat 30°51'35", long 95°23'54", Walker-Trinity County line, at upstream side of bridge on State Highway 19, 1,200 ft upstream from Missouri Pacific Railroad Co. bridge, 0.5 mile north of Riverside, 0.8 mile downstream from Harmon Creek, and at mile 182.7.

DRAINAGE AREA.--15,589 sq mi.

PERIOD OF RECORD.--Discharge record, January 1903 to December 1906 (monthly discharge only, published in WSP 1312), October 1923 to September 1968. Records of daily discharge for January 1903 to December 1906, published in WSP 99, 132, 174, and 210, have been found to be unreliable and should not be used. Gage-height record, October 1968 to current year. Gage-height records collected in this vicinity since 1903 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 89.86 ft above mean sea level. Prior to Jan. 23, 1969, various nonrecording gages as follows: Prior to July 1, 1903, at railroad bridge 1,200 ft downstream at datum 7.7 ft lower; July 1, 1903, to May 5, 1941, at above site at present datum; May 6, 1941, to Jan. 22, 1969, at present site and datum.

AVERAGE DISCHARGE.--48 years (1903-6, 1923-68), 6,395 cfs (4,630,000 acre-ft per year).

EXTREMES.--Current year: Maximum gage height, 36.90 ft May 16-20; minimum, 28.77 ft Oct. 1.
Period of record: Maximum discharge, 121,000 cfs May 5, 1942 (gage height, 52.75 ft, from floodmark); minimum observed, 70 cfs Aug. 20-26, Sept. 8-13, 1925, Sept. 29 to Oct 4, 1931.
Maximum stage since at least 1866, that of May 5, 1942. From newspaper reports a flood in 1866 reached a stage of 50.5 ft, present site and datum. Flood of June 11, 1908, reached a stage of 50.1 ft, present site (discharge, 100,000 cfs). Flood of June 7, 1884, was about same as flood of June 11, 1908, from information by local resident.

REMARKS.--Station discontinued as a streamflow station Sept. 30, 1968, due to backwater from Livingston Reservoir (station 08066190). Midnight gage heights only since Oct. 1, 1968. At end of year, flow from 548 sq mi above this station was partly controlled by 225 floodwater-retarding structures with a total combined capacity of 199,400 acre-ft below the flood-spillway crests, of which 165,900 acre-ft is floodwater-retarding capacity and 33,500 acre-ft is sediment-pool capacity. Six structures were built during the current year and have a total combined capacity below flood-spillway crests of 3,360 acre-ft of which 593 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Upstream regulation same as that for Trinity River near Oakwood (station 08065000). Also regulated by Houston County Lake near Crockett (capacity, 19,500 acre-ft). Many diversions above station for municipal supplies, industrial use, and irrigation.

REVISIONS (WATER YEARS).--WSP 828: 1935 (yearly mean only). WSP 1312: 1926-27. WSP 1512: 1924, 1930, 1934. WSP 1922: Drainage area. See also PERIOD OF RECORD.

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.85	33.70	34.75	35.25	35.55	36.00	36.20	36.25	36.55	35.98	35.10	35.85
2	28.90	34.05	34.77	35.30	35.55	36.00	36.15	36.20	36.60	35.95	35.20	35.90
3	28.95	34.35	34.80	35.35	35.55	35.95	36.10	36.20	36.60	35.90	35.40	35.90
4	29.05	-	34.80	-	35.55	36.15	36.00	36.30	36.65	35.90	35.50	35.90
5	29.20	-	34.80	-	35.55	36.20	35.95	36.25	36.65	35.85	35.50	35.85
6	29.50	-	34.80	-	35.55	36.20	35.90	36.20	36.60	35.85	35.55	35.82
7	29.60	-	34.80	-	35.55	36.20	35.90	36.15	36.60	35.80	35.60	35.80
8	29.65	-	34.80	-	35.55	36.22	35.95	36.10	36.55	35.80	35.60	35.78
9	29.55	-	34.85	-	35.55	36.30	35.90	36.25	36.55	35.75	35.60	35.75
10	29.65	-	34.85	-	35.60	36.30	35.85	36.50	36.55	35.72	35.65	35.80
11	29.95	-	34.80	35.30	35.70	36.40	35.80	36.70	36.52	35.70	35.65	35.85
12	29.95	-	34.80	35.30	35.65	36.40	35.80	36.65	36.50	35.65	35.65	35.85
13	30.00	-	34.80	35.35	35.60	36.40	35.75	36.70	36.45	35.60	35.65	35.85
14	-	-	34.80	35.35	35.57	36.40	35.70	36.80	36.42	35.55	35.65	35.85
15	-	-	34.85	35.35	35.55	36.35	35.65	36.85	36.35	35.50	35.65	35.85
16	-	-	34.80	35.40	35.55	36.35	35.70	36.90	36.35	35.48	35.65	35.85
17	-	-	34.95	35.35	35.55	36.35	36.10	36.90	36.35	35.45	35.65	35.85
18	-	-	34.95	35.30	35.70	36.35	36.10	36.90	36.30	35.40	35.65	35.85
19	-	-	34.95	35.30	35.70	36.35	36.10	36.90	36.22	35.35	35.70	35.85
20	-	-	34.98	35.40	35.70	36.35	36.10	36.85	36.15	35.30	35.85	35.90
21	30.75	-	35.00	35.45	35.72	36.35	36.15	36.85	36.15	35.25	35.85	35.85
22	-	-	35.00	35.45	35.75	36.30	36.20	36.85	36.15	35.30	35.85	35.85
23	31.95	-	35.00	35.42	35.75	36.25	36.20	36.85	36.12	35.30	35.80	35.85
24	31.95	-	35.00	35.42	35.75	36.20	36.35	36.80	36.12	35.20	35.75	35.90
25	32.25	-	35.00	35.48	35.80	36.20	36.35	36.75	36.10	35.10	35.70	35.90
26	32.25	-	35.10	35.50	36.00	36.20	36.35	36.72	36.05	35.10	35.80	35.90
27	32.20	-	35.05	35.50	36.00	36.20	36.35	36.70	36.05	35.10	35.80	35.92
28	32.20	-	35.05	35.50	36.00	36.25	36.35	36.65	36.05	35.05	35.75	35.95
29	32.45	-	35.05	35.52	------	36.25	36.35	36.60	36.00	35.10	35.75	35.98
30	32.90	34.80	35.20	35.55	-------	36.25	36.30	36.60	36.00	35.10	35.75	36.00
31	33.35	-------	35.20	35.55	-------	36.25	-------	36.60	-------	35.10	35.75	-------
MAX	33.35	34.80	35.20	35.55	36.00	36.40	36.35	36.90	36.65	35.98	35.85	36.00
MIN	28.85	33.70	34.75	35.25	35.55	35.95	35.65	36.10	36.00	35.05	35.10	35.75

CAL YR 1970..... MAX 35.20 MIN 9.55
WTR YR 1971..... MAX 36.90 MIN 28.85

08066130 White Rock Creek near Trinity, Tex.

LOCATION.--Lat 31°02'13", long 95°21'23", Trinity County, on right bank in Trin-Lady Park, 2.0 miles upstream from Little White Rock Creek, 2.2 miles upstream from Tantabogue Creek, 6.4 miles north of Trinity, and 14.2 miles above mouth.

DRAINAGE AREA.--228 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 124.30 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 92.5 cfs (5.51 inches per year, 67,020 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,070 cfs Apr. 18 (gage height, 9.41 ft); no flow for many days.
Period of record: Maximum discharge, 13,200 cfs Apr. 9, 1968 (gage height, 22.68 ft); no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	5.0	1.2	38	1.4	20	.58	6.6	1.2	.28	0	.37
2	1.4	4.0	1.2	23	1.4	11	.54	5.6	1.0	.14	0	.34
3	1.1	3.2	1.2	14	1.4	7.0	.46	4.8	1.0	.04	0	.67
4	.87	2.8	1.2	8.2	1.3	4.2	.40	4.6	1.1	0	0	.50
5	.72	2.4	1.2	5.4	1.3	3.1	.37	4.2	1.0	0	0	.34
6	1.2	2.2	1.2	3.9	1.4	2.4	.34	4.2	.87	0	0	.20
7	1.7	2.0	1.2	2.9	1.6	2.0	.31	4.2	.72	0	0	.14
8	3.2	1.8	1.2	2.4	1.6	1.5	.28	3.9	.62	0	0	.08
9	3.0	50	1.2	2.3	1.4	1.5	.25	3.8	.58	0	0	.06
10	1.4	120	1.2	2.2	1.4	1.9	.22	8.9	.54	0	0	.03
11	12	60	1.2	1.9	1.4	1.4	.18	320	.62	0	0	.02
12	124	30	1.2	1.9	1.5	1.4	.14	160	.46	0	0	.01
13	155	15	1.2	1.9	1.4	2.6	.12	50	.43	0	0	.01
14	56	10	1.2	1.9	1.4	3.0	.12	20	.40	0	0	.01
15	24	7.0	1.3	1.9	1.2	2.5	.12	12	.37	0	0	.01
16	13	5.0	1.3	1.9	1.2	1.7	.18	8.0	.31	0	0	.01
17	7.4	4.0	1.3	1.8	1.2	2.5	11	6.0	.20	0	0	.01
18	4.7	3.2	1.3	1.7	1.2	1.7	760	5.0	.10	0	0	.01
19	5.4	2.7	1.3	1.7	1.7	1.4	1,220	4.0	.10	0	0	.01
20	5.6	2.2	1.5	1.6	1.7	1.2	206	3.5	.12	0	.12	.01
21	4.7	1.9	1.5	1.5	1.7	1.0	116	3.0	.20	0	.04	.01
22	3.1	1.7	1.8	1.4	1.6	.92	82	2.5	.67	0	.01	.01
23	181	1.5	2.5	1.4	1.5	.87	48	2.2	3.1	0	0	.02
24	758	1.4	2.8	1.4	1.9	.77	28	2.0	2.2	0	0	.02
25	437	1.3	3.0	1.4	2.1	.77	20	1.8	1.4	0	.18	.02
26	84	1.3	2.2	1.4	3.8	.77	14	1.6	.97	0	2.0	.02
27	38	1.3	1.9	1.4	50	.72	12	1.5	.82	0	2.7	.02
28	20	1.2	1.8	1.4	41	.67	10	1.4	.62	0	1.6	.02
29	12	1.2	1.8	1.4	------	.62	8.8	1.4	.46	0	2.2	.01
30	9.0	1.2	3.1	1.4	------	.58	7.6	1.3	.40	0	.77	.01
31	7.0	------	14	1.4	------	.58	------	1.2	------	0	.50	------
TOTAL	1,977.39	346.5	61.2	136.0	131.7	82.27	2,548.01	659.2	22.58	.46	10.12	3.00
MEAN	63.8	11.6	1.97	4.39	4.70	2.65	84.9	21.3	.75	.015	.33	.10
MAX	758	120	14	38	50	20	1,220	320	3.1	.28	2.7	.67
MIN	.72	1.2	1.2	1.4	1.2	.58	.12	1.2	.10	0	0	.01
CFSM	.28	.05	.009	.02	.02	.01	.37	.09	.003	.0001	.001	.0004
IN.	.32	.06	.01	.02	.02	.01	.42	.11	.004	0	.002	.0005
AC-FT	3,920	687	121	270	261	163	5,050	1,310	45	.9	20	6.0

CAL YR 1970 TOTAL 10,195.02 MEAN 27.9 MAX 758 MIN 0 CFSM .12 IN 1.66 AC-FT 20,220
WTR YR 1971 TOTAL 5,978.43 MEAN 16.4 MAX 1,220 MIN 0 CFSM .07 IN .98 AC-FT 11,860

PEAK DISCHARGE (BASE, 1,500 CFS).--Apr. 18 (2300) 2,070 cfs (9.41 ft).

NOTE.--No gage-height record Oct. 28 to Nov. 29.

08066170 Kickapoo Creek near Onalaska, Tex.

LOCATION.--Lat 30°54'25", long 95°05'18", Polk County, on right bank 114 ft downstream from old bridge site, 1.2 miles downstream from Magnolia Creek, 6.2 miles upstream from Rocky Creek, 7.3 miles northeast of Onalaska, and 15.9 miles upstream from mouth.

DRAINAGE AREA.--57.0 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 139.85 ft above mean sea level.

AVERAGE DISCHARGE.--5 years (1966-71), 27.1 cfs (6.46 inches per year, 19,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,250 cfs Oct. 23 (gage height, 11.76 ft); minimum, 0.01 cfs July 19, 20.
Period of record: Maximum discharge, 7,950 cfs Apr. 12, 1969 (gage height, 20.04 ft); minimum, 0.01 cfs July 19, 20, 1971.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	2.5	1.2	4.5	1.0	1.8	.36	.26	.30	.06	.10	49
2	.22	5.4	1.2	3.0	.92	1.8	.36	.25	.29	.06	.08	5.7
3	.18	4.2	1.2	2.8	.92	1.6	.36	.22	.26	.06	.26	7.4
4	.18	2.8	1.2	3.0	1.0	1.3	.30	.22	.25	.04	.69	5.3
5	.18	1.9	1.2	1.9	1.2	1.0	.30	.22	.22	.04	.67	1.7
6	4.6	1.8	1.2	1.5	1.2	1.0	.36	.26	.22	.03	.32	1.0
7	26	1.6	.92	1.3	1.9	1.0	.36	.39	.22	.03	.26	.68
8	5.1	1.3	.92	1.6	2.1	.92	.42	.40	.23	.02	.26	.53
9	2.5	41	.92	1.6	1.9	.82	.48	.90	.27	.03	.28	.44
10	1.6	8.5	.92	1.6	1.5	.82	.54	.83	.32	.03	.21	.43
11	40	4.0	.92	1.6	1.3	.82	.55	42	.26	.04	.22	.54
12	159	3.0	.92	1.6	1.3	.82	.55	15	.26	.04	.16	.63
13	13	2.5	.92	1.5	1.0	.82	.61	4.7	.26	.04	.12	.59
14	4.2	5.1	.92	1.5	.92	.82	.63	2.2	.24	.04	.11	.55
15	2.1	3.5	.92	1.3	.82	.63	.63	1.3	.21	.04	.10	2.2
16	1.3	2.8	.92	1.2	.82	.55	.77	.90	.17	.03	.10	3.2
17	1.0	2.5	.92	1.0	.82	.48	17	.69	.15	.02	.10	.95
18	.82	2.5	.92	1.0	.92	.48	3.5	.62	.21	.03	.10	.72
19	32	2.5	.92	1.0	1.3	.48	1.5	.55	.31	.02	.09	1.5
20	6.7	2.5	1.0	1.0	1.9	.48	.86	3.4	.41	.02	1.7	2.0
21	2.8	2.1	1.2	.92	1.8	.48	.71	3.0	.44	.17	2.4	1.3
22	1.6	1.8	1.2	.92	1.9	.42	.52	1.4	.97	.14	1.2	1.2
23	446	1.6	1.0	.92	1.6	.48	.43	1.1	2.4	.18	.83	.97
24	146	1.5	1.0	1.0	1.3	.42	.29	8.5	.17	.17	.93	.84
25	19	1.3	.92	1.0	1.2	.42	.26	6.2	.09	.13	.78	.81
26	10	1.2	.82	1.0	5.4	.42	.26	1.3	.07	.16	52	.82
27	7.0	1.2	.82	1.0	3.2	.48	.26	.75	.06	.32	5.8	.73
28	12	1.2	.82	1.0	1.9	.48	.26	.56	.06	.13	1.7	.63
29	6.7	1.2	.92	1.0	------	.55	.26	.48	.06	.22	1.5	.63
30	4.2	1.2	20	1.0	------	.48	.26	.41	.06	.12	.85	.63
31	3.0	------	9.6	1.0	------	.36	------	.33	------	.12	130	------
TOTAL	959.20	116.2	58.46	46.26	43.04	23.43	33.95	99.34	9.44	2.58	203.92	93.62
MEAN	30.9	3.87	1.89	1.49	1.54	.76	1.13	3.20	.31	.083	6.58	3.12
MAX	446	41	20	4.5	5.4	1.8	17	42	2.4	.32	130	49
MIN	.18	1.2	.82	.92	.82	.36	.26	.22	.06	.02	.08	.43
CFSM	.54	.07	.03	.03	.03	.01	.02	.06	.005	.002	.12	.05
IN.	.63	.08	.04	.03	.03	.02	.02	.06	.006	.001	.13	.06
AC-FT	1,900	230	116	92	85	46	67	197	19	5.1	404	186

CAL YR 1970 TOTAL 3,387.44 MEAN 9.28 MAX 446 MIN .08 CFSM .16 IN 2.21 AC-FT 6,720
WTR YR 1971 TOTAL 1,689.44 MEAN 4.63 MAX 446 MIN .02 CFSM .08 IN 1.10 AC-FT 3,350

PEAK DISCHARGE (BASE, 2,000 CFS).--Oct. 23 (1700) 2,250 cfs (11.76 ft).

08066190 Livingston Reservoir near Goodrich, Tex.

LOCATION.--Lat 30°38'00", long 95°00'36", Polk-San Jacinto County line, on upstream wingwall at left end of gated spillway, 4.4 miles northwest of Goodrich, 7 miles southwest of Livingston, 11.7 miles upstream from Long King Creek, and at mile 129.2.

DRAINAGE AREA.--16,583 sq mi.

PERIOD OF RECORD.--September 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Trinity River Authority). Prior to Feb. 26, 1969, temporary nonrecording gages at site about 200 ft upstream and at same datum.

EXTREMES.--Current year: Maximum contents, 1,471,000 acre-ft May 15, 16 (elevation, 126.95 ft); minimum, 938,800 acre-ft Oct. 1 (elevation, 119.00 ft).
Period of record: Maximum contents, 1,471,000 acre-ft May 15, 16, 1971 (elevation, 126.95 ft); minimum since deliberate impoundment began on June 26, 1969, 149,600 acre-ft Dec. 5, 1969 (elevation, 98.52 ft).

REMARKS.--Reservoir is formed by an earthfill dam, 14,400 ft long including spillway. Closure of embankment was begun and completed Sept. 29, 1968. Deliberate impoundment began June 26, 1969. Reservoir is operated to supply municipal, industrial, and irrigation water for use in the Houston area. The spillway is a concrete gravity structure 646 ft long with twelve 40- by 35-foot tainter gates located near the left end of the embankment. The outlet works is a concrete multi-gated inlet tower located 1,700 ft to right of right spillway abutment. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Trinity River at Riverside (station 08066000). Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	145.0	--
Maximum design flood	135.0	2,136,000
Top of gates	134.0	2,046,000
Normal operating level	131.0	1,788,000
Invert of 4- by 5-foot gate	119.0	938,800
Do	112.0	571,300
Do	103.0	246,000
Spillway crest	99.0	157,900
Invert of 4- by 5-foot gate	93.0	81,200
Invert of 8- by 10-foot gate	58.0	335

Capacity table (elevation, in feet, and total contents, in acre-feet)

119.0	938,800	123.0	1,192,000
121.0	1,062,000	125.0	1,329,000
		127.0	1,474,000

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	941.8	1,218	1,328	1,360	1,376	1,415	1,423	1,429	1,449	1,406	1,347	1,402
2	943.5	1,237	1,328	1,360	1,375	1,408	1,418	1,426	1,448	1,402	1,353	1,400
3	946.5	1,259	1,331	1,376	1,375	1,419	1,413	1,421	1,450	1,399	1,360	1,399
4	947.1	1,277	1,331	1,370	1,379	1,415	1,415	1,420	1,452	1,398	1,372	1,401
5	954.3	1,288	1,334	1,366	1,376	1,419	1,415	1,419	1,453	1,396	1,376	1,401
6	971.2	1,293	1,330	1,365	1,391	1,426	1,409	1,418	1,451	1,397	1,378	1,401
7	976.0	1,298	1,328	1,370	1,379	1,423	1,402	1,420	1,449	1,392	1,379	1,397
8	987.0	1,307	1,328	1,365	1,382	1,422	1,399	1,418	1,448	1,388	1,381	1,397
9	988.2	1,312	1,331	1,368	1,381	1,433	1,398	1,423	1,447	1,384	1,382	1,401
10	988.2	1,314	1,331	1,372	1,378	1,431	1,396	1,423	1,445	1,385	1,382	1,401
11	1,005	1,324	1,335	1,373	1,381	1,434	1,392	1,459	1,445	1,382	1,388	1,402
12	1,014	1,317	1,332	1,376	1,384	1,432	1,389	1,464	1,443	1,380	1,386	1,401
13	1,014	1,325	1,332	1,376	1,380	1,435	1,389	1,467	1,441	1,376	1,386	1,401
14	1,015	1,323	1,330	1,378	1,376	1,445	1,388	1,468	1,437	1,374	1,386	1,396
15	1,020	1,317	1,336	1,375	1,376	1,436	1,382	1,471	1,433	1,370	1,388	1,397
16	1,026	1,313	1,334	1,374	1,378	1,437	1,394	1,467	1,435	1,367	1,388	1,401
17	1,038	1,323	1,335	1,377	1,375	1,430	1,391	1,467	1,427	1,364	1,386	1,399
18	1,044	1,319	1,338	1,381	1,375	1,439	1,404	1,463	1,426	1,361	1,386	1,403
19	1,054	1,324	1,347	1,370	1,381	1,432	1,415	1,468	1,424	1,358	1,388	1,409
20	1,055	1,321	1,343	1,369	1,385	1,428	1,420	1,469	1,425	1,358	1,392	1,404
21	1,056	1,324	1,346	1,376	1,363	1,429	1,419	1,467	1,424	1,357	1,394	1,404
22	1,058	1,331	1,350	1,381	1,388	1,436	1,423	1,464	1,423	1,350	1,395	1,406
23	1,091	1,324	1,352	1,381	1,388	1,431	1,432	1,463	1,420	1,348	1,395	1,405
24	1,112	1,314	1,353	1,383	1,391	1,423	1,434	1,468	1,418	1,350	1,394	1,403
25	1,131	1,319	1,356	1,382	1,396	1,429	1,437	1,464	1,415	1,347	1,398	1,404
26	1,143	1,324	1,350	1,381	1,407	1,424	1,437	1,460	1,415	1,345	1,398	1,404
27	1,158	1,327	1,357	1,374	1,407	1,424	1,439	1,459	1,411	1,345	1,396	1,403
28	1,157	1,327	1,360	1,377	1,411	1,426	1,437	1,458	1,412	1,343	1,396	1,404
29	1,160	1,328	1,358	1,376	------	1,426	1,438	1,454	1,411	1,342	1,394	1,405
30	1,171	1,327	1,370	1,378	------	1,418	1,433	1,450	1,407	1,346	1,396	1,407
31	1,189	------	1,360	1,378	------	1,415	------	1,448	------	1,345	1,400	------
(†)	122.96	124.97	125.43	125.69	126.14	126.20	126.44	126.65	126.09	125.22	125.99	126.08
(*)	+250,200	+138,000	+33,000	+18,000	+33,000	+4,000	+18,000	+15,000	-41,000	-62,000	+55,000	+7,000
MAX	1,189	1,331	1,370	1,383	1,411	1,445	1,439	1,471	1,453	1,406	1,400	1,409
MIN	941.8	1,218	1,328	1,360	1,363	1,408	1,382	1,418	1,407	1,342	1,347	1,396

CAL YR 1970..... * +1,183,900 MAX 1,370 MIN 168.9
WTR YR 1971..... * +468,200 MAX 1,471 MIN 941.8

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08066191 Livingston Reservoir Outflow Weir near Goodrich, Tex.

LOCATION.--Lat 30°37'55", long 95°01'11", San Jacinto County, at end of conduit into stilling basin, 1,700 ft (revised) to right of right spillway abutment, 4.8 miles northwest of Goodrich, 11.7 miles upstream from Long King Creek, and at mile 129.2.

DRAINAGE AREA.--16,583 sq mi.

PERIOD OF RECORD.--August 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is mean sea level (levels by Trinity River Authority).

EXTREMES.--Current year: Maximum daily discharge, 2,460 cfs Mar. 24; maximum elevation, 67.08 ft Mar. 24; no flow Oct. 1-19.
Period of record: Maximum daily discharge, 3,070 cfs Dec. 11, 12, 1969; maximum elevation, 76.62 ft Mar. 19, 1970 (backwater from Trinity River); no flow for many days.

REMARKS.--Records good. For details concerning outlet works, see station Livingston Reservoir (08066190). The purpose of this station is to record selective withdrawal releases at outflow weir (crest, 61.90 ft). These releases do not constitute the total flow from Livingston Reservoir since flow through tainter gates is not included in these totals.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	289	301	314	318	314	1,560	1,510	1,510	1,000	688	528
2	0	293	301	314	318	310	1,560	1,510	1,370	1,040	694	516
3	0	293	301	310	314	305	1,560	1,510	1,040	1,040	423	500
4	0	293	301	310	314	310	1,560	1,510	1,040	1,000	225	500
5	0	293	301	310	318	310	1,560	1,560	1,040	1,000	200	500
6	0	297	301	310	318	310	1,560	1,560	1,000	1,040	230	500
7	0	297	301	310	318	310	1,690	1,560	1,000	986	281	577
8	0	297	301	310	314	310	1,780	1,560	1,000	986	277	588
9	0	297	301	310	314	310	1,780	1,560	1,000	845	277	554
10	0	301	305	314	314	340	1,820	1,330	1,000	511	274	456
11	0	301	305	318	314	500	1,820	576	1,000	754	253	420
12	0	791	305	318	314	370	1,820	261	1,040	979	338	382
13	0	1,460	305	318	809	1,200	1,820	265	1,040	979	293	346
14	0	915	297	318	1,560	1,500	1,740	261	1,290	1,080	293	318
15	0	297	297	318	1,070	1,300	1,640	318	1,510	1,240	343	372
16	0	297	301	318	305	1,150	1,600	410	1,510	1,240	528	382
17	0	297	301	318	305	1,120	876	102	1,510	1,240	528	351
18	0	301	301	318	301	1,120	318	847	1,510	1,240	528	410
19	0	301	301	318	301	1,120	323	1,460	1,200	1,240	528	410
20	260	301	301	318	305	1,120	328	1,510	993	1,180	528	397
21	379	301	301	323	305	1,120	328	1,510	1,000	1,200	538	382
22	273	301	301	323	305	1,510	328	1,510	1,000	1,200	538	386
23	281	301	305	323	305	1,960	332	1,510	1,000	1,200	538	390
24	281	301	310	323	305	2,460	808	1,460	1,000	1,200	544	395
25	285	297	314	323	305	1,040	1,040	1,510	1,000	1,200	550	395
26	289	297	314	323	305	1,160	1,360	1,510	1,000	1,120	550	395
27	289	301	314	323	310	1,560	1,560	1,510	1,000	965	544	395
28	285	301	314	323	310	1,560	1,560	1,510	1,000	972	544	400
29	285	301	314	318	------	1,560	1,510	1,510	1,000	796	555	410
30	285	301	314	318	------	1,560	1,510	1,510	1,000	670	544	410
31	289	------	314	318	------	1,560	------	1,510	------	682	522	------
TOTAL	3,481	11,213	9,443	9,830	11,194	30,679	39,051	37,740	33,603	31,825	13,696	12,965
MEAN	112	374	305	317	400	990	1,302	1,217	1,120	1,027	442	432
MAX	379	1,460	314	323	1,560	2,460	1,820	1,560	1,510	1,240	694	588
MIN	0	289	297	310	301	305	318	102	993	511	200	318
AC-FT	6,900	22,240	18,730	19,500	22,200	60,850	77,460	74,860	66,650	63,120	27,170	25,720

CAL YR 1970 TOTAL 39,441.20 MEAN 108 MAX 2,970 MIN 0 AC-FT 78,230
WTR YR 1971 TOTAL 244,720.00 MEAN 670 MAX 2,460 MIN 0 AC-FT 485,400

08066200 Long King Creek at Livingston, Tex.

LOCATION.--Lat 30°42'58", long 94°57'31", Polk County, on right bank 64 ft downstream from centerline of bridge on U.S. Highway 190, 2 miles west of Livingston, 2 miles upstream from Choates Creek, and 14.8 miles from mouth.

DRAINAGE AREA.--141 sq mi.

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.12 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 58.1 cfs (5.60 inches per year, 42,090 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,870 cfs Oct. 23 (gage height, 12.54 ft); no flow for many days.
Period of record: Maximum discharge, 12,800 cfs May 7, 1969 (gage height, 22.91 ft); no flow at times.
Maximum stage since at least 1870, about 41 ft in May 1929.

REMARKS.--Records poor. No diversion above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	8.1	1.8	6.9	2.0	4.8	2.0	1.0	1.6			2.6
2	.38	11	1.8	4.6	2.5	6.2	2.0	.91	2.4			11
3	.26	8.5	1.8	3.9	4.0	5.3	2.0	.69	2.2			1.0
4	.17	9.6	1.8	3.3	7.0	4.3	2.0	.68	2.4			.32
5	.17	9.8	1.8	2.4	7.5	3.5	2.0	1.0	2.2			.16
6	2.7	11	1.8	2.0	8.2	3.0	2.0	1.6	1.0			.26
7	12	11	1.8	2.3	7.5	2.5	1.9	2.0	.69			.24
8	9.2	19	1.8	3.1	6.3	2.5	1.9	2.9	.58			.18
9	14	87	2.2	2.6	5.4	2.5	1.9	4.0	.54			.16
10	9.7	18	2.2	3.2	4.6	8.1	1.6	14	.50			.86
11	22	5.3	2.2	3.4	3.5	7.0	.88	105	.55			7.3
12	269	2.5	2.2	3.2	2.5	5.0	.67	67	.52			1.6
13	104	1.9	2.2	2.5	2.5	5.0	.69	25	.56			.87
14	20	4.0	2.2	2.2	2.0	4.0	.97	9.0	.57			.54
15	17	4.7	2.2	2.0	2.0	3.5	1.1	3.7	.54			.54
16	17	2.3	3.5	1.9	2.0	3.0	1.4	3.2	.50			.55
17	16	1.4	3.0	1.9	2.0	2.8	20	2.9	.47			.41
18	16	1.1	4.5	1.9	3.5	2.6	19	3.7	.36			1.8
19	27	1.4	5.0	1.8	6.9	7.0	17	4.0	.39			29
20	47	2.2	4.9	1.8	7.6	5.0	13	5.6	.66			30
21	18	1.9	4.6	1.8	8.2	4.0	10	8.1	.77			12
22	11	2.0	4.3	1.8	7.5	3.0	5.0	8.1	.66			7.1
23	1,250	2.9	3.5	2.2	7.1	2.5	2.5	8.5	.46			5.1
24	1,620	2.8	3.1	3.4	6.8	2.5	2.0	9.0	.23			3.9
25	169	3.0	2.7	4.0	6.9	2.5	1.4	12	.12			3.7
26	42	2.5	2.5	3.2	13	2.5	1.4	12	.07			3.6
27	27	1.9	2.5	3.4	9.0	2.5	1.4	9.5	.04			3.4
28	44	1.8	2.6	3.2	6.9	2.5	1.2	7.2	0			3.4
29	39	1.8	2.6	2.5	------	2.5	1.5	60	0			3.2
30	17	1.8	3.9	2.0	------	2.0	1.5	15	0			3.2
31	10	------	4.7	2.0	------	2.0	------	3.4	------			------
TOTAL	3,851.18	237.2	87.7	86.4	154.9	116.1	121.91	410.68	21.58	0	0	137.99
MEAN	124	7.91	2.83	2.79	5.53	3.75	4.06	13.2	.72	0	0	4.60
MAX	1,620	82	5.0	6.9	13	8.1	20	105	2.4	0	0	30
MIN	.17	1.1	1.8	1.8	2.0	2.0	.67	.68	0	0	0	.16
CFSM	.88	.06	.02	.02	.04	.03	.03	.09	.005	0	0	.03
IN.	1.02	.06	.02	.02	.04	.03	.03	.11	.005	0	0	.04
AC-FT	7,640	470	174	171	307	230	242	815	43	0	0	274

CAL YR 1970 TOTAL 8,107.24 MEAN 22.2 MAX 1,620 MIN .08 CFSM .16 IN 2.14 AC-FT 16,080
WTR YR 1971 TOTAL 5,225.64 MEAN 14.3 MAX 1,620 MIN 0 CFSM .10 IN 1.38 AC-FT 10,370

PEAK DISCHARGE (BASE, 2,300 CFS).--Oct. 23 (2300) 2,870 cfs (12.54 ft).

08066250 Trinity River near Goodrich, Tex.

LOCATION.--Lat 30°34'19", long 94°56'55", Polk-San Jacinto County line, on left bank 40 ft downstream from downstream bridge on U.S. Highway 59, 0.2 mile downstream from Long King Creek, 3.0 miles southeast of Goodrich, and at mile 117.3.

DRAINAGE AREA.--16,844 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 40.00 ft above mean sea level.

AVERAGE DISCHARGE.--5 years (1966-71), 5,895 cfs (4,271,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,250 cfs Mar. 24 (gage height, 12.96 ft); minimum daily, 191 cfs Aug. 6 (regulation by Livingston Reservoir).
Period of record: Maximum discharge, 69,900 cfs May 14, 15, 1966 (gage height, 41.58 ft); minimum daily, 191 cfs Aug. 6, 1971 (regulation by Livingston Reservoir).
Maximum stage since at least 1929, 52.0 ft in May 1942, from information by State Highway Department and local residents.

REMARKS.--Records good. Regulated since Sept. 29, 1968, by Livingston Reservoir (station 08066190; capacity, 1,788,000 acre-ft) 11.9 miles upstream. No diversions between Livingston Reservoir and gaging station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	682	385	333	330	316	363	1,540	1,460	1,480	985	672	586
2	682	385	326	335	318	356	1,520	1,460	1,440	985	679	609
3	681	371	322	342	324	336	1,530	1,440	1,080	985	635	612
4	679	366	319	320	326	347	1,540	1,460	1,030	992	386	584
5	688	366	312	318	321	351	1,520	1,470	1,020	983	228	571
6	699	361	308	321	323	337	1,510	1,500	1,010	989	191	565
7	716	358	308	329	320	328	1,570	1,490	989	976	342	560
8	718	360	308	337	313	334	1,780	1,470	996	971	385	558
9	662	426	308	335	314	341	1,720	1,490	998	971	393	552
10	620	480	308	328	316	341	1,720	1,410	998	967	378	402
11	749	425	305	325	322	616	1,710	1,500	1,000	967	256	338
12	940	520	302	323	301	501	1,720	841	1,010	962	252	340
13	965	1,410	302	323	442	1,330	1,720	548	1,010	962	400	315
14	840	1,360	298	321	1,960	1,480	1,680	415	1,120	984	389	303
15	795	548	316	315	2,000	1,410	1,610	368	1,440	1,190	385	308
16	775	434	312	315	627	1,210	1,580	467	1,470	1,220	520	310
17	766	406	312	319	378	1,160	1,310	604	1,470	1,210	556	308
18	760	396	319	315	361	1,170	455	1,270	1,440	1,210	564	416
19	780	378	319	309	358	1,150	346	1,490	1,330	1,210	564	478
20	695	364	323	315	354	1,150	322	1,600	1,030	1,200	564	589
21	635	354	323	318	351	1,160	314	1,490	1,000	1,200	564	495
22	347	347	323	316	336	1,300	312	1,480	998	1,200	564	448
23	479	336	318	316	345	1,660	301	1,480	994	1,200	564	432
24	1,830	330	319	313	348	2,540	515	1,490	994	1,190	564	455
25	1,180	333	317	311	348	1,490	999	1,480	990	1,190	567	429
26	597	340	320	311	436	1,120	1,160	1,470	989	1,180	571	422
27	422	340	323	317	391	1,460	1,450	1,480	992	1,000	568	417
28	396	333	323	319	368	1,530	1,470	1,490	994	976	573	416
29	389	333	337	319	------	1,520	1,470	1,480	993	899	575	415
30	389	333	342	318	------	1,520	1,460	1,530	989	695	581	419
31	389	------	328	316	------	1,540	------	1,500	------	672	579	------
TOTAL	21,945	13,478	9,833	9,949	13,214	31,451	37,854	40,123	33,294	32,321	15,009	13,652
MEAN	708	449	317	321	472	1,015	1,262	1,294	1,110	1,043	484	455
MAX	1,830	1,410	342	342	2,000	2,540	1,780	1,600	1,480	1,220	679	612
MIN	347	330	298	309	301	328	301	368	989	672	191	303
AC-FT	43,530	26,730	19,500	19,730	26,210	62,380	75,080	79,580	66,040	64,110	29,770	27,080

CAL YR 1970 TOTAL 1,514,659 MEAN 4,150 MAX 31,000 MIN 298 AC-FT 3,004,000
WTR YR 1971 TOTAL 272,123 MEAN 746 MAX 2,540 MIN 191 AC-FT 539,800

08066300 Menard Creek near Rye, Tex.

LOCATION.--Lat 30°28'52", long 94°46'46", Liberty County, on left bank 20 ft downstream from bridge on State Highway 146, 2.3 miles northwest of Rye, and about 6 miles upstream from mouth.

DRAINAGE AREA.--152 sq mi.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 62.32 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 44.9 cfs (32,530 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 292 cfs May 11 (gage height, 12.38 ft); minimum daily, 3.5 cfs July 20.
Period of record: Maximum discharge, 9,660 cfs May 8, 1969 (gage height, 30.33 ft), from rating curve extended above 5,600 cfs; minimum daily, 2.6 cfs Nov. 1, 1967.
Flood in September 1961 reached a stage of about 34 ft, from information by local resident.

REMARKS.--Records good. No known diversions above station.

REVISIONS (WATER YEAR).--WRD Texas 1969: 1966(P). Revised figures of discharge, in cubic feet per second, for the water year 1970, superseding those published in WRD Texas, 1970, are given herein:

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1969.....	296.6	28	7.9	9.57	588
November.....	318.3	25	6.1	10.6	631
December.....	561.5	51	9.3	18.1	1,110
June.....	754.3	91	7.6	25.1	1,500
July.....	338.4	23	7.2	10.9	671
August.....	392.9	22	6.3	12.7	779
September.....	281.9	13	7.6	9.40	559
CAL YR 1969.....	35,834.5	8,110	6.1	98.2	71,080
WTR YR 1970.....	11,004.9	449	6.1	30.2	21,830

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	27	15	20	12	33	8.8	8.6	14	5.7	4.8	5.7
2	7.6	26	15	21	12	24	8.6	8.1	13	5.4	4.4	5.9
3	7.4	26	13	20	12	22	8.6	7.9	11	5.2	16	5.7
4	7.0	25	11	18	13	19	8.6	7.4	11	5.0	32	5.6
5	6.7	24	9.8	16	13	16	8.3	7.0	9.9	4.8	35	5.4
6	7.2	23	10	14	12	15	8.3	8.1	9.4	4.7	10	5.2
7	7.9	23	9.8	14	12	14	8.1	12	8.9	4.6	14	5.1
8	9.0	24	9.6	14	12	14	7.9	11	8.1	4.5	12	4.8
9	10	25	9.6	13	13	13	7.9	15	7.8	4.5	11	19
10	9.3	24	9.6	13	13	13	7.6	16	7.8	4.7	8.6	48
11	17	24	9.6	14	13	12	7.4	96	7.5	4.6	8.0	26
12	43	25	9.6	14	13	12	7.2	198	7.2	4.3	7.4	7.3
13	42	27	9.8	15	13	12	7.2	124	6.8	4.1	6.9	8.5
14	30	28	9.6	16	13	12	7.0	128	6.3	4.1	6.8	7.8
15	25	26	9.8	16	13	12	6.7	72	7.6	3.9	6.4	7.4
16	22	28	9.8	16	13	12	6.7	40	11	6.4	6.0	7.2
17	19	25	9.6	15	12	11	12	26	8.5	4.1	5.6	8.6
18	17	24	9.6	15	12	12	9.6	21	7.9	3.9	5.3	8.6
19	16	22	9.3	14	12	14	16	19	22	3.6	5.0	9.0
20	15	21	9.6	13	12	13	16	17	17	3.5	5.0	9.2
21	15	20	9.6	13	13	12	15	28	7.1	3.8	4.8	9.2
22	15	18	9.8	13	13	12	15	51	6.7	3.9	4.9	9.2
23	22	18	10	13	13	11	14	32	6.6	3.9	4.9	9.2
24	32	17	11	13	13	10	12	27	6.2	3.8	4.8	9.2
25	48	16	11	13	13	10	11	26	6.0	3.7	4.8	14
26	65	16	11	13	17	9.8	10	23	5.8	4.1	5.1	10
27	56	16	10	13	23	9.8	9.8	22	4.9	4.2	4.9	9.0
28	42	15	10	13	36	9.8	9.6	21	4.5	4.8	5.3	9.0
29	36	15	13	13	------	9.6	9.3	18	5.4	5.9	6.3	9.0
30	32	15	16	13	------	9.3	9.0	16	5.8	5.1	5.7	8.5
31	28	------	16	12	------	9.0	------	15	------	5.3	5.7	------
TOTAL	717.0	663	336.1	453	391	417.3	293.2	1,121.1	261.7	140.1	267.4	306.3
MEAN	23.1	22.1	10.8	14.6	14.0	13.5	9.77	36.2	8.72	4.52	8.63	10.2
MAX	65	28	16	21	36	33	16	198	22	6.4	35	48
MIN	6.7	15	9.3	12	12	9.0	6.7	7.0	4.5	3.5	4.4	4.8
AC-FT	1,420	1,320	667	899	776	828	582	2,220	519	278	530	608

CAL YR 1970 TOTAL 11,544.6 MEAN 31.6 MAX 449 MIN 6.3 AC-FT 22,900
WTR YR 1971 TOTAL 5,367.2 MEAN 14.7 MAX 198 MIN 3.5 AC-FT 10,650

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

08066400 Big Creek near Shepherd, Tex.

LOCATION.--Lat 30°30'59", long 94°59"06', San Jacinto County, on left bank at downstream side of downstream bridge on U.S. Highway 59, 1.5 miles northeast of Shepherd, and 11.6 miles above mouth.

DRAINAGE AREA.--38.8 sq mi.

PERIOD OF RECORD.--January 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 94.90 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 12.3 cfs (4.30 inches per year, 8,910 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 73 cfs May 11 (gage height, 9.89 ft); minimum daily, 1.5 cfs July 17.
Period of record: Maximum discharge, 1,300 cfs May 7, 1969 (gage height, 15.04 ft); minimum daily, 1.0 cfs Aug. 7, 1967.
Maximum stage since at least 1949, 20.3 ft in 1957, from information by local resident.

REMARKS.--Records poor. No known regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	6.6	6.0	10	5.4	7.5	3.6	2.4	6.8	3.5	2.7	6.0
2	5.0	5.9	5.9	8.0	4.6	7.3	3.7	2.3	6.0	3.2	2.9	6.3
3	4.8	5.8	6.2	7.0	5.0	7.1	3.6	2.3	5.4	2.8	9.7	5.8
4	4.3	5.2	6.0	6.0	5.8	6.2	3.5	2.1	4.8	2.6	20	5.4
5	4.2	5.0	6.0	5.5	7.7	5.6	3.5	2.1	4.6	2.5	22	5.3
6	7.3	5.0	6.0	5.5	8.1	5.4	3.3	2.7	4.3	2.4	13	5.4
7	5.8	5.1	5.8	5.5	8.2	4.7	2.9	4.7	4.2	2.3	9.1	5.5
8	8.1	5.1	5.4	5.5	8.6	4.2	3.2	3.9	3.9	2.2	6.7	5.5
9	7.8	9.4	5.4	6.0	7.4	4.3	3.3	4.6	3.7	2.2	6.4	5.5
10	6.2	10	5.6	10	6.7	5.4	3.3	5.7	3.7	3.0	5.4	6.0
11	18	6.3	5.9	8.0	7.0	6.3	3.2	53	3.6	3.6	4.2	5.9
12	36	5.8	5.8	7.0	6.8	6.0	3.2	32	3.6	3.6	4.2	6.6
13	18	6.3	5.6	6.5	6.3	6.0	2.9	22	3.5	2.6	3.6	4.6
14	8.6	8.9	5.6	6.0	6.3	5.8	2.8	15	3.5	2.1	3.1	3.6
15	6.4	9.6	5.6	6.0	6.4	5.4	2.8	10	3.5	1.8	2.8	3.3
16	5.5	6.4	5.9	6.0	6.6	4.7	3.0	8.3	3.3	1.6	2.6	3.7
17	4.8	6.0	5.9	6.0	6.2	3.6	23	6.2	3.6	1.5	2.4	4.2
18	4.7	6.4	5.6	5.5	5.9	3.7	19	5.1	3.5	1.6	2.3	4.2
19	7.0	5.9	6.0	5.5	6.7	6.4	7.7	5.1	3.6	1.6	2.2	5.2
20	12	5.5	6.0	5.5	9.0	7.8	5.5	16	4.4	1.7	2.2	6.2
21	6.8	5.2	6.3	5.2	8.3	6.0	4.8	8.8	4.4	1.8	2.2	5.2
22	5.6	5.4	6.2	5.2	7.1	5.9	4.4	6.2	4.2	1.9	2.1	4.3
23	16	5.1	5.9	5.3	6.3	5.9	4.2	5.1	4.3	2.1	2.0	4.2
24	24	4.8	5.6	5.2	6.2	5.2	3.6	7.0	3.7	2.0	2.0	4.2
25	11	5.1	5.5	5.2	6.0	5.1	3.2	11	3.6	1.8	2.5	4.3
26	8.3	6.2	5.5	5.2	24	5.2	3.1	7.8	3.3	1.9	3.0	4.0
27	9.6	6.4	5.5	5.1	20	5.1	2.9	15	3.0	2.4	2.5	3.2
28	26	6.3	5.5	5.2	9.9	5.1	2.8	42	3.0	2.7	2.5	2.9
29	13	6.3	15	5.5	------	4.8	2.8	21	3.9	2.6	3.0	3.1
30	8.5	6.3	30	6.0	------	4.4	2.7	12	3.7	2.6	3.5	2.9
31	7.0	------	15	5.6	------	3.9	------	8.2	------	3.1	4.8	------
TOTAL	315.4	187.3	222.2	189.7	222.5	170.0	141.5	349.6	120.6	73.3	157.6	142.5
MEAN	10.2	6.24	7.17	6.12	7.95	5.48	4.72	11.3	4.02	2.36	5.08	4.75
MAX	36	10	30	10	24	7.8	23	53	6.8	3.6	22	6.6
MIN	4.2	4.8	5.4	5.1	4.6	3.6	2.7	2.1	3.0	1.5	2.0	2.9
CFSM	.26	.16	.18	.16	.20	.14	.12	.29	.10	.06	.13	.12
IN.	.30	.18	.21	.18	.21	.16	.14	.34	.12	.07	.15	.14
AC-FT	626	372	441	376	441	337	281	693	239	145	313	283

CAL YR 1970 TOTAL 3,922.2 MEAN 10.7 MAX 101 MIN 1.6 CFSM .28 IN 3.76 AC-FT 7,780
WTR YR 1971 TOTAL 2,292.2 MEAN 6.28 MAX 53 MIN 1.5 CFSM .16 IN 2.20 AC-FT 4,550

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

08066500 Trinity River at Romayor, Tex.

LOCATION.--Lat 30°25'30", long 94°51'02", Liberty County, near right bank on downstream side of pier of bridge on State Highway 105, 1.9 miles south of Romayor, 1.9 miles downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.7 miles downstream from Big Creek, and at mile 94.3.

DRAINAGE AREA.--17,186 sq mi.

PERIOD OF RECORD.--May 1924 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 35.92 ft above mean sea level. Prior to September 1943, nonrecording gage at datum 53.57 ft higher at railroad bridge 1.9 miles upstream.

AVERAGE DISCHARGE.--47 years, 7,034 cfs (5,096,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,580 cfs Mar. 25 (gage height, 4.95 ft); minimum daily, 308 cfs Aug. 12.
Period of record: Maximum discharge, 111,000 cfs May 9, 1942 (gage height, 35.8 ft, from floodmarks, present site and datum); minimum, 102 cfs Aug. 24, 25, 1956.
Maximum stage since at least 1908, that of May 9, 1942.

REMARKS.--Records good. Regulated since Sept. 28, 1968, by Livingston Reservoir (station 08066190; capacity, 1,788,000 acre-ft) 35 miles upstream. No large diversions between Livingston Reservoir and gaging station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1392: 1932, 1935. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	678	420	357	372	325	390	1,420	1,330	1,480	905	600	540
2	676	405	360	375	325	381	1,390	1,330	1,460	905	620	560
3	674	405	360	369	333	363	1,390	1,330	1,300	905	680	580
4	670	387	357	369	339	351	1,390	1,320	1,160	905	525	560
5	673	381	348	354	339	351	1,390	1,340	1,140	905	420	540
6	708	378	348	351	336	348	1,390	1,370	1,120	905	318	525
7	713	378	348	348	339	339	1,390	1,370	1,090	905	318	525
8	721	375	348	354	333	339	1,510	1,360	1,090	880	390	525
9	714	387	348	354	330	342	1,550	1,380	1,100	855	405	525
10	652	450	348	360	339	348	1,550	1,380	1,090	830	390	525
11	782	435	345	357	336	420	1,550	1,560	1,090	830	363	450
12	1,060	390	342	354	330	495	1,550	1,430	1,100	855	308	405
13	1,090	853	345	354	325	740	1,550	931	1,090	880	327	381
14	962	1,270	348	354	930	1,270	1,550	727	1,090	855	366	363
15	820	761	348	348	1,720	1,300	1,480	587	1,360	955	359	366
16	780	435	351	342	1,090	1,150	1,450	522	1,420	1,060	405	369
17	760	420	345	342	450	1,030	1,510	514	1,420	1,060	525	360
18	740	410	348	339	369	1,030	855	997	1,420	1,060	525	387
19	760	400	351	333	360	1,030	495	1,400	1,420	1,060	540	480
20	740	400	354	333	357	1,030	450	1,630	1,090	1,060	540	525
21	660	390	351	336	351	1,030	420	1,520	955	1,060	525	540
22	510	390	351	342	342	1,060	405	1,490	930	1,060	525	480
23	495	380	354	339	342	1,360	405	1,480	930	1,060	525	450
24	1,270	380	345	336	339	1,940	390	1,500	930	1,060	525	465
25	1,450	370	342	336	345	1,980	704	1,500	930	1,090	540	465
26	805	369	339	333	435	1,120	930	1,480	905	1,090	540	450
27	580	372	345	333	435	1,210	1,230	1,490	905	980	540	435
28	525	369	345	333	405	1,420	1,320	1,530	905	880	540	435
29	495	363	360	333	------	1,390	1,330	1,520	930	855	560	435
30	465	360	381	333	------	1,390	1,330	1,530	905	700	540	435
31	435	------	381	330	------	1,390	------	1,530	------	620	540	------
TOTAL	23,063	13,483	10,893	10,746	12,599	28,337	35,274	40,378	33,755	29,030	14,824	14,081
MEAN	744	449	351	347	450	914	1,176	1,303	1,125	936	478	469
MAX	1,450	1,270	381	375	1,720	1,980	1,550	1,630	1,480	1,090	680	580
MIN	435	360	339	330	325	339	390	514	905	620	308	360
AC-FT	45,750	26,740	21,610	21,310	24,990	56,210	69,970	80,090	66,950	57,580	29,400	27,930

CAL YR 1970 TOTAL 1,527,208 MEAN 4,184 MAX 30,900 MIN 339 AC-FT 3,029,000
WTR YR 1971 TOTAL 266,463 MEAN 730 MAX 1,980 MIN 308 AC-FT 528,500

08067000 Trinity River at Liberty, Tex.

LOCATION.--Lat 30°03'27", long 94°49'05", Liberty County, near center of channel on upstream side of downstream bridge on U.S. Highway 90 in Liberty, 450 ft downstream from Texas and New Orleans Railroad Co. bridge, and at mile 40.3.

DRAINAGE AREA.--17,468 sq mi.

RECORDS AVAILABLE.--October 1938 to September 1940 (gage heights, discharge measurements, and some records of daily discharge), October 1940 to current year (high-water records only). Gage-height records collected in this vicinity since 1903 are contained in reports of U.S. Weather Bureau.

GAGE.--Nonrecording gage. Datum of gage is 2.22 ft below mean sea level.

EXTREMES.--Current year: Maximum discharge not determined (affected by tides); maximum gage height, 7.80 ft Oct. 25; minimum discharge not determined (affected by tides); minimum gage height observed, 2.32 ft Nov. 24.
Period of record: Maximum discharge, 114,000 cfs May 12, 1942 (gage height, 29.38 ft); minimum not determined (affected by tides); minimum gage height observed, 2.32 ft Nov. 24, 1970.
Maximum stage since at least 1903, that of May 12, 1942. Flood of May 8-11, 1922, reached a stage of 28.6 ft, present datum, from observation by U.S. Weather Bureau at nonrecording gage on railroad bridge upstream.

REMARKS.--Discharge is not computed below a gage height of 10 ft because tides affect the stage-discharge relation. Flow regulated by Livingston Reservoir (station 08066190) 88.9 miles upstream. Diversions above station for municipal supplies, industrial use, and irrigation.

COOPERATION.--Gage-height record furnished by U.S. Weather Bureau.

REVISIONS.--WSP 1922: Drainage area.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.50	5.46	4.50	3.47	3.80	3.92	5.40	4.62	5.43	4.46	3.65	3.62
2	4.75	4.90	4.60	4.00	3.88	3.30	5.05	4.35	5.43	4.15	4.50	3.85
3	4.90	4.15	4.52	4.75	4.80	3.90	5.30	4.85	5.50	4.00	4.93	3.93
4	4.65	3.67	4.20	5.05	4.30	2.40	5.50	4.78	5.95	3.95	4.55	4.25
5	4.80	3.20	4.00	2.70	3.95	3.95	5.38	4.50	6.05	3.87	4.28	4.33
6	5.25	3.80	3.80	2.70	3.70	4.28	4.85	5.18	5.95	3.85	4.05	4.00
7	5.45	3.75	3.67	2.72	4.55	2.50	4.52	5.25	4.45	3.80	3.67	3.90
8	5.35	3.95	4.37	3.20	2.80	2.73	4.68	4.95	4.32	3.80	3.67	4.40
9	4.50	4.20	4.45	3.50	2.90	3.95	4.95	4.96	4.40	3.95	3.80	4.65
10	3.80	3.30	4.15	4.30	3.03	3.60	4.95	5.32	4.30	3.70	3.85	4.35
11	4.30	3.80	4.00	4.20	3.75	3.12	5.10	5.50	4.48	3.90	3.75	4.20
12	5.30	3.80	3.15	4.00	4.45	3.60	5.08	6.52	4.35	4.90	3.43	5.05
13	6.10	4.15	3.67	4.30	4.25	3.75	5.22	7.10	4.70	4.50	3.20	4.30
14	5.75	4.60	4.25	4.20	2.55	4.00	5.27	6.12	4.35	4.28	3.65	4.15
15	5.57	4.80	4.65	3.85	3.35	3.85	5.25	4.90	4.45	4.10	3.40	4.25
16	4.80	4.62	4.70	3.60	5.35	4.63	5.33	4.80	4.45	4.18	3.65	3.70
17	4.50	4.50	3.37	3.90	5.00	4.50	5.80	4.60	4.78	4.40	3.65	3.47
18	4.65	4.00	4.05	3.80	4.00	5.00	6.25	4.67	4.60	4.32	3.60	3.64
19	4.85	4.15	4.20	2.82	4.15	4.77	5.55	4.77	4.40	4.20	3.45	3.55
20	4.80	4.15	4.15	3.20	4.30	4.50	4.88	5.00	4.80	4.70	4.10	3.35
21	4.70	4.30	4.25	3.40	4.47	4.32	4.10	5.08	4.55	4.80	3.55	3.65
22	4.85	4.65	4.02	4.05	3.40	4.77	4.65	5.20	4.15	4.65	4.00	3.80
23	4.70	3.00	4.28	3.90	3.25	4.50	4.35	5.30	4.00	4.50	4.00	4.70
24	4.55	2.32	3.07	4.42	3.74	4.40	4.10	5.65	4.10	4.60	3.95	4.45
25	6.80	4.12	2.75	4.42	4.20	4.45	3.47	5.80	4.05	4.85	3.90	5.03
26	7.40	4.80	2.60	4.50	4.00	6.00	3.62	5.30	4.20	5.00	3.90	5.03
27	6.45	4.20	4.22	3.90	3.97	4.70	3.40	5.15	4.15	4.94	3.97	5.00
28	7.30	4.20	4.22	4.57	3.85	4.58	4.55	5.40	4.25	4.62	4.00	4.78
29	7.47	4.80	4.40	4.08	-----	5.00	4.90	5.50	4.40	4.72	3.80	4.67
30	6.65	4.40	4.47	3.88	-----	4.75	5.10	5.40	4.45	4.50	3.82	4.57
31	6.10	-----	4.00	4.05	-----	5.05	-----	5.50	-----	4.65	3.65	-----

08068000 West Fork San Jacinto River near Conroe, Tex.

LOCATION.--Lat 30°14'41", long 95°27'26", Montgomery County, near right bank at downstream side of pier of bridge on Interstate Highway 45 and U.S. Highway 75, 281 ft upstream from Missouri Pacific Railroad Co. bridge, 3.5 miles downstream from Lake Creek, and 4.2 miles south of Conroe.

DRAINAGE AREA.--809 sq mi.

PERIOD OF RECORD.--May 1924 to September 1927, July 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 95.03 ft above mean sea level. May 7, 1924, to Sept. 30, 1927, nonrecording gage at railroad bridge 285 ft downstream at datum 30.10 ft higher. July 13, 1939, to Sept. 30, 1963, water-stage recorder at datum 5.0 ft higher.

AVERAGE DISCHARGE.--35 years, 486 cfs (8.16 inches per year, 352,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,540 cfs May 15 (gage height, 9.33 ft); minimum daily, 6.5 cfs July 31, Aug 1.
Period of record: Maximum discharge, 110,000 cfs Nov. 25, 1940 (gage height, 30.85 ft, present datum), from rating curve extended above 43,000 cfs on basis of velocity-area studies; no flow June 14, 1956, Sept. 19 to Oct. 1, 1965, result of temporary dams.
Maximum stage since at least December 1913, that of Nov. 25, 1940. Flood in December 1913 reached a stage of 30.2 ft, present site and datum, from information by Missouri Pacific Railroad Co. (discharge, 101,000 cfs, from rating curve explained above).

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1058: 1926. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	34	23	28	16	20	16	18	88	11	6.5	24
2	14	30	23	28	16	20	16	17	71	10	7.0	45
3	13	27	23	27	16	22	15	16	59	9.9	21	23
4	13	24	23	26	16	22	15	15	50	9.4	74	17
5	12	23	23	27	16	24	14	14	49	9.2	40	38
6	13	22	22	25	17	25	14	15	51	8.8	22	16
7	16	22	22	22	31	24	13	15	48	8.5	18	11
8	15	23	22	20	26	22	14	15	43	8.5	15	9.5
9	14	38	22	20	28	21	14	22	41	8.1	20	9.7
10	22	34	22	20	34	22	14	22	37	52	32	18
11	54	31	22	19	33	22	14	86	34	43	24	43
12	157	26	21	19	28	22	14	75	31	18	15	70
13	354	24	21	19	24	23	14	509	29	14	12	29
14	280	28	21	19	22	23	14	1,210	29	10	11	20
15	158	29	21	19	22	22	15	1,410	30	8.9	9.9	17
16	92	28	21	18	20	20	17	1,100	30	8.0	9.5	14
17	61	28	21	18	20	20	53	861	28	7.8	9.1	12
18	45	27	21	18	22	20	34	455	27	7.6	8.5	11
19	50	25	21	18	21	24	30	241	27	7.4	8.2	12
20	44	25	21	18	25	20	38	160	27	7.3	8.0	14
21	34	25	21	17	23	20	129	115	26	7.3	8.2	13
22	44	24	22	17	22	19	247	86	25	7.3	8.7	12
23	92	24	26	17	22	19	123	68	28	7.2	8.5	14
24	467	24	26	17	21	18	59	78	19	7.0	9.5	16
25	507	24	26	17	20	18	39	133	15	6.9	12	19
26	265	23	26	17	26	18	30	107	13	7.3	29	15
27	114	23	24	17	24	17	26	69	13	7.6	12	13
28	84	23	26	16	20	17	23	77	13	7.4	9.6	12
29	67	23	27	16	------	17	22	83	13	7.4	9.1	11
30	52	23	27	16	------	16	20	73	12	6.7	7.9	10
31	41	------	28	16	------	16	------	87	------	6.5	10	------
TOTAL	3,208	784	715	611	631	633	1,106	7,252	1,006	346.0	495.2	588.2
MEAN	103	26.1	23.1	19.7	22.5	20.4	36.9	234	33.5	11.2	16.0	19.6
MAX	507	38	28	28	34	25	247	1,410	88	52	74	70
MIN	12	22	21	16	16	16	13	14	12	6.5	6.5	9.5
CFSM	.13	.03	.03	.02	.03	.03	.05	.29	.04	.01	.02	.02
IN.	.15	.04	.03	.03	.03	.03	.05	.33	.05	.02	.02	.03
AC-FT	6,360	1,560	1,420	1,210	1,250	1,260	2,190	14,380	2,000	686	982	1,170

CAL YR 1970 TOTAL 44,949.3 MEAN 123 MAX 2,110 MIN 8.9 CFSM .15 IN 2.07 AC-FT 89,160
WTR YR 1971 TOTAL 17,375.4 MEAN 47.6 MAX 1,410 MIN 6.5 CFSM .06 IN .80 AC-FT 34,460

PEAK DISCHARGE (BASE, 5,000 CFS).--No peak above base.

08068500 Spring Creek near Spring, Tex.

LOCATION.--Lat 30°06'37", long 95°26'10", Harris-Montgomery County line, near left bank at downstream side of bridge on Interstate Highway 45 and U.S. Highway 75, 4,500 ft upstream from Missouri Pacific Railroad Co. bridge, 2.4 miles northwest of Spring, and 4 miles downstream from Willow Creek.

DRAINAGE AREA.--409 sq mi.

PERIOD OF RECORD.--April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 73.10 ft above mean sea level. Prior to Jan. 5, 1946, nonrecording gage and Jan. 6, 1946, to Oct. 1, 1965, water-stage recorder at present site at datum 5.00 ft higher.

AVERAGE DISCHARGE.--32 years, 192 cfs (6.37 inches per year, 139,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,300 cfs Oct. 24 (gage height, 13.46 ft); minimum daily, 2.4 cfs July 17, 18.
Period of record: Maximum discharge, 42,700 cfs Nov. 25, 1940 (gage height, 33.60 ft, present datum, from graph based on gage readings); minimum, 1.1 cfs Oct. 23, 24, 1956.
Maximum stage since at least 1879, 34.3 ft (present datum) May 30, 1929 (discharge, 48,300 cfs), from floodmarks identified by local residents.

REMARKS.--Records fair except those for period April to August, which are poor. No diversion above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	38	20	17	14	14	8.9	10	12	4.6	8.6	5.1
2	7.0	32	20	17	14	13	8.6	10	11	4.0	8.6	4.6
3	6.2	30	20	17	14	13	8.9	9.5	9.2	3.5	116	4.1
4	5.4	27	20	17	14	13	9.6	9.5	8.6	3.2	150	3.8
5	4.8	26	20	17	15	12	9.6	9.5	7.6	3.0	80	4.8
6	4.6	25	19	16	15	12	9.2	9.0	7.0	2.8	50	6.5
7	4.3	24	19	16	16	12	9.2	9.0	6.5	2.8	35	4.1
8	4.6	23	18	16	16	12	9.2	9.0	6.5	2.6	30	2.8
9	4.6	26	18	16	47	12	9.2	10	6.2	2.6	30	2.6
10	4.3	28	18	16	33	13	8.9	15	5.9	2.8	25	8.9
11	28	42	18	16	25	13	9.2	50	6.2	2.7	15	19
12	215	34	17	16	20	13	10	70	6.2	2.6	12	34
13	181	30	17	16	19	14	11	40	5.6	2.6	9.0	30
14	371	31	16	16	18	13	11	20	5.1	2.6	7.0	27
15	358	34	15	16	16	12	13	15	4.8	2.6	6.0	16
16	82	29	15	16	15	11	15	10	4.8	2.6	5.4	12
17	42	24	15	15	14	11	35	8.0	5.9	2.4	5.1	8.6
18	33	23	15	15	13	11	40	7.3	5.1	2.4	4.8	6.8
19	30	22	15	15	13	11	25	7.0	6.8	2.6	5.9	9.2
20	27	22	15	14	13	11	18	7.0	7.0	3.0	5.4	7.6
21	25	21	16	14	13	11	15	6.8	7.3	17	4.8	9.9
22	32	21	17	14	13	11	13	55	7.9	13	6.0	7.9
23	336	21	17	14	13	11	12	35	7.3	12	4.1	6.8
24	1,190	21	18	14	13	11	12	25	6.5	11	3.4	6.2
25	953	20	18	14	13	10	12	22	5.4	9.9	3.0	5.9
26	1,180	20	18	14	21	9.9	11	34	5.1	14	5.4	5.6
27	858	20	18	14	15	9.9	11	34	5.1	9.9	5.9	5.4
28	196	20	18	14	14	9.9	11	28	5.1	11	4.6	5.1
29	101	20	18	14	------	9.6	10	22	4.8	8.9	3.6	4.8
30	67	20	18	14	------	9.6	10	17	4.6	9.2	3.2	4.6
31	48	------	18	14	------	9.2	------	14	------	11	5.6	------
TOTAL	6,407.7	774	544	474	479	358.1	395.5	627.6	197.1	184.9	658.4	279.7
MEAN	207	25.8	17.5	15.3	17.1	11.6	13.2	20.2	6.57	5.96	21.2	9.32
MAX	1,190	42	20	17	47	14	40	70	12	17	150	34
MIN	4.3	20	15	14	13	9.2	8.6	6.8	4.6	2.4	3.0	2.6
CFSM	.51	.06	.04	.04	.04	.03	.03	.05	.02	.01	.05	.02
IN.	.58	.07	.05	.04	.04	.03	.04	.06	.02	.02	.06	.03
AC-FT	12,710	1,540	1,080	940	950	710	784	1,240	391	367	1,310	555

CAL YR 1970 TOTAL 25,389.8 MEAN 69.6 MAX 1,190 MIN 2.6 CFSM .17 IN 2.31 AC-FT 50,360
WTR YR 1971 TOTAL 11,380.0 MEAN 31.2 MAX 1,190 MIN 2.4 CFSM .08 IN 1.04 AC-FT 22,570

PEAK DISCHARGE (BASE, 2,200 CFS).--No peak above base.

NOTE.--No gage-height record Apr. 15 to May 17.

08069000 Cypress Creek near Westfield, Tex.

LOCATION.--Lat 30°02'08", long 95°25'44", Harris County, near left bank at downstream side of bridge on U.S. Highway 75, 0.9 mile upstream from Senger Gully, 1.8 miles northwest of Westfield, 2.0 miles upstream from Missouri Pacific Railroad Co. bridge, and 11.0 miles upstream from mouth.

DRAINAGE AREA.--285 sq mi.

PERIOD OF RECORD.--July 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 63.89 ft above mean sea level, unadjusted for land-surface subsidence. Prior to Mar. 17, 1951, water-stage recorder at upstream side of bridge at datum 12.0 ft higher.

AVERAGE DISCHARGE.--27 years, 134 cfs (6.38 inches per year, 97,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,220 cfs Oct. 23 (gage height, 21.30 ft); minimum daily, 0.32 cfs July 8, 9.
Period of record: Maximum discharge, 22,100 cfs Oct. 8, 1949 (gage height, 33.44 ft, present datum), from rating curve extended above 11,000 cfs; no flow at times.
Maximum stage since at least 1875, 34 ft (present datum) in May 1929 (discharge, 26,000 cfs), from information by local resident. Flood in November 1940 reached a stage of about 32 ft (present datum, discharge, 15,000 cfs), from information by State Highway Department.

REMARKS.--Records fair. No large diversion above station. Low flow is maintained by sewage effluent. Between July 1950 and March 1951 the channel below the gage was straightened and the streambed lowered about 3 ft at the gage and as much as 6 ft at some other places.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	140	7.8	3.1	2.2	2.5	1.1	1.6	4.0	1.3	4.5	52
2	23	104	8.5	2.4	2.2	2.2	.97	2.3	3.0	.85	14	12
3	21	78	8.2	2.2	1.9	1.7	.84	1.5	2.5	.60	465	14
4	16	59	6.8	2.5	2.0	1.4	.76	1.6	2.0	.52	612	19
5	14	45	5.8	2.5	2.0	.96	.98	1.2	1.8	.44	404	148
6	13	39	5.6	2.7	1.8	.85	1.7	1.1	1.6	.38	224	16
7	15	35	5.3	2.5	4.2	.85	1.6	1.1	1.4	.38	189	14
8	27	30	4.9	2.8	3.0	.85	2.8	.94	1.3	.32	135	14
9	27	134	5.3	2.1	2.9	.94	3.2	1.4	1.2	.32	83	14
10	20	306	6.8	1.6	7.5	2.7	3.1	1.3	2.0	.38	69	126
11	168	242	5.2	1.7	4.7	1.1	5.5	400	1.8	4.9	53	357
12	1,140	93	4.2	1.6	3.1	.91	6.0	498	1.6	9.6	38	130
13	865	82	3.5	1.5	2.2	.85	5.0	131	1.4	8.5	31	86
14	820	190	2.9	1.2	1.7	.72	3.0	45	1.3	4.6	24	57
15	538	132	2.9	.98	1.6	.64	3.0	25	1.2	8.5	18	38
16	287	69	2.9	1.1	1.5	.74	3.6	15	1.1	16	30	29
17	151	37	2.7	1.3	1.3	.41	34	8.8	.97	11	15	22
18	92	28	2.7	1.6	1.2	1.5	89	5.8	.97	5.2	14	19
19	66	24	2.7	2.0	1.4	2.1	72	5.2	2.7	3.6	8.2	64
20	51	20	2.3	2.1	1.6	1.1	30	4.2	5.2	6.7	4.5	37
21	48	17	2.3	1.9	1.7	.85	17	15	17	32	4.1	37
22	49	16	2.3	2.0	1.7	.76	10	13	18	10	4.1	35
23	1,500	13	2.3	2.0	1.2	.76	5.2	9.8	14	14	6.9	33
24	2,820	12	2.3	1.8	1.0	.76	2.8	27	8.9	16	7.9	41
25	2,360	11	2.3	1.7	1.2	1.7	1.7	55	7.3	11	21	41
26	1,730	10	2.2	1.3	56	2.9	1.3	30	4.6	9.3	4.7	39
27	1,390	10	2.1	1.1	13	1.8	1.0	27	8.1	7.2	2.4	34
28	1,190	9.3	4.6	1.0	3.8	1.2	.67	24	3.6	4.7	1.7	26
29	669	8.5	4.3	2.3	------	.97	.52	27	3.6	2.4	25	23
30	413	8.4	5.3	1.5	------	1.2	.52	8.4	2.2	2.2	4.2	19
31	231	------	3.8	1.7	------	1.5	------	5.9	------	3.0	6.2	------
TOTAL	16,776	2,002.2	130.8	57.78	129.6	39.42	308.86	1,394.14	126.34	195.89	2,523.4	1,596
MEAN	541	66.7	4.22	1.86	4.63	1.27	10.3	45.0	4.21	6.32	81.4	53.2
MAX	2,820	306	8.5	3.1	56	2.9	89	498	18	32	612	357
MIN	13	8.4	2.1	.98	1.0	.41	.52	.94	.97	.32	1.7	12
AC-FT	33,280	3,970	259	115	257	78	613	2,770	251	389	5,010	3,170

CAL YR 1970 TOTAL 40,159.57 MEAN 110 MAX 2,820 MIN .87 AC-FT 79,660
WTR YR 1971 TOTAL 25,280.43 MEAN 69.3 MAX 2,820 MIN .32 AC-FT 50,140

PEAK DISCHARGE (BASE, 1,500 CFS).--Oct. 23 (2000) 3,220 cfs (21.30 ft).

08069500 West Fork San Jacinto River near Humble, Tex.

LOCATION.--Lat 30°01'37", long 95°15'28", Harris County, on right bank at bridge on U.S. Highway 59, 970 ft upstream from Texas and New Orleans Railroad Co. bridge, 0.5 mile downstream from Spring Creek, and 2.5 miles north of Humble.

DRAINAGE AREA.--1,741 sq mi.

PERIOD OF RECORD.--October 1928 to September 1954, October 1954 to current year (gage heights only). Annual maximum and minimum gage heights only for October 1954 to September 1966 published with station 08072000 Lake Houston near Sheldon. Published as San Jacinto River near Humble prior to 1938.

GAGE.--Water-stage recorder. Datum of gage is 30.53 ft above mean sea level. Prior to July 17, 1933, nonrecording gage at site 1,800 ft downstream at same datum. July 17, 1933, to Mar. 5, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--26 years (1928-54), 1,097 (794,200 acre-ft per year).

EXTREMES.--1928-54: Maximum discharge, 187,000 cfs May 31, 1929, Nov. 25, 26, 1940; maximum gage height, 32.7 ft May 31, 1929, Nov. 26, 1940, present site and datum, both affected by backwater from East Fork San Jacinto River; minimum discharge, 11 cfs Aug. 31, Sept. 1, 2, 1951.
1954-71: Maximum gage height since first appreciable storage at Lake Houston, 21.53 ft June 26, 1968; minimum since first appreciable storage at Lake Houston, 5.5 ft Dec. 12, 1956.
Maximum stage since at least 1865, occurred in September 1900, May 31, 1929, and Nov. 25, 26, 1940, and all reached about the same stage, from information by local resident.

REMARKS.--Station discontinued as a streamflow station Sept. 30, 1954, due to backwater from Lake Houston. No large diversion above station.

REVISIONS.--WSP 1732: Drainage area.

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.82	13.11	12.08	11.25	10.31	9.60	8.37	7.73	9.65	8.12	7.38	7.72
2	8.78	12.91	12.07	11.31	10.32	9.39	8.37	7.71	9.62	8.03	7.56	7.69
3	8.73	12.79	12.04	11.18	10.27	9.49	8.44	7.68	9.57	7.93	9.37	7.60
4	8.70	12.71	12.02	11.10	10.14	9.47	8.31	7.66	9.52	7.86	9.98	7.49
5	8.68	12.71	11.96	11.06	10.21	9.57	8.08	7.66	9.47	7.80	9.32	7.98
6	8.64	12.68	11.99	11.04	10.24	9.41	8.10	7.65	9.44	7.71	8.67	7.66
7	8.60	12.69	11.90	11.00	10.02	9.37	8.07	7.66	9.37	7.63	8.43	7.47
8	8.57	12.69	11.92	11.00	10.12	9.37	8.02	7.66	9.32	7.57	8.24	7.37
9	8.50	12.69	11.85	10.99	10.09	9.37	8.08	7.66	9.28	7.53	7.97	7.40
10	8.46	12.74	11.84	10.93	10.08	9.32	8.11	7.97	9.25	7.50	7.92	8.24
11	9.22	12.77	11.76	10.92	10.06	9.33	8.13	10.41	9.20	7.83	7.86	8.93
12	10.67	12.73	11.71	10.94	9.94	9.35	7.85	9.46	9.13	7.66	7.71	8.28
13	10.41	12.74	11.70	10.90	9.93	9.26	7.81	8.78	9.08	7.58	7.61	8.20
14	10.62	12.60	11.69	10.85	9.92	9.24	7.76	9.84	8.99	7.53	7.54	7.93
15	10.53	12.58	11.61	10.79	9.87	9.18	7.77	10.25	9.00	7.46	7.46	7.79
16	10.17	12.59	11.59	10.79	9.83	9.04	8.17	10.09	8.87	7.55	7.56	7.62
17	10.17	12.58	11.57	10.74	9.87	9.19	8.68	10.01	8.82	7.52	7.42	7.54
18	10.10	12.58	11.55	10.68	9.79	9.04	8.58	9.76	8.77	7.46	7.36	7.57
19	10.12	12.53	11.54	10.68	9.74	8.88	8.35	9.65	8.71	7.44	7.32	8.14
20	10.12	12.52	11.56	10.67	9.81	8.97	8.23	9.64	8.69	7.43	7.30	7.72
21	10.14	12.50	11.52	10.63	9.62	8.99	8.15	9.61	8.63	7.75	7.28	7.65
22	10.14	12.40	11.52	10.60	9.59	8.86	8.58	9.61	8.68	7.52	7.27	7.64
23	13.93	12.28	11.42	10.55	9.56	8.86	8.40	9.63	8.58	7.48	7.25	7.59
24	13.93	12.29	11.48	10.53	9.52	8.87	8.19	9.65	8.52	7.48	7.30	7.65
25	14.19	12.28	11.37	10.51	9.71	8.68	8.05	9.75	8.45	7.47	7.53	7.63
26	14.04	12.26	11.36	10.48	9.65	8.76	7.97	9.75	8.40	7.50	7.58	7.60
27	13.99	12.23	11.34	10.44	9.62	8.76	7.89	9.72	8.47	7.50	7.47	7.56
28	13.52	12.19	11.31	10.43	9.59	8.63	7.86	9.74	8.33	7.44	7.34	7.46
29	13.34	12.17	11.31	10.40	------	8.55	7.79	9.73	8.27	7.41	7.49	7.42
30	13.26	12.14	11.29	10.40	------	8.58	7.76	9.71	8.20	7.41	7.31	7.38
31	13.18	------	11.27	10.37	------	8.68	------	9.67	------	7.40	7.28	------
MEAN	10.72	12.56	11.65	10.78	9.91	9.10	8.13	9.08	8.94	7.60	7.78	7.73
MAX	14.19	13.11	12.08	11.31	10.32	9.60	8.68	10.41	9.65	8.12	9.98	8.93
MIN	8.46	12.14	11.27	10.37	9.52	8.55	7.76	7.65	8.20	7.40	7.25	7.37

CAL YR 1970 MEAN 2.93 MAX 14.24 MIN 8.45
WTR YR 1971 MEAN 9.50 MAX 14.19 MIN 7.25

08070000 East Fork San Jacinto River near Cleveland, Tex.

LOCATION.--Lat 30°20'11", long 95°06'14", Liberty County, near left bank at downstream side of bridge on State Highway 105, 1,880 ft downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.2 miles west of Cleveland, and 4.3 miles downstream from Winter Creek.

DRAINAGE AREA.--325 sq mi.

PERIOD OF RECORD.--April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 107.98 ft above mean sea level. Prior to Sept. 13, 1955, at site 1,800 ft upstream at datum 5.00 ft higher.

AVERAGE DISCHARGE.--32 years, 205 cfs (8.57 inches per year, 148,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 796 cfs May 12 (gage height, 9.98 ft); minimum daily, 4.7 cfs July 19, 20, 23, 24.
Period of record: Maximum discharge, 59,000 cfs Nov. 24, 1940 (gage height, 24.0 ft, present site and datum), from rating curve extended above 27,000 cfs; minimum daily, 3.0 cfs Aug. 23, 24, Sept. 27, 28, 1956.
Maximum stage since at least 1900, that of Nov. 24, 1940. Flood of May 5, 1935, reached a stage of 23.6 ft, present site and datum (discharge, 53,500 cfs), from information by local residents.

REMARKS.--Records good. No large diversion above station.

REVISIONS (WATER YEARS).--WSP 1512: 1941(M), 1945(M). WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	21	20	27	16	23	12	9.9	23	6.8	6.2	7.1
2	10	19	21	22	15	21	11	11	19	6.5	6.4	6.1
3	9.9	17	21	20	15	22	11	18	16	7.9	12	6.5
4	9.8	16	21	20	16	21	11	11	15	7.2	45	7.5
5	9.5	16	20	21	19	20	10	8.9	14	6.6	33	6.9
6	9.9	16	20	20	26	18	9.8	8.5	13	6.4	26	5.9
7	11	15	20	19	23	18	9.5	9.2	12	6.4	16	5.7
8	13	15	20	19	26	16	9.4	9.8	12	6.1	14	5.4
9	14	16	20	20	22	16	9.5	12	11	6.1	13	5.2
10	14	22	20	22	20	16	9.5	14	11	6.6	9.7	6.0
11	25	21	20	23	18	18	9.5	164	11	6.7	8.6	6.9
12	59	18	20	22	18	20	9.5	690	10	6.6	8.1	9.3
13	72	18	20	20	18	19	9.5	739	9.6	6.5	7.6	14
14	35	19	20	20	18	19	9.2	406	9.4	6.3	7.2	10
15	23	22	19	19	17	18	9.3	104	9.5	5.2	7.0	8.5
16	20	22	19	19	17	17	11	62	9.8	4.8	6.7	7.7
17	19	20	20	18	17	16	27	44	20	4.8	6.3	7.6
18	17	18	20	17	17	16	60	34	16	4.8	6.2	8.7
19	18	18	20	17	17	16	38	29	12	4.7	6.2	11
20	29	17	20	16	19	21	27	26	11	4.7	6.2	14
21	31	16	22	16	22	18	24	67	11	4.9	6.1	14
22	22	16	22	16	20	16	21	43	12	4.8	5.8	14
23	49	16	22	17	19	15	18	29	12	4.7	5.7	13
24	77	15	22	18	18	15	16	27	24	4.7	5.6	12
25	46	14	21	18	17	14	14	35	17	4.9	6.6	11
26	125	14	18	17	25	14	12	37	10	4.9	6.5	11
27	59	16	18	17	42	14	11	44	7.4	4.9	6.0	10
28	62	19	17	16	30	14	11	36	7.0	5.1	6.2	9.8
29	49	20	17	15	------	14	14	76	6.7	5.1	6.1	9.5
30	32	20	21	16	------	13	12	43	7.4	5.1	6.0	9.4
31	24	------	28	16	------	12	------	27	------	5.8	6.2	------
TOTAL	1,004.1	532	629	583	567	530	465.7	2,874.3	378.8	176.6	318.2	273.7
MEAN	32.4	17.7	20.3	18.8	20.3	17.1	15.5	92.7	12.6	5.70	10.3	9.12
MAX	125	22	28	27	42	23	60	739	24	7.9	45	14
MIN	9.5	14	17	15	15	12	9.2	8.5	6.7	4.7	5.6	5.2
CFSM	.10	.05	.06	.06	.06	.05	.05	.29	.04	.02	.03	.03
IN.	.11	.06	.07	.07	.06	.06	.05	.33	.04	.02	.04	.03
AC-FT	1,990	1,060	1,250	1,160	1,120	1,050	924	5,700	751	350	631	543

CAL YR 1970 TOTAL 22,654.8 MEAN 62.1 MAX 1,180 MIN 7.2 CFSM .19 IN 2.59 AC-FT 44,940
WTR YR 1971 TOTAL 8,332.4 MEAN 22.8 MAX 739 MIN 4.7 CFSM .07 IN .95 AC-FT 16,530

PEAK DISCHARGE (BASE, 2,500 CFS).--No peak above base.

08070500 Caney Creek near Splendora, Tex.

LOCATION.--Lat 30°15'34", long 95°18'08", Montgomery County, on left bank at downstream side of bridge on Farm Road 2090, 4 miles downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 8 miles west of Splendora.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 118.44 ft above mean sea level. Prior to June 17, 1965, at site 170 ft upstream at datum 5.00 ft higher.

AVERAGE DISCHARGE.--28 years, 63.9 cfs (8.26 inches per year, 46,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs May 12 (gage height, 11.52 ft); minimum, 6.0 cfs July 24, 25.
Period of record: Maximum discharge, 14,900 cfs Apr. 1, 1945 (gage height, 23.19 ft), from rating curve extended above 6,000 cfs; minimum, 4.1 cfs Oct. 26, 1956, caused by construction upstream.
Maximum stage since at least 1885, 27.0 ft in November 1940, present site and datum, from information by local resident. Flood in May 1935 reached a stage of 24.3 ft, present site and datum, from information by local resident.

REMARKS.--Records good. No diversion above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	13	17	12	14	9.5	11	15	9.5	8.7	15
2	11	12	13	16	12	14	9.5	10	15	8.2	8.7	17
3	11	12	13	16	12	14	9.3	10	14	8.2	11	10
4	11	12	13	15	12	14	9.0	10	14	8.0	15	12
5	11	12	13	16	13	13	9.0	10	13	7.7	21	10
6	12	12	13	14	14	13	8.7	10	12	7.2	26	9.8
7	12	12	13	14	14	13	8.5	10	12	7.2	20	9.0
8	12	12	13	14	16	13	8.5	11	12	7.2	19	8.2
9	12	13	13	14	15	13	8.7	13	11	7.2	18	7.7
10	13	17	13	14	14	12	9.0	14	9.8	7.2	12	9.0
11	14	14	13	14	14	13	9.0	230	9.3	7.7	10	10
12	34	13	13	14	14	13	8.7	720	9.3	7.7	9.0	17
13	60	13	13	14	14	13	8.7	120	9.3	7.5	8.5	17
14	22	13	13	14	14	13	8.7	56	9.3	7.0	8.2	11
15	15	14	13	14	13	12	8.7	41	9.3	7.0	8.0	9.0
16	16	15	13	14	13	12	10	34	9.0	6.5	7.8	9.3
17	15	14	13	14	13	12	50	27	8.7	6.2	7.6	9.0
18	15	14	13	13	13	12	45	23	8.5	6.2	7.5	8.7
19	15	14	13	13	13	12	24	22	8.5	6.2	7.5	9.8
20	27	14	13	12	13	12	18	21	11	6.2	7.7	9.5
21	20	13	13	12	13	12	16	26	12	6.2	7.7	9.5
22	17	13	13	12	13	12	15	22	11	6.2	7.5	9.5
23	34	13	13	12	13	12	14	20	10	6.2	7.5	9.5
24	58	13	14	12	13	12	12	19	9.3	6.2	7.5	10
25	21	12	13	12	13	11	12	29	9.0	6.7	8.5	9.8
26	16	12	13	12	16	11	12	25	8.5	7.0	9.8	9.3
27	15	13	13	13	18	11	12	20	8.2	7.5	12	9.0
28	14	13	12	12	15	11	12	18	8.0	7.7	9.8	8.7
29	14	13	12	12	------	11	12	18	8.0	8.7	10	8.5
30	14	13	14	12	------	10	11	17	8.2	8.7	8.0	8.5
31	13	------	16	12	------	9.5	------	16	------	8.7	7.7	------
TOTAL	585	392	406	419	382	379.5	408.5	1,633	312.2	225.6	337.2	310.3
MEAN	18.9	13.1	13.1	13.5	13.6	12.2	13.6	52.7	10.4	7.28	10.9	10.3
MAX	60	17	16	17	18	14	50	720	15	9.5	26	17
MIN	11	12	12	12	12	9.5	8.5	10	8.0	6.2	7.5	7.7
CFSM	.18	.12	.12	.13	.13	.12	.13	.50	.10	.07	.10	.10
IN.	.21	.14	.14	.15	.14	.13	.14	.58	.11	.08	.12	.11
AC-FT	1,160	778	805	831	758	753	810	3,240	619	447	669	615

CAL YR 1970 TOTAL 11,296.3 MEAN 30.9 MAX 732 MIN 6.8 CFSM .29 IN 4.00 AC-FT 22,410
WTR YR 1971 TOTAL 5,790.3 MEAN 15.9 MAX 720 MIN 6.2 CFSM .15 IN 2.05 AC-FT 11,490

PEAK DISCHARGE (BASE, 1,300 CFS).--May 12 (0400) 1,400 cfs (11.52 ft).

08071000 Peach Creek at Splendora, Tex.

LOCATION.--Lat 30°13'57", long 95°10'05", Montgomery County, on left bank at downstream side of bridge on Farm Road 2090, about 1,500 ft west of depot at Splendora, 2.5 miles upstream from Texas and New Orleans Railroad Co. bridge, 2.5 miles upstream from bridge on U.S. Highway 59, and 9.7 miles upstream from Caney Creek.

DRAINAGE AREA.--117 sq mi.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 81.61 ft above mean sea level. Prior to Oct. 1, 1965, at same site and 5.00 ft higher datum.

AVERAGE DISCHARGE.--28 years, 63.2 cfs (7.34 inches per year, 45,790 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 405 cfs May 12 (gage height, 11.30 ft); minimum, 2.5 cfs July 28.
Period of record: Maximum discharge, 28,500 cfs Oct. 8, 1949 (gage height, 22.73 ft), from rating curve extended above 8,000 cfs on basis of slope-area measurement of peak flow; minimum, 1.1 cfs Sept. 28-30, 1956.
Maximum stage since at least 1895, that of Oct. 8, 1949. Flood in November 1940 reached a stage of 22.3 ft (discharge, 24,700 cfs), from information by local residents.

REMARKS.--Records good. No large diversion above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	13	12	22	12	19	6.9	10	16	5.4	3.1	6.6
2	6.6	12	12	21	12	17	6.3	10	13	6.0	3.8	7.8
3	6.3	11	12	18	12	15	6.2	10	12	6.6	9.1	6.8
4	6.2	11	12	17	11	14	6.2	10	10	6.3	12	7.8
5	6.3	11	12	17	13	14	5.7	10	9.3	5.9	22	6.8
6	6.6	10	12	17	13	14	5.4	9.0	8.4	5.0	19	6.2
7	6.6	10	12	16	16	13	5.4	9.0	8.3	4.4	15	5.7
8	7.2	9.7	12	16	15	12	5.4	9.0	7.9	4.1	10	5.4
9	8.8	13	12	17	17	12	5.4	11	7.4	3.8	13	5.3
10	9.3	14	12	17	15	12	5.4	11	6.9	3.5	9.1	5.1
11	18	15	12	18	14	13	5.4	90	7.1	3.4	7.2	5.3
12	114	15	12	18	13	14	5.4	300	6.8	3.4	6.3	6.2
13	52	14	13	17	13	15	5.7	150	6.6	3.4	6.0	8.3
14	38	16	13	17	13	14	5.6	59	6.0	3.4	5.7	9.9
15	21	14	13	16	13	13	5.4	30	5.7	3.1	5.4	8.4
16	16	17	13	16	12	11	5.7	23	5.9	2.9	5.3	9.7
17	15	16	13	15	12	9.7	23	18	5.9	2.7	5.1	7.4
18	13	14	13	14	12	9.7	29	15	5.9	2.7	4.5	7.6
19	12	13	13	13	12	9.5	19	13	6.3	2.7	4.5	9.1
20	23	13	13	13	13	9.5	14	12	6.2	3.0	4.5	9.5
21	23	13	13	14	15	9.9	10	12	6.0	3.4	4.4	9.3
22	20	12	13	13	16	9.7	9.0	23	5.9	3.3	4.2	9.3
23	125	11	14	13	15	9.3	9.0	16	6.2	2.7	4.2	9.1
24	230	11	14	13	14	9.0	10	14	6.0	2.6	4.4	8.3
25	61	11	13	13	13	8.8	11	16	5.7	2.6	4.5	7.9
26	29	11	13	13	18	8.3	10	23	6.0	2.6	5.4	7.6
27	20	11	13	13	20	8.1	10	20	5.6	2.6	5.7	7.4
28	20	11	12	12	27	8.1	10	15	5.1	2.6	5.7	7.4
29	27	11	12	12	------	7.9	9.0	58	5.6	3.1	6.2	7.4
30	20	12	13	12	------	7.6	10	42	5.7	3.1	5.9	6.9
31	16	------	16	12	------	7.2	------	20	------	3.1	5.6	------
TOTAL	983.8	375.7	394	475	401	354.3	274.5	1,068.0	219.4	113.4	226.8	225.5
MEAN	31.7	12.5	12.7	15.3	14.3	11.4	9.15	34.5	7.31	3.66	7.32	7.52
MAX	230	17	16	22	27	19	29	300	16	6.6	22	9.9
MIN	6.2	9.7	12	12	11	7.2	5.4	9.0	5.1	2.6	3.1	5.1
CFSM	.27	.11	.11	.13	.12	.10	.08	.29	.06	.03	.06	.06
IN.	.31	.12	.13	.15	.13	.11	.09	.34	.07	.04	.07	.07
AC-FT	1,950	745	782	942	795	703	544	2,120	435	225	450	447

CAL YR 1970 TOTAL 12,243.8 MEAN 33.5 MAX 614 MIN 4.5 CFSM .29 IN 3.89 AC-FT 24,290
WTR YR 1971 TOTAL 5,111.4 MEAN 14.0 MAX 300 MIN 2.6 CFSM .12 IN 1.63 AC-FT 10,140

PEAK DISCHARGE (BASE, 900 CFS).--No peak above base.

08072000 Lake Houston near Sheldon, Tex.

LOCATION.--Lat 29°54'58", long 95°08'28", Harris County, at intake structure on San Jacinto River near right bank 100 ft upstream from Lake Houston Dam, 4.0 miles north of Sheldon, 4.6 miles upstream from bridge on U.S. Highway 90, and 18 miles northeast of Houston. Upper gage published as station 08069500 (West Fork San Jacinto River near Humble, Tex.).

DRAINAGE AREA.--2,828 sq mi at dam.

PERIOD OF RECORD.--April 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage at dam is 0.70 ft below mean sea level, unadjusted for land-surface subsidence. Prior to Aug. 3, 1954, nonrecording gage read once daily.

EXTREMES.--Current year: Maximum contents, 158,000 acre-ft Oct. 27 (gage height, 45.40 ft); minimum, 71,400 acre-ft Sept. 30 (gage height, 36.78 ft).
Period of record: Maximum contents, 205,000 acre-ft Sept. 12, 1961 (gage height, 47.87 ft); minimum since first filling of lake in August 1954, 71,400 acre-ft Sept. 30, 1971 (gage height, 36.78 ft).

REMARKS.--Lake is formed by compacted earthfill embankment sections 4,000 and 4,600 ft long. Spillway is a slab-and-buttress (Ambursen type) structure 3,160 ft long, located near center of dam. Dam completed and storage began Apr. 9, 1954. Usable capacity, 140,500 acre-ft between gage heights 44.5 and 22.0 ft (bottom of 36-inch sluice gate). Capacity table furnished by city of Houston is based on 1965 sedimentation study. Water used for municipal supply for city of Houston, for industries in ship-channel area, and for irrigation. Records of diversions furnished by San Jacinto River Authority and city of Houston. Data regarding dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	63.0	-
Maximum design flood stage	57.0	-
Spillway crest	44.5	146,700
Sill of tainter gates	28.0	22,800
Invert of 72-inch conduits	24.0	9,830
Invert of 36-inch sluice gate	22.0	6,180

REVISIONS.--WSP 1732: Drainage area.

Capacity table (gage height, in feet, and total contents, in acre-feet)

36.7	70,810	41.0	107,900	44.0	140,700
39.0	89,240	42.0	118,200	45.0	152,900
40.0	98,270	43.0	129,100	46.0	165,900

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102,200	150,900	137,600	128,200	117,800	110,700	98,920	88,980	111,300	95,860	77,020	75,080
2	101,900	147,600	137,200	127,700	117,100	111,400	97,890	88,460	111,000	95,130	76,860	74,620
3	101,500	146,400	137,100	129,500	116,700	109,700	97,240	88,030	110,600	94,400	78,430	74,240
4	100,900	145,200	136,800	127,600	117,400	109,300	96,870	87,260	110,000	93,680	81,080	74,020
5	100,700	145,000	136,600	127,000	116,300	108,000	96,500	86,740	109,600	92,870	83,290	73,710
6	100,300	144,900	136,200	126,400	117,200	108,800	95,680	86,400	109,100	92,150	84,130	73,490
7	99,960	144,700	135,800	126,000	117,600	107,900	94,950	86,060	108,300	91,620	84,540	73,180
8	99,960	144,600	135,200	125,300	116,000	107,700	94,220	85,550	108,100	90,910	84,710	72,660
9	99,300	145,000	135,100	125,100	115,700	107,700	93,860	85,220	107,200	90,290	84,540	72,810
10	98,730	145,300	134,600	124,900	115,000	107,300	93,230	84,960	106,600	89,680	84,380	73,940
11	101,100	145,900	134,800	124,700	114,700	106,900	92,780	89,330	106,100	88,810	84,130	74,550
12	105,700	145,200	134,000	124,200	114,700	106,400	92,240	95,130	105,500	88,120	83,880	74,780
13	108,700	146,100	133,500	124,100	114,100	106,000	91,800	99,110	104,800	87,430	83,380	74,780
14	111,800	144,400	133,100	123,900	113,800	106,100	91,260	102,200	104,200	86,660	82,960	74,400
15	114,200	143,900	132,400	123,600	113,400	105,400	90,820	105,600	103,300	85,890	82,630	74,320
16	115,400	143,500	132,300	123,300	113,100	105,100	91,090	107,900	103,000	85,220	82,140	74,090
17	115,800	143,500	132,000	122,900	112,500	104,400	91,880	109,500	102,400	84,540	81,570	73,560
18	115,700	143,200	131,600	123,300	111,800	105,500	92,240	110,400	102,000	84,130	80,920	74,240
19	115,900	143,100	131,500	122,200	112,400	104,500	92,420	111,100	101,600	83,460	80,430	74,550
20	115,700	142,700	131,100	121,600	111,900	103,800	92,510	111,000	101,300	82,630	79,790	74,400
21	115,400	142,400	130,900	121,300	111,800	103,500	92,330	110,800	100,700	82,300	79,310	74,170
22	114,800	142,500	130,600	121,100	110,900	103,400	92,240	110,500	100,600	81,730	78,670	73,940
23	127,800	140,700	130,800	120,900	110,300	103,100	92,420	110,400	100,100	81,490	78,200	73,790
24	144,300	139,800	130,000	120,700	110,000	102,300	92,060	111,200	99,480	80,760	77,640	73,490
25	153,200	139,000	130,000	120,300	109,900	102,000	91,880	112,000	98,920	80,350	77,800	73,110
26	154,700	138,900	129,400	120,000	111,000	101,400	91,530	112,100	98,550	79,790	77,410	72,880
27	156,900	138,900	128,900	119,600	110,700	100,700	91,180	112,200	97,990	79,710	77,020	72,590
28	153,400	138,600	128,700	119,300	110,500	100,700	90,730	112,100	97,710	78,990	77,250	72,210
29	151,800	138,300	128,600	118,800	------	100,100	90,380	112,000	97,150	78,430	76,470	71,840
30	151,100	138,000	129,000	118,600	------	99,300	89,940	111,800	96,500	78,200	76,080	71,400
31	150,200	------	128,500	118,500	------	98,730	------	111,700	------	77,490	75,470	------
(†)	44.78	43.77	42.94	42.03	41.26	40.05	39.08	41.37	39.81	37.58	37.32	36.78
(*)	+47,600	-12,200	-9,500	-10,000	-8,000	-11,770	-8,790	+21,760	-15,200	-19,010	-2,020	-4,070
(††)	14,650	13,820	14,090	14,350	13,740	15,990	15,440	15,950	16,020	17,580	15,510	14,890
MAX	156,900	150,900	137,600	129,500	117,800	111,400	98,920	112,200	111,300	95,860	84,710	75,080
MIN	98,730	138,000	128,500	118,500	109,900	98,730	89,940	84,960	96,500	77,490	75,470	71,400

CAL YR 1970..... * +32,550 †† 175,640 MAX 157,400 MIN 96,410
WTR YR 1971..... * -31,200 †† 182,030 MAX 156,900 MIN 71,400

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, by city of Houston and San Jacinto River Authority.

08072050 San Jacinto River near Sheldon, Tex.

LOCATION.--Lat 29°52'34", long 95°05'37", Harris County, on left bank at U.S. Highway 90 bridge, 0.3 mile downstream from Southern Pacific Railway Company bridge, 1.5 miles east of Sheldon, 4.6 miles downstream from Lake Houston, and 21 miles northeast of Houston.

DRAINAGE AREA.--2,879 sq mi.

PERIOD OF RECORD.--February 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Harris County Flood Control District), unadjusted for land-surface subsidence.

EXTREMES.--Period of record: Maximum elevation, 4.77 ft Sept. 10, 1971; minimum, -2.36 ft Feb. 13, 1971.
Maximum elevation since at least 1875 occurred in November 1940 (stage unknown). Flood in May 1929 reached an elevation of 32.9 ft at site 0.3 mile upstream from gage, from information by Southern Pacific Railway Company.

REMARKS.--Maximum and minimum daily elevations only published for this station.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
1	2.35	0.80	2.19	0.38	2.00	0.57	1.87	0.35	1.88	0.26	2.00	0.46	2.45	0.67	1.85	-0.39	2.15	1.05	1.21	0.08	1.57	0.18	2.30	0.36
2	2.34	.61	2.29	-.66	1.95	.30	2.48	1.09	2.78	.94	-	-	1.29	-.77	1.69	.30	2.15	.90	1.03	-.18	1.53	-.01	2.23	.45
3	2.13	.45	1.05	-1.01	1.95	.38	3.13	1.72	3.00	1.24	-	-	2.48	.30	1.30	-.19	2.20	.99	1.11	-.27	1.84	-.09	2.64	.66
4	1.93	.53	.77	-1.37	1.80	.11	1.75	-.70	2.35	.95	-	-	2.46	1.22	2.04	.56	2.19	.89	1.15	-.34	2.12	-.01	2.76	1.05
5	2.42	.96	.40	-.89	1.52	.56	.40	-1.41	2.01	.03	-	-	2.00	-.05	2.63	1.74	1.85	.55	1.20	-.63	1.97	.06	2.21	.98
6	2.73	1.17	1.13	-.41	1.31	.27	.94	-.63	2.58	.88	-	-	1.11	-1.24	2.40	1.28	1.99	.18	1.11	-.77	1.84	.14	2.03	.08
7	2.93	1.10	1.38	-.30	1.99	.90	.81	-.66	2.37	.34	-	-	.72	-1.08	2.22	1.00	2.02	.41	1.47	-.83	1.85	-.11	2.68	.77
8	3.40	1.08	2.02	-.14	-	-	1.44	-.47	.30	-1.66	-	-	1.10	-.02	1.62	1.49	2.00	.13	1.85	-.56	2.20	-.06	2.71	.96
9	1.08	-.04	1.67	.36	2.24	.78	1.69	-.17	.43	-1.03	-	-	1.29	.30	2.38	.33	2.06	-.02	2.30	-.10	-	-	2.94	.86
10	2.21	-.04	1.41	-.26	2.26	.40	1.83	.15	.73	.42	-	-	1.18	-.46	2.57	.68	2.35	.17	3.38	.77	-	-	4.77	1.51
11	3.40	.95	1.89	-.01	2.45	.20	1.71	-.04	1.86	.74	-	-	1.51	.03	2.53	.06	2.33	.21	2.63	1.01	-	-	3.85	1.43
12	2.91	1.61	1.74	-.91	1.47	.52	1.67	.00	1.93	-1.74	-	-	1.65	-.12	1.31	-.15	1.85	.06	2.09	.59	-	-	2.86	.71
13	2.33	.73	2.40	.76	1.83	.14	1.71	.41	-.40	-2.36	-	-	1.91	.28	1.06	-1.00	1.63	-.35	1.63	.43	1.41	-.15	2.36	.59
14	2.46	.60	2.21	-1.67	2.17	.51	1.75	.41	1.32	-.37	-	-	1.53	-.14	1.56	-.38	1.80	-.10	1.51	.10	1.43	-.38	2.46	.72
15	2.42	.16	-.25	-2.14	2.60	.69	1.52	-.45	1.36	.22	-	-	2.05	-.03	1.89	.01	1.36	-.02	1.47	.02	1.37	-.41	3.18	1.17
16	1.84	-.06	.58	-	2.27	-.62	1.68	.45	1.30	-.15	-	-	3.12	.42	1.91	.20	1.09	-.16	1.56	-.17	1.56	-.28	2.39	.76
17	1.98	.35	1.43	-	1.03	-.23	1.72	.37	1.40	.97	-	-	3.37	1.21	2.34	.67	.91	-.28	1.50	-.30	1.18	-.40	2.28	.11
18	1.98	.52	1.34	-	1.72	.67	1.37	.26	1.91	.30	-	-	3.33	1.17	2.72	1.50	1.88	-.29	1.31	-.39	1.38	-.32	2.21	.69
19	2.15	.93	2.25	.62	1.98	.65	.91	-.95	1.90	.47	-	-	2.81	1.17	2.33	.80	1.50	-.15	1.36	-.46	1.96	-.16	1.49	.49
20	2.16	.65	1.64	-	1.99	.78	1.84	.12	1.96	.30	.61	-1.84	2.22	.04	1.72	.65	1.70	-.29	1.50	-.36	1.76	.28	1.63	.06
21	2.10	.69	1.89	.57	1.87	.85	1.83	.56	2.06	.20	1.71	-.15	2.06	.44	1.74	.20	1.33	-.44	1.36	-.66	1.94	.35	1.88	.44
22	2.44	.93	2.15	.50	1.96	.57	1.67	.07	.90	-1.76	1.65	.04	2.46	1.18	2.65	.66	1.28	-.75	1.90	-.46	1.78	.58	2.14	.85
23	3.10	1.00	-	-1.25	2.00	.41	1.80	.00	.96	-.90	1.50	-.29	2.26	.59	3.09	.79	1.00	-.97	1.95	.19	1.73	.56	2.21	.88
24	2.45	.87	1.33	1.25	1.86	-.34	2.12	.25	1.55	.08	1.95	.34	1.94	-.21	2.56	1.35	.94	-.83	1.96	.48	1.67	.56	2.33	1.25
25	1.95	.79	2.34	.50	1.80	-.64	2.12	.08	2.17	.47	2.51	.96	2.40	.22	2.12	.39	1.27	-.85	1.86	.31	1.62	.33	2.56	1.18
26	2.46	1.63	2.42	.67	1.82	-.36	1.86	.96	2.61	.35	1.55	.14	2.45	.35	2.13	.68	1.30	1.38	1.73	.61	1.34	.21	2.54	1.07
27	3.81	1.91	1.76	.15	2.04	.33	2.19	.27	1.91	.35	2.10	.58	2.49	.37	2.30	.34	1.81	.09	1.57	.36	1.42	.29	2.73	1.07
28	3.40	.73	1.83	.15	2.16	.18	2.42	.61	2.00	.66	2.15	.91	2.21	.11	1.73	-.03	1.75	.31	1.69	.60	1.49	-.13	2.92	1.15
29	1.75	.10	1.89	.12	1.94	-.06	2.06	.65	----------		1.57	-.10	2.52	.32	2.05	.20	1.97	.90	1.36	.25	1.73	.00	2.99	1.17
30	2.04	.39	1.95	.33	2.56	.38	1.93	.49	----------		1.72	-.82	1.74	-.21	2.28	.82	1.35	.26	1.29	-.50	1.70	.13	2.86	1.05
31	2.02	.21	----------		1.64	-1.01	1.67	.44	----------		2.62	.40	----------		2.17	.92	----------		1.23	-.50	2.12	-.06	----------	

08072500 Barker Reservoir near Addicks, Tex.

LOCATION.--Lat 29°46'11", long 95°38'49", Harris County, at dam on Buffalo Bayou, 45 ft upstream from reservoir outlet works, 1,160 ft upstream from Addicks-Howell county road, 1.1 miles south of Addicks, and 1.2 miles upstream from South Mayde Creek; upper gage, lat 29°43'08", long 95°43'53", Fort Bend County, on Buffalo Bayou 2.8 miles west of Clodine, 4.8 miles (2.7 miles by reservoir) upstream from Mason Creek, and 9.0 miles (6.4 miles by reservoir) upstream from reservoir outlet works.

DRAINAGE AREA.--134 sq mi at outlet works; 89.2 sq mi at upper gage. During extreme floods when the capacity of drainage ditches is exceeded, the drainage area is defined by natural ridge lines and is 150 sq mi at lower gage and 105 sq mi at upper gage.

PERIOD OF RECORD.--August 1945 to current year.

GAGE.--Water-stage recorders. Datum of both gages is 0.33 ft below mean sea level, unadjusted for land-surface subsidence.

EXTREMES.--Current year: Maximum gage height at dam, 90.58 ft Oct. 28 (contents, 11,870 acre-ft); maximum at upper gage, 97.52 ft Oct. 24.
Period of record: Maximum gage height at dam, 94.60 ft May 15, 1968 (contents, 39,200 acre-ft); maximum at upper gage, 99.35 ft June 26, 1960.
Maximum stage near site of upper gage prior to construction of reservoir, 98.1 ft in December 1935, from floodmark about 1,100 ft to right of and 1,100 ft downstream from upper gage.

REMARKS.--Reservoir is formed by rolled-fill earthen dam 72,844 ft long. Dam completed Feb. 3, 1946, but was first used for flood control in spring of 1945. Reservoir is operated for flood protection of city of Houston. Outlet works consist of five concrete conduits. Originally the middle conduit was controlled by vertical-lift gates. In 1949 gates were installed on the two outside conduits and in May 1962 gates were installed on the two remaining conduits. Capacity, 127,900 acre-ft between gage heights 75.0 (bottom of conduits) and 101.9 ft (top of design flood pool). Capacity curve furnished by the Corps of Engineers is based on survey made in 1940. No constructed emergency spillways; runoff considerably in excess of designed capacity will be discharged around ends of dam.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (gage height, in feet, and total contents, in acre-feet)

74.10	0	78.50	31.0	84.20	582
74.40	.2	80.00	55	85.00	999
75.00	1.7	81.00	79	86.00	1,830
76.00	6.3	82.00	129	87.50	3,850
76.50	9.5	82.60	190	89.00	7,040
77.50	19.0	83.40	344	90.30	10,890
				90.60	11,940

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	7,430						-	5		6	12
2	-	6,060						-	4		6	7
3	-	4,480						-	4		190	-
4	-	2,520						-	4		1,100	-
5	-	690						-	3		2,470	-
6	-	10						-	-		4,020	-
7	-	7						-	-		4,990	-
8	-	6						-	-		5,580	-
9	-	-						-	-		5,830	8
10	6	-						-	-		5,920	765
11	60	-						34	-		5,810	3,280
12	2,440	-						126	-		5,520	5,310
13	4,950	-						119	-		5,120	6,180
14	5,180	-						44	-		4,770	6,510
15	4,130	-						6	-		4,480	6,630
16	1,760	-						5	-		4,270	6,660
17	86	-						-	-		3,850	6,360
18	120	-						-	-		3,440	6,130
19	52	-						-	-		3,220	7,010
20	26	-						-	-		2,960	7,860
21	17	-						-	-		2,740	8,310
22	19	-						-	-		2,350	8,510
23	632	-						-	-		1,980	8,450
24	7,250	-						41	-		1,610	8,250
25	9,970	-						411	-		1,230	8,000
26	10,630	-						676	-		899	7,720
27	11,340	-						641	-		567	7,430
28	11,480	-						462	-		278	7,090
29	10,690	-			-----			282	-		114	6,730
30	9,720	-			-----			84	-		30	6,390
31	8,680	-----			-----		-----	10	-----		38	-----

08073000 Addicks Reservoir near Addicks, Tex.

LOCATION.--Lat 29°47'28", long 95°37'24", Harris County, at dam on South Mayde Creek, 65 ft upstream from reservoir outlet works, 2,700 ft upstream from U.S. Highway 90, 1.2 miles east of Addicks, and 1.4 miles upstream from mouth. Supplementary gages: lat 29°48'03", long 95°41'32", on South Mayde Creek at Groeschke Road bridge, 3.2 miles west of Addicks, 4.6 miles (3.5 miles by reservoir) upstream from Langham Creek, and 5.5 miles (4.2 miles by reservoir) upstream from reservoir outlet works; lat 29°50'08", long 95°37'30", on Langham Creek at Clay Road bridge, 3.6 miles north of Addicks, 4.4 miles (2.7 miles by reservoir) upstream from mouth, and 5.3 miles (3.1 miles by reservoir) upstream from reservoir outlet works.

DRAINAGE AREA.--133 sq mi at outlet works; 34.9 sq mi at gage on South Mayde Creek; and 45.1 sq mi at gage on Langham Creek. During extreme floods when the capacity of drainage ditches is exceeded, the drainage area is defined by natural ridge lines and is 129 sq mi at outlet works, 30 sq mi at South Mayde Creek gage and 49 sq mi at Langham Creek gage.

PERIOD OF RECORD.--June 1948 to current year.

GAGE.--Water-stage recorders. Datum of all gages is at mean sea level, unadjusted for land-surface subsidence.

EXTREMES.--Current year: Maximum elevation at dam, 94.40 ft Oct. 28 (contents, 9,470 acre-ft); maximum at gage on South Mayde Creek, 107.00 ft Oct. 24; maximum at gage on Langham Creek, 101.34 ft Oct. 24.
Period of record: Maximum elevation at dam, 100.02 ft May 15, 1968 (contents, 37,460 acre-ft); maximum at gage on South Mayde Creek, 107.47 ft June 26, 1960; maximum at gage on Langham Creek, 102.8 ft July 30 or 31, 1954.
Flood in December 1935 reached a stage of 89.9 ft at bridge on U.S. Highway 90, 2,700 ft downstream from outlet works, from information by Corps of Engineers. This flood reached an elevation of 109.3 ft, 0.2 mile downstream and 0.1 mile to right of gage on South Mayde Creek, and an elevation of 104.5 ft, 1,900 ft to left and 700 ft upstream from gage on Langham Creek; from floodmarks, from information by local residents.

REMARKS.--Reservoir is formed by rolled-fill earthen dam 61,166 ft long. Dam completed in fall of 1948. Reservoir is operated for flood protection of city of Houston. Outlet works consist of five concrete conduits. Originally the middle conduit was controlled by vertical-lift gates. In 1949 gates were installed on the two outside conduits, and in June 1962 gates were installed on the two remaining conduits. Capacity, 188,030 acre-ft between elevations 73.0 (bottom of conduits) and 113.0 ft (top of design flood pool). Capacity curve furnished by Corps of Engineers is based on survey made in 1940. No constructed emergency spillways; runoff considerably in excess of design capacity will be discharged around ends of dam. Contents not published for floods that do not produce maximum contents of 30 acre-ft or more.

Capacity table (elevation, in feet, and total contents, in acre-feet)

73.7	0	82.0	82	88.5	1,020
76.0	7	84.0	135	90.0	2,020
78.0	22	85.0	189	91.5	3,570
80.0	46	86.5	385	93.0	6,000
				94.4	9,470

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	4,280					-	-	77		1	45
2	-	2,840					-	-	34		2	27
3	-	1,750					-	-	0		56	26
4	-	1,030					-	-	-		932	25
5	-	446					-	-	-		2,300	22
6	-	70					-	-	-		3,200	16
7	-	1					-	-	-		3,820	6
8	-	1					-	-	-		4,180	1
9	-	1					-	-	-		4,160	1
10	0	1					-	0	-		4,200	613
11	39	1					-	39	-		4,040	2,810
12	672	0					-	101	-		3,840	4,290
13	919	-					-	137	-		3,580	4,910
14	404	-					-	129	-		3,260	5,060
15	175	-					0	97	-		3,030	5,130
16	130	-					1	67	-		2,860	4,990
17	60	-					29	15	-		2,530	4,640
18	2	-					41	0	-		2,200	4,280
19	2	-					2	-	-		2,050	4,800
20	1	-					1	-	-		1,940	5,130
21	1	-					0	-	-		1,850	5,190
22	3	-					-	-	-		1,560	5,110
23	492	-					-	0	-		1,220	4,990
24	6,710	-					-	78	-		897	4,720
25	8,620	-					-	550	-		613	4,410
26	8,540	-					-	679	-		393	4,050
27	8,950	-					-	553	-		233	3,750
28	9,090	-					-	408	-		144	3,400
29	8,210	-			-----		-	263	-		101	3,090
30	7,000	-			-----		-	176	-		58	2,740
31	5,650	-----			-----		-----	120	-----		35	-----

08073500 Buffalo Bayou near Addicks, Tex.

LOCATION.--Lat 29°45'42", long 95°36'20", Harris County, near right bank at downstream side of bridge on Dairy-Ashford Road over rectified channel, 1.8 miles downstream from South Mayde Creek, and 2.6 miles southeast of Addicks.

DRAINAGE AREA.--293 sq mi. During extreme floods when capacity of drainage ditches is exceeded, the drainage area is defined by natural ridge lines and is 310 sq mi.

PERIOD OF RECORD.--August 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.31 ft below mean sea level unadjusted for land-surface subsidence. Prior to Feb. 2, 1948, water-stage recorder at bridge on natural channel 1,200 ft to right at same datum. Feb. 2 to May 21, 1948, non-recording gage at present site and datum.

AVERAGE DISCHARGE.--26 years, 182 cfs (131,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,960 cfs Oct. 25 (gage height, 67.87 ft); minimum daily, 4.4 cfs Feb. 24.
Period of record: Maximum discharge, 11,200 cfs Aug. 29, 1945 (gage height, 81.23 ft, former site); no flow at times. Maximum stage since at least 1896, 85.6 ft in December 1935 (adjusted to former site from floodmark half a mile downstream, on basis of slope of flood of Aug. 29, 1945), from information by local resident.

REMARKS.--Records fair. Floodflow regulated by Barker and Addicks Reservoirs (stations 08072500 and 08073000) 3.2 and 3.0 miles upstream, respectively (total capacity, 315,900 acre-ft). Extreme low flow sustained by drainage from irrigated lands.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	1,640	13	14	8.6	17	13	20	172	33	68	123
2	57	1,600	12	10	8.4	12	11	22	137	38	63	166
3	52	1,540	10	11	6.2	9.3	12	21	82	42	161	143
4	44	1,480	9.5	11	6.6	7.7	18	20	18	39	515	192
5	38	1,380	8.8	10	8.1	6.7	24	19	17	32	331	188
6	44	1,220	9.1	9.3	45	6.2	27	20	18	38	344	165
7	63	392	9.0	9.6	193	9.3	22	18	19	55	240	125
8	80	100	10	15	167	10	18	19	18	65	177	73
9	92	149	10	18	50	7.9	16	20	19	63	180	53
10	96	144	11	20	19	7.6	29	26	23	72	251	1,090
11	524	99	12	18	15	7.5	31	164	22	84	328	714
12	1,520	68	11	16	12	7.6	36	238	21	83	342	303
13	1,670	59	12	16	8.6	9.4	39	350	19	78	400	308
14	2,240	103	12	16	8.2	7.8	44	322	18	108	430	355
15	2,070	149	13	13	9.6	8.1	49	240	17	114	444	304
16	1,890	96	13	9.1	6.7	6.6	88	165	19	131	213	244
17	1,770	60	15	8.9	6.9	6.2	332	138	22	129	423	522
18	904	47	14	13	7.2	12	643	46	50	139	415	513
19	431	37	9.9	15	7.2	18	487	22	91	138	329	561
20	315	28	9.8	12	6.2	18	135	22	123	145	257	225
21	258	27	9.2	10	6.4	11	68	26	156	194	404	266
22	230	22	11	9.4	6.2	8.7	41	22	144	159	369	331
23	1,110	17	11	8.1	5.2	7.4	27	23	108	133	442	362
24	1,370	15	10	8.0	4.4	6.8	27	208	68	128	430	468
25	2,620	14	9.0	11	5.3	7.1	21	203	48	107	417	518
26	2,940	14	8.5	12	117	8.3	16	254	42	72	403	511
27	2,170	12	7.9	12	72	6.8	13	390	40	65	390	500
28	1,110	11	8.4	10	27	6.6	11	362	41	78	358	487
29	1,790	12	9.2	8.2	------	8.0	12	341	38	82	272	477
30	1,730	13	16	9.5	------	16	12	312	33	77	239	472
31	1,680	------	14	8.5	------	18	------	263	------	64	217	------
TOTAL	30,968	10,548	338.3	371.6	848.0	299.6	2,322	4,316	1,643	2,785	9,852	10,759
MEAN	999	352	10.9	12.0	30.3	9.66	77.4	139	54.8	89.8	318	359
MAX	2,940	1,640	16	20	198	18	643	390	172	194	515	1,090
MIN	38	11	7.9	8.0	4.4	6.2	11	18	17	32	63	53
AC-FT	61,430	20,920	671	737	1,680	594	4,610	8,560	3,260	5,520	19,540	21,340

CAL YR 1970 TOTAL 84,674.2 MEAN 232 MAX 2,940 MIN 6.2 AC-FT 168,000
WTR YR 1971 TOTAL 75,053.5 MEAN 206 MAX 2,940 MIN 4.4 AC-FT 148,900

08073700 Buffalo Bayou at Piney Point, Tex.

LOCATION.--Lat 29°44'48", long 95°31'24", Harris County, on downstream side of bridge on Piney Point Road, village of Piney Point, 3.7 miles downstream from Rummel Creek, 10.8 miles downstream from gage, Buffalo Bayou near Addicks, and 12.5 miles upstream from gage, Buffalo Bayou at Houston.

DRAINAGE AREA.--317 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--8 years, 203 cfs (147,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,170 cfs Oct. 12 (elevation, 51.56 ft); minimum daily, 16 cfs Feb. 25.
Period of record: Maximum discharge, 3,540 cfs July 3, 1968 (elevation, 52.75 ft); minimum daily, 6.0 cfs Dec. 6, 7, 1964.

REMARKS.--Records fair. Floodflow regulated by Barker and Addicks Reservoirs (stations 08072500 and 08073000) 14.0 miles and 13.8 miles upstream, respectively. Low flow partly sustained by sewage effluent from Houston suburbs.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	1,610	30	33	28	39	30	42	182	47	78	207
2	92	1,580	30	27	27	33	26	50	140	50	72	188
3	87	1,540	27	28	24	25	26	46	106	52	216	155
4	76	1,480	26	29	25	22	30	43	41	51	564	299
5	70	1,410	24	26	24	21	35	40	33	46	577	251
6	79	1,290	24	26	105	20	39	40	33	47	429	179
7	98	719	25	26	434	20	43	38	34	75	308	151
8	138	167	26	31	287	25	35	36	33	86	178	111
9	134	288	26	35	123	21	29	36	31	72	201	101
10	127	185	27	37	78	21	35	36	33	77	193	1,650
11	868	138	28	38	46	20	39	110	36	86	300	1,470
12	2,700	100	28	37	27	21	45	265	34	90	295	438
13	1,600	125	30	35	22	21	46	322	32	81	348	311
14	1,980	125	32	32	19	21	49	299	31	102	390	381
15	2,030	190	35	30	23	21	51	236	30	113	405	329
16	1,870	141	33	25	19	19	69	166	32	123	323	219
17	1,810	93	36	23	18	19	381	143	35	128	392	495
18	1,300	71	40	26	19	35	549	87	130	128	393	512
19	559	59	34	28	24	47	560	38	122	137	441	918
20	381	48	34	29	25	31	191	35	194	136	223	392
21	301	45	36	25	26	24	95	37	181	208	463	282
22	266	42	34	25	21	23	63	35	165	155	312	379
23	1,580	38	32	22	18	20	50	34	136	118	429	367
24	2,090	34	32	22	17	19	45	265	103	112	421	453
25	2,050	34	27	27	16	19	47	370	83	105	414	526
26	2,690	32	24	26	158	25	46	185	59	110	404	521
27	2,710	31	23	25	106	23	39	361	68	179	391	517
28	1,340	28	22	26	46	21	30	335	61	96	392	504
29	1,670	28	23	25	------	22	30	311	54	85	317	493
30	1,690	31	91	25	------	29	34	287	48	88	233	486
31	1,650	------	38	29	------	35	------	253	------	72	392	------
TOTAL	34,141	11,702	977	878	1,805	762	2,787	4,581	2,300	3,055	10,494	13,275
MEAN	1,101	390	31.5	28.3	64.5	24.6	92.9	148	76.7	98.5	339	443
MAX	2,710	1,610	91	38	434	47	560	370	194	208	577	1,650
MIN	70	28	22	22	16	19	26	34	30	46	72	101
AC-FT	67,720	23,210	1,940	1,740	3,580	1,510	5,530	9,090	4,560	6,060	20,810	26,330

CAL YR 1970 TOTAL 103,287 MEAN 283 MAX 2,710 MIN 17 AC-FT 204,900
WTR YR 1971 TOTAL 86,757 MEAN 238 MAX 2,710 MIN 16 AC-FT 172,100

08074000 Buffalo Bayou at Houston, Tex.

LOCATION.--Lat 29°45'36", long 95°24'30", Harris County, at bridge on Shepherd Drive in Houston and 0.8 mile upstream from Waugh Drive.

DRAINAGE AREA.--358 sq mi, unadjusted for basin boundary changes.

PERIOD OF RECORD.--May 1936 to September 1957, October 1957 to December 1961 (high-water records and discharge measurements), January 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence resulting from heavy ground-water withdrawals. Prior to June 19, 1936, nonrecording gage and June 19, 1936, to Jan. 16, 1962, water-stage recorder at site 0.8 mile downstream at datum 4.08 ft below mean sea level. Since Jan. 17. 1962, auxilary water-stage recorder 0.8 mile downstream.

AVERAGE DISCHARGE.--30 years (1936-57, 1962-71), 245 cfs (177,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,320 cfs Oct. 27 (elevation, 18.42 ft); maximum elevation, 20.65 ft Oct. 23; minimum daily discharge, 22 cfs Mar. 5.

Period of record: Maximum discharge, 10,900 cfs Aug. 30, 1945 (elevation, 28.82 ft), at site 0.8 mile downstream at present datum; minimum daily, 1.3 cfs May 24, 1939, Nov. 5, 1950.

All flood data at site 0.8 mile downstream at present datum. Maximum elevation since at least 1835, 49.0 ft Dec. 9, 1935 (discharge, 40,000 cfs; furnished by engineer for Harris County). Flood of May 31, 1929, reached an elevation of 43.5 ft (discharge, 19,000 cfs at bridge on Capitol Avenue 2.8 miles downstream, from rating curve extended above 15,300 cfs, stage-discharge relation materially affected by bridge; furnished by city of Houston).

REMARKS.--Records good. Floodflow regulated by Barker and Addicks Reservoirs (stations 08072500 and 08073000) 26.3 miles (revised) and 26.5 miles (revised) upstream, respectively. Flow affected by tides and backwater from Whiteoak Bayou. Low flow mostly maintained by sewage effluent from Houston suburbs.

REVISIONS.--WSP 1732: Drainage area (former site).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	2,010	44	47	27	58	35	45	260	58	96	416
2	88	1,890	44	47	27	66	36	55	194	61	101	211
3	83	1,810	45	41	24	37	30	51	160	74	338	184
4	80	1,770	36	38	51	26	32	52	86	74	825	244
5	72	1,690	35	34	40	22	37	51	44	65	957	440
6	72	1,570	32	32	147	23	47	50	35	61	512	203
7	130	1,210	31	35	1,020	24	50	50	34	97	475	180
8	160	330	33	40	296	28	45	50	37	156	247	144
9	150	508	37	45	154	33	38	50	38	101	224	138
10	600	288	32	46	72	30	35	52	41	99	198	3,850
11	1,600	216	32	47	50	30	49	603	41	109	316	3,530
12	5,390	146	32	49	40	32	54	561	39	113	313	912
13	2,210	295	33	46	31	33	62	380	36	118	344	358
14	2,210	231	33	44	24	35	61	383	35	120	392	415
15	2,600	190	36	40	24	32	64	344	38	150	394	380
16	2,400	160	33	34	32	34	82	255	49	150	430	400
17	2,210	130	37	29	29	32	530	213	45	166	338	415
18	1,970	98	39	27	40	88	533	173	182	164	400	535
19	829	78	41	36	54	117	662	83	236	184	415	1,550
20	630	59	35	41	59	49	383	58	176	175	291	692
21	366	49	37	41	39	37	162	58	221	288	445	310
22	310	44	37	36	38	30	106	58	216	216	350	400
23	2,740	41	41	37	32	30	78	55	169	173	445	383
24	5,020	41	40	33	31	28	62	415	126	162	430	430
25	2,400	39	36	34	35	26	50	783	94	158	576	490
26	3,100	39	34	40	295	23	47	206	75	146	490	520
27	4,450	43	34	39	154	26	39	380	69	228	400	520
28	3,370	41	34	37	80	26	36	394	91	229	392	505
29	1,850	36	38	31	------	24	37	378	75	117	375	490
30	2,130	37	249	30	------	29	40	352	65	113	260	475
31	2,050	------	118	29	------	36	------	324	------	115	310	------
TOTAL	51,363	15,089	1,418	1,185	2,945	1,144	3,522	6,962	3,007	4,240	12,079	19,720
MEAN	1,657	503	45.7	38.2	105	36.9	117	225	100	137	390	657
MAX	5,390	2,010	249	49	1,020	117	662	783	260	288	957	3,850
MIN	72	36	31	27	24	22	30	45	34	58	96	138
AC-FT	101,900	29,930	2,810	2,350	5,840	2,270	6,990	13,810	5,960	8,410	23,960	39,110

CAL YR 1970 TOTAL 140,066 MEAN 384 MAX 5,390 MIN 25 AC-FT 277,800
WTR YR 1971 TOTAL 122,674 MEAN 336 MAX 5,390 MIN 22 AC-FT 243,300

08074150 Cole Creek at Deihl Road, Houston, Tex.

LOCATION.--Lat 29°51'04", long 95°29'16", Harris County, on downstream side of bridge at Deihl Road in northwest Houston and 1.8 miles upstream from mouth.

DRAINAGE AREA.--8.81 sq mi. Prior to Apr. 1, 1965, 10.0 sq mi. Apr. 1 to May 17, 1965, 8.81 sq mi. At Antoine Drive, May 18 to Aug. 1, 1965, 9.94 sq mi; Aug. 2, 1965, to Sept. 1, 1966, 10.2 sq mi. Drainage area changes due to relocations and changes in storm sewers.

PERIOD OF RECORD.--April 1964 to current year. Gage at temporary location 1.0 mile downstream at Antoine Drive May 18, 1965, to September 1, 1966, due to bridge construction and channel rectification.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--7 years, 5.30 cfs (3,840 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 762 cfs Oct. 23 (elevation, 77.21 ft); no flow for many days.
Period of record: Maximum discharge, 966 cfs Feb. 21, 1969 (elevation, 74.82 ft); maximum elevation, 77.21 ft Oct. 23, 1970; no flow at times.

REMARKS.--Records fair except those below 5 cfs, which are poor. No diversions above station. Low flow partly sustained by sewage effluent from Houston suburbs. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	5.0	1.7	1.7	1.2	1.3	1.6	.77	0	0	.38	5.2
2	1.6	4.1	1.7	1.3	1.2	1.2	1.6	.59	0	0	1.6	.28
3	1.2	3.1	1.6	1.5	1.2	.97	1.5	.76	0	0	47	0
4	1.1	3.2	1.4	1.5	1.2	.94	1.4	.66	0	0	76	5.5
5	1.3	3.2	1.3	1.3	1.2	1.0	1.3	.67	0	0	23	8.4
6	1.3	3.3	1.4	1.7	5.0	1.0	1.3	.68	0	0	34	1.4
7	1.2	3.3	1.3	1.1	20	.85	1.5	0	0	.48	12	.52
8	6.1	3.5	1.1	1.7	5.0	.92	1.3	0	0	.06	3.0	.40
9	1.9	11	1.2	1.6	2.0	.93	1.3	.01	0	0	1.9	.97
10	1.4	4.4	1.2	1.6	1.5	1.0	1.2	0	0	.21	1.6	206
11	121	3.2	1.2	1.2	1.2	1.0	.92	17	0	.03	1.5	65
12	207	2.7	1.1	1.2	1.1	1.0	1.0	10	0	0	1.4	15
13	36	3.3	1.1	1.3	1.0	1.0	1.2	1.1	0	0	1.2	4.2
14	11	2.6	1.3	1.1	1.0	1.0	.94	.27	0	0	.44	1.9
15	4.0	2.3	1.4	1.2	1.0	1.0	1.2	.04	0	0	.08	1.7
16	2.9	2.1	1.1	1.5	1.0	1.0	1.8	.03	0	0	.48	.70
17	2.3	2.1	1.2	.82	.91	1.0	8.8	0	0	.32	.44	.40
18	2.0	1.9	1.1	1.3	.75	1.2	2.6	0	.49	.03	.10	.19
19	2.5	1.8	1.4	1.3	.91	1.5	1.7	0	.01	0	0	54
20	2.3	1.7	1.4	1.3	.92	1.5	1.2	0	0	.02	0	18
21	1.9	1.7	1.2	1.3	.85	1.6	1.3	0	0	.77	0	6.7
22	2.1	1.7	1.6	1.2	.84	1.8	1.1	0	0	.83	0	3.1
23	257	1.6	1.4	1.2	.84	1.4	1.2	0	0	.39	0	1.9
24	300	1.6	1.4	1.3	.80	1.7	1.0	93	0	.01	0	1.4
25	52	1.6	1.5	.97	.78	1.8	1.3	58	0	0	.08	.65
26	21	1.6	1.2	1.3	8.2	1.7	1.2	5.0	0	10	.25	.40
27	31	1.6	1.5	1.2	1.8	1.6	.97	1.3	0	2.0	0	.19
28	68	1.6	1.5	1.2	1.2	1.6	.68	.36	0	.06	0	.16
29	21	1.5	1.6	1.2	------	1.6	.97	.14	0	0	0	.10
30	10	1.6	2.0	1.2	------	1.5	.72	.02	0	0	0	.10
31	6.2	------	1.8	1.2	------	1.4	------	0	------	0	2.7	------
TOTAL	1,180.1	83.9	42.9	40.49	64.60	39.01	45.80	190.40	.50	15.21	209.15	404.46
MEAN	38.1	2.80	1.38	1.31	2.31	1.26	1.53	6.14	.017	.49	6.75	13.5
MAX	300	11	2.0	1.7	20	1.8	8.8	93	.49	10	76	206
MIN	1.1	1.5	1.1	.82	.75	.85	.68	0	0	0	0	0
AC-FT	2,340	166	85	80	128	77	91	378	1.0	30	415	802
(††)	8.39	1.12	.52	.19	2.62	.67	1.40	5.20	.66	2.27	6.86	9.13

CAL YR 1970 TOTAL 3,552.79 MEAN 9.73 MAX 300 MIN .77 AC-FT 7,050 †† 47.02
WTR YR 1971 TOTAL 2,316.52 MEAN 6.35 MAX 300 MIN 0 AC-FT 4,590 †† 39.03

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-11	1730	75.50	470	5-24	1945	74.41	339
10-23	1700	77.21	762	9-10	1200	74.78	374

†† Weighted-mean rainfall, in inches, based on three rain gages.

08074250 Brickhouse Gully at Costa Rica Street, Houston, Tex.

LOCATION.--Lat 29°49'40", long 95°28'09", Harris County, at downstream side of bridge at Costa Rica Street in northwest Houston and 1.0 mile upstream from Whiteoak Bayou.

DRAINAGE AREA.--11.1 sq mi. Prior to May 1965, 10.5 sq mi; May to August 1965, 10.7 sq mi; August 1965 to September 1967, 10.5 sq mi; September 1967 to February 1969, 10.4 sq mi; February 1969 to October 1969, 10.7 sq mi. Drainage area changes caused by changes in storm sewers.

PERIOD OF RECORD.--August 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--7 years, 9.25 cfs (6,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,800 cfs Oct. 23 (elevation, 64.70 ft); minimum daily, 0.09 cfs July 13. Period of record: Maximum discharge, 2,800 cfs Oct. 23, 1970 (elevation, 64.70 ft); maximum elevation, 65.94 ft May 10, 1968; no flow at times.

REMARKS.--Records fair except those below 5 cfs, which are poor. Low flow is partially sustained by sewage effluent. No known diversions above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.6	.90	.71	.63	1.0	.92	.40	1.1	.66	1.0	27
2	1.8	1.7	.90	.77	1.1	1.0	.76	.23	.92	.46	1.0	6.8
3	.80	1.2	.90	.78	.81	1.0	.50	.23	.76	.73	100	1.7
4	.80	1.0	.90	.96	1.2	.90	.40	.17	.62	.39	115	41
5	2.5	.90	.90	1.0	1.2	.90	.31	.62	.76	.29	15	21
6	9.1	.80	.90	.90	33	.90	.23	.92	.50	.41	46	4.4
7	2.2	.80	.90	.80	13	.90	.17	.62	.62	15	13	3.7
8	14	1.0	.90	.80	1.7	.80	.23	.76	1.1	1.0	3.6	3.4
9	7.8	20	.90	.80	1.5	.80	.40	.62	1.1	.12	2.1	11
10	1.1	1.5	.92	.80	1.7	.80	.31	.40	1.3	.56	1.7	530
11	436	1.2	.82	.80	1.4	.80	.31	88	.92	.25	1.5	107
12	267	1.0	.81	.80	1.2	.70	.31	14	.76	.10	1.3	36
13	25	2.0	.77	.80	1.1	.70	.62	2.2	1.1	.09	1.1	19
14	5.5	1.2	.90	.75	1.2	.70	.62	.62	.62	.26	.92	15
15	1.3	1.0	.92	.70	1.1	.70	.50	.40	.62	.22	20	11
16	.90	.90	.89	.70	1.2	.74	11	.31	.61	.28	27	9.0
17	.90	.90	.74	.70	1.1	4.8	21	.23	.65	10	4.8	4.8
18	.90	.90	.90	.70	1.0	.57	1.4	.50	41	.61	2.4	4.8
19	1.2	.90	.92	.70	1.0	.47	.67	.76	4.8	.11	1.8	112
20	.90	.90	.99	.80	1.0	.43	.92	.62	2.3	.92	5.3	35
21	.90	.80	.80	.83	.90	.42	.75	.62	2.5	5.0	1.5	13
22	.99	.80	.70	.70	.90	.44	.49	.50	2.0	1.2	1.1	6.8
23	626	.80	.77	.62	.90	.40	.67	.40	1.9	.62	1.1	4.8
24	196	.80	.70	.60	.80	.71	.41	262	1.1	.47	1.1	3.7
25	18	.80	.72	.60	.80	.50	.78	62	1.1	.54	1.3	3.2
26	2.4	.80	4.0	.55	10	.40	.56	13	1.1	50	1.1	2.2
27	11	.80	5.6	.54	2.0	.50	.54	4.9	1.1	15	1.1	2.4
28	14	.80	.60	.63	1.2	.50	.69	3.2	42	5.0	.92	1.8
29	9.0	.80	.68	.74	------	.50	.40	3.2	3.0	2.5	1.1	2.7
30	5.6	.80	6.0	.76	------	.50	.50	1.7	1.0	1.5	1.1	1.7
31	3.9	------	1.2	.65	------	.31	------	.92	------	1.2	26	------
TOTAL	1,669.39	50.40	39.45	22.99	84.64	24.79	47.37	465.05	118.96	115.49	401.94	1,045.9
MEAN	53.9	1.68	1.27	.74	3.02	.80	1.58	15.0	3.97	3.73	13.0	34.9
MAX	626	20	6.0	1.0	33	4.8	21	262	42	50	115	530
MIN	.80	.80	.60	.54	.63	.31	.17	.17	.50	.09	.92	1.7
AC-FT	3,310	100	78	46	168	49	94	922	236	229	797	2,070
(††)	10.76	1.13	.60	.15	2.49	.70	1.41	5.19	1.06	2.98	5.96	9.42

CAL YR 1970 TOTAL 4,774.59 MEAN 13.1 MAX 626 MIN .18 AC-FT 9,470 †† 49.05
WTR YR 1971 TOTAL 4,086.37 MEAN 11.2 MAX 626 MIN .09 AC-FT 8,110 †† 41.85

PEAK DISCHARGE (BASE, 600 CFS, REVISED)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-11	1800	63.85	2,400	5-24	1730	62.05	1,700
10-23	1630	64.70	2,800	9-10	0830	60.53	1,200

†† Weighted-mean rainfall, in inches, based on four rain gages.

08074500 Whiteoak Bayou at Houston, Tex.

LOCATION.--Lat 29°46'30", long 95°23'49", Harris County, at downstream side of downstream bridge on Heights Boulevard in Houston, 560 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.4 miles upstream from Little Whiteoak Bayou, and 4.0 miles upstream from mouth.

DRAINAGE AREA.--84.7 sq mi; unadjusted for basin boundary changes. During extreme floods when capacity of drainage ditches is exceeded, the drainage area is defined by natural ridges and is 92.0 sq mi.

PERIOD OF RECORD.--May 1936 to current year (October 1965 to September 1966, monthly discharge only).

GAGE.--Water-stage recorder. Datum of gage is 5.76 ft below mean sea level, unadjusted for land-surface subsidence. Prior to June 17, 1936, nonrecording gage and June 17, 1936, to Apr. 28, 1965, water-stage recorder at site 480 ft upstream at same datum.

AVERAGE DISCHARGE.--35 years, 68.5 cfs (49,630 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,600 cfs Oct. 23 (gage height, 37.75 ft); minimum daily, 4.0 cfs Apr. 7.
Period of record: Maximum discharge, 10,600 cfs Oct. 23, 1970 (gage height, 37.75 ft); maximum gage height, 43.60 ft Nov. 13, 1961; no flow for many days during 1965 water year (result of construction dams).
Maximum stage since at least 1919, 51.5 ft Dec. 9, 1935, prior to channel rectification, present site and datum (discharge, 14,750 cfs, furnished by engineer for Harris County). Flood of May 31, 1929, reached a stage of 47.0 ± 0.5 ft, prior to channel rectification, present site and datum (discharge, 9,360 cfs), computed on basis of current-meter measurement at stage 1 ft below crest, furnished by city of Houston.

REMARKS.--Records fair. Low flow partly sustained by industrial waste. No diversion above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	30	13	7.6	13	16	14	31	11	12	21	145
2	25	25	12	7.2	13	19	12	31	11	14	32	56
3	18	22	14	25	12	10	9.0	19	10	8.2	399	14
4	12	22	13	8.2	29	9.3	9.0	20	10	7.2	803	17
5	27	21	14	7.6	10	9.0	9.0	21	9.0	6.5	336	34
6	40	21	12	7.2	318	9.0	6.1	25	9.0	9.0	350	18
7	28	21	10	11	188	9.3	4.0	29	9.0	12	100	13
8	80	24	9.6	8.6	17	9.0	5.0	33	8.0	18	50	14
9	42	419	9.6	7.6	11	9.0	4.8	29	8.0	10	20	18
10	25	158	10	8.2	14	8.6	4.8	27	8.0	14	18	2,800
11	1,430	71	9.3	7.9	10	9.0	4.8	453	7.0	11	16	768
12	1,740	43	9.3	8.6	9.6	9.0	8.2	197	7.0	9.0	14	226
13	304	175	9.6	8.6	10	9.3	6.5	86	7.0	14	12	90
14	137	54	9.3	9.0	9.6	12	5.8	52	6.0	10	10	55
15	80	32	9.6	9.0	10	8.6	5.5	36	6.0	9.6	30	40
16	57	22	10	8.6	12	8.6	71	29	6.0	9.6	33	34
17	40	16	9.0	10	13	8.6	181	26	6.8	31	23	30
18	32	14	9.6	10	13	70	24	24	25	14	19	48
19	46	14	9.6	11	26	29	14	25	15	14	39	638
20	33	13	11	13	13	11	11	24	10	11	113	166
21	30	12	11	10	12	9.3	10	25	16	66	26	63
22	26	16	10	13	11	9.3	9.0	25	38	32	18	34
23	3,190	17	9.6	12	13	9.0	17	26	12	29	35	21
24	1,200	18	10	9.3	13	9.0	12	757	10	19	21	21
25	250	17	9.6	9.3	21	9.3	14	322	9.6	14	104	21
26	100	19	9.3	8.6	157	9.6	14	26	9.0	97	48	16
27	200	12	23	9.6	25	9.3	16	15	9.3	94	21	12
28	300	12	9.3	11	13	9.3	20	14	12	33	16	10
29	150	12	9.6	14	------	9.0	23	13	16	21	16	10
30	80	13	178	17	------	9.0	24	12	10	22	15	11
31	40	------	12	15	------	9.0	------	12	------	23	165	------
TOTAL	9,789	1,365	504.9	322.7	1,016.2	384.4	568.5	2,464	330.7	694.1	2,923	5,443
MEAN	316	45.5	16.3	10.4	36.3	12.4	19.0	79.5	11.0	22.4	94.3	181
MAX	3,190	419	178	25	318	70	181	757	38	97	803	2,800
MIN	12	12	9.0	7.2	9.6	8.6	4.0	12	6.0	6.5	10	10
AC-FT	19,420	2,710	1,000	640	2,020	762	1,130	4,890	656	1,380	5,800	10,800

CAL YR 1970 TOTAL 33,346.9 MEAN 91.4 MAX 3,190 MIN 6.8 AC-FT 66,140
WTR YR 1971 TOTAL 25,805.5 MEAN 70.7 MAX 3,190 MIN 4.0 AC-FT 51,190

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-11	2000	31.70	6,290	5-11	1430	24.40	2,130
10-23	1900	37.75	10,600	5-24	1900	27.50	3,650
2- 6	2100	25.65	2,700	9-10	1300	31.00	6,080

08074600 Buffalo Bayou at Main Street, Houston, Tex.

LOCATION.--Lat 29°45'54", long 95°21'32", Harris County, on left bank at mouth of Whiteoak Bayou at upstream side of Main Street viaduct in Houston and 3.2 miles downstream from the gage Buffalo Bayou at Houston.

DRAINAGE AREA.--469 sq mi.

PERIOD OF RECORD.--January 1962 to current year (elevations only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

EXTREMES.--Current year: Maximum elevation, 18.1 ft Oct. 23; minimum, -1.8 ft Mar. 3.
Period of record: Maximum elevation, 18.1 ft Oct. 23, 1970; minimum, -3.5 ft Jan. 13, 1964.
Maximum elevation since at least 1835, 38.5 ft Dec. 9, 1935, present site and datum, unadjusted for land-surface subsidence.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
1	3.2	1.8	3.4	2.2	2.6	0.8	2.3	0.9	2.7	1.0	2.7	1.2	2.8	1.4	2.4	0.2	2.8	1.7	2.1	0.6	2.4	0.8	3.5	1.4
2	-	-	3.4	1.6	2.5	.9	2.9	1.8	3.7	1.8	2.4	.2	2.1	-.1	2.2	.8	2.7	1.5	1.9	.6	2.3	.8	3.2	1.3
3	-	1.4	2.7	1.4	2.5	1.0	3.6	2.4	3.7	2.0	.2	-1.8	3.3	1.0	1.7	.3	2.8	1.6	1.9	.4	2.8	.5	3.4	1.9
4	-	1.5	2.3	1.0	2.3	.7	2.8	-.1	3.4	1.3	1.8	-1.1	3.2	1.8	2.6	1.0	2.8	1.3	2.0	.3	5.2	.9	3.5	1.9
5	3.4	1.8	2.0	1.1	2.2	.8	1.2	-.8	2.7	.6	2.6	.9	2.5	.4	3.1	2.0	2.5	1.0	1.9	.1	3.4	1.7	-	-
6	-	1.6	2.4	1.3	1.9	.9	1.6	-.1	6.9	1.7	2.7	.0	1.3	-.7	3.0	1.9	2.7	.8	1.8	.0	3.2	1.0	3.0	.9
7	3.7	1.8	2.4	.8	2.6	1.4	1.5	.0	5.8	1.3	.7	-.8	1.3	.0	2.8	1.3	2.7	1.1	2.6	-.1	2.5	.9	3.4	1.6
8	3.9	1.8	2.7	.9	2.8	1.6	2.1	.2	1.3	-.7	2.1	.5	1.7	.7	2.2	1.1	2.7	.8	2.6	.0	3.2	1.0	3.5	1.6
9	2.0	.7	4.6	1.3	2.9	1.5	2.2	.4	1.2	-.3	2.4	1.3	1.9	.8	2.9	.8	2.8	.7	2.9	.6	2.6	.9	3.8	1.8
10	2.9	.7	2.1	.5	3.0	1.0	2.5	.8	1.6	.3	1.8	.4	1.8	.3	3.1	1.2	3.0	.8	4.3	1.4	2.3	1.0	13.2	2.5
11	12.6	2.1	2.5	.7	3.0	.8	2.3	.6	2.7	1.5	2.0	.9	2.1	.7	5.1	.4	3.0	.8	3.3	1.7	2.2	.1	7.1	3.4
12	12.9	5.1	2.2	-.3	1.9	.0	2.1	.7	2.6	-.9	2.2	1.4	2.3	.6	2.7	.8	2.5	.9	2.6	1.2	2.0	1.3	4.1	1.7
13	5.1	3.4	3.3	1.8	2.5	.6	2.3	1.0	.5	-1.5	2.7	1.7	2.5	.9	1.8	.7	2.3	.3	2.6	1.1	2.1	.7	3.2	1.6
14	4.3	3.2	2.7	-1.2	2.9	1.2	2.3	1.0	2.0	.5	2.5	1.3	2.1	.5	2.4	.3	2.3	.5	2.1	.7	2.1	.5	3.1	1.6
15	4.2	3.1	.4	-1.2	3.3	1.0	2.1	.3	2.0	1.0	2.3	.7	2.8	.6	2.5	.7	2.1	.7	1.9	.7	2.1	.5	4.1	2.0
16	3.9	2.8	1.5	.1	2.9	.0	2.2	1.1	2.0	.5	1.9	.6	4.8	.1	2.4	.8	2.1	.4	2.2	.6	2.3	.6	3.2	1.5
17	3.7	2.8	2.1	.5	1.7	.4	2.2	1.0	2.2	.8	2.9	.5	4.3	2.0	2.8	1.2	1.7	.6	2.1	.4	2.3	.5	3.1	1.1
18	3.8	2.4	2.0	.1	2.3	1.2	2.0	.8	2.7	1.0	4.1	1.7	3.7	2.0	3.4	2.0	3.9	.4	2.0	.3	2.3	.6	3.2	1.7
19	3.2	1.3	2.7	1.2	2.5	1.2	1.6	-.3	2.8	1.2	2.0	-.3	3.5	2.2	2.6	1.4	2.6	.7	2.4	.2	2.9	.8	4.3	2.8
20	3.0	1.5	2.2	.8	2.4	1.3	2.5	.9	2.8	1.1	1.4	-1.0	3.1	.8	2.3	1.1	2.8	.6	2.2	.3	2.6	1.2	2.8	1.4
21	2.9	1.4	2.4	1.1	2.4	1.4	2.5	1.2	2.9	.6	2.6	.6	2.7	1.3	2.4	.8	2.2	.6	2.3	.3	2.8	1.1	2.9	1.5
22	3.1	1.6	2.6	.8	2.5	1.1	2.4	.7	1.1	-1.1	2.4	.8	3.2	1.8	3.0	1.2	2.3	.1	2.6	.4	2.5	1.7	3.1	1.8
23	18.1	2.0	.9	-1.2	2.5	.9	2.5	.7	1.6	.7	1.8	.3	2.9	1.0	3.6	1.3	1.9	-.1	2.7	.9	2.5	1.5	3.2	1.9
24	15.1	4.6	2.1	-.6	2.4	.3	2.7	.9	2.3	.9	2.7	1.2	2.6	.6	5.9	1.7	1.7	-.1	2.6	1.3	2.6	1.4	3.4	2.1
25	4.6	3.6	3.0	1.2	2.4	.2	2.7	.7	2.9	1.3	3.3	1.7	3.1	.9	4.3	1.8	2.2	-.1	2.5	1.0	3.2	1.5	3.5	2.2
26	4.7	3.8	3.1	1.3	2.3	.0	2.6	.7	3.7	1.2	2.2	.9	3.1	1.0	2.9	.9	2.2	.4	2.4	1.3	2.5	1.3	3.5	2.1
27	11.7	4.4	2.4	.8	2.6	.8	2.8	1.0	2.5	1.2	2.9	1.2	2.9	.9	3.1	1.1	2.5	.8	2.3	.7	2.4	1.2	3.5	1.9
28	7.6	2.9	2.5	.8	2.7	.8	3.1	1.2	2.6	1.3	2.8	1.2	2.7	.8	2.6	.6	2.5	1.1	2.3	1.3	2.4	.7	3.6	2.1
29	3.2	2.2	2.6	.8	2.4	.5	2.6	1.4	--------		2.0	.7	3.0	1.0	2.8	1.0	2.8	1.7	2.1	.7	2.7	.9	3.6	2.0
30	3.5	2.6	2.5	1.0	3.6	1.1	2.5	1.1	--------		2.3	-.1	2.0	.4	3.0	1.6	2.1	.9	2.1	.3	2.6	1.0	3.7	2.0
31	3.5	2.2	--------		2.3	-.3	2.3	1.1	--------		3.4	1.3	--------		2.8	1.6	--------		2.1	.2	3.2	.8	--------	

08074700 Buffalo Bayou at 69th Street, Houston, Tex.

LOCATION.--Lat 29°45'15", long 95°17'51", Harris County, at downstream side of bridge on 69th Street in Houston, 1.1 miles upstream from Turning Basin, 2.8 miles upstream from Brays Bayou, and 4.8 miles downstream from Whiteoak Bayou.

DRAINAGE AREA.--476 sq mi.

PERIOD OF RECORD.--April 1961 to current year (elevations only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

EXTREMES.--Current year: Maximum elevation, 6.8 ft Sept. 10; minimum, -1.7 ft Mar. 3.
Period of record: Maximum elevation, 15.1 ft Sept. 11, 12, 1961, result of Hurricane Carla; minimum, -3.5 ft Jan. 13, 1964.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
1	-	-	-	-	3.0	1.4	2.7	1.3	-	-	2.8	1.4	3.0	1.7	2.7	0.5	-	-	2.2	0.9	2.6	1.1	3.5	1.4
2	-	-	-	-	-	-	3.2	2.1	3.8	-	2.5	.3	2.4	.3	2.5	1.1	-	-	2.0	.9	2.6	1.1	3.4	1.9
3	-	-	-	-	-	-	3.8	2.7	3.9	2.2	.3	-1.7	3.5	1.3	2.0	.7	-	1.9	2.1	.6	2.8	.6	3.6	2.0
4	-	-	1.6	-.2	-	.9	2.9	.2	3.4	1.7	1.9	-.9	3.6	2.2	2.8	1.4	3.0	1.7	2.2	.6	3.3	.4	3.6	2.0
5	-	-	1.3	.1	2.4	1.1	1.3	-.6	2.9	.9	2.7	1.1	2.9	.9	3.4	2.5	2.7	1.3	2.2	.4	3.3	1.2	3.1	2.0
6	-	-	2.0	.6	2.1	1.2	1.9	.3	4.1	1.8	2.8	.2	1.7	-.2	3.3	2.1	2.9	1.0	2.1	.3	2.8	1.1	3.0	1.4
7	-	-	2.1	.8	2.9	1.8	1.8	.3	3.5	1.5	.9	-.9	1.6	.1	3.0	1.6	2.9	1.4	2.6	.3	2.7	.8	3.6	1.7
8	4.25	1.90	2.8	1.2	3.1	1.9	2.3	.5	1.4	-	2.3	.6	2.1	1.0	2.5	1.4	2.9	1.1	2.8	.3	3.2	1.0	3.7	2.0
9	2.25	.95	3.1	1.3	3.1	1.7	2.5	.7	1.4	-.1	2.6	1.5	2.2	1.2	3.2	1.1	3.0	1.0	3.1	.8	3.4	1.0	3.9	2.0
10	3.20	1.00	2.4	-	3.2	1.3	2.7	1.0	1.7	.6	2.0	.6	2.1	.7	3.4	1.6	3.2	1.2	4.4	1.7	2.5	1.2	6.8	2.8
11	5.70	2.00	2.7	1.0	3.3	1.1	2.5	.8	2.8	1.7	2.2	1.0	2.4	1.0	3.8	.9	3.2	1.2	3.5	2.0	2.3	.9	-	-
12	-	-	2.4	.1	2.3	.2	2.4	.9	2.8	-	2.3	1.6	2.6	.9	2.1	.8	2.7	1.2	2.8	1.5	2.2	.6	-	-
13	-	-	3.0	1.7	2.7	.8	2.6	1.3	.7	-	2.9	1.9	2.8	1.2	2.0	-.1	2.6	.7	2.5	1.4	2.3	.8	-	-
14	-	-	-	-	3.1	1.4	2.5	1.4	2.2	.5	2.6	1.6	1.4	.9	2.6	.6	2.5	.8	2.3	1.0	2.4	.6	-	-
15	-	-	-	-	3.5	1.4	-	.6	-	-	2.2	1.7	3.0	.9	2.8	.9	2.3	1.0	2.2	1.0	2.3	.6	-	-
16	-	-	-	-	3.0	.3	2.5	1.4	-	-	2.2	.8	4.3	1.5	2.6	1.1	2.1	.8	2.4	.8	2.5	.7	-	-
17	-	-	-	-	2.2	.7	2.5	1.2	-	-	3.2	.9	4.3	2.1	3.2	1.6	1.9	.9	2.3	.6	2.3	.8	-	-
18	-	-	-	-	2.6	1.5	2.3	1.2	-	-	3.8	2.2	3.9	2.2	-	-	3.1	.9	2.2	.6	2.5	.8	-	-
19	-	-	3.0	1.7	2.7	-	1.9	.1	-	-	2.2	.2	3.7	2.4	-	-	2.8	.8	2.3	.5	3.0	1.0	-	-
20	-	-	2.6	1.3	2.6	1.6	2.7	1.1	-	-	1.7	-.6	3.3	1.1	-	-	2.7	.9	2.4	.6	2.9	1.3	-	-
21	-	-	-	-	2.6	1.7	2.7	1.4	-	-	2.8	1.0	2.9	1.6	-	-	2.3	.7	2.4	.5	3.0	.4	-	-
22	-	-	-	-	2.7	1.5	2.5	.9	-	-	2.6	1.1	3.4	2.2	-	-	2.3	.4	2.8	.6	2.8	1.7	-	-
23	5.3	-	-	-	2.7	1.3	-	-	1.9	-.1	2.1	.7	3.2	1.4	-	-	2.0	.1	2.9	1.2	2.7	1.6	-	-
24	-	-	-	-	2.7	.5	-	-	2.5	1.1	3.0	1.5	2.9	.9	-	-	2.0	.1	2.9	1.5	2.7	1.7	-	-
25	-	-	3.4	1.5	2.6	.4	-	-	3.1	1.5	3.6	2.0	3.3	1.4	-	-	2.3	.3	2.7	1.2	2.8	1.4	-	-
26	-	-	3.3	1.7	2.5	.3	-	-	3.5	1.4	2.5	1.3	3.4	1.4	-	-	2.4	.6	2.6	1.4	2.5	1.4	-	-
27	3.7	-	2.8	1.2	2.8	1.0	-	-	2.8	1.4	3.1	1.7	3.2	1.3	-	-	2.7	1.1	2.5	1.3	2.6	1.4	-	-
28	-	-	2.8	1.2	3.0	1.1	-	-	2.9	1.5	3.1	1.6	3.0	1.1	-	-	2.7	1.3	2.6	1.6	2.6	.8	-	-
29	-	-	2.9	1.3	2.7	.8	-	-	---	---	2.2	1.0	3.2	1.3	-	-	2.9	1.9	2.4	1.2	2.9	1.1	-	-
30	-	-	2.9	1.4	3.3	1.2	-	-	---	---	2.6	.2	2.4	.8	-	-	2.3	1.2	2.3	.6	2.8	1.1	-	-
31	-	-	---	---	2.5	-.1	-	-	---	---	3.7	1.5	---	---	-	-	---	---	2.4	.6	3.1	1.1	---	---

08074800 Keegans Bayou at Roark Road near Houston, Tex.

LOCATION.--Lat 29°39'23", long 95°33'43", Harris County, on left bank at downstream side of bridge on Roark Road and about 2 miles southwest of city limits of Houston.

DRAINAGE AREA.--9.28 sq mi. Prior to Jan. 1, 1967, 9.66 sq mi, due to drainage ditch changes.

PERIOD OF RECORD.--August 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--7 years, 7.04 cfs (5,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 751 cfs Oct. 11 (elevation, 71.88 ft); minimum daily, 0.25 cfs Oct. 4.
Period of record: Maximum discharge, 751 cfs Oct. 11, 1970 (elevation, 71.88 ft); no flow for many days.

REMARKS.--Records fair. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	15	1.2	.55	2.1	4.6	.86	.50	2.4	.38	.55	3.4
2	.38	7.8	1.3	.52	1.7	1.3	1.3	.48	.69	.32	.58	9.6
3	.50	4.3	1.9	.52	.83	.72	.66	.52	1.0	.30	3.7	7.0
4	.25	4.0	1.8	.52	2.8	.62	.58	.80	2.8	.26	31	9.5
5	2.0	2.2	1.4	1.5	.86	2.9	.58	.69	.55	.30	15	8.0
6	15	2.8	.95	4.3	3.7	.90	1.5	2.4	.42	.66	21	3.6
7	11	1.9	1.2	2.1	2.6	.62	2.0	1.7	.83	2.6	20	2.6
8	11	1.7	2.3	.80	1.2	.58	1.5	2.9	1.0	1.4	10	4.2
9	3.6	6.0	3.0	.95	2.6	.55	.80	2.2	1.3	.35	19	6.3
10	.55	9.7	1.2	.80	1.9	1.1	.80	.80	.69	.35	37	202
11	217	4.3	.95	.66	.90	2.3	.72	23	.48	.35	16	125
12	338	2.0	.72	.62	1.5	1.6	.72	15	.40	.35	3.8	94
13	223	6.8	.69	2.4	.83	.69	1.3	7.8	.35	.35	4.5	71
14	166	16	.66	1.9	1.4	.55	1.4	6.1	.35	.35	1.9	29
15	116	7.0	2.4	.90	.76	.62	.76	2.0	2.1	.35	4.0	11
16	59	3.2	2.1	.69	1.9	1.2	7.2	1.0	.90	.42	6.2	6.6
17	26	5.3	.80	.66	1.2	.66	20	.76	.45	.50	2.0	4.1
18	14	2.2	1.3	.62	.72	10	4.4	.69	.52	.50	1.3	4.6
19	7.2	1.4	1.0	3.6	1.5	4.0	3.8	2.1	.76	10	.66	102
20	7.6	2.0	.55	2.0	1.4	.95	5.4	.76	.90	5.0	.26	74
21	6.4	1.9	1.5	.90	.95	.80	3.3	.72	1.2	8.0	.80	43
22	4.2	1.4	1.6	1.4	.76	.72	1.7	1.7	1.9	4.2	.40	15
23	117	1.3	.69	.86	.83	.66	.72	.83	.55	3.2	2.0	7.4
24	160	1.1	.52	.69	.76	.58	.55	28	.38	.80	1.3	5.8
25	134	1.0	.48	.58	.76	3.2	.76	4.4	1.3	.38	27	5.5
26	108	1.7	.50	1.0	7.4	1.4	.72	2.4	.55	.30	32	2.8
27	127	1.0	.50	1.4	1.4	.72	.83	.72	3.4	1.7	2.3	4.4
28	145	2.8	2.0	.86	1.2	.66	.69	.69	.80	2.0	3.9	1.7
29	80	1.9	1.5	1.9	------	.62	.55	2.8	1.4	2.4	8.1	1.3
30	41	1.2	3.1	.83	------	1.5	.52	.69	.55	1.2	4.4	2.8
31	24	------	.66	.66	------	2.3	------	.50	------	.62	1.0	------
TOTAL	2,165.26	120.9	40.47	37.69	46.46	49.62	66.62	115.65	30.92	49.89	281.65	867.2
MEAN	69.8	4.03	1.31	1.22	1.66	1.60	2.22	3.73	1.03	1.61	9.09	28.9
MAX	338	16	3.1	4.3	7.4	10	20	28	3.4	10	37	202
MIN	.25	1.0	.48	.52	.72	.55	.52	.48	.35	.26	.26	1.3
AC-FT	4,290	240	80	75	92	98	132	229	61	99	559	1,720
(††)	11.03	.91	.74	.22	2.21	1.06	1.79	4.18	.85	2.19	7.93	8.29

CAL YR 1970 TOTAL 4,947.20 MEAN 13.6 MAX 338 MIN .10 AC-FT 9,810 †† 50.83
WTR YR 1971 TOTAL 3,872.33 MEAN 10.6 MAX 338 MIN .25 AC-FT 7,680 †† 41.40

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-11	1830	71.88	751	10-27	1800	67.99	279
10-23	1730	68.25	305	9-10	0630	69.65	315

†† Weighted-mean rainfall, in inches, based on on four rain gages.

08075000 Brays Bayou at Houston, Tex.

LOCATION.--Lat 29°41'49", long 95°24'43", Harris County, near right bank at downstream side of pile bent of Main Street Bridge in southwest section of Houston, 1.6 miles upstream from Harris Gully, and 11.6 miles upstream from Buffalo Bayou.

DRAINAGE AREA.--88.4 sq mi.

PERIOD OF RECORD.--May 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.90 ft below mean sea level, unadjusted for land-surface subsidence. Prior to June 20, 1936, nonrecording gage and June 20, 1936, to Nov. 25, 1959, water-stage recorder at site 0.8 mile downstream at same datum.

AVERAGE DISCHARGE.--35 years, 94.3 cfs (68,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,500 cfs Oct. 11 (gage height, 43.54 ft); minimum daily, 24 cfs May 22.
Period of record: Maximum discharge, 15,500 cfs Oct. 11, 1970 (gage height, 43.54 ft); maximum gage height, 51.70 ft Aug. 28, 1945; minimum daily discharge, 0.1 cfs Oct. 11, 12, 1937, Mar. 14, Apr. 1, 1958.
Maximum stage since at least 1911, 56.0 ft in June 1919 before channel rectification, former site, from information by engineer for Houston. Flood of May 31, 1929, reached a stage of 50.4 ft before channel rectification, former site (discharge, 11,095 cfs), from current-meter measurement at Lawndale Avenue Bridge, about 8 miles downstream from former site; furnished by Houston.

REMARKS.--Records fair. No diversion above station. Low flow partly maintained by sewage effluent from Houston suburbs.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	73	46	38	40	117	42	37	34	41	44	51
2	50	100	45	36	40	142	45	37	48	42	47	52
3	47	65	47	45	40	55	41	40	43	40	215	56
4	48	50	50	42	226	44	39	41	42	39	766	162
5	111	46	43	38	57	44	41	43	38	40	253	95
6	119	46	43	41	211	44	38	45	39	44	361	49
7	165	48	46	45	318	40	40	45	43	61	194	43
8	185	48	46	46	78	42	41	45	44	78	275	41
9	125	469	49	42	50	37	40	45	44	46	181	134
10	55	84	48	43	47	44	41	43	44	60	172	3,610
11	4,070	52	46	44	45	43	38	858	38	50	104	1,010
12	4,630	46	44	42	44	45	42	211	41	46	70	435
13	1,370	298	44	42	42	42	44	69	39	46	52	254
14	591	153	47	42	40	42	42	40	41	45	48	161
15	337	63	48	42	44	42	39	33	40	42	44	84
16	192	51	53	40	41	41	212	30	40	46	67	58
17	105	50	48	39	41	45	441	31	42	46	51	51
18	66	47	49	41	43	269	67	32	115	46	44	108
19	78	44	49	40	51	130	54	28	52	133	108	1,400
20	57	44	47	40	42	44	50	26	67	88	55	428
21	54	44	48	40	40	42	43	26	44	156	223	230
22	52	44	48	40	40	42	46	24	51	50	106	133
23	2,940	44	48	40	40	40	39	30	44	45	66	88
24	1,760	44	44	40	40	38	38	327	39	42	67	67
25	710	45	38	40	47	39	38	118	38	41	564	54
26	410	41	36	40	673	41	42	52	38	46	336	51
27	1,400	42	38	40	64	38	44	44	55	62	56	52
28	1,560	42	39	40	44	38	37	46	54	63	252	60
29	360	44	43	40	------	40	37	44	44	54	61	48
30	175	45	158	40	------	39	43	41	44	73	70	45
31	105	------	51	40	------	42	------	43	------	50	54	------
TOTAL	21,979	2,312	1,529	1,268	2,528	1,791	1,844	2,574	1,385	1,761	5,006	9,110
MEAN	709	77.1	49.3	40.9	90.3	57.8	61.5	83.0	46.2	56.8	161	304
MAX	4,630	469	158	46	673	269	441	858	115	156	766	3,610
MIN	47	41	36	36	40	37	37	24	34	39	44	41
AC-FT	43,600	4,590	3,030	2,520	5,010	3,550	3,660	5,110	2,750	3,490	9,930	18,070

CAL YR 1970 TOTAL 70,267 MEAN 193 MAX 4,630 MIN 28 AC-FT 139,400
WTR YR 1971 TOTAL 53,087 MEAN 145 MAX 4,630 MIN 24 AC-FT 105,300

PEAK DISCHARGE (BASE, 4,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-11	1915	43.54	15,500	10-27	1930	35.94	6,610
10-23	1800	39.73	10,700	9-10	0600	36.92	7,600

08075400 Sims Bayou at Hiram Clarke Street, Houston, Tex.

LOCATION.--Lat 29°37'07", long 95°26'45", Harris County, on right bank at downstream side of bridge on Hiram Clarke Street in southwest section of Houston, 12.7 miles upstream from gage, Sims Bayou at Houston, and 19.7 miles upstream from mouth.

DRAINAGE AREA.--20.2 sq mi.

PERIOD OF RECORD.--August 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--7 years, 22.2 cfs (16,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,230 cfs Oct. 11 (elevation, 52.77 ft); minimum daily, 4.0 cfs Mar. 21.
Period of record: Maximum discharge, 2,320 cfs May 21, 1970; maximum elevation, 52.77 ft Oct. 11, 1970; minimum daily discharge, 1.5 cfs July 26, 1965.

REMARKS.--Records fair. No known diversion above station. Low flow partly sustained by sewage effluent from Houston suburbs. Records furnished by Houston Lighting and Power Company show that during the water year 1971, 978 acre-ft of ground water was used for cooling purposes and released to bayou about 300 ft above gage. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	11	7.2	6.5	8.2	11	5.0	8.9	9.8	8.4	10	19
2	6.0	9.6	8.4	6.5	8.8	14	4.9	8.2	12	8.2	12	13
3	5.9	8.6	8.2	7.2	9.8	8.6	4.6	9.1	13	8.1	27	13
4	5.5	8.1	7.7	7.3	11	9.2	4.8	10	10	8.5	71	11
5	11	7.7	7.7	6.3	9.8	8.6	5.0	9.6	9.0	7.9	44	11
6	18	7.4	7.6	6.1	9.2	8.0	4.7	9.3	9.3	11	30	32
7	140	7.6	7.4	6.1	15	7.2	4.4	8.9	10	11	16	18
8	48	7.2	7.5	5.7	7.7	8.0	4.8	9.2	14	10	12	12
9	27	11	8.0	6.3	8.8	8.4	4.8	9.2	12	9.6	25	13
10	14	8.5	7.5	6.6	8.4	7.2	4.6	9.4	8.6	11	18	812
11	680	7.5	7.6	7.3	8.4	6.6	4.5	47	8.4	12	12	435
12	1,040	7.3	6.9	7.0	7.7	6.3	5.4	43	7.5	11	9.2	156
13	251	9.7	7.2	6.6	7.2	6.0	5.4	12	9.2	11	9.0	50
14	72	9.5	6.9	7.2	6.6	6.3	5.6	7.4	8.3	11	8.6	21
15	26	7.4	6.5	7.3	7.2	6.0	5.8	5.7	8.8	11	8.0	12
16	13	7.3	6.5	7.3	8.6	5.3	14	6.3	8.6	12	7.9	8.7
17	9.2	6.8	6.4	7.8	8.2	6.6	51	6.3	10	12	9.9	7.9
18	7.5	6.9	6.6	8.0	6.6	8.2	10	6.3	10	12	9.3	12
19	6.7	6.5	6.8	7.7	6.5	7.9	8.0	6.2	10	12	17	229
20	6.2	6.3	6.6	8.0	6.3	4.7	7.4	6.6	11	12	14	90
21	6.1	6.7	6.4	8.2	4.7	4.0	11	6.9	9.6	14	9.7	31
22	5.6	6.6	7.0	7.7	4.3	5.1	11	8.3	10	11	8.4	15
23	193	6.6	6.7	7.7	5.7	4.4	10	7.5	10	11	8.8	10
24	241	6.9	6.1	7.8	4.7	4.6	10	11	9.0	10	11	8.2
25	58	7.1	5.5	8.2	5.1	4.3	8.9	11	8.8	9.9	27	7.9
26	22	7.0	5.3	8.4	50	4.2	8.3	7.8	9.3	9.9	53	6.9
27	76	6.9	5.9	8.0	12	4.8	11	8.1	9.3	9.9	13	7.5
28	304	6.9	6.5	7.8	8.4	4.6	14	11	8.8	9.9	22	6.9
29	89	6.9	6.2	7.5	------	5.1	9.1	9.0	8.6	9.8	41	6.5
30	29	7.2	6.5	7.3	------	4.2	8.7	8.3	8.7	11	154	5.8
31	16	------	6.8	8.4	------	4.8	------	8.2	------	11	43	------
TOTAL	3,434.7	230.7	214.1	225.8	264.9	204.2	266.7	335.7	291.6	327.1	760.8	2,081.3
MEAN	111	7.69	6.91	7.28	9.46	6.59	8.89	10.8	9.72	10.6	24.5	69.4
MAX	1,040	11	8.4	8.4	50	14	51	47	14	14	154	812
MIN	5.5	6.3	5.3	5.7	4.3	4.0	4.4	5.7	7.5	7.9	7.9	5.8
AC-FT	6,810	458	425	448	525	405	529	666	578	649	1,510	4,130
(††)	10.12	.53	.28	.15	2.58	.89	1.60	2.06	1.49	1.02	7.84	6.14

CAL YR 1970 TOTAL 12,222.5 MEAN 33.5 MAX 1,040 MIN 4.3 AC-FT 24,240 †† 48.09
WTR YR 1971 TOTAL 8,637.6 MEAN 23.7 MAX 1,040 MIN 4.0 AC-FT 17,130 †† 34.70

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	ELEV.	DISCHARGE
10-11	1930	52.77	2,230
10-23	1815	48.46	686
9-10	1545	50.34	1,180

†† Weighted-mean rainfall, in inches, based on two rain gages.

08075500 Sims Bayou at Houston, Tex.

LOCATION.--Lat 29°40'27", long 95°17'21", Harris County, on left bank at downstream side of bridge on State Highway 35 in southeast section of Houston and 7.0 miles upstream from mouth.

DRAINAGE AREA.--64.0 sq mi.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.61 ft below mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--19 years, 61.5 cfs (44,560 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,750 cfs Oct. 12 (gage height, 26.95 ft); minimum daily, 15 cfs Mar. 8, 14, 15.
Period of record: Maximum discharge, 8,800 cfs May 21, 1970 (gage height, 30.22 ft); minimum daily, 0.9 cfs Aug. 7, 1955.

REMARKS.--Records fair. Low flow is largely sustained by sewage effluent from Houston suburbs and industrial wastes.

REVISIONS (WATER YEARS).--WSP 1922: 1960.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	36	20	19	18	27	20	18	19	18	25	64
2	21	32	21	19	18	41	20	17	21	17	24	28
3	20	28	22	21	19	26	18	17	23	17	63	37
4	20	25	20	21	24	18	19	20	22	16	164	37
5	30	24	20	19	27	18	19	20	18	17	150	27
6	46	24	20	18	31	22	18	21	18	17	84	40
7	109	23	21	20	78	17	17	19	18	19	59	33
8	121	23	20	22	24	15	18	19	23	32	32	25
9	54	66	20	21	22	17	18	20	24	22	32	37
10	34	29	20	21	21	20	19	17	20	22	41	1,440
11	831	23	20	19	21	21	18	111	19	21	47	975
12	3,460	22	19	20	22	21	17	128	18	18	24	283
13	719	92	21	19	20	17	19	32	17	18	22	90
14	201	49	21	19	20	15	19	23	18	20	21	47
15	78	27	20	19	18	15	20	19	17	18	20	35
16	45	24	21	20	21	16	32	18	19	18	19	28
17	34	24	19	20	21	16	197	18	20	20	20	25
18	29	23	20	19	20	44	35	19	26	19	20	85
19	27	22	20	19	20	48	22	20	31	20	62	417
20	26	21	22	19	21	20	20	18	33	23	52	170
21	25	21	21	19	20	18	20	18	24	45	31	65
22	23	21	19	20	18	18	24	19	24	28	24	42
23	587	21	20	21	19	18	22	20	38	24	21	34
24	1,120	20	20	19	19	18	21	29	17	25	21	30
25	227	21	21	18	20	20	21	37	16	23	60	30
26	85	22	20	18	137	20	19	21	16	25	98	26
27	215	21	18	18	40	20	20	20	17	41	36	26
28	792	21	20	18	20	19	25	20	17	40	64	27
29	254	21	20	18	------	18	23	23	22	38	140	23
30	90	21	25	18	------	20	19	19	18	29	97	23
31	49	------	21	18	------	18	------	19	------	29	104	------
TOTAL	9,396	847	632	599	779	661	799	839	633	739	1,677	4,249
MEAN	303	28.2	20.4	19.3	27.8	21.3	26.6	27.1	21.1	23.8	54.1	142
MAX	3,460	92	25	22	137	48	197	128	38	45	164	1,440
MIN	20	20	18	18	18	15	17	17	16	16	19	23
AC-FT	18,640	1,680	1,250	1,190	1,550	1,310	1,580	1,660	1,260	1,470	3,330	8,430

CAL YR 1970 TOTAL 37,703 MEAN 103 MAX 3,460 MIN 16 AC-FT 74,780
WTR YR 1971 TOTAL 21,850 MEAN 59.9 MAX 3,460 MIN 15 AC-FT 43,340

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-12	0300	26.95	5,750
10-23	2400	20.73	2,090
9-10	1500	21.80	2,200

08075650 Berry Bayou at Forest Oaks Street, Houston, Tex.

LOCATION.--Lat 29°40'35", long 95°14'37", Harris County, near left bank at downstream side of Forest Oaks Street Bridge in southeast Houston, 0.8 mile upstream from auxiliary gage at mouth of Berry Creek, and 1.7 miles upstream from Sims Bayou.

DRAINAGE AREA.--11.1 sq mi.

PERIOD OF RECORD.--April 1964 to current year (gage heights only for some periods).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence. Auxiliary water-stage recorder 0.8 mile downstream at same datum. June 25, 1964, to Jan. 11, 1965, auxiliary nonrecording gage 0.8 mile downstream at same datum.

EXTREMES.--Current year: Maximum discharge, 1,540 cfs Oct. 23; maximum elevation, 15.58 ft Oct. 12; minimum discharge not determined.
Period of record: Maximum discharge, 3,110 cfs May 10, 1968; maximum elevation, 17.59 ft Feb. 21, 1969 (backwater from Sims Bayou); minimum discharge not determined.

REMARKS.--Records fair for October and poor thereafter. Discharge during storm periods computed using fall as a factor. Flow affected by tides and backwater from Berry Creek and Sims Bayou. Discharge estimated for periods of indefinite stage-fall-discharge relationship following runoff periods. No diversions above station. Low flow sustained by sewage effluent from South Houston and Houston suburbs. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-			-					-	-	-
2	-	-			-					-	-	-
3	-	-			-					-	68	-
4	-	-			-					-	88	-
5	-	-			-					-	29	-
6	-	-			12					-	-	-
7	-	-			34					-	-	-
8	-	-			8					-	-	-
9	-	30			-					-	-	-
10	-	10			-					-	-	385
11	304	-			-					-	-	128
12	728	-			-					-	-	26
13	32	50			-					-	-	-
14	-	100			-					-	-	-
15	-	20			-					-	-	-
16	-	-			-					-	-	-
17	-	-			-					-	-	-
18	-	-			-					-	-	16
19	-	-			-					-	-	42
20	-	-			-					-	-	10
21	-	-			-					-	-	-
22	-	-			-					-	-	-
23	274	-			-					-	-	-
24	202	-			-					-	-	-
25	21	-			-					-	-	-
26	-	-			39					-	-	-
27	96	-			-					-	-	-
28	119	-			-					-	-	-
29	22	-			-----					21	-	-
30	-	-			-----					53	-	-
31	-	-----			-----		-----		-----	20	-	-----
MAX	728	100	-	-	39	-	-	-		53	88	385
(††)	8.67	1.87	.47	.11	1.54	.68	1.33	1.54		4.83	4.41	6.15

CAL YR 1970..... MAX 728 †† 41.96
WTR YR 1971..... MAX 728 †† 32.93

PEAK DISCHARGE (BASE, 800 CFS).--Oct. 11 (2100) 1,160 cfs (a15.58 ft); Oct. 23 (1900) 1,540 cfs (12.77 ft).

†† Weighted-mean rainfall, in inches, based on two rain gages.
a Peak elevation did not occur at same time as peak discharge.

08075770 Hunting Bayou at U.S. Highway 90-A, Houston, Tex.

LOCATION.--Lat 29°47'43", long 95°16'21", Harris County, on right bank 100 ft downstream from bridge on U.S. Highway 90-A in northeast section of Houston and 9.2 miles upstream from mouth.

DRAINAGE AREA.--14.4 sq mi.

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--7 years, 16.1 cfs (11,660 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,260 cfs Oct. 23 (elevation, 36.88 ft); minimum daily, 0.88 cfs Aug. 24.
Period of record: Maximum discharge, 2,260 cfs Oct. 23, 1970 (elevation, 36.88 ft); minimum daily, 0.88 cfs Aug. 24, 1971.

REMARKS.--Records good. Low flow is largely maintained by sewage and industrial effluent. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	9.9	8.0	5.7	4.2	8.8	5.2	3.2	4.6	3.2	2.0	3.0
2	6.7	10	7.6	5.4	4.3	31	5.3	3.3	4.5	3.5	2.1	17
3	6.7	9.6	7.6	6.4	4.7	17	4.5	3.2	4.2	2.6	40	9.4
4	6.3	8.6	7.6	6.7	22	9.6	4.3	3.2	3.7	2.4	96	4.3
5	8.0	7.4	7.4	5.5	7.3	9.2	4.3	3.2	3.5	2.3	61	1.4
6	9.3	7.0	6.9	5.3	131	8.0	4.4	3.2	3.4	2.5	83	1.9
7	7.9	6.5	7.0	5.5	27	6.4	4.5	3.1	3.3	2.4	14	2.2
8	6.5	6.2	7.0	6.0	15	6.1	4.8	3.0	3.5	3.4	7.7	2.3
9	6.0	294	7.0	5.4	9.6	6.0	4.3	3.0	3.5	3.0	16	6.4
10	6.0	37	7.0	5.2	7.7	6.6	4.2	2.9	3.5	3.0	2.5	722
11	100	14	7.0	5.1	7.2	8.6	3.8	48	3.7	2.9	2.2	280
12	700	10	6.9	5.1	6.1	7.0	4.0	24	3.7	2.3	1.6	42
13	70	75	6.7	5.0	5.8	5.6	4.2	4.7	3.3	2.3	1.4	9.4
14	13	62	6.7	5.2	5.5	5.4	3.8	3.7	3.0	2.1	1.2	5.2
15	7.2	16	6.9	5.1	5.6	5.6	3.6	3.4	3.3	2.2	1.1	11
16	6.3	12	7.0	7.0	5.7	5.8	10	3.2	3.5	2.2	1.0	5.6
17	5.2	11	7.2	5.0	5.6	5.0	146	3.3	4.2	2.4	1.1	2.7
18	4.3	11	7.8	4.7	5.5	22	9.3	3.6	21	2.6	1.1	9.4
19	5.0	10	7.3	4.7	6.8	18	5.6	3.7	12	5.2	5.3	70
20	5.0	10	7.0	4.8	6.8	6.3	5.0	3.9	4.7	6.3	3.4	40
21	4.7	10	6.8	5.1	5.6	5.3	4.3	3.7	4.3	10	1.5	20
22	4.3	12	6.8	4.9	5.3	5.1	5.0	3.4	60	3.8	1.6	14
23	780	9.0	6.8	5.0	6.0	5.1	4.5	3.1	21	2.8	1.0	10
24	608	8.8	6.4	4.8	5.4	4.8	4.2	74	4.9	2.5	.88	8.0
25	60	8.6	6.3	4.7	5.6	4.6	4.6	71	3.8	2.4	2.2	6.0
26	16	8.3	6.3	4.3	114	4.5	4.7	8.1	17	3.2	9.4	5.0
27	311	8.0	6.3	5.6	17	4.1	4.3	4.9	6.5	16	1.8	4.0
28	567	7.8	6.4	5.4	10	4.6	3.9	4.3	4.1	11	8.1	3.5
29	67	7.5	6.5	4.6	------	4.4	3.6	4.5	3.9	3.0	9.4	3.0
30	20	7.6	40	4.6	------	4.5	3.5	4.2	4.2	2.8	1.9	3.0
31	14	------	12	4.4	------	4.6	------	4.0	------	4.3	1.8	------
TOTAL	3,438.0	714.8	254.2	162.2	462.3	249.6	283.7	318.0	229.8	120.6	383.28	1,321.7
MEAN	111	23.8	8.20	5.23	16.5	8.05	9.46	10.3	7.66	3.89	12.4	44.1
MAX	780	294	40	7.0	131	31	146	74	60	16	96	722
MIN	4.3	6.2	6.3	4.3	4.2	4.1	3.5	2.9	3.0	2.1	.88	1.4
AC-FT	6,820	1,420	504	322	917	495	563	631	456	239	760	2,620
(††)	12.50	2.71	1.18	.28	3.26	.58	2.14	2.95	1.78	2.77	4.84	7.43

CAL YR 1970 TOTAL 9,880.30 MEAN 27.1 MAX 780 MIN 2.4 AC-FT 19,600 †† 52.73
WTR YR 1971 TOTAL 7,938.18 MEAN 21.7 MAX 780 MIN .88 AC-FT 15,750 †† 42.42

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-12	unknown	32.7	1,210	10-27	2200	33.65	1,420
10-23	1945	36.88	2,260	11- 9	0800	29.40	610
				9-10	1400	34.75	1,360

†† Weighted-mean rainfall, in inches, based on three rain gages.

08075900 Greens Bayou at U.S. Highway 75 near Houston, Tex.

LOCATION.--Lat 29°57'24", long 95°25'04", Harris County, on left bank at downstream side of U.S. Highway 75 bridge, 9 miles upstream from station 08076000, and 21 miles upstream from Halls Bayou.

DRAINAGE AREA.--35.5 sq mi.

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--6 years, 18.6 cfs (13,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,860 cfs Oct. 23 (elevation, 87.67 ft); minimum daily, 0.48 cfs Apr. 23.
Period of record: Maximum discharge, 2,730 cfs Apr. 14, 1966; maximum elevation, 91.09 ft Feb. 21, 1969; minimum daily discharge, 0.16 cfs Oct. 21, 22, 1969.

REMARKS.--Records fair. Records furnished by Houston Lighting and Power Company show that 2,160 acre-ft of ground water for cooling purposes was released to bayou about 8 miles upstream from gage during the current year. No known diversion above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	9.9	3.5	4.5	4.2	1.8	3.5	2.0	3.9	3.0	3.3	19
2	4.0	8.1	4.3	5.0	5.7	2.6	2.1	1.9	3.6	3.2	4.3	7.4
3	5.5	6.3	4.2	5.0	5.4	3.0	.97	1.8	3.4	3.2	96	4.8
4	3.5	5.3	4.4	4.2	4.5	3.4	.75	1.7	4.0	3.2	150	3.9
5	2.5	4.1	4.5	4.0	4.0	4.0	.64	2.0	4.5	3.2	109	18
6	2.0	3.6	3.4	4.5	5.5	3.8	.50	2.2	4.5	3.2	20	10
7	3.0	4.6	3.7	5.0	8.9	3.2	.50	2.2	4.2	4.0	12	3.5
8	3.0	3.4	3.7	5.0	4.6	3.3	.50	2.0	4.5	3.5	10	3.3
9	1.6	175	5.8	4.5	4.5	2.6	.62	1.9	4.5	3.5	6.8	3.9
10	1.1	76	6.0	4.0	4.9	2.5	.93	1.8	4.0	3.6	23	135
11	32	26	6.9	4.0	4.8	2.8	.99	33	4.1	3.6	9.9	192
12	338	13	5.4	4.2	4.4	3.2	.76	50	6.7	3.6	4.4	50
13	134	10	4.0	4.5	4.4	3.3	.77	8.5	6.2	3.6	4.7	15
14	39	27	3.8	4.5	3.9	2.9	2.8	3.6	5.5	3.6	4.4	8.0
15	13	14	4.1	4.0	2.9	3.0	2.9	2.7	4.3	3.7	3.5	5.4
16	6.2	8.2	3.5	3.5	3.7	2.9	4.2	2.4	5.6	3.4	3.9	4.8
17	2.8	6.9	5.0	3.0	3.9	3.0	11	2.2	5.0	3.6	5.0	3.9
18	1.8	6.8	5.3	3.2	3.9	4.4	3.3	2.4	3.9	4.3	5.7	4.6
19	2.3	5.8	4.8	3.2	3.8	3.3	1.2	2.7	3.6	3.7	5.8	73
20	2.0	4.9	4.2	3.4	4.1	2.9	.83	2.8	2.6	4.1	6.3	32
21	1.4	5.2	4.0	3.6	4.0	1.3	.79	4.0	2.3	6.4	5.6	14
22	1.0	4.5	4.2	3.8	3.1	.90	.61	4.4	3.3	4.0	4.1	7.1
23	643	4.3	4.5	3.6	4.7	.99	.48	3.1	3.4	3.6	4.2	5.5
24	844	4.8	3.3	3.8	4.4	.83	1.6	8.7	2.6	4.0	4.2	8.9
25	247	5.4	2.6	4.0	2.6	2.0	2.6	13	4.6	2.9	5.2	5.9
26	97	5.1	2.6	3.6	28	2.0	2.5	7.0	4.8	2.9	5.4	4.2
27	67	5.0	2.0	3.4	9.5	1.2	2.7	4.7	4.5	3.8	4.8	3.6
28	174	4.8	3.7	4.0	2.8	.92	3.1	4.6	3.7	3.3	4.2	3.4
29	77	3.7	3.5	5.4	------	.68	2.6	5.4	3.0	3.1	10	2.9
30	28	3.8	6.5	4.4	------	2.1	2.4	5.6	3.0	3.0	5.1	4.2
31	16	------	5.0	4.8	------	3.6	------	4.4	------	3.1	5.2	------
TOTAL	2,796.0	465.5	132.4	127.6	151.1	78.42	59.14	194.7	123.8	110.9	546.0	657.2
MEAN	90.2	15.5	4.27	4.12	5.40	2.53	1.97	6.28	4.13	3.58	17.6	21.9
MAX	844	175	6.9	5.4	28	4.4	11	50	6.7	6.4	150	192
MIN	1.0	3.4	2.0	3.0	2.6	.68	.48	1.7	2.3	2.9	3.3	2.9
AC-FT	5,550	923	263	253	300	156	117	386	246	220	1,080	1,300
(††)	9.70	2.17	.36	.14	1.83	.41	1.07	3.61	.95	1.24	7.31	7.37

CAL YR 1970 TOTAL 10,854.36 MEAN 29.7 MAX 1,150 MIN .50 AC-FT 21,530 †† 47.57
WTR YR 1971 TOTAL 5,442.76 MEAN 14.9 MAX 844 MIN .48 AC-FT 10,800 †† 36.16

PEAK DISCHARGE (BASE, 500 CFS).--Oct. 23 (1900) 1,860 cfs (87.67 ft).

†† Weighted-mean rainfall, in inches, based on two rain gages.

08076000 Greens Bayou near Houston, Tex.

LOCATION.--Lat 29°55'05", long 95°18'24", Harris County, on left bank at downstream side of bridge on U.S. Highway 59, 10.5 miles northeast of Houston, 12.0 miles upstream from Halls Bayou, and 23.4 miles upstream from mouth.

DRAINAGE AREA.--72.7 sq mi, unadjusted for basin boundary changes.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.66 ft below mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--19 years, 41.1 cfs (29,780 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,000 cfs Oct. 23 (gage height, 63.01 ft); minimum daily, 1.2 cfs Oct. 10, 22. Period of record: Maximum discharge, 7,000 cfs July 30, 1954 (gage height, 64.75 ft); maximum gage height, 65.75 ft Sept. 12, 1961; no flow at times.

REMARKS.--Records fair. No known diversion above station. Low flow sustained by Houston Light and Power Co. effluent, which is obtained from ground-water sources. Recording rain gage located at station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	21	6.9	7.2	5.3	5.6	5.4	4.7	5.6	3.6	5.4	20
2	2.8	16	6.2	6.4	5.0	6.0	6.1	4.9	5.3	3.1	5.3	18
3	3.2	13	7.4	8.7	6.5	5.4	3.1	4.6	5.3	3.3	211	12
4	3.1	9.8	7.6	7.2	6.8	5.7	2.3	4.4	6.4	3.4	348	12
5	1.5	8.3	7.8	5.8	5.5	6.1	2.1	5.2	6.5	3.3	317	10
6	2.1	7.5	6.4	7.1	9.6	6.5	1.8	5.0	6.9	3.4	125	25
7	6.3	7.9	5.9	7.3	40	5.8	1.5	6.9	6.1	4.4	47	8.6
8	4.3	7.5	6.3	8.9	9.7	5.3	1.7	5.4	6.4	7.9	19	4.6
9	15	335	6.4	8.3	6.4	6.1	1.9	6.7	6.5	4.5	14	6.1
10	1.2	186	10	8.0	6.6	7.2	1.7	5.2	6.0	4.1	13	397
11	113	57	9.4	6.3	6.7	5.5	2.4	190	5.9	5.6	93	392
12	595	32	8.8	6.1	6.4	5.7	2.1	192	6.7	3.9	15	139
13	255	28	7.3	7.5	6.0	5.7	2.5	27	6.2	4.1	6.9	38
14	63	44	6.3	6.9	6.1	5.7	3.6	7.2	5.6	4.4	7.9	17
15	18	31	6.5	7.0	5.5	4.9	5.4	4.4	4.2	4.1	5.9	12
16	6.1	17	6.7	6.3	5.5	5.6	19	3.4	8.2	4.0	5.7	9.4
17	2.5	13	6.3	5.9	5.9	4.9	102	3.0	7.2	4.4	6.1	7.9
18	1.4	12	8.2	5.3	5.7	7.3	17	2.7	6.6	4.8	7.6	9.0
19	3.5	11	8.9	5.5	6.3	11	6.3	2.5	6.7	5.1	8.6	160
20	2.3	9.4	7.8	5.4	6.5	4.8	4.5	2.4	10	7.7	9.0	100
21	1.7	8.7	6.8	5.6	6.4	4.3	4.1	3.4	4.4	35	9.2	32
22	1.2	9.0	6.3	5.6	5.6	3.8	3.7	3.7	4.0	9.4	6.6	15
23	864	8.5	6.9	5.2	5.1	3.2	3.4	3.3	12	4.4	6.2	12
24	1,570	7.4	6.8	5.8	6.8	2.9	2.9	44	7.2	5.9	7.5	15
25	443	9.7	7.2	6.6	5.7	2.8	4.9	52	3.7	4.7	6.3	14
26	167	8.4	6.6	5.9	68	4.0	5.3	12	4.7	7.5	14	8.6
27	107	7.4	6.0	5.7	27	3.1	5.4	4.9	6.2	12	7.6	7.9
28	335	8.0	6.3	5.3	7.7	2.9	6.1	4.0	7.9	8.8	5.7	7.9
29	153	7.4	6.2	5.7	------	2.6	6.2	11	4.4	5.8	10	6.8
30	56	6.6	15	5.4	------	2.3	5.2	7.5	3.9	4.7	10	5.5
31	31	------	11	5.2	------	4.6	------	6.4	------	5.1	6.3	------
TOTAL	4,831.0	947.5	232.2	198.6	294.3	157.3	239.6	639.8	186.7	192.4	1,359.8	1,522.3
MEAN	156	31.6	7.49	6.41	10.5	5.07	7.99	20.6	6.22	6.21	43.9	50.7
MAX	1,570	335	15	8.9	68	11	102	192	12	35	348	397
MIN	1.2	6.6	5.9	5.0	5.0	2.3	1.5	2.4	3.7	3.1	5.3	4.6
AC-FT	9,580	1,880	461	394	584	312	475	1,270	370	382	2,700	3,020
(††)	8.67	1.75	.60	.22	2.37	1.00	2.40	3.17	.30	3.10	5.18	7.92

CAL YR 1970 TOTAL 24,672.5 MEAN 67.6 MAX 3,210 MIN 1.2 AC-FT 48,940 †† 49.78
WTR YR 1971 TOTAL 10,801.5 MEAN 29.6 MAX 1,570 MIN 1.2 AC-FT 21,320 †† 36.68

PEAK DISCHARGE (BASE, 1,200 CFS).--Oct. 23 (2400) 3,000 cfs (63.01 ft).

†† Rainfall, in inches.

08076500 Halls Bayou at Houston, Tex.

LOCATION.--Lat 29°51'42", long 95°20'05", Harris County, on right bank at downstream side of bridge on Jensen Drive in northeast section of Houston and 11.0 miles upstream from mouth.

DRAINAGE AREA.--24.7 sq mi, unadjusted for basin boundary changes.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.66 ft below mean sea level, unadjusted for land-surface subsidence.

AVERAGE DISCHARGE.--19 years, 20.3 cfs (14,710 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs Oct. 23 (gage height, 58.22 ft); minimum daily, 3.1 cfs Dec. 19, May 6.
Period of record: Maximum discharge, 3,400 cfs Sept. 12, 1961; maximum gage height, 60.65 ft July 30, 1954; no flow at times.

REMARKS.--Records fair. No known diversion above station. Low flow is partly sustained by sewage effluent from Houston suburbs.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	12	7.1	4.8	4.1	6.5	4.2	3.5	4.6	3.7	3.3	4.7
2	3.8	10	6.1	4.3	4.2	7.2	4.2	3.6	4.6	3.5	3.7	3.9
3	3.7	8.6	6.1	5.6	4.2	5.5	4.0	3.3	4.4	3.5	75	5.4
4	3.5	7.6	5.8	5.6	4.4	5.1	4.1	3.5	4.4	3.3	136	11
5	3.7	6.4	5.1	4.5	4.1	4.9	4.1	3.3	4.4	3.2	111	4.0
6	5.7	6.2	4.8	4.3	14	4.9	4.0	3.1	4.1	3.6	44	3.6
7	4.5	6.4	4.8	4.5	62	5.0	4.0	3.4	4.1	4.2	30	4.1
8	8.9	7.4	4.7	5.0	6.9	4.7	3.9	3.4	4.1	13	28	4.2
9	18	317	4.6	4.8	5.4	4.8	4.0	3.6	4.0	4.0	6.7	5.2
10	4.8	61	4.8	4.9	4.9	4.8	3.9	3.4	4.0	4.1	4.9	359
11	185	29	4.6	4.8	5.0	4.7	3.9	213	4.4	4.5	8.3	182
12	454	19	4.4	4.8	4.6	5.2	3.7	115	4.1	3.6	4.4	30
13	42	26	4.5	5.0	4.6	4.6	4.4	8.3	3.7	3.6	4.2	8.4
14	17	29	4.4	4.9	4.7	4.4	4.9	5.1	3.6	3.5	4.0	6.8
15	10	14	3.4	4.6	4.6	4.5	5.0	4.1	3.8	3.6	4.0	6.0
16	8.1	10	3.6	4.3	4.8	4.5	10	3.9	6.1	3.6	4.0	5.6
17	6.3	8.8	4.3	4.4	4.6	4.3	94	4.1	5.0	3.5	4.0	5.2
18	5.2	8.2	3.6	4.5	4.4	8.0	6.4	4.0	6.6	3.4	3.8	5.2
19	9.4	7.5	3.1	4.2	4.5	9.3	4.2	3.8	5.7	3.6	4.0	74
20	7.9	6.9	3.5	4.1	4.9	4.6	3.7	3.9	5.6	3.8	6.0	22
21	5.7	6.6	3.7	4.5	4.8	4.4	3.6	3.8	4.9	12	18	9.9
22	5.2	6.3	4.5	4.5	4.8	4.4	3.8	3.9	5.2	4.2	4.5	7.8
23	794	6.1	4.7	4.4	5.0	4.5	3.6	3.8	4.9	3.7	4.8	6.8
24	562	5.8	4.4	4.6	4.5	4.2	3.3	103	3.7	3.6	6.7	6.0
25	122	7.6	4.4	4.6	4.3	4.1	3.4	135	4.3	3.5	4.1	6.0
26	47	6.8	3.7	4.5	46	4.1	3.5	9.1	8.5	3.9	16	5.6
27	83	6.9	4.7	4.3	8.6	4.5	3.5	6.2	4.4	5.8	5.1	5.4
28	164	6.4	5.0	4.1	5.4	4.3	3.3	5.4	3.6	5.0	4.0	5.5
29	42	5.7	5.6	4.2	------	4.3	3.9	10	3.9	3.6	4.1	5.0
30	24	5.7	17	4.2	------	4.1	3.4	5.6	3.9	3.5	4.0	4.6
31	17	------	8.2	4.3	------	3.9	------	4.8	------	3.3	3.9	------
TOTAL	2,671.3	664.9	159.2	142.1	244.3	154.3	215.9	689.9	138.6	134.9	564.5	812.9
MEAN	86.2	22.2	5.14	4.58	8.73	4.98	7.20	22.3	4.62	4.35	18.2	27.1
MAX	794	317	17	5.6	62	9.3	94	213	8.5	13	136	359
MIN	3.5	5.7	3.1	4.1	4.1	3.9	3.3	3.1	3.6	3.2	3.3	3.6
AC-FT	5,300	1,320	316	282	485	306	428	1,370	275	268	1,120	1,610

CAL YR 1970 TOTAL 12,323.4 MEAN 33.8 MAX 1,100 MIN 2.9 AC-FT 24,440
WTR YR 1971 TOTAL 6,592.8 MEAN 18.1 MAX 794 MIN 3.1 AC-FT 13,080

PEAK DISCHARGE (BASE, 800 CFS).--Oct. 11 (2230) 940 cfs (54.05 ft); Oct. 23 (1900) 2,300 cfs (58.22 ft).

08077000 Clear Creek near Pearland, Tex.

LOCATION.--Lat 29°35'50", long 95°17'11", Harris-Brazoria County line, at downstream side of pier of bridge on State Highway 35, 0.7 mile downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.2 miles upstream from Hickory Slough, 2.3 miles north of Pearland, and about 30 miles upstream from head of Clear Lake.

DRAINAGE AREA.--38.8 sq mi.

PERIOD OF RECORD.--July to October 1944, March to October 1946, April 1947 to December 1959, March 1963 to current year. Discharge for some high-water periods in 1944 and 1946 published in WSP 1392.

GAGE.--Water-stage recorder. Datum of gage is 28.34 ft above mean sea level, unadjusted for land-surface subsidence. Prior to June 9, 1948, nonrecording gage and June 9, 1948, to Apr. 22, 1952, water-stage recorder at same site and datum 5.80 ft higher.

AVERAGE DISCHARGE.--20 years (1947-59, 1963-71), 31.2 cfs (22,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 863 cfs Oct. 12 (gage height, 13.25 ft); minimum daily, 0.08 cfs Aug. 23, 24.
Period of record: Maximum discharge, 2,170 cfs Mar. 18, 1957 (gage height, 16.80 ft); no flow at times.
Flood of June 26, 1960 (stage and discharge unknown), probably exceeded that of Mar. 18, 1957, from records of rainfall and nearby stations. Because of channel rectification in 1933, 1952, and 1968, there is no relation between historic floods and recent floods.

REMARKS.--Records fair except those for August and September, which are poor. Large area of riceland above station is irrigated with water from the Brazos River. Low flow from April to October is largely drainage from irrigated lands. Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1392: 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	23	1.8	2.5	1.0	1.3	5.6	1.0	5.0	2.2	7.9	9.0
2	1.8	14	1.8	6.4	.90	4.6	3.6	1.3	5.0	2.5	1.9	4.3
3	1.2	9.8	2.2	1.2	1.3	1.4	1.9	2.4	4.3	2.5	5.4	3.4
4	1.2	7.0	1.8	.80	1.9	1.2	.70	2.0	3.6	3.1	32	19
5	1.6	5.2	1.8	.70	2.0	1.6	.32	4.3	3.0	2.6	30	5.7
6	4.6	4.0	1.8	.70	2.0	.80	.24	2.8	3.0	3.2	37	2.6
7	12	3.1	1.8	.80	2.4	.60	4.8	2.0	3.1	6.2	43	2.4
8	18	2.4	1.6	.70	1.3	.70	7.7	2.5	3.0	8.1	25	.50
9	15	2.5	1.9	.80	1.0	.90	25	2.0	2.5	9.0	13	1.4
10	12	2.2	2.4	.80	.90	.70	25	1.9	5.0	10	7.9	248
11	71	2.4	2.4	.80	.90	1.3	10	6.5	3.8	14	7.0	516
12	741	2.0	2.0	.80	1.8	1.4	6.0	9.8	3.8	16	6.0	434
13	577	11	2.0	1.0	1.9	.90	4.8	3.4	3.8	17	2.8	125
14	284	10	1.9	1.0	1.8	.32	8.8	5.2	5.4	13	1.4	62
15	118	5.4	1.6	1.3	1.3	.60	3.1	3.8	8.6	9.2	1.0	24
16	63	3.8	1.8	1.3	.90	.18	14	2.4	8.1	8.4	.50	16
17	59	3.1	1.9	1.2	.90	17	25	2.5	7.4	12	.90	10
18	30	2.6	1.6	1.2	1.9	14	18	2.2	11	8.6	1.0	7.4
19	18	2.2	1.2	.80	2.0	15	7.4	2.0	14	7.9	.70	28
20	12	2.6	1.2	.80	1.9	10	4.5	2.5	17	7.9	.70	57
21	8.4	2.5	2.0	1.0	1.8	9.5	2.6	2.2	28	11	.80	28
22	5.8	2.5	1.6	1.3	.90	8.4	1.3	3.6	31	13	.24	14
23	30	2.4	1.6	1.4	.90	19	.70	4.1	26	9.8	.08	10
24	97	1.6	1.6	1.4	1.2	12	.40	3.6	21	9.8	.08	5.8
25	48	1.3	1.6	1.2	1.3	8.1	.18	4.1	14	5.2	.18	3.6
26	23	1.6	1.0	.90	6.0	3.8	.90	5.0	8.4	14	12	2.4
27	30	1.6	.90	.70	1.6	2.5	.80	7.2	5.6	14	23	1.4
28	211	1.3	.60	.60	1.8	4.1	1.0	6.2	4.6	17	8.8	.90
29	155	1.3	1.0	.60	------	2.2	.80	5.6	4.1	6.0	22	.70
30	68	1.6	3.0	.70	------	4.6	1.0	5.0	3.1	2.6	16	.60
31	36	------	1.6	.90	------	8.4	------	5.4	------	6.2	23	------
TOTAL	2,755.0	136.0	53.00	36.30	45.50	157.10	186.14	114.5	266.2	272.0	331.28	1,643.10
MEAN	88.9	4.53	1.71	1.17	1.63	5.07	6.20	3.69	8.87	8.77	10.7	54.8
MAX	741	23	3.0	6.4	6.0	19	25	9.8	31	17	43	516
MIN	1.2	1.3	.60	.60	.90	.18	.18	1.0	2.5	2.2	.08	.50
AC-FT	5,460	270	105	72	90	312	369	227	528	540	657	3,260

CAL YR 1970 TOTAL 13,213.30 MEAN 36.2 MAX 1,250 MIN .60 AC-FT 26,210
WTR YR 1971 TOTAL 5,996.12 MEAN 16.4 MAX 741 MIN .08 AC-FT 11,890

PEAK DISCHARGE (BASE, 600 CFS).--Oct. 12 (1200) 863 cfs (13.25 ft).

08077650 Moses Lake-Galveston Bay near Texas City, Tex.

LOCATION.--Lat 29°26'50", long 94°55'12", Galveston County, on right side of gate abutment of Texas City Flood Control Dike, one orifice located upstream, one downstream, at mouth of Moses Lake, and 4.5 miles north of Texas City.

PERIOD OF RECORD.--May 1967 to current year.

GAGE.--Duplex water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Period of record: Maximum elevation (Moses Lake), 3.8 ft Sept. 9, 1971; minimum, -2.6 ft Mar. 12, 13, 1968. Maximum elevation (Galveston Bay), 4.7 ft Feb. 14, 1969; minimum, not recorded but probably occurred Mar. 12 or 13, 1968.

REMARKS.--The purpose of this station is to record elevations of high tides in Galveston Bay and the corresponding elevation of the water surface in Moses Lake. Moses Lake is connected to Galveston Bay by gated openings through levee. No elevations are shown for Moses Lake until elevation in Galveston Bay exceeds 3.0 ft.

MAXIMUM DAILY ELEVATION, IN FEET, GALVESTON BAY AND MOSES LAKE
WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.	Galv. Bay Max.	Moses Lake Max.
1	1.8	-	1.7	-	1.7	-	1.2	-	-	-	1.3	-	1.8	-	0.9	-	1.1	-	0.7	-	1.1	-	1.6	-
2	1.9	-	1.9	-	1.7	-	1.7	-	2.4	-	1.4	-	1.3	-	.6	-	1.0	-	.7	-	1.1	-	1.7	-
3	1.7	-	1.1	-	1.8	-	2.3	-	2.0	-	-1.1	-	2.3	-	.2	-	1.3	-	.7	-	1.3	-	1.9	-
4	1.6	-	.3	-	1.1	-	2.0	-	1.9	-	.5	-	2.3	-	-.8	-	1.3	-	.7	-	1.5	-	2.0	-
5	2.0	-	.0	-	1.1	-	.8	-	1.8	-	1.1	-	1.8	-	1.0	-	1.2	-	.7	-	1.4	-	1.3	-
6	2.5	-	.7	-	1.0	-	.9	-	2.6	-	1.1	-	1.0	-	1.1	-	1.2	-	.6	-	1.1	-	1.0	-
7	2.6	-	.6	-	1.5	-	1.0	-	2.5	-	-.3	-	.2	-	1.0	-	1.2	-	.9	-	1.0	-	2.0	-
8	2.5	-	1.1	-	1.6	-	1.2	-	.6	-	.8	-	.6	-	.7	-	1.4	-	1.1	-	.9	-	2.0	-
9	1.4	-	1.5	-	1.7	-	1.3	-	.3	-	1.1	-	.7	-	1.0	-	1.2	-	1.5	-	.8	-	3.3	2.8
10	2.0	-	1.0	-	2.0	-	1.5	-	.6	-	.9	-	.8	-	1.3	-	1.4	-	2.4	-	.6	-	4.0	3.8
11	2.9	-	1.3	-	2.0	-	1.4	-	1.3	-	.8	-	1.1	-	1.6	-	1.5	-	1.6	-	.6	-	3.1	-
12	2.2	-	1.2	-	1.2	-	1.2	-	1.3	-	1.0	-	1.1	-	.8	-	1.1	-	1.1	-	.6	-	2.3	-
13	1.6	-	2.0	-	1.6	-	1.4	-	-.6	-	1.2	-	1.1	-	.4	-	.9	-	.7	-	.8	-	1.8	-
14	1.8	-	1.4	-	1.8	-	1.4	-	.9	-	1.3	-	.8	-	.9	-	.6	-	.6	-	.8	-	1.9	-
15	1.7	-	-.3	-	2.1	-	1.0	-	.8	-	.7	-	1.2	-	1.1	-	.6	-	.7	-	.9	-	2.3	-
16	1.6	-	.5	-	1.6	-	1.2	-	1.0	-	.8	-	1.9	-	.8	-	.4	-	.9	-	1.0	-	2.7	-
17	1.8	-	1.1	-	1.1	-	1.3	-	1.1	-	1.4	-	2.1	-	1.2	-	.4	-	.9	-	.9	-	1.3	-
18	1.9	-	1.0	-	1.6	-	1.2	-	1.6	-	2.0	-	2.1	-	1.6	-	1.0	-	.7	-	1.0	-	1.4	-
19	2.0	-	1.3	-	1.4	-	.9	-	1.7	-	1.1	-	2.1	-	1.2	-	.9	-	.8	-	1.2	-	1.1	-
20	1.8	-	1.3	-	1.7	-	1.6	-	1.6	-	.2	-	1.6	-	1.3	-	1.2	-	.8	-	1.0	-	1.1	-
21	1.7	-	1.3	-	1.5	-	1.6	-	1.6	-	1.2	-	1.3	-	1.0	-	.8	-	.8	-	1.2	-	1.5	-
22	1.9	-	1.4	-	1.4	-	1.4	-	.4	-	1.2	-	1.6	-	1.5	-	.6	-	.9	-	1.0	-	1.9	-
23	1.9	-	.5	-	1.4	-	1.8	-	.4	-	1.0	-	1.5	-	1.8	-	.5	-	1.0	-	1.0	-	2.1	-
24	1.9	-	.9	-	1.1	-	1.9	-	1.2	-	1.8	-	1.2	-	2.2	-	.3	-	.9	-	1.0	-	2.2	-
25	1.2	-	1.8	-	1.1	-	1.9	-	1.5	-	2.1	-	1.5	-	1.4	-	.5	-	.8	-	1.1	-	2.4	-
26	1.6	-	1.8	-	1.2	-	1.9	-	1.5	-	1.1	-	1.6	-	1.5	-	.7	-	1.0	-	1.1	-	2.4	-
27	2.1	-	1.3	-	1.5	-	-	-	1.1	-	1.5	-	1.4	-	1.4	-	.9	-	.7	-	1.2	-	2.6	-
28	1.8	-	1.5	-	1.7	-	-	-	1.3	-	1.5	-	1.3	-	1.0	-	.9	-	.9	-	1.3	-	2.7	-
29	1.1	-	1.5	-	1.4	-	1.6	-	--------		1.4	-	1.5	-	1.2	-	1.2	-	.9	-	1.4	-	2.3	-
30	1.5	-	1.5	-	1.8	-	1.2	-	--------		1.3	-	.7	-	1.3	-	.7	-	.9	-	1.3	-	2.4	-
31	1.6	-	--------		1.4	-	1.5	-	--------		2.0	-	--------		1.2	-	--------		.8	-	1.6	-	--------	

08077700 Highland Bayou at Hitchcock, Tex.

LOCATION.--Lat 29°21'12", long 95°01'49", Galveston County, at downstream side of bridge on Farm Road 2004, 0.6 mile west of Hitchcock, and 7 miles from mouth and Jones Bay.

DRAINAGE AREA.--15.6 sq mi.

PERIOD OF RECORD.--August 1963 to current year (elevations only).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted for land-surface subsidence.

EXTREMES.--Current year: Maximum elevation, 6.69 ft Sept. 10; minimum, -1.29 ft Feb. 13.
Period of record: Maximum elevation, 8.15 ft June 21, 1968; minimum unknown.
Maximum elevation since at least 1930, 14.6 ft July 25, 1959, from information by local residents.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
1	2.17	1.37	1.86	0.72	1.84	0.54	1.40	0.37	2.04	0.83	1.62	0.91	1.87	0.89	1.52	0.19	1.66	1.03	1.23	0.40	1.66	0.38	2.11	0.86
2	2.13	1.16	1.83	.08	1.82	.61	1.82	1.11	2.80	1.40	1.64	.45	1.44	.08	1.30	.48	1.58	1.03	1.15	.17	1.46	.38	2.12	.86
3	1.97	.96	1.47	-.18	1.79	.66	2.49	1.82	2.74	1.80	.43	-1.12	2.34	.67	.89	.07	1.73	.96	1.13	.13	1.59	.31	2.36	1.13
4	1.88	.88	.96	-.73	1.51	.39	2.18	.38	2.10	1.15	1.00	-1.12	2.24	1.63	1.44	.64	1.77	.77	1.10	.11	1.90	.37	2.39	1.33
5	2.34	1.36	.45	-.46	1.45	.58	.95	-.56	1.93	.61	1.59	.40	1.87	.66	1.78	1.30	1.63	.62	1.11	-.08	1.76	.57	1.84	1.37
6	2.78	1.68	.95	-.01	1.20	.62	1.22	.04	2.47	1.06	1.58	.01	1.06	-.23	1.86	1.29	1.66	.52	1.14	-.11	1.73	.49	1.47	.54
7	2.88	1.45	.98	.22	1.83	1.06	1.42	.07	2.65	1.09	.12	-.79	.45	-.29	1.77	.87	1.72	.64	1.24	-.16	1.54	.30	2.40	1.22
8	2.87	1.60	1.58	.89	1.91	1.13	1.45	.26	1.30	-.56	1.01	-.10	.78	.33	1.43	.65	1.65	.47	1.47	-.20	1.65	.36	2.48	1.60
9	1.92	.50	1.56	.72	1.98	1.08	1.49	.22	.41	-.51	1.38	.71	.95	.12	1.80	.50	1.67	.44	1.81	.18	1.32	.62	3.13	2.05
10	2.14	.68	1.14	.23	2.12	.74	1.65	.51	.72	-.17	1.18	.14	1.03	.07	1.98	.83	1.82	.42	2.73	.98	1.11	.57	6.69	3.51
11	5.90	1.44	1.53	.46	2.16	.89	1.61	.34	1.58	.96	1.13	.43	1.23	.37	2.11	.66	1.89	.61	2.06	1.37	1.02	.28	4.82	2.87
12	4.66	3.14	1.46	-.14	1.63	.18	1.39	.29	1.46	-.93	1.37	.88	1.27	.26	1.39	.34	1.49	.51	1.57	.98	1.03	.15	3.06	1.41
13	3.14	1.93	2.08	.93	1.93	.45	1.70	.66	-.41	-1.29	1.71	1.01	1.45	.39	1.06	-.32	1.26	.15	1.28	.72	1.23	.20	2.26	1.22
14	2.26	1.32	1.80	-.68	2.05	.93	1.63	.64	.95	-.51	1.55	.97	1.33	.33	1.53	-.06	1.18	.27	1.17	.41	1.29	.00	2.29	1.30
15	2.09	1.01	.26	-1.16	2.31	1.32	1.24	-.02	.97	.51	1.00	.20	1.66	.28	1.61	-.16	1.11	.36	1.17	.32	1.31	.20	2.62	1.49
16	1.89	.76	1.02	-.33	1.89	-.15	1.46	.54	1.17	.17	1.15	.15	2.33	.75	1.36	-.12	.92	.15	1.28	.17	1.39	.19	2.73	1.40
17	2.11	1.03	1.28	.16	1.18	.19	1.41	.64	1.29	.26	1.79	.14	2.66	1.61	1.65	.65	.83	.06	1.21	.10	1.37	.15	1.90	1.02
18	2.19	1.16	1.11	-.01	1.64	.96	1.21	.52	1.83	.47	2.19	.78	2.43	1.66	2.03	1.45	1.47	.21	1.14	.05	1.51	.27	1.98	1.14
19	2.35	.98	1.61	.81	1.69	.92	1.03	-.04	1.81	.81	.78	-.33	2.33	1.55	1.89	1.16	1.31	.28	1.21	-.06	1.67	.37	1.93	1.44
20	2.18	1.08	1.39	.42	1.59	.96	1.66	.46	1.89	.61	.66	-.67	2.10	1.16	1.61	.77	1.55	.18	1.33	.03	1.56	.64	1.58	.90
21	2.06	1.14	1.72	1.14	1.63	1.05	1.63	.24	1.89	1.00	1.53	.06	1.60	.98	1.54	.73	1.23	.13	1.32	.03	1.73	.65	1.86	1.06
22	2.30	1.37	1.74	.74	1.65	.81	1.57	.38	1.10	-.83	1.27	.37	1.90	1.35	1.97	.72	1.22	-.15	1.42	.04	1.52	1.03	2.18	1.49
23	2.42	1.73	.79	-.50	1.75	.74	1.78	.44	.77	-.55	1.25	.11	1.95	.62	2.47	.87	1.01	-.28	1.57	.41	1.47	.94	2.30	1.48
24	2.28	1.00	1.34	-.09	1.54	.15	1.96	.67	1.36	.34	2.13	.81	1.64	.57	2.36	1.40	.90	-.28	1.43	.63	1.34	.90	2.40	1.71
25	1.72	1.12	2.04	.81	.53	.06	1.97	.50	1.84	.91	2.36	1.05	1.97	.75	1.99	.98	1.09	-.25	1.27	.55	1.44	.77	2.62	1.68
26	1.97	1.43	2.03	.79	1.64	.06	1.78	.40	2.55	1.34	1.51	.87	2.07	.95	1.92	.56	1.17	.03	1.36	.24	1.52	.77	2.57	1.56
27	2.18	1.68	1.67	.46	1.85	.51	1.84	.65	1.61	.92	1.85	1.06	1.92	.79	1.94	.76	1.36	.46	1.13	.63	1.51	.70	2.63	1.48
28	1.74	.87	1.79	.49	2.00	.58	2.15	.97	1.75	.95	1.77	.70	1.80	.53	1.58	.43	1.45	.65	1.37	.59	1.61	.47	2.67	1.64
29	1.41	.40	1.79	.55	1.69	.35	1.67	.94	----------		1.17	.16	1.95	.73	1.77	.43	1.60	.99	1.32	.46	1.73	.64	2.64	1.63
30	1.72	.64	1.84	.59	2.06	.83	1.37	.76	----------		1.48	-.06	1.48	.56	1.84	.97	1.21	.46	1.07	.03	1.68	.53	2.76	1.63
31	1.72	.58	----------		1.70	-.34	1.31	.73	----------		2.13	.57	----------		1.76	1.17	----------		1.24	.29	2.03	.80	----------	

08078000 Chocolate Bayou near Alvin, Tex.

LOCATION.--Lat 29°22'19", long 95°19'14", Brazoria County, on right bank 800 ft downstream from bridge on Farm Road 1462, 5.9 miles southwest of Alvin, and 6.9 miles upstream from State Highway 35.

DRAINAGE AREA.--87.7 sq mi.

PERIOD OF RECORD.--August to October 1944 and March to December 1946 (low-water records during irrigation season), January 1947 to February 1958, March 1958 to February 1959 (discharge measurements only), March 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.31 ft above mean sea level. Prior to May 3, 1959, nonrecording gage or water-stage recorders located at various sites from 900 to 1,400 ft upstream and at datum 3.00 ft higher.

AVERAGE DISCHARGE.--22 years (1947-57, 1959-71), 96.1 cfs (69,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,720 cfs Sept. 11 (gage height, 19.41 ft); minimum daily, 2.0 cfs Feb. 2.
Period of record: Maximum discharge, 7,400 cfs Oct. 8, 1949 (gage height, 21.80 ft, present datum, from floodmark before channel rectification), from rating curve extended above 3,800 cfs; no flow at times.
Maximum stage in recent years, 22.9 ft July 14, 1939, former site and present datum (adjusted from floodmark 1,700 ft to right and 550 ft upstream from present gage, on basis of slope of flood of Oct. 8, 1949), from information by local residents.

REMARKS.--Records good. Large area of riceland above station is irrigated with water from Brazos River. Low flow from April to October is largely drainage from irrigated lands. Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	54	6.8	5.1	2.2	12	56	42	46	48	311	67
2	19	40	6.5	4.7	2.0	13	87	45	44	46	124	35
3	15	32	6.8	4.5	2.3	25	75	37	31	48	163	25
4	12	25	6.8	4.5	2.4	17	64	25	24	48	316	23
5	21	21	6.5	3.7	2.4	8.3	61	23	20	45	540	58
6	383	18	6.1	3.7	11	7.5	61	24	25	40	399	43
7	326	13	5.6	4.5	74	9.4	45	28	27	43	417	30
8	131	11	5.1	4.7	20	10	38	29	26	54	180	17
9	76	30	5.1	4.9	11	9.7	33	40	34	64	82	10
10	55	22	5.4	4.3	8.3	11	48	44	33	67	76	1,230
11	218	16	5.1	4.0	6.1	8.3	61	122	26	77	166	2,460
12	1,200	12	4.9	3.9	5.6	14	53	339	32	72	68	2,610
13	1,280	87	4.7	3.9	4.5	33	76	199	28	64	34	1,970
14	727	300	4.9	3.7	3.9	42	66	100	25	64	20	1,020
15	362	119	4.7	3.7	3.7	27	50	60	19	54	12	400
16	180	56	4.7	3.1	3.5	25	58	46	28	50	10	186
17	97	38	4.5	2.9	3.5	18	241	29	28	68	14	100
18	63	29	4.5	3.1	3.5	16	184	24	41	98	10	73
19	46	22	4.5	2.9	3.3	22	70	23	104	86	7.2	233
20	37	19	4.7	2.8	4.3	20	34	20	164	89	7.8	185
21	28	16	4.7	2.8	4.0	31	19	19	347	92	13	95
22	24	13	4.7	2.9	3.3	50	15	26	208	107	16	65
23	32	11	4.5	3.1	2.9	36	16	38	159	92	9.0	48
24	120	8.6	5.8	3.1	2.8	48	16	35	108	86	2.7	40
25	86	7.8	5.8	2.9	4.3	30	19	97	80	80	3.2	32
26	54	8.3	4.5	2.8	12	25	21	66	84	60	9.9	26
27	42	7.8	4.5	2.4	12	17	29	48	86	60	18	21
28	350	7.5	4.7	2.2	12	17	54	28	73	70	13	22
29	331	7.3	4.5	2.3	------	22	57	55	65	70	9.9	18
30	161	7.0	4.7	2.6	------	57	43	68	60	52	11	13
31	86	------	6.1	2.6	------	56	------	51	------	427	32	------
TOTAL	6,585	1,058.3	162.4	108.3	230.8	737.2	1,750	1,830	2,075	2,421	3,094.7	11,155
MEAN	212	35.3	5.24	3.49	8.24	23.8	58.3	59.0	69.2	78.1	99.8	372
MAX	1,280	300	6.8	5.1	74	57	241	339	347	427	540	2,610
MIN	12	7.0	4.5	2.2	2.0	7.5	15	19	19	40	2.7	10
AC-FT	13,060	2,100	322	215	458	1,460	3,470	3,630	4,120	4,800	6,140	22,130

CAL YR 1970 TOTAL 40,883.5 MEAN 112 MAX 1,790 MIN 4.5 AC-FT 81,090
WTR YR 1971 TOTAL 31,207.7 MEAN 85.5 MAX 2,610 MIN 2.0 AC-FT 61,900

PEAK DISCHARGE (BASE, 1,000 CFS).--Oct. 12 (2400) 1,430 cfs (14.31 ft); Sept. 11 (2400) 2,720 cfs (19.41 ft).

08079000 Oyster Creek near Angleton, Tex.

LOCATION.--Lat 29°09'30", long 95°28'32", Brazoria County, near center of low-water channel at downstream side of bridge on State Highway 35, 2.7 miles west of Angleton, 4.1 miles upstream from Missouri Pacific Railroad Co. bridge, 4.5 miles downstream from Styles Bayou, and about 45 miles upstream from Gulf of Mexico.

DRAINAGE AREA.--211 sq mi.

PERIOD OF RECORD.--October 1944 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 1.31 ft below mean sea level. Prior to Apr. 30, 1958, at site 500 ft downstream at same datum.

AVERAGE DISCHARGE.--27 years, 174 cfs (126,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,370 cfs Oct. 13 (gage height, 22.11 ft); minimum daily, 92 cfs Sept. 29.
Period of record: Maximum discharge, 10,600 cfs May 10, 1957 (gage height, 31.45 ft, present site, overflow from Brazos River); minimum daily, 0.3 cfs at times in 1955-56.
Maximum stage since about 1900, 32.2 ft in December 1913; flood of Dec. 5, 1940, reached a stage of 30.9 ft, from information by State Highway Department. At extreme high stages the Brazos River overflows into Oyster Creek above this station.

REMARKS.--Records good. Diversions above station for irrigation. A large part of flow is water released from Harris Reservoir (capacity, 12,000 acre-ft) for industrial use below station. Harris Reservoir is supplied with water diverted from Brazos River during periods of floodflow.

COOPERATION.--Records of water released from Harris Reservoir into Oyster Creek above station furnished by Dow Chemical Co.

REVISIONS (WATER YEARS).--WSP 1392: 1947.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	292	140	129	122	137	154	155	118	152	142	128
2	164	271	139	128	122	137	154	152	118	159	129	128
3	157	266	138	128	123	137	154	152	117	165	135	133
4	151	250	137	128	123	136	160	154	118	164	144	136
5	161	219	136	127	122	135	160	156	118	157	235	136
6	396	204	136	126	123	135	151	156	117	156	285	132
7	680	198	137	126	127	134	146	155	118	155	143	130
8	771	194	137	126	125	134	151	155	118	157	110	129
9	635	198	136	126	123	134	159	155	119	156	129	133
10	430	209	136	124	121	137	160	155	120	155	140	461
11	530	204	139	124	120	142	159	160	120	155	144	838
12	1,160	191	138	124	122	146	158	167	121	152	142	989
13	1,350	177	136	123	122	146	153	155	122	154	133	943
14	1,230	209	135	121	121	137	150	151	126	158	133	758
15	1,030	211	134	121	122	134	148	153	149	157	133	550
16	806	183	134	120	122	135	149	152	153	151	133	381
17	606	169	133	120	122	132	175	155	151	150	133	228
18	436	162	133	124	123	135	187	151	153	150	132	152
19	329	156	133	121	122	158	160	151	156	150	132	251
20	272	152	133	120	123	169	138	151	156	151	132	237
21	238	150	133	120	123	169	134	153	155	151	132	153
22	219	147	133	122	122	169	136	154	152	151	133	119
23	265	144	133	124	121	161	150	155	151	149	133	106
24	691	142	134	124	122	152	159	158	152	151	129	101
25	796	141	133	126	122	151	160	160	155	151	129	106
26	673	142	132	125	180	154	160	113	156	151	129	102
27	517	141	131	124	153	155	156	107	157	154	129	98
28	403	139	131	122	138	154	154	115	155	161	128	97
29	370	139	131	123	------	154	153	120	149	157	134	92
30	355	139	130	123	------	155	156	119	149	153	140	115
31	323	------	130	123	------	155	------	118	------	148	129	------
TOTAL	16,316	5,539	4,171	3,842	3,531	4,519	4,654	4,563	4,119	4,781	4,384	8,062
MEAN	526	185	135	124	126	146	155	147	137	154	141	269
MAX	1,350	292	140	129	180	169	187	167	157	165	285	989
MIN	151	139	130	120	120	132	134	107	117	148	110	92
AC-FT	32,360	10,990	8,270	7,620	7,000	8,960	9,230	9,050	8,170	9,480	8,700	15,990
(†)	8,330	8,680	8,150	7,720	6,940	8,490	8,850	8,780	8,150	9,810	7,700	4,180

CAL YR 1970 TOTAL 93,525 MEAN 256 MAX 1,680 MIN 102 AC-FT 185,500 † 87,320
WTR YR 1971 TOTAL 68,481 MEAN 188 MAX 1,350 MIN 92 AC-FT 135,800 † 95,780

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-13	0900	22.11	1,370
10-25	0600	17.61	817
9-12	1800	19.32	1,000

† Water released from Harris Reservoir into Oyster Creek above gage (include in total flow past gage).

08079100 East Levee Ditch-Gulf of Mexico near Freeport, Tex.

LOCATION.--Lat 28°57'38", long 95°18'34", Brazoria County, on County Road 690, in room at left end of East Union Bayou drainage structure of East Levee, one orifice located upstream, one downstream from levee, 0.9 mile above Intracoastal Waterway, and 2.4 miles east of Freeport.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Duplex water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Period of record: Maximum elevation (East Levee Ditch), 2.2 ft Sept. 10, 1971; minimum not determined. Maximum elevation (Gulf of Mexico), 5.5 ft Sept. 10, 1971; minimum, -2.2 ft Feb. 3, 1970.

REMARKS.--The purpose of this station is to record elevations of high tides in the Gulf of Mexico and the corresponding elevation of the water surface behind the levee. No elevations are shown for East Levee Ditch until elevation in the Gulf of Mexico exceeds 3.0 ft. The levee is an earthen structure about 43 miles long with a maximum height of 22 ft above mean sea level. Gravity drainage structures with flapper gates and pumps to remove floodwaters from behind levee are located at various points along the levee.

MAXIMUM DAILY ELEVATION, IN FEET, GULF OF MEXICO AND EAST LEVEE DITCH
WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch	Gulf of Mex.	East Levee Ditch
1	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	-	1.4	-	1.2	-	1.5	-	1.9	-
2	-	-	-	-	1.8	-	-	-	-	-	1.9	-	-	-	-	-	1.3	-	1.2	-	1.6	-	2.2	-
3	-	-	-	-	1.6	-	-	-	-	-	-.5	-	-	-	-	-	1.4	-	1.2	-	1.9	-	2.2	-
4	-	-	-	-	1.4	-	-	-	-	-	.9	-	-	-	-	-	1.6	-	1.3	-	1.9	-	2.1	-
5	-	-	-	-	1.3	-	-	-	2.2	-	1.4	-	-	-	-	-	1.6	-	1.2	-	1.8	-	1.8	-
6	-	-	-	-	-	-	-	-	2.6	-	.8	-	-	-	-	-	1.5	-	1.3	-	1.6	-	1.5	-
7	-	-	-	-	-	-	-	-	2.4	-	.4	-	-	-	-	-	1.7	-	1.1	-	1.4	-	2.6	-
8	-	-	-	-	-	-	-	-	1.1	-	1.2	-	-	-	-	-	1.8	-	-	-	1.3	-	3.1	.7
9	-	-	-	-	-	-	-	-	1.0	-	1.2	-	-	-	-	-	1.9	-	1.9	-	1.3	-	3.8	1.3
10	-	-	-	-	-	-	-	-	1.0	-	1.0	-	-	-	-	-	2.1	-	2.9	-	.9	-	5.5	2.2
11	-	-	-	-	-	-	-	-	1.7	-	1.0	-	-	-	1.8	-	2.1	-	2.0	-	1.0	-	3.6	2.3
12	-	-	-	-	-	-	-	-	1.6	-	1.2	-	1.0	-	1.7	-	1.7	-	1.8	-	1.0	-	2.9	-
13	-	-	-	-	-	-	-	-	.5	-	1.6	-	1.2	-	1.2	-	1.5	-	1.4	-	1.3	-	2.2	-
14	2.4	-	-	-	-	-	-	-	1.6	-	1.5	-	1.2	-	1.5	-	1.4	-	1.1	-	1.3	-	2.3	-
15	2.4	-	-	-	-	-	-	-	1.6	-	1.0	-	1.5	-	1.4	-	1.1	-	1.3	-	1.5	-	2.5	-
16	2.3	-	-	-	-	-	-	-	1.6	-	1.1	-	2.2	-	1.3	-	1.0	-	1.3	-	1.5	-	3.4	1.8
17	2.3	-	-	-	-	-	-	-	1.7	-	1.3	-	2.6	-	1.5	-	.9	-	1.3	-	1.4	-	1.9	-
18	2.5	-	-	-	-	-	-	-	2.3	-	1.2	-	2.3	-	2.0	-	1.6	-	1.2	-	1.5	-	1.8	-
19	2.5	-	-	-	-	-	-	-	2.4	-	1.0	-	2.5	-	1.7	-	1.5	-	1.4	-	1.5	-	1.5	-
20	2.3	-	-	-	-	-	1.4	-	2.6	-	.6	-	-	-	1.7	-	2.0	-	1.4	-	1.4	-	1.7	-
21	2.3	-	-	-	-	-	1.5	-	2.9	-	1.4	-	-	-	1.8	-	1.8	-	1.3	-	1.5	-	1.9	-
22	2.3	-	-	-	1.5	-	1.5	-	-	-	1.4	-	-	-	2.1	-	1.7	-	1.4	-	1.3	-	2.2	-
23	2.2	-	-	-	1.5	-	1.8	-	1.2	-	-	-	-	-	2.3	-	1.5	-	1.4	-	1.3	-	2.2	-
24	2.1	-	-	-	-	-	2.1	-	1.6	-	-	-	-	-	2.6	-	1.1	-	1.3	-	1.2	-	2.4	-
25	1.4	-	-	-	-	-	2.0	-	1.7	-	-	-	-	-	2.4	-	1.4	-	1.1	-	1.3	-	2.4	-
26	1.8	-	-	-	-	-	1.7	-	1.7	-	-	-	-	-	2.2	-	1.3	-	1.2	-	1.3	-	2.5	-
27	1.9	-	-	-	-	-	2.2	-	1.6	-	-	-	-	-	2.2	-	1.5	-	1.1	-	1.6	-	2.5	-
28	2.1	-	-	-	-	-	2.0	-	1.7	-	-	-	-	-	1.6	-	1.5	-	1.0	-	1.5	-	2.6	-
29	1.7	-	-	-	-	-	-	-	---	---	-	-	-	-	1.8	-	1.6	-	1.0	-	1.6	-	2.4	-
30	1.9	-	-	-	-	-	-	-	---	---	-	-	-	-	1.9	-	1.1	-	1.1	-	1.8	-	2.6	-
31	2.4	-	---	---	-	-	-	-	---	---	-	-	---	---	1.7	-	---	---	1.2	-	1.7	-	---	---

08079150 South Levee Ditch-Gulf of Mexico near Freeport, Tex.

LOCATION.--Lat 28°55'28", long 95°21'23", Brazoria County, on southern arm of levee, in room at right end of South Levee drainage structure, one orifice located upstream, one downstream from levee, 0.6 mile upstream from Intracoastal Waterway, 0.7 mile west of State Highway 1495, and 1.7 miles southwest of Freeport.

PERIOD OF RECORD.--May 1970 to current year.

GAGE.--Duplex water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Period of record: Maximum elevation (South Levee Ditch), 2.4 ft Oct. 12, 1970; minimum not determined. Maximum elevation (Gulf of Mexico), 5.8 ft Sept. 10, 1971 (Hurricane Fern); minimum, -0.4 ft July 21, 22, 24, 30, 1971.

REMARKS.--The purpose of this station is to record elevations of high tides in the Gulf of Mexico and the corresponding elevation of the water surface behind the levee. No elevations are shown for South Levee Ditch until elevation in the Gulf of Mexico exceeds 3.0 ft. The levee is an earthen structure with a maximum elevation of 22 ft above mean sea level. Gravity drainage structures with flapper gates and pumps to remove floodwaters from behind levee are located along the levee.

MAXIMUM DAILY ELEVATION, IN FEET, GULF OF MEXICO AND SOUTH LEVEE DITCH
WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch	Gulf of Mex.	South Levee Ditch
1	2.2	-	2.1	-	2.0	-	1.7	-	2.1	-	1.8	-	1.1	-	1.9	-	2.4	-	1.0	-	1.6	-	2.2	-
2	2.1	-	1.9	-	1.9	-	2.0	-	2.8	-	2.1	-	2.0	-	1.7	-	2.3	-	1.1	-	1.7	-	2.2	-
3	1.9	-	1.6	-	1.8	-	2.2	-	2.4	-	.6	-	2.3	-	1.3	-	2.7	-	1.3	-	2.0	-	2.2	-
4	2.1	-	1.3	-	1.6	-	1.6	-	2.3	-	1.2	-	2.4	-	1.5	-	3.2	.8	1.4	-	2.0	-	2.1	-
5	2.7	-	1.4	-	1.5	-	1.2	-	2.2	-	1.6	-	1.8	-	1.6	-	3.3	.7	1.5	-	2.0	-	1.8	-
6	2.8	-	1.4	-	1.3	-	1.6	-	2.5	-	1.0	-	1.1	-	1.7	-	-	-	1.5	-	1.8	-	1.6	-
7	3.0	-	1.3	-	1.6	-	1.8	-	2.0	-	.7	-	.7	-	1.9	-	1.5	-	1.5	-	1.6	-	2.5	-
8	2.8	-	1.4	-	1.7	-	1.8	-	1.0	-	1.4	-	.8	-	1.8	-	1.9	-	1.6	-	1.5	-	2.9	-
9	2.1	-	1.4	-	2.0	-	1.9	-	1.0	-	1.4	-	1.2	-	2.0	-	1.8	-	1.8	-	1.5	-	3.4	1.4
10	2.1	-	1.3	-	2.2	-	1.8	-	.9	-	1.0	-	1.0	-	2.3	-	2.0	-	2.6	-	1.1	-	5.8	1.6
11	3.1	2.2	1.7	-	2.1	-	1.6	-	1.6	-	1.2	-	1.4	-	2.5	-	2.0	-	1.9	-	1.2	-	3.5	1.7
12	2.5	-	1.8	-	2.0	-	1.7	-	1.3	-	1.3	-	1.4	-	2.2	-	1.8	-	1.5	-	1.3	-	2.9	-
13	2.2	-	2.3	-	2.2	-	1.6	-	.1	-	1.7	-	1.7	-	1.7	-	1.6	-	1.2	-	1.4	-	2.7	-
14	2.3	-	1.6	-	2.2	-	1.4	-	1.0	-	1.6	-	1.6	-	2.0	-	1.5	-	1.2	-	1.6	-	2.7	-
15	2.3	-	.8	-	2.0	-	1.1	-	1.0	-	1.1	-	1.8	-	2.1	-	1.2	-	1.3	-	1.7	-	2.5	-
16	2.3	-	1.5	-	1.7	-	1.5	-	.8	-	1.1	-	2.4	-	1.9	-	.9	-	1.6	-	1.7	-	3.2	1.8
17	2.2	-	1.2	-	1.6	-	1.2	-	1.1	-	1.4	-	2.7	-	2.0	-	1.0	-	1.5	-	1.7	-	1.8	-
18	2.4	-	1.5	-	1.6	-	1.2	-	1.8	-	2.1	-	2.5	-	2.1	-	1.7	-	1.4	-	1.7	-	1.8	-
19	2.5	-	1.5	-	1.5	-	1.1	-	1.9	-	1.1	-	2.5	-	1.9	-	1.4	-	1.6	-	1.7	-	1.6	-
20	2.3	-	1.4	-	1.4	-	1.5	-	1.9	-	.8	-	1.9	-	2.0	-	1.9	-	1.6	-	1.6	-	1.7	-
21	2.1	-	1.7	-	1.4	-	1.7	-	2.1	-	1.6	-	1.9	-	2.1	-	1.8	-	1.5	-	1.6	-	1.9	-
22	2.3	-	1.7	-	1.6	-	1.6	-	.9	-	1.5	-	2.1	-	2.6	-	1.7	-	1.5	-	1.4	-	2.2	-
23	2.3	-	.8	-	1.6	-	1.9	-	1.4	-	1.4	-	2.2	-	2.8	-	1.5	-	1.6	-	1.5	-	2.2	-
24	2.1	-	1.1	-	1.7	-	2.1	-	1.7	-	1.9	-	2.0	-	2.9	-	1.3	-	1.5	-	1.4	-	2.4	-
25	1.6	-	1.8	-	1.5	-	2.0	-	1.7	-	2.2	-	2.3	-	2.8	-	1.6	-	1.3	-	1.5	-	2.5	-
26	1.8	-	1.6	-	2.0	-	1.8	-	1.8	-	1.7	-	2.4	-	2.7	-	1.4	-	1.3	-	1.5	-	2.4	-
27	2.0	-	1.7	-	2.1	-	2.1	-	1.6	-	1.9	-	2.4	-	2.8	-	1.5	-	1.1	-	1.7	-	2.6	-
28	2.0	-	1.9	-	1.9	-	2.0	-	1.8	-	2.0	-	2.2	-	2.4	-	1.5	-	1.2	-	1.7	-	2.6	-
29	1.7	-	1.9	-	1.9	-	1.7	-	--------		1.8	-	2.3	-	2.6	-	1.6	-	1.1	-	1.7	-	2.5	-
30	1.9	-	2.0	-	2.0	-	1.5	-	--------		1.8	-	1.9	-	2.7	-	1.2	-	1.0	-	2.0	-	2.6	-
31	1.9	-	--------		1.9	-	1.6	-	--------		2.3	-	--------		2.6	-	--------		1.3	-	2.0	-	--------	

08079550 Buffalo Springs Lake near Lubbock, Tex.

LOCATION.--Lat 33°32'02", long 101°41'41", Lubbock County, on left bank of spillway channel of dam on North Fork Double Mountain Fork Brazos River, 175 ft upstream from spillway crest, 9 miles southeast of Lubbock, and at mile 74.1.

DRAINAGE AREA.--286 sq mi.

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 5,680 acre-ft May 30 (elevation, 3,016.35 ft); minimum, 5,330 acre-ft Dec. 15 (elevation, 3,014.88 ft).
Period of record: Maximum contents, 6,120 acre-ft June 2, 1967 (elevation, 3,018.05 ft); minimum, 5,330 acre-ft Oct. 31, 1967, Dec. 15, 1970 (elevation, 3,014.88 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 1,600 ft long. Dam completed and storage began Sept. 15, 1959. Lake first filled to spillway elevation on July 6, 1960. Dam is property of Lubbock County Water Improvement District No. 1, and water is used for recreational purposes but may be sold to the cities of Lubbock and Slaton for municipal use. The uncontrolled service spillway is a concrete chute at right end of dam with a crest length of 138 ft and is designed to discharge 26,200 cfs at elevation 3,028.7 ft. Capacity table is based on data furnished by Lubbock County Water Improvement District No. 1 which was computed from their topographic surveys made in 1954. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	3,032.0	-
Crest of service spillway	3,015.0	5,360
Invert of 12-inch discharge conduit	2,980.0	510

REVISIONS.--WRD Texas 1968: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

3,014.0	5,140	3,016.0	5,600
3,015.0	5,360	3,017.0	5,850

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,380	5,370	5,370	5,370	5,370	5,370	5,360	5,380	5,420	5,370	5,440	5,380
2	5,380	5,370	5,370	5,370	5,370	5,370	5,370	5,380	5,410	5,370	5,420	5,380
3	5,380	5,370	5,370	5,360	5,370	5,370	5,370	5,380	5,380	5,370	5,400	5,380
4	5,380	5,370	5,370	5,360	5,350	5,380	5,370	5,380	5,380	5,370	5,400	5,380
5	5,380	5,370	5,370	5,360	5,350	5,360	5,360	5,380	5,390	5,370	5,390	5,380
6	5,370	5,370	5,370	5,370	5,360	5,360	5,360	5,380	5,430	5,370	5,390	5,370
7	5,370	5,380	5,380	5,370	5,370	5,370	5,370	5,380	5,410	5,370	5,390	5,370
8	5,330	5,360	5,380	5,370	5,370	5,370	5,370	5,380	5,400	5,370	5,390	5,370
9	5,340	5,360	5,380	5,370	5,370	5,360	5,370	5,380	5,390	5,370	5,390	5,370
10	5,350	5,370	5,370	5,370	5,370	5,370	5,370	5,380	5,390	5,370	5,390	5,370
11	5,360	5,370	5,370	5,370	5,360	5,370	5,370	5,380	5,400	5,370	5,390	5,370
12	5,360	5,370	5,370	5,370	5,360	5,360	5,370	5,380	5,440	5,370	5,390	5,370
13	5,370	5,370	5,380	5,370	5,370	5,370	5,360	5,390	5,410	5,370	5,400	5,370
14	5,370	5,370	5,380	5,370	5,370	5,340	5,360	5,390	5,390	5,370	5,430	5,370
15	5,390	5,370	5,340	5,370	5,380	5,350	5,390	5,390	5,390	5,370	5,420	5,370
16	5,420	5,370	5,340	5,370	5,370	5,360	5,400	5,380	5,380	5,370	5,430	5,370
17	5,420	5,370	5,360	5,370	5,380	5,370	5,400	5,380	5,380	5,370	5,420	5,390
18	5,410	5,370	5,370	5,370	5,360	5,360	5,400	5,370	5,370	5,360	5,410	5,390
19	5,400	5,360	5,370	5,370	5,360	5,370	5,390	5,370	5,370	5,360	5,400	5,380
20	5,390	5,370	5,370	5,380	5,360	5,370	5,390	5,370	5,380	5,370	5,390	5,380
21	5,390	5,370	5,380	5,370	5,350	5,370	5,380	5,380	5,380	5,380	5,390	5,380
22	5,380	5,370	5,360	5,370	5,340	5,380	5,380	5,380	5,380	5,390	5,390	5,400
23	5,370	5,370	5,360	5,380	5,370	5,380	5,380	5,370	5,380	5,390	5,390	5,490
24	5,370	5,380	5,370	5,370	5,380	5,380	5,380	5,370	5,380	5,380	5,390	5,640
25	5,370	5,380	5,370	5,360	5,380	5,370	5,390	5,370	5,380	5,380	5,390	5,470
26	5,370	5,370	5,370	5,370	5,360	5,370	5,380	5,380	5,380	5,370	5,380	5,430
27	5,370	5,370	5,370	5,370	5,370	5,370	5,380	5,390	5,370	5,380	5,380	5,420
28	5,370	5,380	5,370	5,370	5,370	5,370	5,380	5,400	5,370	5,380	5,380	5,420
29	5,370	5,380	5,370	5,370	------	5,370	5,380	5,410	5,370	5,370	5,380	5,410
30	5,370	5,380	5,370	5,370	------	5,370	5,380	5,600	5,370	5,370	5,380	5,400
31	5,370	------	5,370	5,370	------	5,370	------	5,450	------	5,380	5,380	------
(†)	3,015.05	3,015.08	3,015.03	3,015.03	3,015.05	3,015.04	3,015.08	3,015.37	3,015.03	3,015.07	3,015.07	3,015.17
(*)	-10	+10	-10	0	0	0	+10	+70	-80	+10	0	+20
MAX	5,420	5,380	5,380	5,380	5,380	5,380	5,400	5,600	5,440	5,390	5,440	5,640
MIN	5,330	5,360	5,340	5,360	5,340	5,340	5,360	5,370	5,370	5,360	5,380	5,370

CAL YR 1970..... * -10 MAX 5,690 MIN 5,330
WTR YR 1971..... * +20 MAX 5,640 MIN 5,330

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08079600 Double Mountain Fork Brazos River at Justiceburg, Tex.

LOCATION.--Lat 33°02'18", long 101°11'50", Garza County, on right bank at downstream side of bridge on U.S. Highway 84 at Justiceburg, 250 ft downstream from Panhandle and Santa Fe Railroad, and at mile 143.4 (measured from confluence with Salt Fork Brazos River at mile 923.2).

DRAINAGE AREA.--1,272 sq mi, of which 1,003 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1961 to current year. Prior to October 1963, published as Sand Creek or South Fork Double Mountain Fork Brazos River at Justiceburg.

GAGE.--Water-stage recorder. Datum of gage is 2,222.47 ft above mean sea level.

AVERAGE DISCHARGE.--9 years (1962-71), 33.9 cfs (24,560 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,240 cfs Sept. 17 (gage height, 9.78 ft); no flow at times.
Period of record: Maximum discharge, 49,600 cfs May 6, 1969 (gage height, 19.8 ft, from floodmarks); no flow at times.
Maximum stages since at least 1895 were 25.8 ft in 1914, and 22.2 ft in September 1955, from information by local resident.
Flood of July 1961 reached a stage of 18.2 ft, from floodmark.

REMARKS.--Records poor. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.03	0	.02			0	0	.24	0	267	5.5
2	.03	.03	0	.02			0	0	.28	0	23	5.5
3	.02	.03	0	.02			0	0	.26	33	.30	4.4
4	.01	.03	0	.01			0	0	.20	178	.05	4.8
5	.01	.03	0	0			0	0	.19	.07	.02	4.8
6	.01	.03	0	0			0	0	9.1	0	.01	3.8
7	.01	.02	.01	0			0	0	.05	0	58	4.4
8	.01	.01	.01	.02			0	1.1	0	0	.24	4.1
9	0	.01	.01	.02			0	.41	0	0	72	167
10	0	.01	.01	.02			0	0	0	0	154	20
11	0	.01	.01	.02			0	0	1.3	0	41	6.8
12	0	.01	.01	.02			0	0	9.4	0	313	4.1
13	0	.01	.01	.01			0	0	31	0	211	2.0
14	0	.03	.01	.01			0	0	.07	0	207	1.8
15	0	.02	.01	.01			0	0	.01	0	947	1.4
16	35	.01	.01	.01			0	0	0	0	70	1.4
17	85	0	.01	.01			3.6	0	0	0	20	1,520
18	1.9	0	.01	.02			.12	0	0	0	6.8	800
19	.37	0	.01	.02			0	0	0	7.6	4.4	113
20	.30	0	.02	.01			0	0	38	9.4	3.5	43
21	.24	0	.04	0			0	0	151	.01	2.9	16
22	.18	0	.03	0			0	0	.51	0	2.7	36
23	.14	0	.01	0			0	0	.01	16	369	1,000
24	.10	0	.01	.01			0	0	.01	3.1	62	2,620
25	.07	0	.01	.01			0	0	0	.01	54	230
26	.07	0	.01	.01			0	0	0	0	22	22
27	.05	0	.01	.01			0	442	0	0	18	11
28	.05	0	.01	.01			0	402	0	0	26	7.3
29	.05	0	.01	.01	------		0	183	0	0	9.9	6.4
30	.05	0	.04	.01	------		0	19	0	104	6.8	5.2
31	.05	------	.02	0	------		------	1.1	------	1.1	5.2	------
TOTAL	123.75	.32	.35	.34	0	0	3.72	1,048.61	241.63	352.29	2,976.82	6,671.7
MEAN	3.99	.011	.011	.011	0	0	.12	33.8	8.05	11.4	96.0	222
MAX	85	.03	.04	.02	0	0	3.6	442	151	178	947	2,620
MIN	0	0	0	0	0	0	0	0	0	0	.01	1.4
AC-FT	245	.6	.7	.7	0	0	7.4	2,080	479	699	5,900	13,230

CAL YR 1970 TOTAL 5,215.52 MEAN 14.3 MAX 2,120 MIN 0 AC-FT 10,340
WTR YR 1971 TOTAL 11,419.53 MEAN 31.3 MAX 2,620 MIN 0 AC-FT 22,650

PEAK DISCHARGE (BASE, 2,100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-27	2300	9.59	5,710	9-17	1200	9.78	6,240
8-15	1300	8.34	2,800	9-24	1700	9.53	5,540

08080500 Double Mountain Fork Brazos River near Aspermont, Tex.

LOCATION.--Lat 33°00'36", long 100°10'48", Stonewall County, near right bank on downstream side of pier of bridge on U.S. Highway 83, 8 miles downstream from Mountain Creek, 10 miles south of Aspermont, and at mile 34.5 measured from confluence with Salt Fork Brazos River which is at mile 897.8 on the Brazos River.

DRAINAGE AREA.--7,980 sq mi, approximately, of which 6,470 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1923 to September 1934, June 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,627.5 ft above mean sea level (Texas Highway Department bench mark). Dec. 3, 1923, to Sept. 30, 1934, nonrecording gage at site 90 ft downstream at same datum.

AVERAGE DISCHARGE.--42 years (1924-34, 1939-71), 174 cfs (126,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,500 cfs Sept. 25 (gage height, 8.24 ft); no flow at times.
Period of record: Maximum discharge, 91,400 cfs Sept. 26, 1955 (gage height, 27.50 ft); no flow at times.
Maximum stage since at least 1899, that of Sept. 26, 1955.

REMARKS.--Records fair. Small diversions above station for oilfield operations. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 733: 1927(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						0	0	374	4.4	202	190
2	0						0	0	170	3.3	875	148
3	0						0	0	280	2.3	585	115
4	0						0	0	144	1.5	254	92
5	0						0	0	72	.90	115	77
6	0						0	0	41	.50	199	64
7	0						0	0	27	.20	197	62
8	0						0	99	20	.05	61	54
9	0						0	135	13	.01	139	43
10	0						0	13	10	0	1,190	38
11	0						0	2.8	8.4	0	909	33
12	0						0	0	6.4	0	1,650	29
13	0						0	0	5.0	0	1,380	35
14	0						0	0	3.7	0	1,610	65
15	.12						0	0	2.7	0	5,130	47
16	12						7.1	0	25	0	5,060	37
17	62						24	0	18	0	1,210	152
18	8.8						53	0	12	0	568	3,200
19	3.4						3.4	0	5.6	0	343	1,830
20	.51						.04	0	2.9	0	219	662
21	.08						0	0	654	0	141	291
22	.04						0	0	1,930	0	100	162
23	.03						0	0	472	.23	78	283
24	0						0	0	184	.22	247	2,410
25	0						0	0	85	0	5,250	7,650
26	0						0	0	43	0	2,070	2,020
27	0						0	163	22	0	1,150	1,090
28	0						0	4,000	12	0	1,430	698
29	0				------		0	7,190	7.2	0	829	420
30	0				------		0	3,210	5.6	13	490	272
31	0	------			------		------	894	------	281	276	------
TOTAL	86.98	0	0	0	0	0	87.54	15,706.8	4,655.5	307.61	33,957	22,269
MEAN	2.81	0	0	0	0	0	2.92	507	155	9.92	1,095	742
MAX	62	0	0	0	0	0	53	7,190	1,930	281	5,250	7,650
MIN	0	0	0	0	0	0	0	0	2.7	0	61	29
AC-FT	173	0	0	0	0	0	174	31,150	9,230	610	67,350	44,170

CAL YR 1970 TOTAL 14,557.24 MEAN 39.9 MAX 1,460 MIN 0 AC-FT 28,870
WTR YR 1971 TOTAL 77,070.43 MEAN 211 MAX 7,650 MIN 0 AC-FT 152,900

PEAK DISCHARGE (BASE, 8,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-28	0400	7.66	9,980	8-15	0900	8.15	11,200
5-29	0400	7.75	10,200	8-25	1400	7.16	8,780
				9-25	1000	8.24	11,500

08080540 McDonald Creek near Post, Tex.

LOCATION (revised).--Lat 33°21'03", long 101°13'36", Garza County, on right bank at downstream side of bridge on Farm Road 651, 2.6 miles downstream from Lake Creek, 4.1 miles upstream from mouth, and 14.4 miles northeast of Post.

DRAINAGE AREA.--112 sq mi, of which 39.9 sq mi is probably noncontributing.

PERIOD OF RECORD.--1959-61 (occasional low-flow measurements at road crossing 4 miles downstream), September 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,301.6 ft above mean sea level (Texas Highway Department bridge plans).

AVERAGE DISCHARGE.--6 years, 2.29 cfs (1,660 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,510 cfs May 30 (gage height, 7.95 ft); no flow for many days.
Period of record: Maximum discharge, 15,300 cfs June 9, 1968 (gage height, 14.98 ft), from rating curve extended above 740 cfs on basis of slope-area measurements of 3,020 cfs and 15,300 cfs; no flow for many days.

REMARKS.--Records poor. No diversions above station. Recording rain gage located at station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	.01	.01		0	0	.02	0	4.8	0
2	0		0	.02	.01		0	0	0	0	.04	0
3	0		0	.01	.01		0	0	0	0	0	0
4	0		0	0	.01		0	0	0	0	0	0
5	0		.01	0	.01		0	0	1.8	0	0	0
6	0		.01	0	.01		0	0	8.9	0	0	0
7	0		.01	0	.01		0	0	.02	0	0	0
8	0		.01	0	.01		0	2.2	0	0	0	0
9	0		.01	0	.01		0	.22	0	0	1.6	30
10	0		.01	0	.01		0	0	0	0	39	.15
11	0		.01	.03	.01		0	0	11	0	.34	0
12	0		.01	.02	.01		0	0	11	0	7.1	0
13	0		.01	0	.01		0	0	.34	0	8.2	0
14	0		.01	0	.01		0	0	.02	0	5.7	0
15	.85		.01	.01	.01		0	0	0	0	35	0
16	1.9		.01	0	0		0	0	0	0	4.2	0
17	1.1		.01	0	0		.03	0	0	0	.60	73
18	.03		.01	.01	0		.01	0	0	0	.10	59
19	.01		.01	.01	0		0	0	0	0	.01	.53
20	0		.01	.01	0		0	4.0	0	0	0	0
21	0		.02	.01	.20		0	12	0	0	0	0
22	0		.02	.01	.02		0	.05	0	0	0	0
23	0		0	.01	.01		0	0	0	0	4.2	45
24	0		0	.01	.01		0	0	0	0	73	192
25	0		0	.01	0		0	0	0	0	.40	6.1
26	0		0	.01	0		0	0	0	0	.02	1.2
27	0		0	.01	0		0	0	0	0	0	.13
28	0		0	.01	0		0	.04	0	0	0	.12
29	0		.01	.01	------		0	11	0	0	0	.12
30	0		.01	.01	------		0	128	0	2.8	0	.14
31	0	------	.01	.01	------		------	.20	------	0	0	------
TOTAL	3.89	0	.23	.24	.39	0	.04	157.71	33.10	2.8	184.31	407.49
MEAN	.13	0	.007	.008	.014	0	.001	5.09	1.10	.090	5.95	13.6
MAX	1.9	0	.02	.03	.20	0	.03	128	11	2.8	73	192
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	7.7	0	.5	.5	.8	0	.08	313	66	5.6	366	808

CAL YR 1970 TOTAL 39.49 MEAN .11 MAX 6.1 MIN 0 AC-FT 78
WTR YR 1971 TOTAL 790.20 MEAN 2.16 MAX 192 MIN 0 AC-FT 1,570

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
5-30	0930	7.95	2,510
8-24	1000	6.72	1,000
9-24	1400	6.38	630

08080700 Running Water Draw at Plainview, Tex.

LOCATION.--Lat 34°10'44", long 101°42'08", Hale County, on downstream side of bridge on Broadway Street in Plainview, 0.5 mile upstream from Atchison, Topeka, and Santa Fe Railway Co. bridge, and at mile 28.1.

DRAINAGE AREA.--470 sq mi, approximately (contributing area).

PERIOD OF RECORD.--June 1939 to September 1949, October 1949 to September 1953, and October 1956 to April 1960 (monthly figures only), February 1961 to current year. Prior to October 1963, published as White River at Plainview.

GAGE.--Water-stage recorder. Datum of gage is 3,341.11 ft above mean sea level.

AVERAGE DISCHARGE.--27 years (1939-53, 1956-59, 1961-71), 3.52 cfs (2,550 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 490 cfs June 14 (gage height, 3.95 ft); no flow for most of year.
Period of record: Maximum discharge, 12,000 cfs June 6, 1941 (gage height, 8.75 ft), from rating curve extended above 800 cfs on basis of slope-area measurement of 12,000 cfs; no flow most of time.
Maximum discharge since at least 1880, that of June 6, 1941; maximum stage, 9.38 ft July 8, 1960 (discharge, 9,130 cfs, by contracted-opening measurement). A flood in 1890, stage not determined, was probably the second highest, from information by local residents.

REMARKS.--Records poor. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0				0		0	0	0	0	0	0
2	0				0		0	0	0	0	0	0
3	0				0		0	0	0	0	0	0
4	0				0		0	0	0	0	0	0
5	0				0		0	0	2.0	0	0	0
6	0				0		0	0	1.2	0	0	0
7	0				0		0	0	0	0	0	0
8	0				0		0	.54	0	0	0	0
9	0				0		0	4.7	0	0	0	0
10	0				0		0	0	0	0	0	0
11	0				0		0	0	38	0	0	0
12	0				0		0	0	84	0	.43	0
13	0				0		0	0	64	0	0	0
14	0				0		0	0	246	0	0	0
15	11				0		1.2	0	34	0	0	0
16	9.1				0		3.7	0	8.6	0	0	0
17	3.4				0		1.2	0	.62	0	0	8.6
18	0				0		.01	0	0	0	0	11
19	0				0		0	0	.08	0	0	.13
20	0				0		0	0	4.3	.52	0	0
21	0				0		0	0	.04	0	0	0
22	0				5.4		0	0	0	0	0	1.6
23	0				1.9		0	0	0	0	0	21
24	0				0		0	0	0	0	.72	145
25	0				0		0	0	0	0	0	101
26	0				0		0	.40	0	0	0	26
27	0				0		0	0	0	0	0	7.4
28	0				0		0	.72	0	0	0	.30
29	0				------		0	7.1	0	0	0	0
30	0				------		0	10	0	0	0	0
31	0	------			------		------	0	------	0	0	------
TOTAL	23.5	0	0	0	7.3	0	6.11	23.46	482.84	.52	1.15	322.03
MEAN	.76	0	0	0	.26	0	.20	.76	16.1	.017	.037	10.7
MAX	11	0	0	0	5.4	0	3.7	10	246	.52	.72	145
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	47	0	0	0	14	0	12	47	958	1.0	2.3	639

CAL YR 1970 TOTAL 274.80 MEAN .75 MAX 103 MIN 0 AC-FT 545
WTR YR 1971 TOTAL 866.91 MEAN 2.38 MAX 246 MIN 0 AC-FT 1,720

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE
6-11	2200	3.28	309
6-14	0100	3.95	490
9-24	2200	3.02	230

08080910 White River Reservoir near Spur, Tex.

LOCATION.--Lat 33°27'28", long 101°05'22", Crosby County, on right bank at intake structure at White River Dam on White River, 0.5 mile downstream from Sand Creek, 1.7 miles upstream from Home Creek, 13 miles west of Spur, and 22.8 miles upstream from Salt Fork Brazos River.

DRAINAGE AREA (revised).--775 sq mi, of which 603 sq mi is probably noncontributing.

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 39,320 acre-ft Sept. 27 (elevation, 2,369.59 ft); minimum, 27,290 acre-ft May 28 (elevation, 2,362.30 ft).
Period of record: Maximum contents, 41,280 acre-ft Oct. 27, 1969 (elevation, 2,370.64 ft); minimum since reaching normal operating level in June 1969, 27,290 acre-ft May 28, 1971 (elevation, 2,362.30 ft).

REMARKS.--Reservoir is formed by a rolled-fill earthen dam 3,300 ft long. Dam completed and storage began in October 1963. Water is used for industrial and municipal supply for cities of Crosbyton, Post, Ralls, and Spur. The uncontrolled emergency spillway is an open cut about 1,100 ft wide, located at the right end of dam and will discharge 69,000 cfs at elevation 2,391.5 ft. Data regarding dam and reservoir are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	2,395.0	-
Crest of emergency spillway	2,384.0	71,590
Crest of morning-glory spillway	2,369.2	38,600
Invert of lowest 48-inch outlet conduit	2,323.0	650

COOPERATION.--Records of diversion and capacity table (dated July 1960) furnished by the White River Municipal Water District.

Capacity table (elevation, in feet, and total contents, in acre-feet)

2,362.0	26,850	2,366.0	33,040
2,364.0	29,840	2,368.0	36,450
		2,370.0	40,070

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32,720	32,120	31,340	30,820	30,360	29,870	29,060	28,320	33,900	34,250	32,750	33,830
2	32,700	32,100	31,310	30,820	30,350	29,820	29,030	28,290	33,910	34,200	32,720	33,780
3	32,680	32,050	31,290	30,790	30,350	29,810	29,000	28,250	33,910	34,150	32,670	33,710
4	32,640	32,020	31,290	30,740	30,300	29,790	28,960	28,170	33,880	34,120	32,800	33,700
5	32,600	32,000	31,260	30,710	30,280	29,780	28,910	28,130	33,880	34,060	32,590	33,660
6	32,550	31,950	31,230	30,690	30,250	29,730	28,880	28,100	33,900	34,010	32,550	33,630
7	32,540	31,940	31,230	30,680	30,220	29,720	28,850	28,070	33,860	33,950	32,520	33,590
8	32,420	31,920	31,230	30,660	30,220	29,700	28,820	28,100	33,800	33,900	32,500	33,540
9	32,360	31,870	31,200	30,650	30,200	29,690	28,790	28,080	33,750	33,830	32,550	33,710
10	32,310	31,860	31,180	30,650	30,190	29,670	28,760	28,060	33,700	33,780	32,730	33,680
11	32,280	31,820	31,150	30,630	30,160	29,660	28,730	28,010	33,680	33,710	32,720	33,630
12	32,260	31,810	31,140	30,630	30,140	29,640	28,700	27,910	34,370	33,630	32,720	33,580
13	32,250	31,780	31,120	30,630	30,120	29,610	28,650	27,880	34,930	33,560	33,090	33,540
14	32,180	31,730	31,100	30,610	30,120	29,580	28,620	27,830	35,080	33,490	33,260	33,480
15	32,390	31,710	31,090	30,600	30,110	29,550	28,620	27,810	35,100	33,430	33,810	33,430
16	32,470	31,700	31,060	30,600	30,090	29,520	28,620	27,760	35,070	33,380	33,860	33,360
17	32,490	31,660	31,040	30,580	30,080	29,480	28,680	27,700	35,000	33,290	33,850	33,760
18	32,470	31,630	31,020	30,570	30,060	29,430	28,680	27,670	34,930	33,240	33,810	34,250
19	32,460	31,610	30,990	30,550	30,040	29,410	28,640	27,610	34,930	33,160	33,780	34,230
20	32,460	31,580	30,980	30,540	30,030	29,380	28,590	27,580	34,930	33,160	33,750	34,220
21	32,440	31,570	30,980	30,540	30,010	29,350	28,560	27,560	34,890	33,120	33,710	34,220
22	32,420	31,500	30,960	30,520	29,980	29,340	28,530	27,510	34,840	33,060	33,680	35,170
23	32,410	31,470	30,930	30,500	29,980	29,310	28,490	27,450	34,750	33,020	33,750	36,020
24	32,380	31,440	30,910	30,490	29,970	29,280	28,460	27,410	34,690	32,990	33,880	38,120
25	32,360	31,400	30,900	30,470	29,970	29,260	28,430	27,360	34,640	32,960	33,900	38,750
26	32,340	31,390	30,880	30,460	29,930	29,260	28,400	27,360	34,550	32,910	33,880	39,240
27	32,280	31,370	30,870	30,440	29,920	29,250	28,350	27,310	34,470	32,860	33,980	39,320
28	32,250	31,370	30,870	30,440	29,900	29,230	28,400	27,290	34,400	32,830	34,000	39,300
29	32,210	31,360	30,850	30,420	------	29,200	28,400	27,510	34,320	32,800	33,960	39,210
30	32,200	31,360	30,840	30,410	------	29,160	28,350	31,790	34,280	32,760	33,930	39,130
31	32,160	------	30,820	30,380	------	29,130	------	33,680	------	32,720	33,880	------
(†)	2,365.46	2,364.96	2,364.62	2,364.34	2,364.04	2,363.53	2,363.02	2,366.38	2,366.74	2,365.80	2,366.50	2,369.49
(*)	-570	-800	-540	-440	-480	-770	-780	+5,330	+600	-1,560	+1,160	+5,250
(††)	141	131	127	143	128	167	198	231	260	305	188	191
MAX	32,720	32,120	31,340	30,820	30,360	29,870	29,060	33,680	35,100	34,250	34,000	39,320
MIN	32,160	31,360	30,820	30,380	29,900	29,130	28,350	27,290	33,680	32,720	32,500	33,360

CAL YR 1970..... * -7,520 †† 1,970 MAX 38,450 MIN 30,820
WTR YR 1971..... * +6,400 †† 2,210 MAX 39,320 MIN 27,290

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet.

08080950 Duck Creek near Girard, Tex.

LOCATION.--Lat 33°21'22", long 100°42'17", Kent County, near right bank on downstream side of bridge on Farm Road 643, 2.5 miles west of Girard, and 10.0 miles upstream from Salt Fork Brazos River.

DRAINAGE AREA.--294 sq mi, of which 17.3 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,006.08 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 5.25 cfs (3,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,530 cfs Aug. 27 (gage height, 11.79 ft); no flow July 20.
Period of record: Maximum discharge, 3,600 cfs Aug. 31, 1966 (gage height, 14.50 ft); no flow July 19 to Aug. 6, Aug. 18-21, 1966, Aug. 19, 1969, July 20, 1971.
Maximum stage since at least 1902 occurred in March or April 1918 (stage and discharge unknown); the second highest stage, 19.8 ft September 1955, from information by local residents.

REMARKS.--Records fair. Several small diversions upstream from gage. At end of year, flow from 108 sq mi above this station was partly controlled by 12 floodwater-retarding structures with a total combined capacity of 28,800 acre-ft below the flood-spillway crests, of which 24,710 acre-ft is floodwater-retarding capacity and 4,090 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.43	.58	.92	.70	.84	.77	.64	1.0	.04	.03	.77
2	.26	.48	.58	.92	.70	.84	.77	.64	.20	.04	.02	.58
3	.23	.53	.64	.84	.77	.84	.77	.58	.15	.04	.02	.53
4	.23	.53	.70	.84	.77	.84	.70	.48	.13	.02	.01	.48
5	.20	.53	.70	.84	.77	.84	.77	.38	.11	.02	.01	.53
6	.20	.58	.64	.84	.70	.70	.84	.38	.09	.01	.01	.48
7	.17	.58	.64	.77	.70	.70	.84	.34	.09	.01	.01	.38
8	.17	.53	.70	.84	.77	.70	.84	.43	.09	.01	.01	.34
9	.17	.53	.70	.84	.84	.70	.77	.38	.09	.01	39	.38
10	.20	.53	.77	.84	.84	.77	.77	.30	.07	.02	22	.30
11	.20	.53	.77	.84	.92	.77	.77	.26	.07	.02	2.1	.23
12	.23	.58	.77	.84	.92	.77	.77	.23	.17	.02	.09	.17
13	.26	.58	.84	.84	.92	.77	.70	.23	.09	.01	.01	.15
14	.23	.58	.92	.84	.92	.84	.70	.23	.09	.02	5.5	.15
15	.62	.53	1.0	.84	.92	.77	.84	.20	.07	.03	38	.15
16	.84	.58	1.0	.84	.92	.77	.92	.17	.07	.03	6.6	.15
17	.77	.64	1.0	.84	.92	.77	1.4	.15	.07	.03	1.1	.72
18	.64	.58	1.0	1.0	1.0	.84	1.2	.13	.06	.02	.34	2.2
19	.53	.58	1.0	1.0	.92	.84	1.2	.09	.06	.01	.23	.64
20	.53	.58	1.1	1.0	.92	.84	1.1	.11	.06	.01	.17	.53
21	.48	.58	1.1	.92	1.0	.92	1.0	.13	11	.02	.15	.43
22	.48	.48	1.2	.92	1.0	.92	.84	.13	1.1	.01	.13	2.9
23	.43	.48	1.2	.92	.92	.92	.84	.09	.30	.60	.13	6.4
24	.43	.53	1.2	.92	.92	.92	.77	.06	.23	.14	2.4	25
25	.38	.53	1.2	.84	.92	1.0	.84	.06	.15	.03	.38	82
26	.38	.53	1.2	.84	.84	1.0	.84	.06	.09	.02	.23	11
27	.38	.53	1.2	.84	.84	1.0	.77	.05	.06	.02	286	2.0
28	.38	.58	1.2	.84	.84	.92	.70	4.7	.06	.01	7.5	1.3
29	.43	.58	1.2	.84	------	.84	.64	26	.05	.01	2.4	.98
30	.43	.58	1.2	.84	------	.84	.64	29	.04	.02	1.4	.84
31	.43	------	1.2	.77	------	.84	------	18	------	.02	1.0	------
TOTAL	11.54	16.41	29.15	26.86	24.12	25.87	25.32	84.63	15.91	1.32	416.98	142.71
MEAN	.37	.55	.94	.87	.86	.83	.84	2.73	.53	.043	13.5	4.76
MAX	.84	.64	1.2	1.0	1.0	1.0	1.4	29	11	.60	286	82
MIN	.17	.43	.58	.77	.70	.70	.64	.05	.04	.01	.01	.15
AC-FT	23	33	58	53	48	51	50	168	32	2.6	827	283

CAL YR 1970 TOTAL 493.99 MEAN 1.35 MAX 113 MIN .04 AC-FT 980
WTR YR 1971 TOTAL 820.82 MEAN 2.25 MAX 286 MIN .01 AC-FT 1,630

PEAK DISCHARGE (BASE, 800 CFS).--Aug. 27 (0730) 1,530 cfs (11.79 ft).

08081000 Salt Fork Brazos River near Peacock, Tex.

LOCATION.--Lat 33°12'44", long 100°25'57", Stonewall County, on right bank at downstream side of bridge on U.S. Highway 380, 2.9 miles northwest of Peacock, 6.2 miles upstream from Croton Creek, 13.0 miles northwest of Aspermont, and at mile 54.3 (measured from confluence with Double Mountain Fork Brazos River at mile 897.8).

DRAINAGE AREA.--4,275 sq mi, of which 2,770 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1949 to September 1951, September 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,724.32 ft above mean sea level. Prior to Sept. 19, 1964, nonrecording gage at site 2.9 miles upstream at datum 19.39 ft lower.

AVERAGE DISCHARGE.--8 years (1950-51, 1964-71), 39.4 cfs (28,550 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,900 cfs Sept. 24 (gage height, 10.20 ft); no flow for many days.
Period of record: Maximum discharge, 13,400 cfs Sept. 15, 1966, and June 10, 1968 (gage height, 12.50 ft); no flow at times.
Maximum stage since at least 1939, Sept. 25, 1955 (gage height, 13.4 ft, from floodmarks at former site and datum), from information by local resident.

REMARKS.--Records poor. Some regulation by White River Reservoir (station 08080910). Several small diversions above station. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Duck Creek near Girard (station 08080950). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.03		0	0	.27		0	167	6.0	9.1	25
2	0	.01		0	.01	.28		0	76	6.3	5.3	17
3	0	0		0	0	.26		0	35	4.4	3.8	12
4	0	0		.01	0	.23		.03	16	3.8	5.9	11
5	0	0		0	0	.24		2.0	13	0	7.3	12
6	0	0		0	0	.36		.10	10	0	6.7	7.3
7	0	0		0	0	.27		.09	7.8	0	7.0	5.9
8	0	0		0	.01	.24		44	4.6	0	26	6.0
9	0	0		0	0	.36		55	4.6	0	360	6.5
10	0	0		0	0	.12		4.4	4.6	0	77	6.8
11	0	0		0	0	.08		2.5	3.6	0	220	60
12	0	0		0	0	.10		1.4	3.2	0	171	71
13	0	0		0	0	.10		.97	2.8	0	68	53
14	0	0		0	0	.11		.63	4.5	0	284	19
15	.02	0		0	0	.12		.43	11	0	1,160	10
16	.06	0		0	0	.13		.20	8.1	0	401	5.8
17	2.0	0		0	0	.10		0	3.0	0	250	397
18	.46	0		0	0	.07		126	1.7	0	111	1,410
19	.20	0		0	0	0		62	1.1	0	52	751
20	.14	0		0	0	0		4.9	.93	0	27	217
21	.14	0		0	.03	0		1.4	352	0	14	145
22	.12	0		0	.18	0		.73	578	0	7.8	10
23	.13	0		0	.20	0		.49	143	0	9.4	352
24	.08	0		0	.21	0		.30	74	0	233	1,910
25	.08	0		0	.22	0		.18	15	0	981	3,300
26	.08	0		0	.25	0		.16	7.6	0	286	336
27	.07	0		0	.27	0		12	4.1	0	337	115
28	.07	0		0	.27	0		114	2.6	0	321	104
29	.07	0		0	------	0		1,600	2.0	0	105	68
30	.05	0		0	------	0		101	1.4	0	58	58
31	.04	------		0	------	0	------	121	------	1.4	38	------
TOTAL	3.81	.04	0	.01	1.65	3.44	0	2,255.91	1,558.23	21.9	5,642.3	9,501.3
MEAN	.12	.001	0	.0003	.059	.11	0	72.8	51.9	.71	182	317
MAX	2.0	.03	0	.01	.27	.36	0	1,600	578	6.3	1,160	3,300
MIN	0	0	0	0	0	0	0	0	.93	0	3.8	5.8
AC-FT	7.6	.08	0	.02	3.3	6.8	0	4,470	3,090	43	11,190	18,850

CAL YR 1970 TOTAL 4,004.60 MEAN 11.0 MAX 374 MIN 0 AC-FT 7,940
WTR YR 1971 TOTAL 18,988.59 MEAN 52.0 MAX 3,300 MIN 0 AC-FT 37,660

PEAK DISCHARGE (BASE, 5,000 CFS).--May 29 (0200) 6,090 cfs (9.85 ft); Sept. 24 (0900) 6,900 cfs (10.20 ft).

08081200 Croton Creek near Jayton, Tex.

LOCATION.--Lat 33°17'21", long 100°26'00", Stonewall County, on left bank 460 ft upstream from county road, 1.1 miles upstream from mouth, and 8.6 miles northeast of Jayton.

DRAINAGE AREA.--302 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,694.45 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 16.8 cfs (12,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,130 cfs Aug. 24 (gage height, 10.03 ft); no flow for many days.
Period of record: Maximum discharge, 10,600 cfs Oct. 18, 1960 (gage height, 12.40 ft), from rating curve extended above 3,100 cfs; no flow for many days.
Maximum stage since at least 1935, 13.5 ft in 1941 or 1942, present datum, from information by local residents.

REMARKS.--Records good. No diversion above station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WRD Texas 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0							0	30		0	5.9
2	0							0	11		0	3.3
3	0							0	5.5		0	1.9
4	0							0	2.1		0	1.3
5	0							0	.39		0	1.1
6	0							0	.06		0	.94
7	0							0	0		0	.79
8	0							1.1	0		0	.66
9	0							.08	0		295	.54
10	0							0	0		115	3.2
11	0							0	0		135	8.3
12	0							0	0		29	2.6
13	0							0	0		8.0	1.2
14	0							0	0		204	.89
15	1.5							0	0		397	.51
16	5.0							0	0		136	.25
17	7.3							0	0		22	8.3
18	1.0							134	0		5.9	22
19	.07							3.6	0		1.1	60
20	0							.64	0		.33	10
21	0							.08	247		.16	2.7
22	0							0	13		.07	2.5
23	0							0	3.5		.44	288
24	0							0	.78		682	264
25	0							0	.40		373	874
26	0							0	.12		86	101
27	0							0	.03		346	28
28	0							.36	.01		86	16
29	0				------			116	0		24	12
30	0				------			305	0		12	9.7
31	0	------			------		------	235	------		8.3	------
TOTAL	14.87	0	0	0	0	0	0	795.86	313.89	0	2,966.30	1,731.58
MEAN	.48	0	0	0	0	0	0	25.7	10.5	0	95.7	57.7
MAX	7.3	0	0	0	0	0	0	305	247	0	682	874
MIN	0	0	0	0	0	0	0	0	0	0	0	.25
AC-FT	29	0	0	0	0	0	0	1,580	623	0	5,880	3,430

CAL YR 1970 TOTAL 627.38 MEAN 1.72 MAX 113 MIN 0 AC-FT 1,240
WTR YR 1971 TOTAL 5,822.50 MEAN 16.0 MAX 874 MIN 0 AC-FT 11,550

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	1900	8.74	1,670	8-24	1615	10.03	4,130
6-21	0300	8.96	2,000	8-27	0545	9.06	2,180
8- 9	1815	9.03	2,120	9-25	0600	8.76	1,690

08081500 Salt Croton Creek near Aspermont, Tex.

LOCATION.--Lat 33°24'03", long 100°24'29", King County, on left bank 0.1 mile downstream from Haystack Creek, 2.4 miles downstream from Salt Flat Creek, 9.0 miles upstream from Salt Fork Brazos River, and 21 miles northwest of Aspermont.

DRAINAGE AREA.--64.3 sq mi.

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1958, published as Dove Creek near Aspermont.

GAGE.--Water-stage recorder. Altitude of gage is 1,668 ft, from topographic map.

AVERAGE DISCHARGE.--15 years, 6.00 cfs (4,350 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,660 cfs May 28 (gage height, 3.54 ft); minimum daily, 0.23 cfs July 8; minimum gage height, 1.30 ft Mar. 18.
Period of record: Maximum discharge, 29,900 cfs Aug. 30, 1966 (gage height, 8.75 ft), from rating curve extended above 240 cfs on basis of slope-area measurements of 6,910, 11,400, and 29,500 cfs; minimum daily, 0.05 cfs June 17-22, 1967.
Flood in 1941 reached a stage of about 9 ft, from information by local residents.

REMARKS.--Records poor. Stage-discharge relation frequently affected by winds. Base flow maintained by springs. No diversion upstream from station. Recording rain gage located at station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.0	.65	.97	.65	.56	.45	.79	3.5	6.7	6.4	.60
2	1.5	1.1	.53	1.0	.93	.67	.44	.80	2.3	1.0	1.7	.55
3	.85	.96	.58	.82	.90	1.0	.45	.80	2.0	3.8	.60	.50
4	.60	.87	.57	.65	.59	1.0	.45	.79	1.2	2.6	.60	.45
5	.60	1.1	.55	.70	.47	.63	.44	.60	.60	.92	.60	4.5
6	.45	1.2	.60	.82	.46	.60	.58	.47	7.1	.33	1.2	.70
7	.45	1.2	.85	.88	.58	.55	.60	.66	1.0	.33	1.6	.39
8	.80	1.0	.93	.95	.64	.60	.60	6.1	.45	.23	2.5	.40
9	.40	.81	.84	.98	.62	.56	.60	2.9	.45	.45	193	.41
10	.45	.79	.80	.89	.68	.70	.60	1.1	.45	.45	18	.46
11	.50	.79	.68	.88	.60	.72	.60	.69	.45	.79	1.7	.46
12	.53	.79	.71	.69	.60	.67	.60	.51	1.7	.60	61	.43
13	.56	1.4	.81	.74	.59	.72	.60	.59	.70	.45	1.2	.54
14	.58	1.4	.86	.66	.58	.42	.64	.45	.63	.33	63	.57
15	25	1.0	.79	.64	.60	.59	1.0	.45	.60	.33	47	.38
16	8.2	.84	.63	.64	.60	.60	1.7	.45	.63	.33	4.1	.48
17	8.7	.79	.88	.73	.55	.45	4.5	.96	.63	.33	2.4	80
18	2.5	.75	.89	.74	.50	.31	2.7	49	.62	.33	1.6	30
19	1.4	.74	.75	.81	.43	.30	2.1	1.5	.62	.28	1.3	7.6
20	1.2	.72	.87	1.0	.40	.30	1.5	.60	.61	1.4	1.1	3.8
21	1.2	.70	1.1	.68	5.1	.48	.96	.79	210	2.3	1.4	1.9
22	1.1	.57	1.3	.65	.96	.51	.76	.79	17	1.7	1.8	5.3
23	.93	.56	.84	.71	.80	.69	.46	.60	2.9	3.1	2.1	52
24	.87	.60	.89	.81	.83	.45	.40	.45	.60	2.0	201	38
25	.82	.60	.83	.65	1.1	.45	.35	.45	.55	1.2	6.6	4.6
26	.94	.60	.81	.64	.60	.60	.30	.45	.50	1.2	2.8	3.2
27	.99	.62	.90	.69	.57	.45	.30	31	.50	1.2	344	2.6
28	1.0	.63	1.0	.70	.63	.54	.59	134	.50	1.9	33	2.0
29	1.1	.72	1.0	.79	------	.61	.89	173	.50	1.7	1.7	1.7
30	1.1	.80	1.4	.75	------	.70	.93	10	.50	12	1.0	1.0
31	1.1	------	.90	.66	------	.60	------	5.8	------	2.0	.60	------
TOTAL	68.92	25.65	25.74	23.92	22.56	18.03	27.09	427.54	259.79	52.28	1,006.60	245.52
MEAN	2.22	.86	.83	.77	.81	.58	.90	13.8	8.66	1.69	32.5	8.18
MAX	25	1.4	1.4	1.0	5.1	1.0	4.5	173	210	12	344	80
MIN	.40	.56	.53	.64	.40	.30	.30	.45	.45	.23	.60	.38
AC-FT	137	51	51	47	45	36	54	848	515	104	2,000	487

CAL YR 1970 TOTAL 510.45 MEAN 1.40 MAX 82 MIN .26 AC-FT 1,010
WTR YR 1971 TOTAL 2,203.64 MEAN 6.04 MAX 344 MIN .23 AC-FT 4,370

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-28	2300	3.54	1,660	8- 9	1730	3.26	1,170
6-21	0415	3.36	1,330	8-27	1100	3.20	1,070

08082000 Salt Fork Brazos River near Aspermont, Tex.

LOCATION.--Lat 33°20'01", long 100°14'16", Stonewall County, near left bank on downstream side of pier of bridge on U.S. Highway 83, 5.5 miles downstream from Salt Croton Creek, 13.2 miles north of Aspermont, and 27.3 miles upstream from Double Mountain Fork Brazos River.

DRAINAGE AREA.--4,830 sq mi, approximately, of which 2,770 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1923 to August 1925, June 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,588.70 ft above mean sea level. Dec. 5, 1923, to Aug. 29, 1925, nonrecording gage at site 6.8 miles downstream at different datum.

AVERAGE DISCHARGE.--32 years (1939-71), 127 cfs (92,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,760 cfs May 29 (gage height, 6.25 ft); minimum daily, 0.10 cfs May 6-8.
Period of record: Maximum discharge, 52,200 cfs Sept. 25, 1955 (gage height, 14.92 ft), from rating curve extended above 29,000 cfs; no flow at times.
Maximum stage since at least 1900, that of Sept. 25, 1955. Flood in December 1913 reached a stage of 14.4 ft, and flood in November 1934 reached a stage of 13.7 ft, from information by local residents.

REMARKS.--Records fair. No large diversion above station. Some regulation by White River Reservoir (station 08080910). For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Duck Creek near Girard (station 08080950). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.27	.59	.78	.68	.37	.15	.15	314	1.6	1.4	43
2	1.6	.27	.59	.78	.68	.37	.15	.15	163	1.0	3.3	29
3	1.0	.27	.68	.78	.68	.37	.12	.15	93	.59	.3	12
4	.44	.22	.68	.68	.68	.44	.15	.15	62	4.9	.2	9.7
5	.15	.18	.68	.59	.68	.44	.15	.12	44	2.0	.2	89
6	.12	.18	.68	.59	.68	.37	.15	.10	75	.59	.1	20
7	.10	.18	.68	.59	.78	.37	.15	.10	36	.37	8.0	13
8	.12	.22	.68	.59	.68	.32	.15	.10	26	.37	1.7	9.7
9	.10	.22	.68	.68	.68	.27	.15	33	19	.37	320	8.6
10	.15	.22	.68	.68	.68	.27	.15	22	15	.32	721	7.1
11	.18	.27	.59	.68	.68	.27	.16	2.5	13	.27	529	5.8
12	.22	.27	.51	.68	.59	.27	.18	.68	12	.27	476	14
13	.15	.37	.51	.68	.51	.22	.15	.68	11	.27	266	24
14	.12	.44	.51	.68	.51	.18	.15	.68	10	.27	674	16
15	126	.59	.51	.59	.59	.18	.15	.37	9.7	.27	1,740	9.1
16	82	.51	.59	.59	.51	.22	.27	.32	8.6	.27	841	5.4
17	88	.59	.59	.59	.51	.22	.59	.32	7.6	.27	408	13
18	37	.59	.68	.68	.59	.22	2.0	243	7.6	.27	292	874
19	13	.51	.59	.59	.51	.22	.78	93	4.2	.27	185	893
20	4.2	.51	.68	.59	.44	.22	.27	31	6.1	.27	157	198
21	3.0	.44	.90	.68	2.2	.18	.18	10	545	.27	125	112
22	2.0	.59	1.0	.68	3.6	.18	.15	3.3	788	.22	106	96
23	1.8	.59	.68	.68	2.2	.22	.15	1.1	248	.37	90	489
24	1.4	.59	.70	.68	1.4	.22	.15	.51	104	.22	804	608
25	.90	.59	.70	.68	1.1	.22	.15	.32	43	.18	1,090	3,490
26	.68	.59	.70	.68	.80	.22	.15	.27	24	.18	314	688
27	.44	.59	.68	.59	.51	.22	.15	.37	13	.18	909	303
28	.37	.68	.68	.59	.44	.18	.15	79	7.6	.18	493	180
29	.32	.68	.78	.68	------	.18	.15	2,210	4.6	.18	210	119
30	.32	.68	1.0	.78	------	.18	.18	351	2.5	22	98	93
31	.27	------	.90	.78	------	.18	------	618	------	6.8	60	------
TOTAL	366.83	12.90	21.10	20.59	24.59	7.99	7.73	3,702.44	2,716.5	45.59	10,923.2	8,471.4
MEAN	11.8	.43	.68	.66	.88	.26	.26	119	90.6	1.47	352	282
MAX	126	.68	1.0	.78	3.6	.44	2.0	2,210	788	22	1,740	3,490
MIN	.10	.18	.51	.59	.44	.18	.12	.10	2.5	.18	.10	5.4
AC-FT	728	26	42	41	49	16	15	7,340	5,390	90	21,670	16,800

CAL YR 1970 TOTAL 4,938.89 MEAN 13.5 MAX 348 MIN .04 AC-FT 9,800
WTR YR 1971 TOTAL 26,320.86 MEAN 72.1 MAX 3,490 MIN .10 AC-FT 52,210

PEAK DISCHARGE (BASE, 12,000 CFS).--No peak above base.

08082100 Stinking Creek near Aspermont, Tex.

LOCATION.--Lat 33°14'00", long 100°12'47", Stonewall County, at downstream side of bridge on Farm Road 1263, 4.9 miles upstream from Salt Fork Brazos River, and 6.8 miles north of Aspermont.

DRAINAGE AREA.--92.4 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,601.5 ft above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--6 years, 3.65 cfs (2,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 794 cfs Aug. 13 (gage height, 7.91 ft); no flow at times.
Period of record: Maximum discharge, 1,600 cfs Oct. 18, 1965 (gage height, 9.84 ft); no flow for many days.
Maximum stage since at least 1925, 31 ft in September 1955, from information by local resident.

REMARKS.--Records good. No known diversion above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0			0	0		0	0	4.9	.04	.01	1.4
2	0			0	0		0	0	2.1	.03	0	1.0
3	0			0	0		0	0	1.0	.02	0	.82
4	0			0	0		0	0	.55	.02	0	.65
5	0			0	0		0	0	.31	0	0	.55
6	0			0	0		0	0	.16	0	0	.50
7	0			0	0		0	0	.11	0	0	.46
8	0			0	0		0	.16	.07	0	1.9	.46
9	0			0	.02		0	1.5	.04	0	5.6	.46
10	0			.01	.02		0	.69	.04	0	14	.46
11	0			.02	.01		0	.50	.06	0	2.5	.42
12	0			.01	0		0	.11	.06	0	24	.42
13	0			.01	0		0	0	.05	0	177	.42
14	0			0	0		0	0	.04	0	66	.42
15	5.4			0	0		0	0	.02	0	39	.38
16	6.8			0	0		0	0	.02	0	102	.38
17	11			0	0		.21	0	.02	0	30	.50
18	3.1			0	0		.70	0	0	0	16	1.1
19	.76			0	0		.99	0	0	0	4.1	1.2
20	.20			0	0		.16	0	0	0	2.8	.70
21	.07			0	.12		.03	0	84	0	1.6	.46
22	.01			0	.15		0	0	37	0	1.2	.42
23	0			0	.07		0	0	5.6	0	.88	3.8
24	0			0	.03		0	0	1.8	0	12	12
25	0			0	.02		0	0	.60	0	18	15
26	0			0	0		0	0	.25	0	21	9.2
27	0			0	0		0	0	.13	0	11	4.7
28	0			0	0		0	5.3	.09	0	7.7	3.1
29	0			0	------		0	289	.07	0	3.9	1.9
30	0			0	------		0	172	.06	0	3.4	1.4
31	0	------		0	------		------	17	------	0	2.1	------
TOTAL	27.34	0	0	.05	.44	0	2.09	486.26	139.15	.11	567.69	64.68
MEAN	.88	0	0	.002	.016	0	.070	15.7	4.64	.004	18.3	2.16
MAX	11	0	0	.02	.15	0	.99	289	84	.04	177	15
MIN	0	0	0	0	0	0	0	0	0	0	0	.38
AC-FT	54	0	0	.1	.9	0	4.2	965	276	.2	1,130	128

CAL YR 1970 TOTAL 273.74 MEAN .75 MAX 64 MIN 0 AC-FT 543
WTR YR 1971 TOTAL 1,287.81 MEAN 3.53 MAX 289 MIN 0 AC-FT 2,550

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	0400	6.97	510	8-13	1400	7.91	794
6-21	0345	6.05	302	8-16	1500	6.85	478

08082180 North Croton Creek near Knox City, Tex.

LOCATION.--Lat 33°22'59", long 100°04'51", Stonewall County, on left bank 600 ft downstream from Wedington Creek, 9.5 miles upstream from Brazos River, and 15 miles southwest of Knox City.

DRAINAGE AREA.--251 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,462.44 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 25.1 cfs (18,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,240 cfs Aug. 24 (gage height, 19.80 ft), from rating curve extended as explained below; no flow for many days.
Period of record: Maximum discharge, 32,300 cfs Aug. 30, 1966 (gage height, 32.36 ft), from rating curve extended above 240 cfs on basis of slope-area measurements of 4,880 cfs, 6,530 cfs, and peak flow; no flow at times.
Maximum stage since at least 1921, that of Aug. 30, 1966. Flood in 1932 reached a stage of about 32 ft, from information by local residents.

REMARKS.--Records good except those above 50 cfs, which are poor. No diversion or regulation above station. Recording rain gage located at station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.07	.07	.08	.05	.02	0	0	1.0	0	.01	7.9
2	.12	.07	.07	.08	.05	.02	0	0	.36	0	0	5.2
3	.10	.07	.07	.09	.05	.02	0	0	.20	0	0	4.4
4	.06	.07	.06	.08	.05	.02	0	0	.18	0	0	3.7
5	.07	.07	.07	.08	.05	.02	0	.02	.12	0	0	24
6	.07	.07	.07	.07	.04	.02	0	0	.09	0	.06	5.4
7	.04	.07	.07	.07	.04	.02	0	0	.08	0	.02	2.9
8	.02	.08	.07	.08	.04	.02	0	0	.07	0	.03	2.4
9	0	.08	.08	.09	.04	.02	0	0	.04	0	.31	2.1
10	0	.06	.08	.09	.04	.02	0	0	.02	0	.08	1.8
11	0	.06	.07	.09	.04	.02	0	0	.01	0	45	1.7
12	0	.07	.07	.09	.04	.02	0	0	0	0	12	1.5
13	0	.08	.07	.09	.04	.02	0	0	0	0	7.6	1.4
14	0	.08	.07	.08	.04	.02	0	0	0	0	198	1.4
15	11	.08	.07	.07	.04	.02	0	0	0	0	82	1.3
16	3.7	.09	.07	.07	.03	.01	.99	0	0	0	507	1.3
17	6.4	.09	.08	.06	.03	.01	.75	0	0	0	15	1.7
18	3.6	.08	.07	.06	.04	0	.05	0	0	0	4.6	2.9
19	1.1	.08	.07	.06	.05	0	.03	0	0	0	3.1	12
20	.53	.07	.07	.06	.04	0	.03	0	0	0	2.4	6.0
21	.35	.07	.07	.06	.09	0	.03	0	42	0	1.6	3.1
22	.27	.06	.08	.06	.09	0	.02	0	1.3	0	1.2	2.3
23	.42	.06	.08	.06	.06	0	.02	0	.09	0	.92	28
24	.17	.06	.07	.06	.05	0	.02	0	.05	0	1,750	64
25	.15	.07	.08	.06	.04	0	.01	0	.02	0	563	80
26	.13	.06	.07	.06	.04	0	0	0	0	0	143	20
27	.12	.06	.07	.05	.03	0	0	0	0	0	44	8.8
28	.09	.06	.07	.05	.03	0	0	2.0	0	0	826	5.4
29	.08	.07	.08	.05	------	0	0	78	0	0	36	3.9
30	.08	.07	.08	.05	------	0	0	43	0	.31	18	3.4
31	.08	------	.08	.05	------	0	------	3.9	------	.02	12	------
TOTAL	28.85	2.13	2.25	2.15	1.27	.32	1.95	126.92	45.63	.33	4,272.93	309.9
MEAN	.93	.071	.073	.069	.045	.010	.065	4.09	1.52	.011	138	10.3
MAX	11	.09	.08	.09	.09	.02	.99	78	42	.31	1,750	80
MIN	0	.06	.06	.05	.03	0	0	0	0	0	0	1.3
AC-FT	57	4.2	4.5	4.3	2.5	.6	3.9	252	91	.7	8,480	615

CAL YR 1970 TOTAL 502.52 MEAN 1.38 MAX 95 MIN 0 AC-FT 997
WTR YR 1971 TOTAL 4,794.63 MEAN 13.1 MAX 1,750 MIN 0 AC-FT 9,510

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-16	0700	12.90	1,340
8-24	1830	19.80	4,240
8-28	0330	16.16	2,510

08082500 Brazos River at Seymour, Tex.

LOCATION.--Lat 33°34'51", long 99°16'02", Baylor County, on left bank at upstream side of bridge on U.S. Highways 277 and 283, 0.8 mile upstream from Wichita Valley Railway bridge, 1.0 mile southwest of courthouse in Seymour, and at mile 833.2.

DRAINAGE AREA.--14,490 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,240.97 ft above mean sea level.

AVERAGE DISCHARGE.--47 years (1924-71), 404 cfs (292,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16,000 cfs May 30 (gage height, 7.86 ft); no flow at times.
Period of record: Maximum discharge, 95,400 cfs Oct. 16, 1926 (gage height, 15.16 ft, from floodmarks), from rating curve extended above 48,000 cfs on basis of slope-area measurement of 95,400 cfs; maximum gage height, 21.00 ft Sept. 28, 1955 (discharge, 71,200 cfs); no flow at times.
Since 1906 the maximum stage was that of Sept. 28, 1955, and maximum discharge was that of Oct. 16, 1926. A flood in 1906 reached about the same stage as flood in 1955.

REMARKS.--Records fair. Small diversions above station for irrigation and oilfield operation. Flow slightly regulated by two major upstream reservoirs which have a combined capacity of 43,960 acre-ft. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Duck Creek near Girard (station 08080950). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 808: 1924-29. WSP 1312: 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	10	2.7	6.6	3.6	4.7	.41	.1	1,600	35	25	738
2	9.1	9.1	2.7	6.2	3.5	4.0	.39	0	850	28	14	519
3	7.5	8.0	2.7	5.4	3.9	5.0	.30	0	553	19	9.2	373
4	5.4	6.6	2.4	4.5	3.8	7.1	.12	0	383	14	116	274
5	4.6	6.6	2.4	4.0	3.4	5.8	0	2.2	278	10	401	229
6	4.3	6.6	2.4	3.5	2.8	3.6	.11	2.7	274	9.1	230	204
7	2.4	6.6	2.7	3.5	2.5	3.5	.49	.4	204	5.8	174	181
8	3.4	6.6	3.0	5.0	2.5	3.6	.22	0	145	4.3	134	160
9	8.9	5.0	3.6	5.8	4.0	1.9	.01	.1	109	3.6	121	133
10	9.0	5.0	3.3	5.8	4.5	1.9	0	.1	84	3.0	139	112
11	3.9	4.3	3.0	5.8	4.1	1.9	0	0	63	2.7	261	97
12	3.3	3.9	3.3	5.4	3.5	2.0	0	0	54	2.4	1,040	76
13	2.7	4.3	3.6	5.4	3.4	1.9	0	0	44	1.5	1,420	63
14	1.9	4.6	4.3	5.4	3.4	1.6	0	0	35	1.0	2,030	52
15	12	5.0	4.3	4.3	3.4	1.4	0	0	36	.86	2,780	44
16	85	5.0	4.3	4.3	3.5	1.2	1.8	0	27	.61	7,850	36
17	192	4.6	4.6	3.9	3.3	1.6	2.7	0	19	.30	5,950	47
18	181	3.9	4.6	3.9	4.3	.94	3.0	0	16	.07	2,170	74
19	128	3.6	4.6	3.9	3.1	.75	12	0	15	.01	1,200	1,990
20	104	3.0	4.6	4.6	2.8	.96	21	0	16	0	793	2,320
21	93	3.3	4.6	3.6	4.0	.93	10	0	19	.12	546	1,150
22	69	2.7	5.0	3.6	6.0	.83	8.5	0	44	.06	414	707
23	56	1.5	4.6	3.6	7.1	.92	10	0	1,930	.46	372	567
24	42	1.2	5.0	3.6	6.7	1.2	9.7	2.8	841	1.1	946	608
25	34	1.9	4.6	3.9	7.3	1.8	5.4	1.5	458	.42	6,650	3,250
26	31	1.9	4.6	4.3	6.3	2.1	2.2	.9	295	.03	7,270	9,000
27	24	1.7	4.6	3.6	5.4	2.2	.56	.2	193	0	3,680	3,350
28	20	1.9	4.6	3.6	5.4	1.5	.44	0	128	4.7	2,670	1,710
29	17	2.2	4.3	3.9	------	1.1	.33	3,000	83	57	2,450	1,210
30	14	2.4	7.1	4.3	------	1.5	.17	11,200	60	170	1,740	888
31	12	------	6.6	3.9	------	1.2	------	3,300	------	50	1,110	------
TOTAL	1,189.5	133.0	124.7	139.1	117.5	70.63	89.85	17,511.0	8,856	425.14	54,705.2	30,162
MEAN	38.4	4.43	4.02	4.49	4.20	2.28	3.00	565	295	13.7	1,765	1,005
MAX	192	10	7.1	6.6	7.3	7.1	21	11,200	1,930	170	7,850	9,000
MIN	1.9	1.2	2.4	3.5	2.5	.75	0	0	15	0	9.2	36
AC-FT	2,360	264	247	276	233	140	178	34,730	17,570	843	108,500	59,830

CAL YR 1970 TOTAL 27,110.89 MEAN 74.3 MAX 1,580 MIN 0 AC-FT 53,770
WTR YR 1971 TOTAL 113,523.62 MEAN 311 MAX 11,200 MIN 0 AC-FT 225,200

PEAK DISCHARGE (BASE, 11,000 CFS).--May 30 (1230) 16,000 cfs (7.86 ft); Sept. 26 (1115) 11,800 cfs (6.63 ft).

08082700 Millers Creek near Munday, Tex.

LOCATION.--Lat 33°19'45", long 99°27'53", Throckmorton County, near right bank on downstream side of bridge on Farm Road 1720, 12.7 miles southeast of Munday, and 25 miles upstream from Brazos River.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,350 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 4.41 cfs (3,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,040 cfs Aug. 26 (gage height, 14.75 ft); no flow for many days.
Period of record: Maximum discharge, 1,040 cfs Aug. 26, 1971 (gage height, 14.75 ft); no flow most of time.
Maximum stage since at least 1883 occurred on June 13, 1930 (stage unknown); maximum stage since 1930, 18.0 ft in October 1962 but was several feet below the 1930 flood, from information by local resident.

REMARKS.--Records poor. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0			0	2.6
2								0			0	1.7
3								0			0	1.2
4								0			0	.88
5								0			0	.66
6								0			0	.50
7								0			0	.41
8								0			0	.33
9								0			0	.24
10								0			0	.24
11								0			0	.22
12								0			0	.18
13								0			0	.11
14								0			0	.06
15								0			81	.02
16								0			251	.02
17								0			37	.10
18								0			6.6	.29
19								0			2.8	.36
20								0			1.1	.33
21								0			.56	.29
22								0			.29	.27
23								0			.16	.47
24								0			149	10
25								0			892	22
26								0			973	4.4
27								0			542	2.6
28								0			54	1.3
29					------			.02			14	.84
30					------			0			7.0	.53
31		------			------		------	0	------		4.1	------
TOTAL	0	0	0	0	0	0	0	.02	0	0	3,015.61	53.15
MEAN	0	0	0	0	0	0	0	.0006	0	0	97.3	1.77
MAX	0	0	0	0	0	0	0	.02	0	0	973	22
MIN	0	0	0	0	0	0	0	0	0	0	0	.02
AC-FT	0	0	0	0	0	0	0	.04	0	0	5,980	105

CAL YR 1970 TOTAL 599.91 MEAN 1.64 MAX 379 MIN 0 AC-FT 1,190
WTR YR 1971 TOTAL 3,068.78 MEAN 8.41 MAX 973 MIN 0 AC-FT 6,090

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 16 (0800) 388 cfs (8.98 ft); Aug. 26 (0900) 1,040 cfs (14.75 ft).

08083100 Clear Fork Brazos River near Roby, Tex.

LOCATION.--Lat 32°47'15", long 100°23'18", Fisher County, on right bank at downstream side of pile bent of bridge on State Highway 70, 3.0 miles north of Roby, 3.2 miles upstream from Cottonwood Creek, and at mile 255.7.

DRAINAGE AREA.--216 sq mi.

PERIOD OF RECORD.--December 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,885.09 ft above mean sea level.

AVERAGE DISCHARGE.--9 years (1962-71), 11.1 cfs (8,040 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,640 cfs Aug. 25 (gage height, 20.69 ft); minimum, 0.02 cfs Apr. 1, result of unknown temporary storage upstream.
Period of record: Maximum discharge, 7,050 cfs Oct. 18, 1965 (gage height, 21.48 ft); maximum gage height, 21.52 ft Sept. 19, 1969; no flow at times in 1963-67.
Maximum stage since the 1890's, about 22 ft in May and June 1935, from information by local residents.

REMARKS.--Records good. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.7	2.2	2.2	1.6	2.3	.03	1.0	6.2	.29	24	27
2	2.2	1.7	2.1	2.0	1.9	1.6	.10	.92	4.0	.29	137	23
3	2.2	1.7	2.2	2.2	2.4	1.3	.50	.80	3.1	.29	9.4	20
4	1.9	1.6	2.0	1.9	2.7	1.5	.50	.69	2.7	.29	3.1	18
5	1.9	1.5	2.0	1.7	2.2	1.1	.59	.59	2.2	.50	2.0	17
6	1.9	1.6	1.9	1.7	2.3	1.0	.50	.50	2.0	.29	1.6	15
7	1.8	1.7	1.8	1.7	2.2	.97	.35	.50	2.7	.29	1.3	14
8	1.7	1.9	2.1	1.8	2.2	1.3	.16	.50	79	.29	1.2	13
9	1.6	1.6	2.2	2.0	2.1	1.2	.08	.69	3.8	.29	1.4	13
10	1.6	1.7	2.2	2.1	2.4	1.2	.10	.42	1.7	.29	8.3	12
11	1.6	1.7	1.9	2.0	2.4	1.4	.24	.92	1.6	.29	8.3	12
12	1.5	1.5	1.8	2.0	1.8	1.7	.29	.50	1.4	.29	13	11
13	1.7	1.8	1.9	1.8	.86	1.7	.10	.35	1.3	.29	15	11
14	1.7	1.8	1.9	1.7	1.4	1.0	.06	.24	1.3	.29	74	10
15	1.5	1.7	2.6	1.4	1.6	.51	.10	.29	1.3	.29	155	9.9
16	1.7	1.7	2.0	1.5	1.3	.66	.50	.20	1.3	.20	164	9.4
17	2.7	1.7	2.0	1.5	.93	.65	3.8	.20	1.2	.20	12	12
18	2.5	1.8	2.1	1.6	.55	.64	3.2	.13	1.2	.16	5.6	104
19	2.4	1.9	2.1	1.3	.50	.53	2.2	.06	1.2	.42	3.6	15
20	2.2	1.7	1.9	1.6	.51	.66	1.0	.06	1.2	.59	2.9	11
21	2.0	1.9	2.1	1.5	.78	.95	1.6	.10	1.0	.85	2.5	9.6
22	2.0	1.8	2.4	1.7	2.1	.74	1.7	.08	3.8	.57	2.5	9.1
23	2.3	1.4	2.1	1.6	1.7	.16	1.5	.10	20	.48	3.1	18
24	2.0	1.6	2.1	1.6	1.3	.05	1.4	.13	3.8	1.1	6.7	137
25	2.0	1.9	2.1	1.6	1.7	.04	1.5	.10	1.4	.59	1,700	275
26	1.7	2.0	2.0	1.5	2.4	.04	1.4	.06	.80	.38	1,580	32
27	1.6	2.1	2.1	1.6	2.3	.04	1.4	.05	1.0	.29	132	16
28	1.4	2.0	2.1	1.6	2.4	.04	1.4	214	1.0	.26	172	13
29	1.5	2.3	2.1	1.9	------	.04	1.3	507	.92	.80	54	11
30	2.1	2.3	2.7	1.8	------	.04	1.2	229	.42	42	39	10
31	2.0	------	2.2	1.8	------	.04	------	15	------	292	32	------
TOTAL	59.0	53.3	64.9	53.9	48.53	25.10	28.80	975.18	154.54	345.45	4,366.5	908.0
MEAN	1.90	1.78	2.09	1.74	1.73	.81	.96	31.5	5.15	11.1	141	30.3
MAX	2.7	2.3	2.7	2.2	2.7	2.3	3.8	507	79	292	1,700	275
MIN	1.4	1.4	1.8	1.3	.50	.04	.03	.05	.42	.16	1.2	9.1
AC-FT	117	106	129	107	96	50	57	1,930	307	685	8,660	1,800

CAL YR 1970 TOTAL 1,744.86 MEAN 4.78 MAX 178 MIN .06 AC-FT 3,460
WTR YR 1971 TOTAL 7,083.20 MEAN 19.4 MAX 1,700 MIN .03 AC-FT 14,050

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	2030	13.53	1,260	8-15	1200	8.37	363
7-31	0530	10.73	717	8-25	2300	20.69	5,640
8- 2	0515	7.95	313	9-25	0830	9.48	524

08083200 Lake Sweetwater near Sweetwater, Tex.

LOCATION.--Lat 32°26'20", long 100°18'24", Nolan County, on downstream side of intake structure to pump station, near left end of dam on Bitter Creek, 6.5 miles southeast of Sweetwater, and 8.5 miles upstream from mouth.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--January 1936 to current year. Prior to October 1969, monthend contents only.

GAGE.--Nonrecording gage. Datum of gage is 0.53 ft above mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents observed, 8,800 acre-ft Sept. 30 (gage height, 2,110.4 ft); minimum observed, 4,400 acre-ft May 26 (gage height, 2,099.7 ft).
Period of record: Maximum contents observed, 12,360 acre-ft June 1, 1957 (gage height, 2,116.70 ft); minimum observed, 780 acre-ft Aug. 17, 1953 (gage height, 2,082.54 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 2,600 ft long. Dam was completed and storage began in 1930; lake first filled to spillway elevation in 1936. Dam is property of city of Sweetwater and was built to impound water for municipal use. Emergency spillway is located just to left end of dam and has a concrete ogee-type crest 607.5 ft long. Data regarding dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	2,128.3	-
Crest of emergency spillway	2,116.0	11,900

COOPERATION.--Record of gage heights and diversions furnished by city of Sweetwater. Capacity table furnished by Freese, Nichols, and Endress, Consulting Engineers was based on a survey in 1929.

Capacity table (gage height, in feet, and total contents, in acre-feet.

2,099.0	4,180	2,107.0	7,160
2,103.0	5,520	2,111.0	9,100

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,410	5,200	5,060	4,990	4,890	4,790	4,720	4,560	6,180	6,100	6,810	7,910
2	5,410	5,200	5,060	4,960	4,850	4,790	4,690	4,560	6,180	6,100	6,810	7,910
3	5,380	5,200	5,060	4,960	4,850	4,790	4,690	4,560	6,140	6,060	6,850	7,910
4	5,380	5,200	5,060	4,960	4,850	4,790	4,690	4,560	6,140	6,060	6,900	7,910
5	5,380	5,200	5,060	4,960	4,850	4,790	4,690	4,560	6,140	6,060	6,900	7,860
6	5,380	5,160	5,020	4,960	4,850	4,790	4,690	4,560	6,100	6,020	6,900	7,860
7	5,380	5,160	5,020	4,960	4,850	4,790	4,690	4,530	6,100	6,020	6,900	7,860
8	5,380	5,160	5,020	4,960	4,850	4,790	4,690	4,530	6,100	6,020	6,900	7,860
9	5,380	5,160	5,020	4,960	4,850	4,790	4,690	4,530	6,060	5,980	6,900	7,810
10	5,340	5,160	5,020	4,960	4,850	4,790	4,690	4,530	6,060	5,980	6,900	7,810
11	5,340	5,160	5,020	4,960	4,820	4,790	4,690	4,530	6,180	5,980	6,900	7,810
12	5,340	5,130	5,020	4,960	4,820	4,790	4,690	4,530	6,220	5,940	6,900	7,810
13	5,340	5,130	5,020	4,920	4,820	4,760	4,660	4,500	6,260	5,940	6,900	7,760
14	5,300	5,130	5,020	4,920	4,820	4,760	4,660	4,500	6,260	5,940	6,900	7,760
15	5,300	5,130	5,020	4,920	4,820	4,760	4,720	4,500	6,260	5,900	6,900	7,760
16	5,300	5,090	5,020	4,920	4,820	4,760	4,720	4,500	6,260	5,900	6,900	7,760
17	5,300	5,090	5,020	4,920	4,820	4,760	4,760	4,500	6,220	5,900	6,900	7,720
18	5,300	5,090	5,020	4,920	4,820	4,760	4,720	4,500	6,220	5,860	6,900	7,720
19	5,270	5,090	5,020	4,920	4,820	4,760	4,720	4,500	6,220	5,860	6,900	7,720
20	5,270	5,090	4,990	4,920	4,820	4,760	4,690	4,470	6,180	5,860	6,900	7,720
21	5,270	5,090	4,990	4,920	4,820	4,760	4,690	4,470	6,220	5,820	6,850	7,720
22	5,270	5,060	4,990	4,890	4,820	4,760	4,660	4,470	6,220	5,820	6,850	7,760
23	5,270	5,060	4,990	4,890	4,820	4,760	4,660	4,440	6,180	5,820	6,900	7,860
24	5,230	5,060	4,990	4,890	4,820	4,720	4,630	4,440	6,180	5,820	6,900	8,700
25	5,230	5,060	4,990	4,890	4,820	4,720	4,630	4,440	6,180	5,820	7,910	8,700
26	5,230	5,020	4,990	4,890	4,820	4,720	4,600	4,400	6,140	5,790	7,960	8,700
27	5,230	5,020	4,990	4,890	4,820	4,720	4,600	4,470	6,140	5,790	7,960	8,700
28	5,230	5,020	4,990	4,890	4,820	4,720	4,600	4,440	6,140	6,060	7,960	8,750
29	5,200	5,020	4,990	4,890	------	4,720	4,600	6,140	6,140	6,100	7,960	8,750
30	5,200	5,060	4,990	4,890	------	4,720	4,560	6,180	6,100	6,100	7,960	8,800
31	5,200	------	4,990	4,890	------	4,720	------	6,180	------	6,510	7,910	------
(†)	2,102.1	2,101.7	2,101.5	2,101.2	2,101.0	2,100.7	2,100.2	2,104.7	2,104.5	2,105.5	2,108.6	2,110.4
(≠)	-210	-140	-70	-100	-70	-100	-160	+1,620	-80	+410	+1,400	+890
(††)	0	0	0	0	0	0	0	0	0	0	0	0
MAX	5,410	5,200	5,060	4,990	4,890	4,790	4,760	6,180	6,260	6,510	7,960	8,800
MIN	5,200	5,020	4,990	4,890	4,820	4,720	4,560	4,400	6,060	5,790	6,810	7,720

CAL YR 1970..... ≠ -910 †† 0 MAX 6,550 MIN 4,990
WTR YR 1971..... ≠ +3,390 †† 0 MAX 8,800 MIN 4,400

† Gage height, in feet, at end of month.
≠ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08083240 Clear Fork Brazos River at Hawley, Tex.

LOCATION.--Lat 32°35'53", long 99°48'53", Jones County, on right bank 90 ft upstream from upstream bridge on U.S. Highways 83 and 277, 0.8 mile south of Hawley, 7.4 miles upstream from Mulberry Creek, and at mile 188.6.

DRAINAGE AREA.--1,390 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,613.25 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,950 cfs Sept. 25 (gage height, 14.59 ft); minimum, 0.44 cfs May 27.
Period of record: Maximum discharge, 6,170 cfs Sept. 11, 1969 (gage height, 18.51 ft); minimum, 0.44 cfs May 27, 1971.
Maximum stage since at least 1915 occurred in 1932, stage unknown; second highest stage, 24.2 ft in 1957, from information by local residents.

REMARKS.--Records good. Lake Sweetwater (capacity, 11,900 acre-ft) is located upstream from gage. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	4.9	7.0	7.4	7.2	6.3	5.9	3.8	604	7.4	412	220
2	9.2	4.9	6.7	8.1	7.5	5.8	5.7	4.1	76	7.0	714	189
3	9.3	4.5	6.7	9.0	7.6	5.8	5.7	4.2	36	7.0	1,110	165
4	9.0	4.9	5.2	9.6	7.9	6.3	5.3	3.2	25	7.0	406	145
5	11	5.6	3.8	7.4	7.8	6.3	5.4	2.0	16	6.7	182	126
6	8.7	6.3	2.8	7.6	7.8	6.4	5.3	5.7	14	6.7	80	112
7	8.0	7.0	2.8	7.7	7.4	5.6	4.8	7.0	13	5.2	81	101
8	8.7	7.4	4.5	7.9	7.8	6.0	5.4	17	12	4.5	166	91
9	8.1	8.1	6.3	8.1	8.1	6.5	3.9	30	12	3.4	118	82
10	8.6	9.6	6.3	8.3	8.3	5.7	4.5	50	132	2.0	104	76
11	8.0	9.2	6.7	8.5	8.4	7.3	5.2	61	34	2.0	44	71
12	7.7	9.2	6.3	8.3	8.2	7.0	3.8	21	18	2.5	206	65
13	7.7	9.2	5.9	8.5	8.0	7.0	2.3	14	13	1.8	558	59
14	7.6	11	5.6	8.4	8.0	6.8	1.8	10	11	1.6	565	55
15	7.4	10	5.2	8.1	8.0	6.0	1.8	7.8	11	1.6	916	49
16	7.0	10	5.9	8.1	7.0	6.2	1.6	7.0	11	1.6	1,150	45
17	8.2	10	6.7	8.4	6.9	6.6	42	5.9	10	1.6	845	43
18	8.1	10	6.3	8.4	7.7	6.7	37	4.9	10	1.6	427	51
19	8.4	8.5	6.3	8.1	6.7	6.7	12	4.5	6.7	1.6	99	81
20	8.2	8.5	6.3	8.0	6.7	6.7	12	4.9	5.2	5.2	55	189
21	7.6	8.9	7.0	8.2	6.5	6.6	12	2.5	6.3	28	38	66
22	7.4	8.5	7.2	8.3	5.6	5.9	9.9	1.5	210	6.3	28	59
23	7.4	8.5	7.2	7.9	6.1	5.0	7.9	1.3	475	32	24	179
24	6.9	8.5	7.4	8.0	6.7	5.2	6.6	.96	80	31	774	771
25	6.6	8.5	7.0	8.1	6.1	5.6	5.1	.82	24	202	1,340	2,550
26	6.0	8.1	7.4	8.2	5.6	6.5	4.2	.61	25	30	655	1,780
27	7.2	7.7	7.4	7.9	5.6	6.6	3.3	12	15	9.2	1,900	628
28	6.5	6.7	7.4	7.2	5.9	6.7	2.8	302	12	5.9	2,360	266
29	5.6	5.9	7.4	7.5	------	6.7	2.5	855	9.6	133	1,970	188
30	5.2	6.7	7.4	7.6	------	6.6	2.7	1,330	8.1	104	808	152
31	4.9	------	7.4	7.6	------	6.1	------	1,340	------	300	284	------
TOTAL	239.4	236.8	193.5	250.4	201.1	195.2	228.4	4,114.69	1,934.9	959.4	18,419	8,654
MEAN	7.72	7.89	6.24	8.08	7.18	6.30	7.61	133	64.5	30.9	594	288
MAX	11	11	7.4	9.6	8.4	7.3	42	1,340	604	300	2,360	2,550
MIN	4.9	4.5	2.8	7.2	5.6	5.0	1.6	.61	5.2	1.6	24	43
AC-FT	475	470	384	497	399	387	453	8,160	3,840	1,900	36,530	17,170

CAL YR 1970 TOTAL 8,727.60 MEAN 23.9 MAX 632 MIN 2.8 AC-FT 17,310
WTR YR 1971 TOTAL 35,626.79 MEAN 97.6 MAX 2,550 MIN .61 AC-FT 70,670

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	1430	12.15	1,650	8-16	1030	11.01	1,200
6-23	0300	9.27	724	8-25	0800	12.25	1,690
8- 3	1200	11.00	1,200	8-28	1400	14.54	2,920
				9-25	1530	14.59	2,950

08083245 Mulberry Creek near Hawley, Tex.

LOCATION.--Lat 32°34'04", long 99°47'32", Jones County, on right bank at downstream side of downstream bridge on U.S. Highways 83 and 277, 3.3 miles south of Hawley, and 7.0 miles upstream from Clear Fork Brazos River.

DRAINAGE AREA.--205 sq mi.

PERIOD OF RECORD.--December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,615.98 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,350 cfs Aug. 26 (gage height, 12.98 ft); no flow for many days.
Period of record: Maximum discharge, 1,350 cfs Aug. 26, 1971 (gage height, 12.98 ft); no flow at times each year.
Maximum stage since at least 1932, about 16.0 ft in 1957, from floodmarks on right bank.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						0	0	6.1	0	41	1.5
2	0						0	0	1.5	0	11	.53
3	0						0	0	.23	0	1.2	.16
4	0						0	0	.03	0	.08	.13
5	0						0	0	.02	0	0	.10
6	0						0	0	.01	0	0	.06
7	0						0	0	0	0	0	.04
8	0						0	0	0	0	0	.05
9	.02						0	0	0	0	0	.06
10	.01						0	0	0	0	0	.06
11	0						0	0	0	0	0	.06
12	0						0	0	0	0	15	.02
13	0						0	0	0	0	3.4	.03
14	0						0	0	0	0	.68	.02
15	0						0	0	0	0	29	.13
16	0						6.7	0	0	0	11	.08
17	0						12	0	0	0	2.2	.16
18	0						2.9	0	0	0	.34	.13
19	0						.63	0	0	0	.05	.20
20	0						.18	0	0	0	.02	.08
21	0						.06	0	14	0	0	.08
22	0						.02	0	34	0	0	.08
23	0						0	0	11	24	0	37
24	0						0	0	2.6	63	205	664
25	0						0	0	.20	3.7	159	1,180
26	0						0	0	.02	.29	981	142
27	0						0	4.8	0	.05	848	40
28	0						0	27	0	0	60	19
29	0				------		0	285	0	0	18	10
30	0				------		0	463	0	0	7.6	6.5
31	0	------			------		------	34	------	0	3.0	------
TOTAL	.03	0	0	0	0	0	22.49	813.8	69.71	91.04	2,396.57	2,102.26
MEAN	.001	0	0	0	0	0	.75	26.3	2.32	2.94	77.3	70.1
MAX	.02	0	0	0	0	0	12	463	34	63	981	1,180
MIN	0	0	0	0	0	0	0	0	0	0	0	.02
AC-FT	.06	0	0	0	0	0	45	1,610	138	181	4,750	4,170

CAL YR 1970 TOTAL 602.55 MEAN 1.65 MAX 245 MIN 0 AC-FT 1,200
WTR YR 1971 TOTAL 5,495.90 MEAN 15.1 MAX 1,180 MIN 0 AC-FT 10,900

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	2100	11.20	860	8-26	2000	12.98	1,350
8-24	1700	7.60	414	9-24	2200	12.80	1,290

NOTE.--No gage-height record June 26 to Aug. 15.

08083300 Elm Creek near Abilene, Tex.

LOCATION.--Lat 32°21'08", long 99°48'27", Taylor County, on right bank at upstream side of bridge on Farm Road 707, 2.8 miles southeast of Caps, and 7.5 miles southwest of Abilene.

DRAINAGE AREA.--139 sq mi.

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,804.15 ft above mean sea level (Texas Highway Department bridge plans).

AVERAGE DISCHARGE.--8 years, 9.28 cfs (6,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,090 cfs Sept. 25 (gage height, 9.58 ft); no flow at times.
Period of record: Maximum discharge, 1,800 cfs June 22, 1965 (gage height, 14.24 ft); no flow at times.

REMARKS.--Records fair. Since 1921 flow largely regulated by Lake Abilene (capacity, 9,790 acre-ft) 12 miles upstream. Rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	0	.30	0	81	.24
2							0	0	.07	0	12	.12
3							0	0	0	0	.72	.04
4							0	0	0	0	.30	.01
5							0	0	0	0	.04	0
6							0	0	0	0	8.9	0
7							0	0	0	0	1.5	0
8							0	0	0	0	0	0
9							0	0	0	0	0	0
10							0	0	0	0	0	0
11							0	0	0	0	0	0
12							0	0	0	0	41	0
13							0	0	0	0	178	0
14							0	0	0	0	316	0
15							0	0	0	0	30	0
16							42	0	0	0	.84	0
17							3.9	0	0	0	.30	0
18							1.2	0	0	0	.12	.30
19							.18	0	0	0	.02	.62
20							.02	0	0	0	0	.52
21							0	0	0	0	0	.30
22							0	0	0	0	0	52
23							0	0	0	9.9	0	444
24							0	0	0	48	40	633
25							0	0	0	.84	3.5	889
26							0	0	0	.18	409	522
27							0	0	0	.29	10	299
28							0	60	0	3.0	1.5	187
29					------		0	296	0	.30	.84	131
30					------		0	35	0	8.9	.62	100
31		------			------		------	.96	------	.96	.44	------
TOTAL	0	0	0	0	0	0	47.30	391.96	.37	72.37	1,136.64	3,259.15
MEAN	0	0	0	0	0	0	1.58	12.6	.012	2.33	36.7	109
MAX	0	0	0	0	0	0	42	296	.30	48	409	889
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	94	777	.7	144	2,250	6,460

CAL YR 1970 TOTAL 1,445.48 MEAN 3.96 MAX 167 MIN 0 AC-FT 2,870
WTR YR 1971 TOTAL 4,907.79 MEAN 13.4 MAX 889 MIN 0 AC-FT 9,730

08083400 Little Elm Creek near Abilene, Tex.

LOCATION.--Lat 32°23'29", long 99°51'08", Taylor County, on right bank at downstream side of bridge on Farm Road 707, 1.2 miles north of Caps, and 7.2 miles southwest of Abilene.

DRAINAGE AREA.--39.1 sq mi.

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,786.12 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 2.26 cfs (1,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,280 cfs Sept. 24 (gage height, 9.32 ft); no flow at times.
Period of record: Maximum discharge, 1,380 cfs May 6, 1969 (gage height, 9.68 ft); no flow at times each year.
Maximum stage since 1903, about 15 ft in 1913, from information by local residents.

REMARKS.--Records good. No known diversion above station. Rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	0	0	59	2.4
2								0	0	0	34	2.0
3								0	0	0	2.7	1.6
4								0	0	0	.23	1.3
5								0	0	0	.01	1.1
6								0	0	0	0	1.0
7								0	0	0	.38	.89
8								0	0	0	.48	.78
9								0	0	0	.02	.68
10								0	0	0	0	.68
11								0	0	0	0	.59
12								0	0	0	38	.51
13								0	0	0	12	.51
14								0	0	0	241	.51
15								0	0	0	36	.44
16								0	0	0	6.1	.44
17								0	0	0	1.4	.44
18								0	0	0	.51	1.2
19								0	0	0	.32	1.6
20								0	0	0	.23	.68
21								0	23	0	.19	.51
22								0	2.4	0	.13	.90
23								0	.55	45	.10	119
24								0	0	50	11	948
25								0	0	1.3	8.2	197
26								0	0	.04	420	32
27								0	0	0	60	15
28								0	0	0	14	7.8
29					------			134	0	0	5.8	5.4
30					------			55	0	4.2	3.7	4.0
31		------			------		------	.75	------	7.5	2.9	------
TOTAL	0	0	0	0	0	0	0	189.75	25.95	108.04	958.40	1,348.96
MEAN	0	0	0	0	0	0	0	6.12	.86	3.49	30.9	45.0
MAX	0	0	0	0	0	0	0	134	23	50	420	948
MIN	0	0	0	0	0	0	0	0	0	0	0	.44
AC-FT	0	0	0	0	0	0	0	376	51	214	1,900	2,680

CAL YR 1970 TOTAL 27.17 MEAN .07 MAX 23 MIN 0 AC-FT 54
WTR YR 1971 TOTAL 2,631.10 MEAN 7.21 MAX 948 MIN 0 AC-FT 5,220

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	2200	6.85	695	8-14	1300	7.66	891
7-23	2330	4.27	250	8-26	1300	8.60	1,110
8- 1	1930	3.53	162	9-24	0800	9.32	1,280

08083470 Cedar Creek at Abilene, Tex.

LOCATION.--Lat 32°26'56", long 99°43'13", Taylor County, on right bank at upstream side of North Second Street bridge and State Highway 355 at Abilene, 0.2 mile downstream from Lytle Creek, 4.1 miles downstream from Buttonwillow Creek, 5.9 miles upstream from Rainy Creek, 7.2 miles downstream from Kirby Lake, and 8.1 miles upstream from mouth.

DRAINAGE AREA.--120 square miles.

RECORDS AVAILABLE.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 1,676.66 ft above mean sea level.

EXTREMES.--Maximum discharge during year, 251 cfs Aug. 26 (gage height, 5.30 ft); no flow at times.
Period of record: Maximum discharge, 251 cfs Aug. 26, 1971 (gage height, 5.30 ft); no flow at times.

REMARKS.--Records good above 1 cfs and fair below. Flow is partly regulated by Lytle Lake (capacity, 1,200 acre-ft) and Lake Kirby (capacity, 7,620 acre-ft). During water year 1971, the city of Abilene pumped 1,330 acre-ft from Lake Kirby.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.01	.15	.12	.15	.12	.20	.11	.37	.01	33	1.5
2	.03	.01	.15	.09	.15	.12	.16	.11	.22	.01	5.0	.86
3	.06	.01	.15	.09	.15	.12	.18	.11	.17	.01	.41	.48
4	.03	.01	.12	.07	.15	.12	.18	.15	.14	.01	.19	.28
5	.84	.01	.12	.07	.14	.12	.12	.12	1.1	.01	.15	.23
6	.06	.01	.12	.05	.12	.12	.12	.12	.05	.01	3.2	.19
7	.03	.01	.15	.05	.13	.09	.13	.12	.05	.01	4.9	.19
8	.59	.02	.15	.05	.15	.12	.15	.20	.03	.01	6.8	.19
9	.04	.03	.19	.05	.09	.12	.15	.06	0	.01	.65	.19
10	.02	.03	.19	.05	.06	.12	.15	.02	0	.01	.15	.19
11	.03	.03	.15	.05	.05	.12	.17	.02	2.5	0	.59	.19
12	.04	.04	.15	.05	.05	.15	.15	.02	3.0	0	11	.15
13	.04	.05	.15	.07	.12	.12	.15	.06	.55	0	25	.15
14	.02	.07	.15	.09	.14	.12	.15	.07	.06	0	91	.19
15	.02	.05	.20	.09	.15	.12	.17	.03	.01	0	12	.19
16	.16	.05	.23	.09	.15	.12	35	.03	.01	0	4.8	.19
17	.31	.05	.23	.09	.13	.12	18	.04	0	.01	2.1	.19
18	.04	.05	.23	.10	.09	.09	6.6	.05	0	0	.75	3.7
19	.03	.05	.23	.12	.07	.07	1.6	.04	0	0	.48	6.0
20	.02	.05	.20	.12	.09	.09	.70	.04	0	0	.41	1.5
21	.03	.05	.15	.12	4.4	.12	.32	.03	.36	0	.41	.31
22	.04	.05	.15	.11	.12	.15	.26	.02	14	0	.41	22
23	1.4	.05	.12	.12	.09	.12	.22	.02	1.5	7.4	.34	90
24	.04	.05	.12	.12	.09	.12	.19	.01	.12	.57	16	130
25	.03	.05	.09	.12	.09	.17	.22	.01	.02	.03	2.7	91
26	.03	.07	.09	.12	.09	.19	.25	.01	.01	.01	141	25
27	.02	.07	.07	.12	.12	.30	.26	11	0	.01	52	8.3
28	.01	.07	.07	.10	.12	.33	.23	9.8	.01	4.6	20	5.1
29	.01	.09	.15	.13	------	.28	.22	52	.01	.18	12	3.0
30	.01	.09	1.0	.15	------	.23	.16	11	.01	5.3	5.1	1.9
31	.01	------	.15	.15	------	.22	------	.87	------	.41	2.7	------
TOTAL	4.07	1.28	5.57	2.92	7.45	4.52	66.56	86.29	24.30	18.62	455.24	393.56
MEAN	.13	.043	.18	.094	.27	.15	2.22	2.78	.81	.60	14.7	13.1
MAX	1.4	.09	1.0	.15	4.4	.33	35	52	14	7.4	141	130
MIN	.01	.01	.07	.05	.05	.07	.12	.01	0	0	.15	.15
AC-FT	8.1	2.5	11	5.8	15	9.0	132	171	48	37	903	781

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971 TOTAL 1,070.38 MEAN 2.93 MAX 141 MIN 0 AC-FT 2,120

08083500 Fort Phantom Hill Reservoir near Nugent, Tex.

LOCATION.--Lat 32°36'58", long 99°40'05", Jones County, at outlet gate tower near right bank, 120 ft upstream from dam on Elm Creek, 4.3 miles upstream from Clear Fork Brazos River, and 5.4 miles south of Nugent.

DRAINAGE AREA.--478 sq mi.

PERIOD OF RECORD.--July 1940 to current year. Prior to October 1969, monthend contents only.

GAGE.--Nonrecording gage. Datum of gage is 1,580.78 ft above mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents observed, 82,730 acre-ft Sept. 26 (gage height, 57.1 ft); minimum, 46,160 acre-ft May 27 (gage height, 47.0 ft).
Period of record: Maximum contents observed, 89,910 acre-ft May 25, 1957 (gage height, 58.7 ft); minimum observed, 19,040 acre-ft Apr. 23-25, 1953 (gage height, 34.5 ft).

REMARKS.--Reservoir is formed by rock-faced earthfill dam 3,200 ft long. Dam completed and storage began in October 1938. Dam is property of city of Abilene and was built to impound water for municipal use. During the year, the city of Abilene diverted 20,880 acre-ft from the Clear Fork Brazos River into Fort Phantom Hill Reservoir and pumped 15,850 acre-ft from the reservoir for municipal use. Pumpage records are furnished by the city of Abilene. An undetermined amount of floodflow is diverted by gravity ditch from Deadman Creek into reservoir. The emergency spillway, located 0.7 mile right of gage, is 900 ft long with levees on each side. Data regarding dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	69.2	-
Crest of emergency spillway	55.1	74,310
Invert of top outlet gate	28.0	10,330
Invert of center outlet gate	20.0	4,240
Invert of lower outlet gate	1.6	negligible

COOPERATION.--Record of gage heights and diversions furnished by city of Abilene. Capacity table furnished by Soil Conservation Service from survey of Oct. 2, 1953.

REVISIONS (WATER YEARS).--WSP 1562: 1953-57 (figures of monthend contents).

Capacity table (gage height, in feet, and total contents, in acre-feet)

47.0	46,160	54.0	69,930
50.0	55,480	56.0	78,020
52.0	62,420	58.0	86,710

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62,060	59,580	57,180	55,480	53,530	52,230	50,060	49,120	52,230	50,990	48,240	73,500
2	61,710	59,580	57,180	55,480	53,530	52,230	50,060	48,830	53,210	50,990	50,060	73,100
3	61,710	59,580	57,180	55,480	53,530	52,230	50,060	48,830	53,210	50,680	51,610	73,100
4	61,710	59,580	57,180	55,160	53,530	52,230	49,750	48,830	53,210	50,680	53,210	73,100
5	61,710	59,580	57,180	55,160	53,210	51,920	49,750	48,530	53,210	50,370	53,860	73,100
6	61,710	59,230	56,840	55,160	53,210	51,920	49,750	48,530	52,880	50,370	53,860	72,710
7	61,350	59,230	56,840	55,160	53,210	51,920	49,440	48,530	52,880	50,060	53,860	72,710
8	61,350	58,880	56,840	55,160	53,210	51,920	49,440	48,240	52,880	50,060	53,860	72,710
9	61,350	58,880	56,840	54,830	53,210	51,920	49,120	48,240	52,560	49,750	53,860	72,310
10	61,350	58,880	56,840	54,830	53,210	51,920	49,120	48,240	52,560	49,440	53,860	72,310
11	61,000	58,540	56,840	54,830	53,210	51,610	49,120	47,940	52,560	49,440	53,860	72,310
12	61,000	58,540	56,500	54,830	53,210	51,610	48,830	47,940	52,230	49,120	53,860	71,910
13	61,000	58,540	56,500	54,830	52,880	51,610	48,830	47,940	52,230	48,830	53,860	71,910
14	61,000	58,540	56,500	54,830	52,880	51,300	48,830	47,940	52,230	48,530	55,480	71,910
15	60,650	58,540	56,500	54,510	52,880	51,300	48,530	47,640	52,230	48,530	58,200	71,520
16	60,650	58,540	56,500	54,510	52,880	51,300	48,530	47,640	51,920	48,240	60,650	71,520
17	60,650	58,540	56,160	54,510	52,880	50,990	48,830	47,640	51,920	48,240	62,420	71,120
18	60,650	58,200	56,160	54,510	52,880	50,990	49,750	47,340	51,920	47,940	63,890	71,120
19	60,650	58,200	56,160	54,510	52,560	50,990	49,750	47,340	51,920	47,640	64,260	71,520
20	60,650	58,200	56,160	54,510	52,560	50,990	49,750	47,050	51,610	47,640	64,260	71,520
21	60,290	58,200	55,820	54,510	52,560	50,990	49,750	47,050	51,610	47,340	64,260	71,520
22	60,290	57,860	55,820	54,180	52,560	50,680	49,750	47,050	51,610	47,340	63,890	71,520
23	60,290	57,860	55,820	54,180	52,560	50,680	49,750	46,750	51,610	47,050	63,890	72,310
24	60,290	57,860	55,820	54,180	52,560	50,680	49,440	46,750	51,920	47,640	64,260	74,310
25	59,940	57,520	55,820	54,180	52,560	50,680	49,440	46,450	51,920	47,640	65,730	79,730
26	59,940	57,520	55,480	54,180	52,560	50,680	49,440	46,450	51,920	47,640	68,780	82,730
27	59,940	57,520	55,480	53,860	52,560	50,370	49,440	46,160	51,610	47,340	71,910	82,290
28	59,940	57,520	55,480	53,860	52,230	50,370	49,440	47,050	51,610	47,340	73,500	81,440
29	59,940	57,520	55,480	53,860	------	50,370	49,120	47,640	51,300	48,240	73,500	81,010
30	59,940	57,180	55,480	53,860	------	50,370	49,120	50,060	51,300	48,240	73,500	80,160
31	59,580	------	55,480	53,530	------	50,060	------	50,990	------	48,240	73,500	------
(†)	51.2	50.5	50.0	49.4	49.0	48.3	48.0	48.6	48.7	47.7	54.9	56.5
(#)	-2,480	-2,400	-1,700	-1,950	-1,300	-2,170	-940	+1,870	+310	-3,060	+25,260	+6,660
(††)	1,390	936	953	1,030	929	1,360	1,450	1,750	1,480	2,400	981	1,190
MAX	62,060	59,580	57,180	55,480	53,530	52,230	50,060	50,990	53,210	50,990	73,500	82,730
MIN	59,580	57,180	55,480	53,530	52,230	50,060	49,120	46,160	51,300	47,050	48,240	71,120

CAL YR 1970..... # -14,840 †† 15,360 MAX 78,450 MIN 55,480
WTR YR 1971..... # +18,100 †† 15,850 MAX 82,730 MIN 46,160

† Gage height, in feet, at end of month.
# Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08084000 Clear Fork Brazos River at Nugent, Tex.

LOCATION.--Lat 32°41'24", long 99°40'09", Jones County, on right bank 33 ft downstream from bridge on Farm Road 600 at Nugent, 2 miles downstream from Elm Creek, 4 miles upstream from Deadman Creek, and at mile 167.8.

DRAINAGE AREA.--2,220 sq mi.

PERIOD OF RECORD.--February 1924 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,531.91 ft above mean sea level (levels by Brazos River Authority). Prior to Dec. 12, 1933, nonrecording gage at site 575 ft downstream at same datum.

AVERAGE DISCHARGE.--47 years, 116 cfs (84,040 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,920 cfs Sept. 26 (gage height, 13.90 ft); minimum, 0.10 cfs July 15-20.
Period of record: Maximum discharge observed, 47,000 cfs Sept. 8, 1932 (gage height, 27.05 ft, site then in use), from rating curve extended above 25,000 cfs; no flow at times.
Maximum stage, 30 ft in 1876; floods in 1900 and May 1923 reached stages of 24 and 24.5 ft, respectively, from information by local residents.

REMARKS.--Records good. Flow regulated by four major reservoirs with a total combined capacity of 103,600 acre-ft. Numerous diversions above station for municipal supply and oilfield operation will materially affect low flow. The city of Abilene reported that during year, 20,880 acre-ft was diverted into Fort Phantom Hill Reservoir (station 08083500) from the river above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	5.2	7.3	7.1	7.8	7.1	4.8	4.1	577	5.2	255	180
2	6.9	5.1	8.0	8.0	8.2	7.7	3.8	3.8	58	4.2	6.8	145
3	7.4	5.4	8.7	8.6	8.8	6.9	3.8	4.5	56	3.8	92	124
4	6.6	5.7	8.7	8.7	8.4	6.9	2.8	4.5	34	3.1	250	109
5	5.9	5.7	8.0	8.4	7.8	6.9	2.6	4.5	24	2.7	16	99
6	10	5.7	8.0	8.5	8.6	6.4	3.1	4.5	18	2.6	44	91
7	7.8	6.0	8.0	8.2	8.7	6.2	3.4	3.8	16	2.3	79	85
8	7.9	6.0	8.0	8.2	8.7	6.2	3.1	6.8	14	2.0	124	79
9	7.8	5.2	8.0	8.3	8.0	5.9	3.4	26	12	1.7	99	74
10	7.6	5.5	8.9	8.5	8.1	6.0	3.1	22	46	1.1	74	70
11	5.2	5.3	7.7	8.5	8.3	6.0	3.4	60	54	.54	50	66
12	6.2	6.0	6.5	8.7	8.2	5.9	3.4	32	23	.39	63	62
13	6.6	6.8	7.3	8.7	8.0	5.4	2.8	16	15	.21	245	60
14	6.8	6.7	7.6	8.6	8.0	2.7	2.8	10	11	.14	21	57
15	6.9	6.3	7.9	8.0	8.0	2.5	2.3	6.8	9.0	.10	44	55
16	6.2	6.5	7.1	8.3	7.9	4.1	11	3.8	9.5	.10	78	53
17	5.9	6.6	6.7	7.3	7.7	4.7	92	4.1	9.4	.10	56	53
18	7.5	6.7	7.6	6.9	7.5	4.9	105	4.1	9.4	.10	42	55
19	7.0	8.1	7.5	8.7	7.1	5.1	40	3.4	9.6	.10	89	62
20	8.7	6.6	8.0	8.5	7.1	6.4	15	3.1	7.5	.10	55	143
21	8.7	7.2	8.4	8.4	8.1	5.3	13	2.8	8.9	12	41	85
22	7.3	5.5	8.0	8.0	8.3	5.4	13	2.6	47	18	35	64
23	8.3	7.2	8.0	8.0	7.5	5.2	9.4	2.3	247	34	30	161
24	7.6	6.6	7.7	7.5	8.4	4.1	7.4	2.0	222	124	977	966
25	5.9	5.5	8.0	7.5	9.4	4.5	6.2	2.0	39	111	938	3,040
26	4.7	6.0	8.1	8.0	8.2	4.8	6.2	1.5	25	75	915	4,520
27	4.2	5.7	7.9	7.6	7.0	5.2	5.2	1.7	20	19	2,340	2,360
28	5.2	5.7	7.5	7.8	6.8	4.8	4.8	323	12	38	2,900	988
29	4.9	5.3	7.0	7.2	------	5.2	5.2	834	8.6	19	2,620	617
30	5.3	4.9	8.7	6.7	------	5.2	4.5	1,710	6.3	122	1,640	456
31	5.3	------	8.4	7.4	------	4.8	------	1,220	------	155	262	------
TOTAL	209.1	180.7	243.2	248.8	224.6	168.4	386.5	4,329.7	1,648.2	757.58	14,480.8	14,979
MEAN	6.75	6.02	7.85	8.03	8.02	5.43	12.9	140	54.9	24.4	467	499
MAX	10	8.1	8.9	8.7	9.4	7.7	105	1,710	577	155	2,900	4,520
MIN	4.2	4.9	6.5	6.7	6.8	2.5	2.3	1.5	6.3	.10	6.8	53
AC-FT	415	358	482	493	445	334	767	8,590	3,270	1,500	28,720	29,710

CAL YR 1970 TOTAL 9,853.32 MEAN 27.0 MAX 748 MIN .23 AC-FT 19,540
WTR YR 1971 TOTAL 37,856.58 MEAN 104 MAX 4,520 MIN .10 AC-FT 75,090

PEAK DISCHARGE (BASE, 2,300 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-24	1000	10.20	2,930
8-28	0630	10.59	3,130
9-26	0930	13.90	4,920

08084500 Lake Stamford near Haskell, Tex.

LOCATION.--Lat 33°04'44", long 99°34'52", Haskell County, on left bank at intake structure of West Texas Utilities Company steam powerplant at Lake Stamford on Paint Creek, 1.0 mile upstream from dam, 1.7 miles upstream from California Creek, and 10 miles southeast of Haskell.

DRAINAGE AREA.--360 sq mi.

PERIOD OF RECORD.--July 1953 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2.77 ft above mean sea level (levels by Freese, Nichols and Engress, Consulting Engineers).

EXTREMES (at 0800).--Current year: Maximum contents, 65,230 acre-ft Aug. 28 (gage height, 1,416.4 ft); minimum, 26,630 acre-ft July 20-23, Aug. 7-14 (gage height, 1,406.8 ft).
Period of record: Maximum contents, 74,100 acre-ft Sept. 9, 10, 1962 (gage height, 1,416.6 ft); minimum since first appreciable storage in June 1954, 14,060 acre-ft Jan. 29-31, 1957 (gage height, 1,400.2 ft).

REMARKS.--Lake is formed by a rock-faced earthfill dam. The dam was completed in March 1953 and storage began in June 1953. Figures given herein represent total contents. Water is used for municipal supply for cities of Stamford and Hamlin with diversions during year totaling 1,540 acre-ft. Gage-height record was furnished by West Texas Utilities Company from their powerplant 1.0 mile upstream from dam. Diversions for municipal use were furnished by the city of Stamford. Data regarding dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	1,434.0	-
Crest of service spillway	1,414.0	53,070
Invert of 24-inch discharge conduit	1,380.0	358

COOPERATION.--The capacity table is based on Sedimentation Survey of 1966 and was furnished by the Soil Conservation Service.

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,406.0	24,490	1,411.0	40,330
1,407.0	27,190	1,412.0	44,280
1,408.0	30,100	1,413.0	48,530
1,409.0	33,250	1,414.0	53,070
1,410.0	36,660	1,415.0	57,920
		1,416.4	65,230

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38,100	37,370	35,610	34,920	33,910	33,250	31,650	30,100	30,410	28,330	26,910	60,980
2	38,100	37,370	35,610	34,920	33,910	32,920	31,330	30,100	30,410	28,330	26,910	60,980
3	38,100	37,010	35,610	34,920	33,910	32,920	31,330	30,100	30,410	28,330	26,910	59,950
4	38,100	37,010	35,610	34,920	33,910	32,920	31,330	30,100	30,410	28,330	26,910	59,440
5	38,100	37,010	35,610	34,920	33,910	32,920	31,020	30,100	30,410	28,330	26,910	58,930
6	38,100	37,010	35,610	34,920	33,910	32,920	31,020	29,800	30,410	28,330	26,910	58,420
7	38,100	36,660	35,610	34,920	33,910	32,920	31,020	29,800	30,410	28,040	26,630	57,920
8	38,100	36,660	35,610	34,920	33,910	32,920	31,020	29,500	29,800	27,750	26,630	57,920
9	37,730	36,660	35,610	34,920	33,910	32,920	31,020	29,500	29,800	27,750	26,630	57,420
10	37,730	36,660	35,610	34,580	33,910	32,600	30,710	29,500	29,800	27,750	26,630	56,920
11	37,730	36,660	35,610	34,580	33,910	32,600	30,710	29,500	29,800	27,750	26,630	56,920
12	37,370	36,660	35,610	34,580	33,910	32,600	30,710	29,500	29,500	27,750	26,630	56,430
13	37,370	36,300	35,610	34,580	33,580	32,600	30,710	29,200	29,500	27,750	26,630	56,430
14	37,370	36,300	35,260	34,580	33,580	32,600	30,710	29,200	29,500	27,470	26,630	55,940
15	37,370	36,300	35,260	34,580	33,580	32,600	30,710	29,200	29,500	27,470	36,660	55,940
16	37,370	36,300	35,260	34,580	33,580	32,280	30,710	29,200	29,500	27,190	40,720	55,940
17	37,730	36,300	35,260	34,580	33,580	32,280	30,710	28,910	29,500	27,190	44,280	55,460
18	37,730	36,300	35,260	34,580	33,580	32,280	30,710	28,910	29,500	26,910	45,110	55,460
19	37,730	36,300	35,260	34,240	33,580	32,280	30,710	28,910	29,500	26,910	45,530	55,460
20	37,370	36,300	35,260	34,240	33,250	32,280	30,710	28,910	29,200	26,630	45,530	55,460
21	37,730	36,300	35,260	34,240	33,250	31,960	30,710	28,910	29,200	26,630	45,530	55,460
22	37,370	36,300	35,260	34,240	33,580	31,960	30,710	28,910	29,200	26,630	45,530	55,460
23	37,370	35,950	34,920	34,240	33,250	31,960	30,710	28,620	29,200	26,630	45,110	54,970
24	37,370	35,950	34,920	34,240	33,250	31,960	30,710	28,620	29,200	26,910	47,650	55,940
25	37,370	35,610	34,920	34,240	33,250	31,960	30,710	28,330	28,910	26,910	55,460	58,420
26	37,370	35,610	34,920	34,240	33,250	31,650	30,410	28,330	28,910	26,910	57,420	58,420
27	37,370	35,610	34,920	33,910	33,250	31,650	30,410	28,330	28,620	26,910	64,690	58,420
28	37,370	35,610	34,920	33,910	33,250	31,650	30,100	28,040	28,620	26,910	65,230	58,420
29	37,370	35,610	34,920	33,910	------	31,650	30,100	29,200	28,620	26,910	64,150	57,920
30	37,370	35,610	34,920	33,910	------	31,650	30,100	29,500	28,330	26,910	63,080	57,920
31	37,370	------	34,920	33,910	------	31,650	------	29,800	------	26,910	62,020	------
(†)	1,410.2	1,409.7	1,409.5	1,409.2	1,409.0	1,408.5	1,408.0	1,407.9	1,407.4	1,406.9	1,415.8	1,415.0
(*)	-730	-1,760	-690	-1,010	-660	-1,600	-1,550	-300	-1,470	-1,420	+35,110	-4,100
(††)	100	93.0	94.0	104	88.1	117	126	157	189	250	115	107
MAX	38,100	37,370	35,610	34,920	33,910	33,250	31,650	30,100	30,410	28,330	65,230	60,980
MIN	37,370	35,610	34,920	33,910	33,250	31,650	30,100	28,040	28,330	26,630	26,630	54,970

CAL YR 1970..... * -16,750 †† 1,622 MAX 52,130 MIN 34,920
WTR YR 1971..... * +19,820 †† 1,540 MAX 65,230 MIN 26,630

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08084800 California Creek near Stamford, Tex.

LOCATION.--Lat 32°55'51", long 99°38'32", Jones County, near right bank at downstream side of bridge on Farm Road 142, 9 miles east of Stamford, and 17 miles upstream from Paint Creek.

DRAINAGE AREA.--465 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,470 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 27.9 cfs (20,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,650 cfs Aug. 25 (gage height, 26.93 ft); minimum, 0.04 cfs Apr. 13, 14.
Period of record: Maximum discharge, 7,420 cfs May 6, 1969 (gage height, 27.12 ft); no flow at times.
Maximum stage since at least 1897, 29.6 ft June 10, 1962 (from floodmark); flood of July 1961 (stage unknown) was second highest. Other large floods are reported to have occurred in June 1909, June 24, 1915, May 1957; flood of September 1962 reached a stage of 28.1 ft; from information by local residents.

REMARKS.--Records good. Three small diversions above station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for the high-water period in water year 1965, superseding figures published in WRD Texas, 1965, are given below:

Sept. 18, 1965..... 144
Sept. 19, 1965..... 81

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.11	.13	.46	.59	.74	.13	.30	216	.57	69	94
2	.22	.11	.11	.40	.46	.46	.13	.30	58	.50	32	74
3	.22	.11	.13	.30	.46	.35	.13	.26	28	.50	75	61
4	.15	.13	.15	.20	.40	.26	.11	.22	15	.44	52	55
5	.13	.13	.15	.10	.30	.40	.11	.15	9.3	.33	20	49
6	.13	.13	.15	.10	.30	.46	.11	.13	6.3	.28	9.3	46
7	.11	.13	.15	.15	.20	.40	.09	.18	7.2	.23	7.2	39
8	.13	.13	.18	.20	.20	.35	.09	.31	333	.19	4.7	35
9	.09	.13	.18	.22	.26	.40	.11	.30	205	.19	3.6	32
10	.11	.13	.18	.22	.30	.46	.09	.22	27	.16	2.0	31
11	.11	.13	.13	.26	.30	.52	.07	1.4	8.9	.16	1.6	29
12	.11	.11	.13	.22	.26	.52	.06	2.6	4.4	.16	1.4	27
13	.11	.09	.13	.26	.22	.46	.06	2.1	2.8	.13	1.3	24
14	.11	.11	.13	.26	.22	.35	.06	1.1	2.0	.10	3.5	24
15	.18	.11	.13	.22	.18	.26	.04	.66	1.9	.10	698	22
16	.13	.09	.13	.22	.18	.26	.64	.46	1.6	.10	1,470	22
17	.18	.09	.13	.22	.22	.22	.76	.30	1.2	.10	2,480	22
18	.22	.09	.13	.22	.22	.18	9.5	.26	1.0	.08	2,040	22
19	.13	.09	.13	.18	.18	.15	27	.18	.74	.21	251	24
20	.13	.09	.09	.18	.22	.15	6.8	.15	1.3	.76	84	24
21	.13	.09	.11	.18	.30	.18	3.6	.15	4.0	.19	58	23
22	.11	.11	.13	.22	.35	.18	2.3	.15	30	.13	44	22
23	.11	.11	.13	.22	.35	.18	1.4	.13	38	1.8	35	31
24	.09	.11	.15	.22	.35	.22	1.0	.13	9.0	4.1	2,980	1,290
25	.07	.11	.15	.18	.52	.18	.82	.13	3.6	5.2	5,820	2,770
26	.09	.09	.18	.22	.46	.18	.66	.13	1.7	1.6	4,810	1,390
27	.09	.09	.18	.18	.30	.22	.52	.13	.94	.84	4,220	534
28	.09	.11	.22	.15	.40	.22	.46	8.2	.84	2.7	2,490	261
29	.09	.11	.26	.15	------	.18	.40	941	.74	9.4	646	114
30	.09	.11	.30	.59	------	.15	.35	1,760	.65	1.9	280	74
31	.09	------	.35	.74	------	.15	------	1,440	------	6.1	141	------
TOTAL	3.93	3.28	4.93	7.64	8.70	9.39	57.60	4,161.73	1,020.11	39.25	28,829.6	7,265
MEAN	.13	.11	.16	.25	.31	.30	1.92	134	34.0	1.27	930	242
MAX	.22	.13	.35	.74	.59	.74	27	1,760	333	9.4	5,820	2,770
MIN	.07	.09	.09	.10	.18	.15	.04	.13	.65	.08	1.3	22
AC-FT	7.8	6.5	9.8	15	17	19	114	8,250	2,020	78	57,180	14,410

CAL YR 1970 TOTAL 1,459.78 MEAN 4.0 MAX 146 MIN .01 AC-FT 2,900
WTR YR 1971 TOTAL 41,411.16 MEAN 113 MAX 5,820 MIN .04 AC-FT 82,140

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-31	0130	20.77	2,370	8-18	0400	22.48	3,000
6- 8	2130	13.48	647	8-25	1500	26.93	6,650
8-15	0800	16.87	1,320	9-25	0400	23.56	3,440

08085500 Clear Fork Brazos River at Fort Griffin, Tex.

LOCATION.--Lat 32°56'04", long 99°13'27", Shackelford County, on right bank just downstream from pier of bridge on old Fort Griffin-Throckmorton road, 0.5 mile northeast of Fort Griffin, 5,100 ft upstream from bridge on U.S. Highway 283, and 1.3 miles upstream from Mill Creek.

DRAINAGE AREA.--3,974 sq mi.

PERIOD OF RECORD.--December 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,174.09 ft above mean sea level. Prior to June 23, 1932, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--47 years (1924-71), 230 cfs (166,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,700 cfs Aug. 26 (gage height, 28.13 ft); no flow July 14-23.
Period of record: Maximum discharge, 33,600 cfs Sept. 10, 1932 (gage height, 35.09 ft); no flow at times.
Maximum stage since 1876, 38.0 ft in September 1900; flood in July 1876 was probably higher; from information by local residents.

REMARKS.--Records good. Some regulation by reservoirs (combined capacity of five major reservoirs is 156,700 acre-ft). Diversions above station for irrigation, municipal supply, and oilfield operations materially affect low flow. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1392: 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	2.5	4.8	10	7.5	9.7	2.2	4.2	2,280	13	85	1,100
2	12	1.9	5.2	10	8.7	9.3	1.8	3.2	930	10	150	724
3	10	1.5	5.6	11	10	9.1	1.6	2.3	342	7.5	227	589
4	8.9	1.2	6.3	13	11	9.2	1.4	1.5	155	6.3	117	506
5	8.3	1.2	7.0	11	11	9.5	1.1	1.0	115	4.6	160	440
6	8.1	1.1	7.3	9.6	9.9	9.5	.89	.64	87	3.4	227	386
7	7.1	1.1	7.3	9.2	8.7	9.0	.71	.39	64	2.4	115	342
8	8.1	1.3	7.7	8.8	7.5	9.1	.73	.32	49	1.5	86	308
9	7.9	1.5	8.2	9.3	8.0	8.8	.84	.41	130	.93	151	277
10	6.2	1.5	8.6	10	10	8.3	.96	.24	308	.55	156	257
11	5.1	1.4	8.6	10	13	7.9	1.0	.10	119	.22	125	237
12	5.1	1.2	8.6	10	14	7.7	1.0	.06	73	.09	103	220
13	4.7	1.1	8.6	10	13	7.3	1.0	.04	52	.03	95	193
14	5.1	1.2	8.6	11	15	7.1	1.0	.02	66	0	103	178
15	5.4	1.1	8.9	11	15	6.3	.98	.02	45	0	557	170
16	11	1.0	9.1	11	15	5.9	1.5	.01	31	0	4,540	161
17	19	1.0	9.5	11	14	5.4	3.1	17	25	0	1,600	151
18	16	1.2	9.5	11	13	5.0	4.8	12	21	0	1,860	148
19	12	1.3	9.5	11	12	4.6	5.0	8.6	18	0	1,290	147
20	8.6	1.5	9.0	9.7	10	4.7	30	6.0	16	0	333	145
21	8.2	1.8	8.6	9.5	9.7	4.5	88	4.3	15	0	173	145
22	8.0	2.4	8.6	9.3	10	4.3	53	2.7	16	0	151	149
23	9.1	2.5	8.6	9.1	11	4.1	34	1.7	16	0	135	158
24	9.1	2.5	8.6	9.1	10	3.8	22	.79	28	6.2	911	295
25	7.7	2.6	9.1	8.7	11	3.8	16	.40	214	11	7,170	4,840
26	6.6	2.9	8.4	8.2	11	3.8	13	.16	126	24	9,910	6,920
27	6.0	3.2	7.9	8.2	11	3.6	10	.06	75	21	7,360	5,380
28	5.2	3.4	7.7	8.2	10	3.4	7.8	.01	43	95	6,310	3,680
29	4.4	3.6	7.9	8.5	------	2.9	6.2	2.9	25	70	5,300	1,540
30	3.8	4.2	9.2	8.4	------	2.6	5.0	2,470	17	41	3,920	989
31	3.4	------	10	7.6	------	2.4	------	3,480	------	41	2,530	------
TOTAL	254.1	55.9	252.5	302.4	310.0	192.6	316.61	6,021.07	5,501	359.72	55,950	30,775
MEAN	8.20	1.86	8.15	9.75	11.1	6.21	10.6	194	183	11.6	1,805	1,026
MAX	19	4.2	10	13	15	9.7	88	3,480	2,280	95	9,910	6,920
MIN	3.4	1.0	4.8	7.6	7.5	2.4	.71	.01	15	0	85	145
AC-FT	504	111	501	600	615	382	628	11,940	10,910	714	111,000	61,040

CAL YR 1970 TOTAL 19,447.36 MEAN 53.3 MAX 1,020 MIN 0 AC-FT 38,570
WTR YR 1971 TOTAL 100,290.90 MEAN 275 MAX 9,910 MIN 0 AC-FT 198,900

PEAK DISCHARGE (BASE, 3,900 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-16	1130	20.22	5,850
8-26	0700	28.13	10,700
9-26	0500	23.72	7,650

08086050 Deep Creek at Moran, Tex.

LOCATION.--Lat 32°33'33", long 99°10'11", Shackelford County, at downstream side of bridge on U.S. Highway 380, 0.8 mile north of Moran, 2.3 miles upstream from Post Oak Creek, and 10.8 miles upstream from Hubbard Creek.

DRAINAGE AREA.--235 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,296.21 ft above mean sea level.

AVERAGE DISCHARGE.--8 years (1963-71), 22.8 cfs (16,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,620 cfs May 30 (gage height, 14.30 ft); no flow at times.
Period of record: Maximum discharge, 9,800 cfs Jan. 21, 1968 (gage height, 18.86 ft); no flow at times.
Maximum stage since 1888, 25.6 ft June 6, 1961, from floodmark. Flood in 1888 reached about the same stage.

REMARKS.--Records good. Recording rain gage located at station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.10	.10	.14	.09	.04	0	0	6.2	.63	2.1	1.8
2	.12	.07	.10	.12	.10	.04	0	0	3.5	.50	2.1	.85
3	.12	.07	.10	.14	.10	.05	0	0	2.0	.36	1.6	.46
4	.12	.07	.09	.10	.12	.05	0	0	1.3	.23	1.3	.25
5	.06	.07	.09	.10	.09	.05	0	0	1.1	.13	1.0	.23
6	.05	.07	.07	.12	.07	.03	0	0	.93	.06	1.0	.18
7	.05	.10	.09	.14	.05	.03	0	0	.77	.03	.99	.15
8	.05	.10	.10	.16	.07	.03	0	0	.63	.01	.96	.29
9	.06	.09	.09	.16	.07	.03	0	0	.59	0	.79	.30
10	.05	.09	.07	.14	.06	.03	.01	0	.54	0	.63	.29
11	.05	.09	.05	.14	.05	.03	.02	0	.48	0	.46	.28
12	.12	.09	.06	.12	.05	.03	.01	0	.52	0	.46	.22
13	.12	.10	.07	.14	.05	.03	.01	0	.86	0	102	.17
14	.10	.10	.06	.14	.05	.02	0	0	.87	0	342	.16
15	.09	.10	.07	.12	.05	.01	.01	0	.68	0	152	.14
16	.14	.09	.05	.12	.06	.01	.02	0	.98	0	23	.12
17	.24	.07	.07	.12	.05	.02	.14	0	.83	0	7.1	.13
18	.16	.09	.09	.12	.09	.01	.15	0	.69	0	4.0	.41
19	.12	.07	.09	.12	.07	.02	.07	0	.67	0	2.4	.53
20	.12	.07	.09	.14	.05	.01	.07	0	.72	0	1.6	.33
21	.10	.09	.12	.12	.12	.01	.03	0	18	0	1.1	.27
22	.12	.09	.12	.12	.10	.01	.01	0	67	0	.94	.67
23	.37	.07	.10	.12	.06	.02	0	0	8.1	0	.69	31
24	.18	.09	.10	.12	.05	.04	0	0	3.0	0	.52	181
25	.09	.07	.10	.12	.07	.04	0	0	1.7	0	.58	59
26	.06	.09	.10	.12	.06	.05	0	0	1.1	0	.52	25
27	.05	.09	.12	.12	.04	.04	0	0	.86	0	.76	11
28	.05	.09	.12	.12	.04	.03	0	8.2	.87	1.0	.69	6.0
29	.05	.12	.14	.12	------	.03	0	1,790	.82	3.0	.39	2.9
30	.05	.12	.18	.10	------	.03	0	1,100	.79	22	17	1.1
31	.09	------	.16	.09	------	.02	------	15	------	4.2	4.7	------
TOTAL	3.25	2.62	2.96	3.87	1.93	.89	.55	2,913.2	127.10	32.15	675.38	325.23
MEAN	.10	.087	.096	.12	.069	.029	.018	94.0	4.24	1.04	21.8	10.8
MAX	.37	.12	.18	.16	.12	.05	.15	1,790	67	22	342	181
MIN	.05	.07	.05	.09	.04	.01	0	0	.48	0	.39	.12
AC-FT	6.5	5.2	5.9	7.7	3.8	1.8	1.1	5,780	252	64	1,340	645

CAL YR 1970 TOTAL 4,710.17 MEAN 12.9 MAX 2,160 MIN 0 AC-FT 9,340
WTR YR 1971 TOTAL 4,089.13 MEAN 11.2 MAX 1,790 MIN 0 AC-FT 8,110

PEAK DISCHARGE (BASE, 1,000 CFS).--May 30 (0100) 5,620 cfs (14.30 ft); Aug. 14 (1500) 1,330 cfs (6.89 ft).

08086100 Hubbard Creek near Albany, Tex.

LOCATION.--Lat 32°41'21", long 99°09'52", Shackelford County, on right bank 348 ft upstream from bridge on Farm Road 601, 1.8 miles downstream from Deep Creek, 5.1 miles upstream from Salt Prong Hubbard Creek, 8.1 miles southeast of Albany, 28.1 miles upstream from Hubbard Creek Dam, and at mile 40.7.

DRAINAGE AREA.--461 sq mi.

PERIOD OF RECORD.--February 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,224.1 ft above mean sea level (Texas Highway Department survey). Prior to Mar. 20, 1962, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--9 years, 45.9 cfs (33,250 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,740 cfs May 30 (gage height, 7.63 ft); no flow at times.
Period of record: Maximum discharge, 16,000 cfs May 13, 1965 (gage height, 16.17 ft); no flow at times.
Maximum stages since 1897, about 26 ft in 1899 and 20.3 ft in June 1961.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	27	0	3.3	3.8
2								0	12	0	1.6	1.5
3								0	5.4	0	.65	.56
4								0	2.8	0	.50	.14
5								0	1.1	0	.02	.04
6								0	.47	0	0	0
7								0	.17	0	0	0
8								0	.09	0	0	0
9								0	.02	0	0	0
10								0	.01	0	0	0
11								0	0	0	0	0
12								0	0	0	0	0
13								0	0	0	76	0
14								0	0	0	382	0
15								0	0	0	272	0
16								0	0	0	48	0
17								0	0	0	17	0
18								0	0	0	5.9	0
19								0	0	0	3.0	0
20								0	0	0	1.6	.03
21								0	0	0	.84	.45
22								0	69	0	.38	.87
23								0	22	0	.16	29
24								0	5.1	0	13	412
25								0	2.4	0	3.0	258
26								0	1.6	0	1.4	91
27								0	1.1	0	.38	31
28								0	.42	0	.09	14
29					------			2,490	.12	0	.01	7.3
30					------			2,440	.02	29	13	3.6
31		------			------		------	100	------	14	19	------
TOTAL	0	0	0	0	0	0	0	5,030	150.82	43	862.83	853.29
MEAN	0	0	0	0	0	0	0	162	5.03	1.39	27.8	28.4
MAX	0	0	0	0	0	0	0	2,490	69	29	382	412
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	9,980	299	85	1,710	1,690

CAL YR 1970 TOTAL 11,942.73 MEAN 32.7 MAX 6,100 MIN 0 AC-FT 23,690
WTR YR 1971 TOTAL 6,939.94 MEAN 19.0 MAX 2,490 MIN 0 AC-FT 13,770

PEAK DISCHARGE (BASE, 2,000 CFS).--May 30 (0700) 5,740 cfs (7.63 ft).

08086150 North Fork Hubbard Creek near Albany, Tex.

LOCATION.--Lat 32°42'27", long 99°16'29", Shackelford County, on downstream side of bridge on U.S. Highway 380, 1.7 miles southeast of Albany, and 2.0 miles upstream from Salt Prong Hubbard Creek.

DRAINAGE AREA.--38.4 sq mi.

PERIOD OF RECORD.--November 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,340.54 ft above mean sea level.

AVERAGE DISCHARGE.--8 years (1963-71), 4.59 cfs (3,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs May 29 (gage height, 6.24 ft); no flow at times.
Period of record: Maximum discharge, 9,520 cfs May 5, 1969 (gage height, 19.22 ft), from rating curve extended above 1,500 cfs on basis of slope-area measurement of 4,570 cfs and contracted-opening measurement of 9,520 cfs; no flow at times.
Historical flood information begins in 1940. Floods of June 10, 1940, and July 18, 1953, reached stages of about 21 ft, from information by local residents.

REMARKS.--Records good. No diversion above station. Water-quality records for the current year are published in Part 2 of this report. Rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.24	.15	.13	.13	.09	.08	.03	.55		0	.07
2	.15	.24	.13	.13	.13	.09	.07	.03	.31		0	.06
3	.15	.24	.13	.13	.13	.09	.08	.03	.14		0	.06
4	.15	.24	.13	.09	.11	.09	.14	.03	.10		0	.05
5	.11	.24	.13	.11	.11	.09	.18	.03	.07		0	.05
6	.11	.24	.13	.13	.11	.07	.15	.03	.04		0	.05
7	.07	.24	.15	.13	.11	.07	.09	.03	.04		0	.05
8	.09	.24	.15	.13	.13	.09	.06	.05	.05		0	.04
9	.07	.18	.18	.13	.13	.09	.04	.13	.04		0	.03
10	.11	.18	.21	.11	.13	.09	.03	.13	.03		0	.03
11	.13	.15	.18	.13	.11	.09	.15	.07	.01		0	.02
12	.15	.15	.18	.13	.11	.09	.15	.05	.01		0	.01
13	.18	.18	.21	.13	.13	.10	.13	.04	.05		0	0
14	.15	.18	.21	.13	.13	.07	.11	.03	.05		0	0
15	.15	.15	.15	.13	.13	.10	.11	.03	.03		.20	0
16	.18	.15	.11	.13	.13	.12	.15	.02	.03		.07	0
17	.24	.15	.13	.13	.11	.10	.21	0	.02		.03	0
18	.21	.15	.15	.15	.11	.11	.21	0	.02		.03	.03
19	.13	.13	.15	.15	.09	.11	.15	0	0		.02	.05
20	.13	.15	.15	.15	.11	.12	.13	0	0		.01	.06
21	.18	.15	.15	.15	.13	.12	.09	0	.01		0	.06
22	.18	.18	.15	.13	.13	.12	.06	0	.04		0	1.8
23	.31	.18	.13	.13	.13	.11	.05	0	.05		0	12
24	.35	.21	.13	.13	.13	.10	.05	0	.03		91	2.5
25	.15	.21	.11	.13	.13	.09	.05	0	.02		8.6	5.1
26	.18	.18	.11	.13	.11	.07	.05	0	.01		2.3	1.5
27	.21	.18	.11	.13	.09	.06	.04	0	0		.35	.43
28	.21	.15	.11	.13	.09	.06	.04	.04	0		.15	.29
29	.24	.15	.11	.13	------	.08	.04	289	0		.08	.27
30	.24	.15	.13	.13	------	.09	.04	30	0		.07	.31
31	.24	------	.13	.11	------	.08	------	2.2	------		.08	------
TOTAL	5.30	5.56	4.48	4.01	3.32	2.85	2.93	322.00	1.75	0	102.99	24.92
MEAN	.17	.19	.14	.13	.12	.092	.098	10.4	.058	0	3.32	.83
MAX	.35	.24	.21	.15	.13	.12	.21	289	.55	0	91	12
MIN	.07	.13	.11	.09	.09	.06	.03	0	0	0	0	0
AC-FT	11	11	8.9	8.0	6.6	5.7	5.8	639	3.5	0	204	49

CAL YR 1970 TOTAL 692.68 MEAN 1.90 MAX 395 MIN 0 AC-FT 1,370
WTR YR 1971 TOTAL 480.11 MEAN 1.32 MAX 289 MIN 0 AC-FT 952

PEAK DISCHARGE (BASE, 100 CFS).--May 29 (0800) 1,180 cfs (6.24 ft); Aug. 24 (1015) 481 cfs (4.78 ft).

08086212 Hubbard Creek below Albany, Tex.

LOCATION.--Lat 32°43'58", long 99°08'25", Shackelford County, on left bank 0.5 mile downstream from Salt Prong Hubbard Creek, 2.8 miles upstream from Newcomb Creek, 4.5 miles upstream from U.S. Highway 180, 9.1 miles east of Albany, and at mile 35.1.

DRAINAGE AREA.--621 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,184.99 ft above mean sea level. Prior to June 12, 1968, water-stage recorder at site 2.1 miles downstream at datum 7.63 ft lower.

AVERAGE DISCHARGE.--5 years, 71.5 cfs (51,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,490 cfs May 30 (gage height, 15.30 ft), from rating curve extended above 220 cfs on basis of step-backwater method; no flow for many days.
Period of record: Maximum discharge, 27,200 cfs Jan. 21, 1968 (gage height, 25.10 ft, at former site and datum), from rating curve extended above 150 cfs on basis of slope-area measurement of peak flow; no flow for many days.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	26	.04	10	7.3
2								0	14	.01	4.7	4.3
3								0	6.8	.01	1.8	2.7
4								0	4.2	0	.52	1.7
5								0	2.8	0	.16	1.2
6								0	1.3	0	.07	.60
7								0	.68	0	.02	.26
8								.78	.23	0	.01	.16
9								.02	.11	0	.01	.09
10								0	.07	0	0	.06
11								0	.04	0	0	.02
12								0	.02	0	0	.03
13								0	.01	0	52	.02
14								0	.01	0	325	.01
15								0	.01	0	333	.01
16								0	.01	0	67	.01
17								0	0	0	23	0
18								0	0	0	7.7	.27
19								0	0	.36	4.0	.12
20								0	0	1.8	2.4	.16
21								0	0	.18	1.6	.17
22								0	42	1.6	.99	.40
23								0	40	4.9	.80	9.4
24								0	11	1.5	78	377
25								0	5.4	.37	41	280
26								0	3.0	.09	16	121
27								0	1.3	.03	8.4	49
28								0	.97	1.2	2.9	25
29					------			3,560	.55	3.2	1.5	12
30					------			3,250	.16	14	.83	6.8
31		------			------		------	175	------	42	6.4	------
TOTAL	0	0	0	0	0	0	0	6,985.80	160.67	71.29	989.81	899.79
MEAN	0	0	0	0	0	0	0	225	5.36	2.30	31.9	30.0
MAX	0	0	0	0	0	0	0	3,560	42	42	333	377
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	13,860	319	141	1,960	1,780

CAL YR 1970 TOTAL 14,857.51 MEAN 40.7 MAX 7,880 MIN 0 AC-FT 29,470
WTR YR 1971 TOTAL 9,107.36 MEAN 25.0 MAX 3,560 MIN 0 AC-FT 18,060

PEAK DISCHARGE (BASE, 2,000 CFS).--May 30 (0900) 5,490 cfs (15.30 ft).

08086260 Pecan Creek near Eolian, Tex.

LOCATION.--Lat 32°35'01", long 99°01'57", Stephens County, at county road crossing 1.4 miles east of Farm Road 1853, 3.3 miles upstream from Battle Creek, and 5.8 miles south of Eolian.

DRAINAGE AREA.--25.4 sq mi.

PERIOD OF RECORD.--October 1962 to September 1966 (low-flow partial-record only), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,274 ft, from topographic map.

AVERAGE DISCHARGE.--5 years, 3.20 cfs (2,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 400 cfs May 29 (gage height, 7.25 ft); no flow at times.
Period of record: Maximum discharge, 648 cfs May 6, 1969 (gage height, 12.78 ft); no flow at times.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	1.8	0	.37	.07
2								0	.19	0	.07	.02
3								0	.04	0	0	0
4								0	0	0	0	0
5								0	0	0	0	0
6								0	0	0	0	0
7								0	0	0	0	0
8								0	0	0	0	0
9								0	0	0	0	0
10								0	0	0	0	0
11								0	0	0	0	0
12								0	0	0	0	0
13								0	0	0	0	0
14								0	0	0	.10	0
15								0	0	0	.47	0
16								0	0	0	.32	0
17								0	0	0	.15	0
18								0	0	0	.03	0
19								0	0	0	0	0
20								0	0	0	0	0
21								0	0	0	0	0
22								0	0	0	0	0
23								0	0	0	0	72
24								0	0	0	0	19
25								0	0	0	0	2.2
26								0	0	0	0	.52
27								0	0	0	0	.05
28								0	0	0	0	.01
29					------			142	0	0	0	0
30					------			53	0	1.5	0	0
31		------			------		------	9.1	------	2.5	.06	------
TOTAL	0	0	0	0	0	0	0	204.1	2.03	4.0	1.57	93.87
MEAN	0	0	0	0	0	0	0	6.58	.068	.13	.051	3.13
MAX	0	0	0	0	0	0	0	142	1.8	2.5	.47	72
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	405	4.0	7.9	3.1	186

CAL YR 1970 TOTAL 395.54 MEAN 1.08 MAX 105 MIN 0 AC-FT 785
WTR YR 1971 TOTAL 305.57 MEAN .84 MAX 142 MIN 0 AC-FT 606

PEAK DISCHARGE (BASE, 200 CFS).--May 29 (1000) 400 cfs (7.25 ft).

08086300 Big Sandy Creek near Breckenridge, Tex.

LOCATION.--Lat 32°39'52", long 99°00'01", Stephens County, on left bank at upstream side of bridge on Farm Road 576, 1.5 miles downstream from Battle Creek, 8.2 miles southwest of Breckenridge, and about 13 miles upstream from Hubbard Creek Reservoir.

DRAINAGE AREA.--298 sq mi.

PERIOD OF RECORD.--February 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,178.42 ft above mean sea level. Prior to Mar. 19, 1962, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--9 years, 37.4 cfs (27,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,060 cfs May 30 (gage height, 16.92 ft); no flow at times.
Period of record: Maximum discharge, 8,170 cfs May 13, 1965 (gage height, 23.30 ft); no flow at times each year.
According to information from State Highway Department, the floods of May 16, 1949, July 20, 1953, and Apr. 29, 1957, each reached a stage of 24.6 ft.

REMARKS.--Records good. Some regulation by Lake Cisco (capacity, 25,600 acre-ft). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01						0	0	18	0	5.0	1.3
2	.01						0	0	5.8	0	2.0	.78
3	0						0	0	3.2	0	2.3	.56
4	0						0	0	1.6	0	1.9	.42
5	0						0	0	.76	0	16	.29
6	0						0	0	.45	0	66	.19
7	0						0	0	.32	0	20	.11
8	0						0	0	.19	0	9.8	.05
9	0						0	0	.16	0	5.3	.02
10	0						0	0	.10	0	2.4	0
11	0						0	0	.08	0	.63	0
12	0						0	0	.08	0	.39	0
13	0						0	0	.08	0	7.0	0
14	0						0	0	.06	0	11	0
15	0						0	0	.12	0	20	0
16	0						0	0	.19	0	5.8	0
17	0						0	0	.09	0	2.2	0
18	.01						0	0	.06	0	.91	1.6
19	.01						0	0	.03	21	.66	.26
20	0						0	0	.02	25	.55	.12
21	0						0	0	.03	3.9	.38	.08
22	.18						0	0	.05	6.9	.11	.39
23	1.3						0	0	.05	2.2	.14	13
24	.01						0	0	.03	1.3	.20	60
25	0						0	0	.02	1.0	.21	26
26	0						0	0	0	.69	.45	6.4
27	0						0	0	0	.53	.35	1.4
28	0						5.7	0	0	.30	.32	.35
29	0				------		.56	1,600	0	.34	4.7	.11
30	0				------		.32	1,670	0	41	4.8	.04
31	0	------			------		------	68	------	29	3.3	------
TOTAL	1.53	0	0	0	0	0	6.58	3,338	31.57	133.16	194.80	113.47
MEAN	.049	0	0	0	0	0	.22	108	1.05	4.30	6.28	3.78
MAX	1.3	0	0	0	0	0	5.7	1,670	18	41	66	60
MIN	0	0	0	0	0	0	0	0	0	0	.11	0
AC-FT	3.0	0	0	0	0	0	13	6,620	63	264	386	225

CAL YR 1970 TOTAL 3,929.56 MEAN 10.8 MAX 1,110 MIN 0 AC-FT 7,790
WTR YR 1971 TOTAL 3,819.11 MEAN 10.5 MAX 1,670 MIN 0 AC-FT 7,580

PEAK DISCHARGE (BASE, 2,000 CFS).--May 30 (0200) 4,060 cfs (16.92 ft).

08086400 Hubbard Creek Reservoir near Breckenridge, Tex.

LOCATION.--Lat 32°49'53", long 98°58'03", Stephens County, on left bank just upstream from dam on Hubbard Creek, 1.0 mile upstream from U.S. Highway 183, 6.5 miles northwest of Breckenridge, and at mile 12.6.

DRAINAGE AREA.--1,107 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 226,400 acre-ft Oct. 1 (elevation, 1,176.3 ft); minimum, 193,100 acre-ft May 25-28 (elevation, 1,173.4 ft).
Period of record: Maximum contents, 320,800 acre-ft May 7, 1969 (elevation, 1,183.2 ft); minimum since normal operating level was reached in May 1969, 193,100 acre-ft May 25-28, 1971 (elevation, 1,173.4 ft).

REMARKS.--Reservoir is formed by rolled-fill earthen dam 5,630 ft long with rock riprap on the upstream slope. There are two additional levees, the north and south, making an overall length of 3.5 miles. Storage began September 1962; dam completed December 1962. Dam is property of West Central Texas Municipal Water District who has a permit to divert 56,000 acre-ft annually for municipal, mining, and industrial uses. Service spillway is a partially controlled morning-glory type with 12 lift gates designed to discharge 30,000 cfs with a 17.5-foot head through a 22-foot-diameter concrete conduit. Emergency spillway is a 2,000 ft wide cut through natural ground near left end of dam. Diversions during water year 1971 were as follows: 1,550 acre-ft for oilfield operation, 2,550 acre-ft for irrigation, and 180 acre-ft for domestic use. Water-quality records for the current year are published in Part 2 of this report. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,208.0	
Crest of emergency spillway	1,194.0	515,800
Top of gates on morning-glory spillway	1,185.0	349,200
Normal operating level	1,183.0	317,800
Crest of morning-glory spillway	1,176.5	228,900
Invert of 5- by 7-foot gate	1,138.0	5,580
Invert of gated 48-inch outlet pipe	1,133.8	1,720

COOPERATION.--Diversions and capacity table furnished by West Central Texas Municipal Water District.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,173.0	188,800	1,175.0	211,000
1,174.0	199,700	1,176.0	222,800
		1,177.0	235,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226,400	221,600	215,700	213,200	211,000	207,600	204,200	198,600	211,000	205,400	198,600	200,800
2	225,200	221,600	215,700	213,200	211,000	207,600	204,200	198,600	211,000	205,400	198,600	200,800
3	225,200	221,600	215,700	213,200	211,000	207,600	203,100	198,600	211,000	204,200	198,600	200,800
4	225,200	221,600	215,700	213,200	211,000	207,600	203,100	198,600	211,000	204,200	198,600	200,800
5	225,200	221,600	215,700	213,200	211,000	207,600	203,100	198,600	211,000	204,200	198,600	200,800
6	225,200	220,400	215,700	213,200	211,000	207,600	203,100	198,600	209,900	204,200	198,600	199,700
7	225,200	220,400	215,700	213,200	211,000	207,600	203,100	198,600	209,900	203,100	198,600	199,700
8	224,000	220,400	215,700	213,200	211,000	207,600	203,100	198,600	209,900	203,100	198,600	199,700
9	224,000	220,400	215,700	213,200	209,900	207,600	203,100	197,500	209,900	203,100	198,600	199,700
10	224,000	219,200	215,700	213,200	209,900	207,600	203,100	197,500	209,900	201,900	197,500	198,600
11	224,000	219,200	215,700	212,200	209,900	207,600	203,100	197,500	208,800	201,900	197,500	198,600
12	224,000	219,200	215,700	212,200	209,900	207,600	201,900	197,500	208,800	201,900	197,500	198,600
13	224,000	219,200	215,700	212,200	209,900	206,500	201,900	196,400	208,800	200,800	197,500	198,600
14	224,000	218,100	215,700	212,200	208,800	206,500	201,900	196,400	208,800	200,800	197,500	198,600
15	224,000	218,100	215,700	212,200	208,800	206,500	201,900	196,400	208,800	200,800	199,700	198,600
16	224,000	218,100	214,500	212,200	208,800	206,500	201,900	196,400	207,600	199,700	199,700	198,600
17	224,000	218,100	214,500	212,200	208,800	206,500	201,900	196,400	207,600	199,700	199,700	197,500
18	224,000	218,100	214,500	212,200	208,800	205,400	201,900	195,300	207,600	199,700	198,600	197,500
19	224,000	216,900	214,500	212,200	208,800	205,400	201,900	195,300	207,600	199,700	198,600	197,500
20	224,000	216,900	214,500	212,200	208,800	205,400	201,900	195,300	207,600	199,700	198,600	198,600
21	224,000	216,900	214,500	212,200	208,800	205,400	201,900	195,300	207,600	198,600	198,600	198,600
22	224,000	216,900	213,200	212,200	208,800	205,400	200,800	194,200	207,600	198,600	197,500	198,600
23	224,000	216,900	213,200	211,000	208,800	205,400	200,800	194,200	207,600	198,600	197,500	199,700
24	224,000	216,900	213,200	211,000	208,800	205,400	200,800	194,200	207,600	198,600	200,800	200,800
25	224,000	216,900	213,200	211,000	208,800	205,400	200,800	193,100	207,600	198,600	200,800	201,900
26	224,000	216,900	213,200	211,000	208,800	204,200	199,700	193,100	206,500	198,600	201,900	201,900
27	222,800	215,700	213,200	211,000	208,800	204,200	199,700	193,100	206,500	198,600	201,900	201,900
28	222,800	215,700	213,200	211,000	208,800	204,200	199,700	193,100	206,500	199,700	201,900	201,900
29	222,800	215,700	213,200	211,000	------	204,200	199,700	200,800	205,400	199,700	201,900	201,900
30	222,800	215,700	213,200	211,000	------	204,200	199,700	211,000	205,400	198,600	200,800	201,900
31	222,800	------	213,200	211,000	------	204,200	------	211,000	------	198,600	200,800	------
(†)	1,176.0	1,175.4	1,175.2	1,175.0	1,174.8	1,174.4	1,174.0	1,175.0	1,174.5	1,173.9	1,174.1	1,174.2
(*)	-4,900	-7,100	-2,300	-2,200	-2,200	-4,600	-4,500	+11,300	-5,600	-6,800	+2,200	+1,100
MAX	226,400	221,600	215,700	213,200	211,000	207,600	204,200	211,000	211,000	205,400	201,900	201,900
MIN	222,800	215,700	213,200	211,000	208,800	204,200	199,700	193,100	205,400	198,600	197,500	197,500

CAL YR 1970..... * -47,300 MAX 284,000 MIN 213,200
WTR YR 1971..... * -25,600 MAX 226,400 MIN 193,100

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08086500 Hubbard Creek near Breckenridge, Tex.

LOCATION.--Lat 32°50'13", long 98°56'52", Stephens County, on downstream side of pier of bridge on U.S. Highway 183, 1.4 miles downstream from Hubbard Creek Reservoir, 6.8 miles northwest of Breckenridge, 8.2 miles upstream from Gonzales Creek, and 11.2 miles upstream from Clear Fork Brazos River.

DRAINAGE AREA.--1,111 sq mi, of which 1,107 sq mi is above Hubbard Creek Dam.

PERIOD OF RECORD.--April 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,092.10 ft above mean sea level. Prior to July 16, 1959, at site 300 ft upstream at same datum.

AVERAGE DISCHARGE.--16 years, 93.6 cfs (67,810 acre-ft per year, unadjusted).

EXTREMES.--Current year: Maximum discharge, 214 cfs Aug. 24 (gage height, 6.63 ft); no flow at times.
Period of record: Maximum discharge, 34,500 cfs May 26, 1957 (gage height, 34.00 ft); no flow at times.
Maximum stage since at least 1925, 34.2 ft July 20, 1953, from information by local resident and State Highway Department.

REMARKS.--Records good. Flow regulated by Hubbard Creek Reservoir (see preceding page). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.1	.04	0	.01	0		0	0	.01	.68
2		0	.01	.02	0	.02	0		0	0	0	.28
3		0	.10	1.5	.08	.02	0		0	0	0	.11
4		0	.03	.17	3.1	.49	0		0	0	0	.04
5		0	0	.04	.71	2.0	0		0	0	0	.01
6		0	0	.02	.26	.30	0		0	0	0	0
7		0	0	.01	.06	.08	0		0	0	0	0
8		8.2	3.3	.02	.06	.37	0		.62	0	0	0
9		.45	.56	1.0	.03	.64	0		.12	0	0	0
10		.04	2.3	.64	.06	.32	0		.01	0	0	0
11		.32	.24	.10	1.4	.10	.01		0	0	0	0
12		.02	0	.06	.41	.06	0		0	0	0	0
13		0	0	.03	.06	.03	0		0	0	0	0
14		0	0	.02	.03	.01	0		0	0	0	0
15		0	25	.01	.02	0	0		0	0	0	0
16		0	1.3	0	.02	0	.02		0	0	0	0
17		1.6	.06	.02	.04	0	.06		0	0	0	0
18		.11	.47	.03	6.4	0	.08		0	0	0	0
19		16	.26	.01	1.0	0	.05		0	0	0	0
20		.28	.04	.65	.10	0	.04		0	0	0	0
21		4.8	.01	4.0	.57	0	.02		0	0	0	0
22		2.0	0	.13	1.4	0	.01		0	0	0	4.0
23		0	0	.04	.43	.02	0		0	0	0	15
24		.32	0	.02	.08	.03	0		0	0	42	12
25		16	0	.01	.06	.04	0		0	0	7.4	2.9
26		13	.03	.02	.03	.04	0		0	1.4	26	1.2
27		.91	.01	.03	.02	.03	0		0	2.1	9.4	.44
28		.01	0	.02	.01	.02	0		0	19	4.6	.17
29		0	0	.02	------	.02	0		0	3.1	3.5	.06
30		2.5	.08	.01	------	.01	0		0	.20	2.5	.02
31		------	.17	.01	------	0	------		------	.04	1.4	------
TOTAL	0	66.56	37.07	8.70	16.44	4.66	.29	0	.75	25.84	96.81	36.91
MEAN	0	2.22	1.20	.28	.59	.15	.010	0	.025	.83	3.12	1.23
MAX	0	16	25	4.0	6.4	2.0	.08	0	.62	19	42	15
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	132	74	17	33	9.2	.6	0	1.5	51	192	73

CAL YR 1970 TOTAL 18,595.80 MEAN 50.9 MAX 752 MIN 0 AC-FT 36,880
WTR YR 1971 TOTAL 294.03 MEAN .81 MAX 42 MIN 0 AC-FT 583

08087300 Clear Fork Brazos River at Eliasville, Tex.

LOCATION.--Lat 32°57'36", long 98°45'59", Young County, on right bank 30 ft upstream from old mill dam, 180 ft upstream from bridge on Farm Road 1974, 400 ft northwest of Eliasville, and at mile 12.4.

DRAINAGE AREA.--5,721 sq mi.

PERIOD OF RECORD.--November 1915 to April 1920, December 1923 to August 1925, July 1928 to September 1951, October 1961 to current year. Monthly discharge only for some periods published in WSP 1312 as "near Crystal Falls".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.77 ft above mean sea level. See WSP 1922 for history of changes prior to Dec. 18, 1961.

AVERAGE DISCHARGE.--36 years (1916-19, 1928-51, 1961-71), 383 cfs (277,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,660 cfs Aug. 28 (gage height, 19.80 ft); no flow at times.
Period of record: Maximum discharge, 35,800 cfs June 11, 1941 (gage height, 33.45 ft, site and datum then in use), from rating curve extended above 23,000 cfs; no flow at times.
Maximum stage since 1877, 35 ft May 1, 1957, present site and datum; flood in September 1900 reached about same stage, from information by Texas Highway Department and local residents. Other floods are reported to have occurred in 1876, Apr. 27, 1890, 1932, 1941, and 1955.

REMARKS.--Records fair. Regulation by eight major upstream reservoirs with a total capacity of 510,100 acre-ft. Many small diversions above station for municipal supply and oilfield operations. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	1.0	.22	.74	3.9	6.4	.28	1.1	4,250	20	32	3,370
2	.01	.90	.21	.64	4.2	6.8	.25	.67	3,050	13	33	1,280
3	.01	.80	.21	1.3	4.5	7.7	.22	.50	1,030	8.3	107	789
4	.01	.75	.21	1.4	5.1	7.0	.20	.40	350	6.2	210	615
5	0	.70	.20	1.2	7.4	6.2	.16	.33	169	2.6	117	504
6	0	.65	.20	.93	11	5.7	.12	.27	118	1.0	115	428
7	0	.60	.20	.80	11	6.4	.10	.23	92	.60	216	369
8	0	.56	.20	1.1	12	4.9	.08	.18	70	.13	118	325
9	0	.53	.19	1.3	10	4.1	.07	.15	55	.02	70	294
10	0	.50	.19	1.3	9.6	4.7	.07	.13	97	0	104	266
11	0	.48	.19	1.5	7.5	4.3	.06	.12	302	0	113	241
12	0	.45	.18	1.6	6.3	3.6	.06	.10	131	0	111	220
13	0	.43	.18	2.1	11	3.5	.07	.07	85	0	104	193
14	0	.42	.18	2.5	17	2.5	.06	.06	54	0	138	174
15	0	.40	.18	1.8	14	2.0	.05	.06	53	0	100	160
16	0	.38	.16	1.5	13	1.6	.05	.07	51	0	1,090	150
17	0	.37	.16	2.1	14	1.4	.05	.04	29	0	4,350	140
18	.01	.36	.16	2.5	15	.98	.03	.04	18	0	2,390	154
19	.05	.34	.16	2.9	14	.90	.03	.03	9.5	0	2,440	154
20	.10	.33	.17	3.5	12	.98	.06	.03	6.7	0	1,210	145
21	.16	.33	.17	3.9	7.8	.80	.05	.03	5.7	0	236	138
22	.19	.31	.17	4.4	7.2	.80	.03	.02	3.9	0	113	154
23	.27	.30	.18	4.7	6.0	.69	.04	.03	3.2	53	102	284
24	12	.28	.18	4.4	5.7	.60	1.9	.04	2.1	19	1,770	318
25	10	.27	.18	4.9	6.2	.52	6.8	.02	1.2	4.7	1,630	863
26	6.2	.26	.19	5.5	5.2	.52	14	.01	49	1.8	5,030	4,530
27	2.9	.25	.19	5.7	5.2	.52	8.5	.01	124	.98	7,730	6,370
28	2.1	.24	.20	6.2	5.5	.45	5.4	.01	82	67	9,340	6,700
29	1.9	.23	.20	6.1	------	.45	3.2	1.0	49	181	7,930	5,020
30	1.5	.22	.37	5.3	------	.38	1.8	213	30	94	6,370	2,290
31	1.2	------	.48	3.8	------	.32	------	2,960	------	58	4,870	------
TOTAL	38.62	13.64	6.26	87.61	251.3	87.71	43.79	3,178.75	10,370.3	531.33	58,289	36,638
MEAN	1.25	.45	.20	2.83	8.98	2.83	1.46	103	346	17.1	1,880	1,221
MAX	12	1.0	.48	6.2	17	7.7	14	2,960	4,250	181	9,340	6,700
MIN	0	.22	.16	.64	3.9	.32	.03	.01	1.2	0	32	138
AC-FT	77	27	12	174	498	174	87	6,310	20,570	1,050	115,600	72,670

CAL YR 1970 TOTAL 52,670.48 MEAN 144 MAX 6,600 MIN 0 AC-FT 104,500
WTR YR 1971 TOTAL 109,536.31 MEAN 300 MAX 9,340 MIN 0 AC-FT 217,300

PEAK DISCHARGE (BASE, 6,000 CFS).--Aug. 28 (1100) 9,660 cfs (19.80 ft); Sept. 28 (0300) 7,070 cfs (16.11 ft).

08088000 Brazos River near South Bend, Tex.

LOCATION.--Lat 33°01'30", long 98°38'50", Young County, on left bank 265 ft downstream from bridge on State Highway 67, 0.3 mile upstream from Wichita Falls and Southern Railroad bridge, 1.6 miles downstream from Clear Fork Brazos River, 2.0 miles northeast of South Bend, and at mile 758.3.

DRAINAGE AREA.--21,600 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,002.98 ft above mean sea level. Prior to Feb. 23, 1939, nonrecording gage at site 265 ft upstream. Feb. 23, 1939, to Mar. 9, 1961, water-stage recorder at site 265 ft upstream.

AVERAGE DISCHARGE.--33 years, 898 cfs (650,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,000 cfs Aug. 27 (gage height, 19.41 ft); no flow at times.
Period of record: Maximum discharge, 87,400 cfs May 4, 1941 (gage height, 27.35 ft); maximum gage height, 32.70 ft Aug. 29, 1957; no flow at times.
Maximum stage, 36.2 ft in 1876, from information by State Highway Department and Corps of Engineers. Flood of Sept. 24, 1900, reached a stage of 29.5 ft, and flood of June 16, 1930, reached a stage of 35.5 ft, from information by local residents.

REMARKS.--Records good. Flow partly regulated by 10 major upstream reservoirs (total capacity, 554,000 acre-ft). Many small diversions above station for municipal supply and oilfield operations. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Duck Creek near Girard (station 08080950).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	19	5.9	8.4	12	19	.41	1.7	6,980	145	77	4,900
2	22	18	6.0	8.2	12	17	.30	1.4	5,060	115	105	2,830
3	19	16	5.6	7.8	12	20	.30	1.2	2,690	96	88	1,980
4	15	14	5.3	7.5	12	22	.21	1.0	1,590	78	203	1,600
5	12	14	5.0	7.0	11	19	.16	.6	1,030	61	147	1,340
6	15	13	4.8	7.0	8.9	12	.17	.4	733	48	95	1,160
7	10	12	4.8	7.0	9.4	13	.19	.2	526	38	451	1,020
8	7.0	12	5.5	9.0	8.2	13	.32	.1	428	29	366	915
9	6.9	8.2	5.5	12	8.2	11	.41	.2	315	25	224	898
10	6.5	8.2	6.0	12	8.7	9.7	.43	.1	238	24	225	808
11	5.6	6.2	4.9	14	9.2	8.8	.36	.1	513	21	184	717
12	5.8	6.6	5.5	12	11	8.4	.28	0	349	16	205	648
13	5.8	7.0	5.2	13	10	7.2	.21	0	241	13	392	583
14	4.8	10	5.5	13	9.0	6.6	.29	0	185	11	1,510	538
15	4.5	11	6.6	13	12	4.6	.32	0	151	10	3,420	496
16	8.7	11	6.4	15	16	4.1	.41	0	159	8.8	11,600	451
17	11	8.7	6.2	15	14	4.3	.56	0	120	6.5	15,500	411
18	24	8.7	6.0	15	18	2.3	.84	0	103	6.4	8,170	423
19	31	7.4	5.1	16	17	2.1	.78	0	92	5.1	4,670	459
20	144	7.0	5.5	17	15	2.3	1.3	0	78	4.3	3,450	1,850
21	150	6.6	6.1	16	22	1.8	1.1	0	69	4.9	1,870	3,000
22	100	5.4	6.6	16	27	1.4	.73	0	529	4.8	1,400	1,790
23	92	5.2	6.4	15	26	1.3	.61	0	229	100	1,130	1,420
24	76	5.8	7.5	15	23	1.9	.45	0	286	74	6,400	1,370
25	84	5.4	6.3	15	25	1.6	.38	0	1,220	86	11,200	2,510
26	72	5.7	6.7	13	22	1.8	.46	0	797	31	16,500	8,870
27	51	4.8	6.6	13	20	1.7	.63	0	727	20	18,300	11,200
28	40	4.8	6.6	13	20	1.4	7.1	0	462	19	14,500	9,010
29	35	5.4	6.6	13	------	1.0	3.1	.1	309	126	11,500	7,360
30	28	6.4	8.2	12	------	1.2	1.9	5,060	204	123	9,330	3,960
31	24	------	8.8	12	------	.88	------	11,000	------	118	7,550	------
TOTAL	1,138.6	273.5	187.7	381.9	418.6	222.38	24.71	16,067.1	26,413	1,467.8	150,762	74,517
MEAN	36.7	9.12	6.05	12.3	15.0	7.17	.82	518	880	47.3	4,863	2,484
MAX	150	19	8.8	17	27	22	7.1	11,000	6,980	145	18,300	11,200
MIN	4.5	4.8	4.8	7.0	8.2	.88	.16	0	69	4.3	77	411
AC-FT	2,260	542	372	758	830	441	49	31,870	52,390	2,910	299,000	147,800

CAL YR 1970 TOTAL 101,692.36 MEAN 279 MAX 11,600 MIN .01 AC-FT 201,700
WTR YR 1971 TOTAL 271,874.29 MEAN 745 MAX 18,300 MIN 0 AC-FT 539,300

PEAK DISCHARGE (BASE, 11,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
5-31	1400	15.35	12,900
8-27	1830	19.41	19,000
9-27	0500	16.32	12,600

08088100 Salt Creek at Olney, Tex.

LOCATION.--Lat 33°22'13", long 98°44'40", Young County, on right bank 21 ft downstream from bridge on State Highway 199 and 0.5 mile east of Olney.

DRAINAGE AREA.--9.6 sq mi.

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,164.03 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 2.65 cfs (1,920 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 362 cfs Aug. 26 (gage height, 9.41 ft); no flow for many days.
Period of record: Maximum discharge, 11,500 cfs Apr. 29, 1966 (gage height, 12.14 ft), from rating curve extended above 750 cfs on basis of slope-area measurement of peak flow; no flow at times each year.
Maximum stage since at least 1908, 16.7 ft in June 1915; flood in May or June 1941 reached a stage of 16 ft, from information by local residents.

REMARKS.--Records good. No diversion above station. Records furnished by the city of Olney show that during year 981 acre-ft was diverted from reservoirs in the Red River basin for municipal use, of which 202 acre-ft was returned to Salt Creek below station as sewage effluent. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WSP 1922: 1958-59.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.01	0	0	0	0	0	.06
2	0	0	0	0	0	0	0	0	0	0	0	.04
3	0	0	0	.16	0	0	0	0	0	0	0	.03
4	0	0	0	.01	0	0	0	0	0	0	0	.01
5	0	0	0	0	0	0	0	0	0	0	0	.04
6	0	0	0	0	0	0	0	0	0	0	0	.02
7	0	0	0	0	0	0	0	0	0	0	0	0
8	.56	0	0	0	0	0	0	0	0	0	0	0
9	.03	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	.11	0	0	0	0	0	0	0	0	0	0
14	0	.07	0	0	0	0	0	0	0	0	3.6	0
15	.81	.01	0	0	0	0	0	0	.60	0	130	0
16	1.8	0	0	0	0	0	0	0	.82	0	8.6	0
17	2.6	0	0	0	0	0	0	0	0	0	.26	.04
18	.13	0	0	0	0	0	0	0	0	0	.01	.44
19	.03	0	0	0	0	0	0	0	0	0	0	.52
20	.01	0	0	0	0	0	.09	0	.16	0	0	.25
21	0	0	0	0	5.4	0	0	0	0	0	0	.01
22	0	0	0	0	.13	0	0	0	0	0	0	7.2
23	1.9	0	0	0	.02	0	0	0	0	.31	0	3.3
24	.11	0	0	0	.12	0	0	0	0	0	149	11
25	.02	0	0	0	.04	0	0	0	0	0	133	7.9
26	.07	0	0	0	0	0	0	0	0	0	131	.53
27	.20	0	0	0	0	0	0	0	0	0	3.5	.03
28	.02	0	0	0	.07	0	0	0	0	0	.75	0
29	0	0	0	0	------	0	.39	2.3	0	0	.22	0
30	0	0	.18	0	------	0	0	22	0	0	.09	0
31	0	------	0	0	------	0	------	.12	------	0	.49	------
TOTAL	8.29	.19	.18	.17	5.78	.01	.48	24.42	1.58	.31	560.52	31.42
MEAN	.27	.006	.006	.006	.21	.0003	.016	.79	.053	.010	18.1	1.05
MAX	2.6	.11	.18	.16	5.4	.01	.39	22	.82	.31	149	11
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	16	.4	.4	.3	11	.02	1.0	48	3.1	.6	1,110	62

CAL YR 1970 TOTAL 417.41 MEAN 1.14 MAX 178 MIN 0 AC-FT 828
WTR YR 1971 TOTAL 633.35 MEAN 1.74 MAX 149 MIN 0 AC-FT 1,260

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 15 (1330) 267 cfs (8.77 ft), Aug. 26 (0215) 362 cfs (9.41 ft).

08088300 Briar Creek near Graham, Tex.

LOCATION.--Lat 33°12'43", long 98°37'06", Young County, near right bank at downstream side of bridge on Farm Road 1769, 2.5 miles upstream from mouth, and 7.0 miles northwest of Graham.

DRAINAGE AREA.--19.7 sq mi.

PERIOD OF RECORD.--April 1958 to current year. Prior to October 1965, published as Oak Creek near Graham.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--13 years, 4.01 cfs (2,910 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,840 cfs Aug. 24 (gage height, 11.5 ft); no flow for many days.
Period of record: Maximum discharge, 2,720 cfs Apr. 30, 1970 (gage height, 12.30 ft); no flow most of time.
Maximum stage since at least 1900, 15.2 ft in September 1955. Flood in May 1957 reached a stage of 15.0 ft, from information by local resident.

REMARKS.--Records good. No known diversion above station. Recording rain gage located near center of basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	1.4		0	.40
2								0	.11		0	.30
3								0	0		0	.20
4								0	0		0	.10
5								0	0		0	.30
6								0	0		.28	.10
7								0	0		0	0
8								0	0		.29	0
9								0	0		.13	0
10								0	0		0	0
11								0	0		0	0
12								0	0		0	0
13								0	0		0	0
14								0	0		120	0
15								0	0		144	0
16								0	2.4		18	0
17								0	.06		2.8	.30
18								0	0		.71	1.0
19								0	0		.09	4.0
20								0	0		0	2.0
21								0	3.6		0	.10
22								0	3.7		0	50
23								0	.13		0	20
24								0	.01		970	70
25								0	0		860	50
26								0	0		800	3.5
27								0	0		20	2.0
28								0	0		7.0	.86
29					------			0	0		1.5	.37
30					------			5.7	0		.60	.18
31		------			------		------	15	------		3.0	------
TOTAL	0	0	0	0	0	0	0	20.7	11.41	0	2,948.40	205.71
MEAN	0	0	0	0	0	0	0	.67	.38	0	95.1	6.86
MAX	0	0	0	0	0	0	0	15	3.7	0	970	70
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	41	23	0	5,850	408
(††)	2.17	.23	.39	.70	1.15	.11	1.02	2.72	2.72	2.66	8.84	4.57

CAL YR 1970	TOTAL	1,696.44	MEAN	4.65	MAX	1,190	MIN	0	AC-FT	3,360	†† 16.71
WTR YR 1971	TOTAL	3,186.22	MEAN	8.73	MAX	970	MIN	0	AC-FT	6,320	†† 27.28

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 14 (0900) 272 cfs (5.15 ft); Aug. 24 (time unknown) 1,840 cfs (11.5 ft).

†† Rainfall, in inches.

08088400 Lake Graham near Graham, Tex.

LOCATION.--Lat 33°08'04", long 98°36'48", Young County, near left end of earthen dam on Salt Creek, 2.2 miles northwest of Graham, and 5 miles downstream from Briar Creek.

DRAINAGE AREA.--205 sq mi.

PERIOD OF RECORD.--March 1958 to October 1963 (unpublished record). October 1963 to current year. Prior to October 1969, monthend contents only.

GAGE.--Water-stage recorder. Datum of gage (Salt Creek datum) is 1.30 ft above mean sea level. Prior to October 1963, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 43,750 acre-ft Sept. 27 (gage height, 1,070.97 ft); minimum, 30,780 acre-ft Aug. 12 (gage height, 1,065.10 ft).
Period of record: Maximum contents, 61,120 acre-ft Apr. 30, 1970 (gage height, 1,077.77 ft); minimum, 30,780 acre-ft Aug. 12, 1971 (gage height, 1,065.10 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 5,000 ft long. It is connected with Lake Eddleman on Flint Creek by a cut channel at 1,050.0 ft gage height. The uncontrolled emergency spillway is a 1,050-foot wide cut at the right end of dam, with a concrete cutoff wall, and will discharge 136,500 cfs at a lake level of 1,087.5 ft (12.5-foot head). Storage began Apr. 28, 1958, and dam was completed in July 1958. Combined capacity of Lake Eddleman and Lake Graham is 53,680 acre-ft (gage height, 1,075.0 ft, crest of spillway). Dead storage is 8,670 acre-ft (gage height, 1,050.0 ft, invert of 24-inch discharge conduit). Dam is property of city of Graham and was built to impound water for municipal and industrial use. Water is used by Texas Electric Service Company for cooling purposes in their steam powerplant by pumping from Lake Graham and releasing into Lake Eddleman. Capacity table is based on an original Lake Eddleman survey of 1928 and Salt Creek survey of 1953. Figures given herein represent total combined contents of Lake Eddleman and Lake Graham. Data regarding dam and lake are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	1,092.0	-
Crest of emergency spillway	1,075.0	53,680
Bottom of interconnecting channel	1,050.0	8,670
Invert of 24-inch grated outlet	1,050.0	8,670

COOPERATION.--Capacity table was furnished by Freese, Nichols, and Endress, Consulting Engineers. Record of diversions furnished by the city of Graham.

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,065.0	30,580	1,074.0	51,140
1,070.0	41,480	1,075.0	53,680
1,071.0	43,820	1,076.0	56,290
1,072.0	46,220	1,077.0	58,990
1,073.0	48,660	1,078.0	61,780

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42,710	41,710	40,490	39,610	38,800	38,330	37,140	36,080	34,780	32,940	31,350	42,880
2	42,680	41,680	40,490	39,590	38,780	38,330	37,010	35,990	34,720	32,860	31,330	42,810
3	42,660	41,640	40,490	39,590	38,750	38,280	36,960	35,930	34,670	32,800	31,280	42,710
4	42,640	41,500	40,470	39,480	38,750	38,230	36,940	35,860	34,540	32,680	31,240	42,660
5	42,590	41,480	40,450	39,410	38,730	38,210	36,920	35,770	34,460	32,580	31,200	42,590
6	42,570	41,430	40,420	39,450	38,730	38,160	36,850	35,690	34,410	32,490	31,020	42,570
7	42,500	41,430	40,400	39,410	38,660	38,120	36,810	35,620	34,290	32,370	31,040	42,550
8	42,450	41,400	40,360	39,360	38,610	38,100	36,760	35,580	34,180	32,280	30,960	42,570
9	42,340	41,310	40,330	39,340	38,590	38,050	36,720	35,540	34,090	32,280	30,880	42,520
10	42,220	41,260	40,330	39,320	38,590	37,980	36,680	35,520	34,030	32,140	30,840	42,430
11	42,100	41,240	40,290	39,290	38,570	37,960	36,650	35,450	33,960	32,180	30,800	42,410
12	42,080	41,200	40,240	39,290	38,520	37,940	36,610	35,410	33,900	32,180	30,840	42,340
13	42,060	41,170	40,220	39,290	38,440	37,920	36,540	35,280	33,830	31,990	30,860	42,270
14	42,060	41,170	40,170	39,270	38,390	37,900	36,500	35,190	33,810	31,860	31,550	42,200
15	42,060	41,150	40,150	39,250	38,370	37,850	36,460	35,130	33,830	31,760	32,700	42,130
16	42,130	41,130	40,100	39,230	38,350	37,810	36,460	35,040	33,830	31,700	33,090	42,080
17	42,170	41,080	40,040	39,200	38,350	37,760	36,480	34,940	33,750	31,550	33,130	41,960
18	42,150	41,060	40,010	39,180	38,330	37,740	36,460	34,870	33,750	31,350	33,090	42,010
19	42,150	41,030	39,990	39,130	38,330	37,680	36,520	34,800	33,640	31,410	33,030	42,010
20	42,060	41,010	39,970	39,110	38,330	37,610	36,520	34,740	33,550	31,310	32,990	41,990
21	42,060	40,970	39,970	39,090	38,280	37,570	36,500	34,670	33,750	31,260	32,920	41,920
22	42,130	40,920	39,970	39,040	38,280	37,520	36,480	34,630	33,660	31,260	32,860	42,410
23	42,130	40,800	39,920	39,020	38,330	37,430	36,410	34,580	33,640	31,390	32,800	43,040
24	42,080	40,700	39,920	39,000	38,370	37,460	36,350	34,580	33,510	31,510	39,040	43,490
25	42,080	40,660	39,880	39,000	38,390	37,410	36,320	34,500	33,430	31,530	40,260	43,660
26	42,080	40,630	39,810	38,950	38,390	37,390	36,320	34,390	33,340	31,490	42,640	43,710
27	42,060	40,560	39,770	38,930	38,370	37,370	36,210	34,290	33,220	31,450	43,260	43,730
28	41,940	40,540	39,720	38,930	38,350	37,350	36,150	34,240	33,160	31,450	43,190	43,710
29	41,850	40,490	39,700	38,890	------	37,300	36,130	34,630	33,090	31,470	43,070	43,660
30	41,800	40,490	39,700	38,870	------	37,260	36,170	34,760	33,010	31,450	43,000	43,610
31	41,780	------	39,650	38,840	------	37,210	------	34,800	------	31,390	42,950	------
(†)	1,070.13	1,069.58	1,069.21	1,068.85	1,068.63	1,068.12	1,067.65	1,067.02	1,066.18	1,065.40	1,070.63	1,070.91
(*)	-980	-1,290	-840	-810	-490	-1,140	-1,040	-1,370	-1,790	-1,620	+11,560	+660
(††)	384	407	412	330	199	288	304	487	541	601	422	410
MAX	42,710	41,710	40,490	39,610	38,800	38,330	37,140	36,080	34,780	32,940	43,260	43,730
MIN	41,780	40,490	39,650	38,840	38,280	37,210	36,130	34,240	33,010	31,260	30,800	41,920

CAL YR 1970..... * -15,360 †† 4,804 MAX 60,500 MIN 39,650
WTR YR 1971..... * +850 †† 4,785 MAX 43,730 MIN 30,800

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Graham.

08088450 Big Cedar Creek near Ivan, Tex.

LOCATION.--Lat 32°49'39", long 98°43'25", Stephens County, on left bank at downstream side of bridge on Farm Road 717, 3.2 miles south of Ivan, 8.2 miles northwest of Caddo, and 11.6 miles northeast of Breckenridge.

DRAINAGE AREA.--95.8 sq mi.

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--6 years (1965-71), 15.2 cfs (11,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 492 cfs Aug. 30 (gage height, 7.35 ft); no flow for many days.
Period of record: Maximum discharge, 9,590 cfs July 8, 1968 (gage height, 22.39 ft), from rating curve extended above 1,000 cfs on basis of slope-area measurement of 7,980 cfs; no flow at times each year.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0		0	.03	.70
2								0		0	.01	.15
3								0		0	0	.05
4								0		0	0	.01
5								0		0	0	0
6								0		0	0	0
7								0		0	0	0
8								0		0	0	0
9								0		0	0	0
10								0		0	0	0
11								0		0	0	0
12								0		0	0	0
13								0		0	0	0
14								0		0	.97	0
15								0		0	1.6	0
16								0		0	.16	0
17								0		0	.03	0
18								0		0	0	0
19								0		0	0	0
20								0		0	0	0
21								0		0	0	0
22								0		0	0	0
23								0		0	0	6.4
24								0		0	0	20
25								0		0	0	5.6
26								0		19	.11	4.8
27								0		14	.07	.69
28								0		50	0	.14
29					------			18		49	8.8	.06
30					------			63		1.8	110	.04
31		------			------		------	0	------	.21	4.6	------
TOTAL	0	0	0	0	0	0	0	81	0	134.01	126.38	38.70
MEAN	0	0	0	0	0	0	0	2.61	0	4.32	4.08	1.29
MAX	0	0	0	0	0	0	0	63	0	50	110	20
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	161	0	266	251	77

CAL YR 1970 TOTAL 670.22 MEAN 1.84 MAX 94 MIN 0 AC-FT 1,330
WTR YR 1971 TOTAL 380.09 MEAN 1.04 MAX 110 MIN 0 AC-FT 754

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

08088500 Possum Kingdom Reservoir near Graford, Tex.

LOCATION.--Lat 32°52'20", long 98°25'32", Palo Pinto County, at dam on Brazos River, 2.6 miles upstream from Loving Creek, 11.3 miles southwest of Graford, and at mile 687.5.

DRAINAGE AREA.--22,550 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--March 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.10 ft above mean sea level (levels by Brazos River Authority). Prior to Mar. 19, 1968, mercury U-tube in powerhouse at present site and datum.

EXTREMES.--Current year: Maximum contents, 718,400 acre-ft Aug. 30 (gage height, 999.67 ft); minimum, 423,500 acre-ft May 27 (gage height, 981.02 ft).
Period of record: Maximum contents observed, 743,700 acre-ft Oct. 5, 1941 (gage height, 1,001.0 ft); minimum observed, 273,300 acre-ft Feb. 19 to Mar. 17, 1953 (gage height, 967.0 ft).

REMARKS.--Reservoir is formed by reinforced concrete dam, Ambursen-type, massive buttress with flat-slab deck, with nine roof-weir gates (modified bear-trap type), two bulkhead sections, and an earthen-dike section. Total length of dam is 2,740 ft. The gates are designed to carry 550,000 cfs at gage height of 1,000.0 ft. Powerhouse is designed for 2 units having a total output of 22,500 kilowatts. Usable capacity for power development, 698,900 acre-ft. Dam completed and storage began Mar. 21, 1941. Water used for power development, industry, and irrigation. Eleven major reservoirs above station (combined capacity 607,800 acre-ft) partly regulate the inflow. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Duck Creek near Girard (station 08080950). Data regarding dam and reservoir are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Maximum design level (crest of roof-weir gates, gates raised)	1,000.00	724,700
Bottom of gates (crest of spillway)	987.00	504,100
Invert of powerhouse penstock	911.5	25,810
Invert of 54-inch horizontal cylinder valve (high pressure outlet)	874.8	236

COOPERATION.--Capacity table furnished by Brazos River Authority. Capacity curve based on surveys made 1935-38.

Capacity table (gage height, in feet, and total contents, in acre-feet)

981.0	423,200	990.0	548,000
982.0	436,000	992.0	580,000
984.0	462,500	994.0	615,000
986.0	490,000	996.0	651,000
988.0	518,200	998.0	687,000
		1,000.0	724,700

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	506,100	486,300	461,700	450,600	444,500	443,700	437,000	432,500	446,900	494,400	492,400	702,300
2	505,900	486,200	461,000	450,400	444,400	443,600	436,900	432,400	463,300	494,700	492,400	693,000
3	504,200	485,300	460,100	450,300	444,300	443,600	436,800	432,200	473,800	494,900	492,300	682,300
4	502,000	484,200	459,000	450,400	444,300	443,500	436,500	431,900	481,100	494,900	492,300	666,800
5	500,900	483,900	458,900	449,600	444,100	443,300	436,500	431,800	485,200	494,700	492,300	657,500
6	500,600	483,700	458,600	448,300	444,000	443,100	436,100	431,500	485,900	494,400	492,400	656,400
7	500,300	483,400	458,500	448,200	444,000	442,800	435,900	431,400	487,200	493,400	494,400	658,000
8	498,500	483,100	458,300	447,800	443,900	442,700	435,600	431,300	487,900	493,000	494,800	657,500
9	498,200	482,700	458,200	447,000	443,600	442,400	435,400	431,000	488,300	492,500	494,900	657,700
10	497,900	482,400	457,500	446,900	443,500	442,200	435,100	430,900	488,600	492,300	495,100	658,900
11	497,500	482,100	456,300	446,900	443,300	441,900	434,800	430,900	488,900	491,800	495,600	659,800
12	497,300	481,800	456,200	446,700	443,100	441,800	434,600	431,000	489,200	491,400	495,800	660,400
13	494,500	481,500	456,100	446,700	442,900	441,500	434,200	430,800	489,600	490,800	497,000	660,700
14	494,400	478,700	455,900	446,600	442,800	441,200	434,100	430,500	490,000	490,400	497,800	661,100
15	494,100	478,000	454,700	446,500	442,700	440,800	434,000	430,200	490,300	490,000	499,400	660,200
16	493,900	477,900	453,800	446,300	442,500	440,600	433,700	429,900	490,700	489,600	503,400	659,800
17	493,800	476,700	453,700	446,200	442,500	440,300	434,500	429,500	490,800	489,200	516,800	660,200
18	493,800	475,800	453,400	446,200	442,400	439,900	434,500	429,000	490,700	488,700	539,700	660,200
19	493,700	475,500	453,300	446,100	442,300	439,500	434,500	428,400	490,400	488,300	561,300	660,000
20	493,400	472,000	453,100	446,000	442,000	439,300	435,000	428,200	490,100	490,100	572,000	660,000
21	493,200	469,100	453,000	445,800	442,500	439,000	434,700	427,900	490,300	490,100	578,700	661,300
22	493,000	468,900	452,500	445,700	443,200	438,800	434,600	427,700	490,300	490,000	582,400	668,600
23	491,800	468,500	452,300	445,600	443,300	438,500	434,300	427,400	490,400	490,000	584,600	674,800
24	490,800	466,800	452,000	445,400	443,300	438,400	434,100	427,000	490,800	491,600	585,400	679,100
25	491,000	466,800	451,900	445,300	443,600	438,200	433,800	426,700	490,800	491,600	594,600	680,300
26	491,000	463,300	451,600	445,200	443,700	438,200	433,600	426,300	491,400	491,400	615,700	683,800
27	487,900	462,900	451,500	445,000	443,700	438,100	433,300	425,900	491,800	491,600	638,400	695,000
28	487,000	462,800	451,200	444,900	443,700	437,800	433,100	425,800	492,800	491,800	669,400	713,100
29	487,000	462,600	451,100	444,800	------	437,700	432,800	426,700	493,400	492,300	696,700	708,500
30	486,600	462,500	451,000	444,800	------	437,600	432,700	428,100	493,900	492,500	716,500	711,000
31	486,500	------	450,700	444,600	------	437,300	------	430,100	------	492,400	711,400	------
(†)	985.75	984.00	983.12	982.66	982.59	982.10	981.74	981.54	986.28	986.17	999.30	999.28
(*)	-19,700	-24,000	-11,800	-6,100	-900	-6,400	-4,600	-2,600	+63,800	-1,500	+219,000	-400
MAX	506,100	486,300	461,700	450,600	444,500	443,700	437,000	432,500	493,900	494,900	716,500	713,100
MIN	486,500	462,500	450,700	444,600	442,000	437,300	432,700	425,800	446,900	488,300	492,300	656,400

CAL YR 1970..... * -52,700 MAX 683,000 MIN 450,700
WTR YR 1971..... * +204,800 MAX 716,500 MIN 425,800

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.

08089000 Brazos River near Palo Pinto, Tex.

LOCATION.--Lat 32°51'45", long 98°18'08", Palo Pinto County, on right bank 100 ft upstream from bridge on Farm Road 4,300 ft downstream from Dark Valley Creek, 6.5 miles north of Palo Pinto, and at mile 667.3.

DRAINAGE AREA.--22,760 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--January 1924 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Mineral Wells" 1924-33.

GAGE.--Water-stage recorder. Datum of gage is 831.23 ft above mean sea level. Prior to Nov. 15, 1933, nonrecording gage at site 19 miles downstream at datum 38.19 ft lower.

AVERAGE DISCHARGE.--47 years, 1,087 cfs (787,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,300 cfs Aug. 31 (gage height, 9.35 ft); minimum, 5.8 cfs Feb. 16, 17.
Period of record: Maximum discharge, 95,600 cfs June 16, 1930, at site 19 miles downstream near Mineral Wells (gage height, 30 ft, present site and datum); no flow at times.
Maximum stage occurred in 1876, from data by Corps of Engineers, and was several feet higher than flood of June 16, 1930 (about 30 ft), which was the highest since at least 1876.

REMARKS.--Records good. Since 1941 flow largely regulated by Possum Kingdom Reservoir 20 miles upstream (see preceding page). Total capacity of 12 major reservoirs above station is 1,332,000 acre-ft.

REVISIONS (WATER YEARS).--WSP 1512: 1924-25, 1929, 1932-34. WSP 1712: 1935-36, 1937-38(M), 1939, 1940(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	24	204	28	11	15	22	22	49	25	23	12,600
2	27	28	211	26	12	16	28	22	31	24	21	9,550
3	570	292	403	27	11	18	30	22	237	23	19	9,220
4	1,090	453	393	27	12	18	26	22	81	22	19	9,200
5	232	84	83	220	11	17	27	23	37	21	32	5,720
6	61	43	41	455	9.5	15	28	24	25	19	110	533
7	36	34	31	86	9.5	18	28	24	20	269	110	120
8	669	31	27	89	9.9	19	26	22	17	78	44	909
9	83	28	28	332	20	20	25	22	16	38	28	525
10	38	28	176	77	35	22	26	21	16	26	23	104
11	26	28	447	38	19	22	27	21	16	23	20	57
12	319	29	87	27	11	23	24	19	17	21	20	43
13	768	369	43	25	11	23	23	18	20	18	24	38
14	82	834	33	24	8.5	24	27	16	19	17	30	35
15	38	296	560	23	7.6	22	30	15	19	17	31	714
16	26	83	245	22	7.6	23	31	16	19	17	36	259
17	26	382	61	21	6.7	25	35	14	19	16	33	63
18	25	418	37	21	11	23	36	14	19	14	25	39
19	27	509	30	22	8.5	27	32	13	19	13	22	36
20	29	1,490	29	20	8.5	27	33	17	17	26	24	37
21	28	756	28	15	15	25	29	18	39	26	24	35
22	28	90	198	13	16	25	26	19	94	26	22	42
23	686	48	82	13	12	26	22	19	42	29	19	66
24	373	1,130	40	14	8.5	28	24	17	28	32	187	62
25	76	844	28	13	9.4	28	23	17	21	37	90	725
26	351	94	25	12	13	29	22	15	18	31	357	277
27	1,090	49	24	11	16	30	21	15	521	29	2,680	2,720
28	328	38	25	12	16	28	21	19	91	29	2,780	5,730
29	78	34	25	12	------	29	21	40	46	35	2,840	12,800
30	39	31	28	12	------	29	21	165	33	30	6,390	3,110
31	27	------	29	11	------	25	------	102	------	29	14,000	------
TOTAL	7,300	8,597	3,701	1,748	346.2	719	794	833	1,646	1,060	30,083	75,369
MEAN	235	287	119	56.4	12.4	23.2	26.5	26.9	54.9	34.2	970	2,512
MAX	1,090	1,490	560	455	35	30	36	165	521	269	14,000	12,800
MIN	24	24	24	11	6.7	15	21	13	16	13	19	35
AC-FT	14,480	17,050	7,340	3,470	687	1,430	1,570	1,650	3,260	2,100	59,670	149,500

CAL YR 1970 TOTAL 149,834.0 MEAN 411 MAX 2,440 MIN 24 AC-FT 297,200
WTR YR 1971 TOTAL 132,196.2 MEAN 362 MAX 14,000 MIN 6.7 AC-FT 262,200

08090300 Lake Palo Pinto near Santo, Tex.

LOCATION.--Lat 32°38'53", long 98°15'56", Palo Pinto County, near left end of dam on Palo Pinto Creek, 4.0 miles upstream from bridge on Farm Road 4, 4.4 miles northwest of Santo, and 7.5 miles upstream from Big Sunday Creek.

DRAINAGE AREA.--471 sq mi.

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Freese, Nichols, and Endress, Consulting Engineers, bench mark).

EXTREMES.--Current year: Maximum contents, 35,290 acre-ft Oct. 1 (elevation, 863.45 ft); minimum, 22,150 acre-ft May 27 (elevation, 857.00 ft).
Period of record: Maximum contents, 53,750 acre-ft Mar. 20, 1968 (elevation, 870.40 ft); minimum since first initial filling to present spillway elevation, 22,150 acre-ft May 27, 1971 (elevation, 857.00 ft).

REMARKS.--Lake is formed by a rock-faced earthfill dam 1,300 ft long with a 550-foot uncontrolled ogee-crested concrete spillway at right end of dam. Dam was completed and storage began in April 1964. During the summer of 1965, the dam was raised 2 ft, the spillway crest 4 ft and lengthened from 500 to 550 ft. Lake is the property of Palo Pinto County Municipal Water District No. 1 and was built to impound water for municipal use, principally for the city of Mineral Wells. Water is released to flow about 15 miles downstream to a channel dam where it is pumped out by the city of Mineral Wells. Water for cooling purposes is circulated from the lake to a generating plant of the Brazos Electric Power Co-Operative, Incorporated. Capacity table is based on a survey completed in 1959. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	898.0	-
Maximum design water level	893.0	163,200
Crest of uncontrolled spillway	867.0	44,090
Invert of 30-inch outlet pipe	835.0	1,900

COOPERATION.--Capacity table furnished by Freese, Nichols, and Endress, Consulting Engineers for Palo Pinto Municipal Water District No. 1. Records of diversions furnished by Palo Pinto Municipal Water District.

Capacity table (elevation, in feet, and total contents, in acre-feet)

856.0	20,440	860.0	27,810
858.0	23,940	862.0	32,020
		864.0	36,570

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35,200	33,260	31,370	29,530	27,770	26,370	24,690	23,670	33,440	31,300	32,830	32,660
2	35,170	33,190	31,300	29,410	27,680	26,430	24,630	23,650	33,350	31,170	32,770	32,570
3	35,080	33,120	31,260	29,320	27,640	26,370	24,580	23,570	33,300	31,040	32,720	32,500
4	35,060	33,060	31,220	29,240	27,600	26,330	24,520	23,560	33,260	30,940	32,660	32,410
5	34,960	32,990	31,110	29,200	27,560	26,270	24,440	23,540	33,210	30,810	33,080	32,370
6	35,030	32,970	31,070	29,140	27,500	26,180	24,390	23,480	33,170	30,700	33,410	32,330
7	35,010	32,880	31,020	29,090	27,380	26,200	24,330	23,380	33,120	30,590	33,440	32,260
8	34,800	32,830	30,940	29,010	27,260	26,160	24,280	23,320	33,080	30,460	33,410	32,150
9	34,710	32,740	30,920	28,990	27,140	26,100	24,220	23,270	33,030	30,360	33,370	32,110
10	34,570	32,680	30,830	28,930	27,140	26,040	24,150	23,230	32,940	30,290	33,320	32,060
11	34,570	32,610	30,760	28,890	27,100	26,960	24,090	23,120	32,880	30,150	33,280	32,040
12	34,480	32,520	30,680	28,820	27,060	25,900	24,040	23,050	32,860	29,980	33,210	31,930
13	34,480	32,440	30,660	28,780	27,040	25,850	24,000	22,980	32,810	29,890	33,210	31,910
14	34,370	32,410	30,590	28,680	27,000	25,790	23,980	22,910	32,810	29,790	33,210	31,820
15	34,300	32,350	30,500	28,660	26,960	25,730	23,910	22,850	32,770	29,680	33,190	31,760
16	34,230	32,260	30,400	28,580	26,940	25,650	23,980	22,800	32,700	29,620	33,190	31,710
17	34,210	32,240	30,340	28,520	26,860	25,600	24,000	22,730	32,630	29,510	33,100	31,650
18	34,140	32,170	30,290	28,460	26,840	25,540	23,960	22,680	32,570	29,410	33,100	31,540
19	34,090	32,110	30,190	28,410	26,780	25,480	23,910	22,600	32,500	29,370	33,030	31,500
20	34,020	32,020	30,190	28,350	26,730	25,430	23,920	22,550	32,460	29,300	32,990	31,280
21	33,980	31,950	30,150	28,290	26,650	25,350	23,890	22,500	32,570	29,300	32,920	31,170
22	33,960	31,820	30,080	28,290	26,710	25,290	23,800	22,430	32,570	29,240	32,880	31,320
23	33,980	31,780	29,980	28,250	26,710	25,240	23,740	22,380	32,500	29,240	32,790	31,800
24	33,910	31,710	29,910	28,210	26,730	25,180	23,670	22,320	32,370	31,370	32,790	32,150
25	33,860	31,650	29,810	28,190	26,670	25,120	23,610	22,230	32,190	31,630	32,990	34,600
26	33,820	31,610	29,740	28,090	26,610	25,050	23,590	22,200	31,980	31,710	32,920	34,800
27	33,710	31,540	29,700	28,050	26,570	24,990	23,540	22,150	31,820	31,670	32,880	34,780
28	33,620	31,500	29,700	28,030	26,510	24,930	23,740	22,480	31,690	31,650	32,830	34,690
29	33,520	31,450	29,620	27,990	------	24,880	23,700	28,310	31,580	31,801	32,790	34,600
30	33,440	31,430	29,560	27,930	------	24,820	23,680	33,440	31,450	32,860	32,720	34,600
31	33,390	------	29,530	27,850	------	24,740	------	33,520	------	32,900	32,700	------
MAX	35,200	33,260	31,370	29,530	27,770	26,960	24,690	33,520	33,440	32,900	33,440	34,800
MIN	33,390	31,430	29,530	27,850	26,510	24,740	23,540	22,150	31,450	29,240	32,660	31,170
(†)	862.62	861.73	860.84	860.02	859.35	858.43	857.86	862.68	861.74	862.40	862.31	863.15
(‡)	-1,900	-1,960	-1,900	-1,680	-1,340	-1,770	-1,060	+9,840	-2,070	+1,450	-200	+1,900
(††)	252	240	230	217	214	275	279	302	338	291	305	269
MAX	35,200	33,260	31,370	29,530	27,770	26,960	24,690	33,520	33,440	32,900	33,440	34,800
MIN	33,390	31,430	29,530	27,850	26,510	24,740	23,540	22,150	31,450	29,240	32,660	31,170

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Mineral Wells.

NOTE.--No elevation record Mar. 10 to Apr. 12.

08090500 Palo Pinto Creek near Santo, Tex.

LOCATION.--Lat 32°37'51", long 98°10'50", Palo Pinto County, on left bank 0.5 mile upstream from the Texas and Pacific Railway Co. bridge, 2.4 miles downstream from Big Sunday Creek, 2.6 miles northeast of Santo, 2.8 miles upstream from Wusser Creek, and 7.9 miles upstream from mouth.

DRAINAGE AREA.--567 sq mi.

PERIOD OF RECORD.--October 1924 to September 1925, April 1951 to current year. Monthly discharge only for October 1924 to September 1925, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 762.63 ft above mean sea level. Nov. 20, 1924, to Sept. 30, 1925, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--21 years, 85.8 cfs (62,160 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,200 cfs May 30 (gage height, 9.83 ft); minimum, 0.04 cfs May 6.
Period of record: Maximum discharge, 45,100 cfs May 26, 1957 (gage height, 31.05 ft, from floodmark), from rating curve extended above 18,000 cfs on basis of slope-area measurement of 45,100 cfs; no flow at times.
Maximum stages since at least 1880 occurred May 8, 1922, and May 26, 1957. Flood of May 8, 1922, reached about the same stage as in 1957, from information by the Texas and Pacific Railway Co., but probably was slightly lower, from information by local residents.

REMARKS.--Records good. Flow largely regulated since April 1964 by Lake Palo Pinto (station 08090300) located about 9.5 miles upstream. At times water is released from Lake Palo Pinto and flows past station to channel dam where it is pumped to treatment plant of city of Mineral Wells.

REVISIONS.--WSP 1312: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	19	19	20	12	11	.58	23	4.9	15	6.4
2	18	19	19	20	20	12	11	.37	19	5.0	13	4.2
3	18	19	19	20	20	12	11	.19	17	4.3	13	3.1
4	18	19	18	19	19	12	11	.12	16	4.2	13	2.8
5	18	20	18	20	19	12	11	.10	15	5.4	25	2.8
6	33	19	18	20	19	12	11	.07	15	12	20	2.8
7	19	20	18	20	19	12	11	17	15	12	14	2.8
8	17	20	19	20	19	12	11	20	15	13	13	2.8
9	18	20	18	20	18	11	11	21	16	14	12	3.1
10	18	20	18	20	11	11	11	21	16	15	12	3.1
11	18	20	18	20	11	11	11	21	16	15	12	3.5
12	19	20	18	20	11	11	10	20	4.5	16	12	3.5
13	19	21	18	20	11	11	10	20	.79	16	12	4.2
14	19	21	18	20	11	11	10	6.9	.45	15	13	4.6
15	19	20	17	20	11	11	10	4.0	.28	16	13	4.6
16	19	20	16	20	11	10	11	3.6	1.1	16	16	5.0
17	19	20	17	20	12	9.7	12	2.6	5.7	17	12	5.0
18	18	19	17	20	12	11	12	2.7	5.6	16	4.2	5.0
19	19	19	18	19	11	11	11	3.3	5.6	16	3.1	5.4
20	19	19	19	19	12	11	12	3.0	10	18	3.8	8.5
21	19	19	18	20	13	11	11	3.0	17	18	3.8	80
22	19	19	18	20	11	11	10	3.2	18	17	3.8	75
23	22	19	18	20	12	11	10	3.5	8.9	16	4.2	44
24	21	19	19	20	12	10	10	3.0	28	19	20	49
25	19	19	19	20	12	11	10	3.0	88	16	14	75
26	19	19	19	20	12	10	9.3	3.4	88	17	26	24
27	19	19	19	19	12	10	1.5	4.0	87	17	6.4	18
28	19	19	19	19	12	10	4.1	103	20	18	4.2	16
29	19	19	19	19	------	10	6.4	632	5.2	20	3.5	16
30	19	19	20	20	------	10	1.0	1,170	5.7	126	3.1	15
31	19	------	20	20	------	11	------	39	------	39	39	------
TOTAL	597	584	568	613	393	340.7	292.3	2,134.63	582.82	573.8	379.1	495.2
MEAN	19.3	19.5	18.3	19.8	14.0	11.0	9.74	68.9	19.4	18.5	12.2	16.5
MAX	33	21	20	20	20	12	12	1,170	88	126	39	80
MIN	17	19	16	19	11	9.7	1.0	.07	.28	4.2	3.1	2.8
AC-FT	1,180	1,160	1,130	1,220	780	676	580	4,230	1,160	1,140	752	982

CAL YR 1970 TOTAL 24,830.50 MEAN 68.0 MAX 2,710 MIN 5.5 AC-FT 49,250
WTR YR 1971 TOTAL 7,553.55 MEAN 20.7 MAX 1,170 MIN .07 AC-FT 14,980

08090800 Brazos River near Dennis, Tex.

LOCATION.--Lat 32°36'56", long 97°55'32", Parker County, at downstream side of bridge on Farm Road 1543, 0.2 mile south of Dennis, 1.0 mile upstream from Patrick Creek, and at mile 589.8.

DRAINAGE AREA.--24,160 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 697.67 ft above mean sea level (State Highway Department bench mark).

EXTREMES.--Current year: Maximum discharge, 12,700 cfs Sept. 30 (gage height, 13.83 ft); maximum gage height, 13.90 ft Sept. 1; minimum discharge, 3.1 cfs July 19, 20.
Period of record: Maximum discharge, 41,700 cfs May 8, 1969 (gage height, 19.37 ft, from floodmarks); minimum, 3.1 cfs July 19, 20, 1971.
Maximum stage since at least 1930, 31.8 ft in May 1957, from floodmark, from information by State Highway Department.

REMARKS.--Records good. Flow is largely regulated by 14 major upstream reservoirs that have a total combined capacity of 1,385,000 acre-ft. At end of year, flow from 46.5 sq mi above this station and below Possum Kingdom Reservoir was partly controlled by 10 floodwater-retarding structures with a total combined capacity of 13,510 acre-ft below the flood-spillway crests, of which 11,890 acre-ft is floodwater-retarding capacity and 1,620 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Many diversions above station for irrigation, municipal supply, and oilfield operations.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	158	118	84	40	34	25	23	190	118	184	11,700
2	205	111	100	84	38	34	20	17	129	75	91	11,000
3	170	91	89	83	38	31	22	14	148	53	63	8,010
4	132	74	146	76	41	30	24	11	100	38	48	7,710
5	536	70	407	75	35	32	22	11	77	30	208	8,270
6	1,560	229	474	73	35	32	19	9.6	116	22	139	5,580
7	1,090	263	323	73	32	29	19	10	119	16	93	2,640
8	844	126	203	276	34	29	19	13	78	12	67	895
9	654	94	153	315	34	27	20	15	56	9.2	108	670
10	902	106	125	179	32	26	20	25	45	7.0	220	897
11	797	64	108	211	34	28	21	23	37	59	141	716
12	672	44	108	267	31	25	19	16	32	59	96	445
13	594	44	293	164	27	25	16	11	29	42	86	290
14	672	42	328	121	30	23	19	12	27	31	75	217
15	755	30	195	91	30	23	18	11	22	22	85	174
16	405	299	143	76	34	22	23	11	17	17	74	135
17	268	272	227	64	35	23	29	7.4	14	12	61	359
18	202	188	482	63	31	24	36	5.3	12	8.1	56	490
19	170	225	267	55	30	22	41	4.7	8.8	4.6	58	268
20	154	410	171	55	30	23	42	4.9	7.2	3.5	56	180
21	140	268	135	54	35	24	43	3.8	22	6.0	50	135
22	129	177	114	54	34	23	42	3.9	24	8.1	46	140
23	155	158	102	54	34	24	37	4.7	33	9.7	44	213
24	161	245	91	52	30	26	33	4.4	25	14	39	233
25	491	209	115	52	38	27	30	4.0	20	22	37	241
26	557	1,170	159	48	40	29	27	4.6	36	26	49	294
27	310	731	124	46	34	30	22	7.4	77	23	120	603
28	750	361	104	44	34	28	38	3.5	74	23	811	1,200
29	720	213	92	44	------	26	32	131	84	28	2,950	4,770
30	465	147	92	44	------	25	34	2,290	191	268	3,110	11,500
31	290	------	86	42	------	23	------	687	------	191	4,690	------
TOTAL	15,218	6,619	5,674	3,019	950	827	812	3,399.2	1,850.0	1,257.2	13,955	79,975
MEAN	491	221	183	97.4	33.9	26.7	27.1	110	61.7	40.6	450	2,666
MAX	1,560	1,170	482	315	41	34	43	2,290	191	268	4,690	11,700
MIN	129	30	86	42	27	22	16	3.5	7.2	3.5	37	135
AC-FT	30,180	13,130	11,250	5,990	1,880	1,640	1,610	6,740	3,670	2,490	27,680	158,600

CAL YR 1970 TOTAL 311,679.0 MEAN 854 MAX 12,500 MIN 30 AC-FT 618,200
WTR YR 1971 TOTAL 133,555.4 MEAN 366 MAX 11,700 MIN 3.5 AC-FT 264,900

08090900 Lake Granbury near Granbury, Tex.

LOCATION.--Lat 32°22'27", long 97°41'20", Hood County, at right end of spillway of DeCordova Bend Dam on Brazos River, 2.6 miles upstream from Fall Creek, 7.5 miles southeast of Granbury, and at mile 542.5.

DRAINAGE AREA.--24,690 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 153,500 acre-ft Oct. 8 (elevation, 693.00 ft); minimum, 99,150 acre-ft July 22, 23 (elevation, 685.53 ft).
Period of record: Maximum contents, 153,500 acre-ft Dec. 30, 1969, June 18, Oct. 8, 1970 (elevation, 693.00 ft); minimum since first filling, 99,150 acre-ft July 22, 23, 1971 (elevation, 685.53 ft).

REMARKS.--Lake is formed by a rolled earthfill dam, 2,256 ft long, including a 932-foot concrete spillway. Lake built for conservation of municipal, industrial, and irrigation water. Outlet works consist of 16 tainter gates (36- by 35-foot) and two 7- by 8-foot sluice gates with lowest invert at 640.0 ft. The flow from sluice gates goes into a bay whose outflow is controlled by two 4- by 4.5-foot sluice gates with inverts at 625.8 ft. Dam completed in September 1969; sluice gates were closed Sept. 15, 1969; and tainter gates were closed Sept. 22, 1969. At end of year, flow from 52.7 sq mi above this station was partly controlled by 11 floodwater-retarding structures with a total combined capacity of 15,110 acre-ft below the flood-spillway crests, of which 13,350 acre-ft is floodwater-retarding capacity and 1,760 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	711.6	-
Top of closed tainter gates (design pool)	693.0	153,500
Spillway crest (sill of tainter gates)	658.0	15,440
Invert of lowest sluice gate	640.0	2,200

COOPERATION.--Records furnished by Brazos River Authority and reviewed by the Geological Survey. Capacity curve based on data prepared by the Ambursen Engineering Corporation.

Capacity table (elevation, in feet, and total contents, in acre-feet)

685.0	96,000	688.0	114,900	691.0	136,900
686.0	101,900	689.0	121,900	692.0	145,000
687.0	108,200	690.0	129,200	693.0	153,500

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150,900	151,000	149,700	144,300	146,400	145,800	141,800	139,300	132,100	118,300	106,100	124,500
2	150,500	150,500	149,900	144,000	146,000	145,800	141,500	138,900	131,300	117,500	106,400	129,700
3	150,100	149,800	149,400	144,200	146,000	145,800	141,400	138,600	130,400	116,600	106,500	134,700
4	149,400	149,100	149,200	144,600	146,100	145,700	141,100	138,300	129,700	115,400	106,500	143,500
5	149,100	148,400	148,900	144,300	146,000	145,300	141,000	138,000	128,400	114,400	106,800	145,300
6	149,200	147,800	148,700	144,000	146,100	145,200	140,800	137,700	127,000	113,400	107,200	145,900
7	150,900	148,000	148,800	143,800	146,100	145,200	140,600	137,600	125,400	112,700	107,500	147,500
8	152,000	147,700	148,400	143,700	145,900	145,000	140,500	137,500	124,800	111,700	107,500	146,900
9	148,400	147,400	148,300	144,000	145,800	144,800	140,300	137,200	124,800	110,900	107,500	146,100
10	147,700	145,400	148,400	144,600	145,700	144,800	140,100	136,800	124,600	109,900	107,500	145,800
11	148,100	145,000	148,100	144,900	145,500	144,800	139,900	136,600	124,300	108,900	107,700	145,500
12	148,600	144,900	147,500	145,400	145,700	144,700	139,700	136,500	124,100	108,200	107,900	145,500
13	148,700	144,000	146,900	145,700	145,400	144,700	139,300	136,100	124,200	107,100	108,500	145,100
14	148,800	145,200	146,600	146,000	145,300	144,500	139,300	135,800	124,200	106,200	109,000	145,000
15	149,400	144,800	146,500	146,400	145,300	144,400	139,200	135,500	124,100	105,000	109,600	145,000
16	149,200	145,000	146,500	146,200	145,200	144,400	139,000	135,200	123,800	104,000	109,600	144,900
17	149,200	145,800	146,300	146,400	145,200	144,200	139,700	134,800	123,400	102,800	109,600	144,800
18	149,100	146,400	146,400	146,500	145,100	144,000	140,100	134,700	123,100	101,700	109,400	145,200
19	149,100	146,400	147,200	146,500	145,300	143,900	140,100	134,500	122,600	100,600	109,400	145,300
20	149,000	147,000	146,700	146,300	145,300	143,500	140,600	134,300	122,200	99,740	109,400	145,200
21	148,600	147,400	146,800	146,400	145,400	143,400	140,600	133,800	121,600	99,560	109,200	145,200
22	148,300	149,200	146,500	146,500	145,800	143,400	140,600	133,500	121,400	99,390	109,200	145,000
23	147,900	150,100	146,700	146,500	145,400	143,300	140,600	133,100	121,000	99,150	109,000	145,000
24	149,400	152,000	146,200	146,600	145,300	142,900	140,400	132,800	120,700	99,150	108,800	145,000
25	149,100	151,600	146,400	146,500	145,300	142,800	140,100	131,700	120,200	99,390	108,800	145,100
26	149,700	151,300	145,500	146,500	145,600	142,700	139,900	130,500	119,800	99,440	108,900	144,900
27	150,600	152,000	145,200	146,400	145,800	142,600	139,700	129,200	119,600	99,680	109,000	141,900
28	150,100	150,900	144,800	146,500	145,800	142,600	139,500	128,500	119,000	99,800	109,200	136,900
29	150,900	150,300	144,800	146,400	------	142,400	139,700	127,800	118,700	100,100	110,200	133,100
30	151,100	150,100	144,400	146,400	------	142,400	139,300	128,200	118,500	104,100	114,700	135,600
31	151,100	------	144,700	146,400	------	142,200	------	132,200	------	105,700	117,700	------
(†)	692.72	692.60	691.96	692.16	692.10	691.65	691.30	690.39	688.52	686.60	688.41	690.83
(*)	+200	-1,000	-5,400	+1,700	-600	-3,600	-2,900	-7,100	-13,700	-12,800	+12,000	+17,900
MAX	152,000	152,000	149,900	146,600	146,400	145,800	141,800	139,300	132,100	118,300	117,700	147,500
MIN	147,700	144,000	144,400	143,700	145,100	142,200	139,000	127,800	118,500	99,150	106,100	124,500

CAL YR 1970..... * -2,000 MAX 153,500 MIN 144,000
WTR YR 1971..... * -15,300 MAX 152,000 MIN 99,150

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08091000 Brazos River near Glen Rose, Tex.

LOCATION.--Lat 32°16'18", long 97°39'48", Somervell County, at downstream side of bridge on U.S. Highway 67, 600 ft downstream from Georges Creek, 4.1 miles upstream from Paluxy Creek, 6 miles northeast of Glen Rose, and at mile 511.2.

DRAINAGE AREA.--24,830 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 567.82 ft above mean sea level. Prior to May 7, 1931, nonrecording gage at site 2.5 miles downstream at same datum. May 7, 1931, to Sept. 30, 1957, water-stage recorder at site 2.4 miles downstream at same datum, used as supplementary gage Oct. 1, 1957, to Apr. 1, 1959. Apr. 27, 1950, to Sept. 30, 1957, water-stage recorder, present gage, used as supplementary gage.

AVERAGE DISCHARGE.--48 years, 1,529 cfs (1,108,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,400 cfs Sept. 2 (gage height, 12.66 ft); minimum, 2.9 cfs Aug. 9, 10.
Period of record: Maximum discharge, 97,600 cfs May 18, 1935 (gage height, 23.68 ft, site then in use, from floodmarks); maximum gage height, 33.89 ft, present site, May 27, 1957; no flow at times prior to construction of Possum Kingdom Reservoir dam.
Maximum stage since at least 1876, that of May 27, 1957. Flood in May 1908 reached a stage of 27 ft, and flood in May 1922 reached a stage of 29.5 ft (could have equaled or exceeded flood in 1957 at present site) each at site 2.4 miles downstream; from information by local residents.

REMARKS.--Records good. Flow is largely regulated by 15 major reservoirs with a combined capacity of 1,538,000 acre-ft. Many diversions above station for irrigation, municipal supply, and oilfield operation.

REVISIONS (WATER YEARS).--WSP 1058: 1932. WSP 1512: 1946-47, 1949. WSP 1712: 1928(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	298	347	81	32	32	51	108	465	188	52	3,110
2	318	302	239	162	30	33	50	160	445	457	29	10,700
3	323	300	86	175	31	30	56	98	443	457	25	7,350
4	322	303	258	75	39	40	59	88	445	469	17	3,780
5	334	305	306	219	39	42	70	94	605	459	12	8,630
6	343	302	317	87	51	45	54	97	681	453	9.3	7,990
7	325	304	316	44	43	38	59	115	681	414	7.4	4,140
8	291	302	316	35	36	39	59	104	486	397	6.3	1,900
9	688	303	317	30	37	34	64	113	104	394	4.2	866
10	413	835	216	27	38	35	67	113	54	391	15	718
11	396	231	128	26	37	42	62	103	46	384	28	671
12	442	120	296	25	35	38	71	93	49	384	25	447
13	308	89	296	25	34	40	62	161	41	404	48	340
14	335	93	295	28	42	40	60	117	47	443	78	214
15	334	116	302	30	37	40	51	113	56	437	159	88
16	334	105	241	27	34	42	63	83	80	445	65	73
17	226	54	149	25	36	32	109	77	88	462	38	70
18	257	40	202	24	38	35	110	105	76	439	24	69
19	244	81	214	22	35	32	73	83	126	431	42	67
20	137	85	239	21	37	31	49	49	146	434	34	76
21	102	61	224	22	40	37	33	57	159	267	26	88
22	172	39	121	23	33	35	23	42	175	101	17	96
23	224	74	190	26	64	34	25	48	163	70	19	438
24	200	55	124	32	50	62	37	248	118	249	28	335
25	84	149	199	34	44	56	79	371	153	130	25	293
26	170	275	153	33	49	47	81	454	175	49	22	430
27	198	817	285	36	44	42	70	461	134	29	21	2,030
28	380	1,020	288	36	37	53	110	465	208	40	26	3,200
29	254	637	199	38	------	56	110	646	133	50	24	3,810
30	164	349	164	38	------	52	100	635	186	129	22	4,820
31	298	------	197	36	------	52	------	471	------	118	540	------
TOTAL	8,790	8,044	7,224	1,542	1,102	1,266	1,967	5,972	6,768	9,574	1,488.2	66,839
MEAN	284	268	233	49.7	39.4	40.8	65.6	193	226	309	48.0	2,228
MAX	688	1,020	347	219	64	62	110	646	681	469	540	10,700
MIN	84	39	86	21	30	30	23	42	41	29	4.2	67
AC-FT	17,430	15,960	14,330	3,060	2,190	2,510	3,900	11,850	13,420	18,990	2,950	132,600

CAL YR 1970 TOTAL 277,278.3 MEAN 760 MAX 13,700 MIN 3.4 AC-FT 550,000
WTR YR 1971 TOTAL 120,576.2 MEAN 330 MAX 10,700 MIN 4.2 AC-FT 239,200

08091500 Paluxy River at Glen Rose, Tex.

LOCATION.--Lat 32°13'53", long 97°46'37", Somervell County, on left bank at downstream side of remaining pier of dismantled highway bridge, 500 ft upstream from bridge on U.S. Highway 67, 1.0 mile upstream from Cross Branch, 1.2 miles southwest of Glen Rose, and 5.1 miles upstream from mouth.

DRAINAGE AREA.--410 sq mi.

PERIOD OF RECORD.--October 1923 to September 1925, May 1947 to current year. Prior to October 1965, published as Paluxy Creek at Glen Rose.

GAGE.--Water-stage recorder. Datum of gage is 609.66 ft above mean sea level. Oct. 27, 1923, to Sept. 30, 1925, nonrecording gage at bridge 1.8 miles downstream at datum 13.62 ft lower.

AVERAGE DISCHARGE.--25 years (1924-25, 1947-71), 69.1 cfs (50,060 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,740 cfs May 29 (gage height, 8.14 ft); no flow July 19, 20.
Period of record: Maximum discharge, 50,000 cfs Oct. 4, 1959 (gage height, 25.4 ft), from rating curve extended above 32,000 cfs; no flow at times.
Maximum stage since at least 1877, 27.2 ft Apr. 17, 1908, present site and datum (discharge, 59,000 cfs, from rating curve as explained above). Flood of May 21, 1922, reached a stage of 26.0 ft, present site and datum (discharge, 53,000 cfs, from rating curve as explained above). Flood in November 1918 reached about same stage as that of May 21, 1922, from information by local residents.

REMARKS.--Records good. Occasional small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1392: 1949, 1952. WRD Texas 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	20	17	15	13	14	10	10	50	.97	67	8.5
2	19	19	17	15	13	14	10	9.9	50	.84	38	7.7
3	18	18	17	16	14	14	10	9.5	29	.86	28	7.2
4	17	18	16	15	15	13	10	8.8	21	.89	25	6.7
5	19	18	16	14	14	13	11	8.6	17	.70	22	6.3
6	19	18	16	14	14	13	10	8.2	15	.31	77	5.9
7	16	18	16	14	14	12	11	7.8	14	.26	526	5.5
8	15	18	16	14	14	12	11	7.3	14	.20	84	5.1
9	14	17	15	14	14	12	11	7.6	14	.16	40	4.7
10	14	17	16	14	13	12	11	11	14	.13	28	4.5
11	14	17	15	14	13	12	11	9.0	14	.10	23	4.5
12	16	17	15	14	13	12	9.9	8.1	14	.08	19	4.3
13	17	18	15	14	13	12	9.7	7.4	14	.06	28	4.1
14	17	18	15	14	13	12	11	7.1	13	.04	53	4.0
15	16	18	15	14	13	11	10	6.7	13	.03	45	3.7
16	15	17	14	14	13	11	13	6.4	13	.03	18	3.5
17	16	17	14	14	13	11	21	5.4	13	.02	14	3.4
18	16	17	14	14	13	11	33	5.0	13	.01	13	3.4
19	17	17	14	14	13	11	21	2.4	12	0	11	3.5
20	16	17	14	14	12	11	21	8.7	11	0	10	4.1
21	16	17	14	14	18	12	17	5.2	11	.01	9.7	4.4
22	16	17	15	14	16	12	16	4.2	10	.03	8.9	7.0
23	23	16	15	14	16	12	15	5.7	10	.04	8.2	17
24	29	16	14	14	15	12	12	6.7	8.9	3.5	16	29
25	21	16	14	14	16	13	11	5.9	8.1	203	26	58
26	19	16	14	14	18	13	11	4.5	6.8	35	44	29
27	143	17	14	13	17	13	11	3.8	4.1	34	22	20
28	55	17	14	13	15	12	11	3.8	3.7	28	15	14
29	31	17	14	14	------	11	12	537	3.5	185	11	11
30	25	17	16	13	------	11	11	1,450	2.9	1,960	9.8	9.5
31	22	------	16	13	------	10	------	99	------	249	9.5	------
TOTAL	733	520	467	435	398	374	392.6	2,280.7	437.0	2,703.27	1,349.1	299.5
MEAN	23.6	17.3	15.1	14.0	14.2	12.1	13.1	73.6	14.6	87.2	43.5	9.98
MAX	143	20	17	16	18	14	33	1,450	50	1,960	526	58
MIN	14	16	14	13	12	10	9.7	2.4	2.9	0	8.2	3.4
AC-FT	1,450	1,030	926	863	789	742	779	4,520	867	5,360	2,680	594

CAL YR 1970 TOTAL 44,316.10 MEAN 121 MAX 4,030 MIN 9.0 AC-FT 87,900
WTR YR 1971 TOTAL 10,389.17 MEAN 28.5 MAX 1,960 MIN 0 AC-FT 20,610

PEAK DISCHARGE (BASE, 4,000 CFS).--No peak above base.

08091900 Lake Pat Cleburne near Cleburne, Tex.

LOCATION.--Lat 32°17'20", long 97°24'54", Johnson County, at side of walkway from dam to outlet structure, near left end of Cleburne Dam on Nolan River, 2.2 miles upstream from Buffalo Creek, and 4.3 miles south of Cleburne.

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level (Homer Hunter Associates, Consulting Engineers bench mark).

EXTREMES.--Current year: Maximum contents, 22,820 acre-ft Oct. 27 (elevation, 731.65 ft); minimum, 19,200 acre-ft Sept. 21, 22 (elevation, 728.95 ft).
Period of record: Maximum contents, 37,200 acre-ft May 13, 1968 (elevation, 740.10 ft); minimum, 18,890 acre-ft Dec. 11-14, 1967 (elevation, 728.70 ft).

REMARKS.--Lake is formed by a rock-faced earthfill dam 5,050 ft long including a 150-foot uncontrolled concrete spillway at left end of dam. Storage began Aug. 4, 1964. Lake is the property of city of Cleburne and was built to impound water for municipal use. Capacity table is based on survey of 1958 from U.S. Geological Survey topographic maps. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	753.0	-
Top of design flood pool	752.3	66,700
Crest of emergency spillway	744.0	45,430
Crest of service spillway	733.5	25,560
Invert of top sluice gate	722.0	11,760
Invert of bottom sluice gate	690.0	115

COOPERATION.--Records of diversions furnished by city of Cleburne. Capacity table furnished by Homer Hunter Associates, Consulting Engineers for the city of Cleburne.

Capacity table (elevation, in feet, and total contents, in acre-feet)

728.0	18,030	730.0	20,560
729.0	19,270	731.0	21,900
		732.0	23,320

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22,660	22,620	22,060	21,600	21,190	20,980	20,260	21,660	21,480	20,480	19,750	19,840
2	22,650	22,580	22,040	21,600	21,170	21,050	20,230	21,640	21,450	20,440	19,740	19,870
3	22,630	22,530	22,040	21,680	21,170	20,950	20,240	21,600	21,420	20,390	19,720	19,840
4	22,600	22,490	22,010	21,590	21,170	20,910	20,190	21,530	21,400	20,350	19,700	19,820
5	22,600	22,480	22,000	21,560	21,140	20,900	20,170	21,550	21,370	20,310	19,920	19,790
6	22,590	22,460	21,970	21,520	21,140	20,890	20,090	21,670	21,330	20,270	20,090	19,770
7	22,560	22,450	21,960	21,490	21,110	20,860	20,060	21,670	21,290	20,220	20,100	19,740
8	22,550	22,450	21,960	21,480	21,070	20,820	19,980	21,640	21,260	20,170	20,080	19,720
9	22,460	22,420	21,940	21,460	21,060	20,820	20,010	21,660	21,190	20,130	20,050	19,680
10	22,420	22,410	21,940	21,460	21,050	20,790	19,980	21,660	21,150	20,060	20,040	19,640
11	22,590	22,390	21,900	21,450	21,030	20,790	19,960	21,640	21,130	20,020	20,010	19,590
12	22,560	22,360	21,880	21,440	21,020	20,790	19,920	21,570	21,100	19,970	19,970	19,560
13	22,560	22,390	21,860	21,440	21,010	20,780	19,930	21,530	21,070	19,910	20,100	19,520
14	22,530	22,320	21,840	21,440	20,980	20,770	19,910	21,490	21,050	19,870	20,140	19,490
15	22,500	22,280	21,840	21,410	20,950	20,740	19,870	21,460	21,020	19,830	20,130	19,460
16	22,460	22,250	21,810	21,410	20,940	20,710	19,980	21,420	20,990	19,780	20,110	19,430
17	22,430	22,250	21,780	21,410	20,910	20,650	21,290	21,380	20,940	19,730	20,090	19,410
18	22,420	22,240	21,780	21,400	20,990	20,680	21,590	21,380	20,890	19,660	20,060	19,380
19	22,410	22,210	21,770	21,370	20,980	20,610	21,680	21,360	20,830	19,640	20,040	19,280
20	22,390	22,200	21,740	21,340	20,950	20,570	21,640	21,330	20,780	19,560	20,000	19,240
21	22,380	22,180	21,740	21,340	21,050	20,540	21,640	21,300	20,780	19,560	19,970	19,200
22	22,380	22,210	21,740	21,340	20,940	20,530	21,660	21,270	20,770	19,500	19,930	19,270
23	22,560	22,110	21,710	21,330	20,940	20,490	21,770	21,410	20,750	19,510	19,910	19,400
24	22,550	22,070	21,680	21,320	20,940	20,430	21,750	21,380	20,700	19,600	19,910	19,400
25	22,530	22,060	21,660	21,320	21,010	20,410	21,740	21,340	20,660	19,580	19,880	19,400
26	22,720	22,060	21,640	21,300	21,010	20,400	21,740	21,320	20,620	19,550	19,910	19,400
27	22,760	22,060	21,630	21,270	20,980	20,390	21,710	21,320	20,580	19,560	19,880	19,370
28	22,700	22,060	21,630	21,270	20,960	20,400	21,700	21,290	20,540	19,700	19,860	19,360
29	22,690	22,060	21,630	21,260	------	20,360	21,700	21,440	20,530	19,780	19,810	19,330
30	22,660	22,040	21,640	21,260	------	20,320	21,680	21,490	20,500	19,810	19,820	19,310
31	22,650	------	21,630	21,230	------	20,270	------	21,490	------	19,770	19,830	------
(†)	731.53	731.10	730.80	730.51	730.31	729.78	730.84	730.70	729.96	729.39	729.44	729.03
(*)	-30	-610	-410	-400	-270	-690	+1,410	-190	-990	-730	+60	-520
(††)	146	140	143	147	139	151	162	159	231	309	194	206
MAX	22,760	22,620	22,060	21,680	21,190	21,050	21,770	21,670	21,480	20,480	20,140	19,870
MIN	22,380	22,040	21,630	21,230	20,910	20,270	19,870	21,270	20,500	19,500	19,700	19,200

CAL YR 1970..... * -450 †† 2,149 MAX 30,180 MIN 21,100
WTR YR 1971..... * -3,370 †† 2,127 MAX 22,760 MIN 19,200

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Cleburne.

08092000 Nolan River at Blum, Tex.

LOCATION.--Lat 32°09'02", long 97°24'10", Hill County, on right bank 60 ft upstream from bridge on Farm Road 933, 0.6 mile northwest of Blum, 2.8 miles downstream from Mustang Creek, 3.0 miles downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 3.2 miles upstream from Rock Creek.

DRAINAGE AREA.--276 sq mi.

PERIOD OF RECORD.--July 1924 to September 1925, November 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 551.48 ft above mean sea level. July 29, 1924, to Sept. 30, 1925, and Nov. 14, 1947, to May 28, 1949, nonrecording gage at railway bridge (now abandoned) 0.5 mile upstream at datum 5.0 ft higher. May 29 to July 7, 1949, nonrecording gage at present site and datum then in use (5.0 ft higher than present datum).

AVERAGE DISCHARGE.--24 years (1924-25, 1948-71), 70.6 cfs (51,150 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,000 cfs Apr. 17 (gage height, 13.17 ft); no flow July 20.
Period of record: Maximum discharge, 62,200 cfs May 7, 1969 (gage height, 31.23 ft), from rating curve extended above 22,200 cfs on basis of contracted-opening measurement of peak flow; no flow for most years before 1965 and in 1971.
Maximum stage since at least 1887, 35.0 ft May 8, 1922, present site and datum, from information by local resident.

REMARKS.--Records good. Flow partly regulated since August 1964 by Lake Pat Cleburne (station 08091900) located 13 miles upstream.

REVISIONS (WATER YEARS).--WSP 1312: 1925(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	13	5.8	8.2	5.3	6.3	3.6	7.2	14	4.5	11	3.1
2	3.3	12	6.8	7.2	5.2	5.7	3.3	6.4	10	2.7	7.1	8.4
3	3.3	11	6.1	6.8	5.5	8.6	3.1	6.0	7.8	1.9	8.5	12
4	3.4	9.6	5.8	7.2	6.0	8.3	3.1	5.3	5.2	1.3	14	4.9
5	3.5	9.6	5.5	8.2	5.9	6.9	3.5	5.3	4.3	.98	5.1	2.9
6	3.9	9.6	5.5	6.8	6.3	6.0	3.4	5.6	3.2	.98	59	2.1
7	6.0	9.3	5.2	6.1	5.7	5.6	3.0	17	2.5	.63	16	1.8
8	4.5	9.3	5.5	6.1	5.3	5.2	2.9	8.8	2.5	.42	8.1	1.5
9	3.4	8.9	5.5	6.5	5.1	4.8	3.0	6.1	2.2	.29	5.1	1.3
10	3.8	7.9	6.1	6.5	5.5	5.0	3.3	116	2.1	.21	3.3	1.6
11	190	7.5	5.8	6.1	5.8	5.2	3.2	10	2.2	.26	2.7	1.9
12	147	7.5	5.5	5.8	5.7	5.2	2.7	7.1	2.7	.36	2.7	3.6
13	26	7.9	5.2	6.1	5.5	5.5	2.8	5.5	1.9	.41	2.7	1.9
14	13	6.8	4.9	6.5	5.6	5.3	2.6	4.8	1.5	.34	16	1.8
15	8.6	9.6	5.2	6.5	5.4	4.9	2.6	4.6	1.5	.26	13	1.6
16	6.8	7.5	5.5	6.1	5.7	4.5	4.6	4.7	1.4	.21	6.9	1.8
17	6.1	6.8	7.2	6.1	5.4	4.1	782	3.8	1.6	.11	4.1	2.8
18	6.1	7.2	6.5	6.1	5.3	4.5	1,630	3.3	1.3	.06	2.9	2.5
19	5.8	6.8	6.5	5.5	8.5	4.3	45	3.0	1.2	.02	2.6	1.9
20	5.2	6.5	5.8	4.9	8.2	4.2	26	3.3	1.2	0	2.3	1.9
21	4.9	6.5	5.5	5.5	7.1	4.1	23	2.4	1.2	.34	2.0	2.2
22	4.6	6.8	5.5	5.5	7.1	4.4	16	4.1	5.1	.41	1.8	2.6
23	131	5.8	6.5	5.8	6.5	4.3	19	4.1	6.5	1.8	1.7	29
24	82	5.5	6.5	5.5	5.1	4.0	17	26	6.1	3.9	1.5	28
25	17	5.2	6.1	5.2	12	4.4	11	12	3.0	21	1.8	7.9
26	67	6.1	5.8	4.9	19	4.7	9.0	5.2	1.7	5.7	3.1	5.7
27	672	7.2	5.8	5.3	9.9	5.1	8.2	3.3	1.2	3.0	4.0	4.2
28	56	6.8	6.1	5.5	7.2	5.0	7.6	2.7	1.5	15	4.5	3.1
29	24	6.8	5.2	5.5	------	4.4	7.5	44	3.2	36	2.4	2.7
30	18	6.8	8.2	5.7	------	4.1	7.5	56	3.2	102	2.2	2.7
31	15	------	13	5.5	------	3.7	------	18	------	25	2.3	------
TOTAL	1,544.6	237.8	190.1	189.2	190.8	158.3	2,659.5	411.6	103.0	230.09	220.4	149.4
MEAN	49.8	7.93	6.13	6.10	6.81	5.11	88.7	13.3	3.43	7.42	7.11	4.98
MAX	672	13	13	8.2	19	8.6	1,630	116	14	102	59	29
MIN	3.3	5.2	4.9	4.9	5.1	3.7	2.6	2.4	1.2	0	1.5	1.3
AC-FT	3,060	472	377	375	378	314	5,280	816	204	456	437	296

CAL YR 1970 TOTAL 25,436.04 MEAN 69.7 MAX 3,820 MIN .61 AC-FT 50,450
WTR YR 1971 TOTAL 6,284.79 MEAN 17.2 MAX 1,630 MIN 0 AC-FT 12,470

PEAK DISCHARGE (BASE, 5,000 CFS).--Apr. 17 (2330) 9,000 cfs (13.17 ft).

08092500 Whitney Lake near Whitney, Tex.
(Formerly published as Whitney Reservoir near Whitney)

LOCATION.--Lat 31°51'55", long 97°22'18", Hill County, on State Highway 22, in intake structure of Whitney Dam on Brazos River, 2.1 miles upstream from Coon Creek, 3.5 miles upstream from Iron Creek, 6.6 miles southwest of Whitney, and at mile 442.3.

DRAINAGE AREA.--26,170 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1951 to current year. Prior to October 1970, published as Whitney Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 433,200 acre-ft Sept. 30 (elevation, 523.35 ft); minimum, 346,900 acre-ft Oct. 8 (elevation, 517.91 ft).
Period of record: Maximum contents, 1,980,000 acre-ft May 29, 1957 (elevation, 570.25 ft); minimum daily since power pool elevation first reached in April 1954, 250,200 acre-ft Nov. 1, 1956 (elevation, 509.52 ft).

REMARKS.--Lake is formed by concrete gravity and rolled earthfill dam 17,695 ft long including spillway. Main dam was completed in April 1951, and deliberate impoundment of water began Dec. 10, 1951. Capacity between elevations 522.0 and 571.0 ft is reserved for flood-control storage. Total spillway capacity, 684,000 cfs at elevation 573.0 ft, maximum design level. Capacity based on survey made in April and May 1959. Figures given herein represent total contents. Lake used for flood control and power development. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of seventeen 40- by 38-foot tainter gates	571.0	1,999,500
Crest of spillway	533.0	627,100
Top of designated power storage (top of conservation storage)	522.0	411,100
Invert of two 14-foot 8-inch diameter penstocks	476.0	39,570
Invert of sixteen 5- by 9-foot flood-control outlet conduits	448.83	4,270

COOPERATION.--Records furnished by the Corps of Engineers and reviewed by the Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

517.0	333,400	521.0	395,000
518.0	348,200	522.0	411,100
519.0	363,500	523.0	427,400
520.0	379,100	524.0	444,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360,600	376,800	381,300	385,500	354,600	357,800	354,900	366,300	388,000	378,300	380,700	378,200
2	355,600	376,500	381,800	385,500	354,500	358,000	354,900	366,100	387,700	377,100	380,700	390,400
3	350,500	376,800	382,900	385,500	354,500	357,800	354,600	366,000	387,700	375,500	380,700	401,600
4	347,200	377,100	382,900	383,900	354,800	357,700	354,300	365,800	387,400	374,900	380,900	404,800
5	347,200	377,100	382,900	382,800	354,900	357,700	354,300	365,500	386,300	374,400	381,000	410,900
6	348,100	377,400	383,200	381,800	354,900	357,700	354,000	365,000	386,300	374,100	381,000	419,600
7	347,200	378,000	383,600	375,700	354,900	357,700	353,700	365,200	385,300	373,500	382,000	423,800
8	346,900	378,300	383,900	370,500	354,900	357,700	353,300	365,500	384,800	372,700	382,400	423,800
9	349,200	379,900	384,500	367,500	354,900	357,700	353,000	366,000	384,800	372,100	382,600	422,200
10	351,600	379,900	384,500	366,100	354,900	357,700	352,700	366,000	384,500	371,300	382,600	422,200
11	354,600	382,900	384,500	363,200	354,900	357,700	352,400	367,400	384,200	370,400	382,600	421,500
12	356,900	382,000	384,800	358,900	354,900	357,700	351,700	367,100	384,000	369,400	382,300	420,400
13	356,900	382,800	384,800	357,800	354,900	357,700	351,400	366,600	384,000	368,600	382,300	418,900
14	357,500	382,800	384,800	357,700	354,600	357,700	351,700	366,100	383,900	368,000	382,300	417,600
15	358,300	381,500	384,800	356,800	354,300	357,700	351,400	366,000	383,700	367,400	382,600	416,300
16	358,300	380,500	384,800	356,800	354,300	357,700	353,000	365,800	383,200	366,600	382,900	416,000
17	359,100	381,000	384,800	356,800	354,300	357,700	358,000	365,400	382,800	365,200	382,900	415,800
18	359,400	380,700	384,800	356,300	354,300	357,700	364,700	365,000	382,400	364,400	382,900	415,600
19	359,700	380,700	384,800	355,600	355,900	357,500	365,000	364,700	381,800	363,900	382,800	415,500
20	360,000	380,700	384,800	354,500	355,900	357,400	365,400	364,700	381,000	363,500	382,400	415,000
21	360,000	380,700	384,800	354,300	355,900	357,200	365,700	364,400	380,700	366,300	382,000	414,300
22	360,000	381,000	384,800	354,600	355,900	357,100	365,700	364,400	381,300	364,100	381,600	414,300
23	363,800	379,400	384,800	354,600	356,200	357,100	365,700	364,100	381,300	363,900	381,600	416,900
24	364,100	374,600	382,600	354,600	356,200	357,100	365,500	365,700	380,700	365,000	381,300	417,600
25	364,600	372,900	382,600	354,600	357,400	357,100	365,200	365,500	380,100	365,800	381,200	417,800
26	364,600	374,300	382,600	354,600	357,700	356,900	365,000	364,900	379,400	367,500	381,200	416,800
27	373,800	375,500	382,600	354,600	357,800	356,900	365,000	364,900	379,100	369,600	381,200	416,800
28	373,800	377,200	383,400	354,600	357,800	356,500	365,000	364,600	379,100	370,800	380,700	422,000
29	374,400	379,400	384,000	354,600	------	356,200	366,600	376,300	379,700	370,800	380,700	427,100
30	374,600	379,400	385,500	354,600	------	355,700	366,600	387,200	379,600	378,000	380,700	433,200
31	375,200	------	385,500	354,800	------	355,200	------	388,000	------	380,100	378,200	------
(†)	519.75	520.02	520.40	518.43	518.63	518.46	519.20	520.56	520.03	520.06	519.94	523.35
(#)	+10,500	+4,200	+6,100	-30,700	+3,000	-2,600	+11,400	+21,400	-8,400	+500	-1,900	+45,000
MAX	375,200	382,800	385,500	385,500	357,800	358,000	366,600	388,000	388,000	380,100	382,900	433,200
MIN	346,900	372,900	381,300	354,300	354,300	355,200	351,400	364,100	379,100	363,500	378,200	378,200

CAL YR 1970..... # -84,200 MAX 523,300 MIN 336,700
WTR YR 1971..... # +68,500 MAX 433,200 MIN 346,900

† Elevation, in feet, at end of month.
# Change in contents, in acre-feet.

08093000 Brazos River near Whitney, Tex.

LOCATION.--Lat 31°50'29", long 97°19'33", Bosque-Hill County line, on right bank 3,000 ft upstream from Iron Creek, 1.0 mile downstream from Coon Creek, 3.4 miles downstream from Whitney Dam, 7.5 miles south of Whitney, and at mile 439.4.

DRAINAGE AREA.--26,190 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 417.39 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1948, nonrecording gage at site 8.3 miles upstream at datum 14.67 ft higher.

AVERAGE DISCHARGE.--33 years, 1,629 cfs (1,180,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,440 cfs Sept. 5 (gage height, 9.90 ft); minimum daily, 16 cfs Mar. 17, 20, 21, Aug. 27, 30.
Period of record: Maximum discharge, 71,800 cfs May 18, 1949 (gage height, 31.03 ft); minimum daily, 0.4 cfs May 9, 1953.
Maximum discharge since construction of Whitney Dam in 1951, 58,200 cfs May 28, 1957 (gage height, 27.34 ft).
Maximum stage since at least 1853, 45 ft May 9, 1922, from information by local residents.

REMARKS.--Records good. Flow regulated by 17 major upstream reservoirs whose combined capacity is 3,564,000 acre-ft (1,620,000 acre-ft is flood control). Brazos River at Whitney Dam (station 08092600) uses discharge records for publication of water-quality records which are published for the current year in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,410	20	52	69	35	20	132	137	532	788	21	1,210
2	2,890	20	24	33	40	21	121	134	570	812	21	944
3	2,910	20	22	187	19	18	87	133	659	1,040	49	1,830
4	2,170	78	22	982	19	18	98	139	677	653	28	2,630
5	69	83	22	630	18	19	69	142	907	491	23	2,870
6	201	48	22	505	18	20	106	142	865	639	25	3,040
7	766	20	89	3,110	19	19	87	147	943	673	24	2,760
8	150	19	135	2,810	17	18	88	126	931	670	23	2,390
9	20	20	118	1,820	17	18	90	147	116	631	22	2,320
10	19	19	95	679	42	18	96	148	82	650	21	657
11	27	50	333	1,580	37	18	93	149	95	577	21	1,020
12	35	50	221	2,310	28	19	88	148	94	737	22	1,180
13	454	125	142	677	26	19	89	140	95	679	21	1,150
14	33	315	483	326	26	18	90	131	97	634	20	1,030
15	23	102	282	304	28	17	88	133	97	690	20	878
16	21	182	200	83	29	17	97	137	124	682	20	352
17	21	117	179	52	31	16	96	138	108	983	19	84
18	21	90	73	164	35	18	124	139	149	632	19	23
19	22	50	247	464	33	17	91	139	209	701	19	21
20	37	45	256	483	22	16	92	137	272	509	20	25
21	26	46	176	79	33	16	92	137	243	725	18	46
22	23	21	138	25	20	18	104	138	268	292	18	45
23	87	716	602	26	18	18	80	140	259	99	19	37
24	32	1,950	693	25	19	18	87	281	255	104	41	137
25	23	355	188	25	23	18	88	314	257	92	42	259
26	174	69	164	25	23	18	74	679	287	72	20	1,010
27	151	27	78	25	20	40	104	625	229	30	16	404
28	23	24	61	24	20	96	144	620	257	25	150	290
29	21	23	62	27	------	132	170	625	264	46	75	355
30	20	50	38	26	------	99	142	631	273	80	16	141
31	20	------	61	27	------	101	------	514	------	23	1,150	------
TOTAL	12,899	4,754	5,278	17,602	715	938	3,007	7,490	10,214	15,459	2,023	29,138
MEAN	416	158	170	568	25.5	30.3	100	242	340	499	65.3	971
MAX	2,910	1,950	693	3,110	42	132	170	679	943	1,040	1,150	3,040
MIN	19	19	22	24	17	16	69	126	82	23	16	21
AC-FT	25,590	9,430	10,470	34,910	1,420	1,860	5,960	14,860	20,260	30,660	4,010	57,800

CAL YR 1970 TOTAL 448,685 MEAN 1,229 MAX 4,610 MIN 19 AC-FT 890,000
WTR YR 1971 TOTAL 109,517 MEAN 300 MAX 3,110 MIN 16 AC-FT 217,200

08093400 Cobb Creek near Abbott, Tex.

LOCATION.--Lat 31°55'11", long 97°05'57", Hill County, at downstream side of bridge on service road on downstream side of Interstate Highway 35, 1.5 miles downstream from Missouri, Kansas, and Texas Railroad Co. bridge, 2.8 miles northwest of Abbott, and 9 miles upstream from mouth.

DRAINAGE AREA.--11.7 sq mi.

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,900 cfs May 29 (gage height, 9.65 ft); no flow at times.
Period of record: Maximum discharge, 2,720 cfs May 9, 1968 (gage height, 10.50 ft); no flow at times each year.
Maximum stage since at least 1932, 11.1 ft (date unknown), from information by State Highway Department.

REMARKS.--Records good. No known diversion or regulation above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	2.2	.75	.62	.19	2.1	.51	4.8	7.4	.08	.09	.41
2	0	1.9	.68	.62	.19	2.2	.41	3.6	6.3	.03	.06	.10
3	0	1.7	.62	.75	.28	2.2	.36	2.7	5.3	.01	.12	.06
4	0	1.6	.56	.51	.62	1.7	.41	2.2	4.3	0	.10	.03
5	0	1.6	.56	.41	.41	1.6	.41	2.1	3.4	0	.35	.04
6	0	1.4	.51	.36	.28	1.4	.36	1.8	2.7	0	.25	.03
7	0	1.4	.41	.41	.22	1.2	.36	2.2	1.8	0	.25	.02
8	.01	1.4	.51	.46	.22	1.2	.36	1.6	1.1	0	.12	.02
9	.01	1.1	.62	.56	.19	1.2	.36	1.6	.90	0	.05	0
10	0	.90	.56	.56	.19	1.2	.32	2.2	.68	0	.02	0
11	38	.90	.56	.46	.22	1.2	.28	1.8	.62	0	.02	0
12	36	.90	.56	.41	.19	1.2	.28	1.4	.51	0	.02	0
13	.41	1.2	.46	.51	.16	1.2	.22	1.1	.36	0	.78	0
14	.10	1.1	.46	.56	.19	.98	.19	.98	.46	0	.22	0
15	.03	.82	.62	.46	.22	.75	.25	.90	1.2	0	.09	0
16	.01	.82	.62	.46	.25	.75	6.2	.82	.46	0	.03	0
17	0	.90	.46	.46	.25	.75	16	.68	.28	0	.01	0
18	0	.82	.46	.51	26	.82	57	.56	.19	0	0	0
19	0	.82	.46	.36	9.0	.68	6.0	.51	.28	0	.01	0
20	0	.62	.41	.46	1.7	.68	6.0	.51	.41	0	.01	0
21	0	.62	.46	.82	44	.82	4.6	.56	.22	.12	.01	0
22	0	.68	.56	.62	5.0	.75	3.4	.56	.19	0	.01	0
23	57	.46	.46	.41	2.8	.68	2.5	19	.19	.12	0	.38
24	4.5	.46	.36	.36	2.2	.68	2.1	15	.14	.19	0	.32
25	1.2	.62	.36	.28	7.2	.82	1.9	1.7	.12	.04	11	.36
26	86	.75	.32	.41	4.1	.82	1.7	1.4	.08	.03	.75	.12
27	59	.75	.36	.28	2.4	.75	1.4	1.4	.04	15	.19	.08
28	8.0	.68	.41	.25	2.1	.82	32	22	.06	1.2	.10	.06
29	4.8	.68	.41	.28	------	.62	49	138	.12	.90	.06	.08
30	3.4	.75	2.0	.32	------	.51	7.1	215	.10	.25	.08	.08
31	2.5	------	.98	.28	------	.56	------	12	------	.19	.51	------
TOTAL	300.97	30.55	17.53	14.22	110.77	32.84	201.98	460.68	39.91	18.16	15.31	2.19
MEAN	9.71	1.02	.57	.46	3.96	1.06	6.73	14.9	1.33	.59	.49	.073
MAX	86	2.2	2.0	.82	44	2.2	57	215	7.4	15	11	.41
MIN	0	.46	.32	.25	.16	.51	.19	.51	.04	0	0	0
CFSM	.83	.09	.05	.04	.34	.09	.58	1.27	.11	.05	.04	.006
IN.	.96	.10	.06	.05	.35	.10	.64	1.46	.13	.06	.05	.007
AC-FT	597	61	35	28	220	65	401	914	79	36	30	4.3

CAL YR 1970 TOTAL 1,247.06 MEAN 3.42 MAX 164 MIN 0 CFSM .29 IN 3.97 AC-FT 2,470
WTR YR 1971 TOTAL 1,245.11 MEAN 3.41 MAX 215 MIN 0 CFSM .29 IN 3.96 AC-FT 2,470

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-26	2200	7.65	840
4-28	2400	7.15	660
5-29	2400	9.65	1,900

08093500 Aquilla Creek near Aquilla, Tex.

LOCATION.--Lat 31°50'40", long 97°12'06", Hill County, on right bank 50 ft upstream from bridge on Farm Road 1304, 1.0 mile southeast of Aquilla, 1.2 miles downstream from Cobb Creek, and at mile 18.2.

DRAINAGE AREA.--306 sq mi.

PERIOD OF RECORD.--December 1938 to current year. Records of daily discharge for December 1924 to August 1925, published in WSP 608, are unreliable.

GAGE.--Water-stage recorder. Datum of gage is 451.48 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--32 years (1939-71), 113 cfs (5.01 inches per year, 81,870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,700 cfs May 30 (gage height, 27.30 ft); minimum, 0.27 cfs July 8, 9.
Period of record: Maximum discharge, 40,200 cfs May 10, 1968 (gage height, 30.32 ft), from rating curve extended above 25,900 cfs on basis of slope-area measurement of 74,200 cfs (adjusted to gage site); no flow at times.
Flood of Aug. 31, 1887, reached a stage of 34 ft, from information by local resident. Flood of Sept. 27, 1936, was the highest since 1887 and reached a stage of 33 ft, from floodmark; discharge, 84,500 cfs by slope-area measurement at site 9 miles downstream and 74,200 cfs adjusted to gage site.

REMARKS.--Records good. No known diversion above station. Records furnished by the city of Hillsboro show that the city discharged 896 acre-ft of sewage effluent into a tributary above gage during year. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1712: 1944(M), 1957-58. WSP 1922: Drainage area. See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	17	3.4	6.8	4.1	4.9	1.9	15	43	2.2	6.3	7.3
2	2.8	14	3.9	4.6	4.1	4.1	1.8	13	28	1.6	5.4	4.0
3	2.9	12	3.8	3.9	4.0	6.7	1.8	11	23	1.1	4.8	3.4
4	2.9	12	3.6	3.6	4.5	6.6	1.6	9.4	19	.81	10	3.8
5	3.4	11	3.6	3.3	5.6	5.4	1.6	8.3	14	.60	4.7	2.6
6	4.0	12	3.6	2.7	4.8	4.6	1.6	7.6	11	.50	10	1.5
7	4.0	12	3.6	2.3	3.5	3.9	1.5	11	8.1	.44	5.7	1.1
8	4.5	11	3.4	2.2	3.0	3.5	1.4	10	6.9	.35	5.0	.83
9	4.4	11	3.4	2.2	2.8	3.1	1.3	8.2	6.4	.31	4.1	.76
10	4.4	12	3.6	2.4	2.5	2.8	1.8	8.0	5.6	.37	2.8	.77
11	5.5	12	4.2	2.5	2.6	2.7	2.1	8.4	5.2	.64	2.1	.69
12	394	13	4.5	2.7	2.4	2.7	2.0	9.1	4.8	.72	1.8	.64
13	18	13	5.3	2.9	2.2	2.9	1.5	7.8	3.9	.75	1.8	.94
14	4.0	12	4.9	2.8	2.1	2.9	1.3	6.6	3.2	.74	3.4	1.6
15	2.7	11	5.1	3.0	2.1	2.6	1.1	5.6	3.4	.72	4.6	1.9
16	3.3	10	4.7	3.6	2.1	2.3	36	4.8	4.5	.80	4.3	1.9
17	4.0	9.7	5.5	3.3	1.7	2.1	184	4.1	2.8	.86	4.7	1.6
18	3.8	9.4	4.7	2.9	63	1.9	4,020	3.5	2.1	.85	5.3	1.2
19	3.8	9.1	4.7	2.8	261	1.9	1,130	2.9	2.3	.79	5.6	1.1
20	3.8	8.6	4.7	2.6	8.7	2.0	56	2.9	2.9	.91	5.8	1.4
21	3.6	8.4	4.7	2.3	49	2.0	60	3.3	3.0	380	5.8	1.7
22	3.3	7.9	4.7	2.5	54	2.0	29	3.5	2.9	6.5	6.8	2.1
23	701	7.4	4.9	3.4	13	2.1	19	16	2.6	3.3	8.1	683
24	247	6.3	4.7	3.8	6.2	1.9	16	274	4.7	6.3	9.0	48
25	27	5.3	5.3	4.0	6.0	2.1	14	8.7	3.3	8.9	91	9.6
26	67	4.9	4.8	3.9	14	2.3	13	6.7	2.2	7.1	30	6.1
27	4,420	4.5	5.0	3.6	9.1	2.5	12	4.6	1.6	253	9.0	4.3
28	1,550	4.4	4.6	3.5	6.3	2.6	11	4.8	1.2	16	2.8	2.7
29	50	4.2	4.8	3.9	------	2.5	807	94	1.7	12	2.1	1.7
30	28	3.8	8.2	4.2	------	2.3	29	7,680	2.4	10	2.1	.74
31	23	------	12	4.2	------	2.0	------	545	------	8.6	86	------
TOTAL	7,599.1	288.9	147.9	102.4	544.4	93.9	6,460.3	8,797.8	225.7	727.76	350.9	798.97
MEAN	245	9.63	4.77	3.30	19.4	3.03	215	284	7.52	23.5	11.3	26.6
MAX	4,420	17	12	6.8	261	6.7	4,020	7,680	43	380	91	683
MIN	2.7	3.8	3.4	2.2	1.7	1.9	1.1	2.9	1.2	.31	1.8	.64
CFSM	.80	.03	.02	.01	.06	.010	.70	.93	.02	.08	.04	.09
IN.	.92	.04	.02	.01	.07	.01	.79	1.07	.03	.09	.04	.10
AC-FT	15,070	573	293	203	1,080	186	12,810	17,450	448	1,440	696	1,580

CAL YR 1970 TOTAL 27,568.99 MEAN 75.5 MAX 4,420 MIN 0 CFSM .25 IN 3.35 AC-FT 54,680
WTR YR 1971 TOTAL 26,138.03 MEAN 71.6 MAX 7,680 MIN .31 CFSM .23 IN 3.18 AC-FT 51,840

PEAK DISCHARGE (BASE, 4,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-27	2000	26.25	7,840
4-18	0900	24.71	5,610
5-30	0730	27.30	11,700

08093700 North Bosque River at Stephenville, Tex.

LOCATION.--Lat 32°12'56", long 98°11'55", Erath County, in center of stream at downstream side of bridge on U.S. Highway 67 at Stephenville, 0.5 mile southeast of Erath County Courthouse, 1.5 miles downstream from Gulf, Colorado, and Santa Fe Railway bridge, and at mile 120.3.

DRAINAGE AREA.--93.2 sq mi.

PERIOD OF RECORD.--March 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,223.60 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 15.3 cfs (11,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,500 cfs May 29 (gage height, 14.10 ft); no flow at times.
Period of record: Maximum discharge, 12,100 cfs Oct. 4, 1959 (gage height, 19.90 ft, from floodmark), from rating curve extended above 4,250 cfs on basis of contracted-opening measurements of 40,000 and 49,000 cfs; no flow at times each year.
Maximum stage since at least 1854, 23.5 ft May 19, 1955, from floodmarks (discharge, 49,000 cfs, by contracted-opening measurement of peak flow).

REMARKS.--Records good. At end of year, flow from 49.8 sq mi above this station was partly controlled by 13 floodwater-retarding structures with a total combined capacity of 22,660 acre-ft below the flood-spillway crests, of which 20,870 acre-ft is floodwater-retarding capacity and 1,780 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. No diversion above station. Recording rain gage located at station.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.31	.16	.16	.14	.07	.09	.16	305	.09	2.0	.28
2	.01	.12	.14	.16	.12	.06	.09	.07	38	.02	.68	.25
3	.01	.08	.14	.16	.14	.06	.09	.03	11	0	.42	.23
4	.01	.06	.14	.14	.76	.06	.07	.02	5.0	0	.25	.18
5	.01	.05	.14	.12	.20	.06	.06	.02	2.0	0	.09	.16
6	.01	.05	.12	.12	.16	.07	.05	.03	.62	0	37	.11
7	0	.04	.12	.12	.12	.08	.04	.02	.20	0	170	.06
8	0	.04	.14	.14	.11	.09	.04	.02	.12	0	38	.04
9	0	.04	.16	.16	.11	.08	.04	.02	.07	0	8.5	.03
10	0	.04	.16	.16	.11	.08	.04	.46	.05	0	2.4	.02
11	0	.04	.16	.14	.11	.09	.04	.47	.04	0	.47	.01
12	.01	.04	.12	.16	.09	.09	.04	.03	.03	0	.23	0
13	.01	.05	.12	.18	.09	.09	.04	.01	.02	0	4.3	0
14	.01	.07	.12	.18	.08	.09	.05	.01	.03	0	1.8	0
15	0	.09	.16	.18	.08	.07	.05	.01	.03	0	.62	0
16	0	.08	.16	.16	.09	.07	1.0	.01	.04	0	.34	0
17	.01	.08	.14	.16	.11	.07	2.7	.01	.04	0	.18	0
18	.01	.09	.14	.16	.12	.07	1.1	0	.04	0	.08	0
19	.01	.11	.14	.14	.12	.07	.11	0	.03	0	.04	0
20	.01	.11	.14	.14	.12	.07	.62	.28	.02	0	.02	0
21	.01	.11	.16	.16	.80	.08	.12	.05	.02	0	.02	0
22	.01	.11	.16	.16	.20	.08	.06	.03	.01	0	.02	8.8
23	2.1	.09	.14	.18	.12	.09	.03	.06	.01	0	.02	17
24	.11	.09	.12	.18	.11	.09	.02	.23	0	0	20	15
25	.03	.11	.12	.16	2.1	.11	.02	.03	0	0	11	61
26	53	.12	.12	.16	.31	.12	.04	0	0	0	2.2	11
27	26	.16	.12	.16	.12	.14	.04	0	0	0	2.5	5.4
28	6.7	.14	.14	.14	.08	.16	2.1	.38	0	0	3.1	1.9
29	7.8	.16	.16	.14	------	.12	.42	970	3.7	4.3	.75	.75
30	7.1	.16	.34	.16	------	.11	1.0	371	.25	295	.42	.23
31	2.4	------	.20	.18	------	.09	------	209	------	19	.34	------
TOTAL	105.39	2.84	4.60	4.82	6.82	2.68	10.21	1,552.46	366.37	318.41	307.79	122.45
MEAN	3.40	.095	.15	.16	.24	.087	.34	50.1	12.2	10.3	9.93	4.08
MAX	53	.31	.34	.18	2.1	.16	2.7	970	305	295	170	61
MIN	0	.04	.12	.12	.08	.06	.02	0	0	0	.02	0
AC-FT	209	5.6	9.1	9.6	14	5.3	20	3,080	727	632	611	243
(††)	1.14	0	.23	.07	1.08	0	2.70	3.89	1.26	2.70	3.59	2.99

CAL YR 1970 TOTAL 5,176.85 MEAN 14.2 MAX 624 MIN 0 AC-FT 10,270 †† 23.97
WTR YR 1971 TOTAL 2,804.84 MEAN 7.68 MAX 970 MIN 0 AC-FT 5,560 †† 19.65

PEAK DISCHARGE (BASE, 1,000 CFS).--May 29 (0800) 2,500 cfs (14.10 ft).

†† Rainfall, in inches.

08094000 Green Creek subwatershed No. 1 near Dublin, Tex.

LOCATION.--Lat 32°09'57", long 98°20'28", Erath County, near center of dam on main headwater channel of Green Creek, 0.9 mile downstream from county road, 1.3 miles east of Farm Road 219, and 5.5 miles north of Dublin.

DRAINAGE AREA.--3.34 sq mi.

PERIOD OF RECORD.--May 1955 to current year.

GAGE.--Water-stage recorder and concrete drop inlet. Datum of gage is 1,408.00 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--16 years, 546 acre-ft per year.

AVERAGE OUTFLOW.--16 years, 384 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 14 cfs May 29 (gage height, 12.14 ft); no outflow most of time. Maximum inflow, 4,050 cfs (average for 5-minute interval) May 28, computed from outflow and change in pool contents and adjusted for rainfall on pool surface during time of peak inflow; no inflow for many days.
Period of record: Maximum outflow, 709 cfs May 1, 1956 (gage height, 23.21 ft); no outflow for most of time each year. Maximum inflow, 11,500 cfs (average for 5-minute interval) Apr. 30, 1956, computed and adjusted as above; no inflow for many days each year.

REMARKS.--Records good. The pool is formed by a rolled earthfill dam 3,000 ft long. The dam was completed Apr. 25, 1955, and storage began shortly thereafter. The outlet structure consists of a 30-inch square concrete drop inlet that is connected to a 14-inch concrete outlet pipe. The gage height at top of the drop inlet is 11.0 ft. The emergency spillway is a 250-foot wide cut in natural ground at the right end of dam. The gage height at crest of emergency spillway is 21.8 ft. There is a clean-out gate valve at the end of an 8-inch pipe which connects to the lower end of the drop-inlet box at a gage height of 3.76 ft. The pool capacity at the crest of emergency spillway is 1,097 acre-ft; at top of drop inlet, 223 acre-ft; and at controlled outlet pipe, 48.0 acre-ft. The dam was built by the Soil Conservation Service for flood control. A permit issued by the Texas Water Rights Commission grants 181 acre-ft per year for irrigation. During April about 4 acre-ft was released for irrigation purposes. Two recording rain gages are located in the watershed; one at station, and one above station. The surface area and capacity tables are based on a Soil Conservation Service sedimentation survey of June 1967.

REVISIONS (WATER YEARS).--WSP 1922: 1955-60(M). Revised figures of inflow and outflow, superseding those published in WSP 1632, 1712, and 1922, are given in the following tables:

Net inflow, in acre-feet

Water year	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water year	Calendar year
1955	-	-	-	-	-	-	-	783	23.6	2.0	2.9	32.8	-	-
1956	21.3	4.2	0.2	21.1	9.4	0	1,020	95.6	1.1	.1	.3	0	1,170	1,210
1957	.7	3.3	63.3	5.1	6.0	10.5	358	619	0	20.5	.1	1.7	1,090	1,190
1958	55.7	107	3.3	5.2	.5	20.7	53.2	59.9	.4	115	.3	9.6	431	269
1959	.1	3.6	.2	0	1.2	.1	12.1	.1	191	14.4	.6	17.1	240	808
1960	501	52.9	17.7	71.7	13.6	10.0	.1	55.0	21.0	19.9	.2	0	763	197
1961	.2	.3	6.3	53.6	44.9	1.1	.9	5.8	3.3	65.4	.4	3.5	186	413
1962	229	2.6	2.1	.2	.8	.4	7.3	.3	5.4	7.2	10.3	148	414	265
1963	79.8	5.3	.2	0	0	.1	96.1	69.7	8.3	1.4	.7	8.2	270	336

Outflow, in acre-feet

Water year	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water year	Calendar year
1955	-	-	-	-	-	-	-	414	243	0	17.3	13.1	-	-
1956	6.0	6.0	0	17.9	0	0	5.8	984	14.7	21.4	12.9	12.3	1,080	1,070
1957	0	0	0	0	0	0	128	684	57.0	0	0	0	869	918
1958	0	46.2	3.1	3.1	4.4	3.1	17.9	75.2	0	58.1	0	0	211	165
1959	0	3.0	0	0	0	0	7.2	0	46.2	0	0	0	56.4	1,150
1960	502	59.5	.2	73.0	7.3	0	0	26.0	15.2	13.7	3.1	2.0	702	140
1961	0	0	0	0	0	0	0	0	0	0	0	0	0	158
1962	158	0	0	0	0	0	0	2.0	0	0	0	44.6	205	110
1963	63.8	0	0	0	0	5.0	19.8	40.6	21.5	8.9	0	5.6	165	96.6

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	2.8	0	0	0	0	0	1.3	250	19.3	0	27.0	3.1
Outflow	0	0	0	0	0	0	3.6	71.4	36.4	0	0	0
(††)	1.58	.02	.21	.04	.98	.17	2.04	5.36	.24	1.93	2.50	2.92

CAL YR 1970: Inflow 457 Outflow 407 †† 21.44
WTR YR 1971: Inflow 304 Outflow 111 †† 18.00

PEAK INFLOW (BASE, 100 CFS)

DATE	TIME	DISCHARGE
5-28	1925	*4,050
5-31	2240	*188
8- 6	2200	*176

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted-mean rainfall, in inches.
* Based on 5-minute interval.

08094500 Green Creek near Alexander, Tex.

LOCATION.--Lat 32°04'26", long 98°13'46", Erath County, at downstream side of bridge on State Highway 6, 0.5 mile upstream from Cottonwood Creek, and 1.7 miles northwest of Alexander.

DRAINAGE AREA.--46.1 sq mi.

PERIOD OF RECORD.--October 1954 to April 1958 (annual maximums only), May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,172.00 ft above mean sea level. Prior to May 27, 1958, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--13 years, 6.03 cfs (4,370 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 852 cfs May 28 (gage height, 7.99 ft), no flow at times.
Period of record: Maximum discharge, 23,900 cfs Apr. 30, 1956 (gage height, 23.95 ft), from rating curve extended above 2,400 cfs on basis of contracted-opening measurement of 23,900 cfs; no flow at times each year.
Maximum discharge since at least 1910, 55,800 cfs May 23, 1952 (gage height, 28.0 ft), on basis of contracted-opening measurement of peak flow.

REMARKS.--Records good. At end of year, flow from 22.3 sq mi above this station was partly controlled by eight floodwater-retarding structures with a total combined capacity of 7,470 acre-ft below flood-spillway crests, of which 6,510 acre-ft is floodwater-retarding capacity and 960 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Four rain gages (one standard and three recording) are operated in the basin.

REVISIONS.--WRD Texas 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.06	.07	.06	.03	.04	.02	0	120		0	0
2	0	.06	.07	.06	.03	.04	.02	0	18		0	0
3	0	.06	.07	.05	.03	.04	.02	0	10		0	0
4	0	.06	.07	.04	.03	.04	.01	0	5.4		0	0
5	0	.07	.07	.04	.03	.04	.01	0	3.0		0	0
6	0	.07	.06	.04	.03	.04	.01	0	2.2		0	0
7	0	.07	.06	.04	.03	.04	.01	0	1.5		0	0
8	0	.07	.06	.04	.03	.04	.01	0	.90		0	0
9	0	.06	.06	.05	.03	.05	.01	0	.13		0	0
10	.01	.06	.06	.05	.03	.04	.01	0	.02		0	0
11	.01	.06	.06	.06	.04	.05	0	0	0		0	0
12	.01	.06	.05	.06	.03	.05	0	0	0		0	0
13	.01	.06	.05	.06	.03	.05	0	0	0		0	0
14	.01	.06	.05	.06	.03	.04	0	0	0		0	0
15	.01	.06	.06	.05	.04	.04	0	0	0		0	0
16	.01	.07	.05	.05	.04	.03	0	0	0		0	0
17	.01	.07	.05	.05	.04	.03	0	0	0		0	0
18	.01	.09	.05	.05	.04	.03	0	0	0		0	0
19	.01	.09	.05	.05	.04	.03	0	0	0		0	0
20	.01	.09	.05	.05	.03	.03	0	0	0		0	0
21	.01	.09	.05	.05	.04	.03	0	0	0		0	0
22	.02	.07	.05	.04	.04	.03	0	0	0		0	0
23	.03	.07	.05	.04	.04	.03	0	0	0		0	0
24	.03	.07	.05	.04	.04	.03	0	0	0		0	12
25	.03	.07	.05	.04	.05	.03	0	0	0		20	5.1
26	.06	.09	.05	.04	.05	.03	0	0	0		4.1	.05
27	.06	.09	.05	.04	.04	.03	0	0	0		.01	0
28	.05	.07	.05	.04	.04	.03	0	62	0		0	0
29	.05	.07	.05	.04	------	.03	0	87	0		0	0
30	.05	.07	.07	.04	------	.03	0	20	0		0	0
31	.05	------	.06	.03	------	.03	------	33	------		0	------
TOTAL	.55	2.11	1.75	1.45	1.00	1.12	.13	202	161.15	0	24.11	17.15
MEAN	.018	.070	.057	.047	.036	.036	.004	6.52	5.37	0	.78	.57
MAX	.06	.09	.07	.06	.05	.05	.02	87	120	0	20	12
MIN	0	.06	.05	.03	.03	.03	0	0	0	0	0	0
CFSM	.0004	.002	.001	.001	.0008	.0008	.0001	.14	.12	0	.02	.01
IN.	0	.001	.001	.001	0	0	0	.16	.13	0	.02	.01
AC-FT	1.1	4.2	3.5	2.9	2.0	2.2	.3	401	320	0	48	34

CAL YR 1970 TOTAL 2,976.19 MEAN 8.15 MAX 162 MIN 0 CFSM .18 IN 2.40 AC-FT 5,900
WTR YR 1971 TOTAL 412.52 MEAN 1.13 MAX 120 MIN 0 CFSM .02 IN .33 AC-FT 818

08094800 North Bosque River at Hico, Tex.

LOCATION.--Lat 31°58'39", long 98°02'05", Hamilton County, on left bank at downstream side of bridge on U.S. Highway 281 near south boundary of Hico, 2.5 miles downstream from Gilmore Creek, 5.0 miles upstream from Honey Creek, and at mile 92.4.

DRAINAGE AREA.--357 sq mi.

PERIOD OF RECORD.--January 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 982.46 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 49.3 cfs (35,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,200 cfs May 28 (gage height, 13.35 ft); no flow July 6-27, Sept. 21.
Period of record: Maximum discharge, 16,800 cfs May 16, 1965 (gage height, 21.83 ft), from rating curve extended above 9,000 cfs; no flow at times in 1962-65, 1967-68, 1971.
Maximum stage since at least 1880, 27.6 ft May 23, 1952, from floodmarks (discharge, 87,800 cfs, by contracted-opening measurement).

REMARKS.--Records good. At end of year, flow from 153 sq mi above this station was partly controlled by 38 floodwater-retarding structures with a total combined capacity of 60,510 acre-ft below the flood-spillway crests, of which 55,180 acre-ft is floodwater-retarding capacity and 5,330 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	11	6.5	6.6	5.2	5.0	4.1	7.7	368	.82	12	.68
2	12	9.3	6.5	7.8	4.7	4.4	1.3	4.8	122	.42	4.2	.56
3	10	8.0	6.8	7.9	4.7	4.3	1.4	3.3	64	.21	3.1	.56
4	8.6	8.0	6.9	5.8	7.5	3.6	1.2	2.5	36	.11	2.5	.56
5	10	7.6	6.6	4.9	7.2	3.0	1.7	2.1	22	.03	1.9	.51
6	11	7.5	6.5	5.1	5.7	3.2	1.3	1.7	13	0	1.6	.46
7	9.8	7.8	6.5	5.5	5.7	2.8	1.2	1.4	7.5	0	94	.42
8	8.5	7.1	6.5	5.5	6.6	2.6	1.1	1.2	5.0	0	50	.38
9	7.8	6.5	6.5	5.5	6.5	3.6	.92	.79	3.8	0	21	.38
10	7.4	7.3	7.1	5.5	6.4	4.2	.93	1.6	2.7	0	8.9	.30
11	7.4	6.7	7.1	5.5	6.6	3.8	1.1	2.1	2.4	0	3.9	.27
12	23	8.0	7.0	5.1	6.8	4.0	1.4	1.9	2.0	0	3.0	.21
13	12	7.1	6.9	5.7	5.8	3.6	1.2	.96	1.3	0	6.7	.24
14	8.5	5.6	6.5	5.7	5.1	3.8	1.5	1.8	1.2	0	3.7	.27
15	7.5	6.6	6.8	5.1	5.1	3.5	1.6	1.4	1.1	0	4.5	.27
16	7.5	6.8	7.1	4.8	6.1	3.0	2.8	.96	1.5	0	3.6	.30
17	7.5	6.8	8.0	4.6	6.4	3.1	3.4	.71	1.3	0	2.8	.21
18	8.5	5.6	7.2	4.4	6.9	3.1	19	.54	1.1	0	2.3	.11
19	8.5	5.3	7.8	4.2	4.9	2.5	9.8	.32	.90	0	2.1	.05
20	8.2	5.3	8.0	4.1	3.2	2.5	4.2	.45	1.1	0	2.0	.04
21	7.9	5.3	8.3	4.4	5.0	2.4	2.6	.91	1.2	0	1.9	0
22	7.6	5.3	8.4	4.4	4.2	2.6	2.8	1.3	1.4	0	2.0	.27
23	75	5.1	8.4	4.4	6.2	2.4	2.2	1.3	1.4	0	2.3	3.8
24	31	4.9	7.8	4.8	5.9	2.4	1.3	1.4	1.8	0	2.2	7.5
25	15	5.2	7.6	4.6	7.2	2.4	.79	.90	1.6	0	31	35
26	9.3	5.8	7.1	4.9	6.3	2.4	.78	.90	1.5	0	31	31
27	55	7.2	7.0	5.7	12	2.7	.66	1.5	1.1	0	4.4	10
28	30	8.9	6.8	5.7	6.2	3.3	.71	308	.56	56	1.6	4.4
29	13	7.5	6.9	5.0	------	3.9	15	1,210	.38	30	.82	3.0
30	11	7.1	11	5.3	------	5.4	18	423	1.4	184	.62	2.4
31	11	------	9.0	5.5	------	4.8	------	137	------	58	.82	------
TOTAL	463.5	206.2	227.1	164.0	170.1	104.3	105.99	2,124.44	670.24	329.59	312.46	104.15
MEAN	15.0	6.87	7.33	5.29	6.08	3.36	3.53	68.5	22.3	10.6	10.1	3.47
MAX	75	11	11	7.9	12	5.4	19	1,210	368	184	94	35
MIN	7.4	4.9	6.5	4.1	3.2	2.4	.66	.32	.38	0	.62	0
AC-FT	919	409	450	325	337	207	210	4,210	1,330	654	620	207

CAL YR 1970 TOTAL 30,432.71 MEAN 83.4 MAX 2,140 MIN .95 AC-FT 60,360
WTR YR 1971 TOTAL 4,982.07 MEAN 13.6 MAX 1,210 MIN 0 AC-FT 9,880

PEAK DISCHARGE (BASE, 2,500 CFS).--May 28 (2345) 5,200 cfs (13.35 ft).

08095000 North Bosque River near Clifton, Tex.

LOCATION.--Lat 31°47'09", long 97°34'04", Bosque County, near left bank on downstream side of bridge on Farm Road 219, 0.5 mile northeast of Clifton, 2.9 miles downstream from Meridian Creek, and at mile 42.0

DRAINAGE AREA.--972 sq mi.

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 605.43 ft above mean sea level. Prior to Oct. 1, 1955, and from Apr. 23, 1957, to Mar. 26, 1958, nonrecording gage at site 1.1 miles upstream at datum 17.02 ft higher; from Oct. 1, 1955, to Apr. 22, 1957, and from Mar. 27, 1958, to Sept. 30, 1959, water-stage recorder (destroyed by floods of Apr. 27, 1957, and Oct. 4, 1959) and Oct. 1, 1959, to Jan. 1, 1961, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--48 years, 201 cfs (145,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,210 cfs May 29 (gage height, 7.26 ft); minimum, 0.09 cfs July 19-20.
Period of record: Maximum discharge, 92,800 cfs Oct. 4, 1959 (gage height, 34.88 ft), from rating curve extended above 34,000 cfs on basis of contracted-opening measurement of 92,800 cfs; no flow at times.
Maximum stage since at least 1854, that of Oct. 4, 1959. Flood of May 9, 1922, reached a stage of about 32 ft, from information by local residents.

REMARKS.--Records good. The city of Clifton diverted 31 acre-ft of water from the river above the station for municipal use and returned 306 acre-ft of sewage effluent below station. The city of Meridian discharged 52 acre-ft of sewage effluent into the river above station. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see North Bosque River near Hico (station 08094800). Recording rain gage located at station.

REVISIONS (WATER YEARS).--WSP 788: 1924-26, 1928, 1930. WSP 1058: 1945(M). WSP 1512: 1924(M), 1927, 1928(M), 1929, 1930(M), 1931-33, 1934(M), 1935-37, 1939. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	38	24	33	18	36	8.4	56	147	.62	132	12
2	39	36	24	31	18	33	8.4	42	291	.40	60	14
3	33	34	24	30	18	31	9.4	33	128	.19	39	7.9
4	28	32	24	27	20	28	9.7	24	83	.22	76	10
5	26	30	23	26	18	26	10	20	57	.36	108	6.5
6	25	28	23	25	18	26	9.4	16	41	.40	79	3.3
7	23	27	23	24	18	23	8.4	15	28	.25	31	2.1
8	23	27	23	24	17	21	7.4	18	22	.28	65	1.7
9	22	26	23	23	17	20	7.6	107	16	.36	71	1.4
10	21	25	23	23	18	19	7.6	145	13	.17	56	1.1
11	20	24	23	23	18	22	7.6	71	11	.13	38	.98
12	25	23	23	23	17	24	7.4	32	8.7	.17	27	.85
13	26	23	23	23	18	22	7.1	16	7.6	.19	20	.62
14	25	23	23	23	17	23	7.6	12	5.3	.19	16	.44
15	28	23	24	22	16	27	7.9	11	4.9	.22	14	.32
16	25	22	24	22	16	22	11	9.4	4.5	.19	25	.32
17	23	22	23	22	17	18	25	7.1	3.3	.17	17	.36
18	22	22	23	21	20	18	152	6.3	3.2	.17	13	.32
19	22	22	23	20	20	16	57	5.5	2.7	.13	9.0	.36
20	22	22	23	20	18	15	49	6.0	2.3	.11	7.4	.31
21	22	22	23	20	20	14	46	6.0	2.1	.28	5.8	.32
22	22	22	23	20	18	13	36	6.8	2.5	.44	4.7	.57
23	156	21	23	20	18	12	22	6.8	3.5	.40	3.9	.85
24	118	21	23	19	18	11	18	39	2.2	.68	3.6	5.5
25	92	21	23	18	23	12	15	59	1.0	1.5	3.0	68
26	206	21	23	18	68	12	14	20	.68	8.2	6.5	44
27	418	22	23	18	56	11	13	10	.44	19	154	44
28	145	22	23	18	42	10	12	7.1	.79	97	77	42
29	89	22	23	18	------	10	153	486	.73	170	34	25
30	56	23	28	18	------	9.7	92	927	.57	298	19	16
31	44	------	32	18	------	8.7	------	323	------	306	9.4	------
TOTAL	1,892	746	733	690	620	593.4	838.9	2,543.0	894.01	906.42	1,224.3	311.12
MEAN	61.0	24.9	23.6	22.3	22.1	19.1	28.0	82.0	29.8	29.2	39.5	10.4
MAX	418	38	32	33	68	36	153	927	291	306	154	68
MIN	22	21	23	18	16	8.7	7.1	5.5	.44	.11	3.0	.31
AC-FT	3,750	1,480	1,450	1,370	1,230	1,180	1,660	5,040	1,770	1,800	2,430	617

CAL YR 1970 TOTAL 97,294.20 MEAN 267 MAX 5,810 MIN 4.7 AC-FT 193,000
WTR YR 1971 TOTAL 11,992.15 MEAN 32.9 MAX 927 MIN .11 AC-FT 23,790

PEAK DISCHARGE (BASE, 8,300 CFS).--No peak above base.

08095200 North Bosque River at Valley Mills, Tex.

LOCATION.--Lat 31°40'10", long 97°28'09", Bosque County, on right bank at downstream side of bridge on Farm Road 56, about 0.8 mile downstream from Thompson Hollow, and 0.8 mile north of intersection of State Highway 6 and Farm Road 56 in Valley Mills.

DRAINAGE AREA.--1,150 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 524.55 ft above mean sea level. Prior to Dec. 29, 1959, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 278 cfs (201,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,860 cfs Oct. 27 (gage height, 9.59 ft); minimum, 0.23 cfs July 23.
Period of record: Maximum discharge, 107,000 cfs Oct. 4, 1959 (gage height, 40.22 ft, from floodmark), from rating curve extended above 28,200 cfs on basis of slope-area measurement of 107,000 cfs; no flow Oct. 5-12, 1965.
Maximum stage since at least 1868, 43 ft in May 1908. Floods in September 1936 and April 1945 reached a stage of about 38 ft, from information by local residents.

REMARKS.--Records good. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see North Bosque River at Hico (station 08094800). Small diversions above station. Recording rain gage located at station.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	47	32	47	26	39	14	67	167	4.1	170	13
2	58	42	32	47	26	34	13	44	251	3.7	72	16
3	49	41	32	44	25	32	13	37	142	3.4	43	16
4	43	39	32	39	28	29	14	28	84	3.2	81	11
5	39	38	31	37	29	28	14	24	59	2.8	127	13
6	37	35	31	35	27	25	14	21	45	2.5	109	11
7	35	35	30	34	27	24	14	19	35	2.3	40	9.1
8	33	34	30	33	27	23	13	18	26	2.2	42	5.9
9	32	33	29	32	27	22	12	22	21	2.0	52	4.8
10	30	31	30	32	27	21	12	174	16	1.9	57	4.5
11	30	31	31	32	27	21	13	72	14	1.7	39	4.3
12	34	30	30	32	26	26	12	49	12	1.5	25	4.2
13	38	30	29	32	26	26	12	26	11	1.3	19	3.9
14	36	30	30	31	26	22	12	19	9.6	1.1	15	3.9
15	36	31	30	30	26	25	12	15	8.9	.92	13	3.9
16	38	30	32	29	26	25	15	14	7.9	.82	14	3.9
17	34	30	30	30	26	22	21	13	7.2	.70	18	3.8
18	32	29	31	29	30	20	312	11	6.5	.62	13	3.7
19	32	29	32	29	39	20	67	11	6.1	.54	11	3.7
20	32	30	31	28	26	19	50	11	5.8	.46	9.4	3.8
21	32	30	32	28	30	18	50	10	5.6	.38	8.8	3.9
22	31	29	34	29	27	18	41	10	19	.32	8.3	4.2
23	239	29	33	28	24	18	32	12	12	.25	7.1	4.6
24	179	28	32	28	23	17	26	13	7.1	1.0	6.2	4.8
25	113	28	31	26	28	16	23	61	6.3	.93	15	26
26	75	29	30	26	51	17	22	36	5.9	.93	9.7	35
27	646	30	30	26	67	17	20	19	5.3	17	80	22
28	181	32	31	26	48	16	19	15	5.0	148	99	33
29	100	32	30	27	------	15	124	269	4.8	312	44	20
30	73	31	38	27	------	14	68	854	4.6	282	24	13
31	56	------	46	26	------	14	------	368	------	321	18	------
TOTAL	2,493	973	982	979	845	683	1,084	2,362	1,010.6	1,121.57	1,289.5	309.9
MEAN	80.4	32.4	31.7	31.6	30.2	22.0	36.1	76.2	33.7	36.2	41.6	10.3
MAX	646	47	46	47	67	39	312	854	251	321	170	35
MIN	30	28	29	26	23	14	12	10	4.6	.25	6.2	3.7
AC-FT	4,940	1,930	1,950	1,940	1,680	1,350	2,150	4,690	2,000	2,220	2,560	615

CAL YR 1970 TOTAL 111,723.90 MEAN 306 MAX 6,700 MIN 9.9 AC-FT 221,600
WTR YR 1971 TOTAL 14,132.57 MEAN 38.7 MAX 854 MIN .25 AC-FT 28,030

PEAK DISCHARGE (BASE, 8,500 CFS).--No peak above base.

08095300 Middle Bosque River near McGregor, Tex.

LOCATION.--Lat 31°30'33", long 97°21'56", McLennan County, on downstream side of bridge on county road, 1,100 ft downstream from Pecan Creek, 5.2 miles northeast of McGregor, and 8.2 miles upstream from South Bosque River.

DRAINAGE AREA.--182 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 530.51 ft above mean sea level. Prior to Oct. 27, 1959, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 90.2 cfs (65,350 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,500 cfs July 25 (gage height, 10.31 ft); no flow June 5 to July 23.
Period of record: Maximum discharge, 32,600 cfs June 16, 1964 (gage height, 24.30 ft); no flow at times in 1960-64, 1967, 1971.
Historical flood information begins with flood in 1889 which reached a stage of 28.5 ft; flood in 1957 reached a stage of 28.2 ft; and floods in 1913 and 1942 or 1943 reached a stage of about 28 ft, from information by local residents.

REMARKS.--Records excellent. No diversion above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	11	4.5	4.5	1.2	3.0	.44	.64	.01	0	127	59
2	1.8	10	4.5	4.1	1.3	2.7	.47	.50	.01	0	137	52
3	1.6	9.2	4.5	3.7	1.3	3.0	.38	.37	.01	0	132	92
4	1.5	8.5	4.1	3.0	1.6	1.8	.39	.25	.01	0	841	48
5	1.3	7.8	4.1	2.7	1.2	1.8	.41	.17	0	0	267	38
6	1.2	7.8	3.7	2.7	1.6	1.8	.31	.13	0	0	243	32
7	1.2	8.5	3.7	2.4	1.3	1.3	.30	.12	0	0	281	28
8	1.3	8.5	3.7	2.4	1.3	1.3	.27	.10	0	0	169	25
9	1.0	7.8	3.7	2.7	1.3	1.2	.23	.10	0	0	121	23
10	.87	6.6	3.7	2.4	1.2	1.3	.23	.12	0	0	100	20
11	6.2	6.6	3.7	2.4	1.2	1.3	.23	.12	0	0	84	20
12	37	6.0	3.7	2.1	.96	1.3	.21	.08	0	0	76	18
13	8.5	6.6	3.7	2.4	.96	2.1	.17	.04	0	0	73	17
14	5.5	6.0	3.3	2.7	.96	1.8	.17	.03	0	0	70	16
15	4.1	6.0	3.7	2.4	.96	2.1	.20	.03	0	0	63	15
16	3.7	5.5	3.3	2.4	.96	1.8	1.5	.02	0	0	56	13
17	3.7	5.5	3.3	2.4	.96	1.3	3.0	.01	0	0	50	12
18	3.3	5.5	3.3	2.4	1.8	1.2	28	.01	0	0	45	11
19	3.7	5.5	3.3	2.1	27	.96	14	.01	0	0	42	9.8
20	3.7	5.5	3.3	2.1	6.6	.96	6.4	.02	0	0	40	10
21	3.3	5.0	3.3	2.1	3.7	.80	4.2	.02	0	0	37	11
22	3.0	4.5	3.3	1.8	3.7	.80	3.0	.02	0	0	34	12
23	337	4.1	3.3	1.8	4.1	.79	2.2	.02	0	0	31	18
24	97	3.7	3.0	2.1	3.0	.64	1.6	.01	0	.32	28	24
25	27	3.7	3.0	2.1	3.7	.76	1.3	.01	0	2,030	28	31
26	18	4.5	2.7	1.8	4.5	.80	1.2	.01	0	63	34	21
27	15	5.0	2.7	1.8	3.7	.81	1.1	.01	0	1,200	35	17
28	12	4.5	3.0	1.8	3.3	.83	.83	.13	0	298	31	14
29	11	4.5	2.7	1.8	------	.71	.75	.04	0	472	24	13
30	11	4.5	4.5	1.6	------	.57	.75	.02	0	1,400	147	11
31	11	------	5.0	1.3	------	.49	------	.02	------	209	372	------
TOTAL	638.27	188.4	111.3	74.0	85.36	42.02	74.24	3.18	.04	5,672.32	3,818	730.8
MEAN	20.6	6.28	3.59	2.39	3.05	1.36	2.47	.10	.001	183	123	24.4
MAX	337	11	5.0	4.5	27	3.0	28	.64	.01	2,030	841	92
MIN	.87	3.7	2.7	1.3	.96	.49	.17	.01	0	0	24	9.8
AC-FT	1,270	374	221	147	169	83	147	6.3	.08	11,250	7,570	1,450

CAL YR 1970 TOTAL 21,290.40 MEAN 58.3 MAX 2,650 MIN .10 AC-FT 42,230
WTR YR 1971 TOTAL 11,437.93 MEAN 31.3 MAX 2,030 MIN 0 AC-FT 22,690

PEAK DISCHARGE (BASE, 8,000 CFS).--No peak above base.

08095400 Hog Creek near Crawford, Tex.

LOCATION.--Lat 31°33'20", long 97°21'22", McLennan County, on downstream side of bridge on Farm Road 185, 5.6 miles east of Crawford, and 9.8 miles upstream from South Bosque River.

DRAINAGE AREA.--78.2 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 560.54 ft above mean sea level. Prior to Oct. 27, 1959, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 38.2 cfs (27,680 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,010 cfs Aug. 31 (gage height, 7.44 ft); no flow for part of each day July 17, 18.
Period of record: Maximum discharge, 15,400 cfs Oct. 4, 1959 (gage height, 14.31 ft); no flow at times in 1959, 1963-64, and 1971.
Maximum stage since 1900, 17.5 ft Sept. 26, 1936. Flood in April or May 1957 reached a stage of 15.7 ft, from information by local residents.

REMARKS.--Records excellent. No known diversions above station. Recording rain gage located at station.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	3.4	1.7	1.6	.59	1.5	.24	.25	.09	.05	14	27
2	.33	3.4	1.8	1.9	.59	1.4	.21	.21	.08	.04	9.6	13
3	.33	3.4	1.7	2.0	.59	1.1	.21	.19	.07	.04	7.5	10
4	.33	3.4	1.7	1.6	.72	.93	.21	.16	.06	.04	148	15
5	.33	3.4	1.7	1.4	.66	.71	.21	.17	.04	.03	80	8.2
6	.33	3.4	1.7	1.2	.56	.60	.20	.16	.05	.03	38	5.9
7	.33	3.4	1.7	1.0	.49	.43	.21	.16	.05	.03	40	4.5
8	.34	3.4	1.7	.98	.49	.42	.19	.15	.05	.02	26	3.7
9	.32	3.0	1.7	.98	.49	.41	.17	.16	.05	.01	19	3.0
10	.30	3.0	1.5	.98	.49	.38	.18	.16	.04	.03	15	2.7
11	11	3.0	1.5	.98	.49	.40	.16	.19	.03	.03	12	2.5
12	18	3.0	1.4	.98	.46	.77	.17	.19	.03	.03	10	2.2
13	1.1	3.0	1.3	.98	.40	.63	.16	.16	.04	.02	9.4	1.9
14	.70	2.7	1.3	.98	.42	.78	.16	.16	.04	.02	9.3	1.9
15	.70	2.4	1.4	.98	.43	.74	.16	.14	.05	.02	7.8	1.7
16	.70	2.7	1.3	.98	.45	.60	.42	.13	.04	.03	6.7	1.5
17	.70	2.4	1.3	.98	.46	.56	.71	.12	.04	.02	6.2	1.5
18	.70	2.4	1.4	.82	.57	.48	17	.12	.03	.01	5.7	1.3
19	.82	2.4	1.4	.82	1.0	.37	3.9	.11	.04	.02	5.1	1.3
20	.82	2.2	1.3	.82	.57	.33	4.1	.21	.05	.03	4.6	1.3
21	.70	2.2	1.3	.82	1.2	.34	2.0	.20	1.6	.03	4.1	1.3
22	.82	2.2	1.3	.82	1.5	.34	1.2	.20	.26	.04	3.7	1.5
23	208	1.9	1.1	.82	1.3	.31	.75	.19	.11	.02	3.4	1.7
24	54	1.9	1.0	.82	1.1	.31	.54	.15	.08	.22	3.0	1.9
25	14	1.9	1.0	.70	1.5	.33	.40	.13	.07	27	3.0	3.0
26	8.9	1.9	.98	.70	1.8	.33	.33	.13	.07	1.1	4.8	4.5
27	5.9	1.9	.98	.70	2.0	.33	.30	.12	.06	54	5.1	3.4
28	5.0	1.7	.98	.70	1.8	.32	.26	.12	.06	4.8	5.4	2.5
29	3.7	1.7	.98	.70	------	.26	.26	.11	.06	11	5.1	1.9
30	3.7	1.8	1.6	.70	------	.25	.26	.11	.05	174	4.1	1.5
31	3.4	------	1.4	.59	------	.25	------	.10	------	34	438	------
TOTAL	346.63	78.5	43.12	31.03	23.12	16.91	35.27	4.86	3.39	306.76	953.6	133.3
MEAN	11.2	2.62	1.39	1.00	.83	.55	1.18	.16	.11	9.90	30.8	4.44
MAX	208	3.4	1.8	2.0	2.0	1.5	17	.25	1.6	174	438	27
MIN	.30	1.7	.98	.59	.40	.25	.16	.10	.03	.01	3.0	1.3
AC-FT	688	156	86	62	46	34	70	9.6	6.7	608	1,890	264

CAL YR 1970 TOTAL 7,669.53 MEAN 21.0 MAX 1,000 MIN .16 AC-FT 15,210
WTR YR 1971 TOTAL 1,976.49 MEAN 5.42 MAX 438 MIN .01 AC-FT 3,920

PEAK DISCHARGE (BASE, 3,000 CFS).--Aug. 31 (0215) 4,010 cfs (7.44 ft).

08095550 Waco Lake near Waco, Tex.
(Formerly published as Waco Reservoir near Waco)

LOCATION.--Lat 31°34'46", long 97°11'51", McLennan County, in intake structure at Waco Dam on Bosque River, at northwest edge of city limits of Waco, and 4.6 miles upstream from Brazos River.

DRAINAGE AREA.--1,652 sq mi.

PERIOD OF RECORD.--February 1965 to current year. Prior to October 1970, published as Waco Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 182,100 acre-ft Aug. 5 (elevation, 458.93 ft); minimum, 136,700 acre-ft July 23 (elevation, 452.78 ft).
Period of record: Maximum contents, 292,100 acre-ft May 15, 1968 (elevation, 470.86 ft); minimum since initial filling, 134,300 acre-ft Sept. 20, 1965 (elevation, 452.43 ft).

REMARKS.--Lake is formed by a rolled earthfill dam, 24,618 ft long, including spillway. Lake was built for flood control and water conservation. Outlet works consist of three gate-controlled outlets (6 by 20 ft) opening into one 20-foot-diameter concrete conduit and two 54-inch concrete pipes. Emergency spillway controlled by 14 (40 by 35 ft) tainter gates. Low-flow releases are made through two 54-inch valves. The water supply releases are controlled by four 54-inch butterfly valves. Flow into two wet wells is controlled by four (5 by 6 ft) slide gates with lowest invert at 408.0 ft, used by city of Waco to obtain municipal water supply. Oct. 1, 1964, to Feb. 26, 1965, lake operated as a detention basin only. Old Lake Waco was breached Feb. 26, 1965, and deliberate impoundment was started. Capacity is based on maps prepared in 1956, and resurvey of old Lake Waco in 1964. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see North Bosque River near Hico (station 08094800). Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	510.0	
Top of gates	500.0	726,400
Crest of spillway	465.0	233,500
Top of conservation pool	455.0	152,500
Invert of lowest intake	400.0	580

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

452.0	131,400	456.0	159,800
453.0	138,300	457.0	167,300
454.0	145,300	458.0	174,800
455.0	152,500	459.0	182,600

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148,200	154,700	153,700	153,800	152,900	153,500	151,200	151,300	150,400	144,200	178,200	156,300
2	148,100	154,600	153,700	153,800	152,900	153,500	151,100	151,200	150,700	144,000	177,900	156,000
3	148,100	154,600	153,800	153,800	152,900	153,300	150,900	151,000	150,800	143,600	177,200	155,800
4	148,000	154,500	153,800	153,800	152,900	153,200	150,800	150,800	150,700	143,200	181,600	155,500
5	148,000	154,300	153,800	153,700	152,900	153,200	150,600	150,700	150,600	142,800	182,000	155,200
6	147,900	154,300	153,800	153,500	152,800	153,100	150,300	150,600	150,500	142,600	181,800	155,000
7	147,900	154,300	153,800	153,500	152,700	152,900	150,100	150,500	150,200	142,200	181,700	154,600
8	147,800	154,400	153,700	153,500	152,600	152,800	149,900	150,300	149,900	141,900	181,100	154,300
9	147,600	154,300	153,700	153,500	152,500	152,800	149,800	150,200	149,600	141,600	180,200	153,700
10	147,400	154,300	153,700	153,500	152,400	152,700	149,500	150,600	149,300	141,200	179,300	153,300
11	148,100	154,300	153,700	153,500	152,300	152,600	149,300	150,700	149,000	140,900	178,400	152,900
12	148,500	154,300	153,700	153,500	152,200	153,000	149,100	150,600	148,800	140,600	177,400	152,600
13	148,500	154,300	153,600	153,500	152,100	153,100	149,100	150,400	148,500	140,200	176,400	150,300
14	148,300	154,200	153,600	153,500	152,100	153,100	148,900	150,200	148,200	139,900	175,400	147,900
15	148,200	154,000	153,600	153,500	152,100	153,000	148,800	149,900	148,000	139,500	174,300	147,800
16	148,100	154,000	153,600	153,500	152,100	152,900	149,800	149,600	147,800	139,200	173,300	147,600
17	148,100	154,000	153,500	153,500	152,100	152,800	150,300	149,400	147,500	138,800	172,200	147,500
18	148,100	153,900	153,500	153,500	152,700	152,600	151,300	149,200	147,100	138,400	171,000	147,100
19	148,100	153,900	153,500	153,400	152,800	152,400	151,500	149,000	146,700	138,100	169,600	146,800
20	148,000	153,800	153,500	153,300	152,900	152,300	151,600	149,200	146,500	137,800	167,800	146,700
21	148,000	153,800	153,500	153,300	153,200	152,200	151,800	149,000	147,000	137,600	166,000	146,400
22	148,000	153,800	153,600	153,300	153,100	152,100	151,800	148,900	146,700	137,200	164,100	146,500
23	151,400	153,500	153,700	153,300	152,900	151,900	151,700	148,800	146,500	137,200	162,400	146,500
24	152,500	153,500	153,700	153,300	152,900	151,900	151,600	148,500	146,200	139,700	161,000	146,800
25	152,900	153,500	153,600	153,300	153,200	151,900	151,500	148,300	146,000	157,700	159,600	146,900
26	153,100	153,500	153,500	153,200	153,300	151,800	151,500	148,100	145,700	160,600	157,600	146,900
27	154,100	153,500	153,500	153,200	153,300	151,700	151,400	148,000	145,300	165,900	156,200	147,000
28	154,400	153,600	153,500	153,200	153,400	151,700	151,300	147,800	145,200	167,600	155,500	147,000
29	154,600	153,600	153,500	153,200	------	151,500	151,300	147,700	144,900	171,800	154,500	147,000
30	154,700	153,700	153,900	153,200	------	151,400	151,300	149,300	144,600	178,400	154,800	146,900
31	154,700	------	153,800	153,200	------	151,300	------	150,100	------	178,700	156,500	------
(†)	455.30	455.16	455.18	455.09	455.12	454.84	454.84	454.67	453.90	458.50	455.54	454.22
(*)	+6,500	-1,000	+100	-600	+200	-2,100	0	-1,200	-5,500	+34,100	-22,200	-9,600
(††)	1,905	1,652	1,625	1,656	1,472	1,952	1,864	1,828	2,413	2,908	1,807	2,191
MAX	154,700	154,700	153,900	153,800	153,400	153,500	151,800	151,300	150,800	178,700	182,000	156,300
MIN	147,400	153,500	153,500	153,200	152,100	151,300	148,800	147,700	144,600	137,200	154,500	146,400

CAL YR 1970..... * +1,500 †† 24,330 MAX 181,100 MIN 140,900
WTR YR 1971..... * -1,300 †† 23,270 MAX 182,000 MIN 137,200

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Waco.

08095600 Bosque River near Waco, Tex.

LOCATION.--Lat 31°36'04", long 97°11'36", McLennan County, on downstream side of bridge on Farm Road 1637, 1.8 miles downstream from Waco Lake (revised) dam, 2.8 miles upstream from mouth, and 4.7 miles northwest of courthouse in Waco.

DRAINAGE AREA.--1,655 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 365.44 ft above mean sea level. Prior to Jan. 21, 1960, nonrecording gage and from Jan. 21 to Aug. 20, 1960, nonrecording gage below 11.38 ft and water-stage recorder above. All gages at same site and datum. Dec. 30, 1959, to Aug. 29, 1967, auxiliary water-stage recorder 2.7 miles downstream at datum 4.66 ft lower. Since Aug. 30, 1967, auxiliary water-stage recorder 0.7 mile downstream at datum 4.66 ft lower.

AVERAGE DISCHARGE.--12 years, 482 cfs (349,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,620 cfs Sept. 14 (gage height, 11.47 ft); minimum daily, 0.22 cfs July 28.
Period of record: Maximum discharge, 69,000 cfs Oct. 4, 1959 (gage height, 39.8 ft, from floodmark), from rating curve extended above 51,000 cfs on basis of computation of peak flow through gates at old Lake Waco; no flow at times in 1963-64, 1966-67, and 1970.
Maximum stage since at least 1880, 44.5 ft Sept. 27, 1936, from information by local resident (discharge, 96,000 cfs). Maximum stage may be the result of backwater from Brazos River because the discharge on Apr. 22, 1945 (140,000 cfs), and Apr. 20, 1957 (103,000 cfs), exceeded the discharge corresponding to the maximum stage. The discharge for the 1936, 1945, and 1957 floods obtained from rating curve for tainter gates at old Lake Waco.

REMARKS.--Records fair. Backwater at times from the Brazos River. Flow regulated by Waco Lake (see preceding page). Records furnished by the city of Waco show that they diverted 23,270 acre-ft for municipal use above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.1	1.9	1.2	.98	1.1	6.1	24	12	19	610	134
2	1.0	.85	1.7	1.3	1.2	1.5	5.9	25	12	19	607	129
3	.94	.84	1.8	1.4	1.3	1.3	6.0	24	12	17	606	136
4	1.0	.78	1.6	1.1	1.5	.99	6.2	25	12	18	606	116
5	1.3	.82	1.9	1.0	1.2	1.1	6.2	25	11	16	604	100
6	1.3	.85	1.6	1.0	1.1	1.1	5.9	25	11	15	596	94
7	.94	.86	1.4	1.0	1.1	1.0	5.7	25	11	4.0	597	83
8	.94	1.1	1.5	1.4	1.2	.99	5.6	25	18	3.7	594	101
9	1.1	.93	1.6	1.4	1.2	1.0	5.8	25	23	4.0	593	89
10	.94	1.1	1.8	1.2	1.3	.97	6.1	26	22	4.3	589	91
11	5.9	1.1	1.3	1.2	1.3	1.0	5.7	25	21	4.3	588	123
12	18	1.1	1.3	1.2	1.1	2.4	5.7	23	20	4.3	586	98
13	2.0	1.3	1.3	1.3	1.1	2.4	5.7	23	19	4.6	585	386
14	1.3	1.3	1.3	1.3	1.3	1.2	5.5	22	19	4.3	583	1,970
15	1.4	1.1	1.5	1.3	1.2	.99	5.5	22	18	4.3	582	1,170
16	1.3	1.1	1.3	1.3	1.3	.74	19	22	19	4.3	575	1,370
17	1.1	1.1	1.2	1.2	1.3	.95	5.5	21	18	4.3	570	1,300
18	1.1	1.1	1.2	1.4	1.4	.91	2.6	21	17	4.3	568	1,260
19	1.5	1.1	1.2	1.4	2.0	.81	1.0	19	17	4.0	673	1,230
20	1.3	1.5	1.2	1.2	1.3	.82	1.0	20	18	4.3	784	1,330
21	1.2	1.5	1.4	1.3	2.8	.96	.73	19	20	4.6	791	197
22	1.3	1.3	1.4	1.5	1.4	1.1	.65	19	20	4.6	784	5.9
23	37	1.2	1.1	1.3	1.1	1.0	.53	19	20	4.0	782	5.9
24	2.3	1.3	1.1	1.3	2.3	.95	.64	17	19	16	782	4.9
25	1.2	1.4	1.0	1.1	2.2	1.1	.59	16	19	118	783	4.9
26	1.2	1.4	1.1	1.0	1.8	1.0	.53	16	19	.38	778	4.9
27	.93	1.8	1.1	1.1	1.1	2.7	16	16	19	7.1	604	4.9
28	1.0	1.8	.96	1.2	1.1	6.6	24	15	21	.22	495	5.2
29	.78	1.4	.69	1.6	------	6.3	25	15	19	258	496	4.9
30	.81	1.5	2.0	1.5	------	6.1	24	15	19	637	280	5.2
31	1.3	------	1.2	1.1	------	6.1	------	15	------	617	150	------
TOTAL	94.38	35.63	42.65	38.8	39.18	57.18	209.37	649	525	1,829.90	18,821	11,553.7
MEAN	3.04	1.19	1.38	1.25	1.40	1.84	6.98	20.9	17.5	59.0	607	385
MAX	37	1.8	2.0	1.6	2.8	6.6	25	26	23	637	791	1,970
MIN	.78	.78	.69	1.0	.98	.74	.53	15	11	.22	150	4.9
AC-FT	187	71	85	77	78	113	415	1,290	1,040	3,630	37,330	22,920

CAL YR 1970 TOTAL 158,798.98 MEAN 435 MAX 7,660 MIN 0 AC-FT 315,000
WTR YR 1971 TOTAL 33,895.79 MEAN 92.9 MAX 1,970 MIN .22 AC-FT 67,230

08096500 Brazos River at Waco, Tex.

LOCATION.--Lat 31°32'06", long 97°04'22", McLennan County, on left bank, 2.2 miles downstream from bridge on U.S. Highways 77 and 81 in Waco, and at mile 400.7.

DRAINAGE AREA.--28,530 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1898 to current year (January 1912 to September 1914 monthly records only, published in WSP 1312).

GAGE.--Water-stage recorder. Datum of gage is 349.34 ft above mean sea level. Sept. 14, 1898, to Mar. 28, 1918, May 6, 1922, to Feb. 12, 1925, nonrecording gage, and May 28, 1918, to May 5, 1922, Feb. 13, 1925, to Aug. 14, 1969, water-stage recorder. Prior to Aug. 14, 1969, at site 3.9 miles upstream at datum 7.46 ft higher.

AVERAGE DISCHARGE.--73 years, 2,478 cfs (1,795,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,220 cfs Sept. 14 (gage height, 11.84 ft); minimum daily, 61 cfs Mar. 23, 24.
Period of record: Maximum discharge, 246,000 cfs Sept. 27, 1936 (gage height, 40.90 ft, at former site and datum, levee on left bank was overtopped and broken by flood); minimum for periods of daily record 1898-1911, 1914-69, no flow Aug. 20, 21, 1918, and probably for several days in August 1923.
Maximum stage since at least 1847, that of Sept. 27, 1936; maximum stage 1847-98, 34.63 ft May 28, 1885, from floodmark at site 3.9 miles upstream.

REMARKS.--Records good. Flow is largely regulated by Whitney Lake (station 08092500) and Waco Lake (station 08095550). Total combined capacity of 18 major reservoirs above station, 4,290,000 acre-ft, of which 2,194,000 acre-ft is flood-control storage in Whitney and Waco Lakes. Records furnished by city of Waco show that during year they diverted 23,270 acre-ft for municipal use above station, and returned 14,740 acre-ft of treated sewage effluent above station. Many other small diversions above station for municipal supply, irrigation, and oilfield operation will not appreciably affect flow.

REVISIONS (WATER YEARS).--WSP 568: Drainage area. WSP 850 and 878: 1899-1900, 1907-9 (monthly and yearly summaries only). WSP 1512: 1901-5, 1910, 1915, 1925-26(M), 1927-29. WSP 1922: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,150	105	97	105	69	93	128	263	920	236	774	946
2	2,260	95	95	113	69	91	125	212	612	609	769	1,250
3	2,730	95	110	128	71	79	154	192	569	677	740	961
4	2,790	93	93	91	69	83	133	180	614	853	982	1,790
5	1,900	91	87	690	97	87	108	185	639	598	1,210	2,500
6	372	117	79	543	73	81	118	117	684	457	1,040	2,800
7	130	142	79	615	67	71	103	245	943	519	981	2,940
8	735	122	81	2,890	63	75	99	212	890	552	831	2,690
9	408	97	103	2,520	65	79	99	200	871	551	763	2,360
10	178	85	169	1,660	63	73	100	201	398	523	737	2,260
11	175	85	151	730	67	77	99	218	203	539	720	718
12	1,060	83	193	1,530	67	97	104	197	167	485	715	591
13	525	93	278	2,150	63	103	106	190	149	589	748	96
14	432	112	229	730	69	77	94	180	153	558	800	2,350
15	271	191	336	416	65	69	95	171	191	511	701	700
16	160	290	332	392	63	71	278	165	156	546	684	654
17	125	151	196	268	63	67	423	165	131	529	665	265
18	108	214	289	184	95	71	1,580	172	130	753	659	216
19	113	175	208	142	320	65	2,980	170	142	581	706	134
20	99	139	142	396	299	63	648	278	179	590	903	681
21	95	125	271	468	175	65	264	188	257	528	921	1,840
22	95	103	257	299	271	67	231	173	305	1,360	916	219
23	548	103	202	151	184	61	173	175	275	447	918	221
24	1,380	507	440	99	113	61	153	272	273	1,330	903	693
25	403	1,740	575	89	184	67	137	348	280	2,690	901	290
26	190	468	310	81	128	65	128	322	282	531	1,060	230
27	660	292	220	77	136	67	124	511	273	1,700	929	300
28	3,060	166	202	75	108	73	130	580	322	988	628	430
29	952	113	128	75	------	67	593	564	309	1,910	589	350
30	220	101	172	73	------	93	610	1,680	276	968	575	330
31	118	------	133	69	------	139	------	4,950	------	809	337	------
TOTAL	24,442	6,293	6,257	17,849	3,176	2,397	10,117	13,676	11,593	24,517	24,805	31,805
MEAN	788	210	202	576	113	77.3	337	441	386	791	800	1,060
MAX	3,060	1,740	575	2,890	320	139	2,980	4,950	943	2,690	1,210	2,940
MIN	95	83	79	69	63	61	94	117	130	236	337	96
AC-FT	48,480	12,480	12,410	35,400	6,300	4,750	20,070	27,130	22,990	48,630	49,200	63,090

CAL YR 1970 TOTAL 661,045 MEAN 1,811 MAX 13,000 MIN 79 AC-FT 1,311,000
WTR YR 1971 TOTAL 176,927 MEAN 485 MAX 4,950 MIN 61 AC-FT 350,900

08096800 Cow Bayou subwatershed No. 4 near Bruceville, Tex.

LOCATION.--Lat 31°19'59", long 97°16'02", McLennan County, near center of dam on Foster Branch, 1.0 mile upstream from South Fork Cow Bayou, and 2.1 miles west of Bruceville.

DRAINAGE AREA.--5.25 sq mi.

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder with drop-inlet structure as control. Datum of gage is 574.46 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--15 years, 1,550 acre-ft per year (adjusted for rainfall on pool and pool losses).

AVERAGE OUTFLOW.--15 years, 1,450 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 5.9 cfs May 11 (gage height, 16.71 ft); seepage outflow Oct. 1 to Apr. 17, May 24 to July 24, Aug. 23 to Sept. 30. Maximum inflow, 1,680 cfs (average for 5-minute interval) Apr. 18, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow for many days.
Period of record: Maximum outflow, 2,290 cfs May 11, 1957 (gage height, 40.16 ft), from rating curve extended above 35 cfs on basis of slope-area measurement of peak outflow measured below dam during time when emergency spillway was partially washed out; no outflow for many days each year. Maximum inflow, 6,900 cfs (average for 15-minute interval) May 11, 1957, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow.

REMARKS.--Records good. The pool is formed by a rolled earthfill dam, 1,285 ft long with grass sodded emergency spillway section located at left end of dam. The gage height at crest of emergency spillway is 38.1 ft; prior to May 11, 1957, gage height was 37.7 ft after spillway was repaired. The dam was completed in August 1956, but no appreciable storage began before Mar. 20, 1957. The outlet structure consists of a 2.5-foot square uncontrolled drop-inlet structure covered with an antivortex baffle and two 8-inch square uncontrolled portholes on the downstream face. The gage height at crest of the drop inlet is 18.0 ft and at the bottom of the portholes, 14.76 ft. The drop-inlet structure is connected to a 17-inch-diameter outlet pipe at the base of dam. There is also an 8-inch controlled water-supply outlet at a gage height of 6.07 ft. The pool capacity is 1,740 acre-ft at the spillway crest, 241 acre-ft at the crest of the drop inlet, 145 acre-ft at the bottom of 8-inch portholes, and 13 acre-ft at the controlled outlet pipe. The area and capacity tables are based on a sediment survey made Sept. 24, 1969. The dam was built by the Soil Conservation Service for flood control and conservation. Three rain gages (two recording and one nonrecording) are located in the watershed, one at station and two in the watershed above station to compute the weighted-mean rainfall for hydrologic studies.

REVISIONS (WATER YEARS).--WSP 1922: 1957-60. WRD Texas 1968: 1967. WRD Texas 1970: 1969.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	23.4	0.2	0.3	0.1	1.9	1.9	143	57.6	1.4	138	27.0	2.4
Outflow	.1	.1	.1	.1	.1	2.0	61.2	49.9	.1	65.2	55.9	.2
(††)	3.84	.08	.59	.01	1.08	.37	4.68	4.26	.70	9.19	2.34	1.14

CAL YR 1970: Inflow 1,270 Outflow 1,200 †† 25.72
WTR YR 1971: Inflow 397 Outflow 235 †† 28.28

PEAK INFLOW (BASE, 200 CFS)

DATE	TIME	DISCHARGE
4-18	0040	*1,680
5-10	0955	*458
7-25	0855	*646

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted-mean rainfall, in inches.
* Average for 5-minute interval.

08097000 Cow Bayou at Mooreville, Tex.

LOCATION.--Lat 31°18'45", long 97°08'16", Falls County, on right bank at downstream side of county bridge, 500 ft downstream from confluence of North Cow Bayou and South Cow Bayou, 0.8 mile north of Mooreville, and 5.0 miles northwest of Chilton.

DRAINAGE AREA.--85.0 sq mi.

PERIOD OF RECORD.--September 1954 to May 1958 (annual maximum only), and June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 399.58 ft above mean sea level (levels by Soil Conservation Service). Prior to June 10, 1958, crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--13 years (1958-71), 36.3 cfs (26,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,080 cfs July 30 (gage height, 19.12 ft); no flow June 8 to July 24.
Period of record: Maximum discharge, 7,960 cfs May 11, 1957 (gage height, 23.88 ft), and Oct. 4, 1959 (gage height, 23.86 ft), from rating curve extended above 4,500 cfs; no flow at times.
Maximum stage since at least 1900, 31 ft about May 1, 1944, from information by local resident.

REMARKS.--Records good. At end of year, flow from 42.7 sq mi above this station was partly controlled by 26 floodwater-retarding structures with a total combined capacity of 15,510 acre-ft below the flood-spillway crests, of which 12,450 acre-ft is floodwater-retarding capacity and 3,060 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Ten rain gages (seven standard and three recording) are operating in the basin above this station. Small diversion for irrigation above station.

REVISIONS.--WRD Texas 1967. Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	4.4	3.9	3.0	2.1	1.9	1.1	1.5	1.4	0	114	13
2	1.9	4.1	2.1	2.8	2.3	1.9	.99	2.5	1.1	0	91	7.6
3	1.7	3.8	2.1	2.8	2.8	1.9	.88	1.9	.51	0	88	4.4
4	1.7	3.8	2.1	2.1	3.8	1.7	1.1	1.4	.38	0	85	3.5
5	2.1	3.5	2.1	1.7	3.5	1.7	1.1	1.4	.13	0	72	2.5
6	2.5	4.1	2.1	1.5	3.0	1.4	.99	.88	.03	0	65	1.5
7	2.3	4.1	2.1	1.7	2.8	1.4	.77	1.1	.01	0	56	.99
8	2.3	4.1	2.1	2.1	2.5	3.1	.77	2.8	0	0	45	.88
9	2.3	3.8	2.3	3.8	2.3	7.2	.51	29	0	0	34	.51
10	1.9	4.1	2.5	3.5	2.5	2.8	.51	105	0	0	25	.51
11	2.8	4.1	2.3	2.8	2.8	2.1	.51	49	0	0	18	.44
12	45	4.1	2.1	2.5	2.5	2.2	.51	26	0	0	15	.44
13	7.2	4.4	1.9	2.8	2.5	3.2	.27	20	0	0	14	.38
14	4.7	4.7	1.9	3.2	2.8	1.7	.27	16	0	0	28	.19
15	3.8	4.1	2.8	3.2	3.0	1.4	.51	13	0	0	15	.13
16	3.5	4.1	3.0	3.0	3.8	1.4	3.1	11	0	0	12	.16
17	3.5	4.4	2.3	3.2	2.1	1.4	18	8.0	0	0	8.9	.08
18	3.8	4.7	2.5	3.8	2.5	1.4	189	6.4	0	0	8.0	.07
19	6.4	4.4	2.5	3.8	3.8	1.2	55	3.8	0	0	6.4	.04
20	3.2	3.8	3.2	4.1	2.8	1.2	46	4.4	0	0	5.7	.13
21	3.8	3.0	3.8	3.8	3.0	1.4	39	4.7	0	0	4.7	.16
22	3.8	2.5	3.8	4.1	2.5	1.4	31	4.1	0	0	4.4	1.1
23	127	1.9	3.8	3.8	1.7	1.4	25	3.8	0	0	3.8	1.5
24	29	1.9	2.8	3.5	1.9	1.4	18	3.5	0	0	3.0	1.4
25	15	2.5	2.8	3.0	9.5	1.5	13	2.1	0	432	2.8	2.8
26	12	3.2	2.5	2.8	4.5	1.5	9.3	1.9	0	110	3.0	1.1
27	9.3	3.2	2.5	2.3	2.3	1.5	6.8	1.4	0	206	3.2	.51
28	7.2	3.0	2.8	2.5	1.9	1.5	5.4	2.5	0	147	1.9	.23
29	6.4	3.0	2.8	3.0	------	1.2	5.0	1.4	0	343	1.5	.10
30	5.0	3.0	6.1	3.2	------	1.2	4.4	1.4	0	671	8.2	.07
31	4.7	------	4.7	2.5	------	1.2	------	1.5	------	154	27	------
TOTAL	327.7	109.8	86.3	91.9	83.5	57.4	478.79	333.38	3.56	2,063	869.5	46.42
MEAN	10.6	3.66	2.78	2.96	2.98	1.85	16.0	10.8	.12	66.5	28.0	1.55
MAX	127	4.7	6.1	4.1	9.5	7.2	189	105	1.4	671	114	13
MIN	1.7	1.9	1.9	1.5	1.7	1.2	.27	.88	0	0	1.5	.04
CFSM	.12	.04	.03	.03	.04	.02	.19	.13	.001	.78	.33	.02
IN.	.14	.05	.04	.04	.04	.03	.21	.15	.001	.90	.38	.02
AC-FT	650	218	171	182	166	114	950	661	7.1	4,090	1,720	92

CAL YR 1970 TOTAL 9,702.09 MEAN 26.6 MAX 1,380 MIN .02 CFSM .31 IN 4.25 AC-FT 19,240
WTR YR 1971 TOTAL 4,551.25 MEAN 12.5 MAX 671 MIN 0 CFSM .15 IN 1.99 AC-FT 9,030

08098290 Brazos River near Highbank, Tex.

LOCATION.--Lat 31°08'02", long 96°49'29", Falls County, near right bank, 45 ft downstream from bridge on Farm Road 413, 1.4 miles downstream from Highbank Slough and Spring Branch, 2.6 miles south of Highbank, and at mile 346.6.

DRAINAGE AREA.--29,421 sq mi, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 279.29 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 2,638 cfs (1,911,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,640 cfs July 30 (gage height, 7.88 ft); minimum daily, 71 cfs Mar. 10, 19, 20, 26, 27, 30.
Period of record: Maximum discharge, 57,900 cfs May 11, 1968 (gage height, 21.88 ft); minimum daily, 71 cfs Mar 10, 19, 20, 26, 27, 30, 1971.
Maximum stages since at least 1909, 42 ft in December 1913, and 40 ft in September 1936, from information by local residents.

REMARKS.--Records good. Many diversions for municipal supply, irrigation, and industrial uses above gage, amount unknown. Flow regulated by 20 major reservoirs with a combined capacity of 4,338,000 acre-ft, of which 2,194,000 acre-ft is for flood control. During the year, Texas Power and Light Co. diverted 7,450 acre-ft to Tradinghouse Reservoir above this station. At end of year, flow from 171 sq mi above this station was partly controlled by 52 floodwater-retarding structures with a total combined capacity of 69,570 acre-ft below the flood-spillway crests, of which 61,990 acre-ft is floodwater-retarding capacity and 7,580 acre-ft is sediment-pool capacity. Five structures were built during the current year and have a total combined capacity below flood-spillway crests of 12,180 acre-ft, of which 853 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	946	386	209	204	99	163	73	717	4,870	221	1,780	548
2	2,100	317	180	198	90	144	96	362	1,240	194	1,180	585
3	2,370	280	167	177	90	112	126	252	705	170	999	1,140
4	2,880	260	163	165	101	93	128	206	595	550	935	995
5	2,970	245	166	160	99	94	126	181	551	606	1,740	1,460
6	1,950	225	165	316	96	83	132	168	584	646	2,260	2,340
7	755	217	154	518	96	74	108	172	657	494	1,860	2,670
8	449	205	150	734	93	77	114	145	706	435	1,360	2,880
9	393	188	149	2,490	82	75	108	680	847	440	953	2,650
10	704	180	146	2,300	82	71	92	705	787	466	812	2,290
11	393	166	146	1,490	80	73	83	440	615	456	766	2,210
12	358	152	168	749	85	81	77	382	323	466	742	1,070
13	901	160	178	1,390	72	84	72	286	224	456	744	731
14	920	160	217	1,880	75	95	72	235	191	466	795	417
15	524	160	263	815	81	118	72	202	175	504	924	1,650
16	479	164	231	557	81	98	87	182	166	471	787	754
17	333	273	330	414	85	82	123	165	178	461	743	681
18	259	287	293	367	88	75	1,240	158	164	476	707	504
19	221	227	227	268	157	71	2,730	158	140	560	683	331
20	198	237	252	221	103	71	3,540	229	132	616	676	249
21	198	232	228	219	310	72	1,130	211	132	518	819	283
22	213	212	203	429	225	72	488	256	152	649	862	1,700
23	315	187	256	425	186	72	346	199	217	1,180	870	559
24	1,020	164	248	290	256	72	273	208	237	869	869	283
25	2,200	204	223	209	318	72	213	195	205	1,730	859	495
26	1,260	1,420	478	174	284	71	185	285	180	5,040	861	438
27	640	643	469	152	204	71	168	298	188	2,040	1,010	272
28	571	429	298	142	186	74	152	302	213	2,430	1,080	338
29	3,200	313	244	138	------	72	142	512	225	3,340	725	594
30	1,450	244	229	126	------	71	154	515	225	5,990	645	354
31	572	------	193	116	------	72	------	1,780	------	3,210	657	------
TOTAL	31,742	8,537	7,023	17,833	3,804	2,625	12,450	10,786	15,824	36,150	30,703	31,471
MEAN	1,024	285	227	575	136	84.7	415	348	527	1,166	990	1,049
MAX	3,200	1,420	478	2,490	318	163	3,540	1,780	4,870	5,990	2,260	2,880
MIN	198	152	146	116	72	71	72	145	132	170	645	249
AC-FT	62,960	16,930	13,930	35,370	7,550	5,210	24,690	21,390	31,390	71,700	60,900	62,420

CAL YR 1970 TOTAL 800,703 MEAN 2,194 MAX 23,700 MIN 119 AC-FT 1,588,000
WTR YR 1971 TOTAL 208,948 MEAN 572 MAX 5,990 MIN 71 AC-FT 414,400

08098300 Little Pond Creek at Burlington, Tex.

LOCATION.--Lat 31°01'35", long 96°59'17", Milam County, on left bank downstream from bridge on U.S. Highway 77, 1.0 mile north of Burlington, and 2.5 miles downstream from Keys Creek.

DRAINAGE AREA.--22.2 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 388.51 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 10.6 cfs (6.49 inches per year, 7,680 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,600 cfs May 9 (gage height, 13.06 ft); no flow for many days.
Period of record: Maximum discharge, 5,280 cfs May 16, 1965 (gage height, 15.61 ft); no flow for many days each year.
Maximum stage since at least 1938, 17.5 ft in 1950, from information by local residents.

REMARKS.--Records good. No diversions above station. Three recording rain gages are located in this watershed.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1965.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02				0	.11	0	0	.04			
2	0				0	.04	0	0	.01			
3	0				0	.01	0	0	0			
4	0				0	.01	0	0	0			
5	0				0	.01	0	0	0			
6	0				0	0	0	0	0			
7	0				0	0	0	0	0			
8	.23				0	0	0	0	0			
9	.05				0	0	0	682	0			
10	0				0	0	0	5.6	0			
11	1.7				0	0	0	2.0	0			
12	5.5				0	0	0	1.1	0			
13	1.5				0	0	0	.29	0			
14	.50				0	0	0	.07	0			
15	.13				0	0	0	.01	0			
16	.03				0	0	0	0	0			
17	0				0	0	0	0	0			
18	0				0	0	11	0	0			
19	0				5.5	0	1.1	0	0			
20	0				.14	0	5.1	5.5	0			
21	0				.02	0	2.3	.38	0			
22	0				0	0	.28	.02	0			
23	199				0	0	.06	0	0			
24	20				0	0	0	1.9	0			
25	2.0				87	0	0	.21	0			
26	.64				24	0	0	.17	0			
27	.23				1.4	0	0	.06	0			
28	.08				.30	0	0	142	0			
29	.01				------	0	0	3.8	0			
30	0				------	0	0	.58	0			
31	0	------			------	0	------	.15	------			------
TOTAL	231.62	0	0	0	118.36	.18	19.84	845.84	.05	0	0	0
MEAN	7.47	0	0	0	4.23	.006	.66	27.3	.002	0	0	0
MAX	199	0	0	0	87	.11	11	682	.04	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.34	0	0	0	.19	.0003	.03	1.23	.0001	0	0	0
IN.	.39	0	0	0	.20	0	.03	1.42	0	0	0	0
AC-FT	459	0	0	0	235	.4	39	1,680	.1	0	0	0
(††)	3.12	.18	.58	0	2.93	.05	2.07	5.55	.39	2.90	2.42	3.12

CAL YR 1970 TOTAL 2,648.50 MEAN 7.26 MAX 692 MIN 0 CFSM .33 IN 4.44 AC-FT 5,250 †† 25.60
WTR YR 1971 TOTAL 1,215.89 MEAN 3.33 MAX 682 MIN 0 CFSM .15 IN 2.04 AC-FT 2,410 †† 23.31

PEAK DISCHARGE (BASE, 700 CFS, REVISED).--May 9 (0830) 2,600 cfs (13.06 ft).

†† Average precipitation, in inches, based on three rain gages.

08099000 Leon Reservoir near Ranger, Tex.

LOCATION.--Lat 32°21'46", long 98°40'32", Eastland County, at outlet works near center of dam on Leon River, 7.4 miles south of Ranger, and 8.7 miles southeast of Eastland.

DRAINAGE AREA.--252 sq mi.

PERIOD OF RECORD.--January 1955 to current year. Prior to October 1969, monthend contents only.

GAGE.--Nonrecording gage. Datum of gage is mean sea level.

EXTREMES (at 1000).--Current year: Maximum contents observed, 30,280 acre-ft May 31 (elevation, 1,376.8 ft); minimum, 19,880 acre-ft May 26-28 (elevation, 1,369.7 ft).
Period of record: Maximum contents observed, 40,640 acre-ft June 13, 1967 (elevation, 1,382.2 ft); minimum observed since first appreciable storage, 15,880 acre-ft Jan. 11-21, Feb. 5-7, Apr. 29, 30, 1956 (elevation, 1,366.2 ft).

REMARKS.--Reservoir is formed by rolled-fill earthen dam 3,700 ft long. Storage began in April 1954 and dam completed in June 1954. Dam is property of Eastland County Water Supply District and was built to impound water for municipal use by cities of Ranger, Olden, and Eastland (see table below for diversions). The service spillway is an uncontrolled circular drop inlet designed for a maximum discharge of 5,000 cfs through an 11-foot-diameter concrete conduit. The emergency spillway is a 1,200-foot wide cut through natural ground near left end of dam. Capacity table based on a survey made in 1952. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,398.0	-
Crest of emergency spillway	1,382.0	40,210
Crest of service spillway	1,375.0	27,290
Invert of lowest outlet for water supply	1,335.0	869

COOPERATION.--Elevation and diversion records furnished by Eastland County Water Supply District.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,369.0	19,030	1,375.0	27,290
1,372.0	22,850	1,377.0	30,620

CONTENTS, IN ACRE-FEET, AT 1000, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23,840	23,410	22,720	22,310	21,910	21,640	21,130	20,370	28,920	27,140	26,050	26,980
2	23,840	23,410	22,720	22,310	21,780	21,510	21,130	20,370	28,100	27,140	26,050	26,980
3	23,840	23,410	22,720	22,310	21,780	21,510	21,130	20,370	27,940	27,140	26,050	27,290
4	23,840	23,410	22,720	22,310	21,780	21,510	21,130	20,370	27,780	26,980	26,050	27,290
5	23,840	23,270	22,720	22,310	21,780	21,510	21,000	20,370	27,780	26,980	26,050	27,290
6	23,840	23,270	22,720	22,310	21,780	21,510	21,000	20,370	27,780	26,980	26,200	27,140
7	23,840	23,270	22,720	22,310	21,780	21,510	21,000	20,370	27,620	26,820	26,360	27,140
8	23,840	23,270	22,720	22,310	21,780	21,510	21,000	20,370	27,620	26,820	26,360	27,140
9	23,840	23,130	22,720	22,310	21,780	21,510	21,000	20,370	27,450	26,820	26,360	26,980
10	23,700	23,130	22,720	22,180	21,780	21,380	20,880	20,370	27,450	26,820	26,360	26,980
11	23,700	23,130	22,720	22,180	21,780	21,380	20,880	20,370	27,450	26,820	26,360	26,980
12	23,700	23,130	22,580	22,180	21,640	21,380	20,750	20,370	27,290	26,670	26,360	26,820
13	23,700	23,130	22,580	22,180	21,640	21,380	20,750	20,370	27,290	26,670	26,670	26,820
14	23,700	22,990	22,580	22,180	21,640	21,380	20,750	20,370	27,290	26,670	26,980	26,820
15	23,700	22,990	22,580	22,180	21,640	21,260	20,750	20,370	27,290	26,520	27,290	26,820
16	23,700	22,990	22,580	22,180	21,640	21,260	20,750	20,240	27,290	26,520	27,290	26,820
17	23,560	22,990	22,580	22,050	21,640	21,260	20,750	20,240	27,290	26,520	27,450	26,670
18	23,560	22,990	22,580	22,050	21,640	21,260	20,750	20,240	27,290	26,360	27,450	26,670
19	23,560	22,990	22,580	22,050	21,640	21,260	20,750	20,240	27,140	26,360	27,450	26,670
20	23,560	22,990	22,580	22,050	21,640	21,260	20,750	20,120	27,140	26,200	27,290	26,520
21	23,560	22,990	22,450	22,050	21,640	21,260	20,750	20,120	27,140	26,200	27,290	26,520
22	23,560	22,850	22,450	22,050	21,640	21,260	20,620	20,120	27,450	26,050	27,290	26,520
23	23,560	22,850	22,450	22,050	21,640	21,260	20,620	20,120	27,620	26,050	27,140	26,670
24	23,560	22,850	22,450	22,050	21,640	21,260	20,620	20,000	27,620	25,900	27,140	27,140
25	23,560	22,850	22,450	22,050	21,640	21,260	20,620	20,000	27,450	26,050	27,140	27,290
26	23,560	22,850	22,450	22,050	21,640	21,260	20,490	19,880	27,450	26,050	27,140	27,290
27	23,560	22,850	22,450	21,910	21,640	21,260	20,490	19,880	27,290	26,050	26,980	27,290
28	23,560	22,850	22,450	21,910	21,640	21,130	20,490	19,880	27,290	26,050	26,980	27,290
29	23,560	22,850	22,450	21,910	------	21,130	20,490	21,780	27,290	25,900	26,980	27,290
30	23,560	22,720	22,450	21,910	------	21,130	20,370	29,090	27,140	26,050	26,980	27,290
31	23,410	------	22,310	21,910	------	21,130	------	29,770	------	26,050	26,980	------
(†)	1,372.4	1,371.9	1,371.6	1,371.3	1,371.1	1,370.7	1,370.1	1,376.5	1,374.9	1,374.2	1,374.8	1,375.0
(*)	-430	-690	-410	-400	-270	-510	-760	+9,400	-2,630	-1,090	+930	+310
(††)	152	146	145	147	133	156	156	205	198	220	171	162
MAX	23,840	23,410	22,720	22,310	21,910	21,640	21,130	29,770	28,920	27,140	27,450	27,290
MIN	23,410	22,720	22,310	21,910	21,640	21,130	20,370	19,880	27,140	25,900	26,050	26,520

CAL YR 1970..... * -6,610 †† 1,940 MAX 28,760 MIN 22,310
WTR YR 1971..... * +3,450 †† 1,990 MAX 29,770 MIN 19,880

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08099100 Leon River near De Leon, Tex.

LOCATION.--Lat 32°10'25", long 98°31'58", Comanche County, on left bank at downstream end of bridge on State Highway 16, 1.5 miles upstream from Flat Creek, 4.4 miles northeast of De Leon, and 6 miles downstream from Hog Creek.

DRAINAGE AREA.--463 sq mi.

PERIOD OF RECORD.--September 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,209.93 ft above mean sea level. Prior to Nov. 22, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 63.9 cfs (46,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,170 cfs May 30 (gage height, 12.33 ft); no flow at times.
Period of record: Maximum discharge, 7,540 cfs Jan. 21, 1968 (gage height, 15.50 ft); no flow at times.
A stage of 19.3 ft occurred in May 1908 at a point 2,000 ft downstream from gage site and is the highest since that time, from information by local resident.

REMARKS.--Records good except those below 5 cfs, which are fair. Flow partly regulated by Leon Reservoir (station 08099000). Numerous diversions above station for municipal, steam powerplant operation, and other uses. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.7	1.8	2.1	1.6	2.1	1.8	1.5	52	.01	1.7	.50
2	.50	1.6	1.8	2.1	1.7	2.0	1.8	1.5	8.2	.01	.58	.50
3	.50	1.5	1.8	2.1	1.6	1.9	1.5	1.5	1.0	0	.49	.50
4	.50	1.6	1.8	1.9	1.7	1.5	1.5	1.2	.39	0	.32	.50
5	.50	1.6	1.8	1.8	1.7	1.5	1.5	1.4	.32	0	12	.50
6	20	1.6	1.8	1.8	1.7	1.3	1.7	1.0	.26	0	29	.50
7	5.0	1.7	1.8	1.8	1.7	1.6	1.8	.81	.20	0	117	.50
8	2.0	1.6	1.7	1.8	1.7	1.7	1.8	.74	.13	0	5.5	.50
9	1.0	1.6	1.5	1.8	1.6	1.8	1.8	11	.17	0	2.1	.50
10	.50	1.6	1.5	1.9	1.6	1.9	1.7	127	.20	0	1.0	5.0
11	.50	1.7	1.5	2.0	1.6	1.4	1.7	30	.21	0	.63	2.0
12	1.0	1.7	1.4	1.9	1.6	1.8	1.7	2.9	.27	0	.48	1.5
13	1.0	1.7	1.4	1.8	1.5	1.7	1.5	.69	.27	0	1,050	1.2
14	.50	1.7	1.4	1.8	1.4	1.4	1.6	.42	.27	0	500	1.0
15	.50	1.7	1.4	1.7	1.5	1.6	1.6	.40	.21	0	200	.80
16	.50	1.7	1.6	1.6	1.5	1.6	2.1	.31	.16	0	100	.74
17	.50	1.7	1.5	1.6	1.5	1.3	3.0	.38	.16	0	50	.73
18	.50	1.7	1.5	1.5	1.5	1.4	2.9	.54	.13	0	20	.68
19	.50	1.8	1.5	1.5	1.6	1.4	2.6	.53	.10	0	10	.72
20	.50	1.8	1.6	1.6	1.6	1.4	2.9	1.5	.13	0	5.0	.88
21	.50	1.8	1.6	1.7	2.5	1.4	2.2	.71	.13	0	3.0	.86
22	.50	1.7	1.6	1.5	2.9	1.4	1.5	.44	.10	0	2.0	1.8
23	10	1.8	1.7	1.6	2.0	1.4	1.4	.35	.09	0	1.5	226
24	50	1.8	1.7	1.7	1.6	1.4	1.4	.35	.08	0	1.0	163
25	10	1.8	1.7	1.6	2.1	1.5	1.4	.34	.06	0	.90	266
26	5.0	1.8	1.7	1.6	2.7	1.5	1.4	.43	.03	0	.80	71
27	3.0	1.8	1.7	1.4	2.3	1.6	1.4	.48	.05	0	.70	23
28	2.6	1.9	1.7	1.4	2.2	1.8	1.4	3.3	.07	.07	.60	15
29	2.3	1.8	1.7	1.4	------	1.7	1.5	398	.07	.12	.50	9.3
30	2.2	1.8	2.0	1.5	------	1.6	1.5	76	.07	233	.50	7.2
31	2.0	------	2.1	1.7	------	1.7	------	17	------	27	.50	------
TOTAL	125.60	51.3	51.3	53.2	50.2	49.3	53.6	682.72	65.53	260.21	2,117.80	802.91
MEAN	4.05	1.71	1.65	1.72	1.79	1.59	1.79	22.0	2.18	8.39	68.3	26.8
MAX	50	1.9	2.1	2.1	2.9	2.1	3.0	398	52	233	1,050	266
MIN	.50	1.5	1.4	1.4	1.4	1.3	1.4	.31	.03	0	.32	.50
AC-FT	249	102	102	106	100	98	106	1,350	130	516	4,200	1,590

CAL YR 1970 TOTAL 12,964.80 MEAN 35.5 MAX 1,230 MIN 0 AC-FT 25,720
WTR YR 1971 TOTAL 4,363.67 MEAN 12.0 MAX 1,050 MIN 0 AC-FT 8,660

08099300 Sabana River near De Leon, Tex.

LOCATION (revised).--Lat 32°06'50", long 98°36'19", Comanche County, on left bank 5 ft downstream from bridge on Farm Road 587, 0.6 mile downstream from Spring Branch, 4.0 miles west of De Leon, and 4.2 miles upstream from Turkey Creek.

DRAINAGE AREA.--263 sq mi.

PERIOD OF RECORD.--September 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,209.59 ft above mean sea level. Prior to Nov. 22, 1960, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--11 years, 44.6 cfs (32,310 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,960 cfs Aug. 13 (gage height, 19.78 ft); no flow at times.
Period of record: Maximum discharge, 10,800 cfs June 12, 1967 (gage height, 22.05 ft); no flow at times.
Maximum stage since at least 1890, 24 ft in May 1908, from information by local resident.

REMARKS.--Records good except those below 100 cfs, which are poor. Flow partly regulated by Nabors Lake (capacity unknown) on Spring Branch. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.81	1.1	1.6	1.4	1.6	1.4	.61	3.1	532	1.7	33	11
2	.60	.99	1.5	1.3	1.6	1.3	.53	1.4	291	1.3	16	23
3	.45	.88	1.2	1.3	1.6	.97	.49	.88	181	.76	12	172
4	.33	.80	1.1	1.3	1.7	.97	.46	.58	112	.32	7.6	22
5	.37	.80	.88	1.2	1.7	1.1	.46	.58	69	.11	150	12
6	5.8	.85	.80	1.2	1.7	1.2	.44	.52	45	.02	305	8.1
7	7.2	.88	.80	1.1	1.6	.88	.41	.36	31	0	75	6.2
8	1.7	.87	.80	1.1	1.4	.88	.41	.26	22	0	22	4.8
9	.58	.88	.72	1.1	1.2	.80	.41	.36	19	0	10	3.8
10	.33	.88	.72	1.1	1.3	.72	.41	2.4	13	0	6.2	3.1
11	23	.88	.72	1.1	1.4	.72	.40	44	11	0	4.2	3.5
12	8.6	.81	.72	1.1	1.4	.65	.41	9.8	8.7	0	3.3	3.1
13	1.4	.92	.72	2.0	1.4	.80	.41	3.8	6.8	0	825	2.2
14	.59	.97	.72	2.4	1.4	.80	.46	1.9	6.3	0	827	1.6
15	.39	.97	.72	2.2	1.4	.88	.52	1.1	5.8	0	196	1.6
16	.33	.97	.72	2.0	1.6	.88	1.4	.65	4.9	0	54	1.4
17	.32	.97	.72	2.0	1.6	.97	2.5	.52	4.2	0	34	1.3
18	.35	.97	.65	2.0	1.5	.88	3.4	.41	3.4	0	24	1.2
19	.32	.97	.65	2.0	1.4	.80	2.1	.41	2.9	0	18	1.3
20	.35	.93	.65	2.0	1.4	.69	2.9	.72	2.9	0	15	1.4
21	.41	1.2	.65	2.0	1.6	.80	2.7	.58	1.9	0	13	1.4
22	.36	1.6	.65	1.9	2.2	.97	1.9	.24	90	0	12	6.2
23	10	2.0	.65	1.9	1.3	.97	1.2	.15	20	0	11	194
24	7.3	1.7	.65	1.9	1.1	.97	.75	.08	13	78	9.5	201
25	4.3	1.7	.65	1.9	2.0	.97	.65	.02	9.0	128	9.0	375
26	15	1.6	.65	1.9	3.3	.88	.63	0	6.3	14	8.7	145
27	8.7	1.6	.65	1.9	1.3	.88	.52	.01	4.6	6.4	8.7	47
28	2.4	1.6	.65	1.7	1.3	.88	1.4	17	3.5	4.3	8.4	26
29	1.3	1.4	.65	1.6	------	.80	80	881	2.7	5.1	9.2	17
30	1.3	1.6	1.3	1.6	------	.72	8.7	1,870	2.1	695	12	13
31	1.1	------	1.6	1.6	------	.65	------	1,190	------	229	14	------
TOTAL	105.99	34.29	25.86	50.8	44.0	27.78	117.58	4,032.83	1,525.0	1,164.01	2,752.8	1,310.2
MEAN	3.42	1.14	.83	1.64	1.57	.90	3.92	130	50.8	37.5	88.8	43.7
MAX	23	2.0	1.6	2.4	3.3	1.4	80	1,870	532	695	827	375
MIN	.32	.80	.65	1.1	1.1	.65	.40	0	1.9	0	3.3	1.2
AC-FT	210	68	51	101	87	55	233	8,000	3,020	2,310	5,460	2,600

CAL YR 1970 TOTAL 16,360.56 MEAN 44.8 MAX 1,030 MIN 0 AC-FT 32,450
WTR YR 1971 TOTAL 11,191.14 MEAN 30.7 MAX 1,870 MIN 0 AC-FT 22,200

PEAK DISCHARGE (BASE, 1,500 CFS).--Aug. 13 (1900) 3,960 cfs (19.78 ft).

08099400 Proctor Lake near Proctor, Tex.
(Formerly published as Procter Reservoir near Procter)

LOCATION.--Lat 31°58'07", long 98°29'09", Comanche County, in intake structure at Proctor Lake on Leon River, 2.0 miles upstream from U.S. Highways 67 and 377, and 3.5 miles west of Proctor.

DRAINAGE AREA.--1,265 sq mi.

PERIOD OF RECORD.--January 1963 to current year. Prior to October 1970, published as Procter Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 28, 1963, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 63,500 acre-ft Aug. 17, 18 (elevation, 1,162.87 ft); minimum, 46,750 acre-ft May 27 (elevation, 1,159.04 ft).
Period of record: Maximum contents, 137,500 acre-ft Jan. 26, 1968 (elevation, 1,174.84 ft); minimum since first filling of lake, 26,620 acre-ft Sept. 14, 1967 (elevation, 1,152.82 ft).

REMARKS.--Lake is formed by reinforced concrete gated structure and rolled earthfill section, total length 13,460 ft. Lake operated as a detention basin Jan. 30 to July 5, 1963. Gates closed July 6, 1963, and lake operated to elevation 1,156.0 ft for construction purposes. Deliberate impoundment began Sept. 30, 1963. Lake is operated for flood control and water conservation. One major reservoir partly regulates the inflow (see station 08099000). At end of year, flow from 75.7 sq mi above this station was partly controlled by 16 floodwater-retarding structures with a total combined capacity of 23,910 acre-ft below the flood-spillway crests, of which 21,830 acre-ft is floodwater-retarding capacity and 2,080 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 357 acre-ft, of which 45 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Outlet works consist of two 36-inch-diameter sluices. The spillway is a gated concrete gravity structure located on the left bank, with an ogee weir section and stilling basin, and is controlled by eleven 40- by 35-foot tainter gates. Spillway is designed to discharge 431,800 cfs at maximum design level (elevation, 1,201.0 ft). Capacity based on survey made in 1946; borrow is not included in capacities shown. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,206.0	-
Top of gates	1,197.0	374,200
Crest of spillway (top of conservation storage)	1,162.0	59,400
Invert of two 36-inch-diameter slide gate-controlled outlets	1,128.0	68

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,159.0	46,590	1,161.0	54,890
1,160.0	50,620	1,162.0	59,390
		1,163.0	64,110

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51,780	52,080	51,050	50,420	50,060	49,980	48,610	48,250	56,290	55,390	51,260	59,440
2	51,780	52,030	51,090	50,420	50,020	49,980	48,610	48,250	57,140	55,160	51,310	59,390
3	51,780	51,950	51,090	50,420	49,980	49,940	48,530	48,160	57,590	54,980	51,260	59,440
4	51,730	51,860	51,090	50,420	50,100	49,820	48,450	48,080	57,680	54,720	51,220	59,530
5	51,690	51,820	51,090	50,380	50,100	49,740	48,410	48,000	57,910	54,590	51,390	59,440
6	51,690	51,820	51,010	50,300	50,100	49,740	48,370	47,960	57,950	54,380	51,950	59,350
7	51,690	51,730	50,970	50,260	50,060	49,740	48,290	47,880	57,910	54,120	52,540	59,260
8	51,690	51,730	50,970	50,220	49,980	49,660	48,200	47,840	57,820	53,780	52,670	59,120
9	51,480	51,730	50,970	50,220	49,980	49,660	48,160	47,800	57,730	53,270	52,630	58,990
10	51,390	51,650	50,920	50,220	49,940	49,620	48,080	47,920	57,640	52,890	52,590	58,850
11	51,560	51,650	50,920	50,220	49,940	49,580	48,000	48,120	57,500	52,540	52,590	58,670
12	51,910	51,560	50,880	50,220	49,900	49,580	47,920	48,040	57,370	52,330	52,500	58,540
13	51,910	51,690	50,800	50,220	49,820	49,580	47,880	47,920	57,320	52,030	54,420	58,360
14	51,910	51,520	50,710	50,220	49,820	49,580	47,880	47,760	57,190	51,780	60,050	58,220
15	51,820	51,440	50,710	50,220	49,820	49,540	47,800	47,680	57,010	51,520	62,790	58,040
16	51,780	51,390	50,620	50,220	49,820	49,490	47,960	47,560	56,960	51,260	63,360	57,910
17	51,690	51,390	50,580	50,220	49,780	49,410	48,080	47,440	56,830	50,970	63,500	57,820
18	51,690	51,350	50,540	50,220	49,820	49,410	48,040	47,320	56,600	50,710	63,450	57,680
19	51,690	51,310	50,540	50,140	49,820	49,290	48,120	47,240	56,470	50,500	63,170	57,410
20	51,650	51,260	50,540	50,140	49,820	49,170	48,290	47,200	56,380	50,300	62,600	57,190
21	51,650	51,310	50,540	50,180	49,820	49,130	48,250	47,120	56,470	50,060	62,080	57,010
22	51,610	51,310	50,540	50,180	49,740	49,090	48,250	47,040	56,470	49,780	61,610	57,410
23	52,030	51,180	50,500	50,140	49,740	49,050	48,200	47,080	56,420	49,620	61,140	57,910
24	52,120	50,970	50,500	50,140	49,820	49,010	48,120	47,040	56,330	49,450	60,670	59,350
25	52,160	51,010	50,420	50,140	50,020	49,010	48,040	46,910	56,240	49,410	60,200	60,150
26	52,160	51,010	50,420	50,140	50,020	48,970	47,960	46,830	56,060	49,620	59,910	61,420
27	52,330	51,010	50,420	50,140	49,980	48,970	47,960	47,080	55,880	49,580	59,720	61,710
28	52,250	51,050	50,420	50,140	49,980	48,930	47,960	47,200	55,750	49,540	59,580	61,850
29	52,200	51,050	50,420	50,140	------	48,850	48,200	48,000	55,660	49,490	59,300	61,850
30	52,120	51,050	50,500	50,100	------	48,770	48,290	50,420	55,570	49,740	59,170	61,850
31	52,120	------	50,500	50,100	------	48,690	------	53,480	------	50,880	59,440	------
(†)	1,160.35	1,160.10	1,159.97	1,159.87	1,159.84	1,159.52	1,159.42	1,160.67	1,161.15	1,160.06	1,162.01	1,162.52
(*)	+300	-1,070	-550	-400	-120	-1,290	-400	+5,190	+2,090	-4,690	+8,560	+2,410
MAX	52,330	52,080	51,090	50,420	50,100	49,980	48,610	53,480	57,950	55,390	63,500	61,850
MIN	51,390	50,970	50,420	50,100	49,740	48,690	47,800	46,830	55,570	49,410	51,220	57,010

CAL YR 1970..... * -16,880 MAX 63,720 MIN 48,080
WTR YR 1971..... * +10,030 MAX 63,500 MIN 46,830

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08099500 Leon River near Hasse, Tex.

LOCATION.--Lat 31°57'28", long 98°27'32", Comanche County, on left bank at downstream side of bridge on U.S. Highways 67 and 377, 500 ft upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 0.3 mile upstream from Walnut Creek, 2.0 miles downstream from Proctor Lake, 2.1 miles northeast of Hasse, and at mile 236.0.

DRAINAGE AREA.--1,268 sq mi.

PERIOD OF RECORD.--January 1939 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,115.01 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 152 cfs (110,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 276 cfs Aug. 20 (gage height, 4.70 ft); no flow June 8.
Period of record: Maximum discharge, 38,500 cfs May 24, 1952 (gage height, 21.49 ft); maximum gage height, 21.72 ft Oct. 4, 1959; no flow at times.
Maximum stage since at least 1858, occurred in May 1908, from information by local resident. At location about 2.5 miles upstream, flood of May 1908 was 9.1 ft higher than that of May 24, 1952, from information by local resident.

REMARKS.--Records good. Flow regulated by Proctor Lake (station 08099400) since Jan. 30, 1963. Numerous diversions above station for municipal, steam powerplant operation, and other uses.

REVISIONS (WATER YEARS).--WSP 1342: 1952. WSP 1392: 1952. WSP 1922: Drainage area. WRD Texas 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.49	2.1	.71	.73	1.5	.83	2.2	2.8	40	4.7	14
2	1.4	.61	.92	.72	1.0	1.5	.80	2.1	1.5	37	5.1	14
3	1.8	.84	1.1	.81	1.6	1.2	1.8	2.0	1.4	29	2.7	15
4	1.4	.81	1.2	.38	2.4	1.2	3.1	1.6	1.4	29	2.0	14
5	1.3	.85	1.1	.31	1.9	1.3	3.4	2.1	.71	25	3.4	13
6	1.3	1.2	1.1	.42	2.2	1.3	2.7	1.8	.31	27	3.2	14
7	1.3	1.3	1.2	.42	1.7	1.3	2.2	1.6	.23	46	1.1	12
8	1.1	1.5	1.2	.52	2.1	1.7	2.2	1.8	0	118	1.1	13
9	1.8	1.7	1.0	.55	1.9	1.5	2.4	1.8	.06	173	.74	13
10	1.9	1.7	1.0	.56	2.3	1.4	2.2	2.4	.04	114	.56	14
11	2.2	1.9	.90	.52	2.1	1.3	2.1	1.9	6.0	90	.48	14
12	2.5	2.3	6.3	.49	1.9	1.2	2.3	1.8	33	54	.50	13
13	2.2	2.7	22	.52	1.8	1.3	1.7	1.9	31	59	1.6	13
14	2.3	1.4	23	.59	1.8	1.2	1.8	1.0	32	51	1.7	16
15	1.5	1.9	19	.84	1.7	.92	2.2	.55	32	52	14	34
16	2.0	2.4	13	.85	1.4	.92	3.7	.42	28	51	1.2	14
17	2.3	1.5	2.3	.86	1.5	.62	4.3	.46	6.0	41	.87	14
18	2.0	1.6	1.1	.80	1.6	.64	4.3	.42	1.3	41	11	25
19	1.7	1.7	.99	.72	1.7	.51	3.4	.41	1.3	41	153	42
20	1.3	2.4	1.2	.83	1.6	.66	4.5	.68	.98	40	271	42
21	1.8	2.2	1.2	.92	1.9	.84	3.5	.54	5.7	44	254	41
22	1.1	2.5	1.3	.87	2.3	1.0	3.1	.48	19	52	238	39
23	3.6	1.6	1.1	.82	2.1	1.1	2.8	.64	17	52	225	17
24	1.0	1.8	.86	.87	2.2	1.1	2.9	1.1	11	54	212	9.9
25	.44	2.3	1.3	.87	3.7	1.3	2.8	.49	9.3	54	203	5.8
26	.45	2.8	2.3	.87	3.3	1.3	2.4	.08	8.1	40	142	4.6
27	1.3	3.0	1.7	.87	2.3	1.2	1.5	.08	9.0	11	57	4.5
28	.44	3.1	.97	.87	1.6	1.2	1.5	1.6	17	10	53	4.5
29	.38	3.4	.79	1.0	------	.73	4.5	1.0	34	10	55	4.6
30	.39	3.0	1.2	.99	------	.71	2.9	2.1	40	7.5	33	4.3
31	.37	------	.79	.86	------	.79	------	2.2	------	4.0	4.1	------
TOTAL	45.87	56.50	115.22	22.23	54.33	34.44	79.83	39.25	350.13	1,496.5	1,956.05	498.2
MEAN	1.48	1.88	3.72	.72	1.94	1.11	2.66	1.27	11.7	48.3	63.1	16.6
MAX	3.6	3.4	23	1.0	3.7	1.7	4.5	2.4	40	173	271	42
MIN	.37	.49	.79	.31	.73	.51	.80	.08	0	4.0	.48	4.3
AC-FT	91	112	229	44	108	68	158	78	694	2,970	3,880	988

CAL YR 1970 TOTAL 52,622.19 MEAN 144 MAX 553 MIN .37 AC-FT 104,400
WTR YR 1971 TOTAL 4,748.55 MEAN 13.0 MAX 271 MIN 0 AC-FT 9,420

08100000 Leon River near Hamilton, Tex.

LOCATION.--Lat 31°47'19", long 98°07'16", Hamilton County, on downstream side of bridge on U.S. Highway 281, 2.2 miles upstream from Mesquite Creek, 3.6 miles downstream from Bear Creek, 5.9 miles north of Hamilton, and at mile 181.8.

DRAINAGE AREA.--1,914 sq mi.

PERIOD OF RECORD.--January 1925 to September 1931, September 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 960.38 ft above mean sea level. Jan. 7, 1925, to Sept. 30, 1931, nonrecording gage 1.4 miles downstream at datum 3.13 ft lower. Sept. 1, 1960, to Nov. 22, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--17 years (1925-31, 1960-71), 179 cfs (129,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,250 cfs July 27 (gage height, 12.00 ft); no flow June 13-16, July 4.
Period of record: Maximum discharge, 18,600 cfs Sept. 9, 1962 (gage height, 26.93 ft); no flow at times.
Maximum stage since at least 1858, 33.4 ft in May 1908 and December 1913; flood in September 1911 reached a stage of 32.0 ft, from information by local residents. The flood in October 1959 reached a stage of 29.1 ft.

REMARKS.--Records good. Some regulation by Leon Reservoir (station 08099000) and Proctor Lake (station 08099400). Numerous diversions above station for irrigation, municipal supply, and industrial uses. At end of year, flow from 43.9 sq mi above this station was partly controlled by 14 floodwater-retarding structures with a total combined capacity of 12,810 acre-ft below the flood-spillway crests, of which 11,610 acre-ft is floodwater-retarding capacity and 1,200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Recording rain gage located at station.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	13	19	15	12	21	8.3	34	.57	.38	20	36
2	21	13	19	17	12	17	6.6	16	.46	.16	12	18
3	18	12	18	17	12	15	5.3	9.2	.45	.08	16	10
4	17	12	18	15	12	14	4.9	7.3	.45	0	22	14
5	16	12	17	13	11	14	5.6	6.0	.39	2.4	13	14
6	25	12	16	13	11	12	5.4	5.8	.30	2.4	22	12
7	20	12	16	13	11	11	4.2	5.7	.18	.74	20	9.7
8	17	13	16	12	12	11	3.6	5.1	.13	.19	25	9.3
9	15	13	17	12	12	12	3.6	4.5	.08	.08	15	8.9
10	13	13	18	12	12	11	3.3	3.8	.05	29	6.2	7.8
11	13	13	18	13	12	10	3.2	3.4	.02	86	3.4	5.5
12	20	14	17	14	12	9.9	2.8	4.3	.01	58	2.4	4.2
13	51	13	18	14	12	10	2.4	3.5	0	45	3.7	3.9
14	27	13	17	14	11	11	2.0	3.0	0	12	3.5	3.2
15	19	13	20	14	12	10	1.5	2.9	0	12	3.6	3.2
16	16	13	33	13	12	11	1.6	2.6	0	7.5	2.4	3.0
17	16	13	32	13	12	10	2.1	2.0	8.1	3.3	4.1	2.1
18	15	14	30	13	12	9.2	6.6	1.3	13	2.8	8.3	1.6
19	15	15	26	13	12	8.2	10	.92	11	5.0	6.5	1.2
20	15	15	21	12	12	8.1	24	1.1	4.9	2.2	4.1	1.1
21	15	16	17	12	13	9.0	19	1.1	2.1	.80	125	4.5
22	15	16	17	13	11	8.7	14	.89	1.3	.28	197	37
23	22	16	16	13	11	8.6	11	.71	4.5	.03	184	171
24	85	16	14	15	11	8.5	12	.59	3.4	135	171	65
25	45	16	14	15	17	9.1	10	.59	3.4	88	164	38
26	26	17	13	13	21	9.7	8.5	2.6	2.3	73	184	39
27	44	18	13	13	20	9.7	7.4	1.6	2.1	891	152	26
28	23	19	13	12	24	9.3	6.8	.98	1.6	135	80	18
29	19	19	13	13	------	8.6	7.8	.78	1.0	360	45	14
30	16	19	14	13	------	7.6	11	1.1	.85	80	39	13
31	14	------	15	13	------	8.0	------	1.0	------	43	45	------
TOTAL	717	433	565	417	364	332.2	214.5	134.36	62.64	2,075.34	1,599.2	594.2
MEAN	23.1	14.4	18.2	13.5	13.0	10.7	7.15	4.33	2.09	66.9	51.6	19.8
MAX	85	19	33	17	24	21	24	34	13	891	197	171
MIN	13	12	13	12	11	7.6	1.5	.59	0	0	2.4	1.1
AC-FT	1,420	859	1,120	827	722	659	425	267	124	4,120	3,170	1,180

CAL YR 1970 TOTAL 87,065.30 MEAN 239 MAX 2,510 MIN 1.4 AC-FT 172,700
WTR YR 1971 TOTAL 7,508.44 MEAN 20.6 MAX 891 MIN 0 AC-FT 14,890

08100500 Leon River at Gatesville, Tex.

LOCATION.--Lat 31°25'58", long 97°45'42", Coryell County, on right bank at upstream side of county road bridge, 800 ft downstream from U.S. Highway 84 bridge in Gatesville, 0.3 mile downstream from Dodds Creek, 5.2 miles upstream from Cottonwood Creek, and at mile 104.8.

DRAINAGE AREA.--2,365 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 723.85 ft above mean sea level. Oct. 1, 1950, to Feb. 8, 1951, nonrecording gage; Feb. 9, 1951, to Jan 21, 1969, water-stage recorder; all at site 800 ft upstream at same datum.

AVERAGE DISCHARGE.--21 years, 290 cfs (210,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,180 cfs July 25 (gage height, 26.88 ft); no flow July 21-23.
Period of record: Maximum discharge, 51,200 cfs Oct. 4, 1959 (gage height, 34.14 ft), from rating curve extended above 41,000 cfs; no flow at times in 1951-52, 1954-55, 1971.
Maximum stage since at least 1854, 35 ft in May 1908, from information by local residents.

REMARKS.--Records good. Some upstream regulation by two major reservoirs; for statement regarding upstream reservoirs and regulation by Soil Conservation Service floodwater-retarding structures, see Leon River near Hamilton (station 08100000). Numerous diversions above station for irrigation, municipal supply, and oilfield operation. The city of Hamilton reported that 360 acre-ft was diverted above station during the water year for municipal use and 419 acre-ft was returned to the Leon River as sewage effluent. The city of Gatesville reported that 437 acre-ft of sewage effluent was discharged into the Leon River below station during the water year.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	38	27	26	21	33	15	16	2.4	3.5	194	69
2	59	32	28	26	21	29	12	15	1.7	3.1	110	56
3	48	30	27	29	22	30	11	14	1.4	3.0	74	107
4	42	28	27	29	23	30	12	34	1.2	3.2	56	45
5	38	27	27	27	22	27	11	29	.98	3.2	45	30
6	36	26	27	29	21	25	9.7	22	.77	3.2	73	21
7	32	26	26	27	21	22	9.0	18	.74	3.2	77	16
8	30	26	26	26	21	21	8.2	15	.62	3.0	114	15
9	36	27	25	24	21	20	7.2	14	.62	2.9	144	15
10	30	26	25	24	21	19	6.8	14	.62	2.7	84	12
11	28	26	25	22	21	18	6.5	12	.56	3.0	53	11
12	28	26	24	24	21	18	6.0	32	.38	1.6	38	9.5
13	27	26	25	24	20	19	5.0	21	.20	.9	29	8.3
14	24	25	25	24	20	22	3.9	13	25	.4	30	7.1
15	57	24	25	24	20	20	3.2	8.5	6.8	.3	93	6.2
16	53	25	24	24	20	21	6.8	6.6	.40	.6	71	5.8
17	39	25	24	24	20	19	9.1	5.3	.21	.4	45	5.1
18	33	25	24	24	27	17	46	3.5	.20	.2	31	4.5
19	31	24	41	23	42	16	202	4.1	.19	.2	23	3.9
20	29	24	45	22	21	14	54	3.3	.15	.1	18	3.6
21	28	24	44	25	21	16	32	1.7	1.2	0	15	3.6
22	27	25	41	21	20	17	22	1.5	.83	0	16	4.7
23	100	24	37	21	19	15	30	1.4	2.5	0	118	9.2
24	141	22	32	20	18	15	33	1.8	2.7	152	229	10
25	84	23	28	21	24	15	28	1.7	2.3	5,300	222	171
26	129	24	27	21	27	15	24	1.3	2.6	842	216	83
27	94	24	26	21	24	15	22	.83	3.0	797	226	45
28	169	24	26	22	34	17	22	256	4.5	1,580	219	28
29	93	25	25	21	------	17	22	28	4.1	1,970	182	25
30	61	27	29	21	------	16	19	7.7	2.4	631	133	18
31	45	------	28	21	------	16	------	3.8	------	474	115	------
TOTAL	1,749	778	890	737	633	614	698.4	606.03	71.27	11,784.7	3,093	848.5
MEAN	56.4	25.9	28.7	23.8	22.6	19.8	23.3	19.5	2.38	380	99.8	28.3
MAX	169	38	45	29	42	33	202	256	25	5,300	229	171
MIN	24	22	24	20	18	14	3.2	.83	.15	0	15	3.6
AC-FT	3,470	1,540	1,770	1,460	1,260	1,220	1,390	1,200	141	23,370	6,130	1,680

CAL YR 1970 TOTAL 133,355.80 MEAN 365 MAX 4,590 MIN 1.2 AC-FT 264,500
WTR YR 1971 TOTAL 22,502.90 MEAN 61.7 MAX 5,300 MIN 0 AC-FT 44,630

08101000 Cowhouse Creek at Pidcoke, Tex.

LOCATION.--Lat 31°17'05", long 97°53'05", Coryell County, on left bank 125 ft downstream from bridge on Farm Road 116, 0.1 mile downstream from Beehouse Creek, 0.6 mile northeast of Pidcoke, and 4.9 miles upstream from Table Rock Creek.

DRAINAGE AREA.--455 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 736.7 ft above mean sea level.

AVERAGE DISCHARGE.--21 years, 96.5 cfs (69,910 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,700 cfs July 27 (gage height, 19.54 ft); no flow June 14-18, July 4-23.
Period of record: Maximum discharge, 66,200 cfs Oct. 4, 1959 (gage height, 40.1 ft, from floodmark), from rating curve extended above 30,000 cfs on basis of slope-area measurement of 55,800 cfs; no flow at times.
Maximum stage since at least 1882, that of Oct. 4, 1959, from information by local resident.

REMARKS.--Records good. No known diversion above station.

REVISIONS (WATER YEARS).--WSP 1712: 1955. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	26	19	25	10	34	5.3	5.1	3.7	.07	21	76
2	64	23	20	29	10	23	4.6	4.0	2.5	.04	13	19
3	55	22	20	23	11	18	4.6	3.2	2.7	.02	130	12
4	43	22	20	18	12	16	4.5	2.8	1.8	0	36	10
5	44	22	19	16	10	14	4.2	2.4	1.4	0	11	11
6	60	21	18	16	9.8	13	3.8	2.1	.88	0	16	8.4
7	111	22	18	14	10	12	3.4	2.1	.50	0	100	7.4
8	60	22	18	13	10	11	3.0	2.0	.27	0	92	6.4
9	37	22	18	13	11	11	3.1	7.3	.14	0	17	5.6
10	29	21	19	13	10	9.8	3.1	6.0	.08	0	8.6	5.1
11	28	20	18	14	10	9.6	2.9	6.3	.04	0	4.9	4.5
12	30	19	19	14	9.8	9.5	2.7	4.4	.03	0	3.6	4.1
13	32	19	18	14	8.9	9.7	2.7	2.5	.02	0	3.6	4.0
14	44	19	18	14	8.5	14	2.6	1.8	0	0	36	3.6
15	32	19	18	14	8.5	12	2.5	1.5	0	0	172	3.4
16	28	19	16	13	8.9	9.9	4.6	1.2	0	0	47	3.3
17	25	19	16	13	8.9	8.9	6.9	.88	0	0	13	3.0
18	25	19	17	13	9.8	8.4	162	.65	0	0	6.6	2.8
19	31	20	17	13	16	7.3	156	.49	.71	0	4.5	2.5
20	30	20	17	13	12	6.7	57	.54	1.0	0	3.5	2.7
21	32	19	16	13	11	6.4	23	.59	8.8	0	2.8	2.8
22	30	19	17	13	9.3	6.3	15	.63	154	0	2.3	4.3
23	71	17	17	13	8.2	6.1	11	.50	15	0	1.9	466
24	143	17	17	13	8.5	6.0	8.7	.37	3.4	725	1.7	227
25	88	17	16	12	11	6.3	7.5	.23	1.4	2,870	152	55
26	50	16	16	12	42	6.4	6.6	.18	.65	768	22	33
27	79	17	15	11	148	6.3	5.8	.14	.36	3,240	8.8	21
28	90	18	15	11	67	6.8	4.9	251	.28	872	6.9	14
29	47	19	15	11	------	5.9	6.0	63	.22	1,140	5.8	9.5
30	33	20	18	11	------	5.6	6.9	11	.12	174	5.2	7.6
31	29	------	17	11	------	5.3	------	6.1	------	63	20	------
TOTAL	1,580	595	542	446	510.1	325.2	534.9	391.00	200.00	9,852.13	968.7	1,035.0
MEAN	51.0	19.8	17.5	14.4	18.2	10.5	17.8	12.6	6.67	318	31.2	34.5
MAX	143	26	20	29	148	34	162	251	154	3,240	172	466
MIN	25	16	15	11	8.2	5.3	2.5	.14	0	0	1.7	2.5
AC-FT	3,130	1,180	1,080	885	1,010	645	1,060	776	397	19,540	1,920	2,050

CAL YR 1970 TOTAL 59,516.51 MEAN 163 MAX 7,210 MIN .59 AC-FT 118,100
WTR YR 1971 TOTAL 16,980.03 MEAN 46.5 MAX 3,240 MIN 0 AC-FT 33,680

PEAK DISCHARGE (BASE, 3,500 CFS).--July 25 (0945) 10,300 cfs (19.13 ft); July 27 (2215) 10,700 cfs (19.54 ft).

08102000 Belton Lake near Belton, Tex.
(Formerly published as Belton Reservoir near Belton)

LOCATION.--Lat 31°06'22", long 97°28'28", Bell County, in intake structure at Belton Dam on Leon River, 1.6 miles upstream from bridge on State Highway 317, 3.5 miles north of Belton, 8.9 miles upstream from Nolan Creek, and 16.8 miles upstream from confluence with Lampasas River.

DRAINAGE AREA.--3,560 sq mi.

PERIOD OF RECORD.--March 1954 to current year. Prior to October 1970, published as Belton Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Feb. 20, 1955, nonrecording gage at present site and datum.

EXTREMES.--Current year: Maximum contents, 246,400 acre-ft Aug. 6 (elevation, 573.56 ft); minimum, 133,800 acre-ft July 23 (elevation, 556.92 ft).
Period of record: Maximum contents, 870,300 acre-ft June 6, 1957 (elevation, 620.45 ft); minimum since initial filling, 113,400 acre-ft Dec. 16, 1956 (elevation, 553.06 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 5,524 ft long including a 1,300-foot uncontrolled broad-crested spillway in saddle on left bank and a 418-foot dike. Flood-control outlet works consist of a 22-foot-diameter conduit controlled by three 7.0- by 22.0-foot electrically driven broome-type gates (elevation of invert, 483.0 ft). Low-flow outlet works consist of one 36- by 36-inch gated outlet discharging into flood-control conduit (elevation of invert at intake to wet well, 540.0 ft). Deliberate impoundment of water began Mar. 8, 1954, and main dam was completed in December 1954. Lake built for flood control and conservation. Contents based on surveys dated 1936, 1937, and 1948. Fort Hood and adjacent military installations have been allocated 12,000 acre-ft of storage in the lake. Small diversions above the lake for irrigation, municipal supply, and oilfield operation. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Leon River near Hamilton (station 08100000). Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	662.0	-
Crest of spillway	631.0	1,097,600
Top of conservation storage	569.0	210,600
Invert of lowest intake	483.0	278

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

557.0	134,200	565.0	182,500
559.0	145,500	568.0	203,300
561.0	157,200	571.0	225,800
563.0	169,600	574.0	250,100

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211,900	214,400	210,400	210,000	209,000	208,800	205,800	189,800	182,200	143,400	244,500	242,100
2	210,800	214,400	210,200	210,000	208,900	208,800	205,600	188,600	182,100	142,500	245,300	242,200
3	210,500	214,300	210,500	210,000	208,900	208,700	205,500	187,300	181,800	142,100	245,400	242,200
4	210,100	214,200	210,200	209,900	208,900	208,600	205,400	186,000	181,500	141,700	245,900	242,100
5	210,100	214,000	210,400	209,900	208,900	208,300	205,200	184,800	181,400	141,200	246,300	241,900
6	210,100	214,000	210,200	209,700	208,900	208,300	205,100	183,600	181,200	140,900	246,300	241,900
7	210,200	213,700	210,200	209,700	208,900	208,300	204,800	182,400	181,000	140,500	246,300	241,600
8	210,200	214,000	210,100	209,500	208,800	208,300	204,400	182,500	179,900	140,100	246,100	241,400
9	210,200	214,000	210,000	209,500	208,600	208,300	203,600	185,800	178,300	139,800	245,600	241,100
10	210,100	213,600	210,100	209,700	208,300	208,200	202,700	185,400	176,500	139,300	245,100	240,600
11	211,000	213,400	210,100	209,600	208,200	208,200	201,700	184,900	174,700	138,900	244,600	240,200
12	211,300	212,800	210,000	209,500	208,200	208,300	200,800	184,700	173,000	138,500	244,100	239,600
13	211,300	212,700	210,000	209,600	208,000	208,300	199,700	184,500	171,400	138,100	243,500	239,300
14	211,300	212,200	209,900	209,700	208,000	208,300	198,300	184,300	169,900	137,800	243,100	238,700
15	211,300	212,100	209,900	209,700	207,900	208,300	196,800	184,100	168,600	137,400	242,900	238,500
16	211,300	211,300	209,900	209,700	207,900	208,200	197,000	183,800	166,900	136,900	242,100	237,900
17	211,200	211,300	209,700	209,700	207,900	208,000	197,200	183,300	165,200	136,400	241,500	237,600
18	211,200	210,900	209,800	209,600	208,200	207,800	198,500	182,900	163,400	136,000	240,800	237,400
19	211,700	210,900	209,800	209,500	208,200	207,700	198,900	182,300	161,700	135,600	240,200	237,100
20	211,600	210,800	209,800	209,400	208,100	207,500	199,100	182,100	160,300	135,200	239,700	236,600
21	211,700	210,800	209,800	209,300	208,200	207,500	199,300	181,500	158,700	134,700	239,200	236,500
22	211,700	210,800	209,900	209,400	208,100	207,300	199,400	180,900	157,200	134,200	238,700	236,600
23	212,500	210,600	209,900	209,400	208,000	207,200	198,800	180,200	155,700	134,000	238,200	237,100
24	212,800	210,200	209,800	209,400	208,000	207,100	197,600	180,600	154,200	134,500	238,000	238,100
25	213,200	210,100	209,900	209,400	208,600	207,000	196,400	180,400	152,900	161,400	238,500	238,200
26	213,400	210,100	209,900	209,300	208,700	206,900	195,400	180,200	151,000	187,900	239,900	238,300
27	213,900	210,200	209,700	209,200	208,700	206,700	194,100	180,200	149,500	209,400	240,600	238,500
28	213,900	210,300	209,700	209,100	208,800	206,600	192,900	181,300	148,300	222,400	240,800	238,600
29	214,000	210,200	209,900	209,200	------	206,400	192,000	181,700	146,400	230,800	241,100	238,600
30	214,300	210,200	210,200	209,200	------	206,200	191,000	182,300	144,800	241,900	241,400	238,600
31	214,300	------	209,900	209,300	------	206,000	------	182,300	------	243,900	241,900	------
(†)	569.50	568.95	568.91	568.82	568.75	568.37	566.25	564.96	558.88	573.25	573.01	572.61
(*)	+900	-4,100	-300	-600	-500	-2,800	-15,000	-8,700	-37,500	+99,100	-2,000	-3,300
(††)	958	891	835	894	815	1,119	1,344	1,357	1,644	1,904	1,186	1,182
MAX	214,300	214,400	210,500	210,000	209,000	208,800	205,800	189,800	182,200	243,900	246,300	242,200
MIN	210,100	210,100	209,700	209,100	207,900	206,000	191,000	180,200	144,800	134,000	238,000	236,500

CAL YR 1970..... * 0 †† 12,790 MAX 324,900 MIN 200,500
WTR YR 1971..... * 25,200 †† 14,130 MAX 246,300 MIN 134,000

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by Bell County Water Control and Improvement District.

08102500 Leon River near Belton, Tex.

LOCATION.--Lat 31°04'12", long 97°26'28", Bell County, on left bank 1,400 ft upstream from bridge on Farm Road 817, 2,000 ft upstream from concrete dam, 1 mile upstream from bridge on U.S. Highway 81, 2 miles northeast of Belton, 3.2 miles downstream from Belton Dam, 5.0 miles upstream from Nolan Creek, and at mile 13.0.

DRAINAGE AREA.--3,572 sq mi.

PERIOD OF RECORD.--October 1923 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 476.68 ft above mean sea level. Prior to May 21, 1931, non-recording gage.

AVERAGE DISCHARGE.--48 years, 642 cfs (465,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs Oct. 1, 2 (gage height, 5.05 ft); minimum daily, 3.4 cfs Oct. 31.
Period of record: Maximum discharge, 56,500 cfs Apr. 22, 1945 (gage height, 24.41 ft); no flow at times.
Flood in December 1913 reached a stage of 25 ft and flood in September 1921 reached a stage of 21 ft, from information by local residents.

REMARKS.--Records good. The city of Temple reported that during the year 6,815 acre-ft was diverted from gage pool for municipal use, and 1,924 acre-ft of treated sewage effluent was returned to Little Elm Creek. Flow regulated by Belton Lake (station 08102000) since Mar. 8, 1954. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1442: 1925(M), 1935(M), 1936, 1938(M), 1941-42(M), 1944-45(M). WSP 1712: 1937(M). WSP 1922: Drainage area, 1938.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,020	3.7	31	17	14	25	31	550	31	725	420	103
2	771	5.0	35	16	16	25	36	550	29	297	421	136
3	229	6.1	32	15	17	26	29	546	29	112	421	135
4	232	6.6	31	14	16	26	29	550	27	102	386	135
5	120	6.6	33	14	13	22	29	554	25	104	417	132
6	11	6.2	39	15	12	18	30	554	26	97	420	136
7	10	4.5	36	14	13	17	30	556	26	95	420	135
8	8.9	3.8	35	13	13	17	102	552	344	115	421	115
9	7.3	3.6	30	13	13	18	361	567	756	110	421	151
10	7.1	97	18	14	13	17	390	560	751	109	421	149
11	8.6	215	16	22	13	16	393	388	750	112	421	231
12	16	223	15	22	10	17	394	57	747	105	396	235
13	9.6	181	16	23	12	16	516	48	749	107	422	156
14	7.6	131	17	25	12	17	657	36	746	99	425	157
15	7.2	132	16	23	12	16	668	41	746	90	430	168
16	7.2	133	16	23	12	13	409	42	745	92	430	189
17	8.0	131	16	23	11	10	18	123	742	94	430	59
18	9.2	133	15	24	11	16	14	221	737	96	430	43
19	9.8	91	15	24	12	15	14	235	742	95	333	48
20	6.3	32	15	24	14	16	13	238	744	96	230	32
21	6.7	32	16	21	15	16	18	236	740	97	229	17
22	7.3	33	15	15	15	16	17	236	745	100	233	19
23	5.8	33	17	14	15	15	223	240	740	101	175	22
24	5.9	33	16	14	15	15	567	166	740	88	89	25
25	6.5	32	17	13	16	16	562	53	737	61	43	35
26	5.8	32	18	12	17	15	551	32	739	40	69	41
27	4.7	32	18	14	20	18	552	31	741	43	57	38
28	4.3	33	17	14	23	17	550	47	740	47	56	36
29	3.6	37	16	15	------	20	554	31	736	47	58	37
30	3.5	35	17	14	------	33	553	33	730	215	62	35
31	3.4	------	19	14	------	34	------	32	------	418	65	------
TOTAL	2,563.3	1,877.1	663	538	395	578	8,310	8,105	16,880	4,109	9,251	2,950
MEAN	82.7	62.6	21.4	17.4	14.1	18.6	277	261	563	133	298	98.3
MAX	1,020	223	39	25	23	34	668	567	756	725	430	235
MIN	3.4	3.6	15	12	10	10	13	31	25	40	43	17
AC-FT	5,080	3,720	1,320	1,070	783	1,150	16,480	16,080	33,480	8,150	18,350	5,850

CAL YR 1970 TOTAL 261,607.27 MEAN 717 MAX 2,880 MIN 0 AC-FT 518,900
WTR YR 1971 TOTAL 56,219.40 MEAN 154 MAX 1,020 MIN 3.4 AC-FT 111,500

08103800 Lampasas River near Kempner, Tex.

LOCATION.--Lat 32°04'54", long 98°00'59", Lampasas County, on left bank 800 ft upstream from centerline of U.S. Highway 190, 0.6 mile upstream from Mesquite Creek, 0.8 mile west of Kempner, 0.9 mile downstream from Sulphur Creek, and at mile 76.7.

DRAINAGE AREA.--817 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.38 ft above mean sea level. Prior to Mar. 2, 1966, at site 800 ft downstream.

AVERAGE DISCHARGE.--9 years, 164 cfs (118,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,200 cfs July 26 (gage height, 13.41 ft); minimum daily, 1.4 cfs July 17.
Period of record: Maximum discharge, 71,000 cfs May 16, 1965 (gage height, 32.98 ft); minimum daily, 1.4 cfs July 17, 1971. Maximum stage since at least 1871 occurred in September 1873 (stage unknown). Flood of May 13, 1957, reached a stage of 37 ft and flood of Oct. 4, 1959, reached a stage of 34 ft, from information by local residents.

REMARKS.--Records good. At end of year, flow from 74.8 sq mi above this station was partly controlled by nine floodwater-retarding structures with a total combined capacity of 26,090 acre-ft below the flood-spillway crests, of which 24,700 acre-ft is floodwater-retarding capacity and 1,390 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. All of these structures were built during the period February 1959 to June 1961. Many small diversions above station for irrigation and municipal supply, amount unknown. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WRD Texas 1969: 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	62	41	36	31	49	20	21	23	13	60	27
2	109	58	41	38	30	39	18	20	19	4.1	56	26
3	100	56	41	41	31	36	18	19	15	7.4	46	23
4	94	56	41	38	35	34	17	19	13	4.4	48	24
5	90	56	41	36	36	33	17	18	14	6.9	72	24
6	89	56	41	38	36	33	18	17	13	6.5	56	23
7	95	56	39	38	36	32	17	17	14	14	46	21
8	82	56	38	36	36	31	16	16	11	6.8	72	19
9	73	56	38	36	42	28	15	367	10	7.8	51	17
10	67	54	38	36	33	28	16	90	10	7.3	49	16
11	66	52	43	36	32	28	15	68	11	1.5	37	18
12	85	51	43	36	30	30	17	95	12	6.8	32	21
13	100	51	43	36	26	30	17	66	14	14	31	18
14	84	53	43	34	25	29	17	48	14	7.8	209	18
15	74	51	43	34	26	26	16	32	12	7.2	391	17
16	68	51	41	34	26	26	26	28	11	5.8	142	18
17	66	51	41	34	26	24	37	23	10	1.4	95	17
18	68	51	41	34	26	23	26	20	11	4.3	74	16
19	85	51	41	34	31	21	27	17	11	6.1	62	16
20	79	51	41	33	36	25	36	14	9.8	7.1	55	26
21	78	51	41	30	34	24	33	15	11	16	48	17
22	74	49	41	30	29	21	29	15	95	11	43	17
23	79	42	51	34	26	20	26	14	143	9.1	38	36
24	89	41	46	34	26	20	24	13	32	25	34	81
25	83	41	41	34	32	20	22	13	18	672	36	64
26	70	43	34	34	38	23	23	12	13	2,790	30	69
27	69	43	36	34	70	25	22	10	12	1,020	28	52
28	88	43	38	32	56	25	20	68	16	964	26	41
29	74	43	34	32	------	23	23	72	16	1,280	24	33
30	66	44	36	32	------	21	23	38	12	170	24	28
31	63	------	36	31	------	21	------	29	------	89	31	------
TOTAL	2,525	1,519	1,253	1,075	941	848	651	1,314	625.8	7,186.3	2,046	843
MEAN	81.5	50.6	40.4	34.7	33.6	27.4	21.7	42.4	20.9	232	66.0	28.1
MAX	118	62	51	41	70	49	37	367	143	2,790	391	81
MIN	63	41	34	30	25	20	15	10	9.8	1.4	24	16
AC-FT	5,010	3,010	2,490	2,130	1,870	1,680	1,290	2,610	1,240	14,250	4,060	1,670

CAL YR 1970 TOTAL 108,017.0 MEAN 296 MAX 9,890 MIN 20 AC-FT 214,300
WTR YR 1971 TOTAL 20,827.1 MEAN 57.1 MAX 2,790 MIN 1.4 AC-FT 41,310

PEAK DISCHARGE (BASE, 4,000 CFS).--July 26 (1230) 12,200 cfs (13.41 ft); July 29 (0345) 4,070 cfs (8.64 ft).

08103900 South Fork Rocky Creek near Briggs, Tex.
(Hydrologic Bench-Mark Station)

LOCATION.--Lat 30°54'41", long 98°02'12", Burnet County, on upstream side of bridge on Ranch Road 963, 6 miles above confluence with North Fork Rocky Creek, and 7 miles west of Briggs.

DRAINAGE AREA.--34.2 sq mi.

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 955.8 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 10.5 cfs (4.17 inches per year, 7,610 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,080 cfs July 26 (gage height, 5.42 ft); no flow for many days.
Period of record: Maximum discharge, 11,900 cfs May 16, 1965 (gage height, 13.82 ft), from rating curve extended above 1,000 cfs on basis of slope-area measurement of 3,580 cfs and area-velocity study; no flow for many days each year.
Maximum stage since at least 1904, 18 ft in September 1921, from information by local residents.

REMARKS.--Records good. Three recording rain gages located in watershed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0							0	0	0	.06	0
2	0							0	0	0	.18	0
3	0							0	0	0	.11	0
4	0							0	0	0	.22	0
5	47							0	0	0	.82	0
6	7.3							0	0	0	.50	0
7	.56							0	0	0	.19	0
8	.05							0	0	0	.05	0
9	0							0	0	0	0	0
10	0							0	0	0	0	0
11	0							0	0	0	0	0
12	0							0	0	0	0	0
13	0							0	0	0	0	0
14	0							0	0	0	0	0
15	0							0	0	0	0	0
16	0							0	0	0	0	0
17	0							0	0	0	0	0
18	0							0	0	0	0	0
19	0							0	0	0	0	0
20	0							0	0	0	0	0
21	0							0	0	0	0	0
22	0							0	.11	0	0	0
23	0							0	0	0	0	2.3
24	0							0	0	0	0	0
25	0							0	0	0	0	0
26	0							0	0	39	0	0
27	0							0	0	34	2.3	0
28	0							57	0	2.4	.31	0
29	0				------			.91	0	5.1	0	0
30	0				------			.08	0	1.2	0	0
31	0	------			------		------	0	------	.65	0	------
TOTAL	54.91	0	0	0	0	0	0	57.99	.11	82.35	4.74	2.3
MEAN	1.77	0	0	0	0	0	0	1.87	.004	2.66	.15	.077
MAX	47	0	0	0	0	0	0	57	.11	39	2.3	2.3
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.05	0	0	0	0	0	0	.05	.0001	.08	.004	.002
IN.	.06	0	0	0	0	0	0	.06	0	.09	.005	.002
AC-FT	109	0	0	0	0	0	0	115	.2	163	9.4	4.6

CAL YR 1970 TOTAL 5,249.83 MEAN 14.4 MAX 618 MIN 0 CFSM .42 IN 5.71 AC-FT 10,410
WTR YR 1971 TOTAL 202.40 MEAN .55 MAX 57 MIN 0 CFSM .02 IN .22 AC-FT 401

PEAK DISCHARGE (BASE, 1,000 CFS).--July 26 (2330) 1,080 cfs (5.42 ft).

08104000 Lampasas River at Youngsport, Tex.

LOCATION.--Lat 30°57'26", long 97°42'30", Bell County, on left bank 600 ft downstream from county road low-water crossing, 2,000 ft downstream from bridge on county road, 0.7 mile east of Youngsport, 4.5 miles downstream from Rocky Creek, and at mile 40.6.

DRAINAGE AREA.--1,244 sq mi.

PERIOD OF RECORD.--February 1924 to current year.

GAGE.--Water-stage recorder. Datum of gage is 630.88 ft above mean sea level (Corps of Engineers bench mark). Prior to Mar. 14, 1931, nonrecording gage and Mar. 14, 1931, to Mar. 11, 1965, water-stage recorder at site 1,000 ft upstream at datum 2.58 ft higher.

AVERAGE DISCHARGE.--47 years, 282 cfs (204,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,750 cfs July 26 (gage height, 10.57 ft); no flow July 18-23.
Period of record: Maximum discharge, 87,900 cfs May 17, 1965 (gage height, 37.7 ft, from floodmarks), from rating curve extended above 40,000 cfs on basis of maximum discharge of May 13, 1957, measured at highway bridge 22 miles downstream; no flow at times in 1925, 1934, 1950-52, 1954, 1956, 1963-67, 1971.
Maximum stage since at least 1873, 45.2 ft Sept. 8, 1873, from information by local residents at time the former gage was established 1,000 ft upstream, adjusted to present site and datum.

REMARKS.--Records good. Many small diversions above station for irrigation and municipal supply. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lampasas River near Kempner (station 08103800).

REVISIONS (WATER YEARS).--WSP 788: 1926, 1928, 1931. WSP 1632: 1957. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	56	53	43	32	60	21	19	32	11	104	35
2	129	55	53	39	32	50	20	18	24	9.5	74	35
3	116	54	51	42	32	43	19	17	20	7.0	65	32
4	105	53	51	42	32	39	18	16	17	4.5	350	28
5	99	53	51	42	32	37	17	15	15	3.5	144	27
6	196	51	51	43	32	35	17	14	11	2.2	78	26
7	96	51	51	43	32	34	17	14	10	1.7	66	26
8	83	51	51	42	33	32	17	14	8.9	1.3	54	24
9	69	51	51	37	33	32	16	70	8.2	1.1	60	22
10	63	51	50	37	33	31	16	253	8.7	.75	52	21
11	59	53	51	38	33	31	15	95	7.8	1.0	47	21
12	134	53	51	36	33	31	14	64	6.4	1.6	42	21
13	82	51	51	37	32	31	15	79	3.1	.85	45	20
14	86	51	51	39	32	31	15	62	3.3	.46	56	20
15	72	51	50	38	30	29	15	47	2.9	.49	270	19
16	66	51	46	38	30	28	22	37	5.9	.20	224	18
17	59	53	45	38	30	26	31	29	4.4	.02	127	18
18	59	53	43	38	30	27	45	24	4.1	0	86	17
19	69	53	43	37	30	25	33	21	3.2	0	69	16
20	75	53	44	36	30	25	31	22	3.3	0	60	15
21	68	53	44	36	30	25	33	20	2.3	0	55	15
22	67	53	44	35	30	27	37	17	6.4	0	50	21
23	64	51	44	33	30	26	32	17	50	0	44	27
24	64	47	46	33	32	24	29	20	93	.06	42	32
25	74	49	47	33	42	24	25	18	38	131	38	60
26	71	47	43	32	46	24	25	14	21	1,920	35	55
27	62	47	39	31	42	25	23	12	14	1,770	220	57
28	58	47	39	31	54	25	20	16	11	1,270	49	50
29	72	51	39	31	------	25	21	91	11	1,210	38	41
30	64	53	41	31	------	23	20	74	12	1,560	37	33
31	58	------	43	32	------	23	------	46	------	256	43	------
TOTAL	2,593	1,546	1,457	1,143	939	948	679	1,275	457.9	8,164.23	2,724	852
MEAN	83.6	51.5	47.0	36.9	33.5	30.6	22.6	41.1	15.3	263	87.9	28.4
MAX	196	56	53	43	54	60	45	253	93	1,920	350	60
MIN	58	47	39	31	30	23	14	12	2.3	0	35	15
AC-FT	5,140	3,070	2,890	2,270	1,860	1,880	1,350	2,530	908	16,190	5,400	1,690

CAL YR 1970 TOTAL 152,105.00 MEAN 417 MAX 13,500 MIN 16 AC-FT 301,700
WTR YR 1971 TOTAL 22,778.13 MEAN 62.4 MAX 1,920 MIN 0 AC-FT 45,180

PEAK DISCHARGE (BASE, 5,800 CFS).--July 26 (2030) 7,750 cfs (10.57 ft); July 30 (1500) 6,630 cfs (9.75 ft).

08104050 Stillhouse Hollow Lake near Belton, Tex.
(Formerly published as Stillhouse Hollow Reservoir near Belton)

LOCATION.--Lat 31°01'20", long 97°31'57", Bell County, in intake structure at Stillhouse Hollow Dam on Lampasas River, 5 miles southwest of Belton, and 16 miles upstream from Little River.

DRAINAGE AREA.--1,318 sq mi.

PERIOD OF RECORD.--September 1966 to current year. Prior to October 1970, published as Stillhouse Hollow Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 239,100 acre-ft Mar. 2 (elevation, 622.52 ft); minimum, 196,600 acre-ft July 23 (elevation, 615.55 ft).
Period of record: Maximum contents, 329,100 acre-ft Mar. 25, 1970 (elevation, 635.01 ft); minimum since conservation storage was reached in Apr. 12, 1969, 196,600 acre-ft July 23, 1971 (elevation, 615.55 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 15,624 ft long, including a 1,650-foot spillway and a 5,894-foot dike. Lake operated as a temporary detention basin from Sept. 2, 1966, to Feb. 19, 1968. Deliberate impoundment began Feb. 19, 1968. Lake built for flood control and water conservation. Outlet works consist of one 12-foot-diameter conduit controlled by two 5-foot 8-inch by 12-foot hydraulically operated slide gates, with invert at elevation 515.0 ft. Emergency spillway is an uncontrolled broad-crested weir 1,650 ft long at crest elevation of 666.0 ft. Capacity table based on maps prepared by Brazos River Authority in 1927, supplemented by contour maps prepared by Corps of Engineers in 1958. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08103800. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	698.0	-
Maximum design water surface	693.2	1,013,300
Top of flood-control storage (spillway crest)	666.0	630,400
Top of conservation storage	622.0	235,700
Invert at lowest outlet	515.0	775
Streambed	498.0	-

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

615.0	193,500	619.0	216,900
616.0	199,200	620.0	223,100
617.0	205,000	621.0	229,300
618.0	210,900	622.0	235,700
		623.0	242,200

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231,200	235,700	236,100	237,100	237,700	239,000	218,300	210,600	210,200	207,000	220,700	227,300
2	231,500	235,700	236,200	237,100	237,700	238,900	217,500	210,500	210,100	206,700	221,100	227,300
3	231,600	235,700	236,200	237,100	237,800	238,900	216,700	210,300	210,000	206,100	221,200	227,100
4	231,900	235,600	236,300	237,100	237,900	238,800	215,900	210,100	209,900	205,700	222,400	227,100
5	232,100	235,500	236,400	237,100	237,800	238,800	215,100	210,000	209,700	205,200	222,800	227,100
6	232,500	235,500	236,400	237,000	237,800	238,800	214,300	210,000	209,600	204,700	223,300	227,000
7	232,800	235,600	236,400	237,000	237,800	238,800	213,600	209,900	209,500	204,300	223,500	226,900
8	233,000	235,800	236,400	236,900	237,700	238,800	212,900	209,800	209,300	203,800	223,800	226,800
9	232,700	235,800	236,500	237,000	237,600	238,800	212,700	209,700	209,100	203,400	223,900	226,700
10	232,600	235,700	236,600	237,100	237,600	238,800	212,400	209,600	209,000	202,800	223,900	226,500
11	233,200	235,800	236,600	237,100	237,600	238,800	212,000	209,700	208,800	202,400	223,900	226,500
12	233,700	235,700	236,600	237,100	237,600	238,900	211,700	209,700	208,600	201,900	224,000	226,500
13	233,800	235,800	236,600	237,200	237,600	238,900	211,400	209,700	208,400	201,600	224,000	226,400
14	234,100	235,700	236,600	237,300	237,600	239,000	211,000	209,700	208,300	201,100	224,100	226,400
15	234,000	235,600	236,600	237,300	237,700	238,900	210,800	209,700	208,200	200,600	224,500	226,300
16	234,000	235,600	236,500	237,300	237,700	238,400	210,900	210,000	208,100	200,200	225,000	226,300
17	234,000	235,600	236,500	237,400	237,800	236,900	211,200	209,900	207,900	199,600	225,300	226,100
18	234,400	235,700	236,500	237,400	238,100	235,600	211,400	209,800	207,700	199,100	225,300	226,000
19	234,600	235,700	236,600	237,300	238,200	234,100	211,400	209,700	207,600	198,600	225,400	225,900
20	234,600	235,700	236,700	237,400	238,300	232,700	211,500	209,700	207,400	198,100	225,400	225,500
21	234,700	235,700	236,800	237,400	238,200	231,400	211,500	209,800	207,400	197,600	225,400	225,400
22	234,900	235,800	236,900	237,500	238,100	230,100	211,500	209,700	207,300	197,100	225,400	225,800
23	235,200	235,700	236,900	237,500	238,000	228,600	211,500	209,800	207,300	196,600	225,400	225,800
24	235,300	235,500	236,900	237,600	238,000	227,300	211,400	209,900	207,300	196,600	225,300	226,400
25	235,400	235,600	236,800	237,600	238,800	225,900	211,400	209,800	207,200	198,000	225,900	226,600
26	235,600	235,600	236,800	237,600	238,900	224,400	211,200	209,800	207,100	203,500	226,600	226,700
27	235,700	235,700	236,900	237,600	238,900	223,100	211,100	209,600	207,000	209,200	227,300	226,800
28	235,600	235,800	236,900	237,600	238,900	221,700	210,900	210,100	207,000	211,900	227,300	226,800
29	235,600	235,900	237,000	237,600	------	220,600	210,800	210,200	207,200	214,500	227,300	226,800
30	235,600	236,000	237,200	237,600	------	219,800	210,700	210,300	207,200	220,200	227,300	226,800
31	235,600	------	237,100	237,600	------	219,100	------	210,300	------	220,600	227,300	------
(†)	621.99	622.04	622.22	622.30	622.50	619.35	617.97	617.90	617.37	619.60	620.68	620.59
(*)	+4,500	+400	+1,100	+500	+1,300	-19,800	-8,400	-400	-3,100	+13,400	+6,700	-500
(††)	0	0	0	0	0	20,900	7,547	0	0	7,470	0	0
MAX	235,700	236,000	237,200	237,600	238,900	239,000	218,300	210,600	210,200	220,600	227,300	227,300
MIN	231,200	235,500	236,100	236,900	237,600	219,100	210,700	209,600	207,000	196,600	220,700	225,400

CAL YR 1970..... * +3,800 †† 0 MAX 329,000 MIN 231,100
WTR YR 1971..... * -4,300 †† 35,910 MAX 239,000 MIN 196,600

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08104100 Lampasas River near Belton, Tex.

LOCATION.--Lat 31°00'06", long 97°29'32", Bell County, on left bank 22 ft upstream from upstream bridge of three bridges on Interstate Highway 35 and U.S. Highway 81, 3.5 miles downstream from Stillhouse Hollow Dam, 4.1 miles southwest of Belton, and 13 miles upstream from confluence with Leon River.

DRAINAGE AREA.--1,325 sq mi.

PERIOD OF RECORD.--February 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 476.58 ft above mean sea level, adjustment unknown (Texas Highway Department bench mark).

AVERAGE DISCHARGE.--8 years, 265 cfs (192,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 860 cfs Mar. 16 (gage height, 8.63 ft); minimum daily, 2.0 cfs Apr. 21, 22, July 29.
Period of record: Maximum discharge, 77,900 cfs May 17, 1965 (gage height, 43.58 ft); no flow Aug. 9, 10, 12-15, Sept. 5, 6, 1967.
Maximum stage since at least 1877, 45 ft September 1921, from information by local residents. Flood of May 1957 reached a stage of 44.4 ft (discharge, 83,500 cfs).

REMARKS.--Records good. Many small diversions above station for irrigation and municipal supply. Since Sept. 2, 1966, flow regulated by Stillhouse Hollow Lake (see preceding page).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	5.4	4.1	5.3	4.4	4.2	372	75	26	25	2.1	3.4
2	4.1	5.4	4.1	5.3	4.4	4.0	365	73	26	162	2.7	3.4
3	3.6	5.3	4.1	5.3	4.4	3.6	358	62	27	190	2.5	3.2
4	3.6	5.3	3.8	4.7	4.4	3.8	350	28	27	182	2.3	3.2
5	3.8	5.3	3.8	4.7	4.4	4.1	340	29	28	180	2.3	3.2
6	4.1	5.3	3.8	4.7	4.4	4.1	332	28	28	178	2.3	3.2
7	4.4	5.3	3.8	4.7	4.4	3.8	328	28	28	172	2.5	3.2
8	4.4	5.0	3.8	4.8	4.4	4.1	298	28	28	172	2.5	3.2
9	4.4	5.0	4.1	5.0	4.4	4.5	148	30	28	172	2.5	3.0
10	4.4	5.0	3.8	5.0	4.4	4.4	121	30	29	172	2.5	3.2
11	4.4	5.0	3.8	5.0	4.4	4.5	152	29	29	172	2.7	3.4
12	5.9	5.0	3.8	5.0	4.4	4.7	152	29	29	172	2.7	3.4
13	4.2	5.0	3.8	5.0	4.4	4.7	152	29	30	172	2.8	3.4
14	4.1	4.7	3.8	5.2	4.4	4.7	150	31	30	170	3.4	3.4
15	4.1	4.4	5.0	6.5	4.4	4.1	150	31	30	170	2.8	3.4
16	4.1	4.1	5.0	6.5	4.7	300	120	31	30	170	2.8	3.6
17	4.1	4.1	5.0	6.3	4.7	797	3.8	30	30	170	2.8	3.6
18	4.4	4.1	5.0	5.8	5.0	756	3.2	30	30	170	2.8	3.6
19	5.1	4.3	4.8	5.1	5.6	749	2.7	30	30	170	2.8	3.6
20	4.7	4.4	4.7	4.7	5.3	750	2.7	31	30	170	2.8	3.6
21	4.7	4.4	4.7	4.8	5.0	749	2.0	30	30	170	2.8	3.5
22	4.7	4.3	4.7	5.0	4.7	758	2.0	30	28	170	2.8	4.3
23	5.2	4.4	4.7	5.0	4.4	774	26	30	27	170	2.8	4.1
24	5.6	4.4	4.4	5.0	4.7	772	76	31	27	102	2.8	4.1
25	5.4	4.4	4.4	5.0	5.9	770	70	30	26	24	3.0	4.3
26	5.4	4.4	4.4	4.9	4.7	771	72	30	26	7.2	3.9	4.1
27	5.4	4.3	4.8	4.7	4.1	770	75	29	26	2.8	3.4	4.0
28	5.5	4.1	5.3	4.7	4.1	772	75	48	26	2.3	3.2	3.8
29	5.6	4.1	5.3	5.0	------	578	75	26	26	2.0	3.2	4.0
30	5.6	4.1	5.7	5.0	------	404	75	26	25	2.5	3.3	4.1
31	5.6	------	5.3	4.7	------	383	------	26	------	2.3	3.6	------
TOTAL	183.6	140.3	137.6	158.4	128.9	10,916.3	4,448.4	1,048	840	3,966.1	87.4	107.5
MEAN	5.92	4.68	4.44	5.11	4.60	352	148	33.8	28.0	128	2.82	3.58
MAX	43	5.4	5.7	6.5	5.9	797	372	75	30	190	3.9	4.3
MIN	3.6	4.1	3.8	4.7	4.1	3.6	2.0	26	25	2.0	2.1	3.0
AC-FT	364	278	273	314	256	21,650	8,820	2,080	1,670	7,870	173	213

CAL YR 1970 TOTAL 153,512.8 MEAN 421 MAX 3,030 MIN 3.6 AC-FT 304,500
WTR YR 1971 TOTAL 22,162.5 MEAN 60.7 MAX 797 MIN 2.0 AC-FT 43,960

08104500 Little River near Little River, Tex.

LOCATION.--Lat 30°57'59", long 97°20'45", Bell County, on right bank 25 ft downstream from State Highway 95, 2.4 miles southeast of Little River, 5 miles downstream from confluence of Leon and Lampasas Rivers, and at mile 95.8.

DRAINAGE AREA.--5,274 sq mi.

PERIOD OF RECORD.--October 1923 to May 1929, August 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400.11 ft above mean sea level. Oct. 5, 1923, to May 27, 1929, nonrecording gage on railroad bridge 0.5 mile upstream at same datum.

AVERAGE DISCHARGE.--14 years (1923-28, 1962-71), 876 cfs (634,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,350 cfs July 31; maximum gage height, 16.12 ft July 31; minimum daily discharge, 52 cfs Nov. 2, Feb. 13-15, Sept. 21.
Period of record: Maximum discharge, 79,600 cfs May 17, 1965 (gage height, 42.85 ft); minimum daily, 8.2 cfs Aug. 6, 19, 1963.
Maximum stage since at least 1900, 46.8 ft in September 1921, from information by local residents.

REMARKS.--Records good. Many small diversions for irrigation and municipal supply affect very low flows. Flow regulated by Belton Lake (station 08102000) on Leon River beginning Mar. 8, 1954, and by Stillhouse Hollow Lake (station 08104050) on the Lampasas River beginning Sept. 2, 1966. At end of year, flow from 37.0 sq mi above this station was partly controlled by 11 floodwater-retarding structures with a total combined capacity of 15,490 acre-ft below the flood-spillway crests, of which 14,290 acre-ft is floodwater-retarding capacity and 1,200 acre-ft is sediment-pool capacity. Two structures were built during the current year and have a total combined capacity below flood-spillway crests of 1,250 acre-ft, of which 109 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,280	54	74	59	56	71	440	665	95	755	650	95
2	1,050	52	73	59	56	69	440	665	94	605	560	183
3	329	54	76	59	57	67	440	665	88	312	575	155
4	308	57	74	56	63	65	440	620	86	298	570	142
5	285	57	76	54	61	67	425	620	84	292	634	138
6	114	57	76	59	65	69	425	620	80	292	515	135
7	84	59	76	61	63	61	425	620	78	268	530	135
8	78	59	76	61	59	61	425	620	132	278	500	125
9	78	56	78	61	59	63	581	819	780	282	485	166
10	74	54	73	61	59	65	560	635	800	268	470	169
11	74	238	65	59	57	65	620	595	800	270	455	201
12	213	255	63	61	54	67	620	165	800	272	433	248
13	112	242	63	61	52	71	666	116	800	268	455	219
14	80	162	61	61	52	76	860	101	800	272	485	167
15	73	160	65	61	52	63	895	95	800	270	560	166
16	71	162	65	61	56	64	832	94	800	270	470	199
17	71	162	59	61	57	792	265	97	770	268	455	108
18	69	162	57	61	57	755	138	269	770	268	455	69
19	94	158	59	59	86	755	82	295	770	268	425	59
20	107	86	59	59	67	755	74	331	800	268	265	63
21	76	71	63	57	69	755	76	325	800	268	262	52
22	74	73	61	61	67	755	74	308	800	270	260	56
23	111	71	59	61	63	770	84	305	800	270	252	65
24	82	69	59	61	63	800	649	323	770	300	140	76
25	76	71	57	57	95	800	680	135	770	1,050	82	84
26	65	73	57	57	166	800	665	101	770	862	192	105
27	63	74	57	57	90	800	665	90	755	1,530	233	69
28	56	74	57	57	71	800	665	393	770	281	97	65
29	56	74	54	59	------	697	680	142	770	600	82	59
30	56	76	57	59	------	455	680	99	770	720	90	57
31	56	------	59	57	------	455	------	95	------	1,840	169	------
TOTAL	5,415	3,072	2,008	1,837	1,872	12,008	14,571	11,023	18,002	14,335	11,806	3,630
MEAN	175	102	64.8	59.3	66.9	387	486	356	600	462	381	121
MAX	1,280	255	78	61	166	800	895	819	800	1,840	650	248
MIN	56	52	54	54	52	61	74	90	78	268	82	52
AC-FT	10,740	6,090	3,980	3,640	3,710	23,820	28,900	21,860	35,710	28,430	23,420	7,200

CAL YR 1970 TOTAL 460,935 MEAN 1,263 MAX 4,680 MIN 51 AC-FT 914,300
WTR YR 1971 TOTAL 99,579 MEAN 273 MAX 1,840 MIN 52 AC-FT 197,500

08104700 North Fork San Gabriel River near Georgetown, Tex.

LOCATION.--Lat 30°39'42", long 97°42'40", Williamson County, on left bank 1.5 miles upstream from Middle Fork San Gabriel River, 2.7 miles upstream from Interstate Highway 35, 2.7 miles northwest of Georgetown, and at mile 3.3.

DRAINAGE AREA.--249 sq mi.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 689.06 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 6,460 cfs July 30 (gage height, 11.15 ft); no flow July 23-25.
Period of record: Maximum discharge, 11,700 cfs Apr. 12, 1969 (gage height, 14.84 ft); no flow July 23-25, 1971.
Maximum stage since at least 1875, 39.5 ft in September 1921. Flood in April 1957 reached a stage of 34.5 ft, from information by local residents.

REMARKS.--Records good. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	3.2	3.2	2.9	2.9	4.0	1.7	1.3	.56	.12	31	.56
2	3.7	3.7	3.2	2.9	2.7	4.0	1.9	1.1	.51	.12	18	.56
3	3.4	3.7	3.2	3.2	2.7	3.4	1.9	.95	.45	.12	13	.49
4	3.4	3.4	3.2	2.7	2.9	2.9	1.9	.76	.44	.12	32	.45
5	3.4	3.4	3.4	2.7	2.9	2.4	1.7	.68	.29	.11	15	.45
6	4.0	3.4	3.4	2.7	2.7	2.2	1.7	.77	.24	.08	11	.41
7	6.1	3.4	3.4	2.7	2.7	2.4	1.5	.79	.21	.06	8.3	.30
8	6.1	3.4	3.2	2.7	2.7	2.4	1.5	.73	.17	.06	6.8	.24
9	5.4	3.4	3.2	2.7	2.7	2.4	1.5	3.1	.17	.06	5.3	.21
10	5.7	3.2	3.2	2.9	2.7	2.2	1.5	1.9	.15	.06	4.5	.17
11	5.0	3.4	2.9	3.2	2.7	2.2	1.7	1.8	.12	.06	3.4	.17
12	5.0	3.4	2.9	2.9	1.9	4.3	1.5	2.5	.12	.04	3.0	.17
13	4.3	3.4	2.9	2.9	1.9	9.5	1.5	4.0	.12	.04	3.2	.17
14	4.0	3.2	2.9	2.9	2.2	4.7	1.7	2.8	.12	.04	3.1	.22
15	3.7	3.2	2.7	2.9	2.2	3.4	1.7	2.0	.12	.04	2.8	.24
16	3.4	3.4	2.2	2.9	2.4	2.7	3.2	1.5	.12	.04	2.9	.24
17	3.4	3.4	2.4	2.9	2.2	2.4	4.0	1.2	.10	.03	2.9	.24
18	3.4	3.4	2.7	2.9	2.4	2.2	2.7	.75	.12	.02	2.2	.24
19	5.0	3.4	2.7	3.2	5.7	2.2	1.9	.50	.11	.02	1.7	.24
20	4.0	3.4	2.7	3.2	4.0	2.2	1.5	.52	.09	.02	1.4	.29
21	3.7	2.9	2.7	3.2	2.9	2.2	1.5	.62	.09	.02	1.2	.30
22	3.7	3.2	2.7	3.2	2.4	2.2	1.7	.68	.48	.01	.92	1.5
23	5.0	2.9	2.9	2.9	2.4	2.2	1.5	.56	.22	0	.67	2.0
24	4.7	2.7	2.9	2.9	2.4	2.2	1.5	1.8	.17	0	.56	1.3
25	4.0	2.9	2.7	2.9	4.0	2.2	1.5	1.7	.17	0	.56	.88
26	4.0	3.2	2.7	2.9	8.0	2.2	1.5	.88	.17	21	.56	1.4
27	4.0	3.2	2.7	2.9	6.5	2.4	1.5	.63	.17	42	.56	4.5
28	3.4	3.2	2.9	2.9	4.7	2.4	1.3	2.9	.20	11	.53	3.3
29	3.2	3.2	2.9	2.9	------	1.9	1.3	1.4	.16	5.4	.45	2.2
30	3.2	3.4	2.9	2.9	------	1.9	1.3	.68	.12	1,430	.56	1.5
31	3.2	------	3.2	2.9	------	1.9	------	.56	------	176	.56	------
TOTAL	128.5	98.6	90.8	90.5	88.5	87.8	52.8	42.06	6.28	1,686.69	178.63	24.94
MEAN	4.15	3.29	2.93	2.92	3.16	2.83	1.76	1.36	.21	54.4	5.76	.83
MAX	6.1	3.7	3.4	3.2	8.0	9.5	4.0	4.0	.56	1,430	32	4.5
MIN	3.2	2.7	2.2	2.7	1.9	1.9	1.3	.50	.09	0	.45	.17
AC-FT	255	196	180	180	176	174	105	83	12	3,350	354	49

CAL YR 1970 TOTAL 36,426.80 MEAN 99.8 MAX 2,920 MIN 2.2 AC-FT 72,250
WTR YR 1971 TOTAL 2,576.10 MEAN 7.06 MAX 1,430 MIN 0 AC-FT 5,110

PEAK DISCHARGE (BASE, 3,000 CFS).--July 30 (1800) 6,460 cfs (11.15 ft).

08104900 South Fork San Gabriel River at Georgetown, Tex.

LOCATION.--Lat 30°37'32", long 97°41'27", Williamson County, on right bank at downstream side of downstream bridge of two bridges on Interstate Highway 35, 1.1 miles southwest of the courthouse at Georgetown, and at mile 2.2.

DRAINAGE AREA.--127 sq mi.

PERIOD OF RECORD.--December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 687.72 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,190 cfs July 30 (gage height, 8.93 ft); no flow July 3-25.
Period of record: Maximum discharge, 17,400 cfs June 2, 1968 (gage height, 15.15 ft); no flow July 3-25, 1971.
Maximum stage since at least 1887, about 41 ft on April 24, 1957, from information by local residents.

REMARKS.--Records good. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	3.4	4.6	5.0	.63	5.4	1.1	.30	1.4	.05	16	1.1
2	6.2	3.6	4.6	5.1	.86	4.4	.65	.23	.65	.02	15	.77
3	5.1	3.6	4.6	5.1	1.5	5.1	.48	.15	.24	0	6.9	.59
4	4.9	3.6	4.6	4.0	2.7	3.9	.35	.08	.15	0	50	.44
5	5.1	3.6	4.7	3.6	2.7	2.5	.41	.03	.10	0	24	.40
6	5.5	3.5	4.3	3.2	2.5	2.0	.35	.03	.06	0	23	.42
7	4.3	3.3	4.4	3.3	2.0	1.5	.25	.02	.48	0	9.1	.38
8	4.2	3.3	4.5	3.2	1.9	2.0	.25	.01	.25	0	7.6	.35
9	3.5	3.3	4.6	3.3	1.6	2.1	.25	4.8	.09	0	6.7	.29
10	2.9	3.3	3.9	3.6	1.8	2.3	.30	46	.08	0	3.9	.22
11	3.1	3.1	3.8	3.3	2.0	2.8	.20	53	.07	0	2.6	.21
12	3.5	3.0	3.6	3.1	1.5	4.8	.20	33	.06	0	2.5	.19
13	3.3	3.2	3.3	2.9	.84	9.0	.17	13	.05	0	3.5	.19
14	3.5	2.9	3.2	3.9	1.4	16	.13	7.5	.04	0	3.6	.15
15	3.6	2.8	3.6	3.5	1.4	9.9	.13	8.0	.04	0	2.4	.13
16	3.7	2.8	3.6	2.9	1.8	6.8	.67	9.8	.03	0	2.0	.13
17	3.9	2.9	3.5	3.2	2.4	5.8	6.4	7.5	.03	0	1.8	.13
18	4.2	3.1	4.2	2.7	2.1	4.0	13	3.9	3.3	0	1.5	.13
19	6.4	3.2	4.9	1.8	5.5	3.1	13	1.7	1.1	0	1.2	.09
20	5.1	3.7	4.2	1.8	7.1	2.4	13	.65	.35	0	1.0	.09
21	5.3	4.2	4.9	2.3	7.4	2.5	16	.30	.30	0	.85	.09
22	6.6	5.1	5.5	2.2	6.0	2.2	17	.17	.80	0	.67	.24
23	7.8	4.0	5.0	2.1	3.9	1.4	9.8	.06	.53	0	.55	.13
24	7.5	3.3	4.2	1.9	4.7	1.2	4.6	5.0	.15	0	.44	.45
25	7.3	4.0	4.1	1.9	6.7	1.9	2.8	55	.08	0	.33	1.1
26	7.3	4.2	3.9	1.7	16	2.8	1.9	22	.06	.02	.37	1.3
27	10	3.3	3.8	1.3	14	3.9	1.4	13	.08	149	10	.90
28	5.9	3.3	4.1	1.2	7.2	4.6	.63	12	.19	8.2	8.2	.65
29	5.0	4.3	4.5	1.6	------	3.0	.56	8.5	.36	2.5	3.3	.42
30	4.6	5.0	4.7	1.1	------	1.9	.48	6.6	.08	535	2.1	.35
31	3.9	------	5.3	.63	------	1.7	------	3.6	------	104	2.0	------
TOTAL	160.1	105.9	132.7	86.43	110.13	122.9	106.46	315.93	11.20	798.79	213.11	12.03
MEAN	5.16	3.53	4.28	2.79	3.93	3.96	3.55	10.2	.37	25.8	6.87	.40
MAX	10	5.1	5.5	5.1	16	16	17	55	3.3	535	50	1.3
MIN	2.9	2.8	3.2	.63	.63	1.2	.13	.01	.03	0	.33	.09
AC-FT	318	210	263	171	218	244	211	627	22	1,580	423	24

CAL YR 1970 TOTAL 21,615.03 MEAN 59.2 MAX 1,280 MIN .20 AC-FT 42,870
WTR YR 1971 TOTAL 2,175.68 MEAN 5.96 MAX 535 MIN 0 AC-FT 4,320

08105000 San Gabriel River at Georgetown, Tex.

LOCATION.--Lat 30°39'13", long 97°39'19", Williamson County, on left bank 100 ft downstream from Missouri-Kansas-Texas Railroad Co. bridge, 1.2 miles downstream from confluence of North and South Forks, 1.8 miles northeast of Georgetown, and at mile 61.3.

DRAINAGE AREA.--399 sq mi.

PERIOD OF RECORD.--February 1924 to August 1925, July 1934 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 643.24 ft above mean sea level. Feb. 27, 1924, to Aug. 31, 1925, nonrecording gage at site 1 mile upstream at different datum.

AVERAGE DISCHARGE.--37 years (1934-71), 136 cfs (98,530 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,640 cfs July 30 (gage height, 9.19 ft); minimum daily, 2.5 cfs July 17, 18.
Period of record: Maximum discharge, 155,000 cfs Apr. 24, 1957 (gage height, 31.89 ft in gage well, 34.10 ft, from floodmarks), from rating curve extended above 24,000 cfs on basis of contracted-opening measurement of 155,000 cfs; no flow at times in 1954-57.
Maximum stage since at least 1852, 36.1 ft Sept. 10, 1921, present site and datum (discharge, 160,000 cfs, by slope-area measurement of peak flow); flood of Apr. 24, 1957, second highest.

REMARKS.--Records good. Small diversions have some effect on low flow which is also regulated at times by gates in recreation dam 3,000 ft upstream. Low flow partly sustained by sewage effluent from city of Georgetown, which released 385 acre-ft of treated sewage effluent into the river above gage during the year.

REVISIONS (WATER YEARS).--WSP 1312: 1935(M). WSP 1732: 1943(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	28	26	26	21	25	13	12	8.9	7.1	69	9.7
2	33	27	26	26	21	23	12	11	7.5	6.1	55	9.0
3	33	27	27	26	21	23	13	9.5	6.8	5.8	37	8.9
4	32	27	26	25	21	23	13	8.0	6.1	5.1	125	8.6
5	35	27	27	24	22	21	16	7.9	6.0	5.4	57	8.5
6	36	27	27	24	21	21	15	8.7	5.9	4.3	43	8.0
7	38	27	27	24	18	19	15	8.0	5.8	4.1	32	6.8
8	35	27	27	24	17	19	13	7.6	4.5	4.2	24	7.1
9	33	27	27	24	17	18	14	15	4.1	5.0	21	6.6
10	33	26	27	24	17	18	15	39	3.7	4.7	19	7.0
11	33	26	27	24	16	18	14	41	3.7	4.3	17	7.7
12	33	26	27	24	16	29	14	37	4.4	4.1	16	8.3
13	33	26	27	24	16	35	13	25	4.4	3.2	17	7.3
14	32	25	27	24	16	29	14	19	4.6	3.4	17	5.1
15	32	25	27	24	16	25	14	15	4.3	2.9	15	4.8
16	31	25	25	24	16	22	21	13	3.7	2.7	15	5.0
17	30	25	26	24	16	19	25	11	4.2	2.5	15	4.6
18	30	25	27	24	18	18	21	10	6.1	2.5	14	4.6
19	37	25	28	23	26	17	18	8.8	5.8	2.7	12	5.1
20	34	25	28	23	23	17	17	8.8	5.6	2.7	12	5.7
21	32	25	28	24	22	17	17	8.9	6.5	2.9	11	5.4
22	32	26	28	24	19	16	17	8.7	13	2.6	10	7.5
23	37	26	28	24	19	16	16	8.5	12	2.7	9.8	8.3
24	35	25	27	23	18	16	13	16	8.1	2.9	8.5	9.7
25	32	25	27	20	23	17	14	42	7.4	4.4	8.0	9.7
26	33	25	26	20	35	17	14	24	7.4	16	8.8	8.1
27	41	25	25	20	36	17	14	16	7.4	184	9.8	9.7
28	30	26	24	20	28	17	12	20	7.5	38	19	11
29	29	26	25	20	------	15	12	15	7.2	22	15	10
30	28	26	26	21	------	14	13	12	7.4	1,830	11	8.8
31	28	------	26	21	------	14	------	11	------	402	10	------
TOTAL	1,024	778	826	722	575	615	452	497.4	190.0	2,590.3	752.9	226.6
MEAN	33.0	25.9	26.6	23.3	20.5	19.8	15.1	16.0	6.33	83.6	24.3	7.55
MAX	41	28	28	26	36	35	25	42	13	1,830	125	11
MIN	28	25	24	20	16	14	12	7.6	3.7	2.5	8.0	4.6
AC-FT	2,030	1,540	1,640	1,430	1,140	1,220	897	987	377	5,140	1,490	449

CAL YR 1970 TOTAL 69,063.0 MEAN 189 MAX 4,560 MIN 21 AC-FT 137,000
WTR YR 1971 TOTAL 9,249.2 MEAN 25.3 MAX 1,830 MIN 2.5 AC-FT 18,350

PEAK DISCHARGE (BASE, 4,000 CFS).--July 30 (1915) 9,640 cfs (9.19 ft).

08105100 Berry Creek near Georgetown, Tex.

LOCATION.--Lat 30°41'28", long 97°39'21", Williamson County, on right bank at upstream side of upstream service road on Interstate Highway 35, and 2.9 miles north of the county courthouse at Georgetown.

DRAINAGE AREA.--81.8 sq mi.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 659.97 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,930 cfs July 30 (gage height, 10.65 ft); no flow for many days.
Period of record: Maximum discharge, 6,370 cfs Jan. 21, 1968 (gage height, 13.85 ft); no flow at times in 1967 and 1971. Maximum stages since at least 1921 occurred September 1921 (stage, 25 ft), from information from Texas Highway Department and local residents. Discharge not determined.

REMARKS.--Records good. No regulation or diversion. Recording rain gage at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.2	1.2	.81	.28	.24	.12	.03	0	0	5.0	.24
2	1.6	1.2	1.6	.88	.28	.28	.12	.03	0	0	2.7	.17
3	1.7	1.2	1.3	.88	.32	.28	.15	.02	0	0	1.8	.11
4	1.8	1.2	1.4	1.1	.40	.28	.15	0	0	0	3.5	.08
5	2.1	1.2	1.2	.88	.32	.28	.12	0	0	0	1.3	.03
6	2.4	1.2	1.1	.81	.32	.32	.12	0	0	0	1.1	0
7	2.1	1.2	1.2	.81	.32	.36	.10	0	0	0	.92	0
8	1.8	1.2	1.0	.81	.32	.28	.10	0	0	0	.67	0
9	2.1	1.1	1.0	.81	.32	.28	.08	0	0	0	.63	0
10	2.2	1.2	.96	.81	.32	.28	.08	0	0	0	.65	0
11	2.3	.95	.96	.81	.36	.24	.08	0	0	0	.63	0
12	2.2	.29	.96	.81	.36	.40	.04	0	0	0	.69	0
13	1.8	.48	.96	.51	.32	.63	.04	0	0	0	.69	0
14	1.7	.77	.96	.21	.32	.18	.04	0	0	0	.68	0
15	1.5	1.0	.92	.36	.32	.10	.03	0	0	0	.69	0
16	1.4	.96	.92	.57	.32	.08	.41	0	0	0	.76	0
17	1.5	1.0	.96	.63	.32	.10	.34	0	0	0	.73	0
18	1.5	1.1	.95	.69	.32	.12	.25	0	0	0	.67	0
19	1.9	1.2	.96	.69	.51	.08	.22	0	0	0	.82	0
20	1.4	1.2	.96	.69	.32	.08	.19	0	0	0	.91	0
21	1.4	1.2	.92	.69	.28	.08	.15	0	0	0	.83	0
22	1.5	1.2	.96	.75	.21	.10	.12	0	1.6	0	.80	0
23	1.6	1.2	.96	.69	.21	.10	.09	0	.08	0	.77	0
24	1.3	1.2	.96	.88	.21	.10	.07	0	0	0	.67	0
25	1.4	1.2	.96	.69	.45	.12	.06	0	0	0	.58	0
26	1.4	1.2	.93	.57	.40	.12	.06	0	0	0	.72	0
27	1.5	1.2	.96	.45	.28	.12	.06	0	0	14	.61	0
28	1.3	1.1	.96	.28	.24	.12	.04	0	0	1.4	.55	0
29	1.2	1.2	.96	.28	------	.12	.03	0	0	.15	.80	0
30	1.4	1.1	.91	.28	------	.12	.03	0	0	897	.34	0
31	1.3	------	1.1	.28	------	.12	------	0	------	41	.28	------
TOTAL	52.0	32.65	32.05	20.41	8.95	6.11	3.49	.08	1.68	953.55	32.49	.63
MEAN	1.68	1.09	1.03	.66	.32	.20	.12	.003	.056	30.8	1.05	.021
MAX	2.4	1.2	1.6	1.1	.51	.63	.41	.03	1.6	897	5.0	.24
MIN	1.2	.29	.91	.21	.21	.08	.03	0	0	0	.28	0
AC-FT	103	65	64	40	18	12	6.9	.2	3.3	1,890	64	1.3

CAL YR 1970 TOTAL 9,336.30 MEAN 25.6 MAX 827 MIN .29 AC-FT 18,520
WTR YR 1971 TOTAL 1,144.09 MEAN 3.13 MAX 897 MIN 0 AC-FT 2,270

PEAK DISCHARGE (BASE, 1,000 CFS).--July 30 (1730) 2,930 cfs (10.65 ft).

08105400 San Gabriel River near Circleville, Tex.

LOCATION.--Lat 30°37'43", long 97°28'23", Williamson County, on right bank at upstream side of county bridge, 2.3 miles west of Circleville, 3.1 miles upstream from bridge on State Highway 95, and at mile 47.4.

DRAINAGE AREA.--591 sq mi. Area at site used prior to July 13, 1967, 602 sq mi.

PERIOD OF RECORD.--February 1924 to September 1934 (published as "at Circleville"), July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 520.62 ft above mean sea level. Feb. 1, 1924, to Sept. 30, 1934, water-stage recorder at site 3.1 miles downstream and at 15.35 ft lower datum.

AVERAGE DISCHARGE.--14 years (1924-34, 1967-71), 168 cfs (121,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,040 cfs July 30 (gage height, 21.35 ft); minimum daily, 0.25 cfs July 17-23.
Period of record: Maximum discharge, 53,400 cfs May 29, 1929 (gage height, 34.20 ft, from floodmark, former site and datum); no flow Sept. 5, 6, 8, 11, 1924, and Aug. 10-16, 1967.
Maximum stage since at least 1852, about 46 ft (present site and datum) Sept. 10, 1921 (discharge not determined). Flood of Apr. 24, 1957 (second highest since 1852), reached a stage of about 41 ft, from information by local residents.

REMARKS.--Records good. Recording rain gage located at station. For statement regarding regulation and diversions, see San Gabriel River at Georgetown (station 08105000).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	32	32	32	34	36	18	13	10	4.6	201	12
2	42	31	32	31	32	36	17	13	8.8	3.6	151	8.4
3	40	31	33	32	33	32	17	11	7.3	2.8	118	6.8
4	43	31	34	32	36	33	15	10	7.8	1.4	586	6.3
5	46	31	34	31	34	33	12	11	7.9	.80	138	6.1
6	48	31	34	32	36	31	12	11	7.3	2.0	65	6.0
7	43	31	34	32	32	30	12	12	7.3	1.1	61	5.5
8	39	31	34	32	29	31	13	13	4.9	.86	39	4.7
9	38	36	34	32	29	36	12	17	5.2	.82	31	4.8
10	38	31	34	32	28	37	10	36	4.7	.82	26	4.1
11	38	32	34	34	29	38	12	77	3.9	.61	24	4.8
12	38	32	34	34	28	51	10	45	3.4	1.1	22	6.4
13	38	33	33	36	26	79	7.9	30	3.0	1.4	22	6.5
14	38	34	33	36	27	43	7.3	22	3.8	.45	22	6.1
15	38	34	33	34	27	42	7.3	18	3.9	.35	22	5.6
16	37	34	31	32	28	40	10	15	3.0	.29	19	5.0
17	38	33	30	32	32	38	49	13	2.0	.25	17	5.0
18	41	33	30	33	31	34	32	12	.81	.25	16	5.0
19	44	33	32	34	74	33	25	11	1.1	.25	18	4.8
20	39	33	33	30	31	36	24	11	5.0	.25	18	5.9
21	37	32	33	30	28	34	24	12	3.2	.25	15	6.7
22	40	34	33	31	26	31	22	11	8.6	.25	13	16
23	44	34	33	31	24	28	21	11	52	.25	12	12
24	40	33	32	32	25	27	19	15	9.0	.27	11	12
25	37	32	32	32	30	24	16	27	5.2	.39	10	18
26	45	33	32	31	38	24	16	36	4.3	.50	9.9	12
27	47	34	31	32	45	25	16	20	3.7	165	10	10
28	40	34	32	32	42	24	15	82	3.8	101	11	13
29	34	34	31	32	------	22	15	22	7.7	28	14	16
30	32	34	32	32	------	19	14	14	6.7	1,760	13	12
31	32	------	32	34	------	19	------	12	------	1,150	17	------
TOTAL	1,237	981	1,011	1,002	914	1,046	500.5	663	205.31	3,229.91	1,751.9	247.5
MEAN	39.9	32.7	32.6	32.3	32.6	33.7	16.7	21.4	6.84	104	56.5	8.25
MAX	48	36	34	36	74	79	49	82	52	1,760	586	18
MIN	32	31	30	30	24	19	7.3	10	.81	.25	9.9	4.1
AC-FT	2,450	1,950	2,010	1,990	1,810	2,070	993	1,320	407	6,410	3,470	491

CAL YR 1970 TOTAL 93,426.00 MEAN 256 MAX 6,760 MIN 23 AC-FT 185,300
WTR YR 1971 TOTAL 12,789.12 MEAN 35.0 MAX 1,760 MIN .25 AC-FT 25,370

PEAK DISCHARGE (BASE, 4,000 CFS).--July 30 (2245) 8,040 cfs (21.35 ft).

08105700 San Gabriel River at Laneport, Tex.

LOCATION.--Lat 30°41'40", long 97°16'43", Williamson County, on right bank 22 ft downstream from county bridge, 0.2 mile north of Laneport, 3.4 miles downstream from Willis Creek, 7.5 miles northwest of Thrall, and at mile 26.2.

DRAINAGE AREA.--729 sq mi.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 412.60 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 277 cfs (200,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,430 cfs July 31 (gage height, 18.55 ft); minimum daily, 0.35 cfs July 19-26.
Period of record: Maximum discharge, 16,200 cfs Jan. 21, 1968 (gage height, 30.45 ft); minimum daily, 0.35 cfs July 19-26, 1971.
Maximum stages since 1910 occurred September 1921 (stage, 39.6 ft), April 1957 (stage, 34.6 ft), and October 1959 (stage, 33.8 ft), from floodmarks at present site and datum. Discharge not determined.

REMARKS.--Records good. For statement regarding regulation and diversions, see San Gabriel River at Georgetown (station 08105000).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	48	49	41	38	42	24	17	14	11	189	14
2	54	49	47	41	38	36	23	17	13	5.8	228	17
3	52	46	46	42	39	34	23	15	11	4.3	107	12
4	51	45	48	40	40	31	23	14	10	3.1	426	10
5	52	46	47	39	40	34	23	13	11	2.1	194	9.0
6	93	46	48	39	40	32	21	13	9.9	1.5	71	7.8
7	59	46	46	39	40	29	20	13	9.0	.94	58	7.0
8	59	47	48	39	38	29	21	13	8.6	.68	42	6.4
9	54	48	48	39	36	30	21	12	7.4	.49	32	5.8
10	50	46	47	39	35	31	22	21	6.8	.77	26	4.9
11	53	46	46	38	36	32	21	270	6.3	.68	23	4.6
12	65	46	45	38	34	33	21	44	6.1	.54	24	4.6
13	57	45	43	40	34	60	20	42	5.8	.51	26	5.8
14	51	46	45	40	34	54	19	28	5.1	.51	21	6.1
15	50	46	45	40	35	42	19	24	4.5	.51	21	5.8
16	50	46	42	38	36	38	23	21	5.6	.45	20	5.2
17	48	46	40	38	37	36	40	18	4.7	.44	18	4.9
18	49	45	40	38	38	33	185	15	3.5	.40	15	4.6
19	61	46	41	38	131	32	34	14	3.1	.35	15	4.4
20	59	45	44	38	58	30	27	14	2.6	.35	20	4.4
21	51	45	44	38	42	31	26	14	5.6	.35	17	3.9
22	51	46	44	38	37	30	25	15	96	.35	14	9.8
23	140	45	45	40	34	30	24	14	196	.35	13	13
24	89	46	42	39	32	30	22	16	29	.35	11	14
25	59	46	40	39	40	31	21	19	11	.35	9.4	27
26	55	48	40	38	65	30	20	30	7.5	.35	11	16
27	54	50	40	37	48	30	19	27	6.4	2.1	14	12
28	65	50	40	38	48	30	18	131	5.2	142	11	10
29	51	50	40	39	------	29	18	48	4.9	39	11	11
30	49	50	41	39	------	27	18	22	13	206	11	12
31	47	------	42	38	------	25	------	17	------	2,530	11	------
TOTAL	1,834	1,400	1,363	1,207	1,203	1,041	841	991	522.6	2,956.62	1,709.4	273.0
MEAN	59.2	46.7	44.0	38.9	43.0	33.6	28.0	32.0	17.4	95.4	55.1	9.10
MAX	140	50	49	42	131	60	185	270	196	2,530	426	27
MIN	47	45	40	37	32	25	18	12	2.6	.35	9.4	3.9
AC-FT	3,640	2,780	2,700	2,390	2,390	2,060	1,670	1,970	1,040	5,860	3,390	542

CAL YR 1970 TOTAL 119,459.00 MEAN 327 MAX 5,780 MIN 30 AC-FT 236,900
WTR YR 1971 TOTAL 15,341.62 MEAN 42.0 MAX 2,530 MIN .35 AC-FT 30,430

PEAK DISCHARGE (BASE, 4,000 CFS).--July 31 (0800) 5,430 cfs (18.55 ft).

08106300 Brushy Creek near Rockdale, Tex.

LOCATION.--Lat 30°41'38", long 97°04'42", Milam County, on left bank 36 ft upstream from bridge on Farm Road 908, 2.8 miles upstream from mouth, and 5.3 miles northwest of Rockdale.

DRAINAGE AREA.--504 sq mi.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 325.56 ft above mean sea level. Prior to Feb. 4, 1970, water-stage recorder at site 150 ft downstream at datum 5.00 ft higher. Feb. 5 to Sept. 3, 1970, nonrecording gage at site 150 ft downstream at present datum.

EXTREMES.--Current year: Maximum discharge, 4,410 cfs May 11 (gage height, 12.64 ft); minimum, 0.25 cfs July 20, 21.
Period of record: Maximum discharge, 8,300 cfs Jan. 20, 1968 (gage height, 26.09 ft, previous datum, from floodmark); minimum, 0.04 cfs Sept. 4, 1967.
Maximum stage since at least 1903, 54.5 ft, present datum, in September 1921, from information by local residents.

REMARKS.--Records good. At the end of year, flow from 132 sq mi above this station was partly controlled by 43 floodwater-retarding structures with a total combined capacity of 48,000 acre-ft below the flood-spillway crests, of which 41,860 acre-ft is floodwater-retarding capacity and 6,140 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. In 1970, the channel was rectified in the vicinity of the gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	28	20	13	8.0	20	5.6	2.3	6.3	1.2	1.2	75
2	25	24	25	16	6.4	12	4.6	2.0	4.0	.90	.94	72
3	20	21	25	14	5.9	9.3	5.1	1.8	2.7	.70	1.3	26
4	17	20	24	12	5.4	8.8	11	1.6	1.8	.60	5.4	6.8
5	14	17	26	13	5.6	8.2	15	1.6	1.5	.52	115	5.1
6	16	16	24	12	5.8	7.0	13	1.4	1.2	.48	84	3.2
7	43	17	22	11	6.4	6.1	6.2	1.2	1.1	.46	36	2.3
8	29	16	22	11	5.2	6.3	4.2	1.4	1.0	.43	21	1.8
9	18	16	21	11	4.7	6.5	4.4	1.3	.90	.40	8.2	1.4
10	15	15	22	9.5	5.1	5.8	3.6	8.5	.82	.37	4.2	1.3
11	15	15	22	9.6	5.0	6.3	3.2	2,230	.74	.37	2.5	1.3
12	21	15	21	10	5.3	7.1	1.9	893	.62	.35	2.1	1.6
13	15	15	21	10	5.1	7.1	1.6	203	.55	.31	3.0	1.2
14	18	14	24	9.0	6.5	75	.98	128	.46	.30	1.8	1.1
15	14	14	24	9.0	6.8	28	.92	88	.44	.30	1.3	1.0
16	10	17	22	10	5.6	25	1.2	63	.42	.30	1.1	.96
17	9.0	16	21	11	5.3	15	3.3	40	.40	.34	1.1	1.1
18	9.0	16	22	11	6.0	9.8	155	22	.50	.30	1.1	1.0
19	10	15	21	10	6.8	7.6	19	15	.40	.28	1.0	.97
20	21	15	21	9.5	7.2	6.7	6.9	10	.38	.30	.92	9.5
21	23	17	21	11	40	6.5	5.6	8.0	.36	.29	.86	4.9
22	18	17	21	11	21	6.0	5.4	7.4	2.0	.31	.76	3.2
23	470	16	25	7.0	14	5.8	5.1	7.5	20	.28	.77	2.3
24	1,680	18	22	7.2	9.7	5.9	4.6	7.7	6.0	.27	.74	14
25	466	17	20	7.2	8.2	6.4	4.0	7.8	2.0	.32	.78	249
26	114	16	17	7.2	9.2	6.1	3.2	7.1	1.0	.34	12	75
27	86	16	17	6.8	29	6.1	3.3	5.6	.80	.36	45	11
28	71	19	16	6.4	30	6.7	3.1	102	1.0	.33	32	4.1
29	53	20	15	6.3	------	6.6	2.7	124	2.0	.32	9.2	2.4
30	40	19	14	6.1	------	5.9	2.4	29	1.4	.37	12	1.5
31	33	------	15	6.7	------	5.8	------	10	------	.95	6.8	------
TOTAL	3,426.0	517	653	304.5	279.2	345.4	306.10	4,031.2	62.79	13.35	414.07	582.03
MEAN	111	17.2	21.1	9.82	9.97	11.1	10.2	130	2.09	.43	13.4	19.4
MAX	1,680	28	26	16	40	75	155	2,230	20	1.2	115	249
MIN	9.0	14	14	6.1	4.7	5.8	.92	1.2	.36	.27	.74	.96
AC-FT	6,800	1,030	1,300	604	554	685	607	8,000	125	26	821	1,150

CAL YR 1970 TOTAL 87,989.10 MEAN 241 MAX 6,700 MIN 3.6 AC-FT 174,500
WTR YR 1971 TOTAL 10,934.64 MEAN 30.0 MAX 2,230 MIN .27 AC-FT 21,690

PEAK DISCHARGE (BASE, 2,000 CFS).--May 11 (1800) 4,410 cfs (12.64 ft).

08106500 Little River at Cameron, Tex.

LOCATION.--Lat 30°49'53", long 96°57'01", Milam County, on right bank at site of old McCowan Bridge, 2,020 ft upstream from bridge on U.S. Highway 77, 1.1 miles upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2 miles southeast of Cameron, and at mile 33.6.

DRAINAGE AREA.--7,088 sq mi.

PERIOD OF RECORD.--November 1916 to current year.

GAGE.--Water-stage recorder. Datum of gage is 281.89 ft above mean sea level (levels by Corps of Engineers). Nov. 2, 1916, to Sept. 30, 1922, nonrecording gage at site 1.8 miles upstream at different datum. Oct. 1, 1922, to Apr. 8, 1926, nonrecording gage at McCowan Bridge 30 ft downstream at same datum. Apr. 9, 1926, to Oct. 9, 1933, nonrecording gage at bridge on U.S. Highway 77, 2,020 ft downstream at datum 1.58 ft lower.

AVERAGE DISCHARGE.--54 years, 1,775 cfs (1,286,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,050 cfs Aug. 1 (gage height, 14.89 ft); minimum daily, 63 cfs Sept. 30.
Period of record: Maximum discharge, 647,000 cfs Sept. 10, 1921 (gage height, 53.2 ft, present datum, from floodmark), from rating curve extended above 110,000 cfs on basis of slope-area measurement of 647,000 cfs; no flow July 12-27, 1956.
Maximum stage since 1852, that of Sept. 10, 1921; flood in 1852 reached about the same stage. Flood in December 1913 reached a stage of 49.0 ft. Stages based on information by local resident.

REMARKS.--Records good. Many small diversions for irrigation and municipal supply affect very low flows. Some regulation by Belton Lake (station 08102000) on Leon River beginning Mar. 8, 1954, and by Stillhouse Hollow Lake on Lampasas River (station 08104050) beginning Sept. 2, 1966. Records of the Aluminum Co. of America show they diverted 8,787 acre-ft of water from river above gage during the year for use at their Rockdale plant. At end of year, flow from 175 sq mi above this station was partly controlled by 57 floodwater-retarding structures with a total combined capacity of 66,120 acre-ft below the flood-spillway crests, of which 58,400 acre-ft is floodwater-retarding capacity and 7,720 acre-ft is sediment-pool capacity. Two structures were built during the current year and have a total combined capacity below flood-spillway crests of 1,250 acre-ft, of which 109 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 718: 1918-20, 1922. WSP 1512: 1918-20(M), 1921, 1922(M), 1924(M), 1926, 1929-30, 1934, 1935(M), 1936, 1940(M), 1941, 1944-45(M). WSP 1922: 1954, Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,570	120	167	138	82	204	531	709	140	819	2,730	249
2	1,380	113	167	149	81	159	490	712	131	808	904	188
3	1,160	106	162	142	77	132	480	704	118	741	929	155
4	617	101	160	136	77	124	486	692	111	398	783	208
5	456	102	162	129	80	121	487	668	108	330	1,170	149
6	450	104	160	126	80	117	486	652	104	305	1,020	140
7	375	115	155	124	81	112	479	654	99	296	733	135
8	267	106	155	126	80	108	472	652	93	277	712	129
9	193	104	158	131	74	103	472	687	92	242	654	129
10	155	102	155	131	72	102	572	886	579	284	604	127
11	151	96	155	126	70	105	608	2,330	806	276	571	162
12	198	160	147	96	69	113	651	2,660	817	266	560	167
13	232	357	138	94	73	115	659	655	820	267	554	244
14	282	387	135	96	66	132	667	382	818	261	559	248
15	167	330	136	98	73	167	850	272	816	256	573	170
16	133	270	135	98	99	140	922	224	830	260	654	149
17	127	270	131	96	101	116	934	178	827	251	546	136
18	115	273	129	94	101	537	1,000	133	814	253	527	149
19	129	270	131	93	115	828	902	188	806	254	520	96
20	144	270	136	90	264	830	335	326	810	258	513	81
21	193	243	140	90	219	836	139	379	824	255	352	73
22	155	178	142	91	165	844	98	434	861	283	308	72
23	2,650	155	147	91	136	843	92	372	1,010	260	293	69
24	2,650	153	144	96	129	866	78	374	959	264	284	73
25	1,250	151	133	93	125	875	415	393	879	282	183	140
26	372	155	129	91	174	878	699	285	839	781	121	352
27	246	160	127	90	329	881	700	160	823	929	188	129
28	211	165	129	85	283	884	696	526	822	1,280	382	98
29	185	167	131	84	------	883	697	883	827	603	194	73
30	138	167	135	84	------	836	701	526	815	646	118	63
31	127	------	136	84	------	580	------	217	------	1,910	122	------
TOTAL	17,478	5,450	4,467	3,292	3,375	13,571	16,798	18,913	18,398	14,595	18,361	4,353
MEAN	564	182	144	106	121	438	560	610	613	471	592	145
MAX	2,650	387	167	149	329	884	1,000	2,660	1,010	1,910	2,730	352
MIN	115	96	127	84	66	102	78	133	92	242	118	63
AC-FT	34,670	10,810	8,860	6,530	6,690	26,920	33,320	37,510	36,490	28,950	36,420	8,630

CAL YR 1970 TOTAL 718,095 MEAN 1,967 MAX 19,100 MIN 96 AC-FT 1,424,000
WTR YR 1971 TOTAL 139,051 MEAN 381 MAX 2,730 MIN 63 AC-FT 275,800

08108200 North Elm Creek near Cameron, Tex.

LOCATION.--Lat 30°55'52", long 97°01'13", Milam County, on right bank downstream from bridge on Farm Road 485, 2 miles upstream from mouth, 3 miles southwest of Ben Arnold, and 6 miles northwest of Cameron.

DRAINAGE AREA.--48.6 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 325.1 ft above mean sea level (from Texas Highway Department bridge plans).

AVERAGE DISCHARGE.--9 years, 21.0 cfs (5.87 inches per year, 15,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,310 cfs May 9 (gage height, 8.38 ft); no flow for many days.
Period of record: Maximum discharge, 7,170 cfs June 21, 1968 (gage height, 9.45 ft); no flow for many days.
Maximum stage since at least 1913, 13.5 ft in October 1957, from information by local residents.

REMARKS.--Records good. No known diversion above station. Three recording rain gages are located in basin above station to compute average annual precipitation over the watershed.

REVISIONS.--WRD Texas 1969: 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.07			0	.70	0	0	.98			
2	.15	.01			0	.30	0	0	.51			
3	.07	.01			0	.07	0	0	.24			
4	.02	.01			0	.05	0	0	.15			
5	0	0			0	.02	0	0	.07			
6	.01	0			0	.01	0	0	.02			
7	0	0			0	0	0	0	.01			
8	0	0			0	0	0	0	0			
9	0	0			0	0	0	1,620	0			
10	0	0			0	0	0	59	0			
11	.09	0			0	0	0	33	0			
12	13	0			0	0	0	7.1	0			
13	4.9	0			0	0	0	3.0	0			
14	1.2	0			0	0	0	1.5	0			
15	.44	0			0	0	0	.79	0			
16	.19	0			0	0	0	.51	0			
17	.07	0			0	0	0	.24	0			
18	.05	0			0	0	291	.09	0			
19	.09	0			11	0	6.1	.07	0			
20	.12	0			1.5	0	6.7	.89	0			
21	.07	0			.36	0	6.7	2.1	0			
22	.07	0			.02	0	1.7	.70	0			
23	768	0			0	0	.60	.30	0			
24	53	0			0	0	.24	.51	0			
25	9.0	0			106	0	.12	5.2	0			
26	2.8	0			67	0	.07	4.0	0			
27	1.1	0			5.5	0	.05	1.2	0			
28	.44	0			1.6	0	.02	289	0			
29	.19	0			------	0	.01	25	0			
30	.09	0			------	0	.01	4.9	0			
31	.09	------			------	0	------	2.2	------			------
TOTAL	855.55	.10	0	0	192.98	1.15	313.32	2,061.30	1.98	0	0	0
MEAN	27.6	.003	0	0	6.89	.037	10.4	66.5	.066	0	0	0
MAX	768	.07	0	0	106	.70	291	1,620	.98	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.57	.0001	0	0	.14	.0008	.21	1.37	.001	0	0	0
IN.	.65	0	0	0	.15	0	.24	1.58	.001	0	0	0
AC-FT	1,700	.2	0	0	383	2.3	621	4,090	3.9	0	0	0
(††)	4.18	.17	.51	.02	2.54	.03	2.25	4.75	.23	2.00	2.63	2.79

CAL YR 1970 TOTAL 6,931.62 MEAN 19.0 MAX 1,600 MIN 0 CFSM .39 IN 5.31 AC-FT 13,750 †† 28.57
WTR YR 1971 TOTAL 3,426.38 MEAN 9.39 MAX 1,620 MIN 0 CFSM .19 IN 2.62 AC-FT 6,800 †† 21.10

PEAK DISCHARGE (BASE, 2,000 CFS, REVISED).--May 9 (0830) 3,310 cfs (8.38 ft).

†† Average precipitation, in inches, based on three rain gages.

08109000 Brazos River near Bryan, Tex.

LOCATION.--Lat 30°36'52", long 96°29'20", Brazos-Burleson County line, on left bank 2.4 miles downstream from Little Brazos River, 5 miles downstream from Texas and New Orleans Railroad Co. bridge, 9 miles southwest of Bryan, and at mile 281.1.

DRAINAGE AREA.--38,400 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--August 1899 to December 1902, February 1918 to January 1926, June 1926 to current year. Monthly figures only for some periods, published in WSP 1312. Prior to September 1925, published as "near College Station."

GAGE.--Water-stage recorder. Datum of gage is 192.33 ft above mean sea level. Aug. 1, 1899, to Dec. 31, 1902, and Feb. 23, 1918, to Sept. 17, 1925, nonrecording gage at site 7.5 miles downstream at different datum. Sept. 11, 1925, to Oct. 24, 1932, nonrecording gage at site 3,000 ft upstream at present datum.

AVERAGE DISCHARGE.--55 years (1899-1902, 1918-25, 1926-71), 5,326 cfs (3,859,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,100 cfs Oct. 24 (gage height, 10.40 ft); minimum daily, 218 cfs Feb. 17.
Period of record: Maximum gage height, 54 ft Sept. 12, 1921, present site and datum (discharge not determined); minimum daily discharge, 89 cfs Aug. 24, 1934.
Maximum stage since at least 1854, that of Sept. 12, 1921. Flood of Dec. 5, 1913, reached a stage of 51 ft, present site and datum, from information by Texas and New Orleans Railroad Co. at their bridge 5 miles upstream and from comparison of maximum stages reached by floods in 1913 and 1921 at gage near College Station. Flood in 1854 reached about the same stage as flood of Dec. 5, 1913.

REMARKS.--Records good. Flow regulated by 24 major reservoirs with a combined capacity of 6,467,000 acre-ft (of which 3,791,000 acre-ft is for flood control). Many small diversions above station for irrigation, municipal and industrial use, and oilfield operation. At end of year, flow from 345 sq mi above this station and below the major reservoirs was partly controlled by 109 floodwater-retarding structures with a total combined capacity of 135,700 acre-ft below the flood-spillway crests, of which 120,400 acre-ft is floodwater-retarding capacity and 15,300 acre-ft is sediment-pool capacity. Seven structures were built during the current year and have a total combined capacity below flood-spillway crests of 13,440 acre-ft, of which 962 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 1442: Drainage area. Revised figures of discharge, in cubic feet per second, for the high-water period in water year 1970, superseding those published in WRD Texas, 1970, are given below:

Mar. 9, 1970.....42,100

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
March 1970	555,400	42,100	10,000	17,920	1,102,000
Water year 1969-70	1,784,352	42,100	446	4,889	3,539,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,940	1,150	560	477	273	1,070	694	738	1,220	923	6,180	861
2	3,070	770	490	440	267	754	578	995	3,830	954	4,890	868
3	3,130	630	445	461	264	566	539	1,130	2,080	915	2,580	798
4	3,240	540	417	451	261	477	530	938	1,090	857	2,270	1,080
5	3,200	495	387	403	267	418	559	860	832	743	1,960	1,300
6	3,080	455	374	390	252	357	560	806	729	831	2,800	1,270
7	2,680	435	372	385	249	337	558	759	700	928	3,320	1,960
8	1,660	415	371	536	243	317	574	727	702	786	2,750	2,350
9	1,040	400	362	704	243	301	561	1,710	731	678	2,330	2,580
10	787	390	361	1,970	254	294	558	5,760	876	642	1,810	2,530
11	901	400	354	2,450	253	292	577	6,110	1,060	678	1,550	2,340
12	931	385	340	1,960	226	315	655	3,870	1,400	702	1,410	2,250
13	902	372	336	1,280	229	286	649	3,250	1,170	675	1,380	1,800
14	986	450	348	1,350	222	280	668	1,420	1,020	679	1,330	1,140
15	1,500	540	372	2,010	226	274	654	920	945	656	1,320	988
16	1,110	540	400	1,370	227	321	754	686	903	681	1,430	1,150
17	876	495	450	966	218	329	924	574	884	681	1,470	1,410
18	731	490	446	724	246	304	1,040	489	877	641	1,320	988
19	652	580	550	629	237	319	2,650	428	861	645	1,230	942
20	563	585	521	562	265	735	3,460	383	875	648	1,190	663
21	516	545	475	480	456	789	3,570	469	845	782	1,170	518
22	491	540	484	418	511	807	1,950	570	845	728	1,160	428
23	2,550	475	462	419	634	799	1,050	676	868	729	1,180	1,110
24	11,000	405	425	604	560	799	693	715	975	944	1,190	1,250
25	6,750	390	479	560	463	822	563	650	1,100	1,210	1,180	782
26	6,120	380	455	447	528	839	508	613	1,030	1,210	1,150	699
27	3,770	886	473	370	1,410	846	797	646	964	4,270	1,120	1,060
28	1,870	1,120	725	332	1,180	864	811	691	939	3,510	1,110	734
29	1,040	788	637	312	------	870	788	807	942	2,980	1,490	559
30	2,430	655	549	297	------	860	764	1,770	939	3,640	1,180	684
31	2,130	------	497	285	------	847	------	1,230	------	5,720	917	------
TOTAL	72,646	16,701	13,917	24,042	10,664	17,488	29,236	41,390	32,232	40,666	57,367	37,092
MEAN	2,343	557	449	776	381	564	975	1,335	1,074	1,312	1,851	1,236
MAX	11,000	1,150	725	2,450	1,410	1,070	3,570	6,110	3,830	5,720	6,180	2,580
MIN	491	372	336	285	218	274	508	383	700	641	917	428
AC-FT	144,100	33,130	27,600	47,690	21,150	34,690	57,990	82,100	63,930	80,660	113,800	73,570

CAL YR 1970 TOTAL 1,679,957 MEAN 4,603 MAX 42,100 MIN 336 AC-FT 3,332,000
WTR YR 1971 TOTAL 393,441 MEAN 1,078 MAX 11,000 MIN 218 AC-FT 780,400

08109700 Middle Yegua Creek near Dime Box, Tex.

LOCATION.--Lat 30°20'21", long 96°54'16", Lee County, on right bank 25 ft upstream from centerline of State Highway 21, 4.5 miles upstream from West Yegua Creek, and 5.0 miles southwest of Dime Box.

DRAINAGE AREA.--236 sq mi.

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 295.4 ft above mean sea level (from Texas Highway Department bridge plans). June 30 to July 21, 1970, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--9 years, 48.6 cfs (35,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 70 cfs Oct. 23 (gage height, 3.90 ft); maximum gage height, 4.25 ft. Feb. 25 (backwater from caufer dam); no flow at times.
Period of record: Maximum discharge, 4,210 cfs Jan. 22, 1968 (gage height, 12.45 ft); from rating curve extended above 2,460 cfs on basis of area-velocity study; no flow at times each year.
Maximum stage since at least 1851, 16 ft in December 1913, from information by local residents.

REMARKS.--Records fair. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.8		0	1.3	4.6	0	.39	0	.96		0
2	0	1.1		0	1.2	3.0	0	.14	0	0		0
3	0	.88		0	1.2	2.1	.69	.04	0	0		0
4	0	.60		.57	.96	1.6	.90	0	0	0		0
5	0	.42		.57	.57	1.5	.52	0	0	0		0
6	0	.29		.62	.67	1.3	.57	0	0	0		0
7	0	.21		.57	.57	1.2	.78	0	0	0		0
8	0	.09		.67	.52	1.0	.31	0	0	0		0
9	0	.06		.06	.35	.84	.07	0	0	0		0
10	0	.02		.02	.02	.57	.12	0	0	0		0
11	0	.01		0	0	.52	.19	0	0	0		0
12	.12	0		.06	0	.43	.02	0	0	0		0
13	.05	0		0	0	.43	0	0	0	0		0
14	.02	0		0	0	.39	0	0	0	0		0
15	0	0		0	0	.07	0	0	0	0		0
16	0	0		0	0	.04	.49	0	0	0		0
17	0	0		0	0	.03	4.8	0	0	0		0
18	0	0		0	0	.06	1.6	0	0	0		0
19	.19	0		0	0	.07	.39	0	0	0		0
20	.07	0		0	0	.07	.35	0	0	0		0
21	.03	0		0	0	.07	.72	0	0	0		0
22	.02	0		0	0	.05	1.6	0	.01	0		0
23	18	0		0	0	.06	1.3	0	9.0	0		0
24	8.4	0		0	0	.06	1.2	0	7.5	0		0
25	3.9	0		1.4	1.1	0	1.3	0	5.3	0		0
26	18	0		4.0	18	.02	.84	0	4.1	0		0
27	21	0		2.3	9.8	.06	.78	0	3.6	0		0
28	10	0		1.7	6.7	.06	.78	0	4.2	0		0
29	6.1	0		1.5	------	0	.67	0	6.5	0		0
30	4.1	0		1.6	------	0	.47	0	4.1	0		13
31	2.7	------		1.5	------	0	------	0	------	0		------
TOTAL	92.70	5.48	0	17.14	42.96	20.20	21.46	.57	44.31	.96	0	13
MEAN	2.99	.18	0	.55	1.53	.65	.72	.018	1.48	.031	0	.43
MAX	21	1.8	0	4.0	18	4.6	4.8	.39	9.0	.96	0	13
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	184	11	0	34	85	40	43	1.1	88	1.9	0	26

CAL YR 1970 TOTAL 30,460.78 MEAN 83.5 MAX 2,210 MIN 0 AC-FT 60,420
WTR YR 1971 TOTAL 258.78 MEAN .71 MAX 21 MIN 0 AC-FT 513

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

08109800 East Yegua Creek near Dime Box, Tex.

LOCATION (revised).--Lat 30°24'26", long 96°49'02", Burleson County, on left bank 49 ft upstream from centerline of State Highway 21, 0.8 mile downstream from Buffalo Creek, and 3.5 miles north of Dime Box.

DRAINAGE AREA.--243 sq mi.

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 284.00 ft above mean sea level (State Highway Department bench mark). Nov. 6 to Dec. 10, 1970, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--9 years, 50.9 cfs (36,880 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 80 cfs Oct. 25 (gage height, 4.20 ft); no flow for many days.
Period of record: Maximum discharge, 6,600 cfs June 24, 1968 (gage height, 12.04 ft); no flow at times.
Maximum stage since at least 1886, 17 ft in 1899 and 1957, from information by local residents.

REMARKS.--Records good. Diversions above station for irrigation. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WRD Texas 1968: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.3	6.1	6.2	1.7	6.1	4.2	6.7	4.6	.17	0	.40
2	1.2	2.7	5.8	6.2	1.8	5.2	4.0	6.2	3.1	.13	0	1.5
3	1.6	2.6	5.8	6.2	3.0	4.2	3.9	5.9	2.2	.08	0	1.0
4	1.6	2.5	6.5	5.3	4.2	3.4	3.9	6.4	1.7	.05	0	.40
5	1.3	2.2	6.5	4.8	4.1	3.4	3.7	5.3	1.4	.04	.15	.05
6	1.6	2.2	5.8	4.2	5.2	3.4	3.7	4.9	1.1	.03	.42	.01
7	1.7	2.1	5.9	4.1	5.9	3.3	3.6	4.6	.89	.02	.50	0
8	1.4	2.1	5.2	3.8	5.1	3.5	3.7	3.9	.74	.01	.12	0
9	.86	2.1	5.1	3.4	4.6	3.7	3.9	3.7	.68	.01	.08	0
10	.65	1.6	4.7	3.7	4.4	3.6	3.6	3.7	.59	0	.06	0
11	1.0	1.6	4.5	3.8	4.1	3.6	3.1	12	.48	0	.06	0
12	2.8	1.6	5.6	3.7	4.1	3.7	3.3	17	.42	0	.05	.05
13	2.0	1.6	5.3	4.1	3.9	4.5	3.1	24	.34	0	.59	.01
14	2.1	1.8	4.9	4.4	3.9	4.4	3.0	15	.19	0	.20	.01
15	1.9	1.9	5.1	4.3	4.0	4.4	3.2	6.3	.11	0	.08	.01
16	1.5	1.8	5.0	4.7	3.9	4.2	3.7	3.5	.06	0	.04	0
17	1.4	2.0	3.9	4.6	3.6	4.0	5.9	2.6	.03	0	.02	0
18	1.4	3.1	3.9	4.3	3.4	3.8	6.0	2.3	0	0	.01	.02
19	2.2	3.2	5.0	3.7	3.4	3.7	13	2.1	0	0	.01	.17
20	2.5	2.6	5.8	3.4	3.4	3.5	44	1.9	4.0	0	0	.05
21	2.4	3.0	5.9	3.0	4.3	3.8	23	1.8	.50	0	0	.03
22	2.1	3.6	6.2	3.2	6.1	3.9	16	1.8	.44	0	0	.03
23	8.4	3.5	6.0	3.6	2.8	3.6	12	1.6	.44	0	0	.04
24	41	4.2	5.2	6.2	2.4	3.7	11	1.8	.28	0	0	.06
25	78	4.9	5.1	5.0	6.4	3.7	10	1.7	.80	0	0	.18
26	47	4.9	5.0	3.8	19	4.0	9.4	1.8	.86	0	0	.89
27	19	4.9	5.1	3.0	7.1	4.2	8.9	2.3	.53	0	0	17
28	12	5.1	5.1	2.4	6.1	4.4	8.2	15	.44	0	0	8.0
29	8.5	5.8	5.0	2.8	------	4.3	7.8	11	.30	0	0	2.9
30	7.1	6.6	4.9	3.0	------	4.3	7.2	32	.17	0	2.3	1.1
31	5.9	------	6.0	2.3	------	4.2	------	13	------	0	1.2	------
TOTAL	263.81	92.1	165.9	127.2	131.9	123.7	240.0	221.8	27.39	.54	5.89	33.91
MEAN	8.51	3.07	5.35	4.10	4.71	3.99	8.00	7.15	.91	.017	.19	1.13
MAX	78	6.6	6.5	6.2	19	6.1	44	32	4.6	.17	2.3	17
MIN	.65	1.6	3.9	2.3	1.7	3.3	3.0	1.6	0	0	0	0
AC-FT	523	183	329	252	262	245	476	440	54	1.1	12	67

CAL YR 1970 TOTAL 27,286.21 MEAN 74.8 MAX 2,700 MIN 0 AC-FT 54,120
WTR YR 1971 TOTAL 1,434.14 MEAN 3.93 MAX 78 MIN 0 AC-FT 2,840

PEAK DISCHARGE (BASE, 1,000 CFS, REVISED).--No peak above base.

08109900 Somerville Lake near Somerville, Tex.
(Formerly published as Somerville Reservoir near Somerville)

LOCATION.--Lat 30°19'06", long 96°31'24", Burleson County, on the intake structure of Somerville Dam on Yegua Creek, at the southwest edge of the city limits of Somerville, and at mile 20.0.

DRAINAGE AREA.--1,006 sq mi.

PERIOD OF RECORD.--February 1966 to current year. Prior to October 1970, published as Somerville Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 151,400 acre-ft Oct. 27 (elevation, 237.22 ft); minimum, 119,500 acre-ft Sept. 24 (elevation, 234.14 ft).
Period of record: Maximum contents, 294,200 acre-ft June 28, 1968 (elevation, 247.56 ft); minimum, 119,500 acre-ft Sept. 24, 1971 (elevation, 234.14 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 20,210 ft long with a 4,715-foot dike, which includes a 1,250-foot spillway with an uncontrolled ogee weir. The low-flow outlet consists of one 10-foot-diameter conduit controlled by two 5- by 10-foot tractor type gates. Deliberate impoundment began Jan. 3, 1967, and from Feb. 3, 1966, to Jan. 2, 1967, lake was operated as a detention basin. Capacity table based on survey made in 1959. Lake is designed for flood control and water conservation. There are no known diversions above lake. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	280.0	-
Maximum design water surface	274.5	1,028,800
Spillway crest	258.0	507,500
Ultimate conservation pool	238.0	160,100
Interim conservation pool	230.0	83,100
Invert of lowest intake	206.0	200

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table (elevation, in feet, and total contents, in acre-feet)

234.0	118,100	236.0	138,200
235.0	127,900	237.0	148,900
		238.0	160,100

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148,300	150,100	147,500	145,900	144,200	143,500	139,800	137,400	134,700	130,600	123,400	121,400
2	148,200	150,100	147,600	145,900	144,200	143,500	139,600	137,300	134,600	130,400	123,500	121,600
3	148,000	150,000	148,700	145,900	144,200	143,000	139,400	137,200	134,400	130,100	123,400	121,600
4	148,000	149,700	147,600	145,700	144,200	143,000	139,100	137,100	134,300	129,800	123,700	121,500
5	148,400	149,500	147,600	145,500	144,200	143,000	138,900	136,900	134,200	129,500	124,000	121,400
6	148,500	149,300	147,300	145,300	144,200	143,000	138,600	136,800	134,100	129,300	124,300	121,100
7	148,400	149,200	147,300	145,100	144,100	143,000	138,400	136,700	133,900	129,100	124,200	120,900
8	148,400	149,500	147,300	145,100	144,000	142,900	138,100	136,600	133,600	128,700	124,000	120,900
9	147,900	149,300	147,300	145,000	143,800	142,700	138,000	136,600	133,300	128,400	124,000	120,600
10	147,500	149,100	147,300	145,100	143,500	142,600	138,000	136,600	133,100	128,200	123,800	120,900
11	148,400	149,100	147,100	145,100	143,400	142,500	137,900	136,700	132,800	128,100	123,600	121,100
12	148,200	148,900	146,900	145,100	143,300	142,400	137,900	136,500	132,700	127,900	123,500	121,000
13	148,000	148,800	146,800	145,100	143,100	142,400	137,800	136,300	132,500	127,700	123,300	121,000
14	147,900	148,700	146,800	145,100	143,000	142,300	137,700	135,900	132,300	127,400	123,100	120,700
15	147,800	148,600	146,800	145,100	143,000	142,100	137,500	135,800	132,100	127,200	123,000	120,500
16	147,400	148,500	146,600	145,100	143,000	141,900	137,700	135,600	132,100	126,900	122,700	120,500
17	147,300	148,400	146,500	145,100	143,000	141,800	138,200	135,400	131,900	126,700	122,500	120,300
18	148,000	148,400	146,500	145,000	143,000	141,700	138,200	135,300	131,700	126,500	122,400	120,600
19	147,900	148,400	146,500	144,800	143,000	141,200	138,300	135,100	131,700	126,400	122,300	120,300
20	147,800	148,300	146,800	144,700	143,000	141,000	138,200	134,900	131,800	126,300	122,100	120,000
21	147,800	148,300	146,800	144,700	143,000	140,900	138,200	134,800	131,600	126,100	122,000	119,800
22	147,800	148,000	146,800	144,700	142,800	140,900	138,200	134,800	131,900	125,900	121,800	119,600
23	149,900	147,800	146,900	144,800	142,400	140,600	138,000	134,800	131,800	125,500	121,600	119,600
24	150,600	147,400	146,600	144,700	142,700	140,600	138,000	135,000	131,500	125,200	121,500	119,500
25	151,000	147,400	146,100	144,700	143,100	140,600	137,900	134,900	131,300	125,000	121,300	119,900
26	151,300	147,400	146,100	144,600	143,100	140,500	137,800	134,800	131,100	125,000	122,200	120,000
27	151,400	147,400	146,100	144,600	143,000	140,400	137,800	134,800	131,100	125,000	122,000	120,100
28	151,100	147,500	146,100	144,600	143,300	140,400	137,700	135,300	130,900	124,700	121,900	120,000
29	150,900	147,400	146,200	144,600	------	140,300	137,700	134,900	130,800	124,400	121,700	119,800
30	150,600	147,400	146,200	144,600	------	140,100	137,500	134,900	130,700	124,200	121,600	119,700
31	150,500	------	146,100	144,400	------	140,000	------	134,800	------	123,800	121,600	------
(†)	237.14	236.86	236.74	236.58	236.48	236.17	235.93	235.67	235.27	234.58	234.35	234.16
(*)	+2,100	-3,100	-1,300	-1,700	-1,100	-3,300	-2,500	-2,700	-4,100	-6,900	-2,200	-1,900
MAX	151,400	150,100	148,700	145,900	144,200	143,500	139,800	137,400	134,700	130,600	124,300	121,600
MIN	147,300	147,400	146,100	144,400	142,400	140,000	137,500	134,800	130,700	123,800	121,300	119,500

CAL YR 1970..... * -11,000 MAX 232,600 MIN 146,100
WTR YR 1971..... * -28,700 MAX 151,400 MIN 119,500

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08110000 Yegua Creek near Somerville, Tex.

LOCATION.--Lat 30°19'18", long 96°30'26", Burleson County, on left bank 40 ft downstream from centerline of bridge on State Highway 36, 860 ft downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.0 mile downstream from Somerville Lake, 2.0 miles south of Somerville, 5.0 miles upstream from Davidson Creek, and at mile 18.4.

DRAINAGE AREA.--1,008 sq mi.

PERIOD OF RECORD.--May 1924 to current year.

GAGE.--Water-stage recorder. Datum of gage is 199.21 ft above mean sea level. Prior to Jan. 30, 1934, nonrecording gage at railway bridge 760 ft upstream, at datum 34.30 ft higher. Jan. 30, 1934, to Nov. 30, 1970, water-stage recorder at highway bridge 100 ft upstream at same datum.

AVERAGE DISCHARGE.--47 years, 288 cfs (208,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 46 cfs July 31 (gage height, 2.82 ft); no flow at times.
Period of record: Maximum discharge, 56,800 cfs July 1, 1940 (gage height, 19.27 ft); no flow at times.
Maximum stage since at least 1875, 22 ft Dec. 5, 1913, present site and datum, from information by Gulf, Colorado, and Santa Fe Railway Co.

REMARKS.--Records fair. Flow regulated by Somerville Lake since Feb. 3, 1966.

REVISIONS (WATER YEARS).--WSP 1512: 1926(M), 1929, 1935. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.14	.28	.16	.78	.67	.05	.02		0	37	.02
2	.28	.15	.26	.16	.76	.68	.05	.02		0	37	.02
3	.26	.15	.26	.20	.73	.60	.04	.02		0	28	.03
4	.26	.14	.26	.18	.83	.55	.04	.01		0	4.6	.02
5	.32	.15	.26	.15	.74	.53	.04	0		0	2.2	.02
6	.46	.18	.24	.16	.72	.55	.04	.01		0	1.8	.01
7	.46	.18	.24	.16	.68	.45	.03	.01		0	1.2	0
8	.42	.24	.24	.20	.64	.39	.03	.01		0	.82	0
9	.35	.26	.24	.24	.65	.39	.03	0		0	.58	0
10	.26	.26	.20	.30	.62	.42	.03	0		0	.50	.01
11	.54	.26	.18	.32	.60	.46	.03	0		0	.38	.02
12	2.8	.26	.15	.32	.57	.49	.03	0		0	.35	.02
13	1.7	.28	.14	.36	.56	.52	.03	0		0	.30	.02
14	1.0	.28	.14	.42	.60	.49	.03	0		0	.28	.02
15	.76	.28	.15	.45	.60	.41	.03	0		0	.24	.01
16	.62	.26	.15	.46	.60	.37	.04	0		0	.22	.01
17	.54	.26	.14	.48	.66	.32	.07	0		0	.18	0
18	.50	.26	.14	.48	.73	.30	.08	0		0	.16	.01
19	1.0	.30	.16	.45	.79	.25	.08	0		0	.13	.01
20	1.2	.28	.16	.43	.76	.20	.08	0		0	.12	.01
21	.94	.28	.18	.48	.91	.19	.08	0		0	.10	.01
22	.82	.30	.18	.57	.60	.20	.08	0		0	.09	.01
23	7.6	.28	.18	.79	.51	.18	.07	0		0	.07	0
24	2.4	.24	.14	.91	.49	.15	.03	0		0	.06	.01
25	.42	.24	.13	.97	.55	.15	.05	0		0	.04	.01
26	.26	.26	.12	.92	.88	.12	.04	0		0	.04	.01
27	.22	.30	.12	.94	.74	.11	.04	0		0	.04	.01
28	.26	.30	.12	.88	.68	.10	.03	.02		0	.04	.02
29	.13	.28	.12	.90	------	.09	.03	.02		0	.03	.01
30	.12	.28	.16	.85	------	.06	.03	.01		3.0	.03	.01
31	.13	------	.16	.82	------	.06	------	.01	------	42	.02	------
TOTAL	27.33	7.33	5.60	15.11	18.98	10.45	1.36	.16	0	45.0	116.62	.36
MEAN	.88	.24	.18	.49	.68	.34	.045	.005	0	1.45	3.76	.012
MAX	7.6	.30	.28	.97	.91	.68	.08	.02	0	42	37	.03
MIN	.12	.14	.12	.15	.49	.06	.03	0	0	0	.02	0
AC-FT	54	15	11	30	38	21	2.7	.3	0	89	231	.7

CAL YR 1970 TOTAL 126,459.60 MEAN 346 MAX 1,590 MIN .03 AC-FT 250,800
WTR YR 1971 TOTAL 248.30 MEAN .6 MAX 42 MIN 0 AC-FT 493

08110100 Davidson Creek near Lyons, Tex.

LOCATION.--Lat 30°25'10", long 96°32'24", Burleson County, on left bank 20 ft downstream from Farm Road 60, 1.2 miles downstream from Berry Creek, and 2.8 miles northeast of Lyons.

DRAINAGE AREA.--195 sq mi.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 220.26 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 55.6 cfs (40,280 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 216 cfs May 11 (gage height, 7.06 ft); no flow at times.
Period of record: Maximum discharge, 23,200 cfs June 24, 1968 (gage height, 18.67 ft); no flow at times each year. Maximum stage since at least 1902, that of June 24, 1968. Flood in 1947 reached a stage of 17 ft, from information by local resident.

REMARKS.--Records good. During year the city of Caldwell discharged 193 acre-ft of sewage effluent into creek above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.22		0	.22	2.7	.25	.06	.96		0	0
2	.03	.04		0	.17	1.6	.25	.02	.45		0	0
3	0	.10		0	.17	1.1	.25	0	.23		0	0
4	0	.05		.29	.17	.80	.17	0	.08		1.9	0
5	0	.03		.62	.17	.71	.08	0	.04		17	0
6	0	.01		.37	.13	.62	.08	0	0		7.8	0
7	0	0		.37	.13	.45	.08	0	0		4.1	0
8	0	0		.37	.13	.37	.06	0	0		7.8	0
9	0	0		.29	.18	.37	.05	0	0		3.7	0
10	0	0		.22	.25	.29	.06	1.1	0		1.4	0
11	.02	0		.17	.32	.13	.07	158	0		.46	0
12	.03	0		.13	.34	.10	.04	69	0		.19	0
13	0	.03		.10	.34	.13	.03	36	0		.05	0
14	0	.03		.10	.34	.22	0	11	0		.05	0
15	0	0		.08	.34	.29	0	5.5	0		2.7	0
16	0	0		.08	.34	.29	.02	3.4	0		1.9	0
17	0	0		.13	.32	.29	.09	1.7	0		.69	0
18	0	0		.17	.28	.37	.14	1.3	0		.19	0
19	.03	0		.13	.30	.22	14	.89	0		.01	0
20	0	0		.13	.35	.22	23	.45	0		0	0
21	0	0		.17	.45	.30	10	.37	0		0	0
22	0	0		.22	.55	.24	4.2	.17	.04		0	1.1
23	1.3	0		.22	.55	.18	2.0	.08	.01		0	.74
24	2.2	0		.17	.55	.18	1.3	.29	0		0	.39
25	1.1	0		.17	.56	.18	.67	.22	0		0	.34
26	1.3	0		.17	38	.18	.47	.10	0		0	.03
27	1.2	0		.22	17	.18	.34	.13	0		0	0
28	.89	0		.17	5.0	.25	.30	1.2	0		0	0
29	.62	0		.13	------	.29	.23	8.5	0		0	.37
30	.37	0		.22	------	.25	.10	6.4	0		0	.63
31	.29	------		.22	------	.29	------	2.1	------		0	------
TOTAL	9.43	.51	0	5.83	67.65	13.79	58.33	307.98	1.81	0	49.94	3.60
MEAN	.30	.017	0	.19	2.42	.44	1.94	9.93	.060	0	1.61	.12
MAX	2.2	.22	0	.62	38	2.7	23	158	.96	0	17	1.1
MIN	0	0	0	0	.13	.10	0	0	0	0	0	0
AC-FT	19	1.0	0	12	134	27	116	611	3.6	0	99	7.1

CAL YR 1970 TOTAL 21,923.58 MEAN 60.1 MAX 2,890 MIN 0 AC-FT 43,490
WTR YR 1971 TOTAL 518.87 MEAN 1.42 MAX 158 MIN 0 AC-FT 1,030

PEAK DISCHARGE (BASE 1,500 CFS).--No peak above base.

08110200 Brazos River at Washington, Tex.

LOCATION.--Lat 30°21'40", long 96°09'18", Washington County, near right bank on downstream side of bridge on State Highway 90, 2.4 miles upstream from Navasota River, and 2.5 miles north of Washington.

DRAINAGE AREA.--39,740 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1965 to current year. Gage heights collected in this vicinity since 1915 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 140.13 ft above mean sea level. Auxiliary water-stage recorder 1.8 miles downstream at same datum.

AVERAGE DISCHARGE.--5 years, 4,888 cfs (3,541,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,200 cfs Oct. 24 (gage height, 12.40 ft); maximum gage height, 12.60 ft Oct. 25 (backwater from Navasota River); minimum daily discharge, 276 cfs Feb. 17, 19.
Period of record: Maximum discharge, 82,500 cfs Jan. 24, 1968 (gage height, 33.60 ft); minimum daily, 276 cfs Feb. 17, 19, 1971.
Maximum stage since at least 1856, 62.0 ft Dec. 6, 1913, from information by local residents.

REMARKS.--Records good. Backwater at times from Navasota River. Many diversions above station for irrigation, municipal, industrial, and oilfield operation. Flow is regulated by 26 major reservoirs with a total combined capacity of 6,985,000 acre-ft, of which 4,138,000 acre-ft is for flood control. At end of year, flow from 346 sq mi above this station was partly controlled by 110 floodwater-retarding structures with a total combined capacity of 135,900 acre-ft below the flood-spillway crests, of which 120,600 acre-ft is floodwater-retarding capacity and 15,300 acre-ft is sediment-pool capacity. Seven structures were built during the current year and have a total combined capacity below flood-spillway crests of 13,440 acre-ft, of which 962 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Recording rain gage located at auxiliary gage 1.8 miles downstream.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1968(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,580	2,240	712	510	370	907	723	956	1,260	1,030	6,040	1,170
2	2,740	1,390	702	504	360	889	623	954	1,590	1,020	6,750	1,130
3	2,830	826	607	475	360	626	555	1,170	3,300	1,050	4,460	1,140
4	2,900	655	552	466	350	449	556	1,250	1,790	1,010	2,680	1,060
5	2,990	580	529	524	340	358	536	1,100	1,170	964	2,370	1,280
6	2,870	587	489	480	340	299	532	1,030	972	875	2,210	1,410
7	2,790	598	479	475	340	286	561	990	889	946	3,540	1,460
8	2,220	619	489	479	330	360	544	939	859	996	3,280	2,020
9	1,370	583	489	505	320	356	526	960	834	884	2,560	2,390
10	1,010	565	479	896	310	293	522	2,320	859	796	2,170	2,610
11	1,000	566	466	2,200	300	295	519	7,650	960	768	1,840	2,570
12	1,010	557	462	2,430	295	326	529	4,970	1,140	791	1,650	2,360
13	776	563	466	1,960	297	337	567	3,550	1,350	796	1,560	2,300
14	721	559	457	1,420	307	316	585	2,210	1,190	780	1,520	1,790
15	948	568	471	1,540	280	297	585	1,090	1,050	780	1,480	1,340
16	1,520	669	484	1,980	287	295	590	656	1,010	751	1,510	1,230
17	975	689	484	1,460	276	299	656	517	987	774	1,600	1,420
18	721	630	537	1,120	277	331	632	522	960	791	1,580	1,540
19	945	636	537	932	276	311	777	555	1,010	746	1,450	1,290
20	644	702	601	834	282	293	2,380	599	996	742	1,400	1,210
21	429	716	631	777	318	579	3,450	614	1,010	735	1,370	994
22	351	689	583	700	438	704	3,240	646	972	863	1,350	887
23	1,020	636	578	656	525	702	1,960	743	993	826	1,340	833
24	7,530	631	560	606	587	693	1,260	883	1,000	829	1,360	1,360
25	7,730	583	524	719	500	704	949	927	1,080	1,020	1,370	1,440
26	5,810	564	550	697	499	722	808	806	1,160	1,220	1,370	1,130
27	4,870	536	569	550	563	734	739	759	1,100	1,430	1,330	1,070
28	2,890	898	546	500	1,140	755	970	925	1,060	4,360	1,320	1,320
29	1,870	1,140	735	450	------	743	996	875	1,040	3,150	1,340	1,090
30	1,470	899	703	420	------	736	976	992	1,050	3,310	1,600	938
31	3,190	------	566	400	------	730	------	1,620	------	3,800	1,350	------
TOTAL	70,770	22,074	17,037	27,674	10,867	15,725	28,846	43,778	34,641	38,833	66,750	43,782
MEAN	2,283	736	550	893	388	507	962	1,412	1,155	1,253	2,153	1,459
MAX	7,730	2,240	735	2,430	1,140	907	3,450	7,650	3,300	4,360	6,750	2,610
MIN	351	536	457	400	276	286	519	517	834	735	1,320	833
AC-FT	140,400	43,780	33,790	54,890	21,550	31,190	57,220	86,830	68,710	77,030	132,400	86,840

CAL YR 1970 TOTAL 1,813,928 MEAN 4,970 MAX 44,500 MIN 351 AC-FT 3,598,000
WTR YR 1971 TOTAL 420,777 MEAN 1,153 MAX 7,730 MIN 276 AC-FT 834,600

08110300 Lake Mexia near Mexia, Tex.

LOCATION.--Lat 31°38'45", long 96°34'39", Limestone County, 550 ft downstream from Cedar Creek, 610 ft upstream from spillway of dam on Navasota River, 1 mile upstream from Echo Dam, 1.6 miles upstream from Jacks Creek, and 6 miles southwest of Mexia.

DRAINAGE AREA.--198 sq mi.

PERIOD OF RECORD.--July 1961 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 420.0 ft above mean sea level.

EXTREMES.--Current year: Maximum gage height, 29.04 ft Oct. 24; minimum, 24.36 ft July 23.
Period of record: Maximum gage height, 32.62 ft Apr. 24, 1966; minimum, 21.40 ft Jan. 15, 1964.

REMARKS.--Lake is formed by a 1,645-foot earthfill dam. The 520-foot uncontrolled concrete spillway is near left end of dam. Dam was completed and deliberate impoundment of water began June 5, 1961. The Bistone Municipal Water Supply District reported a diversion of 1,450 acre-ft for municipal use during water year 1971. Data regarding dam is shown in the following table:

	Gage height (feet)
Crest of dam	42.3
Crest of spillway	28.3
Invert of 20-inch outlet conduit	2.1

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.35	28.29	27.96	27.75	27.44	27.31	26.84	26.40	25.93	25.14	25.88	26.42
2	28.33	28.26	27.95	27.72	27.44	27.36	26.81	26.38	25.90	25.11	25.87	26.39
3	28.33	28.24	27.95	27.81	27.42	27.28	26.78	26.35	25.87	25.07	25.89	26.37
4	28.30	28.21	27.93	27.74	27.45	27.25	26.77	26.31	25.85	25.02	26.03	26.35
5	28.29	28.20	27.93	27.70	27.43	27.25	26.73	26.30	25.82	24.99	26.65	26.34
6	28.28	28.18	27.90	27.68	27.43	27.26	26.69	26.32	25.79	24.95	26.78	26.32
7	28.26	28.17	27.88	27.67	27.44	27.23	26.67	26.40	25.74	24.90	26.79	26.29
8	28.25	28.19	27.88	27.66	27.39	27.20	26.63	26.38	25.70	24.86	26.78	26.27
9	28.22	28.16	27.88	27.66	27.38	27.22	26.64	26.36	25.67	24.83	26.76	26.24
10	28.18	28.14	27.87	27.66	27.35	27.19	26.63	26.30	25.64	24.78	26.73	26.20
11	28.39	28.14	27.86	27.65	27.36	27.19	26.61	26.45	25.63	24.75	26.71	26.18
12	28.48	28.12	27.84	27.65	27.33	27.18	26.57	26.42	25.60	24.70	26.70	26.17
13	28.42	28.17	27.83	27.65	27.32	27.17	26.56	26.39	25.57	24.67	26.76	26.14
14	28.38	28.16	27.82	27.65	27.31	27.17	26.53	26.38	25.55	24.62	26.81	26.12
15	28.36	28.12	27.85	27.63	27.31	27.13	26.50	26.36	25.52	24.59	26.81	26.09
16	28.34	28.11	27.81	27.62	27.30	27.11	26.53	26.32	25.49	24.55	26.79	26.07
17	28.33	28.10	27.79	27.62	27.27	27.06	26.58	26.27	25.45	24.50	26.77	26.04
18	28.33	28.07	27.81	27.61	27.34	27.09	26.56	26.26	25.42	24.45	26.75	26.02
19	28.31	28.07	27.80	27.59	27.31	27.04	26.54	26.24	25.38	24.41	26.74	25.98
20	28.30	28.06	27.80	27.55	27.30	27.01	26.58	26.22	25.35	24.37	26.72	25.94
21	28.27	28.05	27.80	27.57	27.30	27.00	26.56	26.19	25.33	24.41	26.69	25.92
22	28.27	28.05	27.80	27.57	27.27	27.00	26.56	26.18	25.38	24.38	26.66	25.98
23	28.95	28.01	27.79	27.56	27.26	26.97	26.52	26.16	25.36	24.46	26.63	26.03
24	28.74	27.98	27.77	27.56	27.24	26.94	26.50	26.13	25.33	24.56	26.61	26.31
25	28.51	27.97	27.76	27.55	27.34	26.95	26.48	26.10	25.30	24.68	26.59	26.37
26	28.43	27.98	27.74	27.54	27.34	26.94	26.46	26.07	25.26	25.32	26.59	26.36
27	28.38	27.98	27.74	27.52	27.33	26.94	26.45	26.05	25.27	25.39	26.56	26.35
28	28.33	27.97	27.74	27.51	27.31	26.94	26.41	26.00	25.26	25.42	26.54	26.33
29	28.32	27.96	27.73	27.51	------	26.91	26.43	25.97	25.20	25.84	26.51	26.31
30	28.30	27.96	27.79	27.50	------	26.88	26.42	25.98	25.18	25.90	26.48	26.29
31	28.28	------	27.77	27.47	------	26.83	------	25.95	------	25.89	26.45	------
MEAN	28.36	28.10	27.83	27.62	27.35	27.10	26.58	26.24	25.52	24.89	26.58	26.21
MAX	28.95	28.29	27.96	27.81	27.45	27.36	26.84	26.45	25.93	25.90	26.81	26.42
MIN	28.18	27.96	27.73	27.47	27.24	26.83	26.41	25.95	25.18	24.37	25.87	25.92

CAL YR 1970 MEAN 27.08 MAX 29.94 MIN 25.97
WTR YR 1971 MEAN 26.86 MAX 28.95 MIN 24.37

08110400 Navasota River near Groesbeck, Tex.

LOCATION.--Lat 31°30'45", long 96°27'03", Limestone County, on left bank 43 ft downstream from State Highway 164, 0.4 mile downstream from Pin Oak Creek, 5 miles east of Groesbeck, and at mile 154.6.

DRAINAGE AREA.--313 sq mi.

PERIOD OF RECORD.--March 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 358.84 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 150 cfs (108,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,240 cfs Oct. 12 (gage height, 10.10 ft); no flow June 12-25, July 1-23.
Period of record: Maximum discharge, 21,500 cfs Apr. 25, 1966 (gage height, 20.00 ft); no flow at times in 1967, 1969, 1971.
Maximum stage since at least 1902 occurred in 1944, stage unknown, from information by local residents. Maximum stage occurred in 1932 and reached a stage of 23.7 ft, from information by Texas Highway Department.

REMARKS.--Records good. Flow partly regulated by Lake Mexia (station 08110300) 14.4 miles upstream, approximate capacity 10,000 acre-ft. Several diversions above station for irrigation, municipal supply, and oilfield operation, total amount unknown. The city of Mexia discharged 331 acre-ft of sewage effluent during year into river above station. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	11	1.5	5.7	.96	2.9	.70	.22	.05	0	4.2	.07
2	25	10	1.6	3.6	1.1	2.3	.69	.26	.05	0	3.0	.07
3	16	7.7	1.7	3.0	.96	2.1	.65	.27	.04	0	2.2	.07
4	10	6.2	2.0	2.4	1.1	2.5	.65	.30	.03	0	3.6	.07
5	6.8	4.9	1.8	3.6	1.1	2.0	.56	.30	.03	0	21	.05
6	5.1	3.2	1.7	2.9	1.5	1.5	.46	.27	.03	0	8.8	.04
7	3.9	2.3	1.6	2.2	1.7	1.3	.35	.26	.02	0	4.3	.04
8	3.3	2.0	1.4	1.7	1.2	1.6	.35	2.3	.02	0	3.1	.10
9	5.5	2.0	1.4	1.6	1.1	1.7	.32	1.9	.02	0	1.9	.10
10	5.7	3.1	1.6	1.5	1.1	1.4	.16	65	.01	0	1.5	.08
11	3.7	3.1	2.0	1.2	.84	1.3	.12	54	.01	0	1.2	.09
12	810	1.6	1.9	1.2	.76	1.2	.11	6.9	0	0	1.1	.08
13	550	1.6	2.2	1.2	.60	1.2	.11	2.8	0	0	1.1	.08
14	85	2.2	2.0	1.3	1.2	1.0	.14	1.7	0	0	1.2	.07
15	62	4.3	1.8	1.3	1.3	1.0	.18	1.0	0	0	1.2	.07
16	40	4.7	1.8	1.1	1.1	.95	.23	.70	0	0	1.6	.06
17	27	2.9	1.9	1.0	1.0	.88	.55	.42	0	0	1.6	.05
18	19	2.0	2.2	.52	1.1	.85	.50	.30	0	0	1.3	.05
19	14	1.6	2.1	.23	1.7	.75	.54	.22	0	0	1.2	.05
20	11	1.5	2.2	.45	3.5	.70	.62	.24	0	0	1.1	.06
21	7.9	1.9	3.0	.82	5.4	.70	.63	.26	0	0	.89	.04
22	6.2	2.1	3.1	1.1	4.3	.70	.60	.17	0	0	.80	.08
23	180	1.5	2.9	1.2	4.4	.79	.53	.13	0	0	.64	.22
24	736	2.2	2.5	1.0	2.9	.69	.41	.14	0	.15	.55	.39
25	555	2.4	2.3	.90	8.0	.70	.35	.15	0	5.5	.47	311
26	195	1.9	2.2	.78	61	.67	.35	.10	.01	5.0	.27	88
27	95	1.6	2.2	.83	12	.84	.32	.10	.03	3.7	.19	11
28	74	1.5	2.2	.88	4.5	.89	.30	.07	.02	3.1	.11	5.0
29	39	1.5	2.2	.70	------	.82	.30	.06	.02	10	.07	3.2
30	25	1.5	2.6	.79	------	.65	.28	.04	.01	34	.05	2.3
31	17	------	3.6	.85	------	.65	------	.05	------	7.2	.05	------
TOTAL	3,673.1	96.0	65.2	47.55	127.42	37.23	12.06	140.63	.40	68.65	70.29	422.58
MEAN	118	3.20	2.10	1.53	4.55	1.20	.40	4.54	.013	2.21	2.27	14.1
MAX	810	11	3.6	5.7	61	2.9	.70	65	.05	34	21	311
MIN	3.3	1.5	1.4	.23	.60	.65	.11	.04	0	0	.05	.04
AC-FT	7,290	190	129	94	253	74	24	279	.8	136	139	838

CAL YR 1970 TOTAL 42,195.78 MEAN 116 MAX 2,930 MIN 0 AC-FT 83,700
WTR YR 1971 TOTAL 4,761.11 MEAN 13.0 MAX 810 MIN 0 AC-FT 9,440

08110500 Navasota River near Easterly, Tex.

LOCATION.--Lat 31°10'10", long 96°17'54", Leon-Robertson County line, near center of span at downstream side of bridge on U.S. Highway 79, 1.0 mile upstream from Missouri Pacific Railroad Co. bridge, 7 miles northeast of Easterly, and at mile 105.7.

DRAINAGE AREA.--940 sq mi.

PERIOD OF RECORD.--March 1924 to current year.

GAGE.--Water-stage recorder. Datum of gage is 276.46 ft above mean sea level. Prior to June 11, 1932, nonrecording gage at railroad bridge 1.0 mile downstream at datum 24.86 ft higher.

AVERAGE DISCHARGE.--47 years, 405 cfs (293,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,610 cfs Oct. 26 (gage height, 11.58 ft); minimum, 0.40 cfs July 19-21.
Period of record: Maximum discharge, 60,300 cfs May 2, 1944 (gage height, 22.13 ft); no flow at times.
Maximum stage since about 1845, 24 ft in June 1899, from information by local residents (discharge, 90,000 cfs, from rating curve extended above 60,000 cfs).

REMARKS.--Records fair. Numerous diversions above station for irrigation, municipal supply, and oilfield operation.

REVISIONS (WATER YEARS).--WSP 898: 1924, 1926-27, 1928(M), 1929-30, 1931(M). WSP 1512: 1932(M), 1936. WSP 1922: 1956, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	45	9.4	11	9.2	156	8.0	5.1	3.9	1.3	45	2.2
2	66	34	8.6	12	8.6	88	7.5	4.7	3.5	1.2	49	1.2
3	46	28	8.0	13	8.8	58	6.9	4.6	3.2	1.1	26	1.1
4	33	24	7.6	15	10	41	6.7	4.6	2.8	1.0	17	1.0
5	26	22	7.6	15	11	32	6.4	4.3	2.5	.94	13	.97
6	21	19	7.5	13	11	27	5.7	3.9	2.3	.97	11	.84
7	16	17	7.5	11	11	23	5.6	3.6	2.1	.94	8.0	.90
8	14	16	7.3	11	10	21	5.4	3.4	1.9	.84	19	.78
9	12	18	7.6	10	9.6	19	5.4	3.2	1.7	.78	16	.84
10	10	15	8.0	11	9.2	17	5.4	3.5	1.5	.72	10	.89
11	10	12	8.0	11	9.4	17	5.4	39	1.5	.66	7.6	1.1
12	308	11	7.5	11	10	17	4.9	348	1.4	.66	6.0	1.3
13	643	10	7.3	11	9.4	17	4.9	295	1.3	.66	7.1	1.2
14	813	12	7.1	11	9.0	16	5.1	102	1.2	.60	7.6	1.1
15	604	13	7.5	11	9.0	14	4.9	48	1.2	.56	9.8	1.1
16	158	12	8.2	10	9.0	13	4.9	29	1.1	.56	10	1.3
17	88	11	8.2	9.8	8.8	13	8.2	19	1.0	.56	10	1.1
18	62	12	8.2	9.6	8.8	12	39	14	.97	.48	6.0	1.0
19	45	18	8.6	9.2	346	11	65	11	.99	.44	3.5	5.9
20	34	16	13	9.4	706	11	100	11	1.3	.40	2.4	3.4
21	28	13	17	9.6	230	10	43	11	2.1	.52	4.2	1.7
22	23	12	19	9.4	85	10	22	11	3.9	.66	4.3	1.6
23	640	11	17	9.8	53	10	14	13	2.9	.66	2.9	2.7
24	1,280	9.4	16	10	42	9.8	11	12	2.1	.84	2.2	2.5
25	1,510	8.4	16	10	52	9.4	9.3	9.9	1.6	1.0	1.7	2.8
26	1,530	8.2	14	9.4	890	9.4	7.8	7.9	1.3	.90	1.3	2.2
27	1,000	8.4	12	9.0	1,290	9.4	7.2	6.9	1.3	15	1.1	186
28	230	8.4	11	8.6	541	9.6	6.3	5.9	1.3	30	.97	94
29	127	8.8	11	8.8	------	10	5.9	5.2	1.3	19	.78	45
30	91	9.8	11	9.8	------	9.4	5.6	4.7	1.3	23	.78	20
31	66	------	12	10	------	8.8	------	4.3	------	14	4.5	------
TOTAL	9,621	462.4	318.7	329.4	4,406.8	728.8	437.4	1,048.7	56.46	120.95	308.73	387.72
MEAN	310	15.4	10.3	10.6	157	23.5	14.6	33.8	1.88	3.90	9.96	12.9
MAX	1,530	45	19	15	1,290	156	100	348	3.9	30	49	186
MIN	10	8.2	7.1	8.6	8.6	8.8	4.9	3.2	.97	.40	.78	.78
AC-FT	19,080	917	632	653	8,740	1,450	868	2,080	112	240	612	769

CAL YR 1970 TOTAL 109,998.85 MEAN 301 MAX 5,400 MIN .74 AC-FT 218,200
WTR YR 1971 TOTAL 18,227.06 MEAN 49.9 MAX 1,530 MIN .40 AC-FT 36,150

PEAK DISCHARGE (BASE, 2,500 CFS).--No peak above base.

08111000 Navasota River near Bryan, Tex.

LOCATION.--Lat 30°52'10", long 96°11'32", Brazos-Madison County line, on right bank at upstream side of bridge on U.S. Highway 190, 2.5 miles upstream from Shepherd Creek, 17 miles northeast of Bryan, and at mile 68.4.

DRAINAGE AREA.--1,429 sq mi.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 224.64 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 486 cfs (352,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,120 cfs Oct. 28 (gage height, 12.33 ft); minimum, 0.71 cfs July 20.
Period of record: Maximum discharge, 38,200 cfs Apr. 29, 1966 (gage height, 16.57 ft); no flow at times.
Maximum stage since about 1840, 19.5 ft in June 1899, from information by local residents.

REMARKS.--Records good. Numerous diversions above station for irrigation, municipal, and oilfield operation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	267	23	33	24	1,410	26	16	17	5.9	26	3.1
2	116	135	24	34	23	1,290	26	14	15	5.0	29	2.7
3	87	86	25	35	23	752	24	13	14	4.3	31	2.5
4	70	63	26	35	24	306	23	12	14	3.9	37	2.4
5	64	51	26	33	24	151	22	12	14	3.4	51	2.2
6	56	43	25	31	25	105	21	12	13	3.0	45	2.3
7	44	38	24	31	27	83	20	11	12	2.6	38	2.6
8	35	35	24	30	27	69	20	11	10	2.2	32	2.7
9	29	32	24	29	28	59	19	106	9.1	2.0	26	2.6
10	25	29	23	27	27	53	19	126	7.9	1.9	22	2.3
11	24	28	23	26	26	48	18	574	7.1	1.7	20	2.1
12	33	28	23	26	24	43	18	365	6.2	1.6	22	1.9
13	40	30	23	26	23	41	17	126	5.7	1.5	21	1.9
14	298	28	22	27	22	43	17	323	5.4	1.3	18	1.6
15	599	25	22	27	23	47	16	323	5.0	1.3	15	1.5
16	800	24	24	26	23	45	15	175	4.7	1.2	14	1.5
17	752	25	25	25	23	41	16	84	4.4	1.2	14	1.4
18	385	27	25	26	22	39	16	54	4.3	1.2	14	1.6
19	191	28	26	26	23	35	16	39	3.9	1.1	13	2.3
20	113	27	28	25	27	32	18	33	3.7	.98	13	1.9
21	81	25	28	25	330	31	64	37	3.5	1.2	13	1.9
22	63	27	30	25	776	31	98	46	3.4	1.2	12	2.1
23	568	27	38	25	772	30	66	39	3.7	1.2	9.0	3.0
24	1,320	26	43	26	344	29	42	39	4.0	1.5	7.0	3.9
25	1,220	24	43	27	122	29	32	35	5.6	1.7	6.0	6.0
26	1,580	23	40	26	89	28	26	32	12	1.7	5.2	6.5
27	1,940	23	37	24	266	28	23	29	13	1.9	5.0	7.7
28	2,060	22	35	23	905	28	20	26	11	2.1	4.8	8.6
29	1,780	22	32	23	------	28	18	23	9.3	3.4	4.4	54
30	1,090	23	32	25	------	27	17	20	7.6	3.7	3.9	108
31	535	------	31	25	------	27	------	18	------	12	3.5	------
TOTAL	16,119	1,291	874	852	4,092	5,008	793	2,773	249.5	78.88	574.8	244.8
MEAN	520	43.0	28.2	27.5	146	162	26.4	89.5	8.32	2.54	18.5	8.16
MAX	2,060	267	43	35	905	1,410	98	574	17	12	51	108
MIN	24	22	22	23	22	27	15	11	3.4	.98	3.5	1.4
AC-FT	31,970	2,560	1,730	1,690	8,120	9,930	1,570	5,500	495	156	1,140	486

CAL YR 1970 TOTAL 135,550.71 MEAN 371 MAX 5,200 MIN .36 AC-FT 268,900
WTR YR 1971 TOTAL 32,949.98 MEAN 90.3 MAX 2,060 MIN .98 AC-FT 65,360

PEAK DISCHARGE (BASE, 3,000 CFS).--Oct. 28 (1000) 2,120 cfs (12.33 ft).

08111500 Brazos River near Hempstead, Tex.

LOCATION.--Lat 30°07'34", long 96°11'05", Washington-Waller County line, on right bank near downstream side of bridge on U.S. Highway 290, 4,500 ft upstream from Texas and New Orleans Railroad Co. bridge, 6.5 miles northwest of Hempstead, 8 miles upstream from Caney Creek, and at mile 193.8.

DRAINAGE AREA.--42,640 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1938 to current year. Gage-height records collected in this vicinity at intermittent periods since 1903 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 117.90 ft above mean sea level. Prior to Nov. 1, 1940, nonrecording gage at railroad bridge 4,500 ft downstream at datum 5.80 ft lower. Nov. 1, 1940, to Sept. 30, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--33 years, 6,612 cfs (4,790,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,100 cfs Oct. 25 (gage height, 11.85 ft); minimum daily, 421 cfs Feb. 17. Period of record: Maximum discharge, 143,000 cfs May 2, 1957 (gage height, 44.21 ft); minimum daily, 137 cfs Nov. 6, 1952. Maximum stage since at least 1899, 56.1 ft Dec. 8, 1913, present site and datum, from information by Texas and New Orleans Railroad Co., obtained at bridge 4,500 ft downstream. Flood of July 4, 1899, reached a stage of 53.6 ft, present site and datum, from information by Texas and New Orleans Railroad Co.

REMARKS.--Records fair. Many small diversions above station for irrigation, municipal and industrial use, and oilfield operations. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Brazos River at Washington (station 08110200). Flow regulated by 28 major upstream reservoirs having a combined capacity of 7,002,000 acre-ft (4,138,000 acre-ft for flood control).

REVISIONS (WATER YEARS).--WSP 1442: Drainage area. WSP 1512: 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,470	4,350	1,060	799	508	2,000	984	970	1,800	1,050	4,390	1,300
2	3,260	3,610	914	730	493	1,660	971	947	1,440	1,040	5,850	1,100
3	3,370	2,920	809	687	496	1,520	869	928	2,060	1,020	6,200	1,050
4	3,430	2,520	735	642	500	1,360	741	1,130	3,130	1,050	4,350	1,050
5	3,480	2,100	680	611	496	1,270	686	1,230	2,030	1,020	3,050	979
6	3,520	1,650	651	608	479	1,270	640	1,160	1,340	955	2,730	1,210
7	3,410	1,260	616	580	479	1,250	654	1,070	1,070	871	2,700	1,330
8	3,280	1,060	605	564	468	1,160	657	979	940	926	3,610	1,440
9	2,790	984	600	559	458	937	644	916	869	978	3,610	1,980
10	1,950	905	600	628	454	730	644	960	856	891	3,240	2,380
11	1,900	842	581	1,040	448	614	644	3,160	856	810	2,700	2,650
12	5,110	801	574	2,210	440	567	633	7,040	948	758	2,180	2,580
13	3,300	782	568	2,430	444	558	633	5,900	1,180	751	1,900	2,380
14	2,140	767	563	2,040	434	567	686	5,510	1,400	761	1,740	2,260
15	1,780	746	556	1,560	434	545	711	4,430	1,260	758	1,660	1,820
16	1,700	745	560	1,780	424	504	731	3,410	1,110	744	1,610	1,400
17	1,810	827	570	2,070	421	490	819	2,850	1,050	729	1,600	1,170
18	1,580	841	576	1,610	427	472	1,290	2,200	986	741	1,670	1,410
19	1,610	798	629	1,260	434	493	1,760	1,680	972	762	1,660	1,500
20	1,910	773	644	1,050	437	479	1,960	1,310	1,030	742	1,520	1,220
21	1,750	809	701	929	430	468	3,250	986	1,040	748	1,420	1,060
22	1,670	848	722	864	454	706	3,850	834	1,010	739	1,370	889
23	3,590	791	688	779	556	907	3,270	798	985	855	1,340	747
24	9,280	766	675	696	669	926	2,070	942	980	821	1,330	660
25	10,600	750	654	655	845	938	1,380	1,070	983	845	1,410	1,150
26	8,770	709	619	756	1,060	954	1,070	1,070	1,080	1,120	1,420	1,250
27	7,740	675	633	765	1,240	983	904	1,040	1,170	1,270	1,350	949
28	6,790	654	658	676	1,580	1,010	816	972	1,150	1,990	1,300	878
29	5,220	1,040	661	618	------	1,010	965	1,120	1,110	3,900	1,310	1,060
30	4,050	1,290	864	575	------	1,000	1,000	1,060	1,060	3,240	1,340	874
31	3,650	------	898	548	------	1,000	------	1,240	------	3,540	1,580	------
TOTAL	117,910	37,613	20,864	31,319	16,008	28,348	35,932	58,912	36,895	36,425	73,140	41,726
MEAN	3,804	1,254	673	1,010	572	914	1,198	1,900	1,230	1,175	2,359	1,391
MAX	10,600	4,350	1,060	2,430	1,580	2,000	3,850	7,040	3,130	3,900	6,200	2,650
MIN	1,580	654	556	548	421	468	633	798	856	729	1,300	660
AC-FT	233,900	74,610	41,380	62,120	31,750	56,230	71,270	116,900	73,180	72,250	145,100	82,760

CAL YR 1970 TOTAL 2,215,686 MEAN 6,070 MAX 42,400 MIN 556 AC-FT 4,395,000
WTR YR 1971 TOTAL 535,092 MEAN 1,466 MAX 10,600 MIN 421 AC-FT 1,061,000

08111700 Mill Creek near Bellville, Tex.

LOCATION.--Lat 29°52'51", long 96°12'18", Austin County, on left bank at upstream side of abandoned bridge pier about 5 ft downstream from State Highway 36, 5 miles southeast of Bellville, and 6 miles upstream from Brazos River.

DRAINAGE AREA.--377 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 122.82 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 163 cfs (118,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,920 cfs Oct. 23 (gage height, 14.35 ft); minimum daily, 0.08 cfs July 22, 23.
Period of record: Maximum discharge, 34,000 cfs June 25, 1968 (gage height, 15.98 ft, from floodmark), from rating curve extended above 14,000 cfs; minimum daily, 0.08 cfs July 22, 23, 1971.
Maximum stage since 1899, 22.8 ft in 1940, from information by local residents and the Texas Highway Department.

REMARKS.--Records poor. During the year, the city of Bellville discharged about 222 acre-ft of sewage effluent into a tributary of Mill Creek above gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	54	40	111	25	70	19	8.9	5.8	2.3	.65	2.5
2	8.3	43	36	76	21	62	16	7.8	5.6	2.0	1.6	22
3	7.6	32	34	71	41	43	14	7.4	5.2	1.8	7.6	7.4
4	7.0	27	30	64	68	31	15	6.8	4.8	1.5	12	3.4
5	17	24	29	51	67	30	16	6.8	4.3	1.2	13	2.7
6	103	24	27	44	51	30	16	8.9	3.6	1.0	18	2.5
7	44	24	23	40	221	24	14	20	3.3	.98	20	2.2
8	28	25	21	42	110	21	14	11	3.3	.98	8.0	1.9
9	96	27	22	45	55	22	14	13	2.7	1.3	5.2	1.9
10	34	30	23	53	40	30	12	14	2.5	.98	4.5	8.6
11	239	25	23	56	38	31	11	12	2.4	1.0	5.4	54
12	5,470	23	19	54	38	37	12	20	2.2	.98	5.2	34
13	934	31	16	56	28	40	11	14	1.8	.91	3.6	21
14	264	71	17	56	29	37	10	8.9	1.5	1.7	3.2	11
15	118	44	18	52	31	29	10	7.2	1.3	.77	3.4	7.6
16	68	34	21	42	31	24	12	6.6	2.0	1.4	2.9	35
17	49	34	18	42	30	23	80	5.6	2.9	1.3	2.7	18
18	40	37	16	42	30	22	112	4.8	1.7	.55	2.5	9.5
19	86	40	22	36	42	20	38	4.7	2.5	.33	2.4	8.0
20	113	38	51	32	68	18	35	135	4.7	.25	2.5	7.0
21	138	33	44	34	56	18	42	64	8.6	.19	3.4	6.8
22	75	35	43	38	40	21	32	14	5.8	.08	2.8	6.8
23	5,000	31	66	41	29	19	25	9.2	8.0	.08	2.6	6.8
24	4,440	22	95	44	27	20	18	11	6.4	.77	2.6	7.2
25	2,190	24	54	42	28	22	14	36	4.2	.45	2.5	9.2
26	350	32	36	36	125	22	13	22	2.5	.19	3.0	9.5
27	200	34	31	29	128	22	13	13	2.3	.19	5.8	9.2
28	350	38	34	27	80	23	11	9.2	4.0	1.9	4.0	7.8
29	312	38	36	28	------	22	11	7.0	4.5	1.9	2.8	5.2
30	114	38	57	30	------	20	10	6.4	3.2	.91	2.3	4.7
31	70	------	140	29	------	18	------	6.0	------	.55	2.0	------
TOTAL	20,973.8	1,012	1,142	1,443	1,577	871	670	521.2	113.6	30.44	158.15	333.4
MEAN	677	33.7	36.8	46.5	56.3	28.1	22.3	16.8	3.79	.98	5.10	11.1
MAX	5,470	71	140	111	221	70	112	135	8.6	2.3	20	54
MIN	7.0	22	16	27	21	18	10	4.7	1.3	.08	.65	1.9
AC-FT	41,600	2,010	2,270	2,860	3,130	1,730	1,330	1,030	225	60	314	661

PEAK DISCHARGE (BASE, 2,200 CFS).--Oct. 12 (0730) 8,660 cfs (14.31 ft); Oct. 23 (1800) 8,920 cfs (14.35 ft).

08112500 Brazos River Authority's Canal A near Fulshear, Tex.

LOCATION.--Lat 29°38'28", long 95°53'06", Fort Bend County, on right bank of canal, 1.2 miles downstream from point of diversion, and 3.4 miles south of Fulshear.

PERIOD OF RECORD.--October 1930 to September 1954, October 1957 to current year. Records for water year 1931 incomplete, yearly estimate only published in WSP 1312. Published as Brazos Valley Irrigation Co.'s canal 1930-44 and as American Canal Co.'s canal 1944-54, 1957-66.

GAGE.--Duplex water-stage recorder and Parshall flume. Prior to Apr. 24, 1968, water-stage recorder at site 300 ft downstream at different datum.

AVERAGE DISCHARGE.--38 years, 91.0 cfs (65,930 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 466 cfs May 22, 23, Aug. 1, 1954; no flow for several months in each year.

REMARKS.--Records good. Station is above all diversions from canal. Flow controlled by pumping plant located on left bank of Brazos River 21.7 miles upstream from Richmond. Figures of discharge represent water pumped from river for irrigation in the vicinity of Sugarland.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	0				0	204	189	170	182	50	1.0
2	142	50				0	235	189	250	160	1.0	0
3	142	99				59	227	189	250	159	0	0
4	142	98				88	197	197	242	197	0	0
5	142	98				89	227	189	242	235	0	0
6	142	75				90	204	153	362	189	0	0
7	42	0				89	161	143	242	189	0	0
8	0	0				39	161	157	235	189	0	0
9	0	0				47	170	115	212	161	0	0
10	0	0				86	156	134	171	161	0	0
11	0	0				91	155	85	197	128	0	0
12	0	0				93	155	1.0	204	90	0	0
13	0	0				129	153	47	235	90	0	0
14	0	0				171	120	96	235	90	0	0
15	0	0				171	152	95	189	90	0	0
16	0	0				182	158	92	204	90	0	0
17	0	0				143	0	95	235	84	0	0
18	0	0				143	0	113	227	128	0	0
19	0	0				156	0	204	182	119	0	0
20	0	0				156	0	170	123	90	44	0
21	58	0				142	0	159	35	86	50	0
22	72	0				85	44	157	51	91	50	0
23	0	0				77	95	156	87	84	49	0
24	0	0				83	152	95	84	91	51	0
25	0	0				67	151	36	89	31	51	0
26	0	0				95	143	92	130	50	66	0
27	0	0				193	175	93	160	56	50	0
28	0	0				156	197	93	160	56	50	0
29	0	0			------	155	275	117	160	56	50	0
30	0	0			------	212	189	107	197	62	56	44
31	0	------			------	219	------	106	------	32	47	------
TOTAL	1,019	420	0	0	0	3,506	4,256	3,864.0	5,560	3,516	665.0	45.0
MEAN	32.9	14.0	0	0	0	113	142	125	185	113	21.5	1.50
MAX	142	99	0	0	0	219	275	204	362	235	66	44
MIN	0	0	0	0	0	0	0	1.0	35	31	0	0
AC-FT	2,020	833	0	0	0	6,950	8,440	7,660	11,030	6,970	1,320	89

CAL YR 1970 TOTAL 25,471.00 MEAN 69.8 MAX 413 MIN 0 AC-FT 50,520
WTR YR 1971 TOTAL 22,851.00 MEAN 62.6 MAX 362 MIN 0 AC-FT 45,320

08113500 Richmond Irrigation Co.'s Canal near Richmond, Tex.

LOCATION (revised).--Lat 29°34'00", long 95°47'00", Fort Bend County, on right downstream wingwall of first bridge downstream from pump plant, about 0.5 mile upstream from previous gage, 1.2 miles downstream from pump plant, and 1.7 miles southwest of Richmond.

PERIOD OF RECORD.--October 1927 to September 1954, March 1956 to current year. Records for water years 1928-31, 1955-56 incomplete, yearly estimates only published in WSP 1312 and 1732.

GAGE.--Water-stage recorder. Altitude of gage is 90 ft (from topographic map).

AVERAGE DISCHARGE.--44 years, 42.9 cfs (31,080 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 267 cfs Nov. 15, 28, 1957; no flow for several months each year.

REMARKS.--Records good. Water for irrigation is diverted by pumping from right bank of Brazos River 6 miles upstream from Richmond. Figures of discharge represent water pumped from river.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160					0	90	177	178	183	0	78
2	150					0	91	177	173	185	45	77
3	90					0	93	164	179	184	47	77
4	90					0	91	115	184	188	0	79
5	70					0	94	171	186	188	0	79
6	0					0	97	169	191	184	0	78
7	0					0	98	172	189	185	0	79
8	0					0	98	172	187	184	0	78
9	0					49	94	174	184	185	0	55
10	0					91	101	174	183	183	0	0
11	0					93	101	117	185	186	0	0
12	0					96	101	0	181	188	0	0
13	0					100	99	0	184	161	0	0
14	0					100	100	0	183	1.0	0	0
15	0					95	98	0	183	24	0	0
16	0					95	95	7.7	185	86	0	0
17	0					93	2.5	166	188	95	0	0
18	0					96	0	202	189	115	23	0
19	0					93	35	195	182	103	78	0
20	0					92	138	195	188	99	78	0
21	0					93	175	198	190	92	77	0
22	0					90	180	194	192	145	75	0
23	0					90	183	189	88	189	76	0
24	0					89	123	185	57	189	79	0
25	0					96	104	184	182	188	73	0
26	0					97	151	186	183	190	1.0	0
27	0					94	183	184	184	189	0	0
28	0					97	182	148	175	192	0	0
29	0				------	98	177	0	182	193	19	0
30	0				------	94	174	31	183	63	75	0
31	0	------			------	92	------	176	------	0	80	------
TOTAL	560	0	0	0	0	2,123	3,348.5	4,222.7	5,298	4,537.0	826.0	680
MEAN	18.1	0	0	0	0	68.5	112	136	177	146	26.6	22.7
MAX	160	0	0	0	0	100	183	202	192	193	80	79
MIN	0	0	0	0	0	0	0	0	57	0	0	0
AC-FT	1,110	0	0	0	0	4,210	6,640	8,380	10,510	9,000	1,640	1,350

CAL YR 1970 TOTAL 18,443.00 MEAN 50.5 MAX 238 MIN 0 AC-FT 36,580
WTR YR 1971 TOTAL 21,595.20 MEAN 59.2 MAX 202 MIN 0 AC-FT 42,830

08114000 Brazos River at Richmond, Tex.

LOCATION.--Lat 29°34'56", long 95°45'27", Fort Bend County, on right bank at downstream side of downstream bridge on U.S. Highway 59 in Richmond, 925 ft downstream from Texas and New Orleans Railroad Co. bridge, and at mile 92.0.

DRAINAGE AREA.--44,020 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--January 1903 to June 1906 and October 1922 to current year. Published as "at Rosenberg" October 1922 to September 1931 and equivalent except for diversion by Richmond Irrigation Co.'s canal. June to November 1901 and June to September 1902 in U.S. Department of Agriculture, Office of Experiment Stations, Bulletin Nos. 119 and 133. Gage-height records collected in this vicinity since 1914 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 40.94 ft above mean sea level. Prior to Oct. 1, 1922, various types of nonrecording gages at railroad bridge 925 ft upstream at different datums. Oct. 1, 1922, to Sept. 30, nonrecording chain gage at Rosenberg 7.6 miles upstream at datum about 4 ft higher.

AVERAGE DISCHARGE.--51 years (1903-5, 1922-71), 7,242 cfs (5,247,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,100 cfs Oct. 25 (gage height, 12.76 ft); minimum daily, 330 cfs Mar. 21.
Period of record: Maximum discharge, 123,000 cfs June 6, 1929 (gage height, 40.6 ft, from floodmarks), present site and datum; minimum daily, 35 cfs Aug. 23, 1934.
Maximum stage since at least 1852, 48.2 ft Dec. 10, 1913, present datum, from floodmarks on right bank 1,000 ft upstream from gage. From information by Southern Pacific Railroad, stages of other floods at railroad bridge, present datum, are as follows: May 1884, 43.7 ft; June 13, 1885, 44.7 ft; July 1899, 45.6 ft; May 2, 1915, 43.3 ft; May 9, 1922, 40.9 ft.

REMARKS.--Records good. Considerable water diverted above station for irrigation and municipal supply (see stations 08112500 and 08113500). For statement regarding regulation by reservoirs and by Soil Conservation Service floodwater-retarding structures, see Brazos River at Washington (station 08110200) and Brazos River near Hempstead (station 08111500). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1392: 1933. WSP 1442: Drainage area. WSP 1632: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,420	4,490	957	893	783	1,230	687	634	769	746	3,000	1,270
2	4,200	4,300	1,360	1,030	751	1,420	676	690	700	715	3,030	1,440
3	3,300	4,320	1,320	995	735	1,710	661	686	1,110	706	4,310	1,350
4	3,090	3,670	1,180	896	719	1,510	673	698	1,070	689	6,520	1,140
5	3,230	3,090	1,060	859	715	1,350	627	629	1,350	614	6,550	1,050
6	3,420	2,820	980	810	733	1,220	541	686	2,170	623	5,330	993
7	3,510	2,480	920	786	884	1,140	507	891	1,670	673	4,010	937
8	3,620	2,070	877	773	897	1,110	494	889	1,140	642	3,300	972
9	3,530	1,760	850	764	896	1,120	426	848	840	609	3,060	1,160
10	3,410	1,530	825	742	751	972	452	807	700	599	3,610	2,770
11	3,970	1,540	803	729	676	878	454	758	625	630	3,650	5,390
12	9,390	1,340	796	732	634	728	449	1,100	574	691	3,240	4,520
13	14,600	1,200	791	873	628	618	446	3,500	528	638	2,780	3,660
14	9,600	1,140	783	1,720	617	497	445	5,870	540	699	2,290	3,050
15	5,330	1,100	774	2,220	611	436	482	5,340	638	678	1,980	2,730
16	3,530	1,080	757	2,060	605	420	457	4,950	907	610	1,790	2,510
17	2,720	1,020	755	1,710	599	404	751	3,870	839	607	1,680	2,060
18	2,320	991	753	1,710	592	400	844	2,990	785	605	1,590	1,620
19	2,220	1,010	765	1,960	592	359	843	2,400	744	523	1,480	2,340
20	2,080	1,040	775	1,740	596	347	928	1,900	774	549	1,520	2,770
21	2,000	1,030	811	1,430	586	330	1,300	1,620	801	570	1,490	2,350
22	2,040	993	857	1,250	587	368	1,570	1,410	901	560	1,400	1,720
23	2,310	974	871	1,120	586	392	2,500	952	878	493	1,320	1,450
24	14,400	1,010	914	1,050	578	408	3,060	776	930	489	1,270	1,290
25	19,100	992	929	981	600	604	2,710	1,060	759	519	1,270	1,130
26	15,600	968	875	919	753	717	1,930	992	730	620	1,380	980
27	11,800	954	847	866	840	695	1,250	891	712	584	1,360	1,010
28	9,670	935	822	860	1,110	658	945	874	747	669	1,380	1,280
29	8,660	905	806	909	------	684	693	976	800	870	1,330	1,140
30	7,230	886	830	883	------	707	628	880	801	1,270	1,190	971
31	5,590	------	830	828	------	666	------	743	------	2,760	1,140	------
TOTAL	189,890	51,638	27,473	35,098	19,654	24,098	28,429	51,310	26,532	22,250	79,250	57,053
MEAN	6,125	1,721	886	1,132	702	777	948	1,655	884	718	2,556	1,902
MAX	19,100	4,490	1,360	2,220	1,110	1,710	3,060	5,870	2,170	2,760	6,550	5,390
MIN	2,000	886	753	729	578	330	426	629	528	489	1,140	937
AC-FT	376,600	102,400	54,490	69,620	38,980	47,800	56,390	101,800	52,630	44,130	157,200	113,200

CAL YR 1970 TOTAL 2,375,473 MEAN 6,508 MAX 47,000 MIN 753 AC-FT 4,712,000
WTR YR 1971 TOTAL 612,675 MEAN 1,679 MAX 19,100 MIN 330 AC-FT 1,215,000

08115000 Big Creek near Needville, Tex.

LOCATION.--Lat 29°28'35", long 95°48'45", Fort Bend County, near center of stream at downstream side of bridge on State Highway 36, 1.5 miles downstream from Coon Creek, 5.5 miles north of Needville, and 10.5 miles upstream from Fairchild Creek.

DRAINAGE AREA.--42.3 sq mi.

PERIOD OF RECORD.--May 1947 to June 1950, March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 59.39 ft above mean sea level, unadjusted for land-surface subsidence. Prior to June 30, 1950, and May 29, 1959, to Mar. 29, 1960, nonrecording gage at 10 ft higher datum. March 1952 to May 28, 1959, and Mar. 30, 1960, to Sept. 30, 1967, water-stage recorder at 10 ft higher datum.

AVERAGE DISCHARGE.--21 years (1947-49, 1952-71), 30.2 cfs (21,880 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,600 cfs Oct. 12 (gage height, 22.06 ft); no flow for many days.
Period of record: Maximum discharge, 10,400 cfs June 26, 1960 (gage height, 23.81 ft); maximum gage height, 24.03 ft Oct. 31, 1959; no flow at times.
Maximum stage since 1913, 24.4 ft in August 1945 before channel rectification, from information by local resident.

REMARKS.--Records fair except those below 10 cfs, which are poor. Channel rectification was completed in April 1955. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1148: 1947. WSP 1712: 1957-58, 1959(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	5.0	0	.20	.13	.41	3.4	1.1	1.7	1.2	4.0	.69
2	.41	30	0	.15	.17	.43	2.4	.58	3.2	1.0	2.2	80
3	.30	6.6	0	.18	.22	.29	1.6	.46	1.2	.90	8.4	102
4	.20	1.3	0	.18	.29	.17	1.0	2.1	.43	1.0	786	77
5	.37	.59	0	.18	.28	.15	1.2	2.1	.24	.97	308	30
6	2.0	.32	0	.18	2.8	.18	.59	1.8	.26	2.0	583	27
7	.94	.21	0	.13	2.3	.06	1.4	1.7	.46	5.2	245	8.8
8	.60	.16	0	.20	.34	.09	3.5	1.4	.73	3.5	142	2.1
9	.44	9.5	.18	.22	.20	.11	3.5	1.6	1.5	4.4	144	1.0
10	.60	.61	.18	.22	.15	.12	1.9	1.8	1.5	3.8	80	2,250
11	875	.14	.20	.18	.23	.13	.58	6.9	1.4	2.8	41	2,190
12	3,130	.08	.22	.13	.24	.12	.48	3.3	1.3	2.8	24	368
13	599	.08	.13	.25	.20	.12	1.4	3.3	1.1	2.6	14	132
14	199	.08	.18	.18	.10	.06	.54	2.4	.85	1.4	6.8	73
15	93	.10	.19	.18	.23	.07	.30	1.8	.70	1.2	3.2	60
16	56	.05	.19	.18	.17	.01	7.3	1.3	.77	1.6	1.6	107
17	36	.02	.19	.20	.19	.21	60	1.1	.82	1.5	1.2	59
18	26	0	.20	.18	.19	.14	12	.85	.81	1.6	1.1	34
19	16	.03	.18	.18	.21	.18	2.9	.93	6.7	3.2	.89	1,150
20	11	.02	.18	.18	.22	.18	2.3	.97	4.5	5.2	.80	326
21	6.7	0	.20	.18	.11	.06	1.8	1.1	4.7	4.1	.78	131
22	3.8	0	.20	.18	.05	.10	1.4	.85	8.2	5.2	.80	71
23	24	0	.20	.18	.09	.12	1.2	.64	5.9	3.3	.80	58
24	57	0	.18	.20	.13	.12	.89	1.2	4.5	2.9	.80	44
25	13	0	.13	.22	.62	.30	.67	6.5	2.9	4.8	29	32
26	3.8	0	.12	.20	50	.29	.55	9.2	1.4	4.4	115	32
27	48	0	.22	.18	5.9	.14	.55	6.8	1.6	2.2	23	15
28	161	0	.25	.15	.97	.10	.49	3.5	2.3	2.1	4.5	12
29	44	0	.20	.23	------	.05	.40	1.6	1.4	2.3	1.3	5.8
30	25	0	.20	.21	------	.07	.46	1.0	1.1	4.6	.86	3.3
31	12	------	.28	.19	------	.12	------	1.2	------	6.3	.70	------
TOTAL	5,445.73	54.89	4.40	5.80	66.73	4.70	116.70	71.08	64.17	90.07	2,574.73	7,481.69
MEAN	176	1.83	.14	.19	2.38	.15	3.89	2.29	2.14	2.91	83.1	249
MAX	3,130	30	.28	.25	50	.43	60	9.2	8.2	6.3	786	2,250
MIN	.20	0	0	.13	.05	.01	.30	.46	.24	.90	.70	.69
AC-FT	10,800	109	8.7	12	132	9.3	231	141	127	179	5,110	14,840

CAL YR 1970 TOTAL 11,748.09 MEAN 32.2 MAX 3,130 MIN 0 AC-FT 23,300
WTR YR 1971 TOTAL 15,980.69 MEAN 43.8 MAX 3,130 MIN 0 AC-FT 31,700

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-12	0530	22.06	3,600	8- 6	1500	17.28	1,320
8- 4	1600	18.45	1,700	9-10	1800	21.93	3,370
				9-19	0900	18.57	1,770

08116400 Dry Creek near Rosenberg, Tex.

LOCATION.--Lat 29°30'42", long 95°44'45", Fort Bend County, on right bank 38 ft downstream from county road bridge, 5.0 miles southeast of Rosenberg, and 8.2 miles upstream from Smither's Lake (Lake George) spillway.

DRAINAGE AREA.--8.53 sq mi. See REMARKS.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 71.90 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 10.7 cfs (7,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs Oct. 12 (gage height, 12.26 ft); no flow for many days.
Period of record: Maximum discharge, 2,410 cfs Oct. 31, 1959 (gage height, 12.66 ft); no flow for many days each year.
Highest flood since at least 1932, that of Oct. 31, 1959, from information by local residents.

REMARKS.--Records fair. Runoff given herein includes an unknown amount of irrigation return flow originally diverted from the Brazos River through the Richmond Irrigation Co.'s Canal (see station 08113500). Recording rain gage located in basin since January 1969.

REVISIONS (WATER YEARS).--WSP 1732: Drainage area. WSP 1922: 1959-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	1.5		0	0	.06	3.6	36	5.4	6.6	.10	3.6
2	22	.85		0	0	.04	3.1	36	4.2	6.2	.01	3.4
3	.66	.42		0	0	0	6.4	32	3.8	5.9	2.9	3.6
4	.21	.25		0	0	0	10	11	5.4	6.2	97	4.2
5	1.4	.13		0	0	0	9.2	41	5.9	6.6	21	5.2
6	5.8	.07		0	.08	0	5.2	52	6.2	7.2	26	6.2
7	4.7	.07		0	.10	0	1.6	54	4.4	7.2	12	6.2
8	.66	.07		0	0	0	2.1	54	3.1	17	5.2	5.4
9	.96	6.1		0	0	2.5	2.0	54	4.0	21	2.0	4.4
10	.42	1.6		0	0	10	3.4	52	3.8	14	.75	352
11	444	.50		0	0	13	4.4	46	3.4	13	.25	184
12	973	.25		0	0	6.9	2.9	6.2	3.6	12	.04	57
13	90	.25		0	0	15	1.1	4.0	2.7	11	.01	17
14	34	.50		0	0	20	1.3	3.1	2.7	5.4	0	10
15	15	.13		0	0	10	.66	1.5	4.2	4.4	0	6.2
16	5.9	.06		0	0	2.7	3.6	.66	4.6	6.2	0	4.2
17	3.6	.02		0	0	2.3	14	17	6.4	8.9	0	2.7
18	1.6	0		0	0	3.1	9.4	23	8.6	7.2	0	1.8
19	.75	0		0	0	3.8	22	14	12	5.2	.22	177
20	.36	0		0	0	3.1	131	11	11	4.4	3.3	35
21	.21	0		0	0	3.6	166	8.2	13	2.5	5.6	14
22	.10	0		0	0	4.2	150	7.2	13	74	4.4	8.9
23	.91	0		0	0	6.9	146	6.6	9.9	158	3.6	5.6
24	7.2	0		0	0	4.4	193	10	6.6	154	3.6	3.8
25	3.8	0		0	0	4.9	1.6	13	5.4	154	4.2	2.7
26	1.1	0		0	21	4.0	7.5	13	4.0	146	27	5.4
27	20	0		0	1.5	5.6	22	11	6.2	138	7.9	5.4
28	77	0		0	.96	6.2	29	11	11	138	4.2	2.7
29	22	0		0	------	5.9	36	8.9	8.9	134	2.7	1.3
30	6.9	0		0	------	3.4	37	8.2	7.2	69	2.9	.66
31	3.4	------		0	------	2.3	------	8.2	------	2.0	3.6	------
TOTAL	1,778.64	12.77	0	0	23.64	143.90	935.06	653.76	190.6	1,345.1	240.48	939.56
MEAN	57.4	.43	0	0	.84	4.64	31.2	21.1	6.35	43.4	7.76	31.3
MAX	973	6.1	0	0	21	20	166	54	13	158	97	352
MIN	.10	0	0	0	0	0	.66	.66	2.7	2.0	0	.66
AC-FT	3,530	25	0	0	47	285	1,850	1,300	378	2,670	477	1,860

CAL YR 1970 TOTAL 4,586.76 MEAN 12.6 MAX 973 MIN 0 AC-FT 9,100
WTR YR 1971 TOTAL 6,263.51 MEAN 17.2 MAX 973 MIN 0 AC-FT 12,420

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-12	about 0500	12.26	1,400
9-10	1330	9.69	678
9-19	0600	8.24	410

08116650 Brazos River near Rosharon, Tex.

LOCATION.--Lat 29°20'58", long 95°34'56", Fort Bend-Brazoria County line, on right bank at downstream side of bridge on Farm Road 1462, 2.0 miles downstream from Big Creek, 2.1 miles upstream from Cow Creek, and 7.3 miles west of Rosharon.

DRAINAGE AREA.--44,340 sq mi, approximately, of which 9,240 sq mi is probably noncontributing.

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level.

EXTREMES.--Current year: Maximum discharge, 25,600 cfs Oct. 13 (elevation, 28.42 ft); minimum daily, 67 cfs Apr. 14.
Period of record: Maximum discharge, 79,900 cfs May 14, 1968 (elevation, 50.74 ft); minimum daily, 40 cfs Apr. 7-10, 1967.
Maximum elevation since at least 1884, 56.4 ft about Dec. 11, 1913, from information by Texas Highway Department.

REMARKS.--Records good. Water diverted above station for irrigation, industrial, and municipal supply materially affect low flow. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Brazos River at Washington (station 08110200). Flow is partly regulated by 29 major upstream reservoirs having a combined capacity of 7,020,000 acre-ft (4,138,000 acre-ft for flood control). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,350	5,700	832	872	768	963	192	131	212	309	2,340	1,250
2	4,260	4,900	906	978	553	969	177	128	234	262	2,470	1,460
3	3,810	4,880	1,240	1,100	612	1,230	165	173	179	238	2,830	1,840
4	3,330	4,570	1,200	992	622	1,570	150	167	420	208	4,650	1,570
5	3,420	3,990	1,300	799	623	1,390	159	171	334	196	7,790	1,310
6	4,500	3,520	1,220	749	723	1,260	128	134	770	190	7,070	1,200
7	4,640	3,190	1,060	700	823	1,110	109	160	1,320	196	6,470	1,090
8	4,620	2,840	823	682	913	1,040	135	321	863	268	4,650	1,020
9	4,190	2,410	787	786	777	911	91	398	459	256	3,700	1,310
10	3,880	1,830	855	803	728	880	78	376	270	217	3,700	8,130
11	4,760	1,690	840	756	529	661	82	347	186	196	3,900	15,100
12	17,500	1,630	927	647	492	562	90	576	165	235	3,700	14,100
13	24,500	1,490	943	646	619	446	68	925	155	270	3,300	8,660
14	21,800	1,530	935	859	633	358	69	4,030	130	256	2,830	4,810
15	12,500	1,480	913	1,800	610	228	71	5,100	130	295	2,380	3,530
16	6,680	1,340	908	2,290	499	103	131	4,640	152	268	2,120	3,090
17	4,450	1,090	887	2,080	485	91	383	4,000	314	199	1,960	2,730
18	3,450	1,040	880	1,750	481	84	840	2,880	302	168	1,810	2,220
19	3,110	989	880	1,790	504	90	716	2,110	313	165	1,690	3,810
20	2,870	1,010	884	1,940	589	82	598	1,540	274	125	1,520	6,240
21	2,710	1,250	858	1,700	586	75	728	1,120	320	113	1,680	4,270
22	2,550	1,270	673	1,460	558	67	982	1,020	424	125	1,620	2,830
23	2,630	1,170	761	1,290	375	122	1,300	985	585	145	1,430	2,080
24	8,440	954	962	1,170	351	97	2,150	682	592	135	1,280	1,520
25	20,200	987	1,000	1,060	343	68	2,480	618	555	153	1,250	1,330
26	19,000	1,180	1,000	803	428	185	1,890	841	359	175	1,560	1,190
27	14,700	1,170	962	715	720	106	1,200	694	222	250	1,580	1,220
28	11,800	1,140	872	707	743	106	608	363	204	235	1,500	1,220
29	10,500	1,120	652	903	------	157	292	332	265	277	1,500	1,360
30	8,940	1,030	617	949	------	200	142	367	305	452	1,350	1,190
31	7,080	------	650	908	------	234	------	294	------	1,050	1,190	------
TOTAL	250,170	62,390	28,227	34,684	16,687	15,445	16,204	35,623	11,013	7,627	86,820	102,680
MEAN	8,070	2,080	911	1,119	596	498	540	1,149	367	246	2,801	3,423
MAX	24,500	5,700	1,300	2,290	913	1,570	2,480	5,100	1,320	1,050	7,790	15,100
MIN	2,550	954	617	646	343	67	68	128	130	113	1,190	1,020
AC-FT	496,200	123,800	55,990	68,800	33,100	30,640	32,140	70,660	21,840	15,130	172,200	203,700

CAL YR 1970 TOTAL 2,533,889 MEAN 6,942 MAX 51,700 MIN 571 AC-FT 5,026,000
WTR YR 1971 TOTAL 667,570 MEAN 1,829 MAX 24,500 MIN 67 AC-FT 1,324,000

08117500 San Bernard River near Boling, Tex.

LOCATION.--Lat 29°18'47", long 95°53'36", Wharton-Fort Bend County line, near left bank at downstream side of pile bent of bridge on Farm Road 442, 2.5 miles downstream from Snake Creek, and 4.5 miles northeast of Boling.

DRAINAGE AREA.--727 sq mi.

PERIOD OF RECORD.--May 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 30.81 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 440 cfs (318,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,540 cfs Oct. 13 (gage height, 31.76 ft); minimum daily, 7.8 cfs Mar. 30.
Period of record: Maximum discharge, 21,200 cfs June 28, 1960 (gage height, 42.41 ft); minimum daily, 2.4 cfs Nov. 27-30, 1956.
Maximum stage since at least 1900, 43.5 ft in 1913 (probably December). Flood in September 1938 reached a stage of 43.3 ft, from information by local resident.

REMARKS.--Records good. Part of low flow is drainage from areas irrigated with diversions from Colorado River. Diversions above station for irrigation and other uses.

REVISIONS (WATER YEARS).--WSP 1712: 1958. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	818	24	20	11	25	8.9	33	103	176	139	210
2	212	566	24	20	9.9	20	17	37	76	164	168	360
3	200	402	24	19	10	17	16	29	60	143	165	483
4	207	306	23	18	11	16	14	26	51	119	277	620
5	351	218	22	16	12	15	14	25	48	106	636	569
6	764	160	22	15	12	15	21	28	43	93	830	506
7	503	122	22	15	55	14	13	34	41	89	1,640	467
8	502	94	22	15	91	13	25	45	37	89	1,370	390
9	490	76	22	15	164	13	30	47	42	93	1,320	319
10	418	66	21	15	130	13	31	52	44	112	1,740	2,120
11	1,790	61	20	14	112	12	25	61	43	135	1,450	7,030
12	8,030	62	18	14	91	12	42	75	43	164	1,010	8,590
13	8,980	59	18	14	66	12	53	72	48	216	662	8,000
14	7,740	52	17	14	49	12	56	90	46	245	443	7,760
15	7,320	45	17	13	38	11	69	93	41	251	311	7,020
16	6,340	42	18	13	30	10	68	86	48	237	215	6,120
17	5,240	44	16	13	26	9.8	93	77	50	228	152	5,150
18	4,310	44	16	12	22	9.8	182	72	50	221	106	4,200
19	3,520	44	15	12	20	10	394	60	51	219	77	5,060
20	2,560	40	16	11	19	12	297	43	82	208	58	4,890
21	1,320	36	16	11	18	11	154	32	141	177	52	3,360
22	746	33	16	11	16	11	120	30	175	176	47	2,530
23	889	30	16	11	15	11	100	35	316	160	62	2,180
24	2,050	27	16	16	14	9.6	75	44	297	151	77	1,710
25	1,950	26	16	15	13	9.0	56	68	228	136	80	1,390
26	4,040	25	17	13	55	9.7	43	370	178	143	91	1,210
27	4,360	25	18	12	75	8.9	33	818	150	144	223	826
28	3,570	25	19	12	38	8.8	27	741	137	143	441	662
29	2,560	26	23	12	------	8.3	24	382	152	175	376	553
30	1,570	25	24	11	------	7.8	24	221	178	185	281	451
31	1,120	------	22	11	------	8.2	------	152	------	156	219	------
TOTAL	83,891	3,599	600	433	1,222.9	374.9	2,124.9	3,978	2,999	5,054	14,718	84,736
MEAN	2,706	120	19.4	14.0	43.7	12.1	70.8	128	100	163	475	2,825
MAX	8,980	818	24	20	164	25	394	818	316	251	1,740	8,590
MIN	200	25	15	11	9.9	7.8	8.9	25	37	89	47	210
AC-FT	166,400	7,140	1,190	859	2,430	744	4,210	7,890	5,950	10,020	29,190	168,100

CAL YR 1970 TOTAL 95,640.0 MEAN 262 MAX 8,980 MIN 15 AC-FT 189,700
WTR YR 1971 TOTAL 203,730.7 MEAN 558 MAX 8,980 MIN 7.8 AC-FT 404,100

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-13	0100	31.76	9,540	9-12	0800	30.77	8,760
10-27	0200	23.04	4,540	9-19	2100	25.56	5,780

08117900 Big Boggy Creek near Wadsworth, Tex.

LOCATION.--Lat 28°48'46", long 95°57'02", Matagorda County, on right bank at downstream end of bridge on Farm Road 521, 1.3 miles upstream from State Highway 60, 2.0 miles southwest of Wadsworth, and 13.1 miles upstream from mouth (Big Boggy Cut).

DRAINAGE AREA.--10.3 sq mi.

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.36 ft above mean sea level.

EXTREMES.--June to September 1970: Maximum discharge during period, 210 cfs Sept. 2 (gage height, 8.70 ft); minimum, 0.49 cfs Aug. 1-3.
Water year 1971: Maximum discharge, 436 cfs Oct. 11 (gage height, 10.18 ft); no flow Nov. 26 to Feb. 25, Mar. 9-18.
Period of record: Maximum discharge, 436 cfs Oct. 11, 1970 (gage height, 10.18 ft); no flow Nov. 26, 1970, to Feb. 25, 1971, Mar. 9-18, 1971.
Maximum stages since 1901, 11.4 ft May 31, 1970, and 10.9 ft in September 1961, from information by local residents.

REMARKS.--Records good above 20 cfs and fair below. No known diversions above station. An undetermined amount of water from irrigated ricefields enters stream upstream at various points. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									-	5.3	.50	140
2									-	5.1	.49	196
3									-	4.4	12	125
4									-	3.8	13	63
5									-	3.6	4.3	36
6									-	4.1	3.1	23
7									-	4.2	2.5	15
8									-	4.2	2.3	11
9									-	4.2	2.2	5.4
10									-	4.6	1.9	3.3
11									-	4.3	1.7	2.3
12									-	4.0	2.1	31
13									-	10	2.7	93
14									-	16	3.3	40
15									-	18	3.3	20
16									-	16	3.2	13
17									-	11	3.2	7.8
18									2.5	6.8	2.9	4.7
19									2.8	4.8	3.1	3.6
20									2.5	3.5	3.3	5.6
21									2.1	3.7	2.9	9.5
22									3.1	4.0	2.5	5.4
23									3.8	5.0	2.2	10
24									23	10	3.0	15
25									39	20	3.5	43
26									30	17	3.8	65
27									24	6.5	4.4	27
28									19	3.8	4.6	15
29					------				14	2.8	4.4	9.4
30					------				10	2.0	4.6	5.0
31		------			------		------		------	.77	15	------
TOTAL									-	213.47	121.99	1,043.0
MEAN									-	6.89	3.94	34.8
MAX									-	20	15	196
MIN									-	.77	.49	2.3
AC-FT									-	423	242	2,070

08117900 Big Boggy Creek near Wadsworth, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	1.7			0	.31	.69	4.2	5.4	4.3	2.9	9.5
2	3.1	1.4			0	.32	1.7	4.8	5.4	4.7	3.6	9.5
3	2.6	.50			0	.25	2.8	5.1	5.6	5.7	6.3	9.7
4	2.3	.39			0	.17	4.4	5.2	5.6	6.4	30	10
5	3.1	.32			0	.12	7.9	4.8	5.6	6.4	56	12
6	5.9	.29			0	.10	6.7	3.3	5.1	6.4	118	12
7	8.0	.29			0	.04	3.2	2.6	5.0	21	69	14
8	5.6	.26			0	.04	2.1	2.3	4.7	23	34	13
9	4.4	.23			0	0	1.9	2.8	4.6	8.3	17	13
10	3.8	.24			0	0	2.5	3.3	3.5	5.8	7.8	54
11	282	.21			0	0	2.9	8.9	3.4	4.5	2.8	318
12	376	.19			0	0	3.4	21	2.8	4.3	1.3	257
13	179	.20			0	0	4.1	14	2.4	3.0	1.0	132
14	72	.21			0	0	2.8	7.3	2.0	2.4	1.3	52
15	45	.14			0	0	3.8	6.0	1.9	4.6	1.9	38
16	31	.14			0	0	3.8	5.2	2.0	2.5	2.6	39
17	20	.14			0	0	12	4.4	1.8	2.0	4.4	23
18	10	.14			0	0	5.9	3.8	2.5	1.5	4.6	23
19	5.0	.14			0	.52	3.3	4.5	4.6	1.0	5.1	182
20	3.8	.14			0	1.8	2.8	5.2	6.4	1.0	7.4	106
21	3.1	.14			0	3.2	2.8	6.3	7.7	1.0	9.7	57
22	2.6	.12			0	2.2	1.5	5.8	7.1	2.0	12	34
23	3.2	.12			0	4.9	.49	5.6	6.0	2.7	12	21
24	7.2	.03			0	6.0	.69	5.6	5.2	3.8	9.9	13
25	3.8	.02			0	5.3	.29	6.0	4.8	4.1	8.0	8.6
26	2.8	0			3.1	5.5	1.7	5.7	5.2	4.7	7.5	6.0
27	2.7	0			1.8	4.2	1.9	5.8	5.5	2.0	23	4.4
28	9.7	0			.46	3.1	4.0	5.8	5.3	1.5	30	6.8
29	5.4	0			------	2.9	3.8	5.6	5.1	1.0	22	8.2
30	3.5	0			------	2.7	3.5	6.1	4.9	1.5	15	5.5
31	2.6	------			------	1.5	------	6.0	------	2.0	11	------
TOTAL	1,113.0	7.70	0	0	5.36	45.17	99.36	183.0	137.1	145.1	537.1	1,491.2
MEAN	35.9	.26	0	0	.19	1.46	3.31	5.90	4.57	4.68	17.3	49.7
MAX	376	1.7	0	0	3.1	6.0	12	21	7.7	23	118	318
MIN	2.3	0	0	0	0	0	.29	2.3	1.8	1.0	1.0	4.4
AC-FT	2,210	15	0	0	11	90	197	363	272	288	1,070	2,960

CAL YR 1970	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-
WTR YR 1971	TOTAL	3,764.09	MEAN	10.3	MAX	376	MIN	0	AC-FT	7,470

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-11	1900	10.18	436
9-11	2000	10.08	416
9-19	0900	8.73	214

08118000 Lake J. B. Thomas near Vincent, Tex.

LOCATION.--Lat 32°35'09", long 101°12'18", Borden County, at Big Spring pump station on south side of lake, 4.0 miles upstream from dam on Colorado River, 7.3 miles north of Vincent, 12.5 miles west of Ira, and at mile 841.0.

DRAINAGE AREA.--3,524 sq mi, of which 2,590 sq mi is probably noncontributing. Drainage area includes 426 sq mi above Bull Creek diversion dam, of which 32 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Nov. 4, 1953, to Feb. 7, 1955, Colorado River Municipal Water District nonrecording gage located 4.0 miles downstream at same datum.

EXTREMES.--Current year: Maximum contents, 70,160 acre-ft Sept. 28, 29 (elevation, 2,234.53 ft); minimum, 4,960 acre-ft May 28 (elevation, 2,206.43 ft).
Period of record: Maximum contents, 218,600 acre-ft Sept. 8, 1962 (elevation, 2,259.85 ft); minimum since first appreciable storage, 4,960 acre-ft May 28, 1971 (elevation, 2,206.43 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam, 14,500 ft long; storage began in July 1952; dam completed in September 1952. No appreciable storage prior to July 1953. Dam built by Colorado River Municipal Water District to impound water for municipal and industrial use for the cities of Big Spring, Odessa, and Snyder. A diversion dam on Bull Creek and a 213,000-foot-long gravity canal divert Bull Creek water to Lake J. B. Thomas, diversion of water began in November 1953. The service spillway is a rectangular reinforced concrete 38- by 53-foot structure at top and decreasing to two 14- by 14-foot uncontrolled openings designed to discharge a total of 10,000 cfs at a head of 17 ft. Two emergency spillways, one 500-foot wide located at left end of dam and one 1,600-foot wide located at right end of dam, are designed to discharge 161,000 cfs at elevation 2,275.0 ft (maximum design level). Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	2,280.0	-
Crest of south emergency spillway	2,267.0	283,600
Crest of north emergency spillway	2,264.0	255,000
Crest of service spillway (top of conservation storage)	2,258.0	203,600
Invert of intake to service outlet	2,200.0	1,300

COOPERATION.--Capacity curve, based on surveys made in 1948 and 1950. Record of diversion and daily lake elevations, from Oct. 1 to Aug. 13, furnished by Colorado River Municipal Water District.

Capacity table (elevation, in feet, and total contents, in acre-feet)

2,206.0	4,560	2,220.0	26,640
2,210.0	8,860	2,230.0	54,190
2,215.0	16,510	2,235.0	71,950

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,610	15,450	14,140	12,600	10,930	9,550	7,880	6,350	11,960	12,000	13,960	62,850
2	17,570	15,450	14,100	12,570	10,880	9,510	7,800	6,300	11,940	11,940	15,300	62,740
3	17,530	15,420	14,050	12,510	10,790	9,450	7,750	6,240	11,910	11,880	15,850	62,630
4	17,460	15,230	14,000	12,480	10,760	9,390	7,670	6,170	11,860	11,820	15,850	62,560
5	17,410	15,140	13,960	12,450	10,750	9,300	7,600	6,100	11,800	11,770	15,840	62,490
6	17,330	15,110	13,900	12,400	10,690	9,260	7,540	6,050	11,760	11,700	15,710	62,420
7	17,240	15,070	13,870	12,350	10,630	9,210	7,490	5,970	11,710	11,620	15,780	62,310
8	17,130	15,020	13,800	12,260	10,590	9,180	7,440	6,040	11,640	11,530	15,780	62,210
9	17,040	14,970	13,750	12,190	10,550	9,130	7,390	5,940	11,560	11,430	16,340	62,070
10	16,950	14,920	13,700	12,160	10,500	9,060	7,350	5,860	11,490	11,310	20,880	61,960
11	16,840	14,870	13,660	12,140	10,460	8,890	7,310	5,820	11,420	11,230	21,240	61,780
12	16,730	14,810	13,620	12,120	10,430	8,930	7,250	5,790	11,360	11,160	21,790	61,640
13	16,670	14,750	13,590	12,080	10,380	8,890	7,180	5,750	11,290	11,110	22,120	61,500
14	16,640	14,680	13,540	12,000	10,330	8,850	7,110	5,720	11,250	11,020	24,860	61,360
15	16,750	14,620	13,490	11,960	10,260	8,820	7,050	5,650	11,210	10,960	35,910	61,250
16	16,640	14,550	13,430	11,900	10,220	8,790	7,060	5,570	11,160	10,890	40,030	61,140
17	16,530	14,500	13,360	11,820	10,140	8,700	7,110	5,510	11,120	10,830	41,010	61,110
18	16,420	14,470	13,280	11,760	10,080	8,610	7,060	5,430	11,060	10,780	41,210	61,280
19	16,340	14,440	13,220	11,680	10,040	8,580	7,030	5,360	11,030	10,720	41,230	61,570
20	16,290	14,420	13,130	11,620	9,980	8,530	7,000	5,300	11,010	10,680	41,210	61,680
21	16,200	14,410	13,090	11,580	9,880	8,470	6,930	5,240	11,620	10,620	41,180	61,640
22	16,110	14,390	13,040	11,530	9,840	8,420	6,860	5,160	12,260	10,550	41,150	61,600
23	16,080	14,370	13,000	11,480	9,800	8,380	6,790	5,120	12,610	11,210	41,430	62,390
24	16,010	14,360	12,980	11,390	9,780	8,310	6,750	5,080	12,690	11,520	47,380	64,660
25	15,940	14,340	12,980	11,320	9,740	8,260	6,690	5,050	12,480	11,490	55,750	68,080
26	15,870	14,320	12,920	11,260	9,700	8,180	6,640	5,010	12,320	11,450	62,210	69,670
27	16,030	14,290	12,870	11,220	9,660	8,150	6,590	4,970	12,230	11,390	62,670	70,090
28	15,900	14,260	12,780	11,180	9,580	8,120	6,530	5,070	12,170	11,450	62,880	70,160
29	15,800	14,210	12,740	11,120	------	8,100	6,460	7,180	12,120	11,450	63,060	70,160
30	15,680	14,180	12,690	11,060	------	8,040	6,410	11,590	12,080	11,850	62,990	70,090
31	15,580	------	12,650	11,010	------	7,940	------	12,000	------	12,510	62,920	------
(†)	2,214.46	2,213.63	2,212.67	2,211.57	2,210.54	2,209.25	2,207.91	2,212.25	2,212.30	2,212.58	2,232.56	2,234.51
(*)	-2,100	-1,400	-1,530	-1,640	-1,430	-1,640	-1,530	+5,590	+80	+430	+50,410	+7,170
(††)	1,540	1,110	1,130	1,320	860	826	842	829	811	719	611	1,350
MAX	17,610	15,450	14,140	12,600	10,930	9,550	7,880	12,000	12,690	12,510	63,060	70,160
MIN	15,580	14,180	12,650	11,010	9,580	7,940	6,410	4,970	11,010	10,550	13,960	61,110

CAL YR 1970..... * -28,250 †† 24,280 MAX 40,790 MIN 12,650
WTR YR 1971..... * +52,410 †† 11,950 MAX 70,160 MIN 4,970

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal, industrial, and mining use.

08119500 Colorado River near Ira, Tex.

LOCATION.--Lat 32°32'18", long 101°03'12", Scurry County, on right bank 530 ft downstream from bridge on State Highway 350, 3.8 miles downstream from Bluff Creek, 4 miles upstream from Willow Creek, 4.5 miles southwest of Ira, and at mile 826.3.

DRAINAGE AREA.--3,617 sq mi, of which 2,590 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1947 to September 1952 (monthly records only 1950-52), October 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,134.15 ft above mean sea level. Oct. 1-30, 1947, nonrecording gage at site 75 ft upstream at same datum.

AVERAGE DISCHARGE.--18 years, 22.8 cfs (16,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,010 cfs Aug. 24 (gage height, 13.38 ft); no flow at times.
Period of record: Maximum discharge, 20,500 cfs July 6, 1948 (gage height, 21.35 ft), from rating curve extended above 9,600 cfs by conveyance-slope method; no flow at times.
Flood of June 16, 1913 (gage height, 32 ft), was the greatest since at least that date, from information by local resident.
Flood in May 1947 reached a stage of 25.1 ft, from floodmark at site of former bridge 269 ft upstream from gage.

REMARKS.--Records good. Since July 1952 flow largely regulated by Lake J. B. Thomas (station 08118000) 11 miles upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.18	.30	.44	.30	.30	.22	.06	2.1	.02	392	2.4
2	.26	.13	.26	.34	.26	.26	.13	.05	1.0	.01	43	2.1
3	.30	.13	.30	.39	.30	.25	.11	.05	.52	0	7.8	1.4
4	.30	.13	.26	.30	.31	.26	.21	.03	.39	0	2.7	1.0
5	.26	.14	.26	.23	.30	.30	.14	.02	.26	0	1.2	.88
6	.23	.16	.23	.26	.30	.34	.14	0	.26	0	.62	.74
7	.14	.18	.23	.26	.30	.30	.08	0	.23	0	15	.52
8	.28	.18	.30	.26	.34	.26	.11	20	.16	0	66	.52
9	.48	.18	.30	.30	.34	.30	.14	16	.11	0	248	.52
10	.23	.16	.30	.30	.30	.26	.11	1.2	.10	0	517	.44
11	.23	.18	.26	.34	.34	.30	.09	.44	.08	0	22	.44
12	.18	.14	.26	.34	.30	.26	.07	.21	.06	0	78	.34
13	.14	.21	.26	.30	.26	.28	.18	.13	.04	0	91	.30
14	.16	.18	.26	.34	.30	.28	.09	.10	.02	0	37	.26
15	.14	.16	.23	.30	.26	.27	.08	.08	0	0	378	.26
16	.55	.18	.31	.26	.26	.26	.34	.07	0	0	102	.23
17	2.1	.21	.30	.34	.26	.15	1.6	.02	0	0	17	18
18	1.0	.16	.26	.34	.30	.25	1.2	.37	0	0	7.0	3.0
19	.44	.21	.26	.30	.41	.21	.44	.05	0	0	3.4	1.2
20	.34	.21	.26	.26	.44	.14	.26	.02	1.9	0	2.1	.74
21	.26	.23	.34	.39	.74	.23	.30	.01	34	0	1.2	.52
22	.23	.26	.34	.34	.74	.23	.21	0	13	0	.74	.52
23	.18	.18	.34	.30	.44	.23	.13	0	1.2	8.0	29	60
24	.16	.14	.26	.30	.39	.23	.11	0	.34	147	1,720	59
25	.16	.21	.30	.26	.34	.30	.13	0	.21	10	1,400	24
26	.16	.23	.26	.34	.34	.26	.11	0	.13	2.5	190	11
27	.14	.26	.26	.30	.34	.26	.08	0	.10	.44	30	5.2
28	.11	.23	.30	.30	.26	.34	.09	5.4	.08	.39	14	3.0
29	.13	.26	.30	.30	------	.26	.13	256	.06	75	7.8	1.8
30	.14	.26	.62	.30	------	.14	.05	31	.04	99	4.8	1.0
31	.16	------	.62	.34	------	.18	------	5.2	------	18	3.4	------
TOTAL	9.84	5.67	9.34	9.67	9.77	7.89	7.08	336.51	56.39	360.36	5,431.76	201.33
MEAN	.32	.19	.30	.31	.35	.25	.24	10.9	1.88	11.6	175	6.71
MAX	2.1	.26	.62	.44	.74	.34	1.6	256	34	147	1,720	60
MIN	.11	.13	.23	.23	.26	.14	.05	0	0	0	.62	.23
AC-FT	20	11	19	19	19	16	14	667	112	715	10,770	399

CAL YR 1970 TOTAL 232.47 MEAN .64 MAX 71 MIN 0 AC-FT 461
WTR YR 1971 TOTAL 6,445.61 MEAN 17.7 MAX 1,720 MIN 0 AC-FT 12,780

08120500 Deep Creek near Dunn, Tex.

LOCATION.--Lat 32°34'25", long 100°54'27", Scurry County, at center of downstream side of bridge on Farm Road 1606, 1.5 miles northwest of Dunn, 2.7 miles upstream from Sulphur Draw, and 8.6 miles upstream from mouth.

DRAINAGE AREA.--198 sq mi, of which 10 sq mi is probably noncontributing.

PERIOD OF RECORD.--April 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,172.17 ft above mean sea level. Prior to Apr. 21, 1955, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--18 years, 12.0 cfs (8,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,490 cfs Aug. 25 (gage height, 25.54 ft); no flow for many days.
Period of record: Maximum discharge, 12,900 cfs June 12, 1967 (gage height, 28.47 ft); no flow for many days each year.
Maximum discharge since at least 1881, 36,400 cfs June 19, 1939, by slope-area measurement at site 8.0 miles upstream from gage. Flood in 1892 reached about same stage as that of June 19, 1939, from information by local residents.

REMARKS.--Records good.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	2.0	0	248	13
2								0	.57	0	53	9.4
3								0	.22	0	6.1	7.9
4								0	.11	0	2.1	7.3
5								0	.03	0	.59	6.4
6								0	0	0	.35	5.6
7								0	0	0	6.4	5.2
8								.04	0	0	29	4.4
9								0	0	0	165	4.4
10								0	0	0	954	4.2
11								0	0	0	65	3.8
12								0	.23	0	826	3.6
13								0	.36	0	412	3.4
14								0	.08	0	114	3.4
15								0	0	0	1,090	3.3
16								0	0	0	699	3.1
17								0	0	0	77	92
18								0	0	0	37	39
19								0	0	0	18	10
20								0	0	0	10	5.8
21								0	224	0	7.6	4.4
22								0	101	0	6.2	5.3
23								0	16	29	6.9	152
24								0	1.4	6.3	1,120	156
25								0	.35	1.1	2,280	61
26								0	.18	.04	574	32
27								0	.10	0	79	19
28								58	.03	0	68	10
29					------			979	0	0	70	6.0
30					------			166	0	19	36	4.4
31		------			------		------	9.1	------	1.5	19	------
TOTAL	0	0	0	0	0	0	0	1,212.14	346.66	56.94	9,079.24	685.3
MEAN	0	0	0	0	0	0	0	39.1	11.6	1.84	293	22.8
MAX	0	0	0	0	0	0	0	979	224	29	2,280	156
MIN	0	0	0	0	0	0	0	0	0	0	.35	3.1
AC-FT	0	0	0	0	0	0	0	2,400	688	113	18,010	1,360

CAL YR 1970 TOTAL 270.63 MEAN .74 MAX 24 MIN 0 AC-FT 537
WTR YR 1971 TOTAL 11,380.28 MEAN 31.2 MAX 2,280 MIN 0 AC-FT 22,570

PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	1330	13.47	1,420	8-15	2330	18.86	2,500
8-10	0600	17.28	2,110	8-24	1300	19.42	2,660
8-12	2200	14.43	1,570	8-25	1300	25.54	5,490
				8-26	0730	16.08	1,810

08120700 Colorado River near Cuthbert, Tex.

LOCATION.--Lat 32°28'41", long 100°56'54", Mitchell County, on left bank at downstream side of bridge on Farm Road 1808, 4.0 miles downstream from Deep Creek, 4.8 miles east of Cuthbert, 8.0 miles northwest of Colorado City, and at mile 810.6.

DRAINAGE AREA.--4,028 sq mi, of which 2,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--March 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,073.49 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 34.4 cfs (24,920 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,540 cfs Aug. 25 (gage height, 21.93 ft); no flow May 24-27, July 6-22.
Period of record: Maximum discharge, 9,780 cfs June 13, 1967 (gage height, 21.56 ft); no flow at times.
Floods in 1941 and 1946 reached a stage of 36.1 ft from Texas Highway Department bridge plans.

REMARKS.--Records good. Flow partly regulated by Lake J. B. Thomas (station 08118000). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.31	1.2	.53	.59	.29	.11	14	.18	510	39
2	.08	.06	.29	1.2	.49	.53	.10	.09	7.8	.18	659	29
3	.10	.06	.35	1.2	.63	.30	.11	.09	5.0	.16	52	23
4	.05	.06	.35	.92	.60	.18	.24	.06	4.4	.06	16	20
5	.28	.06	.52	.72	.68	.22	.16	.01	3.1	.05	8.7	18
6	.15	.05	.37	.67	.76	.40	.18	0	2.1	0	5.9	16
7	.19	.06	.36	.67	.73	.24	.13	0	1.6	0	6.5	14
8	1.1	.06	.40	.56	.60	.13	.09	15	1.0	0	253	13
9	.55	.05	.42	.59	.72	.20	.20	133	.83	0	327	11
10	.31	.06	.44	.70	.78	.13	.18	14	.80	0	1,990	11
11	.13	.07	.48	.58	.85	.20	.11	4.5	1.1	0	478	12
12	.09	.07	.37	.63	.64	.12	.03	2.1	3.8	0	955	10
13	.06	.10	.47	.54	.68	.11	.22	1.3	2.0	0	1,470	10
14	.06	.14	.45	.79	.95	.13	.09	.93	1.4	0	447	10
15	.03	.11	.45	.72	.75	.15	.10	.76	1.1	0	1,060	9.6
16	.12	.08	.75	.57	.82	.12	.74	.58	.80	0	1,930	9.1
17	.32	.10	.49	.62	.74	.11	1.0	.39	.57	0	178	52
18	.32	.10	.57	.64	.59	.16	1.1	1.8	.57	0	67	81
19	1.0	.06	.53	.56	.94	.13	1.5	.47	.52	0	33	24
20	1.1	.13	.38	.46	.87	.11	1.5	.28	.57	0	19	13
21	.35	.11	.51	.62	1.0	.16	1.1	.13	339	0	13	8.9
22	.61	.19	.63	.58	1.1	.18	.68	.08	232	0	10	6.5
23	.58	.15	.75	.55	1.7	.14	.54	.05	50	.14	15	170
24	.39	.02	.58	.51	1.3	.17	.31	0	18	110	2,780	596
25	.31	.01	.64	.55	1.1	.19	.24	0	11	63	5,930	281
26	.25	.08	.58	.56	1.1	.17	.23	0	7.0	9.8	3,880	90
27	.22	.12	.60	.56	.73	.12	.20	0	4.4	4.3	404	47
28	.14	.17	.60	.56	.47	.22	.11	.25	2.7	2.1	150	30
29	.08	.17	.64	.55	------	.20	.16	1,050	1.4	52	123	21
30	.06	.25	1.1	.67	------	.16	.11	626	.18	35	83	15
31	.06	------	1.2	.75	------	.14	------	46	------	156	56	------
TOTAL	9.10	2.77	16.58	21.00	22.85	6.11	11.75	1,897.98	718.74	432.97	23,909.1	1,690.1
MEAN	.29	.092	.53	.68	.82	.20	.39	61.2	24.0	14.0	771	56.3
MAX	1.1	.25	1.2	1.2	1.7	.59	1.5	1,050	339	156	5,930	596
MIN	.01	.01	.29	.46	.47	.11	.03	0	.18	0	5.9	6.5
AC-FT	18	5.5	33	42	45	12	23	3,760	1,430	859	47,420	3,350

CAL YR 1970 TOTAL 972.50 MEAN 2.66 MAX 201 MIN 0 AC-FT 1,930
WTR YR 1971 TOTAL 28,739.05 MEAN 78.7 MAX 5,930 MIN 0 AC-FT 57,000

08121000 Colorado River at Colorado City, Tex.

LOCATION.--Lat 32°23'33", long 100°52'42", Mitchell County, on right bank at Colorado City, 3,517 ft upstream from bridge on State Highway 377, 4,100 ft upstream from The Texas and Pacific Railroad Co. bridge, 1.3 miles downstream from bridge on Interstate Highway 20 and U.S. Highway 80, 1.6 miles upstream from Lone Wolf Creek, and at mile 796.3.

DRAINAGE AREA.--4,082 sq mi, approximately, of which 2,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1923 to August 1925 (published as "at Colorado"), May 1946 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,030.16 ft above mean sea level. Nov. 28, 1923, to Aug. 31, 1925, nonrecording gage at site 1.4 miles downstream at different datum. May 9 to Aug. 5, 1946, nonrecording gage at site 185 ft upstream at present datum.

AVERAGE DISCHARGE.--25 years (1946-71), 51.4 cfs (37,240 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,570 cfs Aug. 26 (gage height, 21.29 ft); no flow at times.
Period of record: Maximum discharge, 24,900 cfs July 6, 1948 (gage height, 22.37 ft, from floodmark); no flow at times.
Maximum stage since at least 1910, 35.9 ft June 20, 1939, present site and datum, based on floodmarks 1,000 ft upstream and 3,740 ft downstream from gage (discharge, 66,000 cfs by slope-area measurement of peak flow at site 2.5 miles upstream from gage).

REMARKS.--Records good. Some regulation since 1952 by Lake J. B. Thomas (station 08118000). Numerous diversions from Lake J. B. Thomas for municipal use and oilfield operation. Record of diversion from river, 3 miles upstream from gage, furnished by Colorado River Municipal Water District. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1118: Drainage area. WSP 1512: 1946(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.01	.09	.09	.06	.03	0	0	.03	0	272	2.2
2	.06	.01	.09	.09	.06	.02	0	0	.01	0	604	1.5
3	.06	.01	.09	.09	.06	.03	0	0	.01	0	68	1.2
4	.06	.01	.09	.09	.09	.02	0	0	.01	0	1.5	1.5
5	.06	.01	.09	.06	.09	.01	0	0	0	0	.1	.92
6	.06	.01	.09	.04	.06	0	0	0	0	0	.1	.92
7	.03	.01	.06	.04	.06	.01	0	0	0	0	.1	.92
8	.06	.02	.06	.06	.09	.02	0	0	0	0	38	.45
9	.09	.02	.09	.06	.06	.02	0	0	0	0	105	2.6
10	.06	.02	.09	.06	.06	.02	0	0	0	0	1,110	65
11	.03	.02	.09	.04	.06	.02	0	0	.37	0	1,090	45
12	.02	.02	.09	.04	.09	.02	0	0	.04	0	401	12
13	.02	.02	.09	.04	.06	.01	0	0	.01	0	1,590	1.5
14	.01	.03	.09	.04	.04	.01	0	0	0	0	596	.67
15	0	.03	.09	.04	.04	0	0	0	0	0	596	.45
16	.01	.03	.17	.04	.04	0	0	0	0	0	1,990	.45
17	.06	.03	.06	.04	.04	.01	.17	0	0	0	443	.67
18	.09	.03	.06	.04	.04	0	.09	0	0	0	68	18
19	.06	.04	.04	.04	.03	0	.06	0	0	0	3.0	3.1
20	.06	.04	.06	.04	.04	0	.04	0	2.4	0	.9	.67
21	.04	.04	.09	.03	.17	0	.03	0	.03	0	.7	.45
22	.03	.04	.09	.04	.09	0	.01	0	115	0	.5	4.2
23	3.9	.04	.09	.04	.04	0	0	0	33	0	.3	161
24	.09	.04	.09	.04	.04	0	0	0	.06	0	428	540
25	.04	.04	.06	.04	.04	0	0	0	0	0	4,510	498
26	.03	.03	.06	.04	.06	0	0	0	0	0	5,500	209
27	.02	.04	.06	.04	.06	0	0	0	0	0	1,500	91
28	.02	.06	.06	.04	.04	0	0	0	0	0	205	42
29	.01	.06	.06	.06	------	0	0	246	0	0	51	29
30	.01	.06	.45	.06	------	0	0	872	0	38	12	4.1
31	.01	------	.17	.06	------	0	------	16	------	1.8	4.7	------
TOTAL	5.16	.87	2.96	1.57	1.71	.25	.40	1,134	150.97	39.8	21,188.9	1,738.47
MEAN	.17	.029	.096	.051	.061	.008	.013	36.6	5.03	1.28	684	57.9
MAX	3.9	.06	.45	.09	.17	.03	.17	872	115	38	5,500	540
MIN	0	.01	.04	.03	.03	0	0	0	0	0	.10	.45
AC-FT	10	1.7	5.9	3.1	3.4	.5	.8	2,250	299	79	42,030	3,450
(†)	40	32	57	66	64	42	36	821	604	677	1,970	1,440

CAL YR 1970 TOTAL 135.00 MEAN .37 MAX 35 MIN 0 AC-FT 268 † 2,230
WTR YR 1971 TOTAL 24,265.06 MEAN 66.5 MAX 5,500 MIN 0 AC-FT 48,130 † 5,850

† Diversions, in acre-feet, from river for brine disposal by Colorado River Municipal Water District.

08123000 Lake Colorado City near Colorado City, Tex.

LOCATION.--Lat 32°20'41", long 100°55'10", Mitchell County, on left bank at municipal water-intake structure, 1.7 miles upstream from Colorado City Dam on Morgan Creek, 2.2 miles downstream from the Texas and Pacific Railway Co. bridge, 2.5 miles upstream from mouth, and 4.0 miles southwest of Colorado City.

DRAINAGE AREA.--322 sq mi, of which 32 sq mi is probably noncontributing.

PERIOD OF RECORD.--April 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level. Prior to Aug. 23, 1950, nonrecording gages at or near powerplant about 0.7 mile downstream at same datum.

EXTREMES.--Current year: Maximum contents, 18,210 acre-ft Aug. 27 (elevation, 2,060.21 ft); minimum, 11,690 acre-ft July 22-24, 26 (elevation, 2,053.68 ft).
Period of record: Maximum contents, 40,280 acre-ft Sept. 7, 1962 (elevation, 2,075.10 ft); minimum since first appreciable storage, 5,800 acre-ft Apr. 11-13, 1950 (elevation, 2,045.72 ft).

REMARKS.--Lake is formed by a rolled-fill earthen dam 4,800 ft long. Storage began April 1949, and dam completed in September 1949. Lake is operated by Texas Electric Service Co. for cooling purposes in operation of steam powerplant. Texas Electric Service Co. pumped 7,410 acre-ft from Champion Creek Reservoir (station 08123600) into the lake during year. Service spillway is a double-rectangular drop inlet, located 100 ft upstream from dam, having two uncontrolled openings 10 by 12 ft designed to discharge a total of 5,000 cfs. An emergency spillway 1,200 ft wide and designed to discharge 150,000 cfs directly into the Colorado River is located 600 ft upstream and to left of dam. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	2,091.0	-
Maximum design flood stage	2,086.7	70,700
Emergency spillway crest	2,073.7	37,850
Service spillway crest	2,070.2	31,640
Invert of lowest municipal supply inlet	2,045.0	5,530
Invert of 30-inch service outlet conduit	2,024.3	316

COOPERATION.--Capacity curve furnished by Texas Electric Service Co. Records of diversions for municipal use furnished by city of Colorado City.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

2,053.0	11,110	2,059.0	16,880
2,056.0	13,820	2,061.0	19,120

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,960	14,340	14,680	14,580	14,350	14,500	13,790	12,810	11,920	11,960	12,460	17,990
2	13,980	14,350	14,710	14,560	14,350	14,500	13,760	12,780	11,920	12,000	12,560	17,920
3	13,990	14,350	14,690	14,530	14,400	14,520	13,710	12,750	11,910	12,000	12,620	17,860
4	14,020	14,370	14,680	14,510	14,400	14,520	13,670	12,650	11,910	11,930	12,640	17,830
5	14,030	14,380	14,630	14,490	14,400	14,500	13,620	12,620	11,890	11,880	12,600	17,800
6	14,010	14,390	14,620	14,460	14,400	14,470	13,610	12,560	11,910	11,850	12,640	17,740
7	13,990	14,420	14,630	14,440	14,400	14,480	13,580	12,530	11,870	11,830	12,740	17,700
8	13,940	14,410	14,590	14,420	14,400	14,490	13,510	12,520	11,850	11,830	12,770	17,650
9	13,950	14,430	14,580	14,390	14,400	14,470	13,480	12,470	11,830	11,830	13,000	17,610
10	13,940	14,450	14,550	14,360	14,400	14,490	13,480	12,400	11,840	11,830	13,860	17,560
11	13,990	14,450	14,520	14,340	14,400	14,470	13,450	12,380	11,840	11,830	14,390	17,500
12	13,960	14,500	14,490	14,310	14,400	14,470	13,390	12,320	11,820	11,820	14,600	17,440
13	13,980	14,470	14,470	14,290	14,500	14,470	13,330	12,290	11,790	11,760	15,430	17,400
14	13,980	14,480	14,480	14,270	14,500	14,410	13,310	12,260	11,800	11,760	16,090	17,360
15	13,980	14,510	14,420	14,230	14,500	14,380	13,310	12,210	11,780	11,760	17,060	17,300
16	14,040	14,530	14,380	14,240	14,550	14,350	13,340	12,170	11,760	11,750	17,440	17,250
17	14,060	14,550	14,350	14,220	14,550	14,320	13,350	12,120	11,750	11,740	17,480	17,210
18	14,090	14,580	14,330	14,210	14,550	14,240	13,330	12,040	11,740	11,730	17,450	17,150
19	14,110	14,550	14,300	14,200	14,450	14,220	13,280	12,020	11,760	11,720	17,420	17,140
20	14,130	14,600	14,300	14,230	14,450	14,190	13,250	11,980	11,820	11,710	17,380	17,080
21	14,140	14,610	14,300	14,240	14,450	14,160	13,220	11,960	11,850	11,710	17,320	17,050
22	14,160	14,590	14,300	14,260	14,450	14,130	13,150	11,910	12,000	11,690	17,280	17,040
23	14,170	14,620	14,310	14,270	14,450	14,120	13,120	11,850	12,050	11,690	17,230	17,260
24	14,180	14,650	14,350	14,290	14,450	14,070	13,090	11,800	12,050	11,690	17,320	17,690
25	14,200	14,660	14,370	14,320	14,500	14,030	13,040	11,720	12,020	11,700	18,010	17,860
26	14,240	14,670	14,380	14,330	14,500	14,050	13,010	11,730	12,020	11,690	18,180	17,890
27	14,280	14,690	14,420	14,350	14,500	14,010	12,990	11,730	12,000	11,730	18,210	17,850
28	14,300	14,710	14,470	14,380	14,500	13,950	12,940	11,730	11,970	11,740	18,190	17,830
29	14,320	14,710	14,510	14,400	------	13,930	12,890	11,890	11,960	11,750	18,170	17,810
30	14,330	14,700	14,540	14,350	------	13,910	12,850	11,880	11,970	11,890	18,100	17,780
31	14,340	------	14,570	14,350	------	13,860	------	11,910	------	11,890	18,040	------
(†)	2,056.54	2,056.90	2,056.77	2,056.55	2,056.70	2,056.05	2,054.97	2,053.93	2,053.99	2,053.91	2,060.06	2,059.82
(*)	+410	+360	-130	-220	+150	-640	-1,010	-940	+60	-80	+6,150	-260
(††)	76	96	70	39	77	68	123	141	152	174	228	63
MAX	14,340	14,710	14,710	14,580	14,550	14,520	13,790	12,810	12,050	12,000	18,210	17,990
MIN	13,940	14,340	14,300	14,200	14,350	13,860	12,850	11,720	11,740	11,690	12,460	17,040

CAL YR 1970..... * -1,290 †† 1,620 MAX 15,960 MIN 13,790
WTR YR 1971..... * +3,850 †† 1,310 MAX 18,210 MIN 11,690

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use.

08123600 Champion Creek Reservoir near Colorado City, Tex.

LOCATION.--Lat 32°16'53", long 100°51'30", Mitchell County, in service outlet structure at Champion Creek Dam on Champion Creek, 0.9 mile upstream from mouth, 4.8 miles downstream from State Highway 208, and 7.2 miles south of Colorado City.

DRAINAGE AREA.--203 sq mi.

PERIOD OF RECORD.--April 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level. Prior to Sept. 29, 1959, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 12,320 acre-ft Sept. 27-29 (elevation, 2,054.23 ft); minimum observed, 1,720 acre-ft Apr. 11-15, May 5-8 (elevation, 2,026.64 ft).
Period of record: Maximum contents, 27,910 acre-ft June 19, 1966 (elevation, 2,071.98 ft); minimum, 1,600 acre-ft Oct. 1, 1959 (elevation, 2,025.90 ft).

REMARKS.--Reservoir is formed by a rolled earthfill dam about 6,800 ft long. Dam completed on Apr. 30, 1959; closure and storage began in February 1959. Reservoir is operated by Texas Electric Service Co. Water can be pumped from the reservoir to Lake Colorado City (station 08123000) for municipal use and cooling purposes in operation of steam powerplant. Service spillway is a cut channel 50 ft wide and about 1,800 ft long cut in the emergency spillway, which is 450 ft wide and about 1,800 ft long. The service spillway is cut 8 ft deeper than the emergency spillway. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	2,109.0	-
Maximum design flood stage	2,104.1	90,020
Emergency spillway crest	2,091.0	56,800
Service spillway crest (top of conservation storage)	2,083.0	42,500
Invert of 1-1/2- by 3-foot opening in inlet structure	2,020.0	880

COOPERATION.--Capacity curve based on Geological Survey topographic map surveyed in 1950, excavation for borrow, estimated not to exceed 1,000 acre-ft, is not included. Record of diversions into Lake Colorado City furnished by Texas Electric Service Co.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

2,026.0	1,620	2,042.0	5,820
2,030.0	2,320	2,046.0	7,660
2,034.0	3,210	2,050.0	9,740
2,038.0	4,420	2,055.0	12,860

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,550	5,210	4,050	3,550	2,920	2,060	1,740	1,740	6,140	6,540	9,690	11,650
2	6,510	5,160	4,020	3,550	2,870	2,020	1,740	1,740	6,080	6,490	9,850	11,630
3	6,460	5,120	4,020	3,550	2,830	2,000	1,740	1,730	6,080	6,450	9,840	11,610
4	6,410	5,080	4,020	3,540	2,790	1,970	1,740	1,730	6,060	6,410	9,780	11,610
5	6,380	5,030	4,020	3,540	2,750	1,940	1,730	1,720	6,030	6,360	9,720	11,610
6	6,350	4,990	4,010	3,540	2,710	1,910	1,730	1,720	5,990	6,300	9,670	11,600
7	6,320	4,950	4,010	3,540	2,660	1,880	1,730	1,720	5,960	6,240	9,630	11,590
8	6,270	4,910	4,010	3,540	2,630	1,860	1,730	1,720	5,920	6,190	9,590	11,590
9	6,220	4,870	4,010	3,540	2,590	1,840	1,730	2,050	5,890	6,140	9,550	11,570
10	6,160	4,810	4,020	3,540	2,540	1,830	1,730	2,060	5,850	6,090	9,870	11,550
11	6,120	4,780	4,010	3,540	2,500	1,800	1,720	2,050	6,960	6,040	9,890	11,540
12	6,080	4,730	4,010	3,540	2,460	1,760	1,720	2,040	7,260	5,990	10,130	11,530
13	6,030	4,690	4,000	3,540	2,430	1,750	1,720	2,040	7,300	5,940	10,160	11,520
14	5,990	4,650	4,000	3,550	2,400	1,740	1,720	2,040	7,260	5,890	10,220	11,500
15	5,930	4,610	4,000	3,540	2,400	1,740	1,720	2,030	7,240	5,840	10,270	11,490
16	5,900	4,560	4,000	3,540	2,410	1,740	1,740	2,030	7,200	5,790	10,310	11,480
17	5,860	4,520	4,000	3,540	2,400	1,740	1,740	2,020	7,160	5,740	10,310	11,460
18	5,820	4,480	4,000	3,530	2,370	1,740	1,740	2,020	7,130	5,690	10,300	11,450
19	5,770	4,440	4,000	3,480	2,340	1,740	1,740	2,020	7,090	5,650	10,290	11,440
20	5,740	4,400	3,990	3,430	2,310	1,740	1,740	2,020	7,080	5,600	10,270	11,440
21	5,700	4,360	4,000	3,390	2,280	1,740	1,740	2,020	7,060	5,550	10,260	11,430
22	5,660	4,320	3,970	3,340	2,260	1,740	1,740	2,020	7,030	5,510	10,260	11,440
23	5,610	4,260	3,930	3,300	2,220	1,740	1,740	2,010	7,000	5,510	10,250	11,610
24	5,570	4,220	3,890	3,260	2,200	1,740	1,740	2,000	6,940	5,710	11,310	12,170
25	5,520	4,170	3,840	3,210	2,170	1,740	1,740	1,990	6,880	5,680	11,430	12,300
26	5,480	4,130	3,790	3,170	2,140	1,740	1,740	1,950	6,820	5,630	11,590	12,320
27	5,430	4,090	3,750	3,130	2,110	1,740	1,740	1,930	6,750	5,590	11,670	12,320
28	5,390	4,050	3,700	3,090	2,080	1,740	1,740	1,930	6,690	5,550	11,690	12,320
29	5,340	4,050	3,660	3,040	------	1,740	1,740	5,950	6,630	5,590	11,690	12,320
30	5,300	4,060	3,620	3,000	------	1,740	1,740	6,150	6,590	6,920	11,670	12,310
31	5,250	------	3,580	2,960	------	1,740	------	6,170	------	6,970	11,660	------
(†)	2,040.48	2,036.86	2,035.26	2,033.00	2,028.74	2,026.76	2,026.77	2,042.86	2,043.81	2,044.62	2,053.24	2,054.21
(∗)	-1,350	-1,190	-480	-620	-880	-340	0	+4,430	+420	+380	+4,690	+650
(††)	1,200	1,200	0	966	844	273	0	203	1,200	1,130	395	0
MAX	6,550	5,210	4,050	3,550	2,920	2,060	1,740	6,170	7,300	6,970	11,690	12,320
MIN	5,250	4,050	3,580	2,960	2,080	1,740	1,720	1,720	5,850	5,510	9,550	11,430

CAL YR 1970..... ∗ -10,360 †† 9,180 MAX 13,940 MIN 3,580
WTR YR 1971..... ∗ +5,710 †† 7,410 MAX 12,320 MIN 1,720

† Elevation, in feet, at end of month.
∗ Change in contents, in acre-feet.
†† Diversions, in acre-feet, into Lake Colorado City.

08123650 Beals Creek above Big Spring, Tex.

LOCATION.--Lat 32°15'01", long 101°29'26", Howard County, on left bank at end of Channing Street in Big Spring, just downstream from One Mile Lake, 2.9 miles upstream from Little Sandy Creek, 7.5 miles downstream from confluence of Sulphur Springs Creek and Mustang Draw, and at mile 71.1.

DRAINAGE AREA.--9,409 sq mi, of which 8,915 sq mi is probably noncontributing.

PERIOD OF RECORD.--January 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,400.02 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 0.81 cfs (587 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 22 cfs May 29 (gage height, 2.49 ft); no flow most of time.
Period of record: Maximum discharge, 255 cfs Sept. 6, 1962 (gage height, 5.95 ft); no flow most of time.
Flood of May 10, 1957, was highest known since 1932, from comparison of floods at a point 4 miles downstream, from information by City Engineering Department. Flood of June 12, 1938, reached a stage of about 7.6 ft at present site and datum, from information by Texas and Pacific Railway Co.

REMARKS.--Records good. No diversion above station. Runoff from contributing drainage area is largely regulated by several natural salt lakes.

REVISIONS (WATER YEARS).--WSP 1732: 1959(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	5.7	.12	.01	.11
2								0	3.0	.09	.02	.08
3								0	2.0	.02	.01	.02
4								0	1.5	0	0	0
5								0	1.1	0	0	0
6								0	.75	0	0	0
7								0	.53	0	0	0
8								0	.30	0	1.9	0
9								0	.21	0	15	0
10								0	.16	0	12	0
11								0	.12	0	7.0	0
12								0	.09	0	5.0	0
13								0	.06	0	3.8	0
14								0	.02	0	3.8	0
15								0	.02	0	5.4	0
16								0	0	0	3.4	0
17								0	0	0	2.2	0
18								0	0	0	1.7	0
19								0	0	0	1.3	0
20								0	.32	0	1.0	0
21								0	1.5	0	.79	0
22								0	1.7	0	.67	0
23								0	1.3	0	.53	.05
24								0	.92	0	.44	.25
25								0	.59	0	.42	.34
26								0	.42	0	.37	.30
27								0	.32	0	.32	.28
28								0	.23	0	.26	.25
29					------			6.3	.17	0	.23	.21
30					------			18	.14	0	.18	.18
31		------			------		------	9.8	------	0	.14	------
TOTAL	0	0	0	0	0	0	0	34.1	23.17	.23	67.89	2.07
MEAN	0	0	0	0	0	0	0	1.10	.77	.007	2.19	.069
MAX	0	0	0	0	0	0	0	18	5.7	.12	15	.34
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	68	46	.5	135	4.1

CAL YR 1970 TOTAL 26.35 MEAN .072 MAX 1.6 MIN 0 AC-FT 52
WTR YR 1971 TOTAL 127.46 MEAN .35 MAX 18 MIN 0 AC-FT 253

08123800 Beals Creek near Westbrook, Tex.

LOCATION.--Lat 32°11'57", long 101°00'49", Mitchell County, near left bank on downstream side of pier of bridge on State Highway 163, 1.5 miles downstream from Crystal Creek, 11 miles south of Westbrook, 16 miles southwest of Colorado City, and at mile 19.9.

DRAINAGE AREA.--9,903 sq mi, of which 8,930 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,048.7 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 23.9 cfs (17,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,720 cfs Sept. 24 (gage height, 13.04 ft); no flow at times.
Period of record: Maximum discharge, 8,780 cfs May 19, 1961 (gage height, 21.65 ft); no flow at times.
Maximum stage since 1908, about 24.5 ft in 1922, from information by local resident.

REMARKS.--Records good. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	.88	1.1	2.1	2.1	1.1	.61	.06	37	.30	526	2.0
2	3.0	.96	1.3	2.4	2.0	1.1	.61	.05	15	.20	189	1.4
3	3.2	.84	1.3	2.4	1.9	1.2	.36	.05	7.8	.15	38	1.4
4	5.8	1.1	1.4	1.9	1.8	1.6	.15	.04	6.1	.10	5.9	1.4
5	3.5	1.1	1.6	1.7	1.9	1.2	.10	.04	4.4	.07	2.8	1.2
6	6.2	1.3	1.6	1.7	1.7	1.2	.25	.03	3.1	.05	1.6	1.1
7	3.1	1.3	1.6	1.6	1.8	.98	.15	.03	2.3	.04	31	1.1
8	1.5	1.1	1.6	1.6	1.9	1.1	.55	.02	2.1	.03	176	.98
9	1.2	.97	1.6	1.6	1.9	.90	.62	.02	1.6	.03	298	.82
10	1.3	1.2	1.6	1.6	1.8	.90	.72	.01	1.1	.02	876	.61
11	1.2	.98	1.5	2.0	2.0	.98	.71	.01	.90	.02	1,050	.55
12	1.2	.95	1.6	2.1	1.8	.82	.36	.03	.70	.01	799	.36
13	1.1	.58	1.6	2.3	1.7	.82	.09	.03	.50	.01	1,660	.42
14	1.1	.80	1.7	2.2	1.6	.68	.03	.02	.40	0	118	.36
15	1.1	.97	1.6	2.0	1.5	.61	.08	.02	.30	.34	128	.36
16	.99	.97	1.6	2.0	1.7	.61	50	.03	.15	.30	138	.68
17	1.7	1.2	1.5	1.8	1.9	.90	83	.03	.15	.26	21	.68
18	1.8	1.1	1.4	1.9	1.4	.68	41	.02	.15	.24	8.9	.74
19	8.7	.89	1.5	2.0	.68	.75	31	.04	.17	.20	4.5	1.2
20	5.0	.90	1.6	2.1	1.2	.48	6.7	.04	5.7	.15	3.0	1.1
21	2.9	.82	1.8	1.9	1.6	.75	3.0	.03	46	.12	2.0	1.1
22	2.3	.88	2.0	2.0	1.8	.82	1.2	.02	43	.10	1.5	1.1
23	2.2	.93	1.7	2.2	1.6	.61	.60	0	25	.06	1.0	332
24	1.8	.84	1.7	2.2	1.2	.98	.50	0	6.2	263	387	1,580
25	1.3	.85	2.0	2.0	1.4	.98	.40	0	3.6	6.3	178	505
26	1.3	.98	1.9	2.0	.90	.75	.30	0	2.1	1.1	10	47
27	1.3	.88	1.9	2.1	.98	.48	.20	0	1.4	.25	15	14
28	1.0	1.0	1.8	2.0	.90	.90	.15	0	1.0	.03	7.0	8.0
29	1.1	1.3	1.8	2.0	------	1.2	.10	356	.60	0	3.0	4.7
30	.82	1.3	1.8	2.0	------	.82	.08	783	.40	406	2.5	3.5
31	.81	------	2.1	2.1	------	.75	------	404	------	106	2.2	------
TOTAL	75.62	29.87	50.8	61.5	44.66	27.65	223.62	1,543.67	218.92	785.48	6,683.9	2,514.86
MEAN	2.44	1.00	1.64	1.98	1.60	.89	7.45	49.8	7.30	25.3	216	83.8
MAX	8.7	1.3	2.1	2.4	2.1	1.6	83	783	46	406	1,660	1,580
MIN	.81	.58	1.1	1.6	.68	.48	.03	0	.15	0	1.0	.36
AC-FT	150	59	101	122	89	55	444	3,060	434	1,560	13,260	4,990

CAL YR 1970 TOTAL 1,061.80 MEAN 2.91 MAX 106 MIN 0 AC-FT 2,110
WTR YR 1971 TOTAL 12,260.55 MEAN 33.6 MAX 1,660 MIN 0 AC-FT 24,320

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-30	0315	9.97	1,540	8-10	2400	11.30	2,020
7-24	1030	7.83	908	8-13	1430	12.66	2,560
8- 1	2200	8.40	1,070	8-24	1900	9.00	1,250
				9-24	1915	13.04	2,720

08123850 Colorado River above Silver, Tex.

LOCATION.--Lat 32°03'13", long 100°45'42", Coke County, on right bank 0.5 mile downstream from a Pan American Oil Company bridge, 4.6 miles west of Silver, and at mile 756.1.

DRAINAGE AREA.--15,407 sq mi, of which 11,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,907.66 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 12,900 cfs May 29 (gage height, 17.68 ft); no flow at times.
Period of record: Maximum discharge, 12,900 cfs May 29, 1971 (gage height, 17.68 ft); no flow at times.

REMARKS.--Records fair. Some regulation by Lake J. B. Thomas, Lake Colorado City, and Champion Creek Reservoir (see stations 08118000, 08123000, and 08123600). Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	0	0	1.6	.18	2.3	0	0	375	1.9	1,870	93
2	4.5	0	0	1.7	.05	1.4	0	0	116	.90	1,440	45
3	7.1	.01	0	1.6	.04	.51	0	0	42	.16	737	30
4	4.0	0	0	1.2	.06	.53	0	0	19	0	308	20
5	2.7	0	0	1.5	0	.30	0	0	5.5	0	133	119
6	3.3	0	0	2.0	0	.45	0	0	1.2	0	24	30
7	3.8	0	0	1.6	0	.29	0	0	.29	0	14	19
8	2.4	0	0	1.3	0	.05	0	0	18	0	24	13
9	3.0	0	0	1.0	0	.02	0	0	9.1	0	266	10
10	1.9	0	0	1.1	.04	0	0	0	.04	0	1,250	8.2
11	1.5	0	0	1.2	1.8	0	0	0	81	0	2,720	7.0
12	.89	0	0	.89	1.8	0	0	0	913	0	2,200	64
13	.52	0	0	.99	1.2	0	0	0	36	0	2,190	50
14	.25	0	0	.98	2.0	0	0	0	7.6	0	2,720	21
15	.13	0	0	1.1	1.8	0	0	0	4.6	0	879	15
16	.18	0	0	1.1	1.8	0	0	0	2.1	0	759	8.2
17	.88	0	0	1.5	1.9	0	4.1	0	.54	0	1,890	6.5
18	1.1	0	0	1.2	1.2	0	103	0	.14	0	613	4.2
19	.59	0	0	.90	1.9	0	57	0	.01	0	185	6.0
20	.41	0	0	.67	.68	0	48	0	0	0	94	5.5
21	.07	0	0	.75	1.2	3.1	19	0	.02	0	36	9.5
22	.04	0	0	.57	1.1	1.4	11	0	527	0	16	11
23	.69	0	.85	.92	1.0	.79	5.8	0	169	993	10	872
24	2.0	0	.47	2.1	1.1	.12	3.2	0	331	817	1,110	2,220
25	.23	0	.62	1.5	1.7	.03	2.4	0	157	276	1,420	2,200
26	.30	0	.65	1.3	2.4	0	1.0	0	49	55	4,500	740
27	.12	0	.84	1.1	1.7	0	.34	0	21	42	5,210	357
28	.02	0	.83	1.2	1.9	0	.17	0	12	80	1,580	172
29	.01	0	.88	.94	------	0	.05	3,820	6.0	84	317	91
30	0	0	2.5	.57	------	0	0	2,940	3.5	1,860	165	38
31	0	------	1.7	.33	------	0	------	1,200	------	780	108	------
TOTAL	47.83	.01	9.34	36.41	28.55	11.29	255.06	7,960	2,906.64	4,989.96	34,788	7,285.1
MEAN	1.54	.0003	.30	1.17	1.02	.36	8.50	257	96.9	161	1,122	243
MAX	7.1	.01	2.5	2.1	2.4	3.1	103	3,820	913	1,860	5,210	2,220
MIN	0	0	0	.33	0	0	0	0	0	0	10	4.2
AC-FT	95	.02	19	72	57	22	506	15,790	5,770	9,900	69,000	14,450

CAL YR 1970 TOTAL 3,455.26 MEAN 9.4 MAX 852 MIN 0 AC-FT 6,850
WTR YR 1971 TOTAL 58,318.19 MEAN 160 MAX 5,210 MIN 0 AC-FT 115,700

08123950 E. V. Spence Reservoir near Robert Lee, Tex.

LOCATION.--Lat 31°52'46", long 100°31'01", Coke County, in outlet works of Robert Lee Dam on the Colorado River, 2.2 miles west of Robert Lee, and at mile 715.

DRAINAGE AREA.--15,740 sq mi, approximately, of which 11,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--December 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to June 24, 1969, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 105,800 acre-ft Sept. 30 (elevation, 1,855.19 ft); minimum, not recorded but about 330 acre-ft May 29.
Period of record: Maximum contents, 105,800 acre-ft Sept. 30, 1971 (elevation, 1,855.19 ft); minimum since first appreciable storage in June 1969, not recorded but about 330 acre-ft May 29, 1971.
REVISIONS.--Figures of maximum contents for the water years 1969 and 1970 and minimum contents for the water year 1970 have been revised as follows: Maximum, 33,410 acre-ft June 14, 1969 (elevation, 1,833.6 ft), and 31,190 acre-ft Oct. 1, 1969 (elevation, 1,832.52 ft); minimum, 16,690 acre-ft Sept. 30, 1970 (elevation, 1,824.67 ft).

REMARKS.--Some regulation by Lake J. B. Thomas, Lake Colorado City, and Champion Creek Reservoir (see stations 08118000, 08123000, and 08123600). Reservoir is formed by a rolled-fill earthen dam 22,000 ft long with rock riprap on the upstream slope. Closure of the dam was made Dec. 30, 1968, and dam was completed in June 1969. The dam is the property of the Colorado River Municipal Water District. The Water District has a permit to divert a total of 50,000 acre-ft annually for municipal, mining, and industrial uses. Service spillway is a partially controlled morning-glory type spillway with 12 lift gates which discharge through a 28-foot-diameter concrete conduit. The emergency spillway is a 3,200-foot wide cut through natural ground near the right end of dam. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,928.0	-
Crest of emergency spillway	1,908.0	653,400
Top of gates on morning-glory spillway	1,900.0	519,300
Normal operating level	1,898.0	488,800
Crest of morning-glory spillway	1,878.0	263,900
Invert of 5-foot conduit	1,815.85	4,000

COOPERATION.--The Colorado River Municipal Water District furnished the capacity table and record of diversions.

REVISIONS.--Revised figures of contents, in acre-ft, for the water years 1969 and 1970, superseding those published in WRD Texas, 1969 and 1970, are given herein.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,804.0	40	1,807.0	270	1,814.0	2,520	1,830.0	26,250
1,805.0	90	1,809.0	555	1,817.0	5,280	1,840.0	48,400
1,806.0	170	1,811.0	1,040	1,820.0	9,110	1,850.0	82,900
				1,825.0	17,250	1,856.0	109,900

CONTENTS, IN ACRE-FEET, AT 2400, DECEMBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			143	143	143	119	90	1,470	29,550	32,630	30,110	30,430
2			143	143	143	119	90	1,510	29,550	32,550	30,050	30,430
3			143	143	152	119	90	1,550	29,550	32,460	30,010	30,430
4			143	143	152	119	90	1,650	29,550	32,340	29,930	30,430
5			143	143	152	119	90	1,750	29,550	32,260	29,830	30,410
6			143	143	152	119	90	5,280	29,750	32,150	29,750	30,410
7			143	143	143	111	90	8,660	29,750	32,070	29,670	30,430
8			143	143	135	111	83	11,450	29,750	31,950	29,610	30,430
9			143	143	135	111	83	11,930	30,350	31,910	29,550	30,610
10			143	143	127	111	83	12,410	30,750	31,870	29,530	30,890
11			143	143	127	111	83	12,570	31,350	31,790	29,510	31,170
12			143	143	127	111	83	12,570	31,950	31,730	29,410	31,250
13			143	143	127	111	83	12,570	32,780	31,670	29,370	31,310
14			143	143	127	111	83	12,570	33,410	31,550	29,270	31,310
15			143	143	127	111	83	12,570	33,410	31,470	29,230	31,350
16			143	143	127	104	90	13,690	33,410	31,370	29,230	31,350
17			143	143	127	104	90	18,100	33,410	31,330	29,170	31,350
18			143	143	119	104	97	27,390	33,390	31,250	29,110	31,370
19			143	143	119	104	97	28,750	33,340	31,170	29,030	31,370
20			143	143	119	104	104	29,150	33,300	31,130	28,950	31,370
21			143	143	119	97	104	29,150	33,280	31,110	28,930	31,330
22			143	143	119	97	104	29,150	33,260	31,050	28,850	31,310
23			143	143	119	97	97	29,150	33,240	31,010	28,930	31,390
24			143	143	119	97	97	29,150	33,220	30,970	28,930	31,370
25			143	143	119	97	104	29,150	33,120	30,910	28,910	31,350
26			143	143	119	90	111	29,150	33,070	30,770	29,130	31,330
27			143	143	119	90	119	29,150	32,970	30,550	29,170	31,310
28			143	143	119	90	127	29,150	32,880	30,390	29,230	31,250
29			143	143	------	90	789	29,350	32,780	30,310	29,990	31,210
30			143	143	------	90	1,350	29,350	32,700	30,270	30,290	31,190
31		------	143	143	------	90	------	29,550	------	30,190	30,410	------
(†)			1,805.7	1,805.7	1,805.4	1,805.0	1,811.8	1,831.7	1,833.26	1,832.02	1,832.13	1,832.52
(*)			-	0	-24	-29	+1,260	+28,200	+3,150	-2,510	+220	+780
MAX			143	143	152	119	1,350	29,550	33,410	32,630	30,410	31,390
MIN			143	143	119	90	83	1,470	29,550	30,190	28,850	30,410

CAL YR 1968..... * - MAX - MIN -
WTR YR 1969..... * - MAX - MIN -

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08123950 E. V. Spence Reservoir near Robert Lee, Tex.--Continued

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31,130	30,850	30,750	30,770	30,470	29,110	28,150	26,460	25,260	25,930	22,690	18,680
2	31,050	30,990	30,750	30,770	30,410	29,030	28,110	26,380	26,190	25,850	22,590	18,590
3	31,010	30,990	30,750	30,750	30,350	29,110	27,920	26,270	27,770	25,790	22,420	18,490
4	30,930	30,990	30,730	30,690	30,270	29,010	27,850	26,210	28,130	25,680	22,010	18,410
5	30,950	30,990	30,750	30,690	30,210	28,970	27,770	26,100	28,070	25,600	21,690	18,300
6	31,010	31,010	30,930	30,670	30,170	29,030	27,690	26,020	28,000	25,510	21,580	18,200
7	30,990	31,010	30,890	30,670	30,070	29,050	27,600	25,950	27,860	25,360	21,450	18,130
8	30,950	31,010	30,870	30,630	30,030	28,970	27,580	25,870	27,770	25,220	21,340	18,050
9	30,890	31,010	30,850	30,630	29,950	28,930	27,520	25,780	27,680	25,150	21,220	17,930
10	30,850	31,010	30,810	30,670	29,870	28,850	27,520	25,720	27,580	25,030	21,070	17,840
11	30,830	30,990	30,790	30,690	29,850	28,810	27,470	25,620	27,480	24,920	20,950	17,730
12	30,790	30,990	30,770	30,650	29,850	28,750	27,370	25,570	27,410	24,790	20,790	17,590
13	30,730	30,950	30,730	30,650	29,850	28,690	27,300	25,490	27,350	24,690	20,640	17,590
14	30,630	30,910	30,690	30,650	29,810	28,630	27,220	25,400	27,260	24,600	20,550	17,610
15	30,590	30,910	30,670	30,650	29,730	28,570	27,180	25,280	27,160	24,480	20,430	17,500
16	30,550	30,850	30,650	30,650	29,650	28,550	27,140	25,220	27,050	24,390	20,300	17,400
17	30,530	30,890	30,630	30,650	29,590	28,510	27,140	25,130	26,970	24,310	20,160	17,320
18	30,530	30,830	30,610	30,590	29,590	28,510	27,180	25,050	26,860	24,210	20,030	17,560
19	30,530	30,790	30,590	30,570	29,490	28,410	27,090	24,980	26,780	24,120	19,890	17,540
20	30,530	30,750	30,590	30,570	29,350	28,510	27,070	24,880	26,690	23,990	20,120	17,420
21	30,510	30,710	30,590	30,570	29,310	28,570	27,010	24,810	26,670	23,880	20,080	17,340
22	30,550	30,690	30,570	30,570	29,310	28,550	26,970	24,690	26,630	23,830	19,980	17,250
23	30,510	30,690	30,550	30,570	29,310	28,570	26,930	24,820	26,590	23,720	19,900	17,160
24	30,490	30,690	30,570	30,570	29,390	28,550	26,860	24,770	26,520	23,610	19,760	17,060
25	30,470	30,670	30,530	30,570	29,310	28,490	26,760	24,730	26,460	23,490	19,630	17,050
26	30,470	30,710	30,510	30,570	29,250	28,390	26,740	24,670	26,400	23,400	19,490	16,960
27	30,530	30,790	30,510	30,570	29,190	28,370	26,670	24,820	26,310	23,270	19,310	16,890
28	30,610	30,790	30,770	30,590	29,150	28,350	26,570	24,730	26,170	23,160	19,170	16,860
29	30,650	30,770	30,790	30,490	------	28,310	26,550	25,110	26,100	23,050	18,990	16,770
30	30,770	30,750	30,790	30,390	------	28,290	26,540	25,110	26,020	22,910	18,880	16,690
31	30,830	------	30,770	30,390	------	28,250	------	25,110	------	22,800	18,750	------
(†)	1,832.34	1,832.30	1,832.31	1,832.12	1,831.50	1,831.05	1,830.15	1,829.40	1,829.88	1,828.14	1,825.88	1,824.67
(*)	-360	-80	+20	-380	-1,240	-900	-1,710	-1,430	+910	-3,220	-4,050	-2,060
(††)	0	0	0	7.8	358	555	1,050	1,410	1,620	1,840	2,250	1,220
MAX	31,130	31,010	30,930	30,770	30,470	29,110	28,150	26,460	28,130	25,930	22,690	18,680
MIN	30,470	30,670	30,510	30,390	29,150	28,250	26,540	24,670	25,260	22,800	18,750	16,690

CAL YR 1969..... * - †† - MAX - MIN -
WTR YR 1970..... * -14,500 †† 10,310 MAX 31,130 MIN 16,690

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal, mining, and industrial use.

08123950 E. V. Spence Reservoir near Robert Lee, Tex.--Continued

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16,620	14,170	11,870	9,760	7,320	4,900	2,320	963	18,730	32,590	37,740	92,080
2	16,570	14,090	11,790	9,710	7,230	4,790	2,240	925	18,640	32,460	40,920	91,940
3	16,480	14,000	11,720	9,660	7,170	4,690	2,220	872	18,200	32,300	42,150	91,670
4	16,400	13,900	11,660	9,560	7,060	4,620	2,090	843	17,960	32,190	42,840	91,400
5	16,380	13,740	11,590	9,470	6,970	4,530	2,030	813	17,810	32,050	42,990	91,580
6	16,320	13,750	11,510	9,400	6,880	4,440	1,970	782	17,660	31,930	43,010	91,490
7	16,200	13,660	11,430	9,320	6,790	4,370	1,920	747	17,500	31,830	42,890	91,260
8	16,080	13,590	11,390	9,260	6,700	4,280	1,860	717	17,350	31,670	42,720	91,080
9	15,980	13,510	11,320	9,200	6,620	4,210	1,800	686	17,200	31,570	42,600	90,820
10	15,840	13,420	11,310	9,120	6,600	4,150	1,750	654	17,060	31,430	45,320	90,640
11	15,840	13,370	11,230	9,060	6,510	4,070	1,700	633	16,960	31,290	49,490	90,280
12	15,750	13,270	11,160	9,000	6,400	4,000	1,640	599	21,310	31,170	56,280	90,050
13	15,670	13,230	11,080	8,960	6,290	3,910	1,580	566	21,610	31,070	58,790	89,870
14	15,570	13,110	11,000	8,860	6,230	3,820	1,520	542	21,610	30,950	63,980	89,640
15	15,460	13,020	10,890	8,780	6,150	3,720	1,470	524	21,470	30,830	65,840	89,460
16	15,430	12,950	10,830	8,690	6,090	3,660	1,680	507	21,340	30,710	66,960	89,240
17	15,360	12,870	10,790	8,600	6,000	3,580	1,640	490	21,150	30,570	69,340	88,970
18	15,300	12,780	10,730	8,510	5,940	3,500	1,600	473	21,000	30,430	70,980	88,700
19	15,230	12,680	10,670	8,430	5,820	3,410	1,540	457	20,860	30,350	71,190	88,610
20	15,120	12,600	10,590	8,360	5,740	3,310	1,500	441	20,730	30,190	71,220	88,480
21	15,060	12,550	10,540	8,300	5,650	3,200	1,450	424	20,840	30,030	71,190	88,380
22	15,020	12,470	10,460	8,230	5,550	3,110	1,410	409	33,560	29,990	71,120	88,660
23	14,960	12,380	10,360	8,150	5,450	3,010	1,350	395	33,700	29,950	71,020	93,600
24	14,870	12,270	10,300	8,060	5,380	2,930	1,290	382	33,490	32,610	71,400	98,690
25	14,780	12,200	10,200	7,980	5,280	2,850	1,240	369	33,300	32,780	73,220	103,320
26	14,730	12,140	10,140	7,890	5,180	2,790	1,190	356	33,160	32,680	79,220	104,900
27	14,620	12,070	10,060	7,800	5,080	2,710	1,140	344	32,990	32,610	87,710	105,600
28	14,530	12,040	10,010	7,700	4,990	2,630	1,100	332	32,910	32,550	91,980	105,700
29	14,430	11,990	9,940	7,610	------	2,560	1,050	358	32,820	32,440	92,260	105,700
30	14,360	11,930	9,900	7,530	------	2,460	1,010	13,610	32,700	34,670	92,120	105,800
31	14,280	------	9,830	7,430	------	2,390	------	17,340	------	36,240	92,210	------
(†)	1,823.25	1,821.80	1,820.48	1,818.83	1,816.84	1,813.81	1,810.89	1,825.05	1,833.26	1,834.95	1,852.18	1,855.18
(‡)	-2,410	-2,350	-2,100	-2,400	-2,440	-2,600	-1,380	+16,330	+15,360	+3,540	+55,970	+13,590
(††)	1,160	1,060	1,120	1,090	1,080	1,320	1,140	899	858	1,530	1,390	1,810
MAX	16,620	14,170	11,870	9,760	7,320	4,900	2,320	17,340	33,700	36,240	92,260	105,800
MIN	14,280	11,930	9,830	7,430	4,990	2,390	1,010	332	16,960	29,950	37,740	88,380

CAL YR 1970..... ‡ -20,940 †† 13,650 MAX 30,770 MIN 9,830
WTR YR 1971..... ‡ +89,110 †† 14,460 MAX 105,800 MIN 332

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal, mining, and industrial use.

08124000 Colorado River at Robert Lee, Tex.

LOCATION.--Lat 31°53'07", long 100°28'49", Coke County, on left bank 190 ft upstream from bridge on State Highway 208 in Robert Lee, 0.4 mile upstream from Mountain Creek, 2.7 miles downstream from Messbox Creek, 3.7 miles downstream from Robert Lee Dam, and at mile 712.

DRAINAGE AREA.--15,770 sq mi, of which 11,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1923 to December 1927, April 1939 to May 1956, October 1968 to current year. Prior to December 1927, published as Colorado River near Robert Lee.

GAGE.--Water-stage recorder. Datum of gage is 1,771.70 ft above mean sea level. Prior to Dec. 31, 1927, nonrecording gage at site 9 miles downstream at different datum. Apr. 18, 1939, to Sept. 26, 1939, nonrecording gage and Sept. 27, 1939, to May 9, 1956, water-stage recorder at site 200 ft downstream at same datum.

AVERAGE DISCHARGE.--22 years (1924-27, 1939-55, 1968-71), 179 cfs (129,700 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 4,090 cfs June 22 (gage height, 7.80 ft); no flow for many days.
Period of record: Maximum discharge, 32,500 cfs Sept. 6, 1926 (gage height, 20.20 ft, site and datum then in use), from rating curve extended above 15,000 cfs; no flow at times.
Maximum stage since at least 1907, 26.7 ft Oct. 13, 1957, from floodmarks. Flood in April 1922 reached a stage of 25.5 ft, present datum, from information by local resident.

REMARKS.--Records good. Flow slightly regulated since April 1949 by Lake Colorado City and since July 1952 by Lake J. B. Thomas. Flow fully regulated since December 1968 by E. V. Spence Reservoir (see station 08123950). Diversions above station for municipal, cooling, mining, and industrial use.

REVISIONS (WATER YEARS).--WSP 1732: 1925(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.03	.07	.45	.07	.10	.05	.07	0	.45	1.8	0
2	.10	.05	.10	.45	.07	.10	.05	.07	125	.34	1.6	0
3	.10	.05	.10	.34	.10	.10	.05	.07	201	.25	.34	0
4	.10	.05	.07	.25	.07	.10	.05	.07	108	.14	.19	0
5	.14	.05	.07	.25	.10	.10	.05	.05	7.0	.07	.14	0
6	.07	.05	.07	.25	.10	.10	.05	.01	1.3	.07	.14	0
7	.03	.05	.07	.25	.14	.10	.05	0	.25	.05	.14	0
8	.05	.03	.10	.19	.19	.10	.07	0	1.3	.05	.14	0
9	.03	.02	.10	.14	.14	.10	.07	0	.03	.05	.14	0
10	.03	.03	.14	.10	.14	.10	.07	0	.02	.05	.19	0
11	.03	.03	.07	.10	.07	.10	.02	0	.01	.05	1.3	0
12	.05	.07	.10	.14	.07	.10	.02	0	43	.05	7.1	0
13	.05	.07	.19	.14	.10	.10	.01	0	39	.02	2.6	0
14	.03	.07	.14	.14	.19	.10	0	0	1.6	.01	.98	0
15	.03	.10	.14	.14	.25	.10	.34	0	.19	0	4.1	0
16	.10	.14	.07	.14	.25	.10	7.3	0	.03	0	.98	0
17	.14	.10	.10	.14	.14	.10	2.6	0	.01	0	.34	0
18	.10	.10	.19	.14	.19	.10	.59	0	.01	0	.34	.44
19	.07	.07	.19	.19	.07	.10	.45	0	0	0	.34	.59
20	.05	.07	.19	.14	.10	.10	.59	0	0	0	.10	.19
21	.05	.10	.19	.10	2.2	.05	.14	0	3.1	0	.10	.05
22	.05	.07	.19	.07	.34	.05	.07	0	557	0	.10	.59
23	.07	.07	.14	.07	.34	.05	.07	0	13	0	.07	59
24	.05	.10	.14	.07	.25	.05	.10	0	6.6	.14	.19	48
25	.05	.14	.14	.10	.25	.05	.19	0	3.6	.10	.34	21
26	.05	.10	.19	.10	.19	.05	.14	0	2.1	.04	.19	6.1
27	.03	.10	.19	.10	.14	.05	.10	0	1.3	0	.07	2.1
28	.02	.10	.14	.10	.10	.05	.07	0	.98	0	.07	.59
29	.05	.10	.19	.07	------	.05	.10	0	.59	0	.10	.25
30	.03	.14	.59	.07	------	.05	.07	0	.59	0	.05	.25
31	.03	------	.45	.05	------	.05	------	0	------	.02	.01	------
TOTAL	1.92	2.25	4.82	4.98	6.36	2.55	13.53	.34	1,116.61	1.95	24.29	139.15
MEAN	.062	.075	.16	.16	.23	.082	.45	.011	37.2	.063	.78	4.64
MAX	.14	.14	.59	.45	2.2	.10	7.3	.07	557	.45	7.1	59
MIN	.02	.02	.07	.05	.07	.05	0	0	0	0	.01	0
AC-FT	3.8	4.5	9.6	9.9	13	5.1	27	.7	2,210	3.9	48	276

CAL YR 1970 TOTAL 357.37 MEAN .98 MAX 136 MIN 0 AC-FT 709
WTR YR 1971 TOTAL 1,318.75 MEAN 3.61 MAX 557 MIN 0 AC-FT 2,620

08125500 Oak Creek Reservoir near Blackwell, Tex.

LOCATION (revised).--Lat 32°03'25", long 100°17'37", Coke County, on left bank at municipal pump station, 1.9 miles upstream from dam on Oak Creek, 2.5 miles southeast of Blackwell, 14 miles north of Bronte, and 20 miles upstream from mouth.

DRAINAGE AREA.--244 sq mi.

PERIOD OF RECORD.--May 1953 to current year. Prior to October 1969, monthend contents only.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents, 24,930 acre-ft Sept. 30 (elevation, 1,992.8 ft); minimum, 17,690 acre-ft May 28, 29, June 10-12, July 27, 28 (elevation, 1,987.9 ft).
Period of record: Maximum contents observed, 49,100 acre-ft Oct. 13, 1957 (elevation, 2,003.80 ft); minimum observed, 7,060 acre-ft Aug. 1, 1953 (elevation, 1,976.2 ft).

REMARKS.--Reservoir is formed by a rolled-fill earthen dam 3,800 ft long. Uncontrolled service spillway is a cut channel 300 ft wide located to right of dam. Emergency spillway is channel 800 ft wide located between dam and service spillway. Dam was completed in May 1952; no appreciable storage prior to May 12, 1953. Reservoir is property of city of Sweetwater and was built to impound water for industrial and municipal use by cities of Sweetwater, Blackwell, and Bronte. Service outlet can release water to Oak Creek through 24-inch pipeline. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	2,014.0	-
Emergency spillway	2,005.0	52,490
Service spillway	2,000.0	39,360
Invert of service outlet	1,951.0	100

COOPERATION.--Capacity curve based on 1950 survey, record of lake elevations, and diversions, furnished by city of Sweetwater.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,987.0	16,570	1,991.0	22,020
1,989.0	19,130	1,993.0	25,260

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24,600	23,600	22,650	22,020	21,280	20,530	19,550	18,870	17,940	19,000	17,940	20,680
2	24,600	23,600	22,650	22,020	21,280	20,530	19,550	18,870	17,940	18,870	19,130	20,680
3	24,600	23,440	22,650	22,020	21,280	20,530	19,410	18,870	17,940	18,870	19,270	20,530
4	24,600	23,440	22,650	21,870	21,280	20,530	19,410	18,870	17,810	18,870	19,270	20,530
5	24,430	23,440	22,650	21,870	21,280	20,530	19,410	18,730	17,810	18,730	19,270	20,530
6	24,600	23,440	22,650	21,870	21,130	20,390	19,270	18,730	17,810	18,730	19,270	20,530
7	24,430	23,280	22,490	21,720	21,130	20,390	19,270	18,600	17,810	18,730	19,270	20,530
8	24,430	23,280	22,490	21,720	21,130	20,390	19,270	18,600	17,810	18,600	19,410	20,390
9	24,430	23,280	22,490	21,720	21,130	20,390	19,130	18,600	17,810	18,600	19,410	20,390
10	24,260	23,280	22,490	21,720	21,130	20,390	19,130	18,470	17,690	18,470	19,270	20,390
11	24,260	23,280	22,490	21,720	21,130	20,250	19,130	18,470	17,690	18,470	19,410	20,250
12	24,260	23,280	22,490	21,720	20,980	20,250	19,130	18,470	17,690	18,470	19,410	20,250
13	24,260	23,130	22,490	21,720	20,980	20,250	19,130	18,340	19,000	18,340	19,550	20,250
14	24,260	23,130	22,340	21,720	20,980	20,250	19,000	18,340	19,130	18,340	20,680	20,110
15	24,100	23,130	22,340	21,570	20,980	20,250	19,000	18,340	19,130	18,340	20,830	20,110
16	24,100	22,970	22,340	21,570	20,980	20,250	19,270	18,210	19,130	18,210	20,980	20,110
17	24,100	22,970	22,340	21,570	20,980	20,110	19,410	18,210	19,130	18,210	20,980	19,970
18	23,930	22,970	22,180	21,570	20,830	20,110	19,410	18,070	19,000	18,070	20,980	19,970
19	23,930	22,970	22,180	21,570	20,830	20,110	19,410	18,070	19,000	18,070	20,980	19,970
20	23,930	22,810	22,180	21,570	20,830	19,970	19,410	18,070	19,000	18,070	20,980	19,970
21	23,930	22,810	22,180	21,570	20,830	19,970	19,270	17,940	18,870	17,940	20,830	19,970
22	23,930	22,810	22,180	21,570	20,830	19,970	19,270	17,940	19,270	17,940	20,830	19,970
23	23,930	22,650	22,180	21,570	20,830	19,970	19,270	17,940	19,410	17,810	20,830	20,250
24	23,930	22,810	22,180	21,420	20,830	19,830	19,130	17,810	19,270	17,810	20,830	21,570
25	23,930	22,810	22,020	21,420	20,680	19,830	19,130	17,810	19,270	17,810	20,830	23,930
26	23,770	22,810	22,020	21,420	20,680	19,830	19,130	17,810	19,270	17,810	20,830	24,260
27	23,770	22,650	22,020	21,420	20,680	19,830	19,130	17,810	19,130	17,690	20,830	24,600
28	23,770	22,650	22,020	21,420	20,680	19,690	19,130	17,690	19,130	17,690	20,830	24,760
29	23,600	22,650	22,020	21,420	------	19,690	19,000	17,690	19,130	17,810	20,830	24,760
30	23,600	22,650	22,020	21,420	------	19,690	19,000	17,940	19,000	17,810	20,830	24,930
31	23,600	------	22,020	21,420	------	19,690	------	17,940	------	17,940	20,680	------
(†)	1,992.6	1,991.4	1,991.0	1,990.6	1,990.1	1,989.4	1,988.9	1,988.1	1,988.9	1,988.1	1,990.1	1,992.8
(*)	-1,000	-950	-630	-600	-740	-990	-690	-1,060	+1,060	-1,060	+2,740	+4,250
(††)	502	314	303	280	302	492	570	480	117	420	400	373
MAX	24,600	23,600	22,650	22,020	21,280	20,530	19,550	18,870	19,410	19,000	20,980	24,930
MIN	23,600	22,650	22,020	21,420	20,680	19,690	19,000	17,690	17,690	17,690	17,940	19,970

CAL YR 1970..... * -8,170 †† 4,370 MAX 30,580 MIN 22,020
WTR YR 1971..... * +330 †† 4,550 MAX 24,930 MIN 17,690

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal and industrial use.

08126500 Colorado River at Ballinger, Tex.

LOCATION.--Lat 31°43'48", long 99°56'30", Runnels County, on left bank on downstream end of pier of bridge on U.S. Highway 83 in Ballinger, 2,000 ft upstream from Elm Creek, and at mile 659.4.

DRAINAGE AREA.--16,840 sq mi, approximately, of which 11,600 sq mi is probably noncontributing.

PERIOD OF RECORD.--June 1907 to current year. Monthly discharge only for some periods published in WSP 1312. Gage-height records collected in this vicinity from 1903-29 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,593.74 ft above mean sea level. Prior to Nov. 29, 1930, nonrecording gages at several sites upstream within 1.0 mile of present site at various datums.

AVERAGE DISCHARGE.--64 years, 322 cfs (233,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,650 cfs Aug. 13; maximum gage height, 10.71 ft Aug. 14 (backwater from Elm Creek); no flow at times.
Period of record: Maximum discharge, 75,400 cfs Sept. 18, 1936 (gage height, 28.6 ft); no flow at times.
Maximum stage since at least 1882, about 36 ft sometime in 1884, present site and datum, from information by local residents. Flood of Aug. 6, 1906, reached a stage of about 32.0 ft, present site and datum, from floodmarks (backwater from Elm Creek).

REMARKS.--Records good. Diversions above station for irrigation, municipal supplies, and oilfield operation. Flow partly regulated by five major upstream reservoirs (combined capacity, 1,056,000 acre-ft). At end of year, flow from 109 sq mi above this station was partly controlled by 21 floodwater-retarding structures with a total combined capacity of 24,060 acre-ft below the flood-spillway crests, of which 21,600 acre-ft is floodwater-retarding capacity and 2,460 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1118: Drainage area. WSP 1512: 1916-17, 1919-20, 1921(M), 1922-25, 1928(M), 1930(M). WSP 1712: 1935, 1954(M), 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	2.3	5.3	7.8	2.2	2.9	0	2.0	0	2.2	29	13
2	6.1	2.1	5.8	7.4	2.5	2.6	.30	2.1	0	1.8	197	12
3	5.8	2.0	5.8	7.2	2.9	3.0	.92	2.0	0	.89	51	9.9
4	4.6	2.1	5.7	6.8	2.8	3.3	.84	1.8	15	.39	18	9.1
5	4.9	2.4	5.6	5.5	2.7	3.3	.64	1.7	117	.18	10	8.7
6	5.3	2.4	5.7	5.0	2.9	3.1	.59	1.6	35	.10	6.3	8.0
7	5.7	2.6	5.6	5.4	3.0	3.1	1.3	1.8	7.2	.05	107	8.0
8	4.7	2.9	5.8	5.3	2.8	2.9	2.5	1.9	2.1	0	198	7.4
9	4.4	2.6	5.8	5.6	3.0	2.2	2.7	2.3	1.2	0	26	6.8
10	4.1	3.2	5.8	6.1	3.0	2.3	3.3	2.1	.60	0	11	6.8
11	3.5	2.9	5.1	5.6	3.1	1.7	4.0	1.8	.27	0	137	7.4
12	4.3	3.7	4.8	5.0	3.3	1.3	3.2	1.0	.55	0	2,020	6.8
13	4.2	4.3	3.4	4.7	3.6	2.5	2.1	.81	640	0	2,430	6.2
14	3.3	4.0	4.1	4.4	3.4	1.7	.12	1.4	116	0	3,450	5.8
15	3.5	4.3	5.2	4.2	3.3	.66	.18	1.8	41	0	387	5.2
16	3.9	4.3	4.1	3.9	3.1	.50	294	1.6	17	0	143	5.2
17	4.7	4.3	4.6	3.3	2.8	.58	210	1.4	9.6	0	77	4.8
18	4.7	4.4	4.7	3.1	2.9	1.2	41	1.2	4.9	0	54	7.9
19	5.1	4.4	3.7	2.7	2.7	.86	16	.86	2.1	0	44	8.8
20	5.2	4.3	3.3	2.6	2.1	0	11	.99	.71	0	37	13
21	4.9	4.8	5.0	2.8	3.3	0	7.4	.76	.33	0	27	11
22	4.5	4.8	5.7	4.8	2.4	0	4.7	.15	483	0	22	162
23	9.1	4.4	5.3	4.2	2.4	0	3.0	0	465	0	21	829
24	7.8	4.0	4.9	3.7	3.2	0	2.3	0	71	0	21	2,660
25	5.0	4.5	5.0	3.3	3.7	0	1.9	0	26	0	24	920
26	3.7	4.5	5.6	3.2	3.8	0	1.7	0	13	0	19	346
27	3.0	4.9	5.8	3.0	3.7	0	1.5	0	8.0	0	50	197
28	3.0	5.3	6.0	3.3	3.5	0	1.5	0	5.8	33	19	138
29	2.6	4.9	6.7	2.9	------	0	1.5	0	5.1	212	17	103
30	2.5	5.3	8.4	2.6	------	0	1.6	0	2.8	48	16	89
31	2.8	------	9.5	2.4	------	0	------	0	------	18	13	------
TOTAL	142.8	112.9	167.8	137.8	84.1	39.70	621.79	33.07	2,090.26	316.61	9,681.3	5,615.8
MEAN	4.61	3.76	5.41	4.45	3.00	1.28	20.7	1.07	69.7	10.2	312	187
MAX	9.1	5.3	9.5	7.8	3.8	3.3	294	2.3	640	212	3,450	2,660
MIN	2.5	2.0	3.3	2.4	2.1	0	0	0	0	0	6.3	4.8
AC-FT	283	224	333	273	167	79	1,230	66	4,150	628	19,200	11,140

CAL YR 1970 TOTAL 8,115.31 MEAN 22.2 MAX 822 MIN .02 AC-FT 16,100
WTR YR 1971 TOTAL 19,043.93 MEAN 52.2 MAX 3,450 MIN 0 AC-FT 37,770

08127000 Elm Creek at Ballinger, Tex.

LOCATION.--Lat 31°44'57", long 99°56'51", Runnels County, on right bank 1,000 ft upstream from storage dam at Ballinger and 1.2 miles upstream from mouth.

DRAINAGE AREA.--471 sq mi.

PERIOD OF RECORD.--April 1932 to current year.

GAGE.--Water-stage recorder and masonry dam control. Datum of gage is 1,617.72 ft above mean sea level.

AVERAGE DISCHARGE.--39 years, 47.5 cfs (34,410 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,580 cfs June 8 (gage height, 7.70 ft); minimum, 0.01 cfs July 23.
Period of record: Maximum discharge, 50,000 cfs Oct. 13, 1957 (gage height, 14.20 ft, from floodmark); no flow at times. Flood in August 1906 reached a stage of 14.5 ft, affected by backwater from Colorado River; highest stage not affected by backwater from Colorado River since at least 1904 was that of Oct. 13, 1957, from information by local residents.

REMARKS.--Records good except those below 100 cfs, which are fair. Stage-discharge relation during period of low flow affected by wind action and occasional accumulation of drift on dam. During year the city of Winters diverted 462 acre-ft from Lake Winters (capacity, 3,060 acre-ft) and the city of Ballinger diverted about 4 acre-ft 1 mile upstream from gage. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1442: 1935, 1946, 1954.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	2.0	6.7	8.4	3.0	4.4	1.8	3.0	28	13	8.4	17
2	3.6	1.8	6.7	8.4	3.0	3.6	1.1	2.4	17	8.4	45	13
3	3.6	1.8	6.7	6.7	3.6	2.4	1.1	2.0	17	6.7	42	11
4	3.0	2.0	5.4	4.4	3.0	3.6	.99	1.8	22	6.7	13	11
5	3.0	3.0	5.4	4.4	3.0	3.6	.87	1.8	11	5.4	8.4	13
6	3.6	3.0	5.4	5.4	3.6	3.0	.87	1.8	5.4	4.4	6.7	13
7	3.6	3.0	5.4	5.4	3.6	3.0	.77	1.5	3.0	3.6	75	11
8	3.0	3.6	5.4	5.4	3.6	3.0	.69	1.1	4,310	3.0	101	8.4
9	3.0	3.0	5.4	5.4	4.4	2.4	.77	516	406	2.4	89	11
10	3.0	2.4	5.4	5.4	6.7	2.4	.99	236	116	1.8	59	8.4
11	3.0	3.0	4.4	5.4	6.7	3.6	.99	86	68	1.3	50	8.4
12	3.0	3.0	3.6	6.7	3.6	3.0	.99	42	50	1.1	164	6.7
13	3.0	3.6	3.6	6.7	4.4	3.0	.99	28	553	.69	837	6.7
14	3.0	3.0	3.6	6.7	4.4	1.7	.87	22	136	.62	3,060	6.7
15	3.0	2.4	2.4	3.6	3.6	.99	.87	22	59	.56	895	5.4
16	3.0	2.4	1.8	3.0	3.6	1.1	77	13	28	.47	378	5.4
17	3.0	3.0	2.4	2.4	3.6	.99	96	8.4	22	.39	200	6.7
18	3.0	3.6	3.0	2.4	3.6	.87	50	3.6	17	.28	126	8.4
19	3.0	3.0	3.6	2.4	4.4	.62	35	2.0	11	.20	77	11
20	3.0	3.6	3.6	3.6	4.4	.56	22	1.5	8.4	.14	50	13
21	3.0	3.6	4.4	3.6	4.4	.62	22	1.3	128	.05	35	11
22	3.0	4.4	5.4	3.0	2.4	.99	17	1.1	167	.02	35	65
23	3.0	3.6	4.4	2.4	3.0	.99	11	1.1	146	.02	28	1,450
24	3.0	3.0	4.4	2.4	4.4	1.1	11	.77	59	.04	17	2,850
25	3.6	3.6	3.6	3.0	6.7	1.5	8.4	.51	28	2.9	28	2,210
26	3.6	4.4	3.6	3.6	6.7	1.5	8.4	.43	22	11	22	824
27	3.0	5.4	3.6	3.6	5.4	1.8	6.7	.39	13	6.7	28	406
28	3.0	5.4	4.4	4.4	5.4	2.0	5.4	.36	11	4.4	22	280
29	2.4	5.4	4.4	5.4	------	2.0	5.4	86	8.4	20	17	222
30	2.0	6.7	6.7	4.4	------	2.0	3.6	198	13	13	13	178
31	2.4	------	8.4	3.6	------	1.8	------	84	------	6.7	13	------
TOTAL	95.0	101.7	143.2	141.6	118.2	64.13	393.56	1,369.86	6,483.2	125.98	6,542.5	8,691.2
MEAN	3.06	3.39	4.62	4.57	4.22	2.07	13.1	44.2	216	4.06	211	290
MAX	3.6	6.7	8.4	8.4	6.7	4.4	96	516	4,310	20	3,060	2,850
MIN	2.0	1.8	1.8	2.4	2.4	.56	.69	.36	3.0	.02	6.7	5.4
AC-FT	188	202	284	281	234	127	781	2,720	12,860	250	12,980	17,240

CAL YR 1970 TOTAL 15,790.07 MEAN 43.3 MAX 657 MIN .87 AC-FT 31,320
WTR YR 1971 TOTAL 24,270.13 MEAN 66.5 MAX 4,310 MIN .02 AC-FT 48,140

PEAK DISCHARGE (BASE, 2,100 CFS)

DATE	TIME	G.HT.	DISCHARGE
6- 8	1000	7.70	9,580
8-14	0200	6.50	4,650
9-24	1900	5.78	3,000

08127500 South Concho Irrigation Co.'s canal at Christoval, Tex.

LOCATION.--Lat 31°11'24", long 100°30'00", Tom Green County, on right bank at Christoval, 85 ft downstream from point of diversion, and 100 ft downstream from bridge, on U.S. Highway 277.

PERIOD OF RECORD.--November 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,017.02 ft above mean sea level.

AVERAGE DISCHARGE.--31 years (1940-71), 6.91 cfs (5,010 acre-ft per year).

EXTREMES.--Period of record: Maximum daily diversion for irrigation (excluding floodflow), 21 cfs June 27-28, 1941, Sept. 18, 21, 1942; no flow Apr. 26 to July 9, 1957, Mar. 18 to Apr. 10, 1958, Oct. 19 to Nov. 2, 1966.

REMARKS.--Records fair. The following table lists only irrigation water diverted from right bank of South Concho River 600 ft upstream from station at Christoval (station 08128000).

REVISIONS (WATER YEARS).--WSP 1312: 1940-46.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.4	5.5	5.9	5.1	6.0	.40	.74	.31	.46	1.1	14
2	6.4	5.4	5.2	6.0	5.1	6.2	.63	.74	.30	.56	1.1	15
3	6.4	5.5	5.4	6.2	5.0	6.4	.60	.77	.37	.56	1.1	15
4	6.2	5.6	5.4	6.2	4.9	6.4	.63	.77	.46	.43	1.1	15
5	6.2	5.4	5.1	6.2	4.9	6.4	.56	.74	.41	.60	1.2	15
6	6.2	5.1	5.2	6.4	5.0	6.2	.46	.66	.28	.60	1.2	15
7	6.0	4.9	5.6	6.5	5.1	6.0	.56	.63	.35	.49	1.2	15
8	6.2	4.5	5.6	6.6	5.4	6.4	.49	.66	.39	.52	1.3	15
9	6.2	4.9	5.5	6.6	5.5	6.4	.46	.66	.46	.52	1.4	15
10	6.4	4.6	5.4	6.6	5.3	6.2	.46	.63	.49	.52	1.3	15
11	6.2	4.6	5.6	6.5	5.0	5.9	.40	.63	.49	.42	1.3	15
12	6.4	4.6	5.6	6.6	5.1	5.9	.37	.63	.42	.40	1.3	15
13	6.0	5.1	5.8	6.5	5.1	5.9	.40	.63	.37	.42	1.3	15
14	5.8	5.2	6.0	6.4	5.0	5.9	.40	.60	.27	.37	1.3	15
15	5.4	5.5	6.4	6.4	5.2	6.0	.42	.60	.56	.37	1.4	15
16	5.8	5.5	6.5	6.5	5.1	5.8	.50	.56	.46	.37	1.6	15
17	5.9	5.4	6.4	6.4	5.2	5.8	.63	.56	.43	.42	2.0	15
18	6.0	5.2	6.2	6.4	5.4	5.8	.77	.56	.46	.37	2.1	15
19	6.0	5.0	6.0	6.2	5.5	6.2	.91	.56	.52	.40	2.2	15
20	5.9	4.7	6.0	6.0	5.1	6.0	.91	.52	.52	.40	2.4	14
21	5.6	5.2	6.2	5.9	5.4	5.2	.86	.52	.63	.40	2.3	14
22	5.6	5.2	6.4	6.0	5.8	5.6	.91	.52	.63	.37	2.4	14
23	5.4	5.4	6.0	6.0	6.0	5.6	.96	.52	.60	.40	2.5	15
24	5.4	5.4	6.0	5.8	5.9	6.0	.96	.49	.49	.50	2.6	15
25	5.4	5.4	6.0	5.6	5.9	2.8	.86	.46	.46	.52	2.7	15
26	5.4	5.2	6.4	5.5	6.0	.33	.86	.46	.44	.52	10	15
27	5.4	5.2	6.4	5.5	6.2	.30	.86	.46	.40	.52	15	15
28	5.5	5.2	6.2	5.4	6.0	.30	.86	.46	.52	.60	15	15
29	5.4	5.2	6.0	5.5	------	.30	.86	.46	.49	.66	15	15
30	5.4	5.4	6.0	5.2	------	.35	.77	.46	.46	.70	15	15
31	5.0	------	6.0	4.9	------	.40	------	.46	------	.70	14	------
TOTAL	181.3	154.9	182.0	188.4	149.9	148.98	19.72	18.12	13.44	15.09	125.4	446
MEAN	5.85	5.16	5.87	6.08	5.35	4.81	.66	.58	.45	.49	4.05	14.9
MAX	6.4	5.6	6.5	6.6	6.2	6.4	.96	.77	.63	.70	15	15
MIN	5.0	4.5	5.1	4.9	4.9	.30	.37	.46	.27	.37	1.1	14
AC-FT	360	307	361	374	297	296	39	36	27	30	249	885

CAL YR 1970 TOTAL 2,348.60 MEAN 6.43 MAX 8.7 MIN 3.9 AC-FT 4,660
WTR YR 1971 TOTAL 1,643.25 MEAN 4.50 MAX 15 MIN .27 AC-FT 3,260

08128000 South Concho River at Christoval, Tex.

LOCATION.--Lat 31°11'21", long 100°30'08", Tom Green County, near center of stream on downstream side of center pier of Panhandle and Santa Fe Railway Co. bridge at Christoval, 9.5 miles upstream from Twin Buttes Dam, and at mile 23.7.

DRAINAGE AREA.--409 sq mi, of which 65 sq mi is probably noncontributing.

PERIOD OF RECORD.--February 1930 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,010.22 ft above mean sea level. Prior to July 17, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--41 years, 31.7 cfs (22,970 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,700 cfs May 30 (gage height, 11.51 ft); minimum daily, 2.0 cfs Mar. 21.
Period of record: Maximum discharge, 100,000 cfs July 23, 1938 (gage height, 21.95 ft, from floodmarks), from rating curve extended above 15,100 cfs on basis of slope-area measurement of 80,100 cfs; no flow Feb. 28, Mar. 1, 1955.
Maximum stage since 1882, about 23 ft Aug. 6, 1906 (discharge, 115,000 cfs, from rating curve as noted above), from information by local residents.

REMARKS.--Records good. Low flow materially affected by diversion to South Concho Irrigation Co.'s canal (station 08127500) 600 ft upstream from station.

REVISIONS (WATER YEARS).--WSP 1118: 1943(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	6.9	6.3	5.1	3.6	4.6	9.9	15	15	9.9	29	47
2	6.9	6.9	6.3	5.1	3.6	4.6	9.9	14	14	11	849	47
3	6.9	6.9	6.3	5.1	3.6	4.6	7.6	11	15	9.9	182	45
4	6.9	6.9	6.9	5.1	3.1	4.6	8.3	9.9	15	9.9	31	45
5	6.9	6.3	6.3	5.7	3.1	4.6	8.3	9.9	14	9.9	24	45
6	6.9	6.3	6.3	5.7	3.6	4.6	9.1	9.9	14	9.9	24	45
7	6.9	5.7	6.9	5.7	3.6	4.0	8.3	9.9	14	9.9	24	42
8	6.9	5.7	6.9	5.7	4.0	4.6	8.3	9.9	13	9.9	24	42
9	6.9	6.3	6.3	6.3	4.0	4.6	8.3	9.9	13	9.9	22	42
10	6.9	5.7	6.3	5.7	3.6	4.6	7.6	9.9	13	9.9	24	45
11	6.9	4.6	6.3	5.7	3.6	4.0	6.9	9.9	13	9.9	166	45
12	6.9	5.1	6.3	5.1	3.6	3.6	6.9	9.1	14	9.9	1,360	42
13	6.9	5.7	6.3	5.1	3.6	3.6	6.9	9.1	15	8.3	187	42
14	6.3	6.3	6.3	4.6	3.1	3.6	7.6	9.1	14	7.6	144	40
15	5.7	6.3	5.7	4.6	3.6	3.6	7.6	9.1	13	9.1	966	40
16	5.7	5.7	6.3	4.6	3.6	3.1	70	9.1	12	9.9	157	40
17	5.7	5.7	6.3	4.6	3.6	3.1	13	9.1	12	9.1	62	40
18	5.7	5.7	5.7	4.6	3.6	3.1	13	9.1	12	9.1	55	42
19	6.3	5.7	5.7	4.6	3.6	3.6	18	9.1	12	9.9	55	50
20	5.7	5.1	5.7	4.0	3.6	3.6	19	9.1	12	9.9	55	52
21	6.3	5.7	6.3	4.0	3.1	2.0	18	9.1	12	9.9	55	52
22	6.3	5.7	6.3	4.6	3.6	2.4	17	9.9	11	9.9	55	52
23	5.7	6.3	6.3	4.6	4.0	2.4	16	8.3	9.9	12	55	47
24	5.7	6.3	5.7	4.6	4.0	3.1	16	8.3	9.1	14	57	45
25	5.1	5.7	5.7	4.0	4.0	3.6	16	8.3	9.1	14	57	47
26	5.7	5.7	5.7	3.6	4.0	6.3	16	8.3	9.1	14	50	47
27	6.3	5.7	6.3	3.6	4.6	6.9	16	8.3	9.1	15	50	47
28	6.3	5.7	5.7	3.6	4.6	7.6	16	8.3	9.9	19	50	42
29	5.7	5.7	5.7	3.6	------	7.6	17	9.4	9.9	12	47	42
30	6.3	6.3	5.7	3.1	------	8.3	16	2,030	9.9	11	47	40
31	6.3	------	5.7	3.1	------	7.6	------	23	------	12	47	------
TOTAL	196.5	178.3	190.5	145.1	103.2	138.1	418.5	2,332.3	368.0	335.6	5,010	1,339
MEAN	6.34	5.94	6.15	4.68	3.69	4.45	14.0	75.2	12.3	10.8	162	44.6
MAX	6.9	6.9	6.9	6.3	4.6	8.3	70	2,030	15	19	1,360	52
MIN	5.1	4.6	5.7	3.1	3.1	2.0	6.9	8.3	9.1	7.6	22	40
AC-FT	390	354	378	288	205	274	830	4,630	730	666	9,940	2,660

CAL YR 1970 TOTAL 3,247.4 MEAN 8.90 MAX 17 MIN 4.6 AC-FT 6,440
WTR YR 1971 TOTAL 10,755.1 MEAN 29.5 MAX 2,030 MIN 2.0 AC-FT 21,330

PEAK DISCHARGE (BASE, 160 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-16	0600	3.09	390	8- 2	1700	5.17	1,480
5-30	0430	11.51	14,700	8-12	0800	6.87	3,240
				8-15	0200	6.25	2,500

08128400 Middle Concho River above Tankersley, Tex.

LOCATION.--Lat 31°25'38", long 100°42'39", Irion County, on left bank, 0.3 mile upstream from East Rocky Creek, 0.5 mile southwest of Tullos Ranch headquarters, 6.7 miles northwest of Tankersley, and at mile 20.9.

DRAINAGE AREA.--2,436 sq mi, of which 1,055 sq mi (revised) is probably noncontributing.

PERIOD OF RECORD.--March 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,986.47 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 7.94 cfs (5,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,330 cfs Sept. 24 (gage height, 12.48 ft); no flow for many days.
Period of record: Maximum discharge, 9,300 cfs May 1, 1966 (gage height, 19.46 ft), from rating curve extended above 4,000 cfs; no flow at times.
Maximum stage since 1900, 29.5 ft Sept. 26, 1936. A flood in 1900 reached the same stage, from information by local resident.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.51	2.8	1.5	2.0	1.8	1.0	1.0	.15		0	.71
2	0	.44	2.4	1.6	2.0	1.8	1.0	1.0	.09		0	.82
3	0	.48	2.4	1.8	2.0	1.6	1.0	1.1	.04		0	.80
4	0	.56	2.4	1.7	1.8	1.7	1.0	1.1	.02		0	.68
5	0	.65	2.4	1.6	1.8	1.6	1.1	.92	.01		0	.54
6	0	.54	2.6	1.6	2.0	1.6	1.3	.84	.01		0	.54
7	0	.62	2.9	1.8	2.0	1.6	1.3	.68	.01		0	.51
8	0	.62	2.9	1.8	2.0	1.5	1.3	.60	0		0	.37
9	0	.58	2.8	1.8	2.0	1.5	1.5	.53	0		0	.30
10	0	.69	2.6	1.8	2.0	1.5	1.4	.50	0		0	.28
11	0	.76	2.2	2.0	2.0	1.3	1.3	.47	0		0	.24
12	0	1.0	1.9	2.0	2.1	1.1	1.2	.43	0		358	.20
13	0	1.3	1.8	2.0	1.9	1.0	1.2	.32	.02		36	.20
14	0	1.3	1.7	2.0	1.8	1.2	1.2	.35	.01		66	.17
15	.02	.91	1.4	1.8	2.0	1.2	1.3	.38	0		318	.16
16	.13	1.0	1.3	2.0	2.0	.84	50	.28	0		51	.13
17	.35	1.2	1.3	2.0	2.1	.24	11	.23	0		14	.09
18	.51	1.3	1.3	2.0	2.4	.72	5.6	.18	0		6.7	.20
19	.62	1.5	1.5	2.0	2.4	.92	3.6	.11	0		3.9	.42
20	.67	1.6	1.5	2.0	2.7	.92	2.8	.10	0		2.7	.47
21	.84	1.9	1.5	2.0	2.5	.92	2.3	.11	0		2.1	.47
22	.88	2.0	1.5	2.0	2.3	.87	2.0	.11	0		1.6	.49
23	.81	2.0	1.6	2.0	2.2	.92	1.7	.08	.01		1.4	187
24	.81	2.2	1.5	2.0	2.2	1.0	1.5	.05	0		1.2	699
25	.71	2.2	1.5	2.1	2.2	1.2	1.4	.05	0		1.0	188
26	.62	2.4	1.5	2.0	1.9	1.2	1.5	.06	0		.74	43
27	.57	2.4	1.5	2.2	1.8	1.1	1.4	.05	0		.81	25
28	.54	2.6	1.6	2.2	1.8	1.3	1.3	.07	0		.81	17
29	.51	2.6	1.6	2.2	------	1.2	1.1	.12	0		.81	13
30	.50	2.7	1.6	2.1	------	.98	1.0	.21	0		.79	11
31	.52	------	1.5	2.0	------	1.0	------	.14	------		.71	------
TOTAL	9.61	40.56	59.0	59.6	57.9	37.33	106.3	12.17	.37	0	868.27	1,191.79
MEAN	.31	1.35	1.90	1.92	2.07	1.20	3.54	.39	.012	0	28.0	39.7
MAX	.88	2.7	2.9	2.2	2.7	1.8	50	1.1	.15	0	358	699
MIN	0	.44	1.3	1.5	1.8	.24	1.0	.05	0	0	0	.09
AC-FT	19	80	117	118	115	74	211	24	.7	0	1,720	2,360

CAL YR 1970 TOTAL 1,467.71 MEAN 4.02 MAX 76 MIN 0 AC-FT 2,910
WTR YR 1971 TOTAL 2,442.90 MEAN 6.69 MAX 699 MIN 0 AC-FT 4,850

PEAK DISCHARGE (BASE, 1,700 CFS).--Aug. 12 (0845) 1,990 cfs (11.79 ft); Sept. 24 (1600) 2,330 cfs (12.48 ft).

08129300 Spring Creek above Tankersley, Tex.

LOCATION.--Lat 31°19'48", long 100°38'24", Tom Green County, on right bank at downstream side of bridge on Farm Road 2335, 1.4 miles south of Tankersley, and 2.5 miles upstream from Dove Creek.

DRAINAGE AREA.--424 sq mi, of which 28 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,964.72 ft above mean sea level. Prior to Nov. 10, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 10.5 cfs (7,610 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30,400 cfs Aug. 12 (gage height, 16.57 ft); no flow at times.
Period of record: Maximum discharge, 30,400 cfs Aug. 12, 1971 (gage height, 16.57 ft); no flow at times.
Maximum stages since at least 1853 occurred in 1882 and 1884 (stages unknown) and on Oct. 3, 1959 (18.4 ft). At former gage (Spring Creek near Tankersley) 8 miles downstream, the flood of Oct. 3, 1959 (82,100 cfs), was found to be about 3 ft lower than the 1882 flood, the greatest at that location since at least 1853.

REMARKS.--Records good. Many small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WRD Texas 1967: 1961(M), 1964(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	1.3	34	.48	1.9	36
2							0	.86	18	.37	1.5	36
3							0	.66	13	.36	.8	34
4							0	.46	9.5	.31	.5	32
5							0	.34	5.6	.28	.4	32
6							0	.34	3.7	.26	.4	32
7							0	.24	1.3	.25	.4	31
8							0	.12	.60	.24	.4	30
9							0	.09	.37	.24	.4	28
10							0	.05	.31	.24	.4	27
11							0	.02	.27	.24	.9	25
12							0	0	.26	.24	11,500	22
13							0	0	.47	.24	4,860	23
14							0	0	2.5	.24	4,160	23
15							0	0	6.1	.24	4,210	21
16							2,450	0	6.3	.24	461	17
17							142	0	5.0	.24	119	17
18							40	0	3.3	.22	81	21
19							20	0	2.2	.20	69	21
20							14	0	1.9	.21	63	23
21							12	0	1.5	.22	59	27
22							11	0	3.5	.22	54	27
23							8.5	0	7.3	.23	52	142
24							8.5	0	2.9	.29	48	281
25							8.5	0	1.7	.31	46	86
26							8.5	0	1.3	.31	45	50
27							7.1	0	1.1	.31	43	45
28							5.3	0	.83	.32	42	44
29					------		4.0	0	.72	.34	41	42
30					------		2.1	1,280	.59	.34	39	41
31		------			------		------	100	------	.32	38	------
TOTAL	0	0	0	0	0	0	2,741.5	1,384.48	136.12	8.55	26,038.0	1,316
MEAN	0	0	0	0	0	0	91.4	44.7	4.54	.28	840	43.9
MAX	0	0	0	0	0	0	2,450	1,280	34	.48	11,500	281
MIN	0	0	0	0	0	0	0	0	.26	.20	.40	17
AC-FT	0	0	0	0	0	0	5,440	2,750	270	17	51,650	2,610

CAL YR 1970 TOTAL 385.17 MEAN 1.06 MAX 6 MIN 0 AC-FT 764
WTR YR 1971 TOTAL 31,624.65 MEAN 86.6 MAX 11,500 MIN 0 AC-FT 62,730

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-16	0730	10.63	9,040	8-12	0730	16.57	30,400
5-30	0700	8.07	3,680	8-15	0815	9.98	7,540
				9-23	2315	6.65	1,700

08130500 Dove Creek at Knickerbocker, Tex.

LOCATION.--Lat 31°16'24", long 100°37'45", Tom Green County, on right bank at right end of bridge on Farm Road 2335, 0.4 mile west of Knickerbocker, and 5.4 miles upstream from mouth.

DRAINAGE AREA.--229 sq mi, of which 31 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,001.45 ft above mean sea level. Prior to Nov. 10, 1960, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--11 years, 10.3 cfs (7,460 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,500 cfs Aug. 12 (gage height, 20.66 ft); minimum, 0.28 cfs Feb. 28.
Period of record: Maximum discharge, 17,500 cfs Aug. 12, 1971 (gage height, 20.66 ft); no flow at times.
Maximum stage since at least 1882, 30.4 ft in 1906 and Oct. 3, 1959, floods in 1882 and 1884 reached about the same stage, from information by local resident.

REMARKS.--Records good. Flow is partly regulated by storage and diversion from two small channel dams upstream and by many small diversions upstream for irrigation.

REVISIONS (WATER YEARS).--WRD Texas 1967: 1961, 1965-66.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.80	1.4	1.9	2.6	.75	1.3	7.8	17	2.0	41	42
2	.40	.80	1.8	2.2	3.1	1.2	1.3	8.0	12	2.0	31	40
3	.43	.90	1.7	2.8	3.0	1.6	1.4	6.2	10	2.0	34	38
4	.48	.90	1.5	3.0	2.3	1.7	1.1	5.6	7.3	1.5	10	37
5	.48	.90	1.4	3.2	2.0	2.0	.62	5.3	4.5	1.5	16	35
6	.45	.90	1.3	3.2	1.9	1.6	.64	4.7	6.4	1.5	12	34
7	.43	1.0	1.1	3.0	2.1	1.5	.75	4.2	4.6	1.5	8.7	33
8	.38	1.0	.99	3.0	2.1	1.4	.62	4.2	3.7	1.5	9.4	32
9	.38	1.0	.96	2.7	1.6	1.5	.63	5.4	3.1	1.5	7.8	31
10	.38	1.0	.90	2.6	1.3	1.6	.82	5.2	2.9	1.5	7.4	31
11	.38	1.0	.84	2.2	1.3	1.6	.70	3.3	2.7	1.5	221	30
12	.38	1.0	.84	2.1	1.3	1.6	.63	3.6	2.5	1.5	6,920	30
13	.38	1.0	.88	2.1	1.4	1.5	.68	3.0	6.4	1.5	595	29
14	.40	.90	.90	2.0	1.4	1.1	.86	3.1	4.0	1.0	539	30
15	.40	.90	.93	1.8	1.3	.56	1.1	3.0	3.0	1.0	1,740	29
16	.40	.90	.91	1.6	1.3	.50	2,870	3.5	2.5	1.0	226	28
17	.50	.90	.86	1.4	1.2	.54	109	2.7	2.5	1.0	78	27
18	.50	.90	.81	1.4	1.1	.87	37	1.7	2.5	1.0	63	32
19	.50	.90	.84	1.3	1.1	1.1	21	1.8	2.0	1.0	56	33
20	.50	.90	.84	1.3	1.0	.80	18	1.5	2.0	1.0	53	30
21	.60	.80	.94	1.5	1.0	.59	16	1.1	2.0	1.0	51	29
22	.60	.80	1.1	1.5	1.0	.96	16	.95	6.3	1.0	49	29
23	.60	.80	1.1	1.7	1.1	.53	15	1.0	64	1.1	47	40
24	.60	.80	1.4	1.9	1.1	.44	14	1.4	17	1.1	46	35
25	.70	.66	2.7	2.4	1.2	.51	13	.86	5.0	1.1	45	31
26	.70	.66	3.0	2.1	1.4	.84	13	.93	3.0	1.4	44	31
27	.70	.79	3.3	2.7	1.1	.64	12	1.3	2.0	1.5	42	33
28	.70	1.1	2.9	2.7	.33	.55	11	1.3	2.0	12	43	34
29	.70	1.2	1.8	2.5	------	.55	10	1.6	2.0	3.1	43	34
30	.80	1.2	1.6	2.7	------	.95	9.5	888	2.0	2.1	44	33
31	.80	------	1.5	2.2	------	1.2	------	42	------	2.1	44	------
TOTAL	16.05	27.31	43.04	68.7	42.63	32.78	3,197.65	1,024.24	206.9	55.5	11,166.3	980
MEAN	.52	.91	1.39	2.22	1.52	1.06	107	33.0	6.90	1.79	360	32.7
MAX	.80	1.2	3.3	3.2	3.1	2.0	2,870	888	64	12	6,920	42
MIN	.38	.66	.81	1.3	.33	.44	.62	.86	2.0	1.0	7.4	27
AC-FT	32	54	85	136	85	65	6,340	2,030	410	110	22,150	1,940

CAL YR 1970 TOTAL 1,335.98 MEAN 3.66 MAX 12 MIN .27 AC-FT 2,650
WTR YR 1971 TOTAL 16,861.10 MEAN 46.2 MAX 6,920 MIN .33 AC-FT 33,440

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-16	1000	18.57	15,200	7-28	1830	5.48	109
5-30	0430	14.67	7,630	8- 1	1630	6.12	204
6-22	0630	6.80	355	8-12	2000	20.66	17,500
				8-15	1430	12.23	4,240

08131200 Twin Buttes Reservoir near San Angelo, Tex.

LOCATION.--Lat 31°22'59", long 100°32'11", Tom Green County, in outlet control tower at Twin Buttes Dam on Middle Concho River, Spring Creek, and South Concho River, 3.8 miles upstream from Lake Nasworthy Dam, 8.1 miles southwest of San Angelo, and at mile 75.0.

DRAINAGE AREA.--3,724 sq mi, of which 1,178 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder on Middle Concho-Spring Creek pool and nonrecording gage on South Concho pool. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 92,020 acre-ft Sept. 30 (elevation, 1,926.52 ft); minimum, 2,120 acre-ft Apr. 15.
Period of record: Maximum contents, 92,020 acre-ft Sept. 30, 1971 (elevation, 1,926.52 ft); minimum since first appreciable storage, 2,120 acre-ft Apr. 15, 1971.
REVISIONS.--The figures of maximum and minimum contents for water years 1966-70 have been revised to reflect total contents, as shown in the following table. They supersede figures published in WRD Texas, 1966-70.

Water year	Maximum		Minimum	
	Date	Contents	Date	Contents
1966	May 3, 1966	16,750	Apr. 24, 1966	5,060
1967	Oct. 9, 1966	15,980	Sept. 3, 1967	4,440
1968	Apr. 18, 1968	14,350	Sept. 30, 1968	6,100
1969	May 20, 1969	10,730	Aug. 26, 1969	3,930
1970	Apr. 30, 1970	14,620	Sept. 30, 1970	4,680

REMARKS.--Reservoir is formed by a rolled earthfill dam, 8.1 miles long including a 200-foot uncontrolled off-channel concrete gravity spillway with ogee weir section. Outlet works consist of three 15.5-foot concrete conduits, each is controlled by a 12- by 15-foot fixed wheel gate and a 12- by 15-foot radial gate, located in Middle Concho-Spring Creek pool. Low-flow releases will be made through 2- by 2-foot regulating gates located in the center of each of three fixed wheel gates. The city of San Angelo pumped water from dead storage for municipal use in water year 1971. The South Concho and Middle Concho-Spring Creek pools are connected by a 3.22-mile equalizing channel. At a lake elevation of 1,925 ft the two pools join to form one lake. Deliberate impoundment of water began on Dec. 1, 1962; dam was completed Feb. 13, 1963. The U.S. Bureau of Reclamation furnished the capacity curve, which is based on a survey made in 1958. Reservoir built for flood control, irrigation and municipal use. Data regarding dam and reservoir are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,991.0	-
Crest of spillway	1,969.1	640,600
Top of conservation storage	1,940.2	186,200
Bottom of equalizing channel	1,925.0	84,760
Dead storage in South Concho pool	1,925.0	4,600
Invert to outlet works (Middle Concho-Spring Creek pool)	1,885.0	3,750

COOPERATION.--Record of elevations furnished by city of San Angelo.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,925.0	84,760
1,926.0	89,450
1,927.0	94,390

08131200 Twin Buttes Reservoir near San Angelo, Tex.--Continued

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,630	3,400	3,130	3,160	3,080	2,840	2,180	11,560	16,260	13,660	8,670	87,160
2	4,600	3,360	3,120	3,160	3,080	2,830	2,190	11,490	16,250	13,500	10,200	87,150
3	4,540	3,320	3,120	3,170	3,070	2,820	2,190	11,460	16,220	13,350	10,800	87,140
4	4,510	3,310	3,120	3,180	3,070	2,810	2,190	11,450	16,120	13,190	10,870	87,170
5	4,470	3,300	3,130	3,190	3,050	2,790	2,200	11,400	16,040	13,010	10,900	87,210
6	4,420	3,300	3,110	3,180	3,050	2,780	2,200	11,380	15,950	12,590	10,960	87,250
7	4,370	3,290	3,110	3,180	3,040	2,760	2,190	11,330	15,840	12,070	11,040	87,250
8	4,310	3,290	3,110	3,170	3,020	2,760	2,190	11,300	15,750	11,580	11,070	87,250
9	4,230	3,280	3,110	3,170	3,010	2,750	2,180	11,270	15,620	11,110	11,090	87,250
10	4,200	3,280	3,110	3,170	3,000	2,720	2,180	11,240	15,430	10,830	11,520	87,200
11	4,140	3,280	3,090	3,170	3,000	2,660	2,160	11,100	15,280	10,660	12,100	87,110
12	4,120	3,290	3,090	3,190	2,980	2,600	2,150	10,870	15,190	10,470	48,750	86,940
13	4,080	3,290	3,090	3,200	2,980	2,560	2,140	10,660	15,220	10,280	61,060	86,860
14	4,030	3,280	3,080	3,190	2,970	2,520	2,130	10,550	15,160	10,110	70,250	86,860
15	4,000	3,270	3,080	3,180	2,960	2,500	2,120	10,510	15,120	9,930	84,530	86,820
16	3,950	3,270	3,070	3,180	2,950	2,480	8,200	10,450	15,070	9,760	85,880	86,780
17	3,940	3,270	3,070	3,160	2,940	2,430	13,000	10,320	15,020	9,570	86,250	86,650
18	3,900	3,250	3,070	3,160	2,920	2,390	13,120	10,080	14,940	9,370	86,350	86,860
19	3,890	3,250	3,090	3,150	2,910	2,350	13,120	9,910	14,880	9,230	86,440	86,980
20	3,870	3,220	3,090	3,140	2,880	2,330	13,120	9,740	14,780	9,050	86,550	87,030
21	3,860	3,220	3,100	3,140	2,890	2,310	13,100	9,620	14,730	8,900	86,640	87,070
22	3,840	3,210	3,110	3,140	2,870	2,270	12,990	9,500	14,680	8,740	86,690	87,360
23	3,810	3,170	3,140	3,130	2,850	2,260	12,850	9,380	14,710	8,610	86,790	88,190
24	3,760	3,160	3,140	3,130	2,830	2,250	12,720	9,240	14,660	8,480	86,840	90,770
25	3,710	3,150	3,140	3,120	2,850	2,240	12,580	9,120	14,540	8,360	86,900	91,470
26	3,680	3,140	3,140	3,120	2,850	2,230	12,450	9,000	14,390	8,220	86,970	91,660
27	3,640	3,140	3,150	3,100	2,840	2,220	12,310	8,890	14,250	8,140	87,070	91,780
28	3,580	3,130	3,160	3,090	2,840	2,220	12,160	8,810	14,110	8,120	87,090	91,820
29	3,530	3,130	3,160	3,090	------	2,230	11,960	9,010	13,960	8,180	87,120	91,920
30	3,490	3,130	3,150	3,090	------	2,220	11,740	15,820	13,800	8,210	87,150	92,020
31	3,470	------	3,150	3,080	------	2,200	------	16,210	------	8,220	87,130	------
(†)	1,919.65	1,918.80	1,918.88	1,918.75	1,918.19	1,917.45	1,919.05	1,924.66	1,922.70	1,920.46	1,926.50	1,926.52
(‡)	1,879.80	1,879.57	1,879.59	1,879.49	1,879.24	1,877.50	1,892.18	1,894.43	1,892.94	1,887.51	1,925.37	1,926.52
(††)	-1,210	-340	+20	-70	-240	-640	+9,540	+4,470	-2,410	-5,580	+78,910	+4,590
MAX	4,630	3,400	3,160	3,200	3,080	2,840	13,120	16,210	16,260	13,660	87,150	92,020
MIN	3,470	3,130	3,070	3,080	2,830	2,200	2,120	8,810	13,800	8,120	8,670	86,650

CAL YR 1970..... ‡ - †† -6,900 MAX 14,620 MIN 3,070
WTR YR 1971..... ‡ - †† +87,340 MAX 92,020 MIN 2,120

† Elevation, in feet, at end of month, in South Concho pool.
‡ Elevation, in feet, at end of month, in Middle Concho-Spring Creek pool.
†† Change in contents, in acre-feet.

08131400 Pecan Creek near San Angelo, Tex.

LOCATION.--Lat 31°18'32", long 100°26'44", Tom Green County, on left bank 200 ft upstream from U.S. Highway 277, 3.6 miles upstream from mouth, and 10.5 miles south of San Angelo.

DRAINAGE AREA.--83.2 sq mi.

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,930.72 ft above mean sea level. Prior to Apr. 30, 1968, at site 1.2 miles downstream at datum 20.21 ft (revised) lower.

AVERAGE DISCHARGE.--10 years, 0.83 cfs (601 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,030 cfs July 28 (gage height, 2.42 ft); no flow most of time.
Period of record: Maximum discharge, 6,780 cfs (revised) Sept. 24, 1964 (gage height, 11.15 ft, site and datum then in use), from rating curve extended above 2,100 cfs on basis of slope-area measurement of 30,500 cfs; no flow most of time each year.
Maximum stage since at least 1908, 14.36 ft, site and datum then in use, Sept. 15, 1936 (discharge, 30,500 cfs by slope-area measurement).

REMARKS.--Records good. No known diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	0	.01	0	30	0
2							0	0	0	0	4.1	0
3							0	0	0	0	.08	0
4							0	0	0	0	0	0
5							0	0	0	0	0	0
6							0	0	0	0	0	0
7							0	0	0	0	0	0
8							0	0	0	0	0	0
9							0	0	0	0	0	0
10							0	0	0	0	0	0
11							0	0	0	0	12	0
12							0	0	0	0	26	0
13							0	0	0	0	3.1	0
14							0	0	0	0	.48	0
15							0	0	0	0	2.0	0
16							43	0	0	0	.55	0
17							.18	0	0	0	.03	0
18							0	0	0	0	0	0
19							0	0	0	0	0	0
20							0	0	0	0	0	0
21							0	0	0	0	0	0
22							0	0	0	0	0	0
23							0	0	0	0	0	3.5
24							0	0	0	0	0	.12
25							0	0	0	0	0	0
26							0	0	0	0	0	0
27							0	0	0	0	0	0
28							0	0	0	79	0	0
29					------		0	0	0	1.2	0	0
30					------		0	73	0	0	0	0
31		------			------		------	2.4	------	0	0	------
TOTAL	0	0	0	0	0	0	43.18	75.4	.01	80.2	78.34	3.62
MEAN	0	0	0	0	0	0	1.44	2.43	.0003	2.59	2.53	.12
MAX	0	0	0	0	0	0	43	73	.01	79	30	3.5
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	86	150	.02	159	155	7.2

CAL YR 1970 TOTAL 0.00 MEAN .000 MAX .0 MIN 0 AC-FT 0
WTR YR 1971 TOTAL 280.75 MEAN .77 MAX 79 MIN 0 AC-FT 557

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-16	0500	1.37	273	7-28	1700	2.42	1,030
5-30	0800	1.78	511	8- 1	1430	1.38	278

08131600 Tom Green County Water Control and Improvement District No. 1 canal near San Angelo, Tex.

LOCATION.--Lat 31°24'58", long 100°23'23", Tom Green County, on left bank, 1,900 ft downstream from U.S. Highway 87, 4.3 miles south of San Angelo, and 7.0 miles downstream from Lake Nasworthy.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 1,855.33 ft above mean sea level (Bureau of Reclamation reference mark).

EXTREMES.--No water released during period of record.

REMARKS.--Records represent water released from Lake Nasworthy for irrigation. Local flood excluded.

08132000 Lake Nasworthy near San Angelo, Tex.

LOCATION.--Lat 31°23'17", long 100°28'39", Tom Green County, on left bank 250 ft upstream from Nasworthy Dam on South Concho River, 3.8 miles downstream from Twin Buttes Dam, 6 miles southwest of San Angelo, and at mile 68.9.

DRAINAGE AREA.--3,833 sq mi, of which 3,724 sq mi is above Twin Buttes Reservoir and 1,178 sq mi is probably noncontributing.

PERIOD OF RECORD.--March 1930 to current year. Prior to October 1969, monthend contents only.

GAGE.--Water-stage recorder. Datum of gage is 1,840.00 ft above mean sea level.

EXTREMES.--Current year: Maximum contents, 12,050 acre-ft Aug. 15 (gage height, 31.99 ft); minimum, 7,550 acre-ft Apr. 15 (gage height, 28.62 ft).
Period of record: Maximum contents, 26,900 acre-ft Sept. 15, 1936 (gage height, 38.36 ft); minimum, 209 acre-ft Aug. 22, 1964 (gage height, 13.21 ft).

REMARKS.--Lake is formed by 5,480-foot dam having a 3,780-foot earthen section, two emergency spillways 300 and 600 ft long, and a concrete service spillway with a bank of fifteen 18- by 25-foot tainter gates, and one collapsible floodgate. Dam completed and storage began Mar. 28, 1930. Contents since September 1962 controlled by releases or pumpage from Twin Buttes Reservoir (station 08131200). Beginning in 1955 figures of contents and capacities shown herein have been adjusted for sedimentation. Siltation surveys made by Soil Conservation Service in December 1938 and May 1953 show that 1,191 acre-ft of silt was deposited from March 1930 to December 1938 and an additional 1,023 acre-ft was deposited from December 1938 to May 1953, making a total siltation of 2,214 acre-ft (gage height, 32.2 ft). Water is used for part of San Angelo municipal supply and irrigation. Capacity curve based on survey by Soil Conservation Service in 1953. Data regarding dam and lake are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Crest of 600-foot emergency spillway	40.1	-
Crest of 300-foot emergency spillway	39.0	27,470
Top of tainter gates	33.2	13,990
Top of collapsible floodgate	32.2	12,390
Invert of outlet to canal	27.5	6,370
Invert of two 24-inch sluice gates	20.0	1,580
Crest of tainter gate sill	15.3	435
Invert of two 36-inch sluice gates	-4.0	-

Capacity table (gage height, in feet, and total contents, in acre-feet)

28.5	7,420	30.5	9,770
29.5	8,570	32.0	12,070

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,990	9,370	8,950	8,630	8,560	8,440	8,010	9,150	9,490	9,220	11,300	11,430
2	9,000	9,370	8,940	8,630	8,570	8,440	7,970	9,170	9,450	9,220	11,300	11,370
3	9,010	9,360	8,920	8,620	8,580	8,430	7,920	9,150	9,370	9,210	11,220	11,290
4	9,040	9,350	8,920	8,580	8,560	8,410	7,870	9,110	9,350	9,190	11,210	11,190
5	9,070	9,350	8,890	8,560	8,550	8,410	7,800	9,070	9,310	9,180	11,190	11,080
6	9,090	9,350	8,880	8,550	8,530	8,390	7,800	9,050	9,270	9,350	11,160	10,970
7	9,100	9,350	8,880	8,560	8,520	8,400	7,780	9,000	9,190	9,640	11,170	10,870
8	9,050	9,330	8,870	8,560	8,520	8,400	7,750	8,980	9,100	9,940	11,110	10,770
9	9,040	9,330	8,860	8,560	8,520	8,400	7,730	8,980	9,060	10,230	11,060	10,690
10	9,050	9,310	8,850	8,560	8,530	8,410	7,710	8,950	9,090	10,370	11,590	10,600
11	9,130	9,300	8,830	8,560	8,510	8,410	7,700	8,990	9,120	10,370	11,890	10,570
12	9,160	9,290	8,810	8,570	8,510	8,410	7,640	9,070	9,210	10,370	11,990	10,580
13	9,170	9,230	8,800	8,580	8,520	8,410	7,600	9,180	9,330	10,390	11,850	10,610
14	9,170	9,190	8,800	8,590	8,510	8,350	7,580	9,210	9,300	10,400	11,930	10,580
15	9,180	9,170	8,790	8,590	8,510	8,350	7,560	9,210	9,290	10,410	12,050	10,500
16	9,240	9,130	8,770	8,610	8,510	8,340	8,210	9,190	9,270	10,430	12,040	10,460
17	9,250	9,110	8,760	8,620	8,510	8,330	8,260	9,170	9,230	10,430	12,020	10,460
18	9,290	9,100	8,760	8,610	8,510	8,280	8,260	9,130	9,210	10,430	11,990	10,550
19	9,300	9,060	8,740	8,620	8,500	8,290	8,270	9,100	9,170	10,410	11,960	10,550
20	9,310	9,050	8,740	8,640	8,490	8,290	8,250	9,130	9,160	10,400	11,930	10,520
21	9,330	9,060	8,740	8,630	8,500	8,290	8,250	9,170	9,170	10,410	11,890	10,490
22	9,340	9,000	8,730	8,620	8,490	8,260	8,290	9,190	9,150	10,400	11,850	10,550
23	9,340	8,990	8,700	8,630	8,490	8,260	8,350	9,180	9,150	10,580	11,830	10,770
24	9,350	8,990	8,690	8,630	8,490	8,260	8,440	9,170	9,150	10,630	11,780	10,900
25	9,360	8,970	8,670	8,620	8,510	8,270	8,530	9,170	9,170	10,680	11,730	10,920
26	9,390	8,950	8,650	8,610	8,490	8,260	8,630	9,170	9,170	10,710	11,700	10,920
27	9,390	8,950	8,650	8,610	8,470	8,260	8,700	9,170	9,180	10,760	11,650	10,890
28	9,390	8,950	8,640	8,620	8,470	8,220	8,790	9,180	9,190	11,320	11,620	10,870
29	9,390	8,950	8,630	8,610	------	8,200	8,910	9,350	9,210	11,250	11,570	10,840
30	9,390	8,970	8,630	8,610	------	8,160	9,040	9,550	9,220	11,140	11,530	10,810
31	9,390	------	8,630	8,570	------	8,130	------	9,530	------	11,050	11,480	------
(†)	30.18	29.83	29.55	29.50	29.42	29.13	29.89	30.30	30.34	31.46	31.63	31.21
(‡)	+420	-420	-340	-60	-100	-340	+910	+490	-310	+1,830	+430	-670
MAX	9,390	9,370	8,950	8,640	8,580	8,440	9,040	9,550	9,490	11,320	12,050	11,430
MIN	8,990	8,950	8,630	8,550	8,440	8,130	7,560	8,950	9,060	9,180	11,060	10,460

CAL YR 1970..... ‡ -2,100 MAX 10,730 MIN 8,470
WTR YR 1971..... ‡ +1,840 MAX 12,050 MIN 7,560

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

08133500 North Concho River at Sterling City, Tex.

LOCATION.--Lat 31°49'58", long 100°59'38", Sterling County, on right bank 100 ft upstream from bridge on State Highway 163, 0.3 mile south of Sterling City, 3.5 miles downstream from Lacy Creek, 4 miles upstream from Sterling Creek, and at mile 55.3.

DRAINAGE AREA.--605 sq mi, of which 66 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,242.36 ft above mean sea level. Prior to Dec. 6, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 9.82 cfs (7,110 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,960 cfs May 29 (gage height, 14.80 ft); no flow most of time.
Period of record: Maximum discharge, 16,300 cfs July 6, 1948 (gage height, 23.70 ft); no flow at times each year.
Maximum stage since at least 1891, that of July 6, 1948.

REMARKS.--Records fair. Small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	1.7		0	0
2								0	.55		0	0
3								0	0		0	0
4								0	0		0	0
5								0	0		0	0
6								0	0		0	0
7								0	0		0	0
8								0	0		0	0
9								0	0		0	0
10								0	0		0	0
11								0	0		0	0
12								0	0		0	0
13								0	0		209	0
14								0	0		65	0
15								0	0		.28	0
16								0	0		0	0
17								0	0		0	0
18								0	0		0	0
19								0	0		0	0
20								0	0		0	0
21								0	0		0	0
22								0	108		0	.01
23								0	313		0	604
24								0	1.8		0	799
25								0	.04		0	150
26								0	0		0	9.5
27								0	0		0	3.8
28								0	0		0	1.4
29					------			421	0		0	.39
30					------			180	0		0	.04
31		------			------		------	7.0	------		0	------
TOTAL	0	0	0	0	0	0	0	608.0	425.09	0	274.28	1,568.14
MEAN	0	0	0	0	0	0	0	19.6	14.2	0	8.85	52.3
MAX	0	0	0	0	0	0	0	421	313	0	209	799
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	1,210	843	0	544	3,110

CAL YR 1970 TOTAL 24.93 MEAN .06 MAX 23 MIN 0 AC-FT 49
WTR YR 1971 TOTAL 2,875.51 MEAN 7.88 MAX 799 MIN 0 AC-FT 5,700

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	2200	14.80	1,960	8-13	2100	13.02	1,320
6-23	0100	13.58	1,500	9-24	1900	14.61	1,880

08134000 North Concho River near Carlsbad, Tex.

LOCATION.--Lat 31°35'33", long 100°38'12", Tom Green County, near left bank on downstream side of pier of county road bridge, 0.6 mile southwest of Carlsbad, 1.5 miles upstream from Mule Creek, 16.2 miles upstream from San Angelo Dam, and at mile 22.9.

DRAINAGE AREA.--1,249 sq mi, of which 105 sq mi is probably noncontributing.

PERIOD OF RECORD.--March 1924 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,968.02 ft above mean sea level. Prior to Feb. 4, 1925, and Sept. 27, 1936, to Feb. 7, 1937, nonrecording gage, Feb. 4, 1925, to Sept. 26, 1936, and Feb. 8, 1937, to Nov. 6, 1955, water-stage recorder, at site 2.5 miles upstream at datum 32.76 ft higher.

AVERAGE DISCHARGE.--47 years, 39.1 cfs (28,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,380 cfs May 30 (gage height, 9.78 ft); no flow at times.
Period of record: Maximum discharge, 94,600 cfs Sept. 26, 1936 (gage height, 16.0 ft at former site, 29.1 ft at present site, from floodmarks), on basis of slope-area measurement of peak flow at former site; no flow at times.
Maximum stage since 1853, that of Sept. 26, 1936. Stage not known for major flood in June 1853.

REMARKS.--Records good. Diversions by pumping above station.

REVISIONS (WATER YEARS).--WSP 1512: 1924(M), 1925, 1926(M), 1928, 1930, 1932(M), 1935, 1937-38(M), 1941(M), 1945(M), 1947-49(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	16		0	0
2								0	2.7		0	0
3								0	.23		0	0
4								0	.03		0	0
5								0	0		0	0
6								0	0		0	0
7								0	0		0	0
8								0	0		0	0
9								0	0		0	0
10								0	0		0	0
11								0	0		0	0
12								0	0		273	0
13								0	0		43	0
14								0	0		118	0
15								0	0		40	0
16								0	0		9.1	0
17								0	0		1.9	0
18								0	0		.20	0
19								0	0		.11	0
20								0	0		.06	0
21								0	0		.04	0
22								0	130		.03	0
23								0	88		0	366
24								0	23		0	884
25								0	4.1		0	806
26								0	.23		0	75
27								0	.07		0	27
28								0	.02		0	14
29					------			0	0		0	6.6
30					------			534	0		0	2.4
31		------			------		------	48	------		0	------
TOTAL	0	0	0	0	0	0	0	582	264.38	0	485.44	2,181.0
MEAN	0	0	0	0	0	0	0	18.8	8.81	0	15.7	72.7
MAX	0	0	0	0	0	0	0	534	130	0	273	884
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	1,150	524	0	963	4,330

CAL YR 1970 TOTAL 0.00 MEAN .00 MAX 0 MIN 0 AC-FT 0
WTR YR 1971 TOTAL 3,512.82 MEAN 9.62 MAX 884 MIN 0 AC-FT 6,970

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
5-30	0930	9.78	2,380
8-12	1530	9.16	2,000
9-23	2300	9.76	2,340

08134500 San Angelo Lake at San Angelo, Tex.
(Formerly published as San Angelo Reservoir at San Angelo)

LOCATION.--Lat 31°29'04", long 100°28'53", Tom Green County, in intake structure of San Angelo Dam on North Concho River, 3.1 miles northwest of San Angelo, and at mile 6.6.

DRAINAGE AREA.--1,488 sq mi, of which 105 sq mi is probably noncontributing.

PERIOD OF RECORD.--February 1952 to current year. Prior to October 1970, published as San Angelo Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 12, 1953, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 11,120 acre-ft Sept. 27, 28 (elevation, 1,869.41 ft); lake dry Oct. 1 to Apr. 15.
Period of record: Maximum contents, 174,100 acre-ft Oct. 14, 1957 (elevation, 1,916.47 ft); minimum since first appreciable storage, lake dry July 16, 1970, to Apr. 15, 1971.

REMARKS.--Lake is formed by a rolled earthfill dam 40,885 ft long including spillway. Closure was completed Mar. 7, 1951. Deliberate impoundment of water began Feb. 1, 1952. Lake is operated for flood control and part of municipal supply for city of San Angelo. Outlet works consist of six gate-controlled outlets (7.5 by 14.5 ft) opening into two 18-foot-diameter concrete conduits and two 30-inch gate-controlled outlets for water-supply outlet. The emergency spillway to the right of the dam is an uncontrolled off-channel concrete gravity dam with ogee weir section 1,150 ft long designed to discharge 356,000 cfs at maximum design level (elevation, 1,958.0 ft). Capacity based on survey made in 1944. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,964.0	-
Crest of emergency spillway	1,938.5	396,400
Top of conservation storage	1,908.0	119,200
Inverts to wet well for 30-inch outlets	1,878.5	22,970
Inverts of six gate-controlled outlets	1,840.0	5

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WSP 1922: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,836.0	0	1,852.0	971
1,840.0	5	1,854.0	1,570
1,845.0	57	1,856.0	2,360
1,850.0	538	1,858.0	3,270
		1,860.0	4,290

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	271	1,550	1,690	1,810	6,250
2							0	268	1,550	1,680	1,980	6,230
3							0	250	1,550	1,670	1,990	6,210
4							0	243	1,540	1,670	1,990	6,190
5							0	221	1,530	1,650	1,990	6,170
6							0	210	1,510	1,640	1,980	6,160
7							0	201	1,490	1,630	1,970	6,140
8							0	182	1,480	1,590	1,970	6,100
9							0	181	1,460	1,580	1,960	6,100
10							0	171	1,460	1,560	2,010	6,090
11							0	162	1,460	1,550	2,040	6,070
12							0	159	1,470	1,550	5,000	6,050
13							0	159	1,470	1,530	5,750	6,030
14							0	159	1,460	1,520	6,020	6,010
15							0	159	1,460	1,510	6,290	5,990
16							28	154	1,460	1,490	6,410	5,980
17							616	153	1,450	1,470	6,430	5,950
18							538	149	1,440	1,460	6,430	5,950
19							428	142	1,430	1,460	6,430	5,970
20							401	136	1,430	1,450	6,430	5,970
21							386	128	1,430	1,440	6,430	5,960
22							378	122	1,470	1,420	6,430	5,980
23							378	116	1,620	1,430	6,410	6,500
24							377	109	1,710	1,430	6,390	8,940
25							375	102	1,720	1,430	6,370	10,550
26							339	96	1,720	1,420	6,360	11,070
27							319	91	1,700	1,420	6,340	11,120
28							308	90	1,690	1,520	6,320	11,110
29					------		297	94	1,690	1,550	6,310	11,080
30					------		284	758	1,690	1,540	6,290	11,050
31		------			------		------	1,510	------	1,540	6,270	------
(†)	1,836.00	1,836.00	1,836.00	1,836.00	1,836.00	1,836.00	1,848.23	1,853.81	1,854.34	1,853.90	1,863.37	1,869.33
(#)	0	0	0	0	0	0	+284	+1,226	+180	-150	+4,730	+4,780
MAX	0	0	0	0	0	0	616	1,510	1,720	1,690	6,430	11,120
MIN	0	0	0	0	0	0	0	90	1,430	1,420	1,810	5,950

CAL YR 1970..... # -3,420 MAX 3,460 MIN 0
WTR YR 1971..... # +11,050 MAX 11,120 MIN 0

† Elevation, in feet, at end of month.
# Change in contents, in acre-feet.

08135000 North Concho River at San Angelo, Tex.

LOCATION.--Lat 31°27'57", long 100°26'51", Tom Green County, near left bank on downstream side of pier of Sixth Street Bridge in San Angelo, 3.2 miles upstream from confluence with South Concho River, and 3.4 miles downstream from San Angelo Dam.

DRAINAGE AREA.--1,507 sq mi, of which 105 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1915 to June 1928, February 1929 to September 1931, July 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,813.42 ft above mean sea level. Prior to Sept. 1, 1920, nonrecording gage and Sept. 1, 1920, to Feb. 11, 1929, water-stage recorder at site 1.6 miles downstream at datum 11.02 ft lower. Feb. 12, 1929, to Sept. 30, 1931, water-stage recorder at site 1.6 miles downstream at datum 13.02 ft lower.

AVERAGE DISCHARGE.--37 years (1916-27, 1929-31, 1947-71), 31.4 cfs (22,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 180 cfs Aug. 13 (gage height, 2.45 ft); no flow at times.
Period of record: Maximum discharge, about 47,000 cfs June 13, 1930 (gage height, 22.52 ft, site and datum then in use); no flow at times.
Flood of Sept. 17, 1936, reached a stage of 34.6 ft, from floodmarks (discharge, 184,000 cfs by slope-area measurement). The flood in 1936 was the greatest since flood in June 1853 (stage unknown).

REMARKS.--Records good. Since 1952, flow regulated by San Angelo Lake (see preceding page).

REVISIONS (WATER YEARS).--WSP 568: 1916, 1918-22. WSP 1512: 1916(M), 1917-18, 1919-21(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	.32	.26	.60	.26	.21	.02	.21	.10	0	28	.17
2	.60	.40	.26	.60	.26	.10	.02	.17	.06	0	6.4	.13
3	.49	.49	.32	.60	.32	.06	.02	.10	.03	0	1.4	.08
4	.49	.49	.32	.40	.26	.03	.02	.17	.02	0	.40	.10
5	.49	.32	.40	.32	.17	.03	.02	.17	.01	0	.26	.08
6	.40	.32	.32	.32	.17	.02	.01	.10	.01	0	.17	.06
7	2.0	.26	.32	.32	.17	.02	.01	.04	0	0	2.8	.06
8	.88	.26	.32	.32	.17	.03	.01	.03	0	0	1.7	.04
9	.60	.21	.26	.40	.17	.06	.01	.03	0	0	.40	.04
10	.49	.21	.32	.26	.17	.04	.01	.03	0	0	12	.04
11	.40	.21	.32	.32	.17	.04	.01	.01	0	0	30	.04
12	.32	.17	.32	.26	.21	.03	.01	.01	.13	0	29	.04
13	5.9	.17	.32	.21	.26	.02	.01	.01	7.0	0	50	.04
14	2.0	.17	.40	.17	.26	.01	.01	0	.60	0	14	.04
15	.88	.17	.40	.17	.21	0	.01	0	.17	0	15	.04
16	.60	.17	.49	.17	.21	0	54	.01	.08	0	2.7	.03
17	1.5	.17	.49	.17	.21	.01	7.3	0	1.5	0	1.2	.03
18	1.4	.13	.49	.21	.21	.01	11	0	.21	0	.88	2.6
19	.88	.17	.40	.26	.21	0	8.8	0	.06	0	.73	2.9
20	.73	.17	.49	.17	.21	.01	7.3	0	.02	0	.60	1.0
21	.60	.21	.40	.17	1.1	.02	2.6	0	2.8	0	.49	.26
22	.60	.17	.49	.17	.40	.01	1.0	0	.73	0	.40	2.5
23	.60	.13	.49	.13	.32	0	.73	0	.13	8.7	.40	33
24	.73	.17	.49	.17	.26	0	.40	0	.04	5.6	.40	24
25	.60	.13	.40	.17	.49	0	.40	0	.02	.49	.40	2.7
26	.49	.13	.40	.59	.40	0	.40	0	.01	.13	.32	1.0
27	.60	.13	.49	.32	.32	.01	.32	0	.01	.08	.40	.60
28	.60	.17	.49	.32	.32	.01	.88	0	.01	5.8	.40	.60
29	.40	.17	.49	.40	------	.01	.73	.60	.01	2.4	.32	.49
30	.40	.21	.60	.40	------	.01	.32	2.4	0	.40	.21	.60
31	.40	------	.49	.32	------	.01	------	.32	------	.17	.17	------
TOTAL	27.80	6.60	12.45	9.41	7.89	.81	96.38	4.41	13.76	23.77	201.55	73.31
MEAN	.90	.22	.40	.30	.28	.026	3.21	.14	.46	.77	6.50	2.44
MAX	5.9	.49	.60	.60	1.1	.21	54	2.4	7.0	8.7	50	33
MIN	.32	.13	.26	.13	.17	0	.01	0	0	0	.17	.03
AC-FT	55	13	25	19	16	1.6	191	8.8	27	47	400	145

CAL YR 1970 TOTAL 1,532.85 MEAN 4.20 MAX 46 MIN 0 AC-FT 3,040
WTR YR 1971 TOTAL 478.14 MEAN 1.31 MAX 54 MIN 0 AC-FT 948

08136000 Concho River at San Angelo, Tex.

LOCATION.--Lat 31°27'12", long 100°24'37", Tom Green County, on left bank 0.5 mile downstream from confluence of North Concho and South Concho Rivers, 1.8 miles southeast of Tom Green County Courthouse, and at mile 60.9.

DRAINAGE AREA.--5,380 sq mi, of which 1,283 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1915 to current year. Prior to October 1969, published as "near San Angelo".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,776.79 ft above mean sea level. Prior to Aug. 11, 1917, nonrecording gage at same site and datum. Aug. 11, 1917, to May 15, 1963, water-stage recorder on right bank to same datum.

AVERAGE DISCHARGE.--56 years, 133 cfs (96,360 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,780 cfs Aug. 13 (gage height, 5.23 ft); no flow at times July 21, 22.
Period of record: Maximum discharge, 230,000 cfs Sept. 17, 1936 (gage height, 46.6 ft, from floodmarks), from rating curve extended above 105,000 cfs on basis of slope-area measurements of 167,000 and 230,000 cfs; no flow at times in 1921, 1952-53, 1965, 1971.
Maximum stage since 1853, 47.5 ft Aug. 6, 1906 (discharge, about 246,000 cfs), from information by local resident. Other large floods are known to have occurred in June 1853, August 1882, and April 1900.

REMARKS.--Records good. Many diversions upstream from station for irrigation and municipal supply. The city of San Angelo diverted 9,770 acre-ft for municipal use during the 1971 water year. All of the sewage effluent is used for irrigation about 6 miles downstream from gage, and none is returned directly to the stream. Flow is regulated by Twin Buttes Reservoir (station 08131200), Lake Nasworthy (station 08132000) on South Concho River, and San Angelo Lake (station 08134500) on North Concho River.

REVISIONS (WATER YEARS).--WSP 568: 1915-16, 1919-22. WSP 1148: 1916-22(M), 1924(M), 1925-26, 1929(M), 1930-32, 1935-37. WSP 1512: 1917-18. WSP 1712: 1936. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	.18	.08	.08	.05	.07	.04	.05	.10	.05	143	.08
2	1.4	.22	.08	.08	.04	.06	.04	.05	.08	.05	77	.08
3	1.3	.06	.09	.07	.03	.05	.04	.05	.07	.05	27	.08
4	1.4	.03	.10	.07	.05	.07	.03	.05	.05	.05	21	.08
5	4.5	.04	.07	.07	.05	.06	.03	.06	.06	.05	17	.08
6	3.9	.05	.07	.07	.05	.08	.03	.08	.07	.04	4.9	.08
7	2.4	.08	.07	.06	.05	.07	.03	.07	.07	.03	12	.08
8	1.8	.06	.07	.06	.05	.07	.03	.06	.07	.03	10	.08
9	.82	.05	.07	.06	.05	.10	.03	.06	.06	.03	4.8	.08
10	.81	.05	.11	.06	.06	.14	.03	.07	.05	.04	54	.08
11	7.1	.07	.14	.06	.05	.08	.03	.07	.05	.04	195	.08
12	15	.08	.14	.06	.04	.10	.01	.07	.07	.05	86	.08
13	8.1	.09	.14	.06	.05	.05	.01	.07	.26	.06	292	.08
14	2.3	.23	.13	.06	.07	.03	.01	.06	.08	.05	43	.07
15	.26	.28	.60	.06	.07	.03	.01	.05	.07	.04	49	.07
16	2.4	.30	.16	.06	.08	.06	175	.04	.07	.04	23	.08
17	2.5	.31	.11	.06	.08	.05	30	.06	.07	.04	2.3	.08
18	.39	.10	.10	.06	.09	.05	12	.06	.06	.04	1.5	.26
19	.23	.09	.10	.06	.10	.03	8.3	.06	.04	.04	.13	.17
20	.17	.09	.10	.06	.10	.03	6.2	.05	.04	.04	.10	.13
21	.14	.08	.10	.05	.11	.03	.10	.06	.10	.01	.10	.12
22	.10	.07	.10	.05	.05	.03	.06	.06	.58	.01	.08	.20
23	.07	.07	.07	.05	.05	.03	.07	.07	.11	2.4	.08	33
24	.07	.07	.06	.05	.05	.03	.08	.06	.07	60	.08	98
25	.07	.07	.06	.05	.08	.03	.05	.06	.06	20	.08	17
26	.06	.07	.06	.07	.06	.03	.04	.06	.06	11	.08	4.8
27	.07	.07	.06	.11	.05	.02	.04	.06	.06	7.3	.08	.21
28	.11	.07	.06	.12	.07	.02	.05	.05	.06	38	.08	.16
29	.07	.08	.06	.12	------	.02	.05	.27	.06	36	.08	.16
30	.07	.08	.07	.07	------	.02	.05	.51	.06	17	.08	.14
31	.06	------	.08	.05	------	.02	------	.12	------	13	.08	------
TOTAL	59.57	3.19	3.31	2.07	1.73	1.56	232.49	2.57	2.71	205.58	1,063.63	197.69
MEAN	1.92	.11	.11	.067	.062	.050	7.75	.083	.090	6.63	34.3	6.59
MAX	15	.31	.60	.12	.11	.14	175	.51	.58	60	292	98
MIN	.06	.03	.06	.05	.03	.02	.01	.04	.04	.01	.08	.07
AC-FT	118	6.3	6.6	4.1	3.4	3.1	461	5.1	5.4	408	2,110	392

CAL YR 1970 TOTAL 482.54 MEAN 1.32 MAX 54 MIN .03 AC-FT 957
WTR YR 1971 TOTAL 1,776.10 MEAN 4.87 MAX 292 MIN .01 AC-FT 3,520

08136500 Concho River at Paint Rock, Tex.
(Formerly published as Concho River near Paint Rock)

LOCATION.--Lat 31°30'57", long 99°55'08", Concho County, near left bank on downstream end of pier of bridge on U.S. Highway 83, 0.5 mile north of Concho County Courthouse in Paint Rock, 2.7 miles downstream from Kickapoo Creek, and at mile 19.6.

DRAINAGE AREA.--6,415 sq mi, of which 1,283 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1915 to current year. Prior to October 1970, published as "near Paint Rock".

GAGE.--Water-stage recorder with masonry dam control. Datum of gage is 1,574.36 ft above mean sea level. See WSP 1922 for history of changes prior to Jan. 15, 1940.

AVERAGE DISCHARGE.--56 years, 182 cfs (131,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,930 cfs Aug. 12 (gage height, 16.84 ft); no flow for several days.
Period of record: Maximum discharge, 301,000 cfs Sept. 17, 1936 (gage height, 43.4 ft, from floodmarks), from rating curve extended above 98,000 cfs on basis of slope-area measurements of 144,000 and 301,000 cfs; no flow at times.
Maximum stage since at least 1853, that of Sept. 17, 1936. Flood in August 1882 reached a stage of about 39.9 ft, and flood in August 1906 reached a stage of 39.5 ft, from information by local resident.

REMARKS.--Records good above 10 cfs and fair below. Many diversions above station for irrigation and municipal supply. Regulation same as that for Concho River at San Angelo (see preceding page). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 458: 1915-16. WSP 568: 1919-20. WSP 1712: 1922(M). WSP 1732: 1918(M), 1923(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	24	19	16	8.5	10	3.4	9.4	39	2.7	10	22
2	28	24	19	16	9.7	9.7	3.0	9.4	10	2.4	120	27
3	28	23	18	17	12	9.0	2.2	8.9	4.3	2.2	185	25
4	27	22	18	17	11	9.2	1.8	9.0	2.0	1.9	76	23
5	27	22	17	17	11	10	1.5	9.8	1.1	1.7	46	22
6	27	21	18	15	10	10	1.2	7.9	.48	1.6	43	21
7	25	22	18	15	10	9.6	1.9	5.9	.70	2.2	33	20
8	22	23	19	16	9.9	8.7	1.6	5.0	3.7	2.0	84	20
9	20	22	17	17	13	7.9	.97	5.7	2.8	1.7	82	20
10	21	21	17	17	16	7.8	.80	5.4	2.2	1.7	38	20
11	21	21	18	17	13	8.6	.48	4.5	1.8	1.4	300	20
12	26	20	17	17	14	8.1	.50	3.6	5.3	1.1	1,940	21
13	26	19	16	16	14	7.7	1.8	3.6	12	.93	2,650	21
14	25	15	16	17	14	7.1	2.0	3.7	7.6	.73	1,900	21
15	28	16	17	14	13	6.4	1.8	3.7	5.4	.64	539	20
16	31	16	15	13	13	5.7	62	3.7	5.0	.53	205	21
17	30	16	15	12	13	4.3	298	3.5	4.4	.17	125	21
18	29	17	15	12	15	4.5	122	2.9	3.4	0	75	22
19	28	18	15	12	14	4.5	52	1.5	2.8	0	53	26
20	25	16	16	12	13	4.0	34	.90	2.5	0	40	29
21	25	16	18	12	13	4.1	24	.40	2.3	0	34	29
22	26	15	19	12	12	4.1	20	.12	3.1	0	29	697
23	25	14	19	11	12	4.4	17	0	4.4	0	27	825
24	23	14	18	11	12	4.2	15	0	4.4	1.5	25	508
25	23	15	18	11	14	4.4	13	0	4.3	2.0	50	340
26	23	16	18	11	13	3.9	12	0	3.6	1.6	35	165
27	22	17	18	11	11	4.5	11	0	2.8	6.1	34	91
28	19	18	17	11	11	4.2	11	0	2.9	23	44	64
29	20	18	17	11	------	3.5	10	0	3.5	173	27	53
30	21	17	16	11	------	3.1	9.7	302	2.9	27	23	46
31	23	------	17	9.4	------	3.4	------	110	------	13	23	------
TOTAL	773	558	535	426.4	345.1	196.6	735.65	520.52	150.68	272.80	8,895	3,260
MEAN	24.9	18.6	17.3	13.8	12.3	6.34	24.5	16.8	5.02	8.80	287	109
MAX	31	24	19	17	16	10	298	302	39	173	2,650	825
MIN	19	14	15	9.4	8.5	3.1	.48	0	.48	0	10	20
AC-FT	1,530	1,110	1,060	846	685	390	1,460	1,030	299	541	17,640	6,470

CAL YR 1970 TOTAL 10,731.79 MEAN 29.4 MAX 144 MIN .84 AC-FT 21,290
WTR YR 1971 TOTAL 16,668.75 MEAN 45.7 MAX 2,650 MIN 0 AC-FT 33,060

08136700 Colorado River near Stacy, Tex.
(Formerly published as Colorado River at Stacy)

LOCATION.--Lat 31°29'37", long 99°34'25", Coleman-McCulloch County line, on left bank at downstream side of bridge on Farm Road 503, 1.2 miles upstream from Bois d'Arc Creek, 1.8 miles northeast of Stacy, 24 miles downstream from Concho River, and at mile 604.8.

DRAINAGE AREA.--24,040 sq mi, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--March 1968 to current year. Prior to October 1970, published as "at Stacy".

GAGE.--Water-stage recorder. Datum of gage is 1,394.66 ft above mean sea level (State Highway Department bridge plans).

EXTREMES.--Current year: Maximum discharge, 12,100 cfs Aug. 13 (gage height, 13.05 ft, from high-water marks); minimum, 0.55 cfs May 29.
Period of record: Maximum discharge, 12,200 cfs May 10, 1968 (gage height, 13.14 ft); minimum, 0.55 cfs May 29, 1971.
Maximum discharge since at least 1882, 356,000 cfs Sept. 18, 1936 (gage height, 64.59 ft), on basis of slope-area measurement of peak flow. The flood of Sept. 18, 1936, was 4 ft higher than the 1906 flood and 7 to 8 ft higher than the 1882 flood, from information by local resident.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Many diversions above this station for municipal, irrigation, and oilfield operation uses. Effluent from numerous sewage plants is returned to the river. Flow slightly regulated by eight major upstream reservoirs (see stations 08118000, 08123000, 08123600, 08123950, 08125500, 08131200, 08132000, and 08134500). At end of year, flow from 237 sq mi above this station was partly controlled by 36 floodwater-retarding structures with a total combined capacity of 53,060 acre-ft below the flood-spillway crests, of which 48,990 acre-ft is floodwater-retarding capacity and 4,070 acre-ft is sediment-pool capacity. One of these structures was built during the current year and has a capacity below the flood-spillway crest of 5,930 acre-ft, of which 200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	38	45	48	32	33	7.0	20	287	25	100	80
2	54	38	46	48	32	29	7.0	17	139	20	80	78
3	52	38	43	48	32	27	7.4	14	73	15	400	65
4	50	37	42	48	28	25	6.6	12	37	12	300	62
5	48	37	42	48	28	25	5.8	10	22	10	200	64
6	48	38	42	48	27	24	6.2	9.4	14	8.0	100	60
7	48	44	42	48	29	23	5.5	7.9	55	7.0	80	52
8	44	43	42	48	32	23	4.9	9.2	479	6.0	80	49
9	40	43	42	48	32	21	4.6	15	3,290	5.0	500	46
10	40	45	42	48	32	22	4.6	142	480	4.5	200	45
11	37	44	42	48	28	22	4.9	222	166	4.0	300	40
12	37	43	42	49	27	20	4.6	76	86	3.5	500	37
13	38	38	40	51	31	17	4.0	42	93	3.0	7,000	35
14	40	38	40	52	35	14	3.6	31	1,190	2.5	10,000	35
15	44	38	34	52	35	12	4.0	22	356	2.0	5,000	35
16	44	38	32	50	34	12	7.8	12	175	2.0	3,000	35
17	46	38	35	46	35	13	134	7.8	100	2.0	2,000	32
18	56	38	37	46	33	10	719	4.6	60	1.5	1,000	30
19	56	36	37	46	30	10	268	3.4	45	1.5	300	33
20	56	39	35	43	29	10	135	2.9	40	1.5	221	35
21	56	40	34	39	33	8.6	97	2.7	60	1.0	165	38
22	52	40	34	37	32	8.6	75	2.1	100	1.0	130	312
23	48	42	35	35	31	9.5	58	1.5	700	1.0	107	2,150
24	46	47	37	35	31	10	51	1.4	500	1.0	92	5,650
25	48	42	40	35	39	9.0	41	1.1	150	100	88	5,080
26	54	40	42	35	42	9.0	35	.82	100	5,000	77	3,000
27	57	40	42	37	38	9.0	29	.67	70	800	116	1,470
28	51	40	42	37	38	8.6	27	.64	50	600	163	922
29	48	42	43	35	------	8.6	23	.63	40	1,000	129	626
30	45	43	47	33	------	8.6	22	29	30	300	106	458
31	41	------	48	32	------	7.8	------	247	------	200	83	------
TOTAL	1,485	1,207	1,246	1,353	905	489.3	1,802.5	967.76	8,987	8,140.0	32,617	20,654
MEAN	47.9	40.2	40.2	43.6	32.3	15.8	60.1	31.2	300	263	1,052	688
MAX	61	47	48	52	42	33	719	247	3,290	5,000	10,000	5,650
MIN	37	36	32	32	27	7.8	3.6	.63	14	1.0	77	30
AC-FT	2,950	2,390	2,470	2,680	1,800	971	3,580	1,920	17,830	16,150	64,700	40,970

CAL YR 1970 TOTAL 68,669.00 MEAN 188 MAX 3,040 MIN 4.0 AC-FT 136,200
WTR YR 1971 TOTAL 79,853.56 MEAN 219 MAX 10,000 MIN .63 AC-FT 158,400

NOTE.--No gage-height record June 19 to Aug. 18.

08136900 Mukewater Creek subwatershed No. 10A near Trickham, Tex.

LOCATION.--Lat 31°39'01", long 99°13'30", Coleman County, near center of dam on Mukewater Creek, 1.8 miles upstream from East Fork, and 4.3 miles north of Trickham.

DRAINAGE AREA.--21.8 sq mi, of which 6.5 sq mi is above sites 5, 5-A, and 6.

PERIOD OF RECORD.--April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,462.00 ft above mean sea level.

AVERAGE INFLOW.--6 years, 2,810 acre-ft per year.

AVERAGE OUTFLOW.--6 years, 2,640 acre-ft per year

EXTREMES.--Current year: Maximum outflow, 230 cfs Sept. 24 (gage height, 13.58 ft); no outflow for many days. Maximum inflow, 1,030 cfs (average for 5-minute interval) Sept. 23 computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow for many days.
Period of record: Maximum outflow, 230 cfs Sept. 24, 1971 (gage height, 13.58 ft); no outflow for many days. Maximum inflow, 1,540 cfs (average for 5-minute interval) Mar. 20, 1968, computed and adjusted as above; no inflow most of time each year.

REMARKS.--Records good. The dam was completed in March 1965, and storage began in April 1965. The pool is formed by a rolled-fill earthen dam 3,190 ft long, including a 400-foot wide emergency spillway. The outlet structure is a 3.5- by 11.0-foot concrete drop inlet connected to a 42-inch concrete outlet pipe. The top of the structure is open and at 12.68 ft gage height. There are four 5-1/4-foot rectangular notches in the drop inlet, two on each side divided by a 6-inch concrete web, with crests at 8.68 ft gage height. In addition, there are six portholes in the drop inlet (2 ft wide by 1 ft high), the bottoms being at 5.02 ft gage height. A 12-inch controlled water-supply outlet pipe (invert at gage height, 1.18 ft) is connected to the drop inlet. Pool capacity is 3,019 acre-ft at the emergency spillway crest, 559 acre-ft at the crest of drop inlet, 244 acre-ft at the bottom of portholes and 92.0 acre-ft at invert of 8-inch controlled outlet pipe. The area and capacity tables are based on a Soil Conservation Service survey of Aug. 1, 1966. At end of year, flow from 6.52 sq mi above this station was partly controlled by three floodwater-retarding structures (built in 1961) with a total combined capacity of 1,660 acre-ft below the flood-spillway crests, of which 1,460 acre-ft is floodwater-retarding capacity and 200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. There are eight rain gages (two recording and six nonrecording) located in the watershed.

REVISIONS (WATER YEARS).--WRD Texas 1968: 1965-66(M).

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	2.6	0	1.0	0.1	2.3	0	5.0	12.2	1.9	2.5	814	2,590
Outflow	2.2	0	0	0	0	0	0	0	0	0	618	2,510
(††)	1.21	0	.24	0	1.19	0	1.86	2.39	1.32	1.55	8.27	8.16

CAL YR 1970: Inflow 776 Outflow 790 †† 20.60
WTR YR 1971: Inflow 3,430 Outflow 3,190 †† 26.19

PEAK INFLOW (BASE, 500 CFS).--Sept. 23 (0600) 1,030 cfs (average for 5-minute interval).

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted-mean rainfall, in inches.

08137000 Mukewater Creek subwatershed No. 9 near Trickham, Tex.

LOCATION.--Lat 31°41'40", long 99°12'18", Coleman County, near center of dam on tributary to East Fork Mukewater Creek, 1.5 miles upstream from mouth, 4.5 miles southwest of Bangs, and 7.1 miles north of Trickham.

DRAINAGE AREA.--4.02 sq mi.

PERIOD OF RECORD.--January 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.01 ft above mean sea level.

AVERAGE INFLOW.--10 years, 577 acre-ft per year.

AVERAGE OUTFLOW.--10 years, 461 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 39.9 cfs Sept. 24 (gage height, 25.04 ft); no outflow for many days. Maximum inflow, 621 cfs (average for 5-minute interval) Sept. 23, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow most of time.
Period of record: Maximum outflow, 39.9 cfs Sept. 24, 1971; no outflow most of time each year. Maximum inflow, 1,630 cfs (average for 5-minute interval) June 3, 1961, computed and adjusted as explained above; no inflow most of time each year.

REMARKS.--Records good. The pool is formed by a rolled earthfill dam, 2,070 ft long with a 150-foot wide earthen spillway at the right end of dam. The crest of emergency spillway is at gage height 27.1 ft. The dam was completed in November 1960. The outlet structure consists of a 2- by 4-foot uncontrolled concrete drop-inlet structure that is connected to a 19-inch concrete outlet pipe. There are four openings in the top of the drop inlet; the dimensions are 1 by 2 ft at the upstream and downstream sides, and 1 by 4 ft on the right and left sides; the crest of these openings is at gage height 18.2 ft. There is also a sluice gate at the end of an 8-inch pipe that is connected to the upstream side of the drop-inlet structure. Gage height at invert of 8-inch pipe is 10.7 ft. The area and capacity tables are based on a sedimentation survey by the Soil Conservation Service made Dec. 1, 1961. There are five rain gages (one recording and four nonrecording) located in watershed.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	2.9	0	0.6	0	1.0	0	1.1	4.9	1.3	1.3	137	528
Outflow	0	0	0	0	0	0	0	0	0	0	37.1	531
(††)	.91	0	.28	0	1.15	0	1.89	2.31	1.35	1.68	7.82	8.06

CAL YR 1970: Inflow 168 Outflow 102 †† 20.85
WTR YR 1971: Inflow 678 Outflow 568 †† 25.45

PEAK INFLOW (BASE, 150 CFS).--Sept. 23 (0300) 621 cfs (average for 5-minute interval).

1/ Inflow adjusted for rainfall on pool and pool losses.
†† Weighted-mean rainfall, in inches.

08137500 Mukewater Creek at Trickham, Tex.

LOCATION.--Lat 31°35'24", long 99°13'36", Coleman County, on left bank at Trickham, 750 ft upstream from bridge on Farm Road 1176, 2.9 miles upstream from Hay Creek, 6.9 miles upstream from mouth, and 11.8 miles southwest of Santa Anna.

DRAINAGE AREA.--70.0 sq mi.

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,394.54 ft above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--20 years, 10.8 cfs (7,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,740 cfs Sept. 24 (gage height, 7.39 ft); no flow for many days.
Period of record: Maximum discharge, 15,000 cfs May 1, 1956 (gage height, 15.83 ft), from rating curve extended above 5,600 cfs on basis of contracted-opening measurement of peak flow; no flow at times.
Maximum stage since at least 1919, 18 ft in 1927, from information by local resident.

REMARKS.--Records good. At end of year, flow from 27.6 sq mi above this station was controlled by six floodwater-retarding structures with a total combined capacity of 5,790 acre-ft below the flood-spillway crests, of which 5,180 acre-ft is floodwater-retarding capacity and 607 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Station is operated as part of the Mukewater Creek hydrologic program to determine the effect of floodwater-retarding structures on the downstream regimen of streamflow. Twenty-one rain gages (15 standard and six recording) are operated in the watershed above station. Small, undetermined amount of diversions upstream from station.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	.02		6.5	2.5
2								0	0		78	2.5
3								0	0		4.5	2.2
4								0	0		5.4	1.7
5								0	0		31	1.3
6								0	0		19	.87
7								0	0		31	.73
8								0	0		20	.58
9								2.0	0		4.0	.57
10								.02	0		3.2	.63
11								0	0		6.4	.40
12								0	0		30	.40
13								0	0		122	.37
14								0	0		94	.25
15								0	0		80	.13
16								0	0		52	.06
17								0	0		26	.02
18								0	0		12	0
19								0	0		7.7	0
20								0	0		4.1	0
21								0	0		3.0	0
22								0	0		2.5	6.6
23								0	0		2.5	751
24								0	0		2.5	1,150
25								0	0		2.5	329
26								0	0		2.5	289
27								0	0		2.5	242
28								0	0		2.7	150
29					------			0	0		3.2	109
30					------			27	0		3.2	51
31		------			------		------	3.9	------		2.9	------
TOTAL	0	0	0	0	0	0	0	32.92	.02	0	666.8	3,092.81
MEAN	0	0	0	0	0	0	0	1.06	.0007	0	21.5	103
MAX	0	0	0	0	0	0	0	27	.02	0	122	1,150
MIN	0	0	0	0	0	0	0	0	0	0	2.5	0
AC-FT	0	0	0	0	0	0	0	65	.04	0	1,320	6,130

CAL YR 1970 TOTAL 1,339.62 MEAN 3.67 MAX 233 MIN 0 AC-FT 2,660
WTR YR 1971 TOTAL 3,792.55 MEAN 10.4 MAX 1,150 MIN 0 AC-FT 7,520

08138000 Colorado River at Winchell, Tex.

LOCATION.--Lat 31°28'04", long 99°09'43", McCulloch-Brown County line, near left bank on downstream end of pier of bridge on U.S. Highway 377, 0.3 mile south of Winchell, 6.2 miles downstream from Home Creek, and at mile 560.7.

DRAINAGE AREA.--24,580 sq mi, approximately, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--November 1923 to September 1934 (published as "near Milburn"), January 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,264.86 ft above mean sea level. November 1923 to September 1934, nonrecording gage at site 4.2 miles downstream at datum 10.14 ft lower. Jan. 13, 1939, to Mar. 24, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--42 years (1924-34, 1939-71), 601 cfs (435,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,600 cfs Sept. 24 (gage height, 26.22 ft); minimum, 0.06 cfs Apr. 15, 16 (part of each day), and 18.
Period of record: Maximum discharge, 76,100 cfs Oct. 15, 1930 (gage height, 51.8 ft, present site and datum); no flow at times.
Highest stages since 1882 were 62.2 ft Sept. 19, 1936, and 56.2 ft Aug. 8, 1906, at railway bridge 1,000 ft upstream and converted to present site and datum, from information by Gulf, Colorado, and Santa Fe Railway Co.

REMARKS.--Records good. Many diversions above station for irrigation, municipal supply, and oilfield operation. Flow partly regulated by eight major reservoirs (total combined capacity, 2,120,000 acre-ft). At end of year, flow from 432 sq mi above this station was partly controlled by 77 floodwater-retarding structures with a total combined capacity of 97,120 acre-ft below the flood-spillway crests, of which 89,220 acre-ft is floodwater-retarding capacity and 7,900 acre-ft is sediment-pool capacity. One of these structures was built during the current year and has a capacity below flood-spillway crest of 5,930 acre-ft, of which 200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 1118: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	30	27	33	23	30	3.3	20	254	31	951	204
2	64	28	30	35	23	26	2.6	17	235	25	1,320	123
3	52	27	32	35	22	24	1.9	14	152	19	253	95
4	46	26	33	33	22	21	1.7	12	100	14	265	79
5	43	26	32	33	22	19	1.6	10	62	10	627	66
6	40	26	29	35	22	17	1.3	8.3	41	8.6	1,850	60
7	36	26	30	35	21	16	.99	6.5	28	6.8	371	59
8	32	28	30	35	19	16	.72	5.9	19	4.9	282	53
9	29	28	30	36	18	15	.46	34	2,290	2.7	187	48
10	29	27	32	36	19	14	.28	27	891	1.3	409	45
11	29	26	30	36	20	14	.16	75	286	1.1	412	41
12	28	26	29	36	20	14	.15	197	156	1.0	906	40
13	28	26	29	37	21	13	.12	133	107	1.0	5,510	38
14	27	25	29	37	21	13	.10	81	324	.9	6,900	36
15	26	27	29	37	19	12	.09	53	528	.8	8,300	34
16	27	27	27	37	20	12	.09	38	254	.7	2,490	33
17	31	27	28	37	23	10	.10	27	162	.7	1,280	32
18	35	27	28	36	23	9.3	.06	19	105	.6	799	31
19	37	27	27	34	22	6.6	375	13	69	.6	546	30
20	41	26	27	33	21	7.0	275	9.6	50	.6	385	31
21	45	27	27	32	21	6.6	180	7.7	38	.5	288	32
22	43	26	27	31	20	5.4	130	5.7	32	.4	226	47
23	41	26	25	29	20	5.6	97	4.3	60	.4	183	6,330
24	38	27	24	27	23	5.3	74	3.2	420	.4	152	17,100
25	36	28	24	25	27	4.6	57	2.3	345	42	131	9,860
26	34	28	25	25	28	4.2	48	.88	186	4,240	117	4,950
27	33	27	27	25	27	4.7	41	.44	116	5,050	119	2,460
28	34	26	30	24	30	4.8	34	.35	76	732	215	1,370
29	38	27	30	25	------	3.9	30	.32	53	1,110	212	971
30	35	27	32	25	------	3.3	24	1.4	40	293	188	739
31	32	------	32	24	------	3.6	------	160	------	202	219	------
TOTAL	1,174	805	891	998	617	360.9	1,380.72	986.89	7,479	11,802.0	36,093	45,037
MEAN	37.9	26.8	28.7	32.2	22.0	11.6	46.0	31.8	249	381	1,164	1,501
MAX	85	30	33	37	30	30	375	197	2,290	5,050	8,300	17,100
MIN	26	25	24	24	18	3.3	.06	.32	19	.40	117	30
AC-FT	2,330	1,600	1,770	1,980	1,220	716	2,740	1,960	14,830	23,410	71,590	89,330

CAL YR 1970 TOTAL 66,190.09 MEAN 181 MAX 3,510 MIN .02 AC-FT 131,300
WTR YR 1971 TOTAL 107,624.51 MEAN 295 MAX 17,100 MIN .06 AC-FT 213,500

PEAK DISCHARGE (BASE, 12,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
7-27	0100	19.43	13,100
8-13	2230	18.45	12,400
9-24	1400	26.22	21,600

08139000 Deep Creek subwatershed No. 3 near Placid, Tex.

LOCATION.--Lat 31°17'25", long 99°09'22", McCulloch County, near right end of dam on tributary to Deep Creek and 2.8 miles southeast of Placid.

DRAINAGE AREA.--3.42 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.00 ft above mean sea level. Prior to Dec. 1, 1953, nonrecording gage at same site and datum.

AVERAGE INFLOW.--18 years, 448 acre-ft per year. .

AVERAGE OUTFLOW.--18 years, 292 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 29.2 cfs Aug. 1, 2 (gage height, 18.92 ft); no outflow for many days. Maximum inflow, 3,060 cfs (average for 5-minute interval) July 26, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow for many days.
Period of record: Maximum outflow, 30 cfs May 19, 1955 (gage height, 20.79 ft); no outflow most of time each year. Maximum inflow, 3,060 cfs (average for 5-minute interval) July 26, 1971, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow for most of time each year.

REMARKS.--Records good. The pool is formed by an earthfill dam comprised of two sections; the main section is 2,600 ft long and the second section is 2,400 ft long. An emergency spillway 250 ft wide is located at the left end of the main section of dam; crest of the emergency spillway is at gage height 22.0 ft. The dam was completed and storage began in October 1953. The outlet works consist of an uncontrolled 2.5-foot square concrete drop-inlet structure (gage height at crest, 13.0 ft) connected to a 17-inch concrete outlet pipe. Invert at bottom of outlet pipe is at gage height 5.5 ft. There is also an 8-inch controlled water-supply outlet pipe connected to the drop inlet at a gage height of 5.5 ft. Pool capacity is 886 acre-ft at the crest of emergency spillway, 125 acre-ft at crest of drop inlet, and 7.1 acre-ft at controlled outlet pipe. The area and capacity tables are based on a Soil Conservation Service survey dated Aug. 27, 1960. The dam was built by the Soil Conservation Service for flood control. A recording rain gage is located at station.

REVISIONS (WATER YEARS).--WSP 1922: 1954-60.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	0	0	0	0	1.1	0	0.5	2.5	7.0	466	557	137
Outflow	0	0	0	0	0	0	0	0	0	313	613	131
(†)	-7.2	-5.9	-4.3	-4.0	-2.8	-5.6	-3.3	-2.0	+1.6	+174	-53.9	-6.6
(††)	.39	0	.15	0	1.18	0	2.05	1.80	1.97	10.53	9.23	4.56

CAL YR 1970: INFLOW 136 OUTFLOW 89.1 † -103 †† 14.95
WTR YR 1971: INFLOW 1,170 OUTFLOW 1,060 † +79.5 †† 31.86

PEAK INFLOW (BASE, 100 CFS)

DATE	TIME	DISCHARGE	DATE	TIME	DISCHARGE
7-26	0620	*3,060	8-13	0710	*171
7-27	0855	*466	8-30	2225	*154
8- 1	1815	*1,680	9-23	0700	*385

1/ Inflow adjusted for rainfall on pool and pool losses.
† Change in contents, in acre-feet.
†† Weighted-mean rainfall, in inches.
* Average for 5-minute interval.

08139500 Deep Creek near Mercury, Tex.

LOCATION.--Lat 31°24'08", long 99°07'17", McCulloch County, near left bank on downstream side of bridge on Farm Road 502, 1.5 miles upstream from Dry Prong Deep Creek, and 2.3 miles southeast of Mercury.

DRAINAGE AREA.--43.9 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,325.64 ft above mean sea level. Prior to Nov. 25, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--18 years, 6.56 cfs (4,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,450 cfs Aug. 1 (gage height, 17.56 ft); no flow most of time.
Period of record: Maximum discharge, 5,500 cfs Oct. 4, 1953 (gage height, 18.27 ft, from floodmarks); no flow most of time.
Maximum stage since at least 1890, 21.3 ft July 23, 1938 (discharge, 33,600 cfs), by slope-area measurement of peak flow.
Flood in 1906 reached a stage of 21 ft, from information by local resident.

REMARKS.--Records good. At end of year, flow from 19.9 sq mi above this station was partly controlled by five floodwater-retarding structures with a total combined capacity of 5,660 acre-ft below the flood-spillway crests, of which 5,050 acre-ft is floodwater-retarding capacity and 610 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Station is operated as part of Deep Creek hydrologic program to determine the effect of floodwater-retarding structures on the downstream regimen of streamflow. Seventeen rain gages (11 standard and 6 recording) are operated in the watershed above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	0	0	1,050	15
2								0	0	0	624	19
3								0	0	0	167	7.7
4								0	0	0	280	2.8
5								0	0	0	338	1.2
6								0	0	0	192	2.0
7								0	0	0	154	1.8
8								1.1	0	0	137	1.6
9								3.5	0	0	112	1.6
10								0	0	0	54	1.6
11								0	0	0	50	1.6
12								0	0	0	166	1.4
13								0	0	0	128	1.2
14								0	0	0	94	1.0
15								0	0	0	38	.90
16								0	0	0	20	.75
17								0	0	0	13	.62
18								0	0	0	8.2	.50
19								0	0	0	5.3	.75
20								0	0	0	3.9	1.0
21								0	.51	0	3.1	.62
22								0	.10	0	2.8	3.0
23								0	0	0	2.6	140
24								0	0	.51	2.4	109
25								0	0	2.3	2.2	44
26								0	0	782	2.0	20
27								0	0	757	1.8	11
28								0	0	162	1.8	6.5
29					------			0	0	122	1.8	4.2
30					------			0	0	134	9.2	3.3
31		------			------		------	0	------	105	53	------
TOTAL	0	0	0	0	0	0	0	4.6	.61	2,064.81	3,717.1	405.64
MEAN	0	0	0	0	0	0	0	.15	.020	66.6	120	13.5
MAX	0	0	0	0	0	0	0	3.5	.51	782	1,050	140
MIN	0	0	0	0	0	0	0	0	0	0	1.8	.50
CFSM	0	0	0	0	0	0	0	.003	.0005	1.52	2.73	.31
IN.	0	0	0	0	0	0	0	.003	0	1.75	3.15	.34
AC-FT	0	0	0	0	0	0	0	9.1	1.2	4,100	7,370	805

CAL YR 1970 TOTAL 553.68 MEAN 1.52 MAX 99 MIN 0 CFSM .03 IN .47 AC-FT 1,100
WTR YR 1971 TOTAL 6,192.76 MEAN 17.0 MAX 1,050 MIN 0 CFSM .39 IN 5.25 AC-FT 12,280

08140000 Deep Creek subwatershed No. 8 (Dry Prong Deep Creek) near Mercury, Tex.

LOCATION.--Lat 31°23'58", long 99°08'14", McCulloch County, near center of dam on Dry Prong Deep Creek, 1.9 miles southeast of Mercury, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--5.41 sq mi.

PERIOD OF RECORD.--February 1952 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,377.13 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--19 years, 709 acre-ft per year.

AVERAGE OUTFLOW.--19 years, 534 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 52.9 cfs Aug. 2 (gage height, 18.91 ft); no outflow for many days. Maximum inflow, 3,560 cfs Aug. 1; no inflow for many days.
Period of record: Maximum outflow, 56 cfs May 19, 1955 (gage height, 22.13 ft, revised); no outflow for many days each year. Maximum inflow, 5,660 cfs Sept. 21, 1964, computed from change in pool contents and adjusted for outflow and rainfall on pool surface during time of peak inflow; no inflow most of time each year.

REMARKS.--Records fair. The pool is formed by an earthfill dam 4,300 ft long, with a grass sodded emergency spillway 200 ft wide at right end of dam. The dam was completed in December 1951, but no appreciable storage began before Apr. 18, 1952. The first outflow occurred May 24, 1952. The outlet structure consists of a 3-foot square concrete uncontrolled drop-inlet structure connected to a 21-inch concrete outlet pipe. Invert at bottom of outlet pipe is at gage height -1.0 ft. The crest of the emergency spillway is at gage height 24.0 ft, and crest of drop inlet is at gage height 9.0 ft. There is also an 8-inch controlled water-supply outlet pipe connected to the drop inlet at gage height of -1.0 ft. Pool capacity is 1,370 acre-ft at the spillway crest, 186 acre-ft at crest of drop inlet, and 3.1 acre-ft at the controlled outlet pipe. The area and capacity tables are based on a Soil Conservation Service survey dated Sept. 13, 1966. The dam was built by the Soil Conservation Service for flood control. Small amounts of water are released for irrigation or livestock use. A recording rain gage is located at station.

REVISIONS (WATER YEARS).--WSP 1922: 1952-60. WRD Texas 1968: Drainage area.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	1.9	0	0	0	1.2	0	0.2	2.0	6.1	218	868	86.5
Outflow	0	0	e3.0	0	0	e3.2	0	0	0	29.6	885	67.8
(†)	-8.4	-8.5	-8.9	-5.9	-5.1	-13.1	-7.5	-4.8	-1.2	+183	-17.6	+6.4
(††)	.45	0	.18	0	.93	0	2.02	2.34	1.33	7.66	8.09	3.97

CAL YR 1970: INFLOW 134 OUTFLOW 125 † -139 †† 13.87
WTR YR 1971: INFLOW 1,180 OUTFLOW 989 † +108 †† 26.97

PEAK INFLOW (BASE, 200 CFS)

DATE	TIME	DISCHARGE
7-26	0800	*310
7-27	1055	*501
8- 1	1825	*3,560

1/ Inflow adjusted for rainfall on pool and pool losses.
† Change in contents, in acre-feet.
†† Weighted-mean rainfall, in inches, based on three rain gages.
* Average for 5-minute interval.
e Release through 8-inch controlled valve.

08140500 Dry Prong Deep Creek near Mercury, Tex.

LOCATION.--Lat 31°24'09", long 99°08'13", McCulloch County, near center of span on downstream side of bridge on Farm Road 502, 1.3 miles southeast of Mercury, 1.7 miles downstream from floodwater-retarding reservoir, and 1.8 miles upstream from mouth.

DRAINAGE AREA.--8.31 sq mi.

PERIOD OF RECORD.--June 1951 to September 1971 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,339.02 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 1.16 cfs (840 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 779 cfs Aug. 1 (gage height, 6.76 ft); no flow for many days.
Period of record: Maximum discharge, 2,000 cfs May 17, 1955, from rating curve extended above 1,000 cfs; maximum gage height, 9.00 ft May 17, 1955, and Sept. 21, 1964; no flow for many days each year.
Maximum stage since at least 1924, that of May 17, 1955, and Sept. 21, 1964. Flood of July 23, 1938, reached a stage of 8.7 ft, from information by local resident.

REMARKS.--Records good. At end of year, flow from 5.41 sq mi above this station was partly controlled by one floodwater-retarding structure with a capacity of 1,370 acre-ft below the flood-spillway crest, of which 1,180 acre-ft is floodwater-retarding capacity and 186 acre-ft is sediment-pool capacity. The capacity in this pool allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Station operated as part of the Deep Creek hydrologic program to determine the effect of floodwater-retarding structures on the downstream regimen of streamflow. Use of 269 acre-ft per year for irrigation is permitted; however, only 6.2 acre-ft was used this year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0							0		0	112	0
2	0							0		0	56	0
3	0							0		0	40	0
4	0							0		0	43	0
5	0							0		0	36	0
6	0							0		0	36	0
7	0							0		0	36	0
8	0							0		0	34	0
9	0							.62		0	33	0
10	0							0		0	31	0
11	.55							0		0	35	0
12	.10							0		0	32	0
13	0							0		0	11	0
14	0							0		0	9.0	0
15	0							0		0	4.6	0
16	0							0		0	2.5	0
17	0							0		0	2.0	0
18	0							0		0	1.2	0
19	0							0		0	.60	0
20	0							0		0	.40	0
21	0							0		0	.29	0
22	0							0		0	.24	0
23	0							0		0	.14	11
24	0							0		0	.01	20
25	0							0		0	0	8.6
26	0							0		21	0	3.9
27	0							0		45	0	2.0
28	0							0		6.0	0	1.4
29	0				------			0		1.9	.05	.98
30	0				------			0		3.5	.10	.68
31	0	------			------		------	0	------	.77	.01	------
TOTAL	.65	0	0	0	0	0	0	.62	0	78.17	556.14	48.56
MEAN	.021	0	0	0	0	0	0	.020	0	2.52	17.9	1.62
MAX	.55	0	0	0	0	0	0	.62	0	45	112	20
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.003	0	0	0	0	0	0	.002	0	.30	2.15	.19
IN.	.002	0	0	0	0	0	0	.002	0	.35	2.49	.22
AC-FT	1.3	0	0	0	0	0	0	1.2	0	155	1,100	96

CAL YR 1970 TOTAL 73.80 MEAN .20 MAX 15 MIN 0 CFSM .02 IN .33 AC-FT 146
WTR YR 1971 TOTAL 684.14 MEAN 1.87 MAX 112 MIN 0 CFSM .23 IN 3.06 AC-FT 1,360

08140600 Lake Clyde near Clyde, Tex.

LOCATION.--Lat 32°19'05", long 99°28'43", Callahan County, at Clyde pump station, 0.6 mile west of dam on North Prong Pecan Bayou, 2.1 miles downstream from bridge on Farm Road 604, and 7.0 miles southeast of Clyde.

DRAINAGE AREA.--37.9 sq mi.

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level.

EXTREMES (at 0900).--Current year: Maximum contents, 3,510 acre-ft Oct. 1-3 (elevation, 1,866.4 ft); minimum, 2,590 acre-ft May 24-28, Aug. 6-13 (elevation, 1,863.5 ft).
Period of record: Maximum contents, about 4,200 acre-ft May 31, 1970 (elevation, 1,868.3 ft); minimum, 2,590 acre-ft May 24-28, Aug. 6-13, 1971 (elevation, 1,863.5 ft).

REMARKS.--Records good. Appreciable storage began in April 1970 and dam was completed in May 1970. The pool is formed by a rolled-fill earthen dam 4,000 ft long. The service spillway is an uncontrolled 3.5- by 10.5-foot uncontrolled concrete drop inlet connected to a 42-inch concrete outlet pipe. A 14-inch controlled drain pipe is connected to the drop inlet. There are four 4.83- by 3.50-foot rectangular slots, two on each side divided by a 10-inch concrete web. The emergency spillway, located at left end of dam, has two 200-foot wide excavated channels separated by a dike. During the 1971 water year, the city of Clyde did not divert water for municipal use. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Crest of dam	1,888.9	16,530
Crest of emergency spillway	1,881.4	10,840
Crest of service spillway (top of conservation storage)	1,872.03	5,730
Invert of lowest outlet for water supply	1,852.0	523
Invert of drain pipe	1,842.23	60

COOPERATION.--Record of daily elevation furnished by city of Clyde. Capacity table furnished by the Soil Conservation Service.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,863.0	2,450
1,865.0	3,040
1,867.0	3,720

CONTENTS, IN ACRE-FEET, AT 0900, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,510	3,370	3,240	3,170	3,040	2,980	2,830	2,740	2,830	2,770	2,620	2,860
2	3,510	3,370	3,240	3,140	3,080	2,980	2,830	2,740	2,830	2,740	2,620	2,860
3	3,510	3,370	3,240	3,140	3,080	2,980	2,830	2,740	2,830	2,740	2,620	2,830
4	3,470	3,370	3,240	3,140	3,040	2,980	2,830	2,740	2,830	2,740	2,620	2,830
5	3,470	3,370	3,240	3,140	3,040	2,980	2,800	2,740	2,800	2,740	2,620	2,830
6	3,470	3,370	3,240	3,140	3,040	2,980	2,800	2,710	2,800	2,710	2,590	2,830
7	3,470	3,370	3,240	3,140	3,040	2,980	2,800	2,710	2,800	2,710	2,590	2,800
8	3,470	3,370	3,240	3,140	3,040	2,950	2,800	2,710	2,800	2,710	2,590	2,800
9	3,440	3,370	3,240	3,140	3,040	2,950	2,800	2,710	2,800	2,680	2,590	2,800
10	3,440	3,370	3,240	3,110	3,040	2,950	2,770	2,710	2,770	2,680	2,590	2,800
11	3,440	3,340	3,200	3,110	3,010	2,950	2,770	2,710	2,770	2,680	2,590	2,770
12	3,440	3,340	3,200	3,110	3,010	2,950	2,770	2,680	2,770	2,680	2,590	2,770
13	3,440	3,340	3,200	3,110	3,040	2,950	2,770	2,680	2,770	2,650	2,590	2,770
14	3,440	3,340	3,200	3,110	3,040	2,920	2,740	2,680	2,770	2,650	2,680	2,770
15	3,440	3,340	3,200	3,110	3,040	2,920	2,770	2,650	2,770	2,650	2,740	2,740
16	3,440	3,340	3,200	3,110	3,010	2,920	2,800	2,650	2,740	2,620	2,740	2,740
17	3,440	3,300	3,200	3,110	3,010	2,920	2,830	2,650	2,740	2,620	2,740	2,740
18	3,440	3,300	3,200	3,110	3,010	2,920	2,830	2,620	2,740	2,620	2,740	2,740
19	3,440	3,300	3,170	3,110	3,010	2,920	2,830	2,620	2,740	2,620	2,740	2,740
20	3,440	3,300	3,170	3,110	3,010	2,890	2,800	2,620	2,740	2,620	2,740	2,740
21	3,440	3,300	3,170	3,110	3,010	2,890	2,800	2,620	2,770	2,620	2,740	2,740
22	3,440	3,300	3,170	3,110	3,010	2,890	2,800	2,620	2,800	2,620	2,710	2,710
23	3,440	3,270	3,170	3,110	3,010	2,890	2,800	2,620	2,800	2,620	2,710	2,800
24	3,440	3,270	3,170	3,110	2,980	2,860	2,800	2,590	2,800	2,620	2,710	3,370
25	3,440	3,270	3,170	3,080	2,980	2,860	2,800	2,590	2,800	2,620	2,710	3,440
26	3,440	3,270	3,170	3,080	2,980	2,860	2,800	2,590	2,800	2,620	2,740	3,440
27	3,440	3,270	3,170	3,080	2,980	2,860	2,770	2,590	2,800	2,620	2,740	3,440
28	3,400	3,270	3,170	3,080	2,980	2,860	2,770	2,590	2,800	2,620	2,830	3,440
29	3,400	3,240	3,170	3,080	------	2,860	2,770	2,740	2,770	2,620	2,860	3,440
30	3,400	3,240	3,170	3,080	------	2,860	2,740	2,830	2,770	2,620	2,860	3,440
31	3,400	------	3,170	3,080	------	2,830	------	2,830	------	2,620	2,860	------
(†)	1,866.1	1,865.6	1,865.4	1,865.1	1,864.8	1,864.3	1,864.0	1,864.3	1,864.1	1,863.6	1,864.4	1,866.2
(*)	-70	-160	-70	-90	-100	-150	-90	+90	-60	-150	+240	+580
MAX	3,510	3,370	3,240	3,170	3,080	2,980	2,830	2,830	2,830	2,770	2,860	3,440
MIN	3,400	3,240	3,170	3,080	2,980	2,830	2,740	2,590	2,740	2,620	2,590	2,710

CAL YR 1970..... * - MAX - MIN -
WTR YR 1971..... * -30 MAX 3,510 MIN 2,590

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08140700 Pecan Bayou near Cross Cut, Tex.

LOCATION.--Lat 31°58'24", long 99°07'45", Brown County, on right bank at downstream side of bridge on State Highway 279, 1.0 mile downstream from Turkey Creek, and 4.3 miles south of Cross Cut.

DRAINAGE AREA.--532 sq mi.

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,453.35 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 5,800 cfs Aug. 13 (gage height, 17.60 ft); no flow at times.
Period of record: Maximum discharge, 6,910 cfs May 7, 1969 (gage height, 19.23 ft); no flow at times.
Flood in 1908 reached a stage of 26.5 ft and was exceeded by a flood in 1900, information by local resident.

REMARKS.--Records good. Several small diversions above station. At end of year, flow from 182 sq mi above this station was partly controlled by 30 floodwater-retarding structures with a total combined capacity of 37,940 acre-ft below the flood-spillway crests, of which 35,150 acre-ft is floodwater-retarding capacity and 2,790 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.13	0	.60	.06	.04		0	25		151	1.1
2	.40	.09	0	.60	.06	.02		0	12		123	.96
3	.40	.09	0	.60	.06	.02		0	7.1		16	.81
4	.40	.06	0	.58	.06	.02		0	3.7		7.4	.81
5	.40	.04	0	.58	.06	.02		0	1.3		3.6	.81
6	.40	.04	0	.58	.04	.01		0	.33		2.1	.81
7	.40	.04	0	.40	.04	.01		0	.06		171	.75
8	.27	.04	0	.40	.04	.01		0	.01		63	.46
9	.13	.02	0	.40	.04	.01		0	0		19	.27
10	.09	.01	0	.40	.02	0		0	0		9.1	.27
11	.04	.01	0	.40	.02	0		0	0		5.9	.19
12	.02	.01	0	.40	.02	0		0	0		6.8	.13
13	.02	.01	0	.27	.02	0		0	0		2,340	.13
14	.02	.01	.01	.27	.01	0		0	0		1,060	.10
15	.02	.01	.05	.27	.01	0		0	69		759	.06
16	.02	0	.10	.27	.01	0		0	11		169	.05
17	.02	0	.20	.27	.01	0		0	4.6		93	.03
18	.02	0	.30	.27	.01	0		0	1.5		64	.02
19	.02	0	.50	.19	.01	0		0	.20		38	.02
20	.01	0	.60	.19	.01	0		0	.03		19	.02
21	.01	0	.60	.19	.02	0		0	.01		12	.02
22	.01	0	.60	.19	.02	0		0	.01		8.8	.83
23	1.5	0	.60	.19	.02	0		0	.11		6.6	231
24	1.4	0	.60	.19	.02	0		0	.02		5.0	719
25	1.2	0	.60	.13	.04	0		0	0		3.8	668
26	1.1	0	.60	.13	.04	0		0	0		3.0	233
27	.81	0	.60	.13	.04	0		0	0		2.5	105
28	.58	0	.60	.13	.04	0		0	0		2.2	65
29	.27	0	.60	.13	------	0		59	0		1.5	44
30	.19	0	.60	.13	------	0		57	0		1.1	29
31	.19	------	.60	.06	------	0	------	57	------		1.1	------
TOTAL	10.76	.61	8.36	9.54	.85	.16	0	173	135.98	0	5,167.5	2,102.65
MEAN	.35	.020	.27	.31	.030	.005	0	5.58	4.53	0	167	70.1
MAX	1.5	.13	.60	.60	.06	.04	0	59	69	0	2,340	719
MIN	.01	0	0	.06	.01	0	0	0	0	0	1.1	.02
AC-FT	21	1.2	17	19	1.7	.3	0	343	270	0	10,250	4,170

CAL YR 1970 TOTAL 14,126.16 MEAN 38.7 MAX 1,080 MIN 0 AC-FT 28,020
WTR YR 1971 TOTAL 7,609.41 MEAN 20.8 MAX 2,340 MIN 0 AC-FT 15,090

PEAK DISCHARGE (BASE, 1,000 CFS).--Aug. 13 (1300) 5,800 cfs (17.60 ft); Sept. 24 (1300) 1,190 cfs (5.56 ft).

08140800 Jim Ned Creek near Coleman, Tex.

LOCATION.--Lat 31°58'59", long 99°24'52", Coleman County, on right bank at downstream side of bridge on U.S. Highway 283, 1.4 miles downstream from Turtle Bayou, 7.4 miles downstream from Lake Coleman, and 10.8 miles north of Coleman.

DRAINAGE AREA.--333 sq mi, of which 299 sq mi is above Lake Coleman.

PERIOD OF RECORD.--October 1961 to September 1964 (miscellaneous measurements only), March 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,592.31 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 29.2 cfs (21,160 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,200 cfs Aug. 14 (gage height, 7.40 ft); no flow for many days.
Period of record: Maximum discharge, 5,020 cfs May 6, 1969 (gage height, 9.08 ft); no flow at times each year.

REMARKS.--Records good. Since March 1966, when deliberate impoundment began, flow largely controlled by Lake Coleman (capacity, 40,000 acre-ft at service spillway; elevation, 1,717.5 ft). The city of Coleman has a permit to divert 11,200 acre-ft per year for municipal use from Lake Coleman, no diversions during year. At end of year, flow from 22.0 sq mi above this station and below Lake Coleman was partly controlled by two floodwater-retarding structures with a total combined capacity of 6,820 acre-ft below flood-spillway crests, of which 6,560 acre-ft is floodwater-retarding capacity and 260 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	0
2											0	0
3											0	0
4											0	0
5											0	0
6											0	0
7											0	0
8											36	0
9											15	0
10											3.9	0
11											.97	0
12											5.5	0
13											163	0
14											455	0
15											148	0
16											109	0
17											49	0
18											10	0
19											5.3	0
20											3.4	0
21											2.1	0
22											1.1	.13
23											.56	256
24											.38	1,290
25											.24	1,900
26											.12	1,480
27											.05	985
28											0	583
29					------						0	399
30					------						0	281
31		------			------		------		------		0	------
TOTAL	0	0	0	0	0	0	0	0	0	0	1,008.62	7,174.13
MEAN	0	0	0	0	0	0	0	0	0	0	32.5	239
MAX	0	0	0	0	0	0	0	0	0	0	455	1,900
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	2,000	14,230

CAL YR 1970 TOTAL 20,575.23 MEAN 56.4 MAX 1,330 MIN 0 AC-FT 40,810
WTR YR 1971 TOTAL 8,182.75 MEAN 22.4 MAX 1,900 MIN 0 AC-FT 16,230

08141000 Hords Creek Lake near Valera, Tex.
(Formerly published as Hords Creek Reservoir near Valera)

LOCATION.--Lat 31°49'58", long 99°33'38", Coleman County, at outlet-works structure near right end of dam on Hords Creek, 5.6 miles north of Valera, and 8.8 miles west of Coleman.

DRAINAGE AREA.--48 sq mi, approximately.

PERIOD OF RECORD.--April 1948 to current year. Prior to October 1970, published as Hords Creek Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 7,780 acre-ft Sept. 30 (elevation, 1,898.25 ft); minimum, 5,370 acre-ft July 29 (elevation, 1,892.28 ft).
Period of record: Maximum contents, 12,790 acre-ft May 1, 1956 (elevation, 1,906.86 ft); minimum since first appreciable storage in June 1951, 2,910 acre-ft Sept. 19, 1964 (elevation, 1,883.26 ft).

REMARKS.--Lake is formed by a rolled earthfill dam 6,800 ft long, including spillway. Deliberate impoundment of water began Apr. 7, 1948, and dam was completed in June 1948. Lake is operated for flood control and part of municipal water supply for city of Coleman (see table below for diversions). Outlet works consist of three concrete conduits, two of which are controlled by slide gates. The third conduit (service spillway) is uncontrolled. In addition, there is a 500-foot uncontrolled broad-crested emergency spillway located in a saddle on the right bank. Capacity based on survey made in 1946. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,939.0	-
Crest of emergency spillway	1,920.0	25,310
Crest of service spillway (top of conservation storage)	1,900.0	8,640
Invert of lowest outlet for water supply	1,876.5	1,690
Invert of slide gates	1,856.0	-

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Diversions from lake for municipal use furnished by city of Coleman.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,892.0	5,270	1,896.0	6,780
1,893.0	5,620	1,897.0	7,210
1,894.0	5,990	1,898.0	7,660
1,895.0	6,380	1,899.0	8,140

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,430	7,200	6,960	6,790	6,590	6,430	6,140	5,900	6,060	5,730	5,490	6,300
2	7,420	7,190	6,960	6,790	6,590	6,420	6,130	5,890	6,050	5,720	5,500	6,290
3	7,410	7,180	6,960	6,780	6,580	6,410	6,120	5,870	6,030	5,710	5,490	6,270
4	7,410	7,170	6,950	6,770	6,570	6,400	6,110	5,860	6,020	5,690	5,490	6,260
5	7,400	7,160	6,950	6,750	6,570	6,390	6,090	5,850	6,010	5,670	5,480	6,250
6	7,400	7,150	6,940	6,740	6,560	6,390	6,080	5,830	6,000	5,660	5,500	6,240
7	7,390	7,140	6,930	6,740	6,550	6,370	6,070	5,820	5,980	5,640	5,700	6,240
8	7,360	7,130	6,930	6,740	6,540	6,370	6,060	6,100	5,970	5,630	5,720	6,220
9	7,350	7,120	6,920	6,730	6,540	6,360	6,050	6,290	5,950	5,610	5,720	6,210
10	7,340	7,120	6,920	6,720	6,530	6,360	6,040	6,280	5,930	5,600	5,710	6,200
11	7,330	7,100	6,910	6,710	6,520	6,350	6,030	6,270	5,920	5,590	5,710	6,190
12	7,320	7,100	6,910	6,710	6,500	6,350	6,020	6,250	5,920	5,570	5,770	6,170
13	7,320	7,090	6,900	6,710	6,500	6,340	6,010	6,250	5,920	5,560	6,240	6,160
14	7,310	7,080	6,890	6,710	6,500	6,320	6,000	6,240	5,920	5,540	6,310	6,150
15	7,300	7,070	6,880	6,700	6,490	6,310	6,000	6,230	5,910	5,530	6,340	6,140
16	7,300	7,060	6,870	6,690	6,480	6,290	6,020	6,210	5,900	5,520	6,340	6,130
17	7,290	7,050	6,860	6,690	6,480	6,290	6,030	6,210	5,880	5,500	6,340	6,120
18	7,280	7,040	6,850	6,690	6,480	6,270	6,030	6,190	5,870	5,490	6,340	6,120
19	7,270	7,030	6,850	6,680	6,470	6,260	6,020	6,180	5,850	5,470	6,330	6,100
20	7,260	7,030	6,840	6,670	6,470	6,250	6,020	6,170	5,840	5,460	6,320	6,100
21	7,260	7,010	6,840	6,670	6,470	6,240	6,010	6,160	5,860	5,440	6,320	6,090
22	7,260	7,010	6,840	6,660	6,460	6,230	6,000	6,150	5,860	5,440	6,310	6,240
23	7,290	7,000	6,830	6,650	6,450	6,220	5,980	6,130	5,850	5,500	6,300	6,740
24	7,280	6,990	6,820	6,650	6,440	6,220	5,970	6,110	5,830	5,490	6,290	7,520
25	7,270	6,980	6,820	6,640	6,450	6,210	5,970	6,100	5,820	5,440	6,280	7,620
26	7,260	6,970	6,820	6,640	6,440	6,200	5,960	6,090	5,800	5,440	6,280	7,660
27	7,250	6,970	6,810	6,630	6,440	6,200	5,950	6,080	5,790	5,440	6,330	7,710
28	7,240	6,970	6,800	6,620	6,440	6,190	5,940	6,070	5,780	5,450	6,320	7,740
29	7,230	6,960	6,790	6,620	------	6,180	5,930	6,070	5,760	5,370	6,320	7,770
30	7,220	6,960	6,790	6,610	------	6,160	5,910	6,070	5,740	5,440	6,310	7,780
31	7,210	------	6,790	6,610	------	6,150	------	6,070	------	5,430	6,310	------
(†)	1,897.00	1,896.41	1,896.02	1,895.57	1,895.15	1,894.42	1,893.79	1,894.21	1,893.33	1,892.44	1,894.84	1,898.25
(‡)	-230	-250	-170	-180	-170	-290	-240	+160	-330	-310	+880	+1,470
(††)	45	45	46	55	52	74	81	93	91	100	60	58
MAX	7,430	7,200	6,960	6,790	6,590	6,430	6,140	6,290	6,060	5,730	6,340	7,780
MIN	7,210	6,960	6,790	6,610	6,440	6,150	5,910	5,820	5,740	5,370	5,480	6,090

CAL YR 1970..... ‡ -1,190 †† 792 MAX 10,790 MIN 6,790
WTR YR 1971..... ‡ +340 †† 800 MAX 7,780 MIN 5,370

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Diversions, in acre-feet, for municipal use by city of Coleman.

08141500 Hords Creek near Valera, Tex.

LOCATION.--Lat 31°50'03", long 99°32'04", Coleman County, on left bank 2,500 ft downstream from Farm Road 503, 1.6 miles downstream from Hords Creek Dam, 5.7 miles north of Valera, 7.0 miles west of Coleman, and at mile 21.8.

DRAINAGE AREA.--53 sq mi, approximately, of which 48 sq mi is above Hords Creek Dam.

PERIOD OF RECORD.--April 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,819.88 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--24 years, 1.75 cfs (1,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 132 cfs Sept. 23 (gage height, 3.54 ft); no flow for many days.
Period of record: Maximum discharge, 3,860 cfs Apr. 30, 1956 (gage height, 14.73 ft), from rating curve extended above 1,900 cfs; no flow at times each year.
Maximum stage since 1900, 23.0 ft July 3, 1932, from information by local residents (discharge not determined). Flood in July or September 1900 reached a stage 3.7 ft higher than that of July 1932, 12 miles downstream from station, from information by local residents.

REMARKS.--Records fair. Flow regulated by Hords Creek Lake (station 08141000, revised).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.15	.19	.16	.06	0			.08	.24
2			0	.15	.48	.14	.06	0			.01	.20
3			0	.14	.17	.15	.14	0			0	.17
4			0	.09	.13	.10	.20	0			0	.15
5			0	.11	.12	.10	.20	0			0	.13
6			0	.12	.12	.09	.21	0			0	.11
7			0	.12	.12	.09	.19	0			.02	.08
8			0	.11	.14	.08	.17	.48			.56	.06
9			.03	.12	.12	.09	.14	.93			.01	.06
10			.20	.10	.12	.09	.18	.14			0	.06
11			.17	.09	.12	.11	.17	.09			.11	.05
12			.15	.09	.09	.11	.15	.10			.11	.06
13			.13	.09	.11	.12	.13	.13			8.3	.08
14			.15	.11	.12	.10	.14	.15			2.1	.04
15			.18	.10	.13	.11	.14	.13			1.7	.04
16			.17	.09	.16	.13	.08	.09			.55	.02
17			.15	.13	.17	.14	.09	.05			.31	.01
18			.10	.12	.22	.12	0	.02			.23	.01
19			.11	.14	.16	.07	0	0			.18	.05
20			.17	.16	.17	.07	.04	0			.16	.07
21			.17	.15	.26	.07	.04	0			.18	.08
22			.15	.15	.19	.07	.03	0			.15	1.5
23			.13	.15	.20	.08	.01	0			.14	37
24			.12	.18	.20	.07	0	0			.18	25
25			.13	.16	.27	.08	0	0			.21	6.9
26			.17	.15	.23	.07	0	0			.20	3.0
27			.16	.15	.17	.09	.01	0			.95	2.1
28			.14	.15	.17	.08	.02	0			.53	1.7
29			.13	.16	------	.08	.01	0			.32	1.4
30			.17	.15	------	.07	0	0			.33	1.3
31		------	.16	.18	------	.06	------	0	------		.31	------
TOTAL	0	0	3.34	4.06	4.85	2.99	2.61	2.31	0	0	17.93	81.67
MEAN	0	0	.11	.13	.17	.097	.087	.075	0	0	.58	2.72
MAX	0	0	.20	.18	.48	.16	.21	.93	0	0	8.3	37
MIN	0	0	0	.09	.09	.06	0	0	0	0	0	.01
AC-FT	0	0	6.6	8.1	9.6	5.9	5.2	4.6	0	0	36	162

CAL YR 1970 TOTAL 2,523.00 MEAN 6.91 MAX 444 MIN 0 AC-FT 5,000
WTR YR 1971 TOTAL 119.76 MEAN .33 MAX 37 MIN 0 AC-FT 238

08142500 Brown County Water Improvement District No. 1 canal near Brownwood, Tex.

LOCATION.--Lat 31°49'43", long 98°59'53", Brown County, on right bank 100 ft upstream from bridge on Farm Road 2125 from Brownwood to Brownwood Dam, 6,000 ft downstream from Brownwood Dam, and 7 miles north of Brownwood.

PERIOD OF RECORD.--March 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,403.96 ft above mean sea level.

AVERAGE DISCHARGE.--21 years, 27.0 cfs (19,560 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 77 cfs July 17, 1957; minimum daily, 0.40 cfs Feb. 10, 1955, Apr. 2, 1970.

REMARKS.--Records good. Canal receives water from Lake Brownwood (station 08143000) at the dam on Pecan Bayou. Diversions began Apr. 9, 1939. Small amount of water is pumped from canal upstream from gage for domestic use. Records furnished by Brown County Water Improvement District No. 1 show that of the total flow of canal passing gage during year, 5,920 acre-ft was used for municipal and industrial supply and 4,150 acre-ft was used for irrigation during the current year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	12	23	19	11	25	43	15	49	19	15
2	12	13	12	17	15	11	25	31	7.9	51	19	15
3	12	14	12	14	15	10	36	44	5.6	52	17	14
4	12	4.7	12	14	15	10	30	49	11	52	7.0	14
5	12	1.1	12	11	15	10	28	49	13	51	9.9	14
6	12	6.6	13	9.2	15	10	28	50	18	49	15	14
7	12	13	13	8.2	15	10	33	49	17	49	15	15
8	12	13	13	8.2	15	10	36	49	22	49	16	26
9	13	13	12	8.4	15	13	38	44	34	50	6.7	31
10	13	14	12	8.3	15	16	33	49	44	52	8.2	26
11	13	18	12	12	15	21	25	48	43	56	18	33
12	13	21	12	16	19	27	34	48	44	54	16	37
13	13	19	12	16	26	30	45	47	36	53	13	34
14	17	13	12	16	18	19	42	47	41	52	15	29
15	19	13	14	15	17	19	44	46	47	56	14	35
16	19	13	16	12	28	31	42	46	45	55	14	52
17	19	13	16	12	35	33	27	45	45	56	14	46
18	19	13	16	15	38	34	20	46	46	53	5.9	33
19	19	13	15	16	34	38	20	47	49	46	6.4	25
20	19	12	15	16	33	37	20	48	50	16	12	20
21	19	12	14	12	12	23	18	47	48	48	11	19
22	19	12	13	12	7.6	31	17	48	44	46	11	18
23	18	12	11	12	12	40	19	48	30	46	17	16
24	17	12	9.6	13	14	36	25	45	20	46	21	16
25	17	12	9.4	13	13	31	25	46	37	45	20	16
26	17	12	9.3	15	11	32	28	46	34	46	18	16
27	17	12	9.2	20	11	31	31	47	23	45	18	16
28	17	12	11	20	11	32	38	35	39	45	16	16
29	16	12	18	22	------	30	43	14	47	45	15	16
30	13	12	24	23	------	27	45	14	47	46	15	16
31	13	------	24	20	------	27	------	11	------	36	15	------
TOTAL	475	373.4	415.5	449.3	508.6	740	920	1,326	1,002.5	1,495	438.1	693
MEAN	15.3	12.4	13.4	14.5	18.2	23.9	30.7	42.8	33.4	48.2	14.1	23.1
MAX	19	21	24	23	38	40	45	50	50	56	21	52
MIN	12	1.1	9.2	8.2	7.6	10	17	11	5.6	16	5.9	14
AC-FT	942	741	824	891	1,010	1,470	1,820	2,630	1,990	2,970	869	1,370

CAL YR 1970 TOTAL 7,532.24 MEAN 20.6 MAX 57 MIN .40 AC-FT 14,940
WTR YR 1971 TOTAL 8,836.40 MEAN 24.2 MAX 56 MIN 1.1 AC-FT 17,530

08143000 Lake Brownwood near Brownwood, Tex.
(Formerly published as Brownwood Reservoir near Brownwood)

LOCATION.--Lat 31°50'18", long 99°00'10", Brown County, at outlet structure for irrigation canal just upstream from right end of dam on Pecan Bayou a quarter of a mile downstream from Jim Ned Creek, 8 miles north of Brownwood, and at mile 57.1.

DRAINAGE AREA.--1,535 sq mi.

PERIOD OF RECORD.--July 1933 to May 1941, November 1944 to current year. Prior to October 1970, published as Brownwood Reservoir.

GAGE.--Nonrecording gage read once daily. Datum of gage is 0.50 ft below mean sea level. July 1933 to May 31, 1941, and Nov. 21, 1944, to Sept. 30, 1949, nonrecording gages or water-stage recorder at various sites at dam at same datum.

EXTREMES (at 1800).--Current year: Maximum contents observed, 154,200 acre-ft Sept. 25, 26 (gage height, 1,426.5 ft); minimum, 80,830 acre-ft July 26-31 (gage height, 1,414.7 ft).
Period of record: Maximum contents, 192,300 acre-ft May 2, 1956 (gage height, 1,431.4 ft); minimum, 11,900 acre-ft July 15, 1934 (gage height, 1,389.5 ft).

REMARKS.--Lake first filled during flood of July 3, 4, 1932. Dam completed in 1933 and operation began July 1933. Lake is formed by earthfill dam, 1,580 ft long. The uncontrolled emergency spillway is a broad-crested weir 479 ft long, located 800 ft to left of dam. Lake can be drained by two 12-foot (horseshoe-shaped) reinforced concrete conduits. Water is withdrawn for irrigation through a 5-foot circular concrete conduit. Figures given herein represent total contents. Water is used for irrigation, municipal, and industrial supply for city of Brownwood (see station 08142500). At end of year, flow from 323 sq mi above this station and below Lake Coleman (conservative capacity, 40,000 acre-ft) was partly controlled by 52 floodwater-retarding structures with a total combined capacity of 71,520 acre-ft below the flood-spillway crests, of which 66,660 acre-ft is floodwater-retarding capacity and 4,860 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding dam and lake are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Crest of dam	1,450.0	-
Crest of spillway	1,425.1	143,400
Invert to irrigation canal	1,406.0	46,510
Invert to 12-foot outlet conduits	1,330.0	-

COOPERATION.--Record of daily gage height furnished by Brown County Water Improvement District No. 1. Capacity table, from survey made in 1959, furnished by Corps of Engineers and Soil Conservation Service.

REVISIONS (WATER YEARS).--WSP 1212: 1948-50.

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,414.0	77,530	1,423.0	128,700
1,417.0	92,430	1,425.0	142,700
1,420.0	109,700	1,427.0	158,200

CONTENTS, IN ACRE-FEET, AT 1800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115,100	112,700	109,100	106,700	103,700	101,300	97,300	94,050	90,870	86,730	81,790	134,300
2	115,100	112,100	109,100	106,700	103,700	101,300	97,300	93,510	91,390	86,730	83,740	134,300
3	115,100	112,100	109,100	106,100	103,700	101,300	97,300	93,510	91,390	86,230	83,740	134,300
4	115,100	112,100	109,100	106,100	103,700	101,300	96,750	93,510	91,390	86,230	83,740	133,600
5	115,100	112,100	109,100	106,100	103,700	101,300	96,750	92,970	90,870	85,730	84,230	133,600
6	115,100	111,500	109,100	106,100	103,100	101,300	96,750	92,970	90,870	85,730	84,230	133,600
7	114,500	111,500	109,100	106,100	103,100	101,300	96,210	92,970	90,870	85,230	84,230	133,600
8	114,500	111,500	108,500	106,100	103,100	100,700	96,210	92,430	90,870	85,230	85,230	132,900
9	114,500	111,500	108,500	106,100	103,100	100,700	95,670	92,430	90,350	84,730	85,730	132,900
10	114,500	111,500	108,500	105,500	103,100	100,700	95,670	92,430	90,350	84,730	85,730	132,900
11	114,500	111,500	108,500	105,500	103,100	100,700	95,130	91,910	90,350	84,230	85,730	132,900
12	113,900	111,500	108,500	105,500	103,100	100,700	95,130	91,910	89,830	84,230	86,230	132,200
13	113,900	110,900	108,500	105,500	102,500	100,100	95,130	91,910	89,830	83,740	110,300	132,200
14	113,900	110,900	107,900	105,500	102,500	100,100	95,130	91,390	89,830	83,740	124,500	132,200
15	113,900	110,900	107,900	105,500	102,500	100,100	95,130	91,390	89,310	83,250	130,100	132,200
16	113,900	110,900	107,900	105,500	102,500	99,530	95,130	90,870	89,310	83,250	132,200	131,500
17	113,300	110,900	107,900	104,900	102,500	99,530	95,130	90,870	88,790	82,760	132,900	131,500
18	113,300	110,300	107,900	104,900	102,500	99,530	95,130	90,870	88,790	82,760	133,600	131,500
19	113,300	110,300	107,900	104,900	102,500	98,970	95,130	90,350	88,790	82,270	133,600	130,800
20	113,300	110,300	107,300	104,900	101,900	98,970	95,130	90,350	88,270	82,270	133,600	130,800
21	113,300	110,300	107,300	104,900	101,900	98,970	95,130	89,830	88,270	81,790	133,600	130,800
22	113,300	109,700	107,300	104,900	101,900	98,410	95,130	89,830	88,270	81,790	133,600	131,500
23	113,300	109,700	107,300	104,900	101,900	98,410	95,130	89,830	88,270	81,310	133,600	138,500
24	113,300	109,700	107,300	104,300	101,900	98,410	95,130	89,310	88,270	81,310	132,900	148,600
25	113,300	109,700	107,300	104,300	101,900	98,410	94,590	89,310	87,750	81,310	132,900	154,200
26	113,300	109,700	107,300	104,300	101,900	98,410	94,590	89,310	87,750	80,830	132,900	154,200
27	113,300	109,700	107,300	104,300	101,900	98,410	94,590	88,790	87,750	80,830	132,900	153,400
28	113,300	109,100	106,700	104,300	101,900	98,410	94,050	88,790	87,230	80,830	132,900	151,800
29	112,700	109,100	106,700	104,300	------	98,410	94,050	88,790	87,230	80,830	132,900	150,200
30	112,700	109,100	106,700	103,700	------	97,850	94,050	88,790	87,230	80,830	134,300	148,600
31	112,700	------	106,700	103,700	------	97,300	------	88,790	------	80,830	134,300	------
(†)	1,420.5	1,419.9	1,419.5	1,419.0	1,418.7	1,417.9	1,417.3	1,416.3	1,416.0	1,414.7	1,423.8	1,425.8
(*)	-2,400	-3,600	-2,400	-3,000	-1,800	-4,600	-3,250	-5,260	-1,560	-6,400	+53,470	+14,300
MAX	115,100	112,700	109,100	106,700	103,700	101,300	97,300	94,050	91,390	86,730	134,300	154,200
MIN	112,700	109,100	106,700	103,700	101,900	97,300	94,050	88,790	87,230	80,830	81,790	130,800

CAL YR 1970..... * -44,300 MAX 151,800 MIN 106,700
WTR YR 1971..... * +33,500 MAX 154,200 MIN 80,830

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.

08143500 Pecan Bayou at Brownwood, Tex.

LOCATION.--Lat 31°43'54", long 98°58'25", Brown County, on right bank at Brownwood, 502 ft upstream from city dam, 6.3 miles downstream from Salt Creek, 10 miles downstream from Lake Brownwood (revised), and at mile 47.5.

DRAINAGE AREA.--1,614 sq mi.

PERIOD OF RECORD.--May 1917 to June 1918, October 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,318.58 ft above mean sea level. See WSP 1922 for history of changes prior to Apr. 2, 1962.

AVERAGE DISCHARGE.--46 years (1924-28, 1929-71), 152 cfs (110,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,730 cfs Sept. 26 (gage height, 3.69 ft); no flow July 11-31.
Period of record: Maximum discharge, 31,600 cfs Oct. 14, 1930 (gage height, 16.92 ft); no flow at times.
Maximum stage, 21.7 ft in September 1900, from information by Gulf, Colorado, and Santa Fe Railway Co. Flood of July 3, 1932, probably the greatest, reached a discharge of about 235,000 cfs as it entered Lake Brownwood (computed from rate of change of contents in lake; data furnished by engineers of Brown County Water Improvement District No. 1).

REMARKS.--Records good. Flow regulated by Lake Brownwood (station 08143000). Brown County Water Improvement District No. 1 canal (station 08142500) diverts water from Lake Brownwood 10 miles upstream. At end of year, flow from 19.4 sq mi above this station and below Lake Brownwood was partly controlled by eight floodwater-retarding structures with a total combined capacity of 4,940 acre-ft below the flood-spillway crests, of which 4,440 acre-ft is floodwater-retarding capacity and 500 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 981 acre-ft, of which 104 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1312: 1928. WSP 1512: 1924(M), 1926-27, 1928(M), 1930-32, 1935(M), 1936, 1941.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.5	3.3	2.5	2.6	2.2	.02	1.8	14	.01	15	9.0
2	3.0	2.5	3.5	2.5	2.6	2.0	.01	1.8	7.4	0	46	5.1
3	3.0	2.5	2.7	2.8	2.6	2.0	.02	1.7	3.3	0	8.5	3.3
4	2.5	3.2	2.8	3.0	2.6	2.0	.10	1.6	1.8	.01	3.8	2.7
5	2.5	4.3	4.0	2.3	2.6	2.0	.49	1.7	1.0	.14	3.1	2.5
6	2.5	4.9	3.9	2.3	2.6	2.0	.68	1.8	.52	.20	3.4	2.2
7	2.5	5.0	4.3	2.3	2.6	1.9	.58	1.1	.35	.13	36	2.0
8	2.5	4.6	4.2	2.3	2.6	1.7	.90	.68	.21	.08	7.5	1.5
9	2.5	4.1	4.2	2.3	2.6	1.7	1.1	.58	.11	.04	3.7	1.1
10	2.5	3.2	4.4	2.3	2.6	1.7	1.2	.90	.07	.02	2.2	1.0
11	2.5	2.4	4.9	2.3	2.5	1.7	1.4	.79	.06	0	1.5	1.0
12	2.5	2.0	4.6	2.3	2.5	1.7	1.1	.68	.09	0	29	1.3
13	2.5	1.6	4.3	2.3	2.3	1.7	.41	.41	.40	0	335	1.1
14	2.5	1.2	4.4	2.5	2.3	1.4	.16	.29	.31	0	65	1.0
15	2.5	.89	4.4	2.5	2.3	1.4	.10	.24	.14	0	39	1.0
16	2.5	1.1	4.0	2.5	2.3	1.4	.20	.20	.08	0	8.9	1.0
17	2.5	1.2	3.8	2.5	2.2	1.4	.68	.16	.05	0	4.7	1.1
18	2.0	1.0	3.4	2.5	2.2	1.3	5.8	.10	.03	0	2.9	1.4
19	2.0	1.7	3.2	2.5	2.2	1.4	5.1	.08	.02	0	2.4	1.4
20	2.0	2.4	3.0	2.5	2.0	1.2	5.9	.10	.01	0	2.0	1.6
21	2.0	2.3	2.8	2.5	2.0	1.4	4.6	.16	.01	0	2.0	1.8
22	2.0	2.8	2.5	2.5	2.0	1.6	3.6	.16	.07	0	1.9	22
23	2.0	2.7	2.3	2.5	1.9	.68	3.0	.16	.24	0	2.0	148
24	2.0	1.8	2.0	2.5	1.9	.35	2.6	.13	.24	0	2.1	311
25	2.0	1.6	1.7	2.5	2.0	.29	2.6	.08	.16	0	1.7	1,900
26	2.0	2.1	2.0	2.5	2.3	.16	2.6	.10	.07	0	1.5	2,660
27	2.2	3.3	2.1	2.5	2.3	.10	3.0	.42	.05	0	1.8	2,360
28	1.7	3.2	2.4	2.5	2.2	.08	2.6	3.5	.04	0	3.4	1,930
29	1.6	3.3	2.5	2.5	------	.04	1.8	2.0	.03	0	3.4	1,430
30	2.4	3.6	2.9	2.5	------	.03	2.0	.96	.02	0	145	1,070
31	2.6	------	2.8	2.5	------	.02	------	.71	------	0	21	------
TOTAL	72.5	78.99	103.3	76.5	65.4	38.55	54.35	25.09	30.88	.63	805.4	11,875.1
MEAN	2.34	2.63	3.33	2.47	2.34	1.24	1.81	.81	1.03	.020	26.0	396
MAX	3.0	5.0	4.9	3.0	2.6	2.2	5.9	3.5	14	.20	335	2,660
MIN	1.6	.89	1.7	2.3	1.9	.02	.01	.08	.01	0	1.5	1.0
AC-FT	144	157	205	152	130	76	108	50	61	1.3	1,600	23,550

CAL YR 1970 TOTAL 61,167.17 MEAN 168 MAX 2,150 MIN 0 AC-FT 121,300
WTR YR 1971 TOTAL 13,226.69 MEAN 36.2 MAX 2,660 MIN 0 AC-FT 26,240

08143600 Pecan Bayou near Mullin, Tex.

LOCATION.--Lat 31°31'02", long 98°44'25", Mills County, on right bank 44 ft downstream from bridge on Farm Road 573, 0.6 mile downstream from Blanket Creek, 5.5 miles southwest of Mullin, and 10 miles upstream from Colorado River.

DRAINAGE AREA.--2,034 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,202.93 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 5,530 cfs Aug. 1 (gage height, 17.34 ft); minimum, 0.03 cfs July 16.
Period of record: Maximum discharge, 13,700 cfs Jan. 23, 1968 (gage height, 29.26 ft); minimum, 0.03 cfs July 16, 1971.

REMARKS.--Records good. Flow regulated by Lake Brownwood (revised) 47 miles upstream (see station 08143000). At end of year, flow from 110 sq mi above this station and below Lake Brownwood was partly controlled by 28 floodwater-retarding structures with a total combined capacity of 24,740 acre-ft below the flood-spillway crests, of which 22,490 acre-ft is floodwater-retarding capacity and 2,250 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 981 acre-ft, of which 104 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	17	17	10	14	8.3	7.9	24	3.3	1,300	86
2	20	18	17	17	10	12	8.6	4.8	23	4.2	1,100	36
3	20	17	18	17	10	12	8.6	4.4	26	2.2	145	25
4	20	14	18	16	11	12	8.6	8.2	18	2.9	75	21
5	20	13	15	16	12	12	8.4	8.5	11	2.2	440	18
6	20	14	14	18	12	12	10	6.3	8.7	1.9	387	16
7	20	14	14	19	13	11	7.8	6.9	5.9	1.8	94	13
8	20	13	13	19	13	11	8.7	214	5.2	1.3	66	13
9	20	12	14	18	13	11	8.7	427	4.7	.88	40	12
10	20	12	15	17	15	11	12	19	3.6	.75	24	11
11	20	12	16	14	15	10	11	5.3	2.1	.54	20	10
12	20	14	15	14	13	10	12	14	1.3	.24	246	12
13	20	16	14	14	12	10	12	15	.78	.15	818	14
14	20	14	14	13	9.4	7.9	11	14	.48	.11	545	16
15	20	12	15	13	9.4	5.8	9.7	14	.30	.08	150	19
16	20	11	16	12	14	5.8	9.4	12	.19	.05	82	18
17	20	11	16	12	16	6.0	17	9.6	4.5	.44	45	17
18	20	11	15	12	14	6.0	30	5.7	7.5	.88	32	17
19	20	11	16	12	12	6.0	25	4.4	7.9	.97	25	16
20	20	11	16	12	12	6.0	27	7.8	5.8	.61	21	17
21	20	11	16	12	13	9.0	23	7.5	3.6	.25	18	23
22	20	11	17	13	14	11	24	5.6	7.8	.17	15	26
23	20	11	21	13	15	14	18	3.2	34	12	15	228
24	20	11	19	13	16	13	16	2.6	28	151	12	390
25	19	9.4	14	13	26	12	15	2.1	13	32	13	964
26	19	8.9	14	13	17	11	13	1.7	7.7	44	15	2,150
27	19	12	14	13	18	10	12	1.5	4.6	73	13	2,310
28	19	17	12	12	15	10	7.2	156	3.5	32	15	1,960
29	18	17	12	11	------	10	8.4	89	3.3	25	21	1,530
30	18	17	14	9.4	------	11	8.0	34	3.3	14	44	1,140
31	18	------	16	9.4	------	8.8	------	24	------	12	216	------
TOTAL	610	393.3	477	433.8	379.8	311.3	398.4	1,136.0	269.75	420.92	6,052	11,128
MEAN	19.7	13.1	15.4	14.0	13.6	10.0	13.3	36.6	8.99	13.6	195	371
MAX	20	18	21	19	26	14	30	427	34	151	1,300	2,310
MIN	18	8.9	12	9.4	9.4	5.8	7.2	1.5	.19	.05	12	10
AC-FT	1,210	780	946	860	753	617	790	2,250	535	835	12,000	22,070

CAL YR 1970 TOTAL 84,516.16 MEAN 232 MAX 2,230 MIN .20 AC-FT 167,600
WTR YR 1971 TOTAL 22,010.27 MEAN 60.3 MAX 2,310 MIN .05 AC-FT 43,660

08144000 Noyes Canal at Menard, Tex.

LOCATION.--Lat 30°54'55", long 99°47'05", Menard County, on right bank at intersection of Canal and Gay Streets in Menard, and 4.5 miles downstream from headgates.

PERIOD OF RECORD.--March 1924 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,878.06 ft above mean sea level. Prior to July 23, 1940, nonrecording gage at site 2,000 ft upstream at datum 4.99 ft higher.

AVERAGE DISCHARGE.--47 years, 13.4 cfs (9,710 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge (exclusive of times canal submerged by water of San Saba River), 50 cfs Apr. 15, 1925 (probably affected by local runoff between point of diversion and station); no flow at times.

REMARKS.--Records good. Discharge represents flow diverted from San Saba River; local runoff between diversion point and gage is excluded. Canal diverts water from right bank of San Saba River 4.5 miles upstream from Menard for irrigation near Menard. Ten acres are irrigated from canal above station. First diversion was about 1890.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	16	22	13	15	12	19	17	9.9	9.1		0
2	8.7	16	21	10	14	12	18	16	9.5	12		0
3	8.7	16	21	11	15	13	18	16	8.9	12		0
4	8.5	16	21	15	14	12	19	16	8.2	12		0
5	8.5	17	18	15	14	12	20	16	7.8	12		0
6	8.3	17	17	15	14	12	20	16	7.2	11		0
7	7.6	17	17	15	14	9.5	15	16	7.0	10		0
8	6.6	16	16	15	14	1.2	19	16	7.6	9.7		0
9	11	14	14	15	14	0	19	16	7.8	9.3		0
10	17	17	16	15	15	0	19	16	7.6	8.9		5.8
11	17	21	19	15	14	0	19	12	7.8	8.7		15
12	18	21	19	14	14	0	20	16	8.0	9.5		12
13	18	20	19	14	14	0	20	15	9.5	9.3		18
14	18	20	19	14	14	0	19	14	8.1	9.1		18
15	18	19	18	14	13	0	20	14	13	8.2		19
16	18	19	19	14	13	0	23	14	13	6.9		19
17	18	20	18	14	13	0	24	15	11	6.2		19
18	19	22	15	14	13	0	22	14	10	4.5		19
19	20	22	14	13	13	0	20	13	11	7.2		20
20	18	22	13	11	13	0	20	13	11	8.3		24
21	17	22	17	11	13	0	18	12	12	8.2		24
22	18	22	19	15	13	0	17	13	13	8.2		23
23	18	22	19	16	12	0	16	14	14	8.0		24
24	18	22	19	16	5.6	0	13	13	13	9.1		25
25	17	22	19	16	13	0	16	13	13	10		25
26	16	22	19	16	13	0	15	12	12	9.1		24
27	15	22	18	16	13	0	15	11	11	6.4		25
28	16	22	17	16	13	0	15	8.1	12	4.0		24
29	15	22	16	15	------	0	18	10	13	2.5		24
30	16	22	16	14	------	0	20	9.5	13	.43		23
31	16	------	15	14	------	3.8	------	9.1	------	0		------
TOTAL	458.0	588	550	441	372.6	87.5	556	425.7	309.9	249.83	0	429.8
MEAN	14.8	19.6	17.7	14.2	13.3	2.82	18.5	13.7	10.3	8.06	0	14.3
MAX	20	22	22	16	15	13	24	17	14	12	0	25
MIN	6.6	14	13	10	5.6	0	13	8.1	7.0	0	0	0
AC-FT	908	1,170	1,090	875	739	174	1,100	844	615	496	0	853

CAL YR 1970 TOTAL 4,034.96 MEAN 11.1 MAX 22 MIN 0 AC-FT 8,000
WTR YR 1971 TOTAL 4,468.33 MEAN 12.2 MAX 25 MIN 0 AC-FT 8,860

08144500 San Saba River at Menard, Tex.

LOCATION.--Lat 30°55'05", long 99°47'05", Menard County, on downstream side of bridge on U.S. Highway 83 in Menard, 0.7 mile downstream from Las Moras Creek, and at mile 110.4.

DRAINAGE AREA.--1,151 sq mi.

PERIOD OF RECORD.--September 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,863.05 ft above mean sea level. Sept. 14, 1915, to Mar. 12, 1924, nonrecording gage at site 635 ft downstream at datum 2.20 ft lower. Mar. 13, 1924, to Feb. 21, 1939, nonrecording gage at site 1,000 ft upstream at datum 2.00 ft higher. Feb. 22, 1939, to Jan. 25, 1940, nonrecording gage at present site and datum. Jan. 26, 1940, to Sept. 19, 1957, water-stage recorder at site 240 ft to right at present datum. Feb. 8, 1962, to Jan. 22, 1963, nonrecording gage at site 600 ft downstream at present datum.

AVERAGE DISCHARGE.--56 years, 61.8 cfs (44,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,640 cfs July 26 (gage height, 12.34 ft); no flow at times.
Period of record: Maximum discharge, 130,000 cfs July 23, 1938 (gage height, 22.2 ft, present site and datum, from floodmark), from rating curve extended above 60,000 cfs on basis of slope-area measurements of 68,600 and 130,000 cfs; no flow at times caused by upstream diversion to Noyes Canal (station 08144000).
Maximum stage since at least 1880, 23.3 ft June 6, 1899, present site and datum, from information by local resident.

REMARKS.--Records good. Since about 1890, low flow during irrigation season regulated by diversions to Noyes Canal 4 miles upstream and diversions by pumping at several locations upstream. Records of the Texas Water Rights Commission show permits have been granted to irrigate 3,338 acres above station. See record of Noyes Canal on preceding page.

REVISIONS (WATER YEARS).--WSP 568: Drainage area. WSP 1512: 1918-20, 1922-25, 1926(M), 1927-32, 1934(M), 1936, 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	8.6	12	23	11	19	8.9	11	1.3	.96	41	35
2	17	10	13	28	12	18	2.5	8.6	1.1	.55	99	34
3	17	10	15	25	12	15	1.6	7.8	.69	.30	84	33
4	18	11	14	14	13	15	1.6	7.5	.43	.18	62	31
5	17	12	16	13	12	15	1.5	6.5	.24	.12	104	37
6	17	10	19	14	12	15	1.2	5.6	.16	.08	64	40
7	17	10	20	14	12	15	1.3	6.2	.06	.06	54	37
8	17	12	21	15	12	32	1.3	7.2	.01	.06	51	37
9	17	16	28	15	12	39	1.3	7.2	0	.04	45	35
10	8.5	15	25	15	12	36	1.5	13	0	.02	43	31
11	3.9	9.4	12	14	12	37	1.6	9.4	0	.01	81	8.0
12	3.5	7.2	12	14	12	35	2.0	8.2	0	0	616	3.3
13	3.5	7.5	11	14	12	34	2.0	6.8	0	0	145	2.0
14	3.9	8.6	12	13	12	37	2.0	5.0	0	0	87	2.5
15	4.4	9.4	13	12	12	37	2.3	3.3	0	0	68	2.5
16	3.1	9.0	14	12	14	31	7.7	2.7	.19	0	59	2.7
17	2.9	9.4	14	12	17	25	12	4.4	.55	0	54	2.7
18	3.5	6.5	16	17	16	25	12	6.2	.38	0	59	2.7
19	4.7	6.2	20	14	17	26	8.6	3.9	.27	0	56	3.7
20	6.8	6.5	22	16	27	23	7.8	3.3	.30	0	46	4.7
21	9.4	6.5	20	17	27	20	6.8	2.9	.30	0	44	4.2
22	7.5	7.5	15	12	22	22	6.2	2.5	.30	0	42	5.3
23	6.8	8.6	16	12	15	20	5.6	2.3	.34	0	42	7.8
24	6.5	8.2	15	13	16	22	6.5	2.0	.55	0	40	19
25	7.5	7.5	14	12	31	26	6.2	1.3	.62	54	39	17
26	8.2	7.5	14	12	33	28	6.2	1.3	.49	1,390	38	14
27	10	9.8	14	12	26	28	6.8	.96	.34	785	38	19
28	8.2	11	16	12	22	29	6.8	.62	.30	112	37	19
29	9.0	10	17	12	------	28	17	.43	.34	58	37	11
30	7.2	12	18	12	------	27	9.8	1.2	.43	44	36	7.7
31	7.8	------	19	11	------	25	------	1.5	------	37	37	------
TOTAL	289.8	282.9	507	451	463	804	158.6	150.81	9.69	2,482.38	2,348	508.8
MEAN	9.35	9.43	16.4	14.5	16.5	25.9	5.29	4.86	.32	80.1	75.7	17.0
MAX	18	16	28	28	33	39	17	13	1.3	1,390	616	40
MIN	2.9	6.2	11	11	11	15	1.2	.43	0	0	36	2.0
AC-FT	575	561	1,010	895	918	1,590	315	299	19	4,920	4,660	1,010

CAL YR 1970 TOTAL 8,479.26 MEAN 23.2 MAX 1,140 MIN .49 AC-FT 16,820
WTR YR 1971 TOTAL 8,455.98 MEAN 23.2 MAX 1,390 MIN 0 AC-FT 16,770

PEAK DISCHARGE (BASE, 670 CFS)

DATE	TIME	G.HT.	DISCHARGE
7-26	1300	12.34	9,640
7-27	1400	10.22	5,230
8-12	0400	8.24	2,120

08144800 Brady Creek near Eden, Tex.

LOCATION.--Lat 31°11'03", long 99°50'27", Concho County, on right bank at upstream side of bridge on U.S. Highway 83, 2.2 miles south of Eden, 2.6 miles upstream from Hardin Creek, and at mile 69.3.

DRAINAGE AREA.--97 sq mi.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,000.95 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 0.64 cfs (464 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,020 cfs May 30 (gage height, 4.04 ft); no flow at times.
Period of record: Maximum discharge, 5,110 cfs Apr. 28, 1966 (gage height, 7.08 ft); no flow for many days each year.
Maximum stage since at least 1884, 15.8 ft in July 1938, from information by local resident.

REMARKS.--Records good above 1.0 cfs and fair below. At end of year, flow from 65.0 sq mi above this station was partly controlled by five floodwater-retarding structures with a total combined capacity of 22,900 acre-ft below the flood-spillway crests, of which 22,190 acre-ft is floodwater-retarding capacity and 715 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.05	.07	.05	.16	.08	.04	2.0	0	.35	.76
2		0	.05	.12	.06	.14	.08	.04	.35	0	.76	.76
3		0	.05	.21	.07	.14	.08	.02	.12	0	.62	.76
4		0	.05	.21	.08	.12	.08	0	.03	0	.50	.76
5		0	.06	.27	.08	.10	.12	0	0	0	.44	.76
6		0	.07	.31	.06	.12	.07	0	0	0	.44	.76
7		0	.08	.27	.05	.18	.06	0	0	0	.44	.76
8		0	.10	.27	.05	.35	.06	0	0	0	.35	.76
9		0	.12	.27	.05	.50	.07	0	0	0	.31	.76
10		0	.12	.24	.05	.56	.06	0	0	0	.31	.76
11		0	.10	.21	.04	.68	.06	0	0	0	2.3	.84
12		0	.10	.21	.04	.84	.06	0	0	0	38	.92
13		.01	.08	.24	.02	1.0	.06	0	0	0	4.0	.92
14		.01	.10	.31	.02	.92	.06	0	0	0	1.6	.92
15		0	.08	.21	.02	.68	.06	0	0	0	1.1	.84
16		0	.02	.12	.05	.62	.40	0	0	0	.84	.84
17		0	.01	.12	.14	.62	.44	0	0	0	.76	.84
18		.01	.03	.16	.18	.62	.31	0	0	0	.76	.84
19		.02	.08	.18	.14	.24	.21	0	0	0	.68	.92
20		.03	.08	.21	.10	.16	.18	0	0	0	.68	1.2
21		.03	.08	.14	.18	.14	.12	0	0	0	.68	1.3
22		.03	.10	.12	.18	.12	.12	0	20	0	.68	1.3
23		.03	.08	.10	.16	.12	.12	0	11	0	.68	2.2
24		.03	.07	.14	.16	.12	.10	0	.35	0	.76	4.8
25		.03	.07	.10	.21	.12	.08	0	.07	0	.76	1.7
26		.02	.06	.06	.21	.14	.06	0	.02	6.9	.76	.84
27		.02	.03	.06	.16	.14	.05	0	0	118	.76	.68
28		.02	.04	.07	.16	.12	.05	0	0	7.9	.76	.68
29		.02	.05	.08	------	.07	.05	0	0	1.2	.76	.68
30		.04	.07	.10	------	.06	.04	226	0	.50	.76	.68
31		------	.07	.08	------	.07	------	18	------	.27	.76	------
TOTAL	0	.35	2.15	5.26	2.77	9.97	3.39	244.10	33.94	134.77	63.36	31.54
MEAN	0	.012	.069	.17	.099	.32	.11	7.87	1.13	4.35	2.04	1.05
MAX	0	.04	.12	.31	.21	1.0	.44	226	20	118	38	4.8
MIN	0	0	.01	.06	.02	.06	.04	0	0	0	.31	.68
AC-FT	0	.7	4.3	10	5.5	20	6.7	484	67	267	126	63

CAL YR 1970 TOTAL 97.86 MEAN .27 MAX 6.2 MIN 0 AC-FT 194
WTR YR 1971 TOTAL 531.60 MEAN 1.46 MAX 226 MIN 0 AC-FT 1,050

08144900 Brady Creek Reservoir near Brady, Tex.

LOCATION.--Lat 31°08'17", long 99°23'07", McCulloch County, at mouth of Bear Creek, 280 ft upstream from Farm Road 3022 over Brady Creek Dam on Brady Creek, 3.0 miles west of Brady, and at mile 34.1.

DRAINAGE AREA.--513 sq mi.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level.

EXTREMES.--Current year: Maximum contents, 40,880 acre-ft Sept. 24 (elevation, 1,747.70 ft); minimum, 11,960 acre-ft May 29 (elevation, 1,730.95 ft).
Period of record: Maximum contents, 40,880 acre-ft Sept. 24, 1971 (elevation, 1,747.70 ft); minimum since first appreciable storage, 1,030 acre-ft Sept. 18, 1964 (elevation, 1,710.4 ft).

REMARKS.--Reservoir is formed by a compacted earthfill dam 8,400 ft long. Dam was completed and storage began in May 1963. Dam was built by the city of Brady in cooperation with the Soil Conservation Service and Farmers Home Administration for flood control and municipal and industrial water supply. The service spillway is an uncontrolled concrete drop-inlet structure which discharges through a 7- by 7-foot concrete box conduit through the dam. Service spillway is designed to discharge 4,000 cfs with a 19.4-foot head. The emergency spillway is a cut channel 1,000 ft wide located at right end of dam. Service outlet is a 36-inch cast-iron pipe extending through the embankment, and is equipped with three sluice gates with 3- by 3-foot openings at elevations 1,712.0 ft, 1,727.0 ft, and 1,733.0 ft. At end of year, flow from 263 sq mi above this station was partly controlled by 35 floodwater-retarding structures with a total combined capacity of 82,180 acre-ft below the flood-spillway crests, of which 77,950 acre-ft is floodwater-retarding capacity and 4,230 acre-ft is sediment-pool capacity. These structures were built during the period February 1955 to July 1962. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. The city of Brady furnished the capacity curve which was based on Geological Survey topographic map, edition of 1960. Capacity curve was not adjusted for borrow; borrow pits were below 1,743-foot elevation. Data regarding dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,783.0	-
Crest of emergency spillway	1,762.4	90,310
Crest of service spillway (conservation storage)	1,743.0	30,430
Invert of lowest intake to service outlet	1,712.0	1,320

COOPERATION.--Records furnished by city of Brady show no water diverted during year for municipal or industrial use.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,730.0	10,960	1,742.0	28,450
1,734.0	15,580	1,745.0	34,640
1,738.0	21,370	1,748.0	41,600

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,210	14,710	14,250	13,930	13,580	13,360	12,780	12,540	14,400	14,010	34,620	30,720
2	15,200	14,680	14,250	13,930	13,570	13,370	12,750	12,510	14,400	13,990	34,150	30,660
3	15,200	14,670	14,240	13,920	13,570	13,310	12,730	12,480	14,370	13,950	33,670	30,620
4	15,190	14,640	14,240	13,880	13,560	13,280	12,720	12,460	14,340	13,920	33,290	30,550
5	15,160	14,620	14,220	13,860	13,530	13,270	12,680	12,460	14,320	13,890	33,670	30,530
6	15,150	14,610	14,200	13,830	13,520	13,250	12,660	12,420	14,280	13,880	33,260	30,490
7	15,140	14,600	14,200	13,820	13,510	13,230	12,640	12,410	14,260	13,840	32,770	30,450
8	15,100	14,580	14,200	13,820	13,490	13,220	12,610	12,380	14,210	13,810	32,260	30,430
9	15,040	14,550	14,200	13,810	13,480	13,210	12,600	12,390	14,180	13,780	31,950	30,370
10	15,000	14,530	14,190	13,810	13,460	13,200	12,590	12,470	14,140	13,750	31,690	30,330
11	15,000	14,520	14,160	13,800	13,490	13,190	12,580	12,470	14,120	13,710	31,580	30,270
12	15,010	14,510	14,140	13,800	13,440	13,170	12,550	12,410	14,090	13,680	31,710	30,230
13	15,010	14,510	14,130	13,800	13,430	13,160	12,540	12,390	14,080	13,640	32,140	30,210
14	14,990	14,470	14,120	13,800	13,420	13,130	12,510	12,360	14,200	13,610	32,080	30,210
15	14,960	14,450	14,100	13,770	13,400	13,110	12,490	12,350	14,380	13,580	32,060	30,190
16	14,950	14,430	14,070	13,760	13,390	13,100	12,660	12,310	14,380	13,550	31,750	30,130
17	14,940	14,420	14,060	13,760	13,400	13,060	12,670	12,280	14,360	13,510	31,810	30,110
18	14,920	14,400	14,060	13,750	13,390	13,040	12,660	12,240	14,310	13,460	31,420	30,030
19	14,920	14,380	14,050	13,740	13,370	13,010	12,660	12,210	14,280	13,430	31,300	30,010
20	14,920	14,360	14,030	13,710	13,360	13,000	12,690	12,190	14,260	13,390	31,170	29,990
21	14,910	14,370	14,050	13,710	13,370	12,970	12,680	12,180	14,260	13,360	31,070	29,970
22	14,910	14,360	14,050	13,700	13,310	12,960	12,670	12,170	14,310	13,310	30,990	30,050
23	14,890	14,320	14,020	13,700	13,280	12,940	12,640	12,140	14,310	13,330	30,920	31,790
24	14,870	14,280	14,010	13,690	13,280	12,940	12,630	12,120	14,270	13,450	30,840	40,440
25	14,860	14,270	13,970	13,690	13,390	12,920	12,610	12,070	14,240	15,420	30,780	38,240
26	14,860	14,270	13,960	13,680	13,380	12,910	12,600	12,040	14,200	29,880	30,800	36,130
27	14,820	14,270	13,960	13,650	13,370	12,910	12,580	12,020	14,160	38,100	30,860	34,800
28	14,800	14,270	13,960	13,650	13,370	12,890	12,570	12,000	14,140	36,960	30,820	33,930
29	14,770	14,270	13,950	13,650	------	12,860	12,570	11,960	14,080	36,850	30,760	33,310
30	14,750	14,250	13,940	13,640	------	12,830	12,560	13,130	14,030	34,910	30,740	32,860
31	14,750	------	13,940	13,610	------	12,820	------	14,320	------	34,360	30,740	------
(†)	1,733.34	1,732.94	1,732.68	1,732.40	1,732.20	1,731.72	1,731.49	1,733.00	1,732.76	1,744.87	1,743.15	1,744.17
(*)	-480	-500	-310	-330	-240	-550	-260	+1,760	-290	+20,330	-3,620	+2,120
MAX	15,210	14,710	14,250	13,930	13,580	13,370	12,780	14,320	14,400	38,100	34,620	40,440
MIN	14,750	14,250	13,940	13,610	13,280	12,820	12,490	11,960	14,030	13,310	30,740	29,970

CAL YR 1970..... * -1,400 MAX 17,800 MIN 13,940
WTR YR 1971..... * +17,630 MAX 40,440 MIN 11,960

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08145000 Brady Creek at Brady, Tex.

LOCATION.--Lat 31°08'17", long 99°29'05", McCulloch County, on left bank just upstream from bridge on U.S. Highway 377 on North Bridge Street in Brady, 0.4 mile downstream from Live Oak Creek, and at mile 29.5.

DRAINAGE AREA.--575 sq mi.

PERIOD OF RECORD.--May 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,646.50 ft above mean sea level. Prior to July 9, 1940, nonrecording gage at site 3,600 ft upstream at datum 8.24 ft higher.

AVERAGE DISCHARGE.--32 years, 21.5 cfs (15,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 24,700 cfs July 26 (gage height, 19.80 ft); no flow at times.
Period of record: Maximum discharge, 39,100 cfs Sept. 10, 1952 (gage height, 24.80 ft); no flow at times.
Maximum stage since at least 1882, 29.1 ft July 23, 1938, present site and datum (discharge at site 5 miles downstream, 86,000 cfs by slope-area measurement). Flood of Oct. 6, 1930 (second highest since 1882), reached a stage of 25.9 ft (discharge, 50,300 cfs), present site and datum, from information by local residents.

REMARKS.--Records good. The city of Brady, which obtains its water supply from ground-water sources, reported that 332 acre-ft of sewage effluent was returned to Brady Creek downstream from the gage during the water year 1971. Flow largely controlled since May 22, 1963, by Brady Creek Reservoir (station 08144900). At end of year, flow from 24.2 sq mi above this station and below Brady Creek Reservoir was partly controlled by six floodwater-retarding structures with a total combined capacity of 7,160 acre-ft below flood-spillway crests, of which 6,440 acre-ft is floodwater-retarding capacity and 720 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1512: 1941(M), 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04				0		0	.07	0	0	936	79
2	.03				0		0	.05	0	0	951	38
3	.03				0		0	.04	0	0	755	23
4	.03				0		0	.03	0	0	610	15
5	.03				0		0	.02	0	0	868	10
6	.02				0		0	.02	0	0	738	8.6
7	.02				0		0	.01	0	0	495	6.2
8	.01				0		0	.01	0	0	360	4.2
9	0				0		0	0	0	0	275	2.8
10	0				0		0	.66	0	0	222	2.2
11	0				0		0	.07	0	0	284	2.1
12	0				0		0	.02	0	0	274	2.1
13	0				0		0	.01	0	0	411	2.1
14	0				0		0	0	0	0	314	2.0
15	0				0		0	0	.47	0	272	5.4
16	0				0		2.3	0	.18	0	222	2.4
17	0				0		.38	0	.04	0	184	1.9
18	0				0		.13	0	.02	0	155	1.8
19	.02				0		.07	0	0	0	128	2.5
20	.02				0		.74	0	.10	0	96	2.5
21	.02				0		.21	0	.45	0	86	2.5
22	.02				0		.11	0	7.3	0	83	6.4
23	.01				0		.08	0	.72	0	80	503
24	.01				0		.07	.04	.09	1.0	54	3,430
25	0				.98		.07	.02	.03	265	16	2,100
26	0				.05		.06	.01	.02	4,580	9.3	1,700
27	0				0		.05	0	.01	1,460	88	1,110
28	0				0		.04	0	.03	2,050	84	798
29	0				------		.16	0	.04	1,540	82	594
30	0				------		.10	0	.02	1,170	75	454
31	0	------			------		------	0	------	970	86	------
TOTAL	.31	0	0	0	1.03	0	4.57	1.08	9.52	12,036.0	9,293.3	10,911.7
MEAN	.010	0	0	0	.037	0	.15	.035	.32	388	300	364
MAX	.04	0	0	0	.98	0	2.3	.66	7.3	4,580	951	3,430
MIN	0	0	0	0	0	0	0	0	0	0	9.3	1.8
AC-FT	.6	0	0	0	2.0	0	9.1	2.1	19	23,870	18,430	21,640

CAL YR 1970 TOTAL 422.79 MEAN 1.16 MAX 53 MIN 0 AC-FT 839
WTR YR 1971 TOTAL 32,257.51 MEAN 88.4 MAX 4,580 MIN 0 AC-FT 63,980

08146000 San Saba River at San Saba, Tex.

LOCATION.--Lat 31°12'47", long 98°43'09", San Saba County, on right bank at downstream side of bridge on State Highway 16, 1.2 miles north of San Saba, 2.7 miles upstream from Mill Creek, 4.8 miles downstream from China Creek, and at mile 16.6.

DRAINAGE AREA.--3,042 sq mi.

PERIOD OF RECORD.--December 1904 to December 1906 (gage heights only), September 1915 to current year. Published as "near San Saba" December 1904 to December 1906 and September 1915 to August 1930.

GAGE.--Water-stage recorder. Datum of gage is 1,162.16 ft above mean sea level. See WSP 1922 for history of changes prior to July 8, 1953. Since Oct. 1, 1956, supplementary water-stage recorder 2,780 ft to right of main-channel gage used for floodflows.

AVERAGE DISCHARGE.--56 years, 239 cfs (173,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,600 cfs July 26 (gage height, 28.11 ft); maximum gage height, 28.36 ft Sept. 24; minimum discharge, 4.6 cfs July 20.

Period of record: Maximum discharge, 203,000 cfs July 23, 1938 (gage height, 39.3 ft, corrected to present site and datum), from rating curve extended above 41,000 cfs on basis of slope-area measurement of 203,000 cfs; no flow at times in 1918, 1930, 1954-56, 1963-64.

Maximum stage since at least 1899, that of July 23, 1938. Flood of June 6, 1899, reached a stage of 36.7 ft, corrected to present site and datum, from information by local resident.

REMARKS.--Records good. Many diversions above station for irrigation and municipal use affect low flow. Flow partly regulated by Brady Creek Reservoir (see station 08144900), capacity 90,300 acre-ft. At end of year, flow from 71.4 sq mi above this station and below Brady Creek Reservoir was partly controlled by 16 floodwater-retarding structures with a total combined capacity of 17,340 acre-ft below flood-spillway crests, of which 15,700 acre-ft is floodwater-retarding capacity and 1,640 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 458: 1915-16. WSP 1282: Drainage area. WSP 1512: 1918-19(M), 1922, 1931(M), 1935-36. WSP 1922: 1917.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	76	76	81	77	93	53	153	40	39	1,320	963
2	84	72	73	81	68	96	52	115	35	33	11,800	613
3	88	72	70	80	70	98	55	83	33	30	2,370	497
4	86	69	71	81	78	99	62	71	30	30	1,490	432
5	85	67	71	78	72	91	59	74	26	30	1,460	392
6	87	69	65	77	72	85	48	71	23	24	1,910	364
7	86	67	60	83	74	85	41	68	26	25	1,350	350
8	83	70	61	88	81	85	40	63	17	22	1,160	332
9	79	70	60	86	83	77	36	469	15	30	978	314
10	76	67	60	84	86	68	37	281	16	29	801	302
11	84	64	59	83	86	71	48	150	16	30	719	292
12	160	68	62	71	80	71	48	94	16	30	2,080	284
13	88	67	71	69	77	78	30	75	19	26	5,300	276
14	84	69	69	74	81	73	27	67	29	26	6,280	265
15	81	65	75	72	84	66	30	64	30	22	2,830	255
16	80	64	87	66	79	61	48	62	32	11	1,450	239
17	81	62	85	79	80	59	71	61	27	11	1,110	229
18	81	65	82	78	84	59	74	57	23	11	933	222
19	85	62	84	70	80	52	79	53	23	17	800	215
20	86	69	87	76	78	46	76	50	26	8.4	711	224
21	84	70	85	71	72	53	78	49	32	10	652	224
22	81	75	84	74	75	56	82	48	244	19	600	255
23	79	74	79	75	73	56	82	47	118	22	552	2,100
24	77	75	81	77	68	50	78	51	74	331	514	12,600
25	81	79	83	74	88	54	74	48	68	774	489	5,050
26	81	83	85	64	132	56	71	83	56	7,710	460	2,590
27	79	81	79	62	124	59	68	62	53	12,600	451	1,900
28	77	79	81	66	106	70	64	51	50	8,350	1,000	1,450
29	81	77	69	65	------	63	82	47	47	3,540	669	1,250
30	79	76	71	69	------	57	83	46	44	1,840	620	1,120
31	76	------	80	79	------	56	------	46	------	1,560	1,950	------
TOTAL	2,622	2,123	2,305	2,333	2,308	2,143	1,776	2,759	1,288	37,240.4	54,809	35,599
MEAN	84.6	70.8	74.4	75.3	82.4	69.1	59.2	89.0	42.9	1,201	1,768	1,187
MAX	160	83	87	88	132	99	83	469	244	12,600	11,800	12,600
MIN	76	62	59	62	68	46	27	46	15	8.4	451	215
AC-FT	5,200	4,210	4,570	4,630	4,580	4,250	3,520	5,470	2,550	73,870	108,700	70,610

CAL YR 1970 TOTAL 65,050.0 MEAN 178 MAX 2,840 MIN 40 AC-FT 129,000
WTR YR 1971 TOTAL 147,305.4 MEAN 404 MAX 12,600 MIN 8.4 AC-FT 292,200

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7-26	2300	28.11	25,600	8-14	1500	22.24	8,260
8- 2	0800	28.09	25,100	9-24	1600	28.36	25,400

08147000 Colorado River near San Saba, Tex.

LOCATION.--Lat 31°13'04", long 98°33'51", San Saba County, near left bank at downstream side of pier of bridge on U.S. Highway 190, 5.2 miles downstream from San Saba River, 9.2 miles east of San Saba, and at mile 474.3.

DRAINAGE AREA.--30,600 sq mi, approximately, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--October 1915 to October 1922 (published as "near Chadwick"), October 1923 to August 1930 (published as "near Tow"), September 1930 to current year. Monthly discharge only for some periods published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 1,096.22 ft above mean sea level. See WSP 1922 for history of changes prior to May 23, 1940.

AVERAGE DISCHARGE.--53 years (1916-19, 1920-22, 1923-71), 1,308 cfs (947,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30,900 cfs Aug. 2 (gage height, 23.96 ft); minimum, 5.1 cfs July 18, 19.
Period of record: Maximum discharge, 224,000 cfs July 23, 1938 (gage height, 63.2 ft, present site, based on floodmarks at site then in use); no flow Aug. 27-31, 1954; Aug. 3-13, 1963; July 20 to Aug. 8, Aug. 11-14, 1964.
Maximum stage during period 1878 to July 22, 1938, 58.4 ft Sept. 25, 1900 (discharge, 184,000 cfs), present site, from floodmarks at former site.

REMARKS.--Records good. Many diversions above station for irrigation, municipal use, and oilfield operation. Flow partly regulated by eight reservoirs in the Colorado and Concho Rivers and Oak Creek Basins above Winchell, and by four reservoirs in the San Saba River and Pecan Bayou Basins; combined capacity, 2,438,000 acre-ft. At end of year, flow from 747 sq mi above this station was partly controlled by 148 floodwater-retarding structures with a total combined capacity of 177,700 acre-ft below the flood-spillway crests, of which 162,800 acre-ft is floodwater-retarding capacity and 14,900 acre-ft is sediment-pool capacity. Five of these structures were built during the current year and have a total combined capacity below flood-spillway crests of 12,690 acre-ft, of which 662 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 458: 1916. WSP 858: 1900(M), 1936(M). WSP 1118: Drainage area. WSP 1512: 1916-18(M), 1936. WSP 1732: 1925-26(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	140	128	125	107	165	59	135	107	142	1,940	2,140
2	301	140	125	133	106	150	56	177	89	113	19,500	990
3	257	138	123	138	100	145	54	125	115	82	12,900	791
4	229	132	118	131	109	145	57	97	277	63	2,920	654
5	203	122	114	130	113	150	62	86	218	54	2,370	560
6	186	120	111	128	107	135	59	84	165	41	3,990	506
7	173	120	101	128	109	126	47	74	122	33	3,950	464
8	160	122	104	137	110	126	41	75	89	36	2,160	431
9	147	121	110	144	116	122	37	2,520	48	22	1,720	402
10	139	121	109	142	119	111	32	1,550	1,060	23	1,370	382
11	139	114	103	146	119	103	33	717	1,280	24	1,270	365
12	257	107	99	140	115	111	41	277	612	25	2,460	356
13	215	110	105	130	111	107	43	191	369	23	7,610	346
14	170	110	117	127	107	103	26	218	258	17	14,000	336
15	153	114	119	126	107	96	18	277	205	14	13,700	327
16	143	115	115	124	103	89	31	218	681	11	10,100	313
17	140	106	123	119	100	85	55	186	556	8.4	4,110	298
18	143	103	125	131	107	86	75	155	353	5.7	2,190	285
19	150	104	122	127	100	79	76	119	244	5.3	1,600	270
20	148	102	123	124	100	68	82	103	174	7.7	1,310	273
21	152	112	129	128	100	60	155	89	152	10	1,120	282
22	156	115	131	124	92	63	403	83	176	8.3	983	296
23	155	117	130	126	100	66	307	77	371	9.4	875	497
24	148	121	123	123	107	63	244	65	192	325	793	11,800
25	152	120	123	124	122	55	197	65	151	518	731	21,600
26	189	127	128	117	175	62	171	65	558	10,600	678	17,200
27	178	129	127	104	235	68	146	103	464	17,800	632	10,900
28	166	126	124	102	196	69	126	74	323	18,900	1,010	6,470
29	151	122	122	104	------	79	135	60	235	6,360	850	4,430
30	144	129	117	99	------	72	129	111	180	3,500	909	3,320
31	138	------	117	101	------	64	------	140	------	2,640	1,610	------
TOTAL	5,501	3,579	3,665	3,882	3,292	3,023	2,997	8,316	9,824	61,420.8	121,361	87,284
MEAN	177	119	118	125	118	97.5	99.9	268	327	1,981	3,915	2,909
MAX	319	140	131	146	235	165	403	2,520	1,280	18,900	19,500	21,600
MIN	138	102	99	99	92	55	18	60	48	5.3	632	270
AC-FT	10,910	7,100	7,270	7,700	6,530	6,000	5,940	16,490	19,490	121,800	240,700	173,100

CAL YR 1970 TOTAL 265,259.0 MEAN 727 MAX 9,720 MIN 42 AC-FT 526,100
WTR YR 1971 TOTAL 314,144.8 MEAN 861 MAX 21,600 MIN 5.3 AC-FT 623,100

08148000 Lake Buchanan near Burnet, Tex.

LOCATION.--Lat 30°45'04", long 98°25'06", Burnet County, in powerhouse at Buchanan Dam on Colorado River, 1.3 miles upstream from bridge on State Highway 29, 11 miles west of Burnet, and at mile 413.6.

DRAINAGE AREA.--31,250 sq mi, approximately, of which 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--May 1937 to current year. Prior to October 1, 1968, published as Buchanan Reservoir.

GAGE.--Nonrecording gage. Datum of gage is 0.48 ft above mean sea level, levels by Lower Colorado River Authority. Prior to July 1938, temporary staff and float gages at same site and datum.

EXTREMES (at 2400).--Current year: Maximum contents observed, 998,900 acre-ft Sept. 29, 30 (gage height, 1,020.3 ft); minimum, 597,800 acre-ft July 24 (gage height, 1,000.6 ft).
Period of record: Maximum contents, 1,010,000 acre-ft Jan. 24, 1968 (gage height, 1,020.8 ft); minimum after initial filling of lake in July 1938, 340,800 acre-ft Sept. 8-10, 1952 (gage height, 983.4 ft).

REMARKS.--Lake is formed by two reinforced concrete multiple-arch sections, three banks of tainter gates, and a 1,100-foot reinforced concrete spillway section. Dam completed and storage began May 20, 1937. Figures given herein represent total contents. Capacities based on 1925 survey. Water used for power development and irrigation of rice in several districts below Columbus. Power unit consists of three 11,250-kilowatt generators. There is also a 14,500-horsepower pumpback unit designed to pump back 840 cfs at a head of 120 ft. Twelve major reservoirs, with a combined capacity of 2,438,000 acre-ft of which 1,091,000 acre-ft is for flood control, largely regulate the inflow. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Colorado River near San Saba (station 08147000). Data regarding dam and lake are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Crest of 1,100-foot gravity overflow spillway (top of conservation storage)...	1,020.0	992,000
Bottom of 30-33 ft wide by 15 ft high tainter gates.....	1,005.0	678,000
Bottom of 7-40 ft wide by 25 ft high tainter gates.....	995.0	505,000
Invert of penstocks.....	937.0	36,800

COOPERATION.--Gage-height record furnished by Lower Colorado River Authority.

REVISIONS.--WSP 1118: Drainage area.

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,000.0	587,000	1,014.0	858,000
1,005.0	678,000	1,018.0	946,000
1,010.0	775,000	1,021.0	1,015,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	828,600	837,000	839,100	843,300	847,500	851,700	853,800	807,600	763,000	693,200	714,100	917,400
2	828,600	837,000	839,100	843,300	845,400	851,700	851,700	807,600	761,000	689,400	731,200	917,400
3	830,700	837,000	839,100	845,400	847,500	851,700	851,700	803,400	759,000	685,600	775,000	915,200
4	830,700	839,100	839,100	845,400	847,500	851,700	851,700	799,200	757,000	681,800	783,000	913,000
5	830,700	839,100	839,100	843,300	847,500	851,700	853,800	797,100	755,000	678,000	787,000	910,800
6	830,700	839,100	839,100	843,300	847,500	853,800	849,600	795,000	755,000	674,200	793,000	908,600
7	832,800	839,100	839,100	843,300	847,500	851,700	849,600	791,000	755,000	668,500	803,400	906,400
8	832,800	839,100	839,100	843,300	847,500	851,700	849,600	791,000	755,000	664,700	807,600	904,200
9	832,800	839,100	839,100	843,300	847,500	851,700	849,600	795,000	751,000	660,900	809,700	902,000
10	830,700	839,100	841,200	843,300	847,500	851,700	849,600	803,400	749,000	657,200	809,700	902,000
11	832,800	839,100	841,200	843,300	847,500	851,700	849,600	805,500	749,000	653,600	809,700	899,800
12	832,800	839,100	841,200	843,300	847,500	853,800	845,400	805,500	749,000	650,000	811,800	899,800
13	832,800	841,200	841,200	843,300	847,500	853,800	843,300	805,500	749,000	644,600	824,400	899,800
14	832,800	839,100	841,200	843,300	847,500	853,800	839,100	805,500	747,000	641,000	849,600	897,600
15	832,800	837,000	841,200	845,400	847,500	853,800	837,000	805,500	745,000	635,600	880,000	895,400
16	832,800	837,000	841,200	845,400	847,500	853,800	837,000	803,400	741,000	630,200	902,000	895,400
17	832,800	837,000	841,200	845,400	847,500	851,700	837,000	801,300	739,000	626,600	913,000	893,200
18	832,800	837,000	841,200	845,400	849,600	853,800	837,000	797,100	735,000	623,000	917,400	893,200
19	832,800	837,000	841,200	845,400	849,600	851,700	834,900	795,000	733,100	619,400	917,400	893,200
20	832,800	837,000	841,200	845,400	849,600	851,700	830,700	791,000	733,100	614,000	917,400	893,200
21	832,800	837,000	841,200	845,400	849,600	851,700	828,600	787,000	729,300	610,400	919,600	893,200
22	834,900	839,100	841,200	845,400	847,500	851,700	824,400	787,000	725,500	605,000	919,600	893,200
23	834,900	837,000	843,300	845,400	847,500	851,700	822,300	789,000	723,600	601,400	917,400	893,200
24	834,900	837,000	841,200	845,400	849,600	851,700	822,300	789,000	719,800	597,800	915,200	906,400
25	834,900	837,000	843,300	845,400	849,600	851,700	822,300	785,000	714,100	599,600	915,200	921,800
26	837,000	837,000	841,200	845,400	851,700	851,700	820,200	781,000	712,200	605,000	915,200	943,800
27	837,000	837,000	843,300	847,500	849,600	853,800	816,000	775,000	708,400	641,000	913,000	975,900
28	837,000	837,000	843,300	847,500	849,600	853,800	813,900	769,000	704,600	679,900	910,800	989,700
29	834,900	837,000	843,300	847,500	------	853,800	811,800	769,000	700,800	698,900	915,200	998,900
30	837,000	837,000	843,300	847,500	------	851,700	807,600	769,000	697,000	704,600	913,000	998,900
31	837,000	------	843,300	847,500	------	851,700	------	765,000	------	708,400	913,000	------
(†)	1,013.0	1,013.0	1,013.3	1,013.5	1,013.6	1,013.7	1,011.6	1,009.5	1,006.0	1,006.6	1,016.5	1,020.3
(#)	+8,400	0	+6,300	+4,200	+2,100	+2,100	-44,100	-42,600	-68,000	+11,400	+204,600	+85,900
MAX	837,000	841,200	843,300	847,500	849,600	853,800	853,800	807,600	763,000	708,400	919,600	998,900
MIN	828,600	837,000	839,100	843,300	845,400	851,700	807,600	765,000	697,000	597,800	714,100	893,200

CAL YR 1970..... # -128,000 MAX 996,600 MIN 818,100
WTR YR 1971..... # +170,300 MAX 998,900 MIN 597,800

† Gage height, in feet, at end of month.
# Change in contents, in acre-feet.

08148500 North Llano River near Junction, Tex.

LOCATION.--Lat 30°31'04", long 99°48'45", Kimble County, on left bank 1,000 ft upstream from remains of old Wilson Dam, 3 miles northwest of Junction, and 4 miles upstream from confluence with South Llano River.

DRAINAGE AREA.--914 sq mi.

PERIOD OF RECORD.--September 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,699.92 ft above mean sea level. Prior to Aug. 1, 1925, nonrecording gage at site 550 ft downstream at same datum. Aug. 1, 1925, to Sept. 15, 1936, water-stage recorder 520 ft downstream at same datum. Sept. 16, 1936, to June 22, 1940, nonrecording gages at various sites at same datum.

AVERAGE DISCHARGE.--56 years, 65.5 cfs (47,450 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,900 cfs July 25 (gage height, 11.53 ft); minimum, 0.97 cfs July 20.
Period of record: Maximum discharge, 94,800 cfs Sept. 16, 1936 (gage height, 29.2 ft, present site, based on gage height relation curve), from rating curve extended above 68,000 cfs on basis of slope-area measurement of 94,800 cfs; no flow at times. Maximum stage since at least 1875, that of Sept. 16, 1936; maximum stage during period 1875 to Sept. 15, 1936, 27 ft in 1889, from information by local resident.

REMARKS.--Records good. Diversions for irrigation of about 500 acres will materially affect low flow.

REVISIONS (WATER YEARS).--WSP 568: 1920, 1922. WSP 1512: 1915, 1918-19, 1923(M), 1924-26, 1928, 1930(M), 1931-33, 1934(M), 1935.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	29	27	27	22	24	15	16	7.4	8.2	111	128
2	41	28	28	27	24	23	16	16	6.6	7.4	140	123
3	41	28	27	28	24	23	16	15	5.6	6.3	766	117
4	41	29	27	28	24	23	16	14	5.6	5.6	217	114
5	41	29	27	28	24	23	17	14	5.6	5.3	573	108
6	38	29	27	28	23	22	16	13	5.3	4.5	256	104
7	37	29	27	28	23	22	16	13	5.0	3.6	141	102
8	36	28	28	29	24	21	16	13	4.7	3.4	129	99
9	35	28	27	30	24	21	15	13	4.2	3.2	111	96
10	34	28	28	30	24	21	14	14	3.9	3.0	100	96
11	35	28	27	29	24	21	14	15	3.6	2.3	1,010	95
12	35	28	27	28	23	20	15	14	3.6	2.2	2,710	95
13	34	28	27	29	22	20	15	13	3.9	1.9	1,130	91
14	33	28	27	28	21	19	15	12	3.6	1.7	582	89
15	32	28	27	28	22	20	15	12	3.2	1.9	515	87
16	32	28	27	27	22	18	25	11	3.2	1.5	763	85
17	32	28	27	27	22	18	25	11	3.6	1.4	366	81
18	34	28	28	28	22	18	23	9.1	4.2	1.4	289	81
19	38	27	28	27	22	18	22	8.6	4.5	1.3	252	84
20	35	27	28	27	21	17	24	8.6	4.7	1.2	217	85
21	34	27	29	26	21	17	22	8.2	4.5	1.4	200	80
22	33	27	28	26	22	18	22	7.8	6.4	1.3	187	86
23	34	27	27	26	22	17	21	7.8	13	1.4	176	86
24	32	27	27	26	21	17	20	8.2	14	1.6	166	84
25	31	27	27	26	27	17	19	7.0	12	5,180	158	82
26	30	27	27	25	27	16	19	7.0	12	1,440	170	77
27	29	28	27	25	25	15	19	7.0	11	474	189	74
28	29	27	29	26	24	15	19	7.0	11	171	213	74
29	30	27	28	26	------	16	18	7.8	10	119	156	73
30	29	27	28	24	------	16	17	8.2	9.1	94	144	73
31	30	------	27	23	------	15	------	8.2	------	79	141	------
TOTAL	1,066	834	850	840	646	591	546	339.5	195.0	7,630.0	12,278	2,749
MEAN	34.4	27.8	27.4	27.1	23.1	19.1	18.2	11.0	6.50	246	396	91.6
MAX	41	29	29	30	27	24	25	16	14	5,180	2,710	128
MIN	29	27	27	23	21	15	14	7.0	3.2	1.2	100	73
AC-FT	2,110	1,650	1,690	1,670	1,280	1,170	1,080	673	387	15,130	24,350	5,450

CAL YR 1970 TOTAL 29,077.0 MEAN 79.7 MAX 5,800 MIN 20 AC-FT 57,670
WTR YR 1971 TOTAL 28,564.5 MEAN 78.3 MAX 5,180 MIN 1.2 AC-FT 56,660

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7-25	1830	11.53	18,900	8- 5	1615	4.83	2,370
8- 3	0215	4.33	1,760	8-12	0230	7.48	7,400
				8-15	2345	4.00	1,410

08150000 Llano River near Junction, Tex.

LOCATION.--Lat 30°29'51", long 99°43'24", Kimble County, on right bank 600 ft north of Farm Road 2169, 0.5 mile downstream from point where slough diverts floodwater from main channel, 3 miles east of Junction, 3.8 miles downstream from confluence of North Llano and South Llano Rivers, 4.3 miles upstream from Johnson Fork, and at mile 106.7.

DRAINAGE AREA.--1,874 sq mi.

PERIOD OF RECORD.--September 1915 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,630.32 ft above mean sea level. Prior to Aug. 14, 1925, nonrecording gage and Aug. 14, 1925, to May 17, 1940, water-stage recorder at present site and datum. May 18, 1940, to Aug. 17, 1944, water-stage recorder at site 5,330 ft upstream at datum 6.0 ft higher. Since Aug. 18, 1944, gage at site 5,330 ft upstream has been used as a supplementary gage for stages above 5 ft.

AVERAGE DISCHARGE.--56 years, 184 cfs (133,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,800 cfs Aug. 11 (gage height, 15.88 ft); minimum, 36 cfs June 21.
Period of record: Maximum discharge, 319,000 cfs June 14, 1935 (gage height, 41.4 ft at supplementary gage, from floodmarks), from rating curve extended above 54,000 cfs on basis of slope-area measurements of 154,000 and 319,000 cfs; minimum, 3.1 cfs Aug. 16, 17, 1956.
Maximum stage since at least 1875, that of June 14, 1935. There was a major flood in 1889 which was the highest known until 1935.
REVISIONS.--The maximum discharge for the water year 1970 has been revised to 21,600 cfs May 15, 1970 (gage height, 16.53 ft), superseding figure published in WRD Texas, 1970.

REMARKS.--Records good. Small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 568: 1915-16, 1918-20, 1922. WSP 1342: Drainage area. WSP 1922: 1920, 1923.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	120	107	110	104	107	87	85	66	64	189	304
2	123	120	107	113	104	104	87	85	66	62	247	293
3	123	120	110	113	104	102	87	85	60	60	762	287
4	123	120	110	113	104	99	87	81	57	59	332	277
5	120	116	110	113	104	99	87	81	54	57	624	271
6	120	113	110	113	104	102	85	81	54	54	905	266
7	120	110	107	113	104	102	85	81	56	52	441	256
8	116	110	107	113	104	99	85	81	52	54	334	250
9	120	107	107	116	104	96	85	81	52	51	282	245
10	116	107	107	120	104	96	85	81	49	51	245	240
11	116	107	107	120	104	96	85	81	51	51	4,120	235
12	116	107	107	116	104	96	85	83	51	52	5,990	235
13	116	104	104	110	102	96	83	83	57	52	2,240	235
14	116	104	107	110	102	93	83	83	64	49	1,210	226
15	116	104	107	110	102	90	83	83	62	48	1,750	221
16	116	104	107	107	102	93	93	81	60	48	1,760	221
17	116	107	104	107	102	90	104	81	59	46	877	216
18	120	107	107	107	102	93	107	76	57	45	628	211
19	120	107	110	107	99	90	104	74	57	45	552	221
20	120	107	110	107	96	93	102	72	59	44	493	226
21	120	107	110	107	96	93	104	59	54	44	448	226
22	134	107	110	107	93	90	102	59	63	44	426	240
23	110	104	110	107	90	93	102	68	70	44	399	245
24	116	104	110	107	93	93	99	68	68	48	378	238
25	116	102	107	107	102	90	96	68	62	3,870	378	231
26	116	104	107	107	113	90	93	68	60	2,180	358	224
27	123	104	107	110	110	90	93	68	60	653	378	216
28	123	107	110	107	110	90	87	68	68	258	385	212
29	120	107	110	107	------	90	87	66	70	188	346	211
30	120	107	110	107	------	87	87	68	68	162	328	211
31	120	------	110	104	------	87	------	68	------	146	322	------
TOTAL	3,694	3,254	3,353	3,415	2,862	2,929	2,739	2,347	1,786	8,681	28,127	7,190
MEAN	119	108	108	110	102	94.5	91.3	75.7	59.5	280	907	240
MAX	134	120	110	120	113	107	107	85	70	3,870	5,990	304
MIN	110	102	104	104	90	87	83	59	49	44	189	211
AC-FT	7,330	6,450	6,650	6,770	5,680	5,810	5,430	4,660	3,540	17,220	55,790	14,260

CAL YR 1970 TOTAL 68,215 MEAN 187 MAX 7,550 MIN 90 AC-FT 135,300
WTR YR 1971 TOTAL 70,377 MEAN 193 MAX 5,990 MIN 44 AC-FT 139,600

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7-25	2100	14.97	17,600	8-11	2100	15.88	19,800
8- 5	2000	3.62	1,920	8-15	0800	4.07	2,640

08150700 Llano River near Mason, Tex.

LOCATION.--Lat 30°39'38", long 99°06'32", Mason County, on right bank at downstream side of bridge on U.S. Highway 87, 1.0 mile upstream from Beaver Creek, 9.1 miles southeast of Mason, 10 miles downstream from James River, and at mile 54.5.

DRAINAGE AREA.--3,280 sq mi.

PERIOD OF RECORD.--March 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,230.36 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 31,600 cfs Aug. 12 (gage height, 12.94 ft); minimum, 16 cfs July 23.
Period of record: Maximum discharge, 55,700 cfs Oct. 5, 1969 (gage height, 18.53 ft), from slope-area measurement of peak flow with backwater from Beaver Creek as indicated from rating curve extended above 15,000 cfs (revised) on basis of step-backwater analysis at gage heights 14.34 ft and 22.16 ft; minimum, 16 cfs July 23, 1971.
Maximum flood since at least 1875 occurred June 14, 1935 (about 350,000 cfs), based on flood histories of gaging stations near Junction and Llano.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	135	130	125	113	145	92	120	60	70	2,800	644
2	154	135	130	125	117	149	90	110	58	68	3,280	502
3	152	135	129	125	118	135	90	105	55	65	555	470
4	150	135	129	125	119	130	89	100	51	66	786	416
5	150	135	130	125	116	126	86	95	50	63	589	402
6	148	135	130	125	116	124	90	90	47	52	957	365
7	144	135	132	125	117	121	90	120	41	50	1,200	359
8	137	135	133	128	120	122	88	110	38	48	659	334
9	133	130	133	129	121	121	91	105	39	43	459	311
10	133	130	133	126	125	118	95	100	33	41	349	299
11	135	130	132	121	259	118	93	100	32	36	363	288
12	135	130	129	126	124	117	92	100	36	31	12,900	282
13	135	130	129	127	117	114	90	100	40	28	4,760	280
14	135	130	129	129	117	111	90	100	66	25	4,180	274
15	133	130	128	126	115	107	86	95	57	26	3,520	271
16	129	130	125	121	120	107	106	90	53	26	2,330	269
17	129	130	125	122	118	105	166	85	50	24	1,960	266
18	135	130	125	120	114	102	156	80	50	24	1,100	255
19	159	130	125	118	110	99	144	75	80	22	808	252
20	161	130	125	113	109	99	142	70	80	21	668	250
21	150	130	125	115	110	101	144	70	70	21	540	258
22	140	130	122	115	108	101	140	65	80	19	488	277
23	140	130	121	115	116	102	130	65	90	17	442	346
24	140	130	121	116	118	103	125	110	85	19	392	446
25	140	130	123	117	127	105	120	110	80	1,230	375	346
26	140	130	123	118	165	108	115	92	75	7,070	331	322
27	140	130	123	118	151	104	110	86	75	1,470	505	280
28	135	130	123	116	145	103	110	80	75	1,020	380	255
29	135	130	123	117	------	97	140	75	75	417	350	237
30	135	130	123	115	------	94	130	70	75	270	320	237
31	135	------	123	113	------	93	------	65	------	212	1,370	------
TOTAL	4,378	3,940	3,931	3,756	3,525	3,481	3,330	2,838	1,796	12,594	49,716	9,793
MEAN	141	131	127	121	126	112	111	91.5	59.9	406	1,604	326
MAX	161	135	133	129	259	149	166	120	90	7,070	12,900	644
MIN	129	130	121	113	108	93	86	65	32	17	320	237
AC-FT	8,680	7,810	7,800	7,450	6,990	6,900	6,610	5,630	3,560	24,980	98,610	19,420

CAL YR 1970 TOTAL 109,009 MEAN 299 MAX 5,950 MIN 105 AC-FT 216,200
WTR YR 1971 TOTAL 103,078 MEAN 282 MAX 12,900 MIN 17 AC-FT 204,500

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7-26	0500	10.64	19,400	8-12	1430	12.94	31,600
8- 1	2130	12.10	26,700	8-14	2230	7.73	7,900
				8-31	0130	6.18	3,980

08150800 Beaver Creek near Mason, Tex.

LOCATION.--Lat 30°38'36", long 99°05'44", Mason County, on left bank at upstream side of bridge on U.S. Highway 87, 1.4 miles upstream from Llano River, 6.4 miles downstream from Spring Creek, and 11.1 miles southeast of Mason.

DRAINAGE AREA.--218 sq mi.

PERIOD OF RECORD.--July 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,253.24 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 19.5 cfs (14,130 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,320 cfs Aug. 1 (gage height, 8.16 ft); minimum daily, 0.04 cfs July 3.
Period of record: Maximum discharge, 23,200 cfs May 16, 1965 (gage height, 13.58 ft), from rating curve extended above 7,400 cfs on basis of slope-area measurement at gage height 12.50 ft; no flow at times.

REMARKS.--Records fair. No known regulation or diversion above station.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1964-65, 1966(M), 1968(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	2.4	2.8	2.4	1.5	3.0	.97	1.3	.31	.06	781	20
2	8.6	2.3	2.8	2.4	1.5	2.5	.95	1.3	.31	.05	670	7.6
3	8.4	2.2	2.8	2.3	1.5	2.2	.92	1.2	.27	.04	28	4.3
4	6.0	2.4	2.8	2.1	1.7	2.2	.87	1.2	.26	.06	24	3.4
5	4.9	2.4	2.6	2.0	2.2	2.0	.63	1.2	.26	.05	34	2.9
6	3.8	2.4	2.6	1.8	2.5	1.8	.75	1.1	.26	.07	44	2.5
7	3.7	2.4	2.4	1.7	2.2	1.7	.81	1.1	.24	.07	26	2.6
8	3.3	2.5	2.4	1.7	2.0	1.6	1.0	1.1	.22	.07	14	2.3
9	3.2	2.3	2.5	1.8	1.8	1.6	1.1	1.0	.20	.07	9.8	2.1
10	3.1	2.2	2.6	1.9	1.9	1.6	1.1	1.0	.20	.07	7.9	1.5
11	3.1	2.0	2.6	2.0	1.9	1.6	1.1	2.4	.20	.06	6.9	1.1
12	3.6	2.1	2.6	1.9	1.8	1.6	1.0	17	.20	.06	9.5	1.3
13	4.2	2.2	2.5	1.8	1.7	2.1	.93	4.5	.20	.06	87	1.6
14	4.3	2.2	2.5	1.8	1.6	2.2	1.0	2.4	.20	.06	81	1.2
15	3.9	2.2	2.6	1.9	1.6	2.0	1.0	1.6	.20	.05	46	.90
16	3.5	2.2	2.6	1.9	1.6	1.6	2.1	1.2	.20	.05	18	.80
17	3.1	2.4	2.4	1.7	1.7	1.3	14	.87	.20	.05	9.9	.62
18	3.9	2.4	2.4	1.7	1.7	1.2	8.3	.75	.18	.05	7.4	.50
19	6.2	2.4	2.4	1.6	1.8	1.1	4.7	.69	.18	.05	5.7	.51
20	7.3	2.4	2.4	1.5	1.8	1.1	4.0	.64	.19	.05	5.1	.67
21	5.8	2.5	2.4	1.5	1.7	1.0	3.5	.59	.20	.06	4.5	.84
22	4.6	2.5	2.6	1.7	1.5	1.0	3.0	.54	.22	.06	3.8	13
23	5.6	2.5	2.9	1.9	1.5	1.0	2.5	.46	.25	.06	3.3	69
24	8.2	2.2	2.8	1.9	1.5	1.1	2.2	.70	.20	44	3.0	16
25	6.3	2.2	2.6	1.8	2.5	1.2	2.0	.45	.20	31	2.9	8.7
26	4.5	2.2	2.3	1.7	9.1	1.3	1.8	.44	.20	65	2.7	22
27	3.8	2.3	2.2	1.9	7.5	1.4	1.6	.39	.20	31	2.8	9.5
28	3.2	2.5	2.2	1.8	4.0	1.4	1.5	.38	.18	.80	3.2	6.1
29	2.9	2.7	2.3	1.6	------	1.4	1.4	.35	.12	.32	3.0	4.8
30	2.6	2.8	2.5	1.6	------	1.2	1.4	.32	.09	.17	3.1	4.0
31	2.6	------	2.4	1.6	------	1.1	------	.32	------	.09	185	------
TOTAL	145.7	70.4	78.5	56.9	65.3	49.1	68.13	48.49	6.34	173.71	2,132.5	212.34
MEAN	4.70	2.35	2.53	1.84	2.33	1.58	2.27	1.56	.21	5.60	68.8	7.08
MAX	8.6	2.8	2.9	2.4	9.1	3.0	14	17	.31	65	781	69
MIN	2.6	2.0	2.2	1.5	1.5	1.0	.63	.32	.09	.04	2.7	.50
AC-FT	289	140	156	113	130	97	135	96	13	345	4,230	421

CAL YR 1970 TOTAL 6,827.17 MEAN 18.7 MAX 1,320 MIN .19 AC-FT 13,540
WTR YR 1971 TOTAL 3,107.41 MEAN 8.51 MAX 781 MIN .04 AC-FT 6,160

PEAK DISCHARGE (BASE, 1,000 CFS).--Aug. 1 (2330) 8,320 cfs (8.16 ft); Aug. 24 (1930) 1,040 cfs (4.50 ft).

08151500 Llano River at Llano, Tex.

LOCATION.--Lat 30°45'04", long 98°40'10", Llano County, on right bank in Llano, 0.4 mile downstream from bridge on State Highway 16, 7 miles upstream from Little Llano River, and at mile 24.2.

DRAINAGE AREA.--4,233 sq mi.

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 970.01 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 327 cfs (236,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28,000 cfs Aug. 12 (gage height, 14.14 ft); minimum daily, 4.0 cfs July 24.
Period of record: Maximum discharge, 232,000 cfs Sept. 10, 1952 (gage height, 32.6 ft), from rating curve extended above 129,000 cfs on basis of slope-area measurement of 232,000 cfs; no flow at times in 1952-56, 1964.
Maximum stage since at least 1879, 41.5 ft June 14, 1935 (discharge, 380,000 cfs), from information by local resident.

REMARKS.--Records good. Many small diversions above station. Part of low flow of Llano River disappears into various formations, many of which are faulted, between stations near Junction and Llano.

REVISIONS.--WSP 1342: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	143	169	125	124	171	107	128	74	53	279	1,070
2	148	141	168	123	127	165	103	119	69	51	6,770	631
3	139	141	167	123	127	161	102	101	60	56	1,310	511
4	136	139	166	116	131	158	102	93	49	55	677	457
5	139	142	162	116	130	150	102	92	54	47	869	424
6	140	144	156	115	129	146	98	122	56	42	718	388
7	135	143	155	118	127	145	96	171	48	36	1,280	375
8	131	145	158	119	128	143	98	111	47	32	937	350
9	121	147	156	122	130	142	97	99	47	29	619	334
10	122	146	157	125	133	138	96	99	46	26	487	319
11	125	145	151	120	137	146	100	112	44	24	423	311
12	126	146	148	122	134	141	100	110	41	22	9,440	311
13	125	144	146	124	131	141	96	109	43	20	11,800	307
14	125	146	143	122	133	140	93	117	43	18	5,360	307
15	127	143	149	124	132	132	92	112	41	16	4,750	301
16	124	143	136	125	131	134	127	105	64	14	3,110	295
17	122	144	141	125	131	129	121	95	64	11	2,390	286
18	128	148	139	123	136	127	153	91	60	9.0	1,580	274
19	153	151	136	122	131	125	161	87	56	8.0	1,110	268
20	152	148	134	122	125	123	157	84	56	7.0	911	278
21	159	152	137	125	136	119	147	82	54	6.0	792	282
22	156	155	138	125	115	117	143	78	66	5.0	720	418
23	156	152	140	125	124	119	134	80	64	5.0	664	1,390
24	160	151	136	126	127	120	127	121	68	4.0	626	944
25	172	151	131	124	149	120	123	104	61	37	590	725
26	164	156	130	128	157	120	118	176	57	3,830	576	548
27	153	157	127	127	170	124	114	134	58	3,020	569	466
28	148	159	128	126	183	124	112	104	60	1,220	744	375
29	147	163	127	128	------	116	129	91	60	755	614	334
30	144	169	128	127	------	112	121	84	59	437	677	321
31	140	------	125	124	------	109	------	80	------	334	1,250	------
TOTAL	4,371	4,454	4,484	3,816	3,768	4,157	3,469	3,291	1,669	10,229.0	62,642	13,590
MEAN	141	148	145	123	135	134	116	106	55.6	330	2,021	453
MAX	172	169	169	128	183	171	161	176	74	3,830	11,800	1,380
MIN	121	139	125	115	115	109	92	78	41	4.0	279	268
AC-FT	8,670	8,830	8,890	7,570	7,470	8,250	6,880	6,530	3,310	20,290	124,300	26,960

CAL YR 1970 TOTAL 161,087.0 MEAN 441 MAX 8,980 MIN 83 AC-FT 319,500
WTR YR 1971 TOTAL 119,940.0 MEAN 329 MAX 11,800 MIN 4.0 AC-FT 237,900

PEAK DISCHARGE (BASE, 7,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
7-26	1600	9.48	12,500
8- 2	0530	11.58	18,600
8-12	1830	14.14	28,000

08152000 Sandy Creek near Kingsland, Tex.

LOCATION.--Lat 30°33'30", long 98°28'19", Llano County, on left bank at downstream side of bridge on State Highway 71, 3.9 miles upstream from Lake Lyndon B. Johnson, and 7.3 miles south of Kingsland.

DRAINAGE AREA.--327 sq mi.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 862.31 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 59.6 cfs (43,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,660 cfs Aug. 13 (gage height, 7.62 ft); no flow at times.
Period of record: Maximum discharge, 8,590 cfs Jan. 20, 1968 (gage height, 11.41 ft); no flow at times.
The flood of Sept. 11, 1952, which was the highest since at least 1881, reached a stage of 34.2 ft, discharge 163,000 cfs, from slope-area measurement at gage site.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	9.1	6.4	6.0	6.6	15	5.8	2.5	.63	0	2.2	17
2	18	8.9	6.4	6.1	7.3	8.6	6.2	2.4	.44	0	4.6	22
3	15	8.9	6.4	6.0	8.5	6.8	6.6	2.0	.15	0	2.8	16
4	14	8.5	6.3	5.2	6.8	6.1	7.2	1.5	.12	0	3.4	9.8
5	13	9.1	6.2	5.5	5.4	5.6	7.6	1.4	.08	0	5.1	6.9
6	17	9.4	6.0	5.8	5.4	5.2	7.6	2.5	.04	0	5.3	5.3
7	13	9.8	5.7	5.8	5.1	5.1	8.0	5.5	.01	0	5.8	4.3
8	8.9	10	6.3	6.3	5.4	4.6	8.4	4.4	0	0	5.7	3.3
9	7.0	9.4	6.4	6.5	5.3	4.6	9.0	3.7	0	0	5.3	2.6
10	7.0	9.6	6.1	6.1	5.1	4.7	9.8	4.2	0	0	3.9	2.1
11	7.4	9.1	5.6	6.3	4.8	5.0	9.6	4.7	0	0	3.4	2.7
12	9.4	9.3	5.5	7.1	2.8	5.4	8.9	5.1	0	0	17	2.5
13	8.9	8.9	5.3	7.3	2.4	5.9	9.3	3.8	0	0	213	1.7
14	7.0	8.4	5.2	7.7	2.5	4.8	10	3.7	0	0	973	1.4
15	6.6	8.3	4.7	7.5	2.4	4.7	10	3.4	0	0	276	1.5
16	6.2	8.9	4.7	7.4	2.5	4.9	28	2.5	0	0	75	1.3
17	5.8	9.0	4.7	7.2	2.6	4.6	51	1.6	0	0	57	1.3
18	9.4	8.9	5.2	6.8	3.2	4.3	37	1.0	0	0	49	1.2
19	21	8.5	5.1	7.0	4.5	4.3	22	.55	.08	0	37	1.1
20	18	7.9	5.0	6.9	6.3	4.6	17	.36	.01	0	29	1.3
21	15	8.0	5.3	7.0	5.4	4.6	11	.30	0	0	23	1.1
22	14	7.9	5.6	7.1	4.3	4.5	8.7	.12	.08	0	19	22
23	22	6.4	5.3	7.2	3.2	5.1	7.0	.08	.01	0	17	31
24	34	6.6	5.3	7.6	4.2	5.6	6.3	17	0	.07	16	97
25	26	6.9	5.1	7.2	83	6.3	5.5	7.8	0	.01	14	60
26	19	6.2	5.2	7.3	158	6.6	5.1	2.6	0	0	14	36
27	14	6.5	5.1	7.2	33	6.7	4.3	1.7	0	0	14	25
28	12	6.7	5.6	7.7	23	7.0	3.6	1.2	0	0	15	16
29	10	6.6	5.7	7.7	------	6.2	3.2	.85	0	0	14	11
30	10	6.6	6.4	7.5	------	5.9	2.7	.80	0	7.6	27	9.0
31	9.7	------	6.2	7.0	------	6.2	------	.75	------	3.8	18	------
TOTAL	419.3	248.3	174.0	211.0	409.0	179.5	336.4	90.01	1.65	11.48	1,964.5	413.4
MEAN	13.5	8.28	5.61	6.81	14.6	5.79	11.2	2.90	.055	.37	63.4	13.8
MAX	34	10	6.4	7.7	158	15	51	17	.63	7.6	973	97
MIN	5.8	6.2	4.7	5.2	2.4	4.3	2.7	.08	0	0	2.2	1.1
AC-FT	832	493	345	419	811	356	667	179	3.3	23	3,900	820

CAL YR 1970 TOTAL 27,382.47 MEAN 75.0 MAX 2,910 MIN 0 AC-FT 54,310
WTR YR 1971 TOTAL 4,458.54 MEAN 12.2 MAX 973 MIN 0 AC-FT 8,840

PEAK DISCHARGE (BASE, 1,000 CFS).--Aug. 13 (2200) 1,660 cfs (7.62 ft).

08153500 Pedernales River near Johnson City, Tex.

LOCATION.--Lat 30°17'27", long 98°24'01", Blanco County, near center of span at downstream side of bridge on U.S. Highway 281, 0.2 mile downstream from Towhead Creek, 1.1 miles northeast of Johnson City, 3.4 miles downstream from Buffalo Creek, and at mile 48.2.

DRAINAGE AREA.--947 sq mi.

PERIOD OF RECORD.--May 1939 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,096.70 ft above mean sea level. May 4 to Sept. 13, 1939, nonrecording gage and Sept. 14, 1939, to Sept. 10, 1952, water-stage recorder at upstream side of bridge at same datum. Sept. 11, 1952, to June 29, 1953, nonrecording gage and June 30, 1953, to Oct. 7, 1954, water-stage recorder at site 360 ft downstream at same datum.

AVERAGE DISCHARGE.--32 years, 155 cfs (112,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,070 cfs Aug. 13 (gage height, 13.33 ft); no flow June 11 to July 2, July 6 to Aug. 2.

Period of record: Maximum discharge, 441,000 cfs Sept. 11, 1952 (gage height, 42.5 ft, from floodmark), from rating curve extended above 116,000 cfs on basis of slope-area measurement of 441,000 cfs; no flow at times in 1951-52, 1954, 1956-57, 1963-64, 1967-68, 1971.

Maximum stage since at least 1859, 42.5 ft Sept. 11, 1952; flood of July 1869 reached a stage of 33 ft, from information by local residents.

REMARKS.--Records good. Some diversions above station for irrigation. At end of year, flow from 15.6 sq mi above this station was partly controlled by four floodwater-retarding structures with a total combined capacity of 5,160 acre-ft below the flood-spillway crests, of which 4,590 acre-ft is floodwater-retarding capacity and 570 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. During year the city of Fredericksburg discharged 822 acre-ft of sewage effluent into the river. Records furnished by the city of Johnson City show that 154 acre-ft of water was diverted from pool at gage and that 16 acre-ft of treated sewage effluent was returned to the river below gage.

REVISIONS (WATER YEARS).--WSP 1632: 1953(M), 1957, 1958(M). WRD Texas 1969: 1967, 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	29	29	26	22	37	4.3	7.0	5.3	0	0	136
2	39	29	28	26	22	27	3.7	5.0	3.8	0	0	102
3	39	29	27	26	24	23	3.2	3.0	2.0	.01	58	56
4	34	29	27	25	24	28	2.7	1.7	1.4	.01	70	39
5	34	29	26	25	24	28	2.7	1.9	1.0	.01	39	32
6	34	28	27	24	24	21	2.7	2.4	.85	0	33	29
7	34	28	28	24	23	21	2.7	2.6	.62	0	30	27
8	29	29	28	27	23	24	2.7	1.7	.33	0	24	24
9	29	28	28	28	23	24	2.7	1.2	.13	0	21	21
10	26	27	29	26	23	24	2.3	.95	.04	0	17	13
11	29	25	28	25	22	20	2.3	1.4	0	0	21	18
12	26	27	27	27	22	21	2.0	1.0	0	0	27	22
13	29	27	27	29	21	21	2.0	3.1	0	0	2,670	22
14	29	27	27	29	21	18	2.0	6.3	0	0	3,520	23
15	26	27	27	27	20	15	2.0	11	0	0	1,630	23
16	26	26	26	26	21	14	13	9.4	0	0	358	22
17	26	26	26	26	19	15	38	4.4	0	0	182	20
18	26	26	27	25	20	14	36	2.7	0	0	129	13
19	34	26	26	25	20	12	36	2.1	0	0	100	4.7
20	39	26	27	26	22	12	32	1.5	0	0	82	11
21	34	27	28	25	22	11	30	1.1	0	0	83	15
22	34	27	29	24	22	11	27	.75	0	0	61	26
23	34	27	28	24	21	11	25	.44	0	0	54	42
24	44	26	27	24	21	11	23	2.8	0	0	48	86
25	34	27	27	23	21	11	18	33	0	0	42	123
26	39	27	26	22	23	11	15	47	0	0	39	137
27	34	28	26	22	45	11	13	27	0	0	41	55
28	29	29	27	21	44	9.5	15	21	0	0	73	41
29	28	29	26	23	------	6.6	12	11	0	0	119	34
30	29	28	28	23	------	5.7	9.0	5.7	0	0	59	31
31	29	------	26	22	------	5.0	------	7.0	------	0	49	------
TOTAL	1,000	823	843	775	659	522.8	382.0	227.14	15.47	.03	9,679	1,247.7
MEAN	32.3	27.4	27.2	25.0	23.5	16.9	12.7	7.33	.52	.001	312	41.6
MAX	44	29	29	29	45	37	38	47	5.3	.01	3,520	137
MIN	26	25	26	21	19	5.0	2.0	.44	0	0	0	4.7
AC-FT	1,980	1,630	1,670	1,540	1,310	1,040	758	451	31	.06	19,200	2,470

CAL YR 1970 TOTAL 82,427.00 MEAN 226 MAX 12,700 MIN 10 AC-FT 163,500
WTR YR 1971 TOTAL 16,174.14 MEAN 44.3 MAX 3,520 MIN 0 AC-FT 32,080

PEAK DISCHARGE (BASE, 4,100 CFS).--Aug. 13 (2030) 9,070 cfs (13.33 ft).

08154500 Lake Travis near Austin, Tex.

LOCATION.--Lat 30°23'29", long 97°54'24", Travis County, in powerhouse at Mansfield Dam on Colorado River, 7.3 miles downstream from Sandy Creek, 12 miles northwest of Austin, and at mile 318.0.

DRAINAGE AREA.--38,130 sq mi, approximately, of which 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--September 1940 to current year. Prior to October 1948, published as Marshall Ford Reservoir near Austin.

GAGE.--Nonrecording gage. Datum of gage is 0.12 ft above mean sea level (levels by Bureau of Reclamation). Prior to Dec. 26, 1940, staff gages on left bank near dam, datum at mean sea level, unadjusted. Dec. 26, 1940, to February 1942, mercury manometer in powerhouse, datum at mean sea level, unadjusted.

EXTREMES (at 2400).--Current year: Maximum contents, 1,115,000 acre-ft Jan. 5 (gage height, 677.93 ft); minimum, 757,500 acre-ft July 25 (gage height, 655.22 ft).
Period of record: Maximum contents, 1,770,000 acre-ft May 18, 1957 (gage height, 707.4 ft); minimum, 332,600 acre-ft Aug. 13, 14, 1951, (gage height, 614.2 ft).

REMARKS.--Lake is formed by concrete gravity-type dam. Storage began Sept. 9, 1940; dam completed early in 1942. Capacity between gage heights 681.0 and 714.0 ft is 778,000 acre-ft and is reserved for flood control. Figures given herein represent total contents. Water used for power development and for irrigation below Columbus. Data regarding dam and lake are shown in the following table. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Pedernales River near Johnson City (station 08153500).

	Gage height (feet)	Capacity (acre-feet)
Crest of spillway	714.0	1,950,000
Top of designated power storage	681.0	1,172,000
Invert of penstocks	552.0	54,800
Invert of twenty-four 8-1/2-foot diameter paradox gates	535.8	27,900

COOPERATION.--Records of daily gage heights and capacity curve based on October 1939 survey furnished by Lower Colorado River Authority.

REVISIONS.--WSP 1342: Drainage area.

Capacity table (gage height, in feet, and total contents, in acre-feet)

655.0	754,500	667.0	930,400
657.0	781,500	669.0	961,400
659.0	810,000	672.0	1,009,500
661.0	839,700	674.0	1,044,000
663.0	869,700	676.0	1,080,000
665.0	899,700	678.0	1,116,000

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP
1	1,107	1,113	1,111	1,114	1,102	1,106	1,050	962.3	843.9	767.3	764.8	870.6
2	1,107	1,113	1,111	1,113	1,102	1,107	1,047	958.4	839.8	766.2	773.6	869.4
3	1,106	1,113	1,111	1,113	1,102	1,105	1,043	953.9	835.6	765.1	776.5	871.3
4	1,106	1,113	1,111	1,114	1,102	1,104	1,041	949.6	831.2	764.3	780.6	871.9
5	1,106	1,112	1,111	1,115	1,103	1,104	1,037	944.7	824.5	764.3	783.3	872.4
6	1,106	1,112	1,111	1,110	1,103	1,103	1,034	935.4	819.1	764.8	786.0	873.3
7	1,106	1,113	1,111	1,105	1,103	1,102	1,032	932.3	813.4	765.1	787.0	874.9
8	1,105	1,113	1,111	1,100	1,103	1,101	1,029	927.3	808.5	764.0	788.8	873.4
9	1,104	1,113	1,111	1,099	1,101	1,100	1,027	924.6	806.6	762.8	790.2	875.2
10	1,104	1,112	1,111	1,099	1,102	1,099	1,023	921.6	805.4	761.5	793.4	875.2
11	1,105	1,113	1,111	1,099	1,103	1,099	1,020	919.2	802.6	760.3	794.4	877.6
12	1,105	1,112	1,111	1,101	1,101	1,097	1,017	916.0	799.3	759.2	800.5	877.2
13	1,105	1,113	1,111	1,101	1,101	1,095	1,014	912.5	794.3	758.6	826.9	877.2
14	1,106	1,112	1,111	1,101	1,101	1,094	1,011	909.4	790.9	758.3	851.4	878.1
15	1,106	1,111	1,111	1,101	1,102	1,092	1,008	906.4	786.6	759.1	863.0	876.9
16	1,106	1,111	1,111	1,100	1,101	1,090	1,007	902.7	782.4	759.9	870.4	876.4
17	1,106	1,111	1,111	1,100	1,101	1,087	1,005	898.9	779.4	761.1	876.1	876.4
18	1,107	1,111	1,111	1,101	1,102	1,085	1,002	894.8	777.4	761.3	877.7	874.0
19	1,107	1,111	1,111	1,101	1,104	1,082	999.5	890.4	776.3	761.3	877.8	871.6
20	1,108	1,110	1,111	1,101	1,103	1,079	996.8	886.1	772.6	761.3	878.4	871.3
21	1,108	1,111	1,111	1,101	1,105	1,076	994.2	881.6	770.9	760.9	874.6	870.3
22	1,108	1,111	1,112	1,102	1,104	1,075	994.2	876.6	770.7	760.9	873.6	873.1
23	1,111	1,110	1,113	1,101	1,104	1,072	992.5	872.5	769.9	760.5	873.9	876.4
24	1,111	1,109	1,112	1,102	1,104	1,070	989.3	870.6	768.9	760.5	872.4	878.7
25	1,111	1,110	1,113	1,102	1,106	1,067	985.6	866.8	769.0	757.5	871.5	884.3
26	1,111	1,110	1,113	1,102	1,105	1,065	982.5	863.3	769.2	760.5	871.0	888.6
27	1,112	1,111	1,113	1,102	1,105	1,063	979.1	859.7	768.8	762.1	870.1	901.4
28	1,112	1,111	1,114	1,102	1,106	1,061	976.3	856.4	768.6	764.8	870.6	907.4
29	1,112	1,111	1,113	1,102	------	1,058	972.6	853.7	768.4	765.8	867.3	915.5
30	1,112	1,111	1,113	1,103	------	1,056	967.3	850.5	767.8	770.8	869.1	924.4
31	1,112	------	1,114	1,103	------	1,053	--------	847.6	------	767.8	870.1	------
(†)	677.77	677.74	677.87	677.29	677.45	674.48	669.38	661.60	655.98	655.98	663.12	666.66
(*)	+5,000	-1,000	+3,000	-11,000	+3,000	-53,000	-85,700	-119.7	-79,800	0	+102.3	+54,300
MAX	1,112	1,113	1,114	1,115	1,106	1,107	1,050	962.3	843.9	770.8	878.4	924.4
MIN	1,104	1,109	1,110	1,099	1,101	1,053	967.3	847.6	767.8	757.5	764.8	869.4

CAL YR 1970..... * -23,000 MAX 1,349,000 MIN 1,023,000
WTR YR 1971..... * -182,600 MAX 1,115,000 MIN 757,500

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.

08157000 Waller Creek at 38th Street, Austin, Tex.

LOCATION.--Lat 30°17'49", long 97°43'36", Travis County, on right bank 200 ft upstream from bridge at East 38th Street in Austin, 1.1 miles upstream from West Branch of Waller Creek, and 3.3 miles upstream from Colorado River.

DRAINAGE AREA.--2.31 sq mi.

PERIOD OF RECORD.--April 1955 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 555.44 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 1.66 cfs (9.76 inches per year, 1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 587 cfs Aug. 4 (gage height, 5.68 ft); minimum daily, 0.06 cfs Sept. 9.
Period of record: Maximum discharge, 1,970 cfs Oct. 29, 1960 (gage height, 7.77 ft); no flow for many days in 1955-57, 1964.

REMARKS.--Records good. Flow slightly regulated at times by a small reservoir at Holy Cross High School (formerly St. Mary's Academy) on East 41st Street and a small swimming pool at the School which is drained into the creek every week or two during the summer. Water from other swimming pools also drain into the creek. Station is part of hydrologic research project to study rainfall-runoff relation for small urban areas. Two recording and three nonrecording rain gages are distributed in the area so that rainfall on the watershed can be determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.25	.25	.20	.22	.23	.20	.15	.11	.40	.33	.11
2	.19	.25	.22	.22	.22	.49	.20	.15	.09	.71	21	.09
3	.19	.26	.22	.22	.23	.24	.22	.17	.08	.38	25	.09
4	.19	.24	.22	.25	.26	.22	.21	.12	.26	.32	46	.09
5	7.0	.25	.23	.25	.29	.22	.19	.13	.49	.25	5.0	.11
6	.34	.25	.23	.24	.24	.20	.19	1.4	.40	.27	3.5	.07
7	.24	.26	.21	.24	.19	.23	.18	.17	.29	.61	1.1	.07
8	.20	.25	.21	.25	.23	.21	.18	.14	.19	.37	.64	.07
9	.18	.31	.23	.23	.24	.22	.17	.15	.42	.33	.50	.06
10	.19	.34	.23	.20	.24	.22	.17	.15	.45	.22	.34	5.9
11	.24	.31	.22	.21	.24	.22	.14	2.3	.57	.23	.51	1.8
12	.41	.25	.22	.27	.21	4.3	.16	.19	.37	.23	.47	.13
13	.28	.28	.24	.25	.26	.46	.16	.14	.36	.23	.29	.11
14	.20	.25	.22	.24	.29	.23	.19	.19	.31	.25	.47	.10
15	.19	.24	.22	.22	.22	.24	.20	.13	.18	.45	.23	5.9
16	.19	.25	.23	.22	.21	.25	9.3	.16	.31	.36	.41	.26
17	.19	.23	.22	.22	.21	.23	.39	.19	.43	.34	.29	.14
18	1.7	.36	.20	.21	.21	.23	.22	.14	.37	.34	.49	.13
19	5.8	.24	.21	.21	3.0	.21	.22	.08	.36	.26	.45	.37
20	.25	.29	.27	.22	.22	.25	.24	.11	.19	.30	.46	.24
21	.24	.24	.23	.23	.20	.25	.19	.11	20	.39	.49	.21
22	23	.23	.22	.23	.19	.25	.17	.11	.40	.37	.44	11
23	26	.22	.25	.23	.21	.21	.16	.10	.39	.29	.38	.17
24	.55	.22	.22	.21	.20	.22	.16	8.6	.42	.17	.21	.15
25	.29	.21	.20	.22	4.2	.25	.16	.15	.40	.34	.39	.14
26	.28	.22	.24	.21	.83	.25	.26	.11	.23	8.1	.73	.13
27	5.5	.26	.22	.21	.24	.30	.47	.11	.34	4.8	.44	.29
28	.34	.28	.22	.27	.24	.24	.17	.11	.69	.45	.42	.13
29	.32	.22	.21	.25	------	.22	.16	.10	.64	.39	2.0	.11
30	.66	.22	.22	.22	------	.22	.15	.10	.41	.78	.81	.10
31	.27	------	.21	.21	------	.22	------	.11	------	.15	.16	------
TOTAL	75.82	7.68	6.94	7.06	13.74	11.73	15.18	16.07	30.15	23.08	113.95	28.27
MEAN	2.45	.26	.22	.23	.49	.38	.51	.52	1.01	.74	3.68	.94
MAX	26	.36	.27	.27	4.2	4.3	9.3	8.6	20	8.1	46	11
MIN	.18	.21	.20	.20	.19	.20	.14	.08	.08	.15	.16	.06
CFSM	1.06	.11	.10	.10	.21	.16	.22	.23	.44	.32	1.59	.41
IN.	1.22	.12	.11	.11	.22	.19	.24	.26	.49	.37	1.84	.46
AC-FT	150	15	14	14	27	23	30	32	60	46	226	56
(††)	4.92	0	.11	.04	.98	.59	1.08	1.47	2.16	1.56	7.09	2.66

CAL YR 1970 TOTAL 584.18 MEAN 1.60 MAX 78 MIN .10 CFSM .69 IN 9.41 AC-FT 1,160 †† 31.87
WTR YR 1971 TOTAL 349.67 MEAN .96 MAX 46 MIN .06 CFSM .42 IN 5.63 AC-FT 694 †† 22.66

PEAK DISCHARGE (BASE, 300 CFS).--Oct. 22 (2145) 433 cfs (5.28 ft); Aug. 4 (0645) 587 cfs (5.68 ft).

†† Weighted-mean rainfall, in inches.

08157500 Waller Creek at 23d Street, Austin, Tex.

LOCATION.--Lat 30°17'08", long 97°44'01", Travis County, on San Jacinto Boulevard, 50 ft upstream from bridge on East 23d Street at Austin, and 2.1 miles upstream from Colorado River.

DRAINAGE AREA.--4.13 sq mi.

PERIOD OF RECORD.--December 1954 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 509.95 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 3.58 cfs (11.77 inches per year, 2,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,560 cfs June 21 (gage height, 6.08 ft); minimum daily, 0.52 cfs Dec. 27.
Period of record: Maximum discharge, 3,710 cfs Oct. 29, 1960 (gage height, 7.96 ft); minimum daily, 0.2 cfs at times in 1955-57.
Maximum flood since 1885 occurred Apr. 22, 1915, stage unknown.

REMARKS.--Records good. Some regulation by small dam upstream. Diversion of city water into channel during the summer months from municipal and private swimming pools. Some diversions into and out of drainage area by storm sewers. Station is part of a hydrologic research project to study rainfall-runoff relation for small urban areas. Three recording and three nonrecording rain gages located in watershed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	.98	1.1	.56	1.2	1.1	1.1	.80	.85	1.1	.96	.88
2	.94	1.1	.96	.66	1.3	1.8	1.1	.79	.79	1.3	32	.90
3	.90	1.3	.94	.80	1.2	1.0	.97	.86	.86	1.0	49	.90
4	.89	1.3	.85	.55	1.6	1.0	.98	.82	.83	.97	78	.90
5	10	.97	.80	.59	1.4	1.0	.94	1.0	1.0	.95	10	.91
6	1.3	.89	.73	.57	1.1	1.0	.97	3.2	.94	.77	7.2	.85
7	1.1	.89	.90	.58	1.1	1.0	1.0	.95	1.0	1.2	2.3	.92
8	1.1	.89	.98	.65	1.3	1.0	1.0	.87	.82	1.1	1.5	.90
9	.84	.91	.96	.72	1.3	1.1	.96	.85	1.1	1.1	1.4	1.0
10	.89	1.0	.96	.93	1.3	1.2	.94	.88	1.2	.92	1.1	14
11	1.1	.91	.88	1.0	1.3	1.1	.92	5.8	1.3	.75	1.3	3.6
12	3.0	.93	.84	1.1	1.2	13	1.0	.95	1.0	.98	1.2	.79
13	1.1	.87	.87	1.1	1.2	1.4	1.1	.80	.89	.78	1.1	.86
14	.96	.87	.89	1.2	1.3	.88	.96	.78	1.1	1.0	1.2	.86
15	.94	.81	1.0	1.2	1.4	.92	1.0	.75	.89	1.1	.94	14
16	.92	.90	.93	1.1	1.3	.92	19	.73	1.0	1.2	1.3	1.2
17	.83	.91	.90	1.1	1.3	.92	1.7	.82	1.1	1.0	.87	.88
18	3.8	1.1	1.0	1.2	1.3	1.0	.94	.89	1.1	.96	1.2	.90
19	12	.97	.92	1.1	5.1	1.3	1.0	.94	1.1	1.0	1.2	1.5
20	1.1	.99	1.0	1.2	1.0	.99	1.3	.81	.80	.84	1.2	1.1
21	1.1	.88	.93	1.3	.96	.92	.91	.87	57	1.1	1.2	1.7
22	32	.87	.99	1.4	1.1	1.1	.92	.77	1.5	1.2	1.0	21
23	48	.92	1.1	1.3	1.0	1.1	.84	.75	1.0	1.1	1.1	1.0
24	2.5	.89	.72	1.3	1.1	1.4	.80	20	1.1	.85	.81	1.1
25	1.2	.81	.63	1.3	8.5	1.3	.81	.87	1.1	1.0	1.1	.84
26	1.2	.79	.55	1.3	2.1	1.1	.89	.91	1.4	36	1.4	.85
27	16	.82	.52	1.9	1.0	1.0	1.1	.81	1.2	7.9	1.3	1.2
28	1.4	.86	.74	1.3	1.0	1.1	.97	.86	3.1	1.5	1.1	.93
29	1.1	.82	.85	1.2	------	1.0	.96	.79	1.4	1.0	4.7	.86
30	1.4	.95	.73	1.2	------	1.1	.91	.78	1.1	2.7	2.0	.85
31	.94	------	.57	1.1	------	1.1	------	.86	------	.83	.93	------
TOTAL	151.47	28.10	26.74	32.51	45.96	45.85	47.99	52.56	89.57	75.20	211.61	78.18
MEAN	4.89	.94	.86	1.05	1.64	1.48	1.60	1.70	2.99	2.43	6.83	2.61
MAX	48	1.3	1.1	1.9	8.5	13	19	20	57	36	78	21
MIN	.83	.79	.52	.55	.96	.88	.80	.73	.79	.75	.81	.79
CFSM	1.18	.23	.21	.25	.40	.36	.39	.41	.72	.59	1.65	.63
IN.	1.36	.25	.24	.29	.41	.41	.43	.47	.81	.68	1.91	.70
AC-FT	300	56	53	64	91	91	95	104	178	149	420	155
(††)	4.86	0	.09	.04	.90	.69	1.06	1.50	2.39	1.84	6.39	2.88

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-23	1230	5.00	920	7-26	2230	4.96	900
6-21	1630	6.08	1,560	8- 4	0645	4.77	805

†† Weighted-mean rainfall, in inches.

08158000 Colorado River at Austin, Tex.

LOCATION.--Lat 30°14'40", long 97°41'39", Travis County, on right bank 1,000 ft upstream from upstream bridge on U.S. Highway 183 in Austin, 1.4 miles downstream from Town Lake Dam, and at mile 290.3.

DRAINAGE AREA.--38,400 sq mi, approximately, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--February 1898 to current year. Records of daily discharge for Dec. 13-26, 1914, and Feb. 9-17, 1915, published in WSP 408, have been found unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 402.27 ft above mean sea level. Prior to June 19, 1939, all records collected at or near Congress Avenue Bridge 3.9 miles upstream at datum 19.6 ft higher; prior to June 18, 1915, nonrecording gages, recording gages thereafter; June 20, 1939, to Oct. 16, 1963, at site 1,000 ft downstream from present site at datum 5.0 ft higher.

AVERAGE DISCHARGE.--73 years, 2,394 cfs (1,734,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,340 cfs June 21 (gage height, 8.13 ft); minimum daily, 31 cfs Feb. 22.
Period of record: Maximum discharge, 481,000 cfs June 15, 1935 (gage height, 50 ft, present site and datum, from floodmark); minimum unregulated, 13 cfs Aug. 18, 1918.
Maximum stage since at least 1833, 51 ft July 7, 1869, present site and datum (adjusted to present site on basis of record for flood of June 15, 1935), determined from information concerning stage at former site furnished by Dean T. U. Taylor.

REMARKS.--Records good. Flow largely regulated by Lake Travis (station 08154500). There are 16 major reservoirs above the station with a total combined capacity of 4,642,000 acre-ft. The city of Austin reported that 61,430 acre-ft was diverted for municipal use above station and 24,450 acre-ft of treated sewage returned below station. Many other diversions above Lake Buchanan for irrigation, municipal supplies, and oilfield operations. Water-quality records for the current year are published in Part 2 of this report.
CORRECTIONS: WRD Texas 1970: 29,160 acre-ft of treated sewage returned below station.

REVISIONS (WATER YEARS).--WSP 508: 1915(m). WSP 528: 1900(M), 1918(m). WSP 548: 1901-16. WSP 1342: Drainage area. WSP 1562: 1908, 1929(M), 1936. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	650	147	93	100	93	79	1,730	2,070	1,750	1,870	1,640	1,770
2	635	89	107	68	50	457	1,550	2,260	2,020	1,890	1,530	1,810
3	625	114	100	112	70	275	1,600	2,180	2,160	1,640	1,490	1,560
4	620	124	181	158	98	41	1,600	2,270	2,340	1,650	1,050	1,470
5	716	102	83	1,780	66	741	1,600	2,250	2,570	1,630	254	1,510
6	655	129	131	2,460	72	283	1,410	2,280	2,410	1,840	304	1,500
7	650	105	76	2,660	80	277	1,270	1,760	2,400	2,130	580	1,750
8	655	114	76	856	405	676	1,450	1,660	1,950	1,960	630	1,720
9	356	115	181	80	193	716	1,520	1,680	2,090	2,090	1,090	711
10	127	87	98	100	33	727	1,520	1,650	2,170	1,720	1,030	219
11	132	132	427	98	77	745	1,470	1,520	2,150	1,900	1,090	139
12	203	89	82	85	45	1,060	1,500	1,500	2,160	1,770	1,140	60
13	127	240	161	89	46	1,000	1,520	1,480	2,170	1,760	998	612
14	124	240	105	91	50	975	1,360	1,680	2,350	1,590	919	1,090
15	85	75	114	58	52	961	1,520	1,590	2,460	1,480	958	1,170
16	117	247	78	96	52	1,090	1,610	1,620	2,440	1,320	1,090	1,180
17	112	105	93	72	43	1,350	1,540	1,740	2,410	1,310	1,050	1,130
18	134	150	119	82	65	1,330	1,510	1,900	2,220	1,330	1,780	1,180
19	197	129	74	82	70	1,330	1,380	1,940	2,290	1,350	1,890	1,170
20	119	153	119	85	54	1,340	1,380	1,910	2,290	1,410	1,980	657
21	117	96	91	54	87	1,350	1,130	2,080	2,630	1,300	2,350	593
22	216	140	98	78	31	1,550	1,190	2,120	2,250	1,300	2,330	291
23	555	392	96	82	61	1,200	1,630	2,050	1,960	1,430	2,320	45
24	140	353	80	87	42	1,240	1,620	2,040	2,020	1,650	1,970	507
25	122	155	91	98	159	1,220	1,590	1,650	1,780	1,860	1,840	359
26	427	124	112	52	73	1,220	1,610	1,610	1,840	1,730	1,960	406
27	206	81	76	68	50	1,220	1,600	1,630	1,860	1,670	1,710	41
28	124	150	64	76	67	1,280	1,910	1,490	1,970	1,530	1,710	605
29	102	112	87	87	------	1,140	2,010	1,470	1,990	1,580	1,730	551
30	147	74	107	38	------	1,220	2,380	1,510	1,950	1,470	1,980	552
31	82	------	91	76	------	1,400	------	1,450	------	1,710	1,850	------
TOTAL	9,277	4,363	3,491	10,008	2,284	29,493	46,710	56,040	65,050	50,870	44,243	26,358
MEAN	299	145	113	323	81.6	951	1,557	1,808	2,168	1,641	1,427	879
MAX	716	392	427	2,660	405	1,550	2,380	2,280	2,630	2,130	2,350	1,810
MIN	82	74	64	38	31	41	1,130	1,450	1,750	1,300	254	41
AC-FT	18,400	8,650	6,920	19,850	4,530	58,500	92,650	111,200	129,000	100,900	87,760	52,280

CAL YR 1970 TOTAL 844,709 MEAN 2,314 MAX 6,040 MIN 64 AC-FT 1,675,000
WTR YR 1971 TOTAL 348,187 MEAN 954 MAX 2,660 MIN 31 AC-FT 690,600

08158600 Walnut Creek at Webberville Road, Austin, Tex.

LOCATION.--Lat 30°16'59", long 97°39'17", Travis County, on left bank 190 ft downstream from bridge on Farm Road 969, 0.8 mile downstream from Little Walnut Creek, 2.8 miles upstream from Colorado River, and 5.2 miles east of the Capitol at Austin.

DRAINAGE AREA.--51.3 sq mi.

PERIOD OF RECORD.--May 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 425.96 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 19.0 cfs (13,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,740 cfs Oct. 23 (gage height, 18.05 ft); no flow at times.
Period of record: Maximum discharge, 6,020 cfs May 15, 1970 (gage height, 23.69 ft); no flow at times in 1967, 1971.
Maximum stage since at least 1891, 24 ft June 15, 1935 (backwater from Colorado River); a flood in 1919 reached a stage of 22 ft, from information by local residents.

REMARKS.--Records good. No known regulation or diversion. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	8.5	4.6	3.2	3.0	2.1	1.6	.41	.03	.02	.01	.63
2	1.2	7.0	4.6	3.2	2.7	2.0	1.5	.36	.03	0	58	.63
3	1.3	6.6	4.6	3.2	2.7	1.7	1.6	.20	.02	0	41	.50
4	1.2	6.6	4.6	3.0	2.7	1.7	1.7	.07	.02	0	129	.62
5	127	6.2	4.6	2.7	2.4	1.7	1.7	.14	.02	0	49	.56
6	13	6.2	4.2	2.7	2.2	1.6	1.7	1.1	.02	0	30	.70
7	3.5	5.8	4.2	2.7	2.2	1.5	1.7	.53	.01	0	6.2	.55
8	2.4	6.2	4.2	2.7	2.0	1.5	1.7	.19	0	0	2.2	.43
9	1.8	5.8	4.2	2.7	2.6	1.5	1.6	.17	0	0	1.7	.38
10	1.5	5.4	4.2	2.7	2.3	1.4	1.6	.17	0	0	1.7	1.6
11	1.5	5.4	4.2	2.7	2.1	1.5	1.6	1.3	0	0	1.2	3.9
12	8.5	5.4	4.2	2.7	2.0	10	1.9	1.1	0	0	1.4	.59
13	2.4	5.4	3.8	2.7	1.8	12	1.4	.33	0	0	1.6	.55
14	1.5	4.6	3.8	2.7	1.9	3.4	1.3	.11	0	0	1.5	.57
15	1.3	4.2	3.8	2.7	2.0	2.4	1.2	.05	0	0	1.4	6.2
16	1.4	5.0	3.8	2.4	2.0	2.1	11	.18	0	0	1.1	2.9
17	1.4	5.8	3.8	2.4	2.0	2.0	6.5	.06	0	0	.78	.93
18	1.6	5.4	3.8	3.2	2.0	2.2	1.8	.01	0	0	.95	.78
19	22	5.4	3.8	3.5	6.8	1.9	.92	0	0	0	1.0	.94
20	3.2	4.6	3.8	3.2	3.2	1.8	1.1	0	0	0	.90	1.1
21	2.5	4.6	3.8	2.7	2.3	1.9	1.1	0	3.0	0	.85	.78
22	82	4.6	3.8	2.7	1.8	2.0	1.1	0	2.4	0	.70	19
23	777	4.2	3.8	2.7	1.8	1.8	1.0	.10	.11	0	.74	1.7
24	43	4.2	3.8	2.4	1.9	1.7	.85	9.4	.03	0	.66	3.7
25	18	4.2	3.8	2.4	5.2	2.0	1.2	.86	.02	0	.63	1.5
26	13	5.0	3.2	2.4	9.6	2.0	.73	.65	.26	0	1.2	1.1
27	32	5.4	3.2	2.4	2.9	1.8	.73	.18	.51	1.3	1.2	1.2
28	14	5.0	3.2	2.4	2.4	1.8	.63	.07	.67	.19	.69	1.1
29	11	5.0	3.2	2.4	------	1.7	.58	.05	.33	.01	1.1	1.1
30	10	5.0	3.2	2.4	------	1.7	.54	.03	.06	.04	.94	1.1
31	9.0	------	3.2	5.2	------	1.7	------	.03	------	.06	.65	------
TOTAL	1,210.4	162.7	121.0	87.1	78.5	76.1	53.58	17.85	7.54	1.62	340.00	57.34
MEAN	39.0	5.42	3.90	2.81	2.80	2.45	1.79	.58	.25	.052	11.0	1.91
MAX	777	8.5	4.6	5.2	9.6	12	11	9.4	3.0	1.3	129	19
MIN	1.2	4.2	3.2	2.4	1.8	1.4	.54	0	0	0	.01	.38
AC-FT	2,400	323	240	173	156	151	106	35	15	3.2	674	114

CAL YR 1970 TOTAL 10,436.73 MEAN 28.6 MAX 1,540 MIN .33 AC-FT 20,700
WTR YR 1971 TOTAL 2,213.73 MEAN 6.07 MAX 777 MIN 0 AC-FT 4,390

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
10- 5	1430	9.37	788
10-23	1515	18.05	3,740
8- 4	0845	9.93	923

08159150 Wilbarger Creek near Pflugerville, Tex.

LOCATION.--Lat 30°27'16", long 97°36'02", Travis County, on left bank downstream from county road (Pfluger Lane), 800 ft downstream from Farm Road 685, 1.6 miles northeast of Pflugerville, and 1.9 miles downstream from Missouri-Kansas-Texas Railroad.

DRAINAGE AREA.--4.61 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 670.61 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 1.96 cfs (5.77 inches per year, 1,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 611 cfs Oct. 23 (gage height, 4.42 ft); no flow for many days.
Period of record: Maximum discharge, 1,760 cfs June 16, 1964 (gage height, 6.92 ft); no flow at times each year.
Maximum stage since at least 1894, occurred in September 1921, stage unknown, from information by local residents.

REMARKS.--Records good. Three recording rain gages located in watershed above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.38	.15	.14	.06	.08	.03				0	
2	.02	.38	.15	.13	.06	.07	.03				0	
3	.02	.38	.15	.13	.06	.06	.03				0	
4	.02	.38	.15	.13	.06	.05	.04				0	
5	.40	.33	.15	.12	.06	.05	.05				.03	
6	.05	.33	.15	.11	.06	.05	.03				0	
7	.04	.33	.15	.11	.06	.06	.03				.01	
8	.04	.33	.15	.11	.06	.08	.03				0	
9	.03	.29	.15	.11	.08	.08	.03				0	
10	.03	.29	.15	.11	.08	.08	.03				0	
11	.03	.27	.15	.11	.08	.08	.03				0	
12	.06	.25	.15	.11	.06	.16	.03				0	
13	.06	.25	.15	.11	.05	.16	.02				0	
14	.10	.25	.15	.10	.05	.07	.02				0	
15	.11	.25	.15	.09	.05	.05	.01				0	
16	.04	.25	.15	.09	.05	.05	.14				0	
17	.03	.21	.15	.09	.05	.05	.10				0	
18	.04	.21	.15	.09	.05	.05	.04				0	
19	.10	.21	.15	.08	.08	.05	.03				0	
20	.05	.21	.15	.08	.08	.04	.03				0	
21	.04	.20	.15	.08	.08	.04	.04				0	
22	1.8	.21	.15	.08	.04	.04	.03				0	
23	62	.20	.15	.08	.04	.04	.01				0	
24	2.1	.18	.15	.08	.04	.04	0				0	
25	.97	.18	.15	.08	.12	.04	0				0	
26	.70	.18	.15	.08	.18	.04	0				.02	
27	.55	.18	.15	.07	.08	.04	0				.01	
28	.43	.18	.15	.06	.08	.04	0				0	
29	.43	.18	.15	.06	------	.04	0				0	
30	.43	.18	.15	.06	------	.03	0				0	
31	.38	------	.15	.06	------	.03	------		------		0	------
TOTAL	71.12	7.65	4.65	2.94	1.90	1.84	.86	0	0	0	.07	0
MEAN	2.29	.26	.15	.095	.068	.059	.029	0	0	0	.002	0
MAX	62	.38	.15	.14	.18	.16	.14	0	0	0	.03	0
MIN	.02	.18	.15	.06	.04	.03	0	0	0	0	0	0
CFSM	.50	.06	.03	.02	.01	.01	.006	0	0	0	.0004	0
IN.	.57	.06	.04	.02	.02	.01	.006	0	0	0	0	0
AC-FT	141	15	9.2	5.8	3.8	3.7	1.7	0	0	0	.1	0
(††)	5.30	0	.08	0	1.09	.93	1.01	1.12	.95	1.23	4.95	1.65

CAL YR 1970 TOTAL 1,095.98 MEAN 3.00 MAX 99 MIN 0 CFSM .65 IN 8.84 AC-FT 2,170 †† 30.89
WTR YR 1971 TOTAL 91.03 MEAN .25 MAX 62 MIN 0 CFSM .05 IN .73 AC-FT 181 †† 18.31

PEAK DISCHARGE (BASE, 400 CFS).--Oct. 23 (1300) 611 cfs (4.42 ft).

†† Weighted-mean rainfall, in inches.

08159200 Colorado River at Bastrop, Tex.

LOCATION.--Lat 30°06'20", long 97°19'08", Bastrop County, on left bank in City Park in Bastrop, 400 ft upstream from bridge on State Highway 71, 0.3 mile upstream from Gills Creek, 1.1 miles downstream from Piney Creek, and at mile 236.8.

DRAINAGE AREA.--39,400 sq mi, approximately, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--March 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 307.38 ft above mean sea level. Prior to May 10, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 2,040 cfs (1,478,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,840 cfs June 22 (gage height, 6.62 ft); minimum daily, 127 cfs Feb. 8.
Period of record: Maximum discharge, 79,600 cfs Oct. 29, 1960 (gage height, 34.45 ft); minimum daily, 75 cfs Apr. 1, 1964. Maximum stage since at least 1845, 60.3 ft July 7 or 8, 1869. Flood of June 16, 1935, reached a stage of 57.0 ft and flood of Dec. 4, 1913, reached a stage of 53.3 ft, from information by local residents.

REMARKS.--Records good. Many diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin (station 08158000). The city of Austin reported that during the water year 2,140 acre-ft was diverted above this station by pumping into Decker Lake. The Lower Colorado River Authority reported that during the water year 6,048 acre-ft was diverted above this station by pumping into Lake Bastrop. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	804	270	218	203	136	173	1,400	2,420	1,470	2,100	1,680	2,010
2	774	253	203	200	129	173	1,730	2,200	1,760	1,980	1,710	1,980
3	780	244	192	209	138	178	1,680	2,370	2,020	1,990	1,840	1,930
4	774	227	197	192	145	428	1,610	2,370	2,250	1,750	1,850	1,740
5	756	227	200	173	131	345	1,650	2,380	2,450	1,740	2,170	1,520
6	956	224	221	1,260	155	307	1,650	2,430	2,640	1,720	1,120	1,610
7	840	234	212	2,500	138	535	1,570	2,440	2,520	1,830	973	1,600
8	762	234	189	2,780	127	349	1,450	1,940	2,490	2,100	675	1,780
9	768	227	186	1,370	153	442	1,430	1,800	2,180	2,010	717	1,840
10	672	224	184	487	349	702	1,590	1,790	2,100	2,100	971	1,260
11	428	227	234	318	270	768	1,560	1,760	2,200	1,850	1,130	703
12	315	212	209	267	160	750	1,540	1,710	2,190	1,950	1,090	554
13	304	237	393	234	155	1,190	1,560	1,570	2,210	1,860	1,110	349
14	368	215	257	212	140	1,030	1,540	1,560	2,210	1,810	1,110	267
15	293	300	260	206	136	1,010	1,440	1,700	2,330	1,570	856	844
16	290	307	240	194	136	942	1,530	1,670	2,550	1,480	946	1,200
17	263	244	227	184	136	1,010	1,700	1,660	2,550	1,330	1,020	1,200
18	253	280	212	181	138	1,330	1,620	1,800	2,530	1,310	1,050	1,140
19	280	257	212	163	134	1,360	1,540	1,880	2,420	1,320	1,620	1,150
20	345	227	221	163	129	1,330	1,530	2,010	2,400	1,390	1,910	1,180
21	307	237	218	163	160	1,370	1,490	2,000	2,430	1,400	2,070	925
22	280	227	218	175	148	1,410	1,310	2,190	2,760	1,330	2,450	700
23	345	209	218	170	181	1,190	1,060	2,240	2,460	1,330	2,430	750
24	2,830	206	218	168	143	1,190	1,520	2,240	2,070	1,410	2,420	443
25	869	402	212	175	194	1,280	1,740	2,190	2,160	1,630	2,210	350
26	357	419	192	175	263	1,270	1,680	1,820	1,930	1,820	1,860	600
27	376	297	200	170	244	1,270	1,690	1,680	1,930	1,910	2,080	493
28	487	257	189	165	221	1,270	1,680	1,700	2,010	1,750	1,890	489
29	410	230	192	148	------	1,330	1,990	1,570	2,090	1,490	1,840	271
30	286	218	186	150	------	1,230	2,060	1,500	2,110	1,520	1,830	571
31	270	------	200	153	------	1,280	------	1,570	------	1,530	2,060	------
TOTAL	17,842	7,572	6,710	13,308	4,689	28,442	47,540	60,160	67,420	52,310	48,688	31,449
MEAN	576	252	216	429	167	917	1,585	1,941	2,247	1,687	1,571	1,048
MAX	2,830	419	393	2,780	349	1,410	2,060	2,440	2,760	2,100	2,450	2,010
MIN	253	206	184	148	127	173	1,060	1,500	1,470	1,310	675	267
AC-FT	35,390	15,020	13,310	26,400	9,300	56,410	94,300	119,300	133,700	103,800	96,570	62,380

CAL YR 1970 TOTAL 1,057,692 MEAN 2,898 MAX 25,200 MIN 184 AC-FT 2,098,000
WTR YR 1971 TOTAL 386,130 MEAN 1,058 MAX 2,830 MIN 127 AC-FT 765,900

08159500 Colorado River at Smithville, Tex.

LOCATION.--Lat 30°00'48", long 97°09'23", Bastrop County, on right bank 360 ft downstream from bridge on State Highway 71 in Smithville, 850 ft downstream from Gazley Creek, 4 miles downstream from Alum Creek, and at mile 212.0.

DRAINAGE AREA.--39,880 sq mi, approximately, of which 12,880 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1930 to current year. Gage-height records collected in this vicinity since 1920 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 270.14 ft above mean sea level. Prior to Apr. 9, 1931, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--41 years, 2,701 cfs (1,957,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,180 cfs Oct. 23 (gage height, 6.73 ft); minimum daily, 131 cfs Feb. 9.
Period of record: Maximum discharge, 305,000 cfs June 16, 1935 (gage height, 42.5 ft, from floodmarks), from rating curve extended above 209,000 cfs on basis of slope-area measurement of 305,000 cfs; minimum, 76 cfs Nov. 2, 1934.
Maximum stage since at least 1860 occurred July 8, 1869, and was several feet higher than flood of Dec. 4, 1913, which reached a stage of 47.4 ft and was the highest since 1869, from information by local residents.

REMARKS.--Records good. Many diversions above station for irrigation and municipal supply. For upstream regulation, see Colorado River at Austin (station 08158000).

REVISIONS (WATER YEARS).--WSP 1342: Drainage area. WSP 1562: 1934. WSP 1712: 1953, 1954(M), 1957-58.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	893	400	252	224	150	290	1,430	2,340	1,630	2,200	1,590	2,320
2	878	385	254	229	142	241	1,730	2,100	1,670	2,040	1,740	2,310
3	864	362	231	231	136	241	1,810	2,260	2,010	2,030	1,930	2,350
4	869	345	220	238	141	319	1,640	2,260	2,240	1,870	1,790	2,080
5	889	319	228	217	145	526	1,720	2,220	2,520	1,750	3,240	1,700
6	901	323	224	268	135	485	1,700	2,350	2,700	1,730	2,520	1,720
7	1,060	320	246	2,010	150	609	1,680	2,370	2,640	1,720	1,220	1,760
8	892	323	235	2,560	142	583	1,580	2,100	2,580	2,060	950	1,770
9	838	319	212	1,850	131	538	1,370	1,840	2,460	1,980	707	2,110
10	847	311	207	868	181	827	1,600	1,800	2,150	2,090	698	1,890
11	692	307	209	479	351	950	1,580	1,780	2,280	1,920	1,070	1,270
12	484	301	263	356	257	982	1,590	1,840	2,280	1,880	1,110	751
13	415	287	288	297	169	1,140	1,540	1,620	2,340	1,920	1,120	638
14	412	311	432	264	159	1,420	1,570	1,620	2,320	1,800	1,150	414
15	431	298	299	237	153	1,250	1,530	1,650	2,360	1,760	1,060	425
16	360	387	299	226	147	1,200	1,490	1,740	2,600	1,410	901	1,180
17	350	397	277	213	147	1,170	1,640	1,710	2,670	1,430	952	1,360
18	318	311	256	194	148	1,360	1,700	1,800	2,670	1,260	1,100	1,360
19	383	370	241	192	152	1,550	1,540	1,840	2,680	1,250	1,190	1,300
20	381	322	259	173	147	1,500	1,580	2,090	2,500	1,280	1,940	1,360
21	454	288	255	172	144	1,530	1,470	2,040	2,550	1,360	2,180	1,350
22	423	297	245	175	159	1,590	1,430	2,170	2,710	1,340	2,600	948
23	2,950	278	246	180	157	1,410	1,120	2,310	2,740	1,310	2,610	873
24	2,610	260	245	174	185	1,300	1,240	2,360	2,220	1,320	2,700	789
25	1,860	290	248	170	167	1,400	1,740	2,340	2,270	1,400	2,670	1,020
26	729	523	239	171	335	1,420	1,650	2,060	2,110	1,770	2,090	643
27	557	481	222	171	335	1,400	1,670	1,780	2,000	1,760	2,270	697
28	597	360	227	166	324	1,400	1,570	1,820	2,090	2,120	2,290	653
29	593	305	220	165	------	1,420	1,890	1,770	2,120	1,490	2,040	534
30	506	269	229	150	------	1,380	1,950	1,660	2,170	1,520	2,030	459
31	417	------	219	148	------	1,360	------	1,650	------	1,510	2,150	------
TOTAL	24,853	10,049	7,727	13,168	5,089	32,791	47,750	61,290	70,280	52,280	53,608	38,034
MEAN	802	335	249	425	182	1,058	1,592	1,977	2,343	1,686	1,729	1,268
MAX	2,950	523	432	2,560	351	1,590	1,950	2,370	2,740	2,200	3,240	2,350
MIN	318	260	207	148	131	241	1,120	1,620	1,630	1,250	698	414
AC-FT	49,300	19,930	15,330	26,120	10,090	65,040	94,710	121,600	139,400	103,700	106,300	75,440

CAL YR 1970 TOTAL 1,097,642 MEAN 3,007 MAX 25,500 MIN 207 AC-FT 2,177,000
WTR YR 1971 TOTAL 416,919 MEAN 1,142 MAX 3,240 MIN 131 AC-FT 827,000

08160800 Redgate Creek near Columbus, Tex.

LOCATION.--Lat 29°47'56", long 96°31'55", Colorado County, on left bank 68 ft downstream from bridge on Farm Road 109, 1.8 miles upstream from Cummins Creek, and 7 miles north of Columbus.

DRAINAGE AREA.--17.3 sq mi.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 210.82 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 4.06 cfs (3.19 inches per year, 2,940 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,200 cfs Oct. 23 (gage height, 14.60 ft), from rating curve extended as explained below; no flow for many days.
Period of record: Maximum discharge, 4,200 cfs Oct. 23, 1971 (gage height, 14.60 ft), from rating curve extended above 900 cfs on basis of slope-area measurement of peak flow of Jan. 22, 1965; no flow for many days.
Maximum stage since at least 1860, about 23.4 ft in late June or early July 1940, from information by Texas Highway Department and local resident.

REMARKS.--Records fair. No known diversion above station.

REVISIONS.--WRD Texas 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	2.4	.80	.44	.18	.37	.18	.10	.07	.10	0	.20
2	.12	1.9	.71	.41	.18	.37	.16	.10	.05	.04	0	1.0
3	.13	1.7	.71	.48	.37	.27	.13	.08	.04	.05	.32	.30
4	.12	1.6	.71	.29	.44	.20	.14	.06	.04	.04	16	.20
5	.34	1.5	.71	.27	.32	.29	.24	.08	.04	0	1.6	.15
6	.48	1.5	.59	.27	6.2	.29	.16	.16	.04	0	5.3	.12
7	.22	1.5	.51	.27	1.5	.24	.13	.15	.03	0	3.1	.11
8	.22	1.5	.51	.29	.44	.24	.14	.11	.02	0	.42	.10
9	.18	1.2	.51	.32	.32	.27	.12	.13	.01	0	.26	.10
10	.13	1.1	.51	.34	.27	.51	.08	.10	0	0	3.2	3.0
11	344	1.1	.51	.34	.29	.44	.14	.40	0	0	.94	1.0
12	33	1.0	.41	.32	.27	.44	.14	.40	0	0	.29	.40
13	3.5	1.7	.41	.32	.22	.41	.13	.15	0	0	.20	.25
14	2.2	1.2	.37	.32	.24	.37	.13	.10	0	0	.14	.15
15	1.7	.97	.41	.29	.27	.24	.13	.10	0	0	.14	2.0
16	1.3	.97	.37	.24	.29	.20	.52	.08	0	0	.12	1.0
17	1.1	.97	.29	.24	.29	.20	1.3	.06	0	0	.10	.50
18	1.1	.97	.32	.27	.29	.41	.45	.06	0	0	.08	.30
19	2.2	.97	1.2	.22	.97	.37	.28	.15	.03	0	.52	.22
20	1.1	.86	1.7	.20	.48	.20	.48	4.1	.55	0	.51	.19
21	.97	.86	.92	.24	.44	.24	.37	.18	.32	0	.16	.13
22	317	.86	.92	.29	.29	.29	.29	.10	.18	0	.12	.13
23	748	.67	.97	.29	.22	.27	.23	.10	.18	0	.12	.11
24	20	.59	.67	.29	.24	.27	.14	2.1	.14	0	.13	.25
25	9.8	.75	.51	.27	.37	.34	.13	.43	.08	0	.11	.41
26	6.7	.86	.37	.22	1.6	.32	.15	.16	.04	0	.12	.39
27	8.9	.92	.37	.20	.48	.24	.16	.10	.02	0	.17	.43
28	4.6	.86	.41	.22	.34	.32	.15	.07	.18	0	.06	.67
29	3.2	.86	.44	.29	------	.24	.16	.10	.37	0	0	.15
30	2.9	.86	.75	.29	------	.14	.15	.08	.16	0	0	.20
31	2.5	------	.67	.29	------	.08	------	.06	------	0	0	------
TOTAL	1,517.83	34.70	19.26	9.03	17.81	9.08	7.11	10.15	2.59	.23	34.23	14.16
MEAN	49.0	1.16	.62	.29	.64	.29	.24	.33	.086	.007	1.10	.47
MAX	748	2.4	1.7	.48	6.2	.51	1.3	4.1	.55	.10	16	3.0
MIN	.12	.59	.29	.20	.18	.08	.08	.06	0	0	0	.10
CFSM	2.83	.07	.04	.02	.04	.02	.01	.02	.005	.0004	.06	.03
IN.	3.26	.07	.04	.02	.04	.02	.02	.02	.005	0	.07	.03
AC-FT	3,010	69	38	18	35	18	14	20	5.1	.5	68	28

CAL YR 1970 TOTAL 2,608.37 MEAN 7.15 MAX 748 MIN 0 CFSM .41 IN 5.61 AC-FT 5,170
WTR YR 1971 TOTAL 1,676.18 MEAN 4.59 MAX 748 MIN 0 CFSM .27 IN 3.60 AC-FT 3,320

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-11	2130	13.91	3,800	10-23	0330	14.60	4,200
10-22	1630	13.42	3,550	10-23	1030	9.55	1,890

08161000 Colorado River at Columbus, Tex.

LOCATION.--Lat 29°42'22", long 96°32'12", Colorado County, near right bank at downstream side of pier of bridge on U.S. Highway 90 at eastern edge of Columbus, 340 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.6 miles downstream from Cummins Creek, and at mile 135.1.

DRAINAGE AREA.--41,070 sq mi, approximately, of which 12,880 sq mi is probably noncontributing; 41,170 sq mi, approximately, at site "near Eagle Lake."

PERIOD OF RECORD.--January 1903 to December 1911 (gage heights only), May 1916 to current year. Discharge records for 1902-11, published in WSP 84, 99, 132, 174, 210, 288, and 308, have been found to be unreliable and should not be used. Records collected at site 23 miles downstream October 1930 to May 1939, published as "near Eagle Lake." Gage-height records collected in this vicinity since 1903 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 155.52 ft above mean sea level. Prior to May 1, 1919, various nonrecording gages at sites in the immediate vicinity at datum 3.00 ft lower. May 1, 1919, to Nov. 23, 1930, water-stage recorder at site about 300 ft downstream at datum 3.00 ft lower. Sept. 17, 1930, to June 12, 1939 (Oct. 1, 1930, to May 31, 1939, used herein), water-stage recorder at site 23 miles downstream at different datum. May 17 to Nov. 14, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--55 years (1916-71), 3,245 cfs (2,351,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,500 cfs Oct. 23 (gage height, 17.44 ft); minimum daily, 250 cfs Feb. 2, 24.
Period of record: Maximum discharge, 190,000 cfs June 18, 1935 (gage height, 38.5 ft, present site and datum), computed on basis of records for station near Eagle Lake; minimum, 93 cfs Sept. 1, 1918.
Maximum stage since at least 1852, 41.6 ft, present datum, in July 1869 and on Dec. 6, 1913, from information by local resident. River divided each time and left Columbus on an island.

REMARKS.--Records good. Many diversions above station for irrigation and municipal supply. At end of year, flow from 73.1 sq mi above this station was partly controlled by 20 floodwater-retarding structures with a total combined capacity of 28,290 acre-ft below the flood-spillway crests, of which 25,570 acre-ft is floodwater-retarding capacity and 2,720 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Upstream regulation same as that for Colorado River at Austin (station 08158000). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1342: Drainage area. WSP 1562: 1920-21(M), 1922. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	755	750	440	310	254	382	1,170	1,950	1,430	2,050	1,470	1,930
2	728	660	400	300	250	348	1,200	2,180	1,460	2,060	1,490	2,210
3	708	588	370	305	255	320	1,370	2,280	1,370	2,040	1,660	2,120
4	684	534	364	290	265	276	1,700	2,270	1,600	1,930	2,220	2,060
5	699	489	352	286	262	267	1,640	2,370	1,900	1,920	2,250	2,000
6	1,170	464	330	278	262	266	1,580	2,380	2,160	1,720	2,470	1,830
7	860	440	325	282	264	390	1,610	2,480	2,370	1,690	2,840	1,600
8	859	432	320	744	256	396	1,600	2,500	2,470	1,670	1,860	1,640
9	744	408	325	2,460	254	452	1,510	2,430	2,400	1,780	1,360	1,630
10	646	400	340	2,260	258	477	1,380	2,050	2,340	2,000	1,080	2,030
11	1,200	394	325	1,310	264	422	1,340	1,910	2,070	1,970	960	3,370
12	4,790	376	305	790	260	616	1,490	2,030	2,040	2,050	976	2,230
13	905	376	295	615	323	732	1,450	1,850	2,100	1,830	1,180	1,810
14	531	370	315	534	344	772	1,420	1,720	2,110	1,890	1,180	1,020
15	415	352	352	448	287	1,060	1,430	1,570	2,120	1,820	1,180	839
16	373	358	456	388	267	1,060	1,440	1,550	2,110	1,770	1,160	701
17	362	346	400	358	266	995	1,430	1,660	2,290	1,560	1,040	659
18	325	400	382	335	266	953	1,910	1,630	2,450	1,460	1,000	1,140
19	322	456	376	310	266	968	1,730	1,660	2,470	1,340	1,050	1,250
20	360	408	376	290	262	1,250	1,590	2,060	2,540	1,260	1,110	1,220
21	368	408	346	290	262	1,330	1,520	1,900	2,410	1,250	1,480	1,200
22	381	416	340	286	255	1,340	1,480	1,980	2,380	1,300	1,850	1,240
23	16,900	370	358	274	252	1,370	1,430	1,990	2,450	1,310	2,080	1,150
24	20,400	352	335	274	250	1,400	1,240	2,210	2,650	1,260	2,360	959
25	7,880	352	310	270	251	1,190	1,050	2,310	2,340	1,250	2,420	920
26	4,600	358	305	266	261	1,180	1,430	2,260	2,060	1,300	2,480	903
27	2,010	358	305	258	281	1,260	1,670	2,110	2,120	1,490	2,340	924
28	1,860	525	315	258	293	1,260	1,650	1,800	1,990	1,690	2,010	816
29	1,040	597	305	262	------	1,260	1,660	1,640	2,000	1,810	2,170	773
30	930	498	305	266	------	1,250	1,710	1,630	2,010	1,670	1,990	718
31	840	------	315	258	------	1,290	------	1,490	------	1,440	1,910	------
TOTAL	74,645	13,235	10,687	15,855	7,490	26,532	44,830	61,850	64,210	51,580	52,626	42,892
MEAN	2,408	441	345	511	268	856	1,494	1,995	2,140	1,664	1,698	1,430
MAX	20,400	750	456	2,460	344	1,400	1,910	2,500	2,650	2,060	2,840	3,370
MIN	322	346	295	258	250	266	1,050	1,490	1,370	1,250	960	659
AC-FT	148,100	26,250	21,200	31,450	14,860	52,630	88,920	122,700	127,400	102,300	104,400	85,080

CAL YR 1970 TOTAL 98,567 MEAN 270 MAX 20,400 MIN 295 AC-FT 195,500
WTR YR 1971 TOTAL 466,432 MEAN 1,278 MAX 20,400 MIN 250 AC-FT 925,200

08162000 Colorado River at Wharton, Tex.

LOCATION.--Lat 29°18'32", long 96°06'13", Wharton County, near left bank at downstream side of downstream bridge on U.S. Highway 59 in Wharton, 1,100 ft downstream from Texas and New Orleans Railroad Co. bridge, 12 miles upstream from Jones Creek, and at mile 66.6.

DRAINAGE AREA.--41,380 sq mi, approximately, of which 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1916 to August 1918 (intermittent periods), March 1919 to September 1925, July and August 1938 (flood discharge measurements only), October 1938 to current year. June to November 1901 and May to September 1902, daily records published in U.S. Department of Agriculture, Office of Experiment Stations, Bulletin Nos. 119 and 133. Gage-height records collected in this vicinity since 1935 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 65.42 ft above mean sea level. Prior to Oct. 1, 1938, various types of recording and nonrecording gages 800 ft upstream at different datum. Oct. 1, 1938, to June 1, 1966, nonrecording gage 100 ft upstream at present datum.

AVERAGE DISCHARGE.--38 years (1919-21, 1922-25, 1938-71), 2,799 cfs (2,028,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 22,400 cfs Oct. 24 (gage height, 15.72 ft); minimum daily, 277 cfs Feb. 12.
Period of record: Maximum discharge observed, 100,000 cfs July 3, 1940 (gage height, 35.99 ft); no flow Aug. 6, 1925 (result of pumping).
Maximum stage since at least 1869, 38.9 ft Dec. 8, 1913, present datum, from information by local residents; below Wharton floodwater combined with floodwater of Brazos River. Flood of about July 12, 1869, reached about same height. Flood of June 20, 1935, reached a stage of 38.2 ft, present datum, furnished by U.S. Weather Bureau (discharge, 159,000 cfs, from rating curve defined by current-meter measurements below 145,000 cfs). Flood of July 30, 1938, reached a stage of 37.4 ft, present datum, observed by Geological Survey engineers (discharge, 145,000 cfs).

REMARKS.--Records good. Many diversions above station for irrigation, municipal supply, and oilfield operation. For statement regarding regulation, see Colorado River at Columbus (station 08161000). Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 878: 1938(M). WSP 1342: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	985	1,180	580	379	350	351	678	742	853	990	817	960
2	934	1,060	552	379	344	375	639	821	691	1,110	829	1,080
3	930	923	526	379	352	409	609	862	607	1,050	1,050	1,410
4	914	841	505	370	351	373	637	1,080	579	990	1,500	1,440
5	855	784	491	370	339	351	957	973	607	910	2,260	1,410
6	918	736	481	350	341	329	941	1,090	743	860	2,400	1,350
7	1,090	688	474	347	377	323	874	1,250	875	810	2,600	1,200
8	1,240	654	459	350	324	326	809	1,320	1,030	735	2,800	990
9	1,140	629	458	357	302	396	842	1,410	1,120	735	2,120	960
10	1,290	618	458	1,520	288	398	866	1,440	1,100	785	1,500	1,980
11	1,870	607	451	1,950	288	459	801	1,410	1,060	990	1,270	5,500
12	5,450	595	451	1,390	277	447	711	1,410	937	990	1,040	10,000
13	7,590	587	447	981	294	464	851	1,470	822	1,200	903	4,570
14	2,800	583	439	731	280	599	833	1,320	878	1,150	966	2,880
15	1,680	571	433	610	339	619	803	1,200	898	1,090	1,030	2,040
16	1,290	554	432	544	360	666	816	990	920	1,000	1,000	1,610
17	1,040	536	445	493	308	850	1,200	935	914	988	935	1,320
18	921	535	484	470	297	808	1,390	885	1,010	994	685	1,020
19	838	540	464	438	309	802	1,700	765	1,170	855	499	1,370
20	792	557	460	424	315	771	1,620	738	1,240	801	419	2,340
21	778	562	459	409	301	903	1,530	901	1,290	691	515	1,910
22	796	540	440	402	279	1,040	1,440	768	1,330	632	495	1,620
23	969	532	436	393	284	904	1,310	892	1,360	579	735	1,680
24	17,200	528	424	386	284	897	1,230	956	1,480	632	860	1,650
25	16,900	514	419	382	280	945	1,100	1,490	1,590	615	1,080	1,350
26	7,320	513	414	370	307	862	933	1,580	1,370	595	1,140	1,260
27	3,910	511	396	360	313	839	866	1,610	1,080	598	1,200	1,090
28	2,630	510	393	358	324	893	961	1,520	1,110	743	1,200	1,020
29	2,160	509	391	358	------	920	832	1,270	1,020	939	910	871
30	1,570	579	400	356	------	834	831	1,020	1,020	967	1,050	762
31	1,300	------	388	354	------	745	------	890	------	985	1,050	------
TOTAL	90,100	19,076	14,050	16,960	8,807	19,898	29,610	35,008	30,704	27,009	36,858	58,643
MEAN	2,906	636	453	547	315	642	987	1,129	1,023	871	1,189	1,955
MAX	17,200	1,180	580	1,950	377	1,040	1,700	1,610	1,590	1,200	2,800	10,000
MIN	778	509	388	347	277	323	609	738	579	579	419	762
AC-FT	178,700	37,840	27,870	33,640	17,470	39,470	58,730	69,440	60,900	53,570	73,110	116,300

CAL YR 1970 TOTAL 1,209,988 MEAN 3,315 MAX 23,600 MIN 388 AC-FT 2,400,000
WTR YR 1971 TOTAL 386,723 MEAN 1,060 MAX 17,200 MIN 277 AC-FT 767,100

08162500 Colorado River near Bay City, Tex.

LOCATION.--Lat 28°58'26", long 96°00'44", Matagorda County, on right bank 6,300 ft downstream from bridge on State Highway 35, 7,100 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.8 miles west of Bay City, and at mile 32.5.

DRAINAGE AREA.--41,650 sq mi, approximately, of which 11,900 sq mi is probably noncontributing.

PERIOD OF RECORD.--July 1940 (in WSP 1046), April 1948 to current year. Records of elevation collected in this vicinity since 1946 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. July 2-6, 1940, nonrecording gage at highway bridge, 6,300 ft upstream at datum 30.60 ft lower.

AVERAGE DISCHARGE.--23 years (1948-71), 2,291 cfs (1,660,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,400 cfs Oct. 25 (elevation, 24.76 ft); minimum daily, 0.67 cfs June 9.
Period of record: Maximum discharge, 84,100 cfs June 26, 1960; maximum elevation, 48.2 ft, present datum, July 4, 1940, at site 6,300 ft upstream at bridge on State Highway 35, observed by Corps of Engineers (elevation, 46.6 ft, adjusted to present site); no flow at times in 1951-53, 1956.
Maximum elevation since 1869, 56.1 ft Dec. 10, 1913. Flood in July 1869 probably reached about same elevation. Elevation of other floods are as follows: May 8, 1922, 55.4 ft; June 1929, 55.0 ft; June 22, 1935, 54.6 ft; Oct. 5, 1936, 52.2 ft; Aug. 2, 1938, 53.4 ft; Nov. 27, 1940, 47.6 ft. All above flood data from information by Texas and New Orleans Railroad Co. and adjusted to present site.

REMARKS.--Records good except those below 100 cfs, which are poor. Diversions above station for irrigation and municipal supply. Upstream regulation same as that for Colorado River at Austin (station 08158000). For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Colorado River at Columbus (station 08161000).

REVISIONS.--WSP 1342: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	1,390	563	422	375	336	20	3.2	68	179	497	299
2	317	1,240	418	424	370	362	48	3.1	3.2	109	267	239
3	261	999	510	431	365	382	4.8	7.8	2.9	286	725	438
4	259	1,010	517	394	365	408	18	62	1.7	187	1,450	647
5	72	923	500	385	360	388	211	383	1.4	71	2,010	650
6	314	881	478	381	360	387	555	438	1.3	30	3,040	613
7	652	839	466	391	450	352	477	568	1.3	5.4	3,270	450
8	823	792	454	392	450	118	277	646	1.0	102	3,510	399
9	755	772	446	400	400	2.2	334	784	.67	23	2,710	405
10	521	679	445	530	330	11	433	846	1.9	18	1,560	1,810
11	4,920	718	448	1,900	310	220	476	1,050	174	167	1,240	8,070
12	14,300	708	436	1,950	300	345	122	1,550	116	293	838	13,900
13	16,000	648	446	1,380	325	330	131	1,440	33	370	350	9,910
14	9,830	678	603	1,010	350	355	266	1,180	2.5	483	400	4,880
15	4,710	660	435	796	310	286	120	890	1.6	733	450	3,390
16	2,900	649	430	681	300	3.3	294	650	.98	595	400	2,360
17	1,880	626	433	617	290	3.1	1,240	217	.90	495	350	1,360
18	1,400	599	463	512	280	30	1,770	327	.89	532	152	1,320
19	1,150	510	510	464	320	67	1,590	80	7.1	384	35	3,670
20	1,030	540	491	434	330	3.5	1,810	3.2	362	425	7.1	4,980
21	915	591	479	419	330	19	1,590	40	313	353	6.8	3,660
22	851	604	450	416	320	285	1,390	221	497	155	6.0	2,470
23	773	518	438	440	315	429	1,010	32	332	221	5.8	2,940
24	7,840	511	425	431	310	397	878	274	598	82	6.2	2,710
25	18,100	410	451	419	350	344	850	509	633	255	6.0	2,200
26	10,500	517	444	413	350	544	352	924	467	208	7.9	1,650
27	5,780	591	440	396	335	533	243	937	456	73	169	1,050
28	3,780	498	402	385	339	571	123	942	251	218	404	548
29	2,820	489	370	385	------	610	124	826	116	418	330	547
30	2,260	503	408	380	------	539	13	344	219	609	197	247
31	1,620	------	416	380	------	105	------	357	------	618	253	------
TOTAL	117,846	21,093	14,215	18,358	9,589	8,765.1	16,769.8	16,534.3	4,664.34	8,697.4	24,652.8	77,762
MEAN	3,801	703	459	592	342	283	559	533	155	281	795	2,592
MAX	18,100	1,390	603	1,950	450	610	1,810	1,550	633	733	3,510	13,900
MIN	72	410	370	380	280	2.2	4.8	3.1	.67	5.4	5.8	239
AC-FT	233,700	41,840	28,200	36,410	19,020	17,390	33,260	32,800	9,250	17,250	48,900	154,200

CAL YR 1970 TOTAL 153,154.00 MEAN 420 MAX 18,100 MIN 72 AC-FT 303,800
WTR YR 1971 TOTAL 338,946.74 MEAN 929 MAX 18,100 MIN .67 AC-FT 672,300

08162600 Tres Palacios Creek near Midfield, Tex.

LOCATION.--Lat 28°55'40", long 96°10'15", Matagorda County, at left downstream end of bridge on Farm Road 456, 1.0 mile downstream from Juanita Creek, and 2.4 miles southeast of Midfield.

DRAINAGE AREA.--145 sq mi.

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.38 ft above mean sea level.

EXTREMES.--June to September 1970: Maximum discharge during period, 933 cfs June 25 (gage height, 18.33 ft); minimum, 16 cfs Sept. 12.
Water year 1971: Maximum discharge, 6,340 cfs Oct. 12 (gage height, 30.38 ft); minimum, 2.2 cfs Feb. 1, 2.
Period of record: Maximum discharge, 6,340 cfs Oct. 12, 1970 (gage height, 30.38 ft); minimum, 2.2 cfs Feb. 1, 2, 1971.
Maximum stages since 1885, 37 ft in September 1960 and 35 ft in June 1945, from information by local residents.

REMARKS.--Records good. Ten known diversions above stations; amounts unknown. An undetermined amount of water from irrigated ricefields enters stream upstream at various points. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									-	36	55	156
2									-	26	46	505
3									-	22	65	615
4									-	22	196	361
5									-	31	140	181
6									-	42	93	106
7									-	41	54	68
8									-	47	42	48
9									-	49	30	41
10									-	45	24	26
11									-	43	30	19
12									-	48	30	37
13									-	60	39	188
14									-	136	35	198
15									-	268	32	104
16									-	219	31	63
17									41	141	36	49
18									38	112	37	46
19									35	94	28	38
20									36	72	27	36
21									44	83	34	46
22									71	107	36	39
23									86	97	53	41
24									466	172	60	48
25									898	173	73	42
26									710	126	76	51
27									332	143	53	47
28									164	150	41	43
29					------				84	133	36	36
30					------				51	110	34	34
31		------			------		------		------	76	46	------
TOTAL									-	2,924	1,612	3,312
MEAN									-	94.3	52.0	110
MAX									-	268	196	615
MIN									-	22	24	19
AC-FT									-	5,800	3,200	6,570

CAL YR 1969 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -

08162600 Tres Palacios Creek near Midfield, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	27	8.4	5.3	2.4	11	37	18	21	52	50	44
2	29	23	7.8	6.1	2.3	6.2	56	24	22	52	38	47
3	28	21	7.8	5.8	2.9	4.7	52	43	24	48	60	66
4	30	24	7.7	5.6	3.1	5.7	33	37	23	46	121	64
5	33	18	7.3	5.1	3.9	5.1	56	31	34	44	246	60
6	60	15	7.3	5.1	5.3	5.0	56	64	36	50	323	52
7	56	14	7.2	5.3	6.7	4.7	44	67	37	59	442	48
8	45	12	7.1	5.7	12	5.7	39	43	36	71	283	41
9	46	11	7.0	5.8	15	6.1	29	28	31	79	140	28
10	33	9.9	6.8	6.1	9.2	6.5	35	37	33	78	103	322
11	2,160	11	6.8	6.4	6.6	11	35	56	32	84	81	1,620
12	6,050	10	6.4	6.5	6.8	8.4	20	80	27	85	50	2,270
13	5,080	8.9	6.8	6.0	6.5	8.9	31	87	28	85	31	1,390
14	3,560	7.9	7.3	5.7	6.3	9.8	26	43	34	78	19	659
15	2,340	7.3	7.2	5.5	6.2	11	25	25	25	59	11	346
16	928	7.3	7.4	4.9	6.6	6.7	21	16	25	50	8.6	318
17	460	7.3	6.6	4.9	6.3	5.9	279	18	24	52	6.1	197
18	291	7.2	7.1	4.8	6.2	10	346	21	24	33	4.5	145
19	184	7.8	7.5	4.2	6.2	18	142	17	43	34	4.7	1,620
20	129	8.0	7.8	3.8	6.1	39	57	77	132	40	4.5	2,500
21	103	7.5	8.2	3.8	6.0	42	28	111	122	46	11	1,000
22	89	9.9	9.6	4.2	6.1	54	18	80	95	60	11	497
23	73	9.2	11	4.3	5.1	55	15	60	77	62	11	533
24	68	8.4	11	4.3	4.5	45	11	53	63	78	16	405
25	95	8.9	9.0	4.0	4.5	32	6.5	71	50	73	97	231
26	64	10	6.2	3.6	16	26	14	88	42	61	69	289
27	50	11	6.0	3.0	13	26	18	73	57	37	67	200
28	49	10	5.9	2.8	21	30	19	52	55	40	59	120
29	65	9.3	5.4	4.6	------	28	13	39	53	40	50	88
30	57	8.6	6.3	3.6	------	54	12	29	54	50	65	71
31	35	------	5.9	3.0	------	41	------	24	------	67	59	------
TOTAL	22,343	350.4	229.8	149.8	202.8	622.4	1,573.5	1,512	1,359	1,793	2,541.4	15,271
MEAN	721	11.7	7.41	4.83	7.24	20.1	52.5	48.8	45.3	57.8	82.0	509
MAX	6,050	27	11	6.5	21	55	346	111	132	85	442	2,500
MIN	28	7.2	5.4	2.8	2.3	4.7	6.5	16	21	33	4.5	28
AC-FT	44,320	695	456	297	402	1,230	3,120	3,000	2,700	3,560	5,040	30,290

CAL YR 1970	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-		
WTR YR 1971	TOTAL	47,948.1	MEAN	131	MAX	6,050	MIN	2.3	AC-FT	95,110		

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-12	1600	30.38	6,340
9-12	0400	25.71	2,450
9-20	0200	26.86	3,000

08163500 Lavaca River at Hallettsville, Tex.

LOCATION.--Lat 29°26'35", long 96°56'38", Lavaca County, on left bank 75 ft downstream from bridge on U.S. Highway 77 in Hallettsville and 0.7 mile downstream from Campbell Branch.

DRAINAGE AREA.--108 sq mi.

PERIOD OF RECORD.--July 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 186.72 ft above mean sea level. Prior to Apr. 19, 1960, water-stage recorder for high stages and movable nonrecording gage for stages below about 6.2 ft. Apr. 20, 1960, to June 2, 1961, movable nonrecording gage. All gages at same site and datum.

AVERAGE DISCHARGE.--32 years, 43.3 cfs (31,370 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,400 cfs Sept. 10 (gage height, 24.69 ft); minimum, 0.19 cfs July 16, 17 (result of regulation).
Period of record: Maximum discharge, 93,100 cfs June 30, 1940 (gage height, 40.60 ft, from floodmarks), from rating curve extended above 23,000 cfs on basis of slope-area measurement of peak flow; no flow at times in 1953, 1956.
Maximum stage since at least 1840, that of June 30, 1940; maximum stage from about 1870 to 1940, 32.8 ft July 16, 1936, from information by local resident.

REMARKS.--Records good. No diversion above station. The Corps of Engineers began channel rectification 1.6 miles downstream from gage in April 1959. This rectification reached the gage Sept. 21, 1959, and was completed in February 1960.

REVISIONS (WATER YEARS).--WSP 1312: 1942(M), 1944(M). WSP 1732: 1952(M). WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	6.8	5.4	6.2	4.2	4.7	3.2	2.9	.94	1.2	.44	193
2	4.0	6.2	5.4	5.8	4.2	4.5	2.9	1.9	.88	1.2	17	114
3	3.8	6.0	5.4	5.8	4.4	3.9	2.9	1.9	.75	.96	5.4	20
4	3.8	5.8	5.0	5.4	4.7	3.4	3.1	1.9	.74	.73	2,450	5.4
5	6.0	5.6	4.9	4.8	4.7	3.4	3.2	2.0	.83	.63	147	3.8
6	32	5.4	4.6	4.7	4.4	3.7	3.2	2.5	.66	.58	35	2.8
7	12	5.3	4.4	4.7	4.4	3.2	2.9	2.6	.65	.48	23	1.9
8	7.4	5.1	4.4	4.7	4.4	3.2	3.2	2.6	.62	.49	14	1.3
9	6.0	4.7	4.6	4.7	4.4	3.1	3.0	2.5	.61	.49	8.8	1.0
10	5.0	4.3	4.8	4.8	4.2	3.1	2.9	2.4	.62	.45	8.0	2,770
11	87	4.6	4.9	4.9	4.2	3.1	2.8	4.4	.64	.47	4.9	1,870
12	349	4.4	4.7	5.1	4.4	4.2	2.8	3.1	.60	.58	3.4	228
13	171	4.5	4.4	5.4	4.1	123	2.6	2.5	.60	.93	2.9	50
14	37	4.4	4.1	5.2	4.0	24	2.7	3.1	.56	.63	2.4	22
15	19	4.6	4.1	5.1	4.1	10	2.8	2.4	.55	.49	2.1	21
16	11	4.6	4.1	4.8	4.1	6.4	4.0	1.9	.55	.45	1.8	12
17	7.7	4.7	4.3	4.7	4.0	5.0	4.0	1.5	.56	.45	1.5	7.8
18	6.0	4.7	4.2	4.9	4.0	4.5	3.4	1.4	5.7	.45	1.5	252
19	5.6	5.0	5.2	4.5	4.3	3.8	3.5	2.0	1.4	.43	11	834
20	16	4.6	6.3	4.2	3.9	3.6	3.8	2.6	1.6	.42	3.9	51
21	9.0	4.4	6.9	4.5	4.1	3.5	3.6	8.3	15	.43	2.6	22
22	5.3	4.6	6.9	4.8	3.6	3.8	3.4	5.2	4.4	.45	1.5	12
23	4.5	4.4	6.6	4.8	3.5	3.8	2.7	2.7	1.8	1.1	1.4	9.5
24	6.4	4.6	6.4	4.7	3.5	3.8	2.5	3.9	1.1	.57	1.3	10
25	3.9	5.1	6.0	4.7	4.2	3.8	2.4	1.8	.81	.38	1.2	15
26	3.1	5.1	6.0	4.4	6.6	3.3	2.4	2.5	.74	.38	1.1	16
27	188	5.0	5.8	4.2	6.9	3.3	2.3	3.1	4.6	.42	1.0	10
28	65	5.2	5.9	4.2	5.7	3.3	2.4	1.7	87	.38	.87	9.2
29	11	5.2	6.0	4.2	------	3.3	2.6	1.3	13	.40	.81	8.4
30	7.9	5.3	6.2	4.2	------	2.9	2.6	1.0	2.3	.45	.80	8.1
31	7.1	------	6.6	4.2	------	3.1	------	.92	------	.46	.77	------
TOTAL	1,104.7	150.2	164.5	149.3	123.2	261.7	89.8	80.52	150.81	17.93	2,757.39	6,581.2
MEAN	35.6	5.01	5.31	4.82	4.40	8.44	2.99	2.60	5.03	.58	88.9	219
MAX	349	6.8	6.9	6.2	6.9	123	4.0	8.3	87	1.2	2,450	2,770
MIN	3.1	4.3	4.1	4.2	3.5	2.9	2.3	.92	.55	.38	.44	1.0
AC-FT	2,190	298	326	296	244	519	178	160	299	36	5,470	13,050

CAL YR 1970 TOTAL 13,447.60 MEAN 36.8 MAX 1,340 MIN 1.5 AC-FT 26,670
WTR YR 1971 TOTAL 11,631.25 MEAN 31.9 MAX 2,770 MIN .38 AC-FT 23,070

PEAK DISCHARGE (BASE, 2,300 CFS)

DATE	TIME	G.HT.	DISCHARGE
8- 4	0800	21.86	5,590
9-10	1900	24.69	10,400
9-19	0030	18.29	2,640

08164000 Lavaca River near Edna, Tex.

LOCATION.--Lat 28°57'34", long 96°41'10", Jackson County, at downstream side near center of upstream bridge of two bridges on U.S. Highway 59, 660 ft upstream from Texas and New Orleans Railroad Co. bridge, and 2.8 miles southwest of Edna.

DRAINAGE AREA.--826 sq mi.

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.88 ft above mean sea level. Prior to June 6, 1939, nonrecording gage (property of Corps of Engineers); June 6, 1939, to Apr. 3, 1957, nonrecording gage, at site 110 ft downstream; Apr. 4, 1957, to Mar. 21, 1961, nonrecording gage; all at same datum.

AVERAGE DISCHARGE.--33 years, 279 cfs (202,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,300 cfs Sept. 13 (gage height, 24.63 ft); minimum, 8.0 cfs July 31 to Aug. 2.
Period of record: Maximum discharge, 73,000 cfs July 1, 1940 (gage height, 32.51 ft); no flow at times.
Maximum stage since at least 1880, 33.8 ft May 25, 1936 (discharge, 83,400 cfs), from information by local resident.

REMARKS.--Records good. Small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1923: 1955. WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	70	36	34	31	38	32	26	16	91	8.0	31
2	39	60	36	35	30	37	31	28	15	60	8.0	38
3	36	57	36	36	30	33	32	27	14	38	16	126
4	34	51	36	34	31	31	31	25	14	30	284	91
5	36	50	35	33	31	32	32	24	13	25	2,980	47
6	39	48	35	32	30	31	30	26	13	21	6,100	35
7	37	46	34	32	150	30	30	25	13	19	7,040	28
8	46	44	34	31	64	30	34	23	13	17	1,440	24
9	49	43	34	32	38	30	32	23	13	15	400	22
10	39	40	34	32	33	30	30	23	13	15	266	39
11	335	39	33	33	32	30	30	22	12	15	200	3,060
12	1,770	39	33	33	31	31	31	23	12	16	158	7,860
13	2,020	39	34	34	30	32	33	21	11	15	132	11,800
14	1,240	39	34	34	31	32	30	21	12	17	113	4,760
15	409	37	34	34	31	97	32	22	13	17	99	696
16	200	36	33	33	31	68	29	21	13	14	86	647
17	138	36	33	33	31	47	37	21	11	12	75	443
18	108	36	33	33	30	41	34	21	13	11	67	299
19	91	36	35	32	31	37	29	20	15	10	59	2,190
20	83	37	35	31	32	37	26	20	196	9.9	55	4,440
21	77	36	35	31	32	40	25	20	98	9.6	52	2,230
22	72	36	37	32	31	34	29	19	68	9.9	53	610
23	116	36	38	32	30	33	31	20	38	10	45	457
24	104	35	37	33	31	32	27	25	26	11	41	374
25	82	35	36	33	31	32	27	55	20	11	38	286
26	71	35	34	32	36	33	26	40	18	10	35	291
27	66	35	34	31	37	36	26	30	16	9.9	33	250
28	150	35	34	31	34	36	26	23	436	12	31	255
29	436	36	34	32	------	34	29	19	1,290	12	29	310
30	161	36	34	32	------	32	29	17	257	11	28	216
31	89	------	34	32	------	32	------	17	------	9.2	26	------
TOTAL	8,186	1,238	1,074	1,012	1,040	1,148	900	747	2,712	583.5	19,997.0	41,955
MEAN	264	41.3	34.6	32.6	37.1	37.0	30.0	24.1	90.4	18.8	645	1,399
MAX	2,020	70	38	36	150	97	37	55	1,290	91	7,040	11,800
MIN	34	35	33	31	30	30	25	17	11	9.2	8.0	22
AC-FT	16,240	2,460	2,130	2,010	2,060	2,280	1,790	1,480	5,380	1,160	39,660	83,220

CAL YR 1970 TOTAL 100,938.0 MEAN 277 MAX 5,670 MIN 26 AC-FT 200,200
WTR YR 1971 TOTAL 80,592.5 MEAN 221 MAX 11,800 MIN 8.0 AC-FT 159,900

PEAK DISCHARGE (BASE, 4,100 CFS)

DATE	TIME	G.HT.	DISCHARGE
8- 7	0200	23.08	8,460
9-13	0500	24.63	13,300
9-20	1300	20.05	4,640

08164300 Navidad River near Hallettsville, Tex.

LOCATION.--Lat 29°28'01", long 96°48'44", Lavaca County, on right bank 28 ft downstream from bridge on U.S. Highway 90-A, 0.8 mile downstream from Mixons Creek, 1.2 miles southwest of Sublime, and 8 miles northeast of Hallettsville.

DRAINAGE AREA.--332 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 159.28 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 117 cfs (84,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,200 cfs Aug. 5 (gage height, 26.4 ft, from floodmark); minimum, 0.48 cfs July 25, 26.
Period of record: Maximum discharge, 19,500 cfs Sept. 22, 1967 (gage height, 30.34 ft); no flow Aug. 5-7, 22, Sept. 2-16, 1964.
Maximum stage since at least 1860, 40 ft in June 1940; flood in July 1936 reached a stage of 39 ft, from information by local residents and Southern Pacific Railroad Co.

REMARKS.--Records good. No known diversion above station.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	31	24	24	17	20	15	7.9	4.7	5.8	.6	12
2	15	29	23	23	17	19	14	7.4	4.5	4.5	1.2	83
3	15	26	23	23	17	18	13	6.9	4.2	3.7	6.1	25
4	14	25	22	23	18	16	13	6.6	3.8	3.1	3,170	17
5	15	25	21	21	18	16	14	6.5	3.5	2.8	6,120	14
6	177	24	21	20	18	17	14	6.7	3.3	2.2	288	12
7	63	24	20	20	18	16	13	8.0	3.1	1.8	96	11
8	31	24	20	20	18	15	12	8.4	2.9	1.5	72	9.8
9	23	23	21	21	17	16	12	7.5	2.7	1.4	48	9.1
10	19	22	21	22	17	16	12	7.3	2.4	1.4	57	934
11	88	21	21	22	17	16	12	8.1	2.2	1.5	37	4,980
12	1,010	21	20	22	17	17	12	113	2.1	3.3	31	2,300
13	79	21	19	22	17	19	12	30	2.0	2.4	27	154
14	39	20	19	22	16	21	12	15	1.8	1.5	25	75
15	27	20	20	22	16	21	11	11	1.7	1.2	22	58
16	22	20	20	21	16	18	11	9.4	1.6	1.0	20	76
17	20	19	20	20	16	17	16	8.1	2.6	.96	19	42
18	18	20	20	20	16	16	18	7.3	8.1	.87	17	43
19	19	22	20	19	15	16	16	6.8	3.6	.78	20	784
20	26	22	24	18	15	16	14	44	3.1	.78	27	82
21	21	21	26	18	15	14	13	22	12	.70	18	55
22	19	21	26	19	16	16	13	10	5.7	.62	16	47
23	709	21	24	19	16	16	12	8.0	3.7	.62	15	42
24	1,790	19	26	20	16	16	11	7.8	2.7	.62	14	39
25	145	19	28	20	16	16	10	21	2.2	.55	13	55
26	69	21	23	19	19	16	9.8	12	1.8	.55	19	40
27	125	23	22	18	25	16	9.7	8.0	33	.55	24	51
28	195	24	22	17	24	16	9.1	6.7	123	.70	18	46
29	45	24	23	17	------	16	8.9	5.9	39	.87	13	33
30	37	24	23	18	------	15	8.7	5.3	10	.78	12	30
31	33	------	24	18	------	14	------	4.8	------	.62	12	------
TOTAL	4,924	676	686	628	483	517	371.2	437.4	297.0	49.67	10,277.9	10,158.9
MEAN	159	22.5	22.1	20.3	17.3	16.7	12.4	14.1	9.90	1.60	332	339
MAX	1,790	31	28	24	25	21	18	113	123	5.8	6,120	4,980
MIN	14	19	19	17	15	14	8.7	4.8	1.6	.55	.60	9.1
AC-FT	9,770	1,340	1,360	1,250	958	1,030	736	868	589	99	20,390	20,150

CAL YR 1970 TOTAL 37,372.60 MEAN 102 MAX 2,910 MIN 3.1 AC-FT 74,130
WTR YR 1971 TOTAL 29,506.07 MEAN 80.8 MAX 6,120 MIN .55 AC-FT 58,530

PEAK DISCHARGE (BASE, 2,500 CFS).--Aug. 5 (0400) 10,200 cfs (26.4 ft, from floodmark); Sept. 11 (0100) 7,510 cfs (24.72 ft).

08164500 Navidad River near Ganado, Tex.

LOCATION.--Lat 29°01'32", long 96°33'08", Jackson County, at downstream side near center of upstream bridge of two bridges on U.S. Highway 59, 170 ft upstream from Texas and New Orleans Railroad Co. bridge, 0.2 mile downstream from Sandy Creek, and 2.5 miles southwest of Ganado.

DRAINAGE AREA.--1,063 sq mi.

PERIOD OF RECORD.--May 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.62 ft above mean sea level (levels by Corps of Engineers). Prior to May 7, 1958, nonrecording gage at site 70 ft downstream at same datum. Mar. 7, 1958, to Mar. 22, 1961, nonrecording gages at same site and datum.

AVERAGE DISCHARGE.--32 years, 502 cfs (363,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,300 cfs Sept. 13 (gage height, 27.67 ft); minimum, 4.0 cfs June 15.
Period of record: Maximum discharge, 64,500 cfs July 2, Nov. 26, 1940; maximum gage height, 36.54 ft July 2, 1940, from floodmark; no flow at times in 1955-56, 1967.
Maximum stage since at least 1876, 39.8 ft May 27, 1936, from information by local resident and Texas and New Orleans Railroad Co. (discharge, 94,000 cfs, from rating curve extended above 57,000 cfs).

REMARKS.--Records good. Numerous diversions for irrigation above station. Much of low flow during the April to September irrigation season comes from Sandy Creek. This low flow is drainage from rice fields irrigated by water originally diverted from the Colorado River. Water-quality records for the current year are published in Part 2 of this report.

Listed below are discharge measurements, in cubic feet per second, of Sandy Creek near mouth, 0.2 mile upstream from gaging station, during water year 1971:

Dec. 3	0.53	Apr. 21	59.4
Dec. 16	.43	Apr. 29	45.1
Feb. 12	12.8	June 3	4.17
Mar. 17	**.01	July 8	57.5
		Aug. 13	127

** Estimate.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	262	28	30	25	27	23	35	16	108	64	70
2	136	190	29	28	26	32	38	32	12	86	62	77
3	119	148	31	30	26	28	27	33	9.8	69	152	95
4	98	128	31	29	26	26	31	29	7.7	52	327	147
5	85	116	31	28	25	26	39	16	6.3	44	1,260	148
6	129	105	30	29	26	26	32	14	5.7	42	4,030	136
7	228	92	28	28	33	26	36	18	6.4	42	5,890	144
8	434	84	29	27	285	22	42	25	8.0	61	3,910	137
9	290	77	28	27	162	22	43	37	17	80	1,730	107
10	242	64	28	27	74	24	36	35	11	100	1,060	224
11	1,120	52	27	28	48	24	42	49	7.5	139	631	3,920
12	5,320	49	27	29	38	23	41	92	7.2	168	349	8,070
13	8,250	47	28	29	33	20	43	150	4.9	180	202	9,990
14	6,310	43	29	29	30	21	31	170	5.3	198	148	8,850
15	3,850	41	29	28	29	20	36	86	4.4	210	118	4,350
16	2,060	37	29	27	28	20	48	39	8.0	178	91	2,490
17	1,170	35	28	27	27	22	140	20	8.0	162	71	1,370
18	690	33	29	28	27	23	323	17	9.8	147	60	874
19	499	33	31	27	27	20	311	18	22	111	55	1,630
20	374	31	30	27	28	23	151	17	57	100	64	3,690
21	331	30	30	28	27	23	84	20	158	101	67	2,290
22	310	30	30	28	25	24	66	22	216	105	90	1,570
23	357	30	32	28	25	22	52	45	214	96	87	1,520
24	560	30	30	28	26	19	32	26	179	90	80	1,210
25	1,480	29	29	27	26	20	24	178	123	75	71	988
26	1,050	29	29	28	30	24	19	272	85	72	70	949
27	380	28	30	27	29	27	21	272	65	60	68	811
28	720	27	30	27	26	30	31	164	60	71	85	685
29	1,240	27	30	27	------	28	46	87	96	74	107	651
30	662	27	29	26	------	26	38	49	194	69	99	455
31	380	------	29	26	------	25	------	29	------	64	84	------
TOTAL	39,036	1,954	908	862	1,237	743	1,926	2,096	1,624.0	3,154	21,182	57,648
MEAN	1,259	65.1	29.3	27.8	44.2	24.0	64.2	67.6	54.1	102	683	1,922
MAX	8,250	262	32	30	285	32	323	272	216	210	5,890	9,990
MIN	85	27	27	26	25	19	19	14	4.4	42	55	70
AC-FT	77,430	3,880	1,800	1,710	2,450	1,470	3,820	4,160	3,220	6,260	42,010	114,300

CAL YR 1970 TOTAL 220,818.0 MEAN 605 MAX 8,600 MIN 20 AC-FT 438,000
WTR YR 1971 TOTAL 132,370.0 MEAN 363 MAX 9,990 MIN 4.4 AC-FT 262,600

PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
10-13	1900	26.88	8,790
8- 7	2200	24.40	6,280
9-13	1500	27.67	10,300

08164600 Garcitas Creek near Inez, Tex.

LOCATION.--Lat 28°53'28", long 96°49'08", Victoria County, at right downstream end of bridge on U.S. Highway 59 access road, 0.3 mile upstream from Southern Pacific Railroad bridge, 2.0 miles southwest of Inez, and 3.6 miles upstream from Casa Blanca Creek.

DRAINAGE AREA.--91.7 sq mi.

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 29.16 ft above mean sea level.

EXTREMES.--June to September 1970: Maximum discharge during period, 1,090 cfs Sept. 2 (gage height, 13.21 ft); minimum, 0.02 cfs July 5-8.
Water year 1971: Maximum discharge, 2,100 cfs Sept. 11 (gage height, 15.52 ft); no flow May 22, 23, May 26 to June 17.
Period of record: Maximum discharge, 2,100 cfs Sept. 11, 1971 (gage height, 15.52 ft); no flow May 22, 23, May 26 to June 17, 1971.
Maximum stage since 1903, 24.5 ft Oct. 26, 1960. In 1929, a flood nearly as high as the 1960 flood occurred, and a flood in September 1967 reached a stage of 23.4 ft, from information by local resident.

REMARKS.--Records good above 100 cfs and fair below. No known diversion above station. An undetermined amount of return water from irrigation enters stream above station. Recording rain gage at station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									-	1.4	.91	91
2									-	.74	1.0	814
3									-	.44	1.1	145
4									-	.03	1.0	59
5									-	.02	.91	41
6									-	.02	.83	23
7									-	.02	.81	15
8									-	.03	.64	9.9
9									-	.03	.42	6.6
10									-	.03	.42	5.2
11									-	.03	.42	4.4
12									-	.03	.42	4.2
13									-	.03	.42	5.3
14									-	.03	.42	32
15									4.1	.05	.37	21
16									3.9	.18	.31	22
17									3.5	.03	.31	11
18									2.0	14	.27	6.6
19									.11	.26	.27	4.6
20									1.6	.24	.27	4.0
21									5.4	.24	.27	3.6
22									.93	.27	.27	5.0
23									1.3	.29	.28	22
24									11	8.6	.27	14
25									20	.74	.27	9.6
26									19	.67	.27	6.8
27									12	.96	.27	5.4
28									7.9	2.5	.27	4.1
29					------				3.2	4.5	.27	.83
30					------				4.8	4.6	.27	.86
31		------			------		------		------	2.6	.27	------
TOTAL									-	43.61	14.50	1,396.99
MEAN									-	1.41	.47	46.6
MAX									-	14	1.1	814
MIN									-	.02	.27	.83
AC-FT									-	87	29	2,770

CAL YR 1969 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -

08164600 Garcitas Creek near Inez, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.91	5.8	.76	.92	.43	.67	.71	.30	0	57	.02	14
2	.91	.89	.82	.91	.36	.67	.50	.54	0	39	.02	18
3	.88	.40	.83	.88	.36	.54	.44	.62	0	26	.03	5.5
4	.91	.54	.73	.87	.38	.48	.83	.44	0	16	.05	2.1
5	1.0	.58	.67	.74	.40	.48	2.1	.32	0	10	.55	.49
6	1.2	.60	.59	.71	.36	.48	2.4	.51	0	2.8	2.5	.25
7	2.3	.63	.56	.67	.36	.42	1.3	.48	0	.06	86	.13
8	3.4	.64	.59	.67	.31	.36	.93	.34	0	.03	61	.07
9	2.9	.61	.63	.70	.27	.40	.82	.26	0	.03	40	.05
10	2.7	.60	.60	.74	.27	.42	.64	.24	0	.09	28	43
11	6.2	.56	.54	.80	.27	.37	.51	.16	0	.85	18	1,160
12	33	.57	.42	.83	.29	.36	.26	.16	0	1.7	4.5	1,770
13	47	.58	.42	.77	.27	.36	.11	.16	0	1.4	.94	577
14	24	.59	.42	.82	.25	.38	.11	.12	0	1.0	2.0	175
15	18	.52	.48	.67	.27	.70	.10	.08	0	.81	1.3	97
16	14	.48	.54	.60	.27	.49	.13	.03	0	.60	.45	62
17	11	.48	.74	.60	.24	.42	1.0	.06	0	.92	.25	40
18	10	.60	.74	.62	.24	.49	1.9	.05	.06	1.3	.13	31
19	9.2	.60	.74	.58	.27	.45	2.5	.04	.26	.83	.19	1,220
20	6.6	.60	.67	.54	.29	.83	1.7	.03	.03	.30	1.4	1,060
21	2.5	.60	.67	.51	.41	1.1	1.1	.02	14	.16	2.1	277
22	2.3	.67	.74	.54	.37	.89	.83	0	146	.09	2.0	136
23	87	.60	.82	.54	.36	.68	.67	0	96	.06	1.6	86
24	69	.48	.67	.54	.42	1.0	.61	.04	57	.04	.54	66
25	42	.54	.67	.54	.44	1.2	.66	.02	36	.03	.32	45
26	29	.67	.60	.54	.56	.94	.54	0	25	.03	.27	35
27	25	.67	.60	.48	.61	.82	.47	0	29	.03	.27	35
28	18	.67	.74	.48	.60	.99	.35	0	122	.03	.35	42
29	12	.67	.91	.48	------	1.6	.30	0	120	.03	.32	42
30	9.9	.67	1.0	.48	------	1.1	.25	0	83	.02	.27	26
31	7.5	------	1.0	.48	------	1.5	------	0	------	.02	.16	------
TOTAL	499.31	23.11	20.91	20.25	9.93	21.59	24.77	5.02	718.35	161.26	255.53	7,065.59
MEAN	16.1	.77	.67	.65	.35	.70	.83	.16	23.9	5.20	8.24	236
MAX	87	5.8	1.0	.92	.61	1.6	2.5	.62	146	57	86	1,770
MIN	.88	.40	.42	.48	.24	.36	.10	0	0	.02	.02	.05
AC-FT	990	46	41	40	20	43	49	10.0	1,420	320	507	14,010

CAL YR 1970	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-
WTR YR 1971	TOTAL	8,825.62	MEAN	24.2	MAX	1,770	MIN	0	AC-FT	17,510

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-12	2300	10.55	420	9-11	2300	15.52	2,100
10-23	1100	10.48	406	9-19	2100	15.37	2,020

08164800 Placedo Creek near Placedo, Tex.

LOCATION.--Lat 28°43'30", long 96°46'07", Victoria County, on right bank at downstream end of bridge on Farm Road 616, 0.1 mile downstream from confluence of Lone Tree Creek and Arroyo Palo Alto, 1.2 miles upstream from Ninemile Creek, and 4.4 miles northeast of Placedo.

DRAINAGE AREA.--68.3 sq mi.

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.58 ft above mean sea level.

EXTREMES.--June to September 1970: Maximum discharge during period, 2,510 cfs Sept. 2 (gage height, 20.0 ft); minimum, 0.38 cfs Aug. 13-17.
Water year 1971: Maximum discharge, 5,860 cfs Sept. 11 (gage height, 24.05 ft); no flow Sept. 8, 9.
Period of record: Maximum discharge, 5,860 cfs Sept. 11, 1971 (gage height, 24.05 ft); no flow Sept. 8, 9, 1971.
Maximum stages since 1930, 31.9 ft in September 1967 and 30.4 ft in 1960 (probably October), from information by local resident.

REMARKS.--Records good. No known diversion above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									-	8.1	15	630
2									-	9.1	8.5	1,650
3									-	8.3	4.9	310
4									-	6.7	3.4	94
5									-	3.6	2.4	44
6									-	2.4	1.7	26
7									-	1.7	1.4	14
8									-	1.2	.99	6.4
9									-	.95	.84	2.9
10									-	.84	.92	4.6
11									-	.72	.97	16
12									-	.72	.75	4.9
13									-	.72	.41	51
14									-	3.3	.38	44
15									-	2.1	.38	33
16									1.0	1.4	.38	1,270
17									.96	.94	1.3	710
18									.84	.83	2.7	112
19									.76	1.2	1.9	39
20									.71	1.3	4.7	152
21									.60	7.0	5.3	180
22									.71	75	2.6	60
23									3.2	36	1.6	35
24									31	17	1.1	20
25									110	50	.88	30
26									74	67	1.9	50
27									37	115	3.0	30
28									16	109	5.6	15
29					------				8.3	36	4.3	6.5
30					------				6.2	18	2.1	3.7
31		------			------		------		------	13	1.3	------
TOTAL									-	599.12	83.60	5,644.0
MEAN									-	19.3	2.70	188
MAX									-	115	15	1,650
MIN									-	.72	.38	2.9
AC-FT									-	1,190	166	11,190

CAL YR 1969 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -

08164800 Placedo Creek near Placedo, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	3.9	1.1	.72	.19	.04	.03	.24	.50	8.7	.86	1.6
2	.24	2.8	.92	.72	.17	.11	.01	.20	.35	5.0	.13	10
3	.09	1.9	.84	.62	.15	.21	.25	.24	.28	2.9	.04	3.6
4	.06	1.4	.76	.66	.19	.19	.05	.24	.15	1.5	15	2.7
5	.09	1.1	.72	.60	.24	.22	.03	3.6	.09	.84	150	1.4
6	4.2	.96	.72	.58	.24	.63	6.5	2.1	.07	.49	60	.4
7	2.2	.84	.60	.48	.33	.59	4.3	1.5	.07	.20	40	.1
8	.60	.84	.60	.48	.38	.60	1.9	.86	.07	.14	47	0
9	1.3	.84	.60	.55	.52	.60	2.4	.32	.05	.93	25	0
10	.15	.84	.64	.60	.60	.59	1.8	.21	.05	5.0	25	248
11	168	.84	1.2	.60	.59	.38	.23	.17	.04	6.9	9.7	5,210
12	403	1.1	1.2	.48	.98	.38	.07	.24	.04	6.4	6.0	4,720
13	140	1.3	1.1	.43	1.6	.38	.14	.25	.04	4.3	3.7	3,570
14	52	1.4	1.1	.38	1.5	.37	.06	.24	.03	2.0	2.2	1,280
15	24	1.4	1.1	.38	1.3	.25	.01	.19	.05	.89	1.6	569
16	15	1.2	1.1	.36	1.1	.22	.36	.12	.03	.99	1.8	349
17	13	1.1	1.0	.33	.60	.21	4.6	.12	.03	1.1	1.2	87
18	8.9	1.2	.96	.38	.49	.24	29	.10	1.0	.84	.72	46
19	6.8	1.2	.96	.31	.38	.21	12	.07	7.8	3.5	59	149
20	4.8	1.2	1.0	.24	.44	.19	5.2	.08	7.3	7.1	133	324
21	3.9	.96	1.1	.24	.50	.21	2.7	.07	56	5.9	21	134
22	6.6	.96	1.1	.24	.48	.23	1.5	.07	58	4.1	4.6	73
23	5.1	.96	1.0	.24	.44	.19	1.1	.07	13	1.9	1.6	47
24	3.6	.92	.92	.24	.31	.19	.65	.20	5.7	.53	.48	30
25	4.3	.88	.81	.24	.24	.18	.32	50	3.2	.11	.24	25
26	4.3	1.0	.72	.28	.63	.15	.30	25	1.6	.05	.09	57
27	4.1	1.1	.72	.24	.13	.16	.30	10	.69	.02	1.9	24
28	4.1	1.2	.73	.19	.06	2.9	.29	5.0	1.6	2.0	1.7	15
29	2.2	1.2	.84	.19	------	4.1	.27	2.0	16	4.0	.12	22
30	10	1.2	.84	.19	------	2.6	.35	1.0	18	4.5	2.9	22
31	6.6	------	.83	.19	------	.48	------	.70	------	2.8	.84	------
TOTAL	900.53	37.71	27.83	12.38	14.78	18.00	76.72	105.20	191.83	85.63	617.42	17,020.8
MEAN	29.0	1.26	.90	.40	.53	.58	2.56	3.39	6.39	2.76	19.9	567
MAX	403	3.9	1.2	.72	1.6	4.1	29	50	58	8.7	150	5,210
MIN	.06	.84	.60	.19	.06	.04	.01	.07	.03	.02	.04	0
AC-FT	1,790	75	55	25	29	36	152	209	380	170	1,220	33,760

CAL YR 1970	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-
WTR YR 1971	TOTAL	19,108.83	MEAN	52.4	MAX	5,210	MIN	0	AC-FT	37,900

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-11	2000	13.98	508	9-15	1900	15.47	754
9-11	1200	24.05	5,860	9-20	0300	13.05	415

08165300 North Fork Guadalupe River near Hunt, Tex.

LOCATION.--Lat 30°03'36", long 99°23'40", Kerr County, on right bank 410 ft downstream from Ranch Road 1340, 1.3 miles downstream from Bear Creek, 3.7 miles west of Hunt, and 4.1 miles upstream from Honey Creek.

DRAINAGE AREA.--168 sq mi.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,800.10 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 17,800 cfs Aug. 13 (gage height, 22.86 ft), from rating curve extended above 170 cfs as explained below; minimum, 0.75 cfs May 6.
Period of record: Maximum discharge, 17,800 cfs Aug. 13, 1971 (gage height, 22.86 ft), from rating curve extended above 170 cfs on basis of slope-area measurements of 7,460 and 17,800 cfs; minimum, 0.68 cfs May 30, 1969.
Maximum stage since at least 1900 occurred July 1, 1932, gage height 37.3 ft (discharge, 140,000 cfs, by slope-area measurements, combined flow of North Fork Guadalupe River 5 miles upstream and Bear Creek 2 miles upstream from mouth, and adjusted for difference in drainage area).

REMARKS.--Records good except those below 8 cfs and those for period of no gage-height record, which are poor. There is one permit upstream from station issued by the Texas Water Rights Commission that permits the impounding and use of 20.33 acre-ft per year on a game preserve.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	17	19	16	15	15	13	13	11	13	12	38
2	18	17	19	16	14	15	13	13	11	12	26	36
3	17	17	18	16	14	15	12	12	10	12	19	35
4	17	17	18	16	15	15	13	12	11	12	15	34
5	17	16	18	16	15	15	14	9.4	9.7	12	15	33
6	17	17	17	16	15	14	13	7.0	9.4	12	15	32
7	17	17	17	16	15	14	13	12	6.8	11	15	30
8	17	17	17	16	15	14	13	12	8.0	11	17	30
9	18	17	17	16	14	14	13	12	8.7	11	17	29
10	18	16	17	17	14	14	13	12	8.5	11	14	28
11	18	17	17	17	15	15	13	13	8.5	11	14	29
12	17	17	17	16	15	14	13	15	8.9	11	23	33
13	17	18	17	17	15	14	12	14	9.0	11	4,970	30
14	17	19	17	17	15	14	12	13	9.4	11	2,710	28
15	17	19	17	17	15	13	12	13	9.6	10	458	27
16	17	19	17	16	15	11	15	12	10	10	128	27
17	17	19	16	16	15	14	16	11	11	10	101	26
18	17	19	17	16	15	14	15	11	11	10	89	26
19	17	19	17	16	15	13	14	11	11	10	80	25
20	18	19	17	16	15	13	15	11	11	10	73	25
21	18	19	17	16	15	13	15	11	11	10	66	25
22	17	19	17	16	15	13	14	11	12	10	62	27
23	17	19	17	16	15	12	13	11	12	9.1	58	28
24	18	18	16	16	15	11	13	12	12	9.6	54	27
25	17	18	16	16	20	12	13	14	11	11	51	28
26	17	19	16	15	17	14	17	13	10	12	53	27
27	17	19	16	15	16	14	15	12	10	12	49	26
28	17	19	16	15	16	13	14	11	17	12	46	25
29	17	19	16	15	------	13	13	11	19	11	45	24
30	17	19	16	16	------	13	13	11	15	11	42	24
31	17	------	16	15	------	13	------	11	------	11	40	------
TOTAL	535	541	525	496	425	421	407	366.4	322.5	339.7	9,377	862
MEAN	17.3	18.0	16.9	16.0	15.2	13.6	13.6	11.8	10.8	11.0	302	28.7
MAX	18	19	19	17	20	15	17	15	19	13	4,970	38
MIN	17	16	16	15	14	11	12	7.0	6.8	9.1	12	24
AC-FT	1,060	1,070	1,040	984	843	835	807	727	640	674	18,600	1,710

CAL YR 1970 TOTAL 8,445.0 MEAN 23.1 MAX 136 MIN 11 AC-FT 16,750
WTR YR 1971 TOTAL 14,617.6 MEAN 40.0 MAX 4,970 MIN 6.8 AC-FT 28,990

PEAK DISCHARGE (BASE, 500 CFS).--Aug. 13 (0900) 17,800 cfs (22.86 ft); Aug. 14 (1900) 10,100 cfs (15.75 ft).

NOTE.--No gage-height record Feb. 25 to Apr. 1.

08165500 Guadalupe River at Hunt, Tex.

LOCATION.--Lat 30°04'08", long 99°19'23", Kerr County, on right bank 44 ft downstream from State Highway 39, 0.6 mile downstream from confluence of North and South Forks of Guadalupe River, 0.8 mile east of Hunt, and at mile 430.9.

DRAINAGE AREA.--288 sq mi.

PERIOD OF RECORD.--October 1941 to September 1949 (discharge not computed above 600 cfs), and April 1965 to current year. Occasional discharge measurements made 1950 to 1964.

GAGE.--Water-stage recorder. Datum of gage is 1,722.7 ft above mean sea level.

AVERAGE DISCHARGE.--6 years (1965-71), 61.2 cfs (44,340 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 26,500 cfs Aug. 13 (gage height, 18.00 ft), from rating curve extended above 3,700 cfs as explained below; minimum, 7.5 cfs July 21, 22.
Period of record: Maximum discharge, 47,000 cfs Aug. 13, 1966 (gage height, 21.4 ft, from floodmark), from rating curve extended above 3,700 cfs on basis of channel geometry and flow-over-dam measurement of peak flow; minimum, 6.9 cfs June 17, 1948.
Maximum stage since 1900, 36.6 ft July 2, 1932, from information by local residents, discharge 206,000 cfs, determined by slope-area measurement 4.5 miles downstream from gage.

REMARKS.--Records good below 6,000 cfs and fair above. Numerous diversions for irrigation above station, amounts unknown.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	36	39	35	34	38	29	33	26	26	23	64
2	36	36	39	36	33	37	28	32	26	25	53	66
3	35	35	39	37	34	35	28	31	26	22	54	60
4	35	36	39	35	35	34	28	30	21	21	44	53
5	35	35	37	33	34	35	29	30	21	21	44	49
6	35	37	37	33	33	35	29	28	20	20	44	48
7	34	39	36	34	34	34	29	27	17	19	41	50
8	33	39	37	35	34	33	31	30	14	18	40	47
9	31	38	38	36	34	34	35	33	13	20	41	45
10	30	38	39	37	34	34	32	29	14	20	36	43
11	32	37	37	36	35	36	30	28	13	19	34	45
12	33	37	37	36	34	39	29	35	14	17	63	59
13	33	37	37	38	34	35	28	45	15	17	4,730	54
14	32	36	38	38	35	34	29	33	16	17	2,460	48
15	32	36	38	36	35	32	29	29	17	15	870	45
16	31	35	37	34	35	30	49	23	20	14	262	43
17	30	37	37	34	36	26	53	23	21	14	210	41
18	31	38	37	35	36	35	41	22	21	14	167	39
19	35	38	37	34	36	29	37	21	19	15	144	37
20	35	39	37	33	35	33	41	21	20	15	131	40
21	33	39	38	34	35	34	41	18	21	12	119	39
22	34	39	38	35	34	32	38	23	19	16	110	47
23	34	37	37	46	34	31	36	23	20	16	104	54
24	32	36	36	43	34	30	35	24	20	18	96	50
25	33	37	35	35	46	25	34	28	19	23	88	70
26	35	39	35	34	53	27	36	29	18	24	89	69
27	35	40	35	33	45	33	40	26	17	27	91	65
28	34	41	36	34	38	34	35	25	23	27	81	58
29	33	40	37	34	------	31	34	24	32	24	76	55
30	33	39	36	34	------	30	33	25	29	24	72	54
31	35	------	35	34	------	30	------	26	------	21	68	------
TOTAL	1,041	1,126	1,150	1,101	1,009	1,015	1,026	854	592	601	10,485	1,537
MEAN	33.6	37.5	37.1	35.5	36.0	32.7	34.2	27.5	19.7	19.4	338	51.2
MAX	42	41	39	46	53	39	53	45	32	27	4,730	70
MIN	30	35	35	33	33	25	28	18	13	12	23	37
AC-FT	2,060	2,230	2,280	2,180	2,000	2,010	2,040	1,690	1,170	1,190	20,800	3,050

CAL YR 1970 TOTAL 17,178 MEAN 47.1 MAX 290 MIN 24 AC-FT 34,070
WTR YR 1971 TOTAL 21,537 MEAN 59.0 MAX 4,730 MIN 12 AC-FT 42,720

PEAK DISCHARGE (BASE, 1,000 CFS).--Aug. 13 (1115) 26,500 cfs (18.00 ft); Aug. 14 (1730) 9,920 cfs (13.91 ft).

08166000 Johnson Creek near Ingram, Tex.

LOCATION.--Lat 30°06'00", long 99°16'58", Kerr County, on right bank 1.6 miles upstream from Henderson Branch, 3.4 miles northwest of Ingram, 3.8 miles upstream from mouth, and 9.2 miles northwest of Kerrville.

DRAINAGE AREA.--114 sq mi.

PERIOD OF RECORD.--September 1941 to November 1959, October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,721.30 ft above mean sea level.

AVERAGE DISCHARGE.--28 years, 14.2 cfs (10,290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,320 cfs Aug. 14 (gage height, 9.33 ft); minimum, 3.8 cfs July 23, 24.
Period of record: Maximum discharge, 95,900 cfs Oct. 4, 1959 (gage height, 24.25 ft), from rating curve extended above 4,400 cfs on basis of slope-area measurements of 9,100 and 16,000 cfs and conveyance study; minimum daily, 0.4 cfs July 26, 27, 1956.
Maximum stage since at least 1852, 35 ft July 2, 1932, from information by local resident; discharge 138,000 cfs by slope-area measurement at point half a mile downstream from State fish hatchery and 6 or 7 miles upstream from gage. Flood of June 14, 1935, reached a stage of 31 or 32 ft, from information by local resident.

REMARKS.--Records good. Numerous small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1058: 1942-45. WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	12	13	13	13	15	8.8	9.9	8.4	11	9.6	22
2	17	12	17	14	13	15	9.9	9.6	8.0	8.9	49	20
3	15	12	15	14	12	14	8.1	8.9	8.0	8.4	23	19
4	16	13	15	13	13	13	8.8	9.3	8.2	8.3	17	16
5	15	13	18	13	11	13	9.6	9.1	7.9	7.8	15	19
6	23	13	13	13	12	13	8.6	9.5	7.8	7.8	14	17
7	17	11	13	13	12	13	8.8	9.4	7.6	7.1	16	17
8	15	11	14	13	13	13	8.3	9.1	7.1	6.7	15	19
9	17	10	14	13	12	15	8.5	9.5	6.9	6.6	13	17
10	16	11	14	12	11	13	9.7	9.9	7.5	5.8	12	16
11	15	15	14	13	12	10	9.2	13	6.8	7.6	11	17
12	18	14	13	13	14	12	9.4	14	5.5	6.7	24	19
13	16	13	13	13	12	12	9.3	11	5.2	5.4	1,290	16
14	15	11	13	12	12	11	9.0	10	5.4	5.9	1,890	15
15	14	10	14	12	12	11	8.8	9.4	5.5	6.0	234	15
16	14	11	12	13	12	11	26	9.2	9.3	5.6	93	16
17	14	11	13	13	14	11	27	8.9	12	6.1	67	17
18	15	12	14	13	14	11	17	8.4	9.8	6.2	53	15
19	18	12	13	13	12	11	15	7.6	9.0	6.1	45	15
20	16	15	14	13	11	10	19	7.9	11	5.3	41	16
21	16	17	14	13	11	11	17	10	9.7	4.7	38	20
22	16	16	13	14	12	11	15	7.3	9.2	5.2	33	22
23	15	15	13	13	12	11	14	6.9	10	4.1	30	19
24	14	14	13	14	13	10	13	15	10	9.7	28	19
25	14	14	14	13	27	11	13	12	8.9	16	25	25
26	12	14	13	14	24	11	14	10	8.6	13	26	21
27	15	14	13	13	16	11	13	10	8.3	12	29	17
28	15	14	13	13	15	10	12	8.7	17	9.7	26	16
29	12	14	13	14	------	9.0	12	7.9	17	8.6	23	16
30	12	14	18	13	------	8.5	11	7.9	15	8.5	22	17
31	12	------	14	14	------	7.9	------	8.8	------	9.0	29	------
TOTAL	476	388	430	407	377	358.4	372.8	298.1	270.6	239.8	4,240.6	535
MEAN	15.4	12.9	13.9	13.1	13.5	11.6	12.4	9.62	9.02	7.74	137	17.8
MAX	23	17	18	14	27	15	27	15	17	16	1,890	25
MIN	12	10	12	12	11	7.9	8.1	6.9	5.2	4.1	9.6	15
AC-FT	944	770	853	807	748	711	739	591	537	476	8,410	1,060

CAL YR 1970 TOTAL 7,323.8 MEAN 20.1 MAX 101 MIN 8.4 AC-FT 14,530
WTR YR 1971 TOTAL 8,393.3 MEAN 23.0 MAX 1,890 MIN 4.1 AC-FT 16,650

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.HT.	DISCHARGE
8- 2	0430	2.38	102
8-13	1100	9.14	7,850
8-14	1630	9.33	8,320

08167000 Guadalupe River at Comfort, Tex.

LOCATION.--Lat 29°57'55", long 98°53'49", Kendall County, on left bank at downstream side of pier of bridge on U.S. Highway 87, 0.1 mile downstream from Cypress Creek, and at mile 396.6.

DRAINAGE AREA.--838 sq mi.

PERIOD OF RECORD.--May 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,372.05 ft above mean sea level. Prior to Nov. 27, 1939, nonrecording gage.

AVERAGE DISCHARGE.--32 years, 145 cfs (105,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 60,700 cfs Aug. 13 (gage height, 27.67 ft); minimum, 5.6 cfs July 25, 26.
Period of record: Maximum discharge, 111,000 cfs (revised) Oct. 4, 1959 (gage height, 33.15 ft), from rating curve extended above 65,000 cfs on basis of slope-area measurement (made at former gaging station "near Comfort," 5 miles upstream) of 182,000 cfs (gage height, 38.4 ft); no flow at times in 1952-57, 1963-64.
Maximum stage since at least 1848, 40.3 ft in July 1869, from report by Corps of Engineers. Flood of July 1, 1932, reached a stage of 38.4 ft (from floodmark), from information by State Highway Department, and flood of July 16, 1900, reached about the same stage as that of July 1, 1932, from information by local residents.
REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the publications indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1312, 1682	1944	May 26, 1944	74,200	29.4
1242, 1682, 1732	1952	Sept. 10, 1952	45,600	25.44
1512, 1682, 1732	1957	Apr. 24, 1957	40,500	24.59
1712, 1682, 1732	1960	Oct. 4, 1959	111,000	33.15
WRD Texas 1966	1966	Aug. 13, 1966	37,000	23.99

REMARKS.--Records good. Many small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1632: 1958. WSP 1732: 1939(M). WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	77	80	73	64	76	47	52	37	81	33	250
2	90	77	79	73	64	76	47	49	37	71	57	234
3	88	75	78	75	64	71	43	48	33	62	102	222
4	85	75	78	75	66	64	47	45	24	54	96	210
5	84	75	78	69	64	64	49	40	24	48	169	194
6	84	77	77	68	64	64	48	43	20	43	105	186
7	85	78	77	68	62	62	48	40	19	33	80	178
8	85	79	75	69	62	60	48	40	14	24	78	174
9	79	79	78	71	62	62	47	35	13	20	72	178
10	75	77	78	72	62	62	49	37	12	16	68	167
11	80	77	77	72	62	62	54	127	10	14	67	167
12	94	77	74	72	62	62	52	82	9.8	14	3,400	167
13	88	78	74	73	60	63	47	55	11	14	27,300	174
14	83	77	75	73	60	63	48	54	13	14	7,490	164
15	81	73	75	73	62	59	45	54	19	12	6,430	155
16	79	73	77	71	60	55	53	49	26	10	1,450	152
17	78	73	72	71	60	55	92	43	37	8.7	1,020	146
18	78	74	73	69	62	52	96	37	47	8.1	815	143
19	83	74	75	68	67	52	80	33	40	8.1	670	138
20	86	74	77	67	66	53	75	31	40	8.1	572	140
21	85	75	78	68	63	52	72	28	37	7.2	506	140
22	85	78	79	68	62	53	72	22	31	6.0	446	236
23	158	78	80	68	55	57	67	24	33	5.8	392	246
24	81	75	77	69	57	54	63	38	28	6.0	362	222
25	77	77	75	75	66	55	59	59	26	6.0	330	190
26	78	77	74	71	96	54	59	53	26	5.8	310	202
27	92	77	74	66	96	53	59	48	26	30	330	182
28	88	78	74	66	84	52	59	47	53	38	362	158
29	79	79	74	67	------	55	57	40	75	37	300	149
30	78	80	74	66	------	52	54	33	73	31	270	152
31	77	------	73	66	------	52	------	35	------	24	280	------
TOTAL	2,653	2,293	2,359	2,172	1,834	1,826	1,736	1,421	893.8	759.8	53,962	5,416
MEAN	85.6	76.4	76.1	70.1	65.5	58.9	57.9	45.8	29.8	24.5	1,741	181
MAX	158	80	80	75	96	76	96	127	75	81	27,300	250
MIN	75	73	72	66	55	52	43	22	9.8	5.8	33	138
AC-FT	5,260	4,550	4,680	4,310	3,640	3,620	3,440	2,820	1,770	1,510	107,000	10,740

CAL YR 1970 TOTAL 56,272.0 MEAN 154 MAX 1,140 MIN 46 AC-FT 111,600
WTR YR 1971 TOTAL 77,325.6 MEAN 212 MAX 27,300 MIN 5.8 AC-FT 153,400

PEAK DISCHARGE (BASE, 2,600 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-12	1300	14.68	7,520
8-13	1630	27.67	60,700
8-15	0200	18.12	14,300

08167500 Guadalupe River near Spring Branch, Tex.

LOCATION.--Lat 29°51'38", long 98°22'58", Comal County, on right bank at downstream side of bridge on county road, 82 ft downstream from bridge on Ranch Road 311, 1.9 miles southeast of Spring Branch Post Office, 7.5 miles downstream from Curry Creek, and at mile 334.4.

DRAINAGE AREA.--1,315 sq mi.

PERIOD OF RECORD.--June 1922 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 948.10 ft above mean sea level.

AVERAGE DISCHARGE.--49 years, 263 cfs (190,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 43,600 cfs Aug. 14 (gage height, 31.36 ft); minimum, 5.4 cfs July 25, Aug. 1.
Period of record: Maximum discharge, 121,000 cfs July 3, 1932 (gage height, 42.10 ft), from rating curve extended above 70,000 cfs; no flow at times in 1951-52, 1954-56, 1963-64.
Maximum stage since at least 1859, about 53 ft in 1869; flood in July 1900 reached a stage of about 49 ft, from information by local resident.

REMARKS.--Records good. Several small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1562: 1923-24, 1926, 1927-28(M), 1929, 1930(M). WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	111	109	103	91	136	69	71	40	56	6.4	378
2	134	109	109	103	89	125	64	67	38	52	33	354
3	125	107	109	105	89	116	61	63	37	58	97	336
4	125	105	107	101	91	116	61	59	35	55	113	318
5	122	103	107	99	89	109	61	59	33	47	125	304
6	120	105	107	101	89	101	61	66	31	42	143	290
7	120	107	107	99	91	97	61	58	27	35	165	276
8	116	109	107	99	87	95	63	55	24	31	93	266
9	114	109	107	99	85	93	64	55	21	27	76	252
10	111	109	107	99	87	91	64	55	18	25	71	256
11	109	109	107	101	87	91	64	71	18	20	66	259
12	114	107	107	103	89	93	63	91	16	18	1,410	245
13	136	107	107	103	87	93	64	164	16	16	5,260	242
14	129	103	107	103	89	91	64	97	15	15	29,700	242
15	114	103	107	103	87	89	63	80	14	13	9,790	238
16	109	105	107	101	87	87	76	74	13	12	4,560	231
17	103	103	107	101	87	85	82	73	12	10	1,470	220
18	105	103	107	101	87	82	87	66	16	9.5	1,050	214
19	118	105	107	99	87	78	122	58	21	9.0	850	210
20	114	105	105	97	89	74	114	52	33	8.6	750	207
21	118	105	105	97	91	74	105	46	34	7.8	650	207
22	122	107	107	97	87	74	101	42	32	6.6	600	231
23	141	103	109	97	83	73	97	40	31	5.8	546	5,250
24	248	103	109	97	83	73	93	45	28	5.8	506	655
25	153	105	109	95	95	76	87	43	23	5.8	470	479
26	129	107	105	95	105	74	83	49	21	5.8	462	434
27	120	109	103	99	111	74	80	55	20	7.4	442	394
28	114	109	103	99	134	74	76	53	25	10	466	370
29	134	107	105	95	------	71	78	47	29	10	462	343
30	118	109	105	95	------	67	74	45	42	8.6	406	332
31	111	------	103	93	------	69	------	43	------	6.2	382	------
TOTAL	3,892	3,188	3,307	3,079	2,553	2,741	2,302	1,942	763	638.9	61,220.4	14,033
MEAN	126	106	107	99.3	91.2	88.4	76.7	62.6	25.4	20.6	1,975	468
MAX	248	111	109	105	134	136	122	164	42	58	29,700	5,250
MIN	103	103	103	93	83	67	61	40	12	5.8	6.4	207
AC-FT	7,720	6,320	6,560	6,110	5,060	5,440	4,570	3,850	1,510	1,270	121,400	27,830

CAL YR 1970 TOTAL 110,517.0 MEAN 303 MAX 1,820 MIN 69 AC-FT 219,200
WTR YR 1971 TOTAL 99,659.3 MEAN 273 MAX 29,700 MIN 5.8 AC-FT 197,700

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8-13	0700	11.65	6,760	8-15	2200	16.80	13,000
8-14	1300	31.36	43,600	9-23	1100	17.05	13,300

08167600 Rebecca Creek near Spring Branch, Tex.

LOCATION.--Lat 29°55'06", long 98°22'10", Comal County, on right bank 72 ft upstream from private road crossing, 2.9 miles upstream from mouth, 3.7 miles northeast of Spring Branch Post Office, and 6.3 miles south of Twin Sisters.

DRAINAGE AREA.--10.9 sq mi.

PERIOD OF RECORD.--January 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 985.55 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--11 years, 4.92 cfs (3,560 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14 cfs Oct. 23 (gage height, 2.28 ft); no flow for part of each day July 22, 23.
Period of record: Maximum discharge, 9,300 cfs Oct. 18, 1965 (gage height, 7.97 ft), from rating curve extended above 420 cfs on basis of critical-depth measurement of 4,340 cfs; no flow in 1963-65, 1967, 1971.
Maximum stage since at least 1885, 25.5 ft in September 1952. Flood in 1947 or 1948 reached a stage of 4 or 5 ft lower than flood in 1952, from information by local residents.

REMARKS.--Records good. Numerous dams forming recreational lakes at housing developments upstream. Number of dams and amount of impoundment unknown. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WSP 1923: Drainage area. WRD Texas 1968: 1966-67.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	1.2	.95	.74	.95	.74	.56	.40	.28	.10	.95
2	1.8	1.2	1.2	.95	.74	.74	.56	.56	.40	.28	.56	.74
3	1.8	1.2	1.2	.95	.74	.74	.56	.56	.40	.28	.74	.74
4	1.8	.95	1.2	.74	.74	.74	.56	.56	.40	.28	.74	.56
5	1.8	.95	1.2	.74	.56	.74	.56	.56	.40	.28	.74	.40
6	1.8	1.2	1.2	.56	.74	.74	.56	1.2	.40	.18	.74	.40
7	1.8	1.2	1.2	.56	.56	.74	.56	1.2	.18	.18	.56	.40
8	1.5	1.2	1.2	.56	.56	.74	.56	.95	.18	.18	.40	.40
9	1.5	.95	1.2	.56	.56	.74	.56	.95	.18	.18	.40	.28
10	1.5	.95	1.2	.74	.56	.56	.56	.95	.18	.10	.40	.28
11	1.2	.95	.95	.74	.56	.74	.56	1.5	.18	.10	.40	.74
12	1.2	.95	.95	.74	.56	.74	.56	.95	.18	.10	.95	.56
13	1.2	.95	.95	.74	.56	.74	.56	.95	.10	.10	1.5	.56
14	1.2	.95	.95	.74	.56	.74	.56	.95	.10	.18	1.5	.56
15	1.2	.95	.95	.74	.56	.56	.56	.95	.18	.18	1.5	.56
16	1.2	.74	.74	.74	.56	.56	1.5	.74	.28	.18	1.5	.74
17	1.2	.74	.74	.74	.56	.74	1.2	.56	.28	.18	1.2	.74
18	1.5	.74	.74	.74	.74	.56	.95	.56	.10	.10	1.2	.74
19	1.8	.74	.74	.56	.74	.56	.95	.56	.56	.04	1.2	.74
20	1.8	.74	.74	.56	.74	.56	.74	.56	.56	.10	1.2	.74
21	1.8	.74	.95	.74	.74	.56	.74	.56	.56	.04	1.2	.74
22	1.5	1.2	.95	.74	.74	.56	.74	.56	.56	.04	1.2	1.5
23	4.4	.95	.95	.74	.74	.56	.74	.56	.28	.04	1.2	1.5
24	2.1	.95	.95	.74	.74	.56	.56	.95	.28	.18	.95	1.5
25	1.8	1.2	.95	.74	.95	.56	.56	.56	.18	.40	.74	1.2
26	1.8	1.2	.95	.74	1.2	.56	.56	.56	.18	.28	1.2	.95
27	1.5	1.2	.95	.74	.95	.56	.56	.40	.28	.28	1.5	.95
28	1.2	1.2	.95	.74	.95	.74	.56	.40	.56	.10	1.2	.95
29	1.5	1.2	.95	.74	------	.74	.56	.40	.95	.04	1.2	.95
30	1.5	1.2	.95	.74	------	.74	.56	.40	.56	.10	.95	1.2
31	1.5	------	.74	.74	------	.74	------	.40	------	.10	.95	------
TOTAL	51.2	30.79	30.69	22.49	19.65	20.81	20.06	22.08	10.03	5.08	29.82	23.27
MEAN	1.65	1.03	.99	.73	.70	.67	.67	.71	.33	.16	.96	.78
MAX	4.4	1.5	1.2	.95	1.2	.95	1.5	1.5	.95	.40	1.5	1.5
MIN	1.2	.74	.74	.56	.56	.56	.56	.40	.10	.04	.10	.28
AC-FT	102	61	61	45	39	41	40	44	20	10	59	46

CAL YR 1970 TOTAL 2,264.43 MEAN 6.20 MAX 176 MIN .74 AC-FT 4,490
WTR YR 1971 TOTAL 285.97 MEAN .78 MAX 4.4 MIN .04 AC-FT 567

PEAK DISCHARGE (BASE, 100 CFS, REVISED).--No peak above base.

08167700 Canyon Lake near New Braunfels, Tex.
(Formerly published as Canyon Reservoir near New Braunfels)

LOCATION.--Lat 29°52'07", long 98°11'55", Comal County, in intake structure of Canyon Dam on Guadalupe River, 12 miles northwest of New Braunfels, and at mile 303.0.

DRAINAGE AREA.--1,432 sq mi.

PERIOD OF RECORD.--July 1962 to current year. Prior to October 1970, published as "Canyon Reservoir".

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Sept. 24, 1964, nonrecording gage at present site and datum.

EXTREMES.--Current year: Maximum contents, 432,500 acre-ft Aug. 17 (elevation, 914.41 ft); minimum, 343,700 acre-ft Aug. 1 (elevation, 903.64 ft).
Period of record: Maximum contents, 432,500 acre-ft Aug. 17, 1971 (elevation, 914.41 ft); minimum observed since conservation pool first reached in April 1968, 343,700 acre-ft Aug. 1, 1971 (elevation, 903.64 ft).

REMARKS.--Small diversions above the lake for irrigation. Lake is formed by a rolled earthfill dam 6,830 ft long, consisting of the main dam 4,410 ft long, earthen dike 210 ft long, and a 1,260-foot long uncontrolled broad-crested type spillway and a 950-foot concrete and earthen nonoverflow section. Flood-control outlet works consist of a 10-foot-diameter conduit controlled by two 5-foot 8-inches by 10-foot hydraulically-operated slide gates (elevation of invert, 775.0 ft). Deliberate impoundment of water began June 16, 1964, and main dam was completed in August 1964. Lake built for flood control and water conservation. Contents based on maps prepared in 1947. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	974.0	-
Crest of emergency spillway	943.0	740,900
Top of conservation pool	909.0	386,200
Invert of gate sill, flood-control outlet works	775.0	640

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

REVISIONS.--WRD Texas 1968: Drainage area.

Capacity table (elevation, in feet, and total contents, in acre-feet)

903.0	338,800	909.0	386,200
905.0	354,200	911.0	403,000
907.0	370,000	913.0	420,100
		915.0	437,700

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362,400	362,500	359,500	358,200	356,000	355,300	352,800	353,600	352,800	349,700	344,100	387,000
2	362,500	362,300	359,500	358,100	355,800	355,600	352,600	353,600	352,700	349,600	344,700	386,200
3	362,500	362,000	359,500	357,900	355,900	355,000	352,500	353,400	352,500	349,400	345,000	385,100
4	362,400	361,800	359,500	357,800	355,700	354,900	352,500	353,200	352,400	349,300	345,300	384,200
5	362,700	361,600	359,500	357,500	355,700	354,900	352,400	353,200	352,200	349,100	346,000	383,300
6	362,700	361,500	359,400	357,300	355,600	354,700	352,200	353,600	352,000	349,000	346,500	382,200
7	362,900	361,500	359,400	357,200	355,500	354,600	352,200	353,700	351,800	348,900	346,700	381,100
8	363,000	361,500	359,400	357,100	355,400	354,500	352,100	353,700	351,600	348,700	346,700	379,900
9	362,300	361,400	359,400	357,100	355,200	354,400	352,000	353,700	351,400	348,400	346,700	378,700
10	361,900	361,300	359,400	357,100	355,000	354,400	351,900	353,600	351,100	348,200	346,500	378,200
11	361,900	361,300	359,300	357,000	354,800	354,400	351,900	354,200	350,900	348,000	346,100	377,400
12	361,900	361,200	359,100	356,900	354,800	354,400	351,900	354,000	350,800	347,700	348,000	376,300
13	361,900	361,200	359,000	357,100	354,600	354,400	351,900	354,000	350,500	347,600	356,500	375,100
14	361,900	360,800	359,000	357,100	354,600	354,400	351,900	353,900	350,400	347,300	402,300	373,900
15	361,700	360,500	359,100	357,000	354,600	354,200	351,800	353,900	350,600	347,100	423,100	372,700
16	361,400	360,300	358,800	356,900	354,600	354,100	352,900	353,800	350,400	346,900	431,800	371,200
17	361,300	360,200	358,700	356,900	354,600	353,900	353,100	353,700	350,200	346,600	432,200	369,900
18	361,700	360,100	358,700	356,800	354,600	353,900	353,100	353,700	350,000	346,300	430,100	368,700
19	361,700	360,100	358,700	356,800	354,600	353,500	353,200	353,500	350,400	346,000	426,300	367,000
20	361,600	360,100	358,700	356,600	354,600	353,200	353,500	353,400	350,300	345,800	420,800	365,600
21	361,600	360,100	358,800	356,400	354,400	353,200	353,500	353,200	350,100	345,500	416,300	364,400
22	361,700	360,000	358,900	356,400	354,200	353,100	353,500	353,200	350,000	345,100	411,500	363,300
23	362,000	359,500	358,900	356,400	354,000	353,000	353,600	353,200	349,800	344,800	404,600	372,100
24	362,200	359,400	358,800	356,400	354,000	352,900	353,600	353,500	349,600	344,700	398,400	372,000
25	362,300	359,300	358,600	356,400	355,000	353,000	353,600	353,400	349,500	344,500	393,600	371,600
26	362,400	359,300	358,400	356,400	355,300	352,900	353,700	353,300	349,400	344,500	391,500	370,800
27	363,200	359,300	358,400	356,200	355,200	352,900	353,800	353,200	349,400	344,800	390,800	369,900
28	362,800	359,300	358,400	356,200	355,300	352,900	353,800	353,200	349,900	344,600	389,900	368,800
29	362,800	359,400	358,400	356,200	------	352,900	353,800	352,900	349,900	344,400	389,500	368,100
30	362,700	359,400	358,400	356,200	------	352,900	353,600	352,900	349,800	344,100	388,700	366,900
31	362,700	------	358,300	356,100	------	352,800	------	352,900	------	343,800	387,600	------
(†)	906.09	905.67	905.52	905.25	905.14	904.82	904.93	904.83	904.44	903.66	909.17	906.62
(+)	+400	-3,300	-1,200	-2,100	-800	-2,500	+800	-800	-3,000	-6,000	+43,800	-20,700
MAX	363,200	362,500	359,500	358,200	356,000	355,600	353,800	354,200	352,800	349,700	432,200	387,000
MIN	361,300	359,300	358,300	356,100	354,000	352,800	351,800	352,900	349,400	343,800	344,100	363,300

CAL YR 1970..... + -37,900 MAX 401,900 MIN 358,300
WTR YR 1971..... + +4,600 MAX 432,200 MIN 343,800

† Elevation, in feet, at end of month.
+ Change in contents, in acre-feet.

08167800 Guadalupe River at Sattler, Tex.

LOCATION.--Lat 29°51'32", long 98°10'47", Comal County, on right bank 200 ft upstream from Horseshoe Falls, 0.8 mile north of Sattler, 1.8 miles downstream from Canyon Dam, 2.3 miles upstream from Heiser Hollow, 11.2 miles north of New Braunfels, and at mile 301.2.

DRAINAGE AREA.--1,436 sq mi (1,432 sq mi is above Canyon Dam).

PERIOD OF RECORD.--March 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 742.24 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--11 years, 253 cfs (183,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,800 cfs Aug. 23 (gage height, 7.69 ft); minimum, 44 cfs Apr. 17 to May 6, May 8-11.
Period of record: Maximum discharge, 20,800 cfs Oct. 29, 1960 (gage height, 12.20 ft); no flow July 31 to Aug. 6, 1962 (result of closure of Canyon Dam), and part of Jan. 29, 30, Feb. 1, 1965 (result of closure while constructing control).
Flood in July 1869 (stage unknown) has not been exceeded since that date; flood in July 1900 (stage unknown) exceeded 39 ft; maximum stage since at least 1904, 39 ft in July 1932 and June 1935, from information by local residents.

REMARKS.--Records good. Flow completely regulated since July 21, 1962, by Canyon Lake (station 08167700) 1.8 miles upstream. Small diversions above station for irrigation.

Discharge measurements of unnamed tributary near mouth, 1.5 miles upstream from gaging station, in cubic feet per second, water year October 1970 to September 1971:

Nov. 2	0.51	Mar. 30	0.35
Jan. 4	a.30	June 1	.37
Mar. 1	.43	Sept. 1	a.28

Discharge measurements of emergency spillway channel below Canyon Dam, in cubic feet per second, water year October 1970 to September 1971:

Nov. 2	0.39	Mar. 30	0.33
Jan. 4	a.30	June 1	.32
Mar. 1	.27	Sept. 1	.38

Discharge of seepage from left abutment of Canyon Dam, in cubic feet per second, water year October 1970 to September 1971:

Nov. 2	a0.04	Mar. 30	0.13
Jan. 4	a.03	June 1	.10
Mar. 1	.13	Sept. 1	a.13

a Estimated.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	107	111	113	99	101	47	44	48	48	48	780
2	109	107	111	113	99	101	47	44	48	48	52	780
3	109	107	111	113	99	99	47	44	48	48	51	780
4	109	107	111	113	99	99	47	44	48	48	51	780
5	111	107	111	113	99	99	47	44	48	48	52	780
6	109	107	111	113	99	99	47	47	48	48	52	780
7	109	107	111	113	99	99	47	45	48	48	52	780
8	109	107	111	113	99	99	47	44	48	48	51	780
9	107	107	111	113	99	99	47	44	48	48	50	780
10	107	107	111	113	99	99	47	44	48	48	94	790
11	107	107	111	113	99	99	47	45	48	48	158	810
12	107	107	111	113	99	99	47	46	48	48	158	810
13	107	107	111	113	99	99	47	47	48	48	158	800
14	107	107	111	122	99	99	47	47	48	48	162	800
15	107	107	111	128	99	99	47	47	51	48	456	860
16	107	107	111	126	99	99	46	48	50	48	780	910
17	107	109	111	124	99	99	45	50	50	48	1,200	870
18	107	109	111	124	99	99	44	50	48	48	1,980	870
19	109	109	111	124	99	99	44	50	51	48	2,660	870
20	109	109	111	126	99	99	44	50	51	48	3,100	870
21	109	109	111	126	99	99	44	50	50	48	3,550	870
22	109	109	111	119	99	99	44	50	50	48	3,550	870
23	107	109	111	109	99	78	44	50	50	48	3,680	870
24	107	109	111	109	99	50	44	51	50	48	3,680	870
25	107	109	111	105	101	48	44	48	50	48	2,920	870
26	107	109	111	99	105	47	44	48	50	48	1,580	870
27	109	111	111	99	101	47	44	48	51	51	790	870
28	109	111	111	99	101	47	44	48	51	52	780	870
29	107	111	111	99	------	47	44	48	51	50	780	870
30	107	111	113	99	------	47	44	48	50	48	780	870
31	107	------	113	99	------	47	------	48	------	48	780	------
TOTAL	3,347	3,246	3,445	3,505	2,784	2,640	1,368	1,461	1,476	1,497	34,235	24,980
MEAN	108	108	111	113	99.4	85.2	45.6	47.1	49.2	48.3	1,104	833
MAX	111	111	113	128	105	101	47	51	51	52	3,680	910
MIN	107	107	111	99	99	47	44	44	48	48	48	780
AC-FT	6,640	6,440	6,830	6,950	5,520	5,240	2,710	2,900	2,930	2,970	67,910	49,550

CAL YR 1970 TOTAL 153,782 MEAN 421 MAX 1,170 MIN 103 AC-FT 305,000
WTR YR 1971 TOTAL 83,984 MEAN 230 MAX 3,680 MIN 44 AC-FT 166,600

08168500 Guadalupe River above Comal River, at New Braunfels, Tex.

LOCATION.--Lat 29°42'55", long 98°06'40", Comal County, on right bank at New Braunfels, 1.1 miles upstream from Comal River, 21.9 miles downstream from Canyon Lake, and at mile 281.1.

DRAINAGE AREA.--1,518 sq mi.

PERIOD OF RECORD.--December 1927 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 586.65 ft above mean sea level.

AVERAGE DISCHARGE.--43 years (1928-71), 355 cfs (257,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,800 cfs Aug. 24 (gage height, 5.54 ft); minimum, 49 cfs July 19.
Period of record: Maximum discharge, 101,000 cfs June 15, 1935 (gage height, 32.95 ft); no flow July 8, 9, July 17 to Aug. 20, 1956.
Maximum stage since at least 1845, 38 ft July 8, 1869, and in December 1913, from information by local residents.

REMARKS.--Records good. Small diversions for irrigation below station 08167800 and above this station. Since June 16, 1964, flow largely regulated by Canyon Lake (station 08167700) 21.9 miles upstream.

REVISIONS.--WSP 898: 1935. WSP 1562: 1932. WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	146	151	146	121	121	58	54	57	65	56	860
2	151	144	151	146	121	121	56	54	56	63	97	870
3	151	142	151	146	128	114	57	54	54	62	149	850
4	146	142	151	142	128	114	57	54	53	62	201	850
5	160	142	151	142	121	114	57	54	53	62	185	850
6	164	142	151	142	121	114	56	68	53	61	229	840
7	151	142	151	142	121	114	56	62	52	61	201	830
8	146	142	151	142	121	114	56	58	52	59	180	830
9	138	142	151	142	121	114	56	62	52	61	160	830
10	142	142	151	142	121	110	56	65	52	59	146	870
11	151	142	151	142	121	110	56	69	52	59	234	870
12	169	142	146	146	121	110	56	72	52	59	252	830
13	164	146	146	146	121	107	54	62	52	59	269	830
14	164	146	146	146	121	107	54	62	53	59	281	830
15	160	146	146	155	121	107	53	61	59	58	393	880
16	155	146	146	155	121	107	61	59	63	58	810	970
17	155	146	146	160	121	107	80	58	62	57	1,230	920
18	164	146	146	155	121	107	61	57	54	57	2,090	900
19	190	151	151	155	128	107	59	57	54	53	2,710	900
20	169	146	151	155	121	107	59	56	59	54	3,100	890
21	155	146	151	155	117	107	58	57	61	59	3,660	900
22	142	146	151	155	117	107	58	57	66	58	3,520	920
23	295	146	151	142	117	107	57	57	65	58	3,660	900
24	151	146	146	135	117	80	56	65	62	58	3,800	920
25	151	146	146	135	128	61	56	61	62	59	3,310	930
26	151	151	146	128	146	59	57	58	62	54	1,850	930
27	160	151	146	121	117	59	57	57	66	56	900	930
28	155	151	146	121	117	59	56	57	72	85	870	920
29	155	151	146	128	------	58	56	57	66	59	860	920
30	151	151	146	128	------	57	56	57	66	53	870	920
31	146	------	146	121	------	57	------	57	------	52	860	------
TOTAL	4,957	4,368	4,606	4,416	3,417	3,037	1,725	1,838	1,742	1,839	37,133	26,490
MEAN	160	146	149	142	122	98.0	57.5	59.3	58.1	59.3	1,198	883
MAX	295	151	151	160	146	121	80	72	72	85	3,800	970
MIN	138	142	146	121	117	57	53	54	52	52	56	830
AC-FT	9,830	8,660	9,140	8,760	6,780	6,020	3,420	3,650	3,460	3,650	73,650	52,540

CAL YR 1970 TOTAL 186,203 MEAN 510 MAX 1,400 MIN 138 AC-FT 369,300
WTR YR 1971 TOTAL 95,568 MEAN 262 MAX 3,800 MIN 52 AC-FT 189,600

08169000 Comal River at New Braunfels, Tex.

LOCATION.--Lat 29°42'21", long 98°07'20", Comal County, on right bank 200 ft upstream from San Antonio Street viaduct in New Braunfels and 1.1 miles upstream from mouth.

DRAINAGE AREA.--130 sq mi. Normal flow of river comes from springs; drainage area not applicable.

PERIOD OF RECORD.--1882 to current year (1882 to November 1927, discharge measurements only).

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1955. Datum of gage is 582.80 ft above mean sea level.

AVERAGE DISCHARGE.--39 years (1932-71), 282 cfs (204,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 530 cfs Oct. 23 (gage height, 4.65 ft); minimum daily, 92 cfs July 23.
Period of record: Maximum discharge, 35,000 cfs Sept. 11, 1952 (gage height, 36.14 ft, from floodmarks), from rating curve extended above 1,600 cfs on basis of slope-area measurements of 6,700 and 35,000 cfs; minimum daily, which includes pumpage from a well, 5.5 cfs June 7, 1956. No flow from Comal Springs from June 13 to Nov. 3, 1956.
Flood information begins with flood of July 8, 1869, which reached a stage of 36.91 ft, from painted and dated marks in old Remmert Brewery half a mile downstream, the flood of Oct. 17, 1870, reached a stage of 37.65 ft at same site (probably some backwater from Guadalupe River).

REMARKS.--Records fair. The flow from Comal Springs emerges from the Edwards and associated limestones in the Balcones Fault Zone. Flow of river is primarily from Comal Springs about 1 mile upstream, except during periods of local rain. Diurnal fluctuations from steam powerplant half a mile upstream.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	290	286	286	258	246	197	177	147	147	105	215
2	282	290	286	286	258	246	201	180	141	150	133	219
3	282	290	290	286	254	242	197	177	136	150	194	219
4	282	290	286	286	258	246	197	168	128	150	156	222
5	282	290	286	286	262	242	204	168	125	153	162	222
6	282	290	286	282	258	242	204	174	125	141	203	222
7	282	290	286	282	254	242	194	168	120	139	174	215
8	282	290	286	286	254	242	194	171	105	141	177	211
9	278	294	286	286	254	242	191	174	103	139	180	215
10	278	290	286	282	254	242	187	184	100	136	177	230
11	282	290	290	278	254	242	191	174	94	139	180	238
12	290	290	286	278	250	238	194	174	96	139	187	226
13	286	290	286	278	250	230	187	180	98	130	187	230
14	286	290	286	278	250	238	184	171	96	123	194	230
15	286	290	286	282	250	226	184	171	103	125	204	230
16	282	290	286	282	246	222	187	171	105	112	204	230
17	282	290	286	282	246	222	191	168	107	112	204	230
18	286	290	286	282	242	219	197	162	94	110	204	234
19	294	290	286	278	242	219	201	153	103	115	211	234
20	290	290	286	278	242	215	194	153	110	105	215	234
21	290	290	286	274	242	219	197	153	128	100	222	242
22	290	290	286	274	242	215	201	156	125	96	226	250
23	356	286	286	274	242	211	194	156	125	92	230	242
24	299	286	286	270	242	211	194	162	128	96	230	238
25	299	286	286	266	254	211	194	156	125	100	222	238
26	294	290	286	266	246	211	194	162	130	98	215	242
27	294	290	290	266	246	211	187	165	136	105	211	242
28	290	286	286	266	246	215	184	153	150	100	211	238
29	290	286	286	262	------	201	187	153	141	105	215	238
30	290	286	286	262	------	201	177	156	147	98	215	242
31	290	------	286	258	------	197	------	156	------	98	215	------
TOTAL	8,950	8,680	8,878	8,582	6,996	7,006	5,785	5,146	3,571	3,744	6,063	6,918
MEAN	289	289	286	277	250	226	193	166	119	121	196	231
MAX	356	294	290	286	262	246	204	184	150	153	230	250
MIN	274	286	286	258	242	197	177	153	94	92	105	211
AC-FT	17,750	17,220	17,610	17,020	13,880	13,900	11,470	10,210	7,080	7,430	12,030	13,720

CAL YR 1970 TOTAL 114,267 MEAN 313 MAX 948 MIN 250 AC-FT 226,600
WTR YR 1971 TOTAL 80,319 MEAN 220 MAX 356 MIN 92 AC-FT 159,300

PEAK DISCHARGE (BASE, 1,100 CFS).--No peak above base.

08170000 San Marcos River spring flow at San Marcos, Tex.

LOCATION.--Lat 29°52'06", long 97°55'38", Hays County, on left bank 0.7 mile downstream from bridge on Interstate Highway 35 and U.S. Highway 81, 1.2 miles southeast of courthouse in San Marcos, and 2.1 miles upstream from Blanco River.

DRAINAGE AREA.--93.0 sq mi. Normal flow of river comes from springs, drainage area of stream not applicable.

PERIOD OF RECORD.--May 1956 to current year. June 1915 to January 1916, March 1916 to September 1921, and May to September 1956, published as San Marcos River at San Marcos; records include some surface runoff. Periodic measurements of spring flow were made at this location outside periods of record since Nov. 14, 1894, and are published as miscellaneous measurements.

GAGE.--Water-stage recorder. Datum of gage is 536.82 ft above mean sea level. June 10, 1915, to Jan. 19, 1916, nonrecording gage at site 1.2 miles upstream and Mar. 13, 1916, to Sept. 7, 1921, water-stage recorder near present site, datum relations unknown.

AVERAGE DISCHARGE.--15 years (1956-71), 157 cfs (113,700 acre-ft per year).

EXTREMES.--Current year: Maximum daily spring discharge, 200 cfs Oct. 6, 7; maximum gage height, 4.63 ft Oct. 23 (flood runoff); minimum daily spring discharge, 94 cfs July 14.
Period of record: Maximum daily spring discharge, 298 cfs Jan. 22-24, 1968; maximum discharge, 76,600 cfs May 15, 1970 (gage height, 35.12 ft); minimum daily spring discharge, 46 cfs Aug. 15, 16, 1956.
Maximum stage since at least 1913, 38.6 ft Sept. 10, 1921 (from floodmark), present datum (backwater from Blanco River).

REMARKS.--Records good. Flow slightly regulated by utilities dam about 1.5 miles upstream. Entire flow of river is from San Marcos Springs, about 1.8 miles upstream, except during periods of local runoff. Springs emerge from the Edwards and associated limestones in the Balcones Fault Zone. Small diversion for operation of State fish hatchery, some of which is returned above gage.

REVISIONS.--WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	194	184	157	142	142	127	122	118	107	103	116
2	189	194	178	157	142	142	127	122	116	107	106	116
3	189	189	178	157	142	137	127	122	115	108	111	115
4	189	189	172	157	142	137	127	122	115	107	114	114
5	194	189	172	152	142	137	122	122	116	105	114	114
6	200	189	172	152	147	137	122	127	116	104	118	114
7	200	189	172	152	142	132	122	122	115	104	117	110
8	194	189	172	152	142	132	127	127	113	104	118	108
9	194	184	172	152	142	132	122	127	114	103	118	108
10	194	184	167	152	147	132	122	122	110	99	118	109
11	194	184	167	152	142	132	122	122	109	100	118	112
12	194	184	167	152	142	132	127	122	107	98	118	108
13	194	184	167	152	147	132	127	118	107	96	118	106
14	194	184	162	152	147	132	127	118	105	94	118	104
15	189	178	167	152	147	132	122	117	109	98	118	104
16	189	178	162	152	147	127	127	117	108	98	118	104
17	189	184	162	152	142	127	127	116	112	98	118	105
18	189	184	162	147	147	127	122	114	111	100	117	104
19	194	184	162	147	147	127	122	112	111	98	117	105
20	194	184	162	147	147	127	122	114	111	98	117	105
21	194	184	162	147	147	127	127	118	111	98	117	107
22	194	184	162	147	147	127	127	118	112	98	118	112
23	194	184	162	147	147	127	127	118	113	99	118	107
24	194	184	162	147	142	127	127	118	111	102	115	111
25	194	184	157	147	142	127	122	122	109	102	114	109
26	194	184	157	142	142	127	122	122	112	100	114	107
27	194	184	157	142	142	132	127	122	110	98	116	106
28	194	184	157	142	142	132	127	122	114	98	116	105
29	194	184	162	142	------	127	122	118	110	98	117	105
30	194	184	162	147	------	127	122	118	107	98	118	104
31	194	------	157	147	------	127	------	118	------	102	116	------
TOTAL	5,986	5,558	5,136	4,642	4,036	4,062	3,740	3,719	3,347	3,119	3,593	3,254
MEAN	193	185	166	150	144	131	125	120	112	101	116	108
MAX	200	194	184	157	147	142	127	127	118	108	118	116
MIN	189	178	157	142	142	127	122	112	105	94	103	104
AC-FT	11,870	11,020	10,190	9,210	8,010	8,060	7,420	7,380	6,640	6,190	7,130	6,450

CAL YR 1970 TOTAL 72,887 MEAN 200 MAX 285 MIN 152 AC-FT 144,600
WTR YR 1971 TOTAL 50,192 MEAN 138 MAX 200 MIN 94 AC-FT 99,560

08171000 Blanco River at Wimberley, Tex.

LOCATION.--Lat 29°59'33", long 98°05'28", Hays County, on left bank 1,000 ft upstream from bridge on State Highway 12, 1,200 ft downstream from Cypress Creek, 0.3 mile southeast of Wimberley, and at mile 29.4.

DRAINAGE AREA.--355 sq mi.

PERIOD OF RECORD.--August 1924 to September 1926, June 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 802.23 ft above mean sea level. Aug. 6, 1924, to Sept. 30, 1926, nonrecording gage at site 30 ft upstream at same datum.

AVERAGE DISCHARGE.--45 years, 112 cfs (81,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 95 cfs Oct. 5 (gage height, 0.77 ft), but may have been exceeded on Oct. 19 during period of no gage-height record; minimum, 8.4 cfs July 22, 24, 25.
Period of record: Maximum discharge, 113,000 cfs May 28, 1929 (gage height, 31.10 ft, from floodmarks), from rating curve extended above 30,000 cfs on basis of slope-area measurements of 95,000 and 113,000 cfs; minimum, 0.6 cfs Aug. 16, 1956.
Maximum stage since at least 1869, that of May 28, 1929; flood in July 1869 reached a stage of 23 ft, from information by local residents.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Numerous small diversions above station. At end of year, flow from 0.61 sq mi above this station was partly controlled by one floodwater-retarding structure with a capacity of 201 acre-ft below the flood-spillway crest, of which 185 acre-ft is floodwater-retarding capacity and 16 acre-ft is sediment-pool capacity. This structure was built during the current year. The capacity in this pool is allocated to sediment storage and will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1562: 1929, 1930-31(M), 1935-36(M), 1938(M), 1941-42(M), 1947(M), 1949(M). WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	46	36	32	25	28	20	20	20	23	14	16
2	54	44	36	32	25	26	20	18	18	23	21	15
3	52	42	36	32	25	26	20	18	16	18	21	15
4	50	42	36	32	25	25	20	18	16	16	20	15
5	66	40	36	30	25	26	20	20	15	15	23	14
6	67	40	36	30	25	26	20	21	15	14	25	12
7	58	40	36	28	25	25	20	21	15	14	23	12
8	54	40	36	28	25	25	20	21	14	12	21	12
9	52	40	36	28	25	25	21	20	14	11	20	11
10	50	38	36	28	25	25	21	20	14	11	16	15
11	50	38	36	28	25	25	21	25	14	10	15	32
12	50	38	36	28	25	25	21	21	14	10	16	21
13	48	38	36	28	23	25	20	20	12	9.1	18	18
14	47	36	36	28	23	25	20	18	11	9.1	28	16
15	46	36	36	28	25	25	20	18	12	9.1	30	15
16	45	36	34	28	25	25	32	18	14	9.1	25	15
17	44	36	34	28	25	25	34	18	14	9.1	23	15
18	43	36	34	28	25	23	28	16	15	10	21	15
19	70	36	34	28	26	23	25	16	14	10	20	15
20	65	36	34	28	26	23	26	16	18	9.1	18	15
21	56	36	34	28	25	23	26	16	18	9.1	16	16
22	52	36	34	28	23	23	25	16	20	9.1	16	31
23	50	36	36	28	23	23	23	15	16	10	15	23
24	60	36	34	28	23	23	23	23	14	9.1	16	21
25	55	36	32	28	29	21	21	21	12	10	15	21
26	50	36	32	26	36	21	21	20	14	12	15	21
27	46	36	32	26	28	21	21	18	14	14	15	21
28	55	36	32	26	28	21	21	18	14	11	15	21
29	55	36	32	26	------	21	21	18	14	10	15	21
30	50	36	32	26	------	21	21	18	15	12	16	21
31	48	------	32	26	------	21	------	18	------	12	15	------
TOTAL	1,644	1,138	1,072	876	713	740	672	584	446	369.9	587	531
MEAN	53.0	37.9	34.6	28.3	25.5	23.9	22.4	18.8	14.9	11.9	18.9	17.7
MAX	70	46	36	32	36	28	34	25	20	23	30	32
MIN	43	36	32	26	23	21	20	15	11	9.1	14	11
AC-FT	3,260	2,260	2,130	1,740	1,410	1,470	1,330	1,160	885	734	1,160	1,050

CAL YR 1970 TOTAL 60,204.0 MEAN 165 MAX 2,000 MIN 32 AC-FT 119,400
WTR YR 1971 TOTAL 9,372.9 MEAN 25.7 MAX 70 MIN 9.1 AC-FT 18,590

PEAK DISCHARGE (BASE, 1,800 CFS).--No peak above base.

NOTE.--No gage-height record Oct. 14 to Nov. 17.

08171300 Blanco River near Kyle, Tex.

LOCATION.--Lat 29°58'45", long 97°54'35", Hays County, on left bank 800 ft downstream from Tarbutton Ranch House (Hatchett Ranch), 2.2 miles southwest of Kyle, 4.2 miles downstream from Halifax Creek, and 6.3 miles upstream from bridge on U.S. Highway 81.

DRAINAGE AREA.--412 sq mi.

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 620.12 ft above mean sea level, Corps of Engineers bench mark.

AVERAGE DISCHARGE.--15 years, 139 cfs (100,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,890 cfs Aug. 5 (gage height, 10.90 ft); no flow for several days.
Period of record: Maximum discharge, 98,000 cfs May 2, 1958 (gage height, 36.3 ft, from floodmark), from rating curve extended above 37,000 cfs on basis of slope-area measurement of 139,000 cfs and slope-conveyance study; no flow at times in 1956-57, 1963-65, 1967, 1971.
Maximum stage since at least 1882, about 40 ft in May 1929, from information by local residents (discharge, 139,000 cfs). Flood of Sept. 11, 1952, reached a stage of 38.0 ft (discharge, 115,000 cfs).

REMARKS.--Records good. Small diversions above station for irrigation. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08171000. Most of the low flow of the Blanco River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin upstream from this station and below the station at Wimberley.

REVISIONS (WATER YEARS).--WSP 1923: 1957-58, 1960(M). WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	30	25	19	15	15	9.2	5.2	.61	.42	0	.11
2	35	28	25	19	15	16	8.6	4.5	.94	.30	0	.09
3	32	27	24	21	17	15	8.3	3.5	.80	.15	0	.05
4	30	27	24	19	18	14	8.6	2.6	.55	.09	0	.03
5	35	26	23	19	16	14	10	2.8	.34	.05	301	0
6	90	27	22	19	16	15	9.9	4.8	.21	.04	34	0
7	52	27	22	19	16	14	8.9	6.2	.15	.02	32	0
8	39	28	22	19	16	13	8.6	6.2	.07	.01	13	0
9	32	28	23	19	16	13	8.9	5.2	.05	0	7.6	0
10	30	27	22	19	16	14	9.2	4.8	.04	0	5.0	.03
11	32	27	22	19	16	14	9.2	7.8	.02	0	3.2	.18
12	33	27	22	19	15	14	8.6	15	.01	0	2.6	4.8
13	32	27	21	19	15	14	8.3	8.0	0	0	5.6	3.5
14	31	26	21	19	15	13	8.0	4.0	0	0	9.8	1.4
15	30	25	22	19	14	11	8.0	3.0	0	0	8.9	.73
16	29	26	22	19	15	11	9.6	2.6	0	0	10	.55
17	28	26	22	19	15	9.9	25	2.1	0	0	6.3	.46
18	29	27	22	19	14	10	19	1.6	0	0	4.0	.34
19	44	28	23	19	15	9.9	14	1.4	0	0	3.2	.27
20	38	28	23	19	15	9.9	9.9	1.2	0	0	2.5	.21
21	32	28	23	19	14	9.9	11	1.0	0	0	2.0	.21
22	31	28	23	19	13	12	11	1.1	0	0	1.6	.34
23	36	25	22	19	12	11	8.6	1.6	0	0	1.0	4.5
24	39	24	21	19	14	10	6.5	3.8	0	0	.87	4.2
25	35	25	20	19	18	12	6.2	7.1	0	0	.67	2.5
26	31	27	19	18	36	12	6.5	4.5	0	0	.46	2.0
27	31	28	20	17	20	12	6.2	2.5	0	0	.38	1.4
28	36	27	21	17	16	12	6.5	1.4	0	0	.27	1.2
29	36	26	21	17	------	10	6.2	1.0	0	0	.21	.87
30	32	26	21	17	------	9.5	6.0	.67	.06	0	.18	.67
31	30	------	20	16	------	8.6	------	.50	------	0	.15	------
TOTAL	1,107	806	683	579	453	378.7	284.5	117.67	3.85	1.08	456.49	30.64
MEAN	35.7	26.9	22.0	18.7	16.2	12.2	9.48	3.80	.13	.035	14.7	1.02
MAX	90	30	25	21	36	16	25	15	.94	.42	301	4.8
MIN	28	24	19	16	12	8.6	6.0	.50	0	0	0	0
AC-FT	2,200	1,600	1,350	1,150	899	751	564	233	7.6	2.1	905	61

CAL YR 1970 TOTAL 68,544.00 MEAN 188 MAX 3,580 MIN 19 AC-FT 136,000
WTR YR 1971 TOTAL 4,900.93 MEAN 13.4 MAX 301 MIN 0 AC-FT 9,720

PEAK DISCHARGE (BASE, 1,500 CFS).--Aug. 5 (1230) 2,890 cfs (10.90 ft).

08172000 San Marcos River at Luling, Tex.

LOCATION.--Lat 29°39'54", long 97°38'59", Caldwell-Guadalupe County line, on left bank 390 ft downstream from bridge on State Highway 80, 1.0 mile south of Luling, and 9.4 miles upstream from Plum Creek.

DRAINAGE AREA.--838 sq mi.

PERIOD OF RECORD.--April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 322.05 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 333 cfs (241,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,910 cfs Oct. 23 (gage height, 18.83 ft); minimum, 79 cfs July 20.
Period of record: Maximum discharge, 57,000 cfs Sept. 12, 1952 (gage height, 34.95 ft); minimum daily, 43 cfs Aug. 12, 1951. Maximum stage since at least 1859, 40.4 ft in 1869 or 1870, from information by State Highway Department. Flood of May 29, 1929, reached a stage of 37.1 ft and is the second highest known.

REMARKS.--Records good. At end of year, flow from 71.3 sq mi above this station was partly controlled by 17 floodwater-retarding structures with a total combined capacity of 20,930 acre-ft below the flood-spillway crests, of which 18,250 acre-ft is floodwater-retarding capacity and 2,680 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 201 acre-ft, of which 16 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Base flow is largely maintained by spring flow near San Marcos. Several diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 958: 1940. WSP 1312: 1940(M), 1945(M), 1947(M). WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	240	202	181	158	171	124	115	105	99	86	110
2	227	236	199	185	154	165	123	115	104	96	96	110
3	223	231	197	187	153	155	122	118	102	95	122	109
4	218	229	193	182	152	153	124	114	102	96	352	107
5	225	226	193	175	153	154	126	113	102	96	278	106
6	241	223	193	172	157	151	120	121	102	95	189	107
7	247	221	194	171	157	150	118	124	103	93	188	107
8	252	226	190	170	155	150	118	118	97	92	152	104
9	231	222	189	171	154	144	118	119	91	90	145	102
10	221	215	189	176	154	142	118	139	92	88	140	190
11	219	210	194	178	157	139	118	124	89	88	132	1,110
12	225	209	190	175	153	138	121	125	86	86	126	188
13	216	211	187	171	151	135	121	117	85	85	120	130
14	214	207	188	169	153	137	120	116	86	82	120	125
15	210	206	187	170	153	138	116	116	87	81	122	124
16	206	206	186	168	153	135	122	114	93	81	116	122
17	202	205	183	169	148	128	137	113	91	83	115	120
18	201	207	183	169	146	126	132	110	92	84	112	217
19	227	206	184	162	147	125	127	108	91	86	115	217
20	222	205	184	161	145	168	131	106	91	83	119	107
21	223	163	187	164	147	98	126	107	94	84	113	104
22	220	180	186	165	147	118	125	111	103	83	113	107
23	1,280	198	185	167	148	122	126	112	101	84	113	111
24	720	199	178	169	147	123	122	118	96	87	111	133
25	419	198	177	169	152	126	120	119	93	97	107	231
26	386	205	176	165	183	126	122	114	95	90	111	111
27	329	205	177	162	172	125	119	111	105	88	111	109
28	293	204	179	161	178	127	117	109	136	84	111	106
29	265	204	180	162	------	129	117	108	113	84	112	104
30	253	205	188	161	------	125	116	105	103	84	111	106
31	243	------	183	163	------	123	------	106	------	84	111	------
TOTAL	9,085	6,302	5,801	5,270	4,327	4,246	3,666	3,565	2,930	2,728	4,169	4,834
MEAN	293	210	187	170	155	137	122	115	97.7	88.0	134	161
MAX	1,280	240	202	187	183	171	137	139	136	99	352	1,110
MIN	201	163	176	161	145	98	116	105	85	81	86	102
AC-FT	18,020	12,500	11,510	10,450	8,580	8,420	7,270	7,070	5,810	5,410	8,270	9,590

CAL YR 1970 TOTAL 172,432 MEAN 472 MAX 14,400 MIN 163 AC-FT 342,000
WTR YR 1971 TOTAL 56,923 MEAN 156 MAX 1,280 MIN 81 AC-FT 112,900

PEAK DISCHARGE (BASE, 2,900 CFS).--Oct. 23 (1930) 2,910 cfs (18.83 ft).

08172400 Plum Creek at Lockhart, Tex.

LOCATION.--Lat 29°55'22", long 97°40'44", Caldwell County, on right bank 548 ft upstream from bridge on U.S. Highway 183, 2.7 miles north of Lockhart, 3.7 miles upstream from Town Creek, 4.5 miles downstream from Brushy Creek, and at mile 30.4.

DRAINAGE AREA.--112 sq mi.

PERIOD OF RECORD.--April 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 431.19 ft above mean sea level. Apr. 30, 1959, to July 25, 1968, at site 548 ft downstream at present datum.

AVERAGE DISCHARGE.--12 years, 40.4 cfs (29,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 412 cfs Mar. 13 (gage height, 8.80 ft); no flow most of time.
Period of record: Maximum discharge, 26,600 cfs Oct. 29, 1960 (gage height, 20.62 ft); no flow for several days each year. Maximum stage since at least 1905, 22 ft in June 1936 at present site; flood in 1951 reached a stage of 20 ft at present site, from information by local resident.

REMARKS.--Records good. No known diversion above station. At end of year, flow from 59.9 sq mi above this station was partly controlled by 14 floodwater-retarding structures with a total combined capacity of 23,980 acre-ft below the flood-spillway crests, of which 21,690 acre-ft is floodwater-retarding capacity and 2,290 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WRD Texas 1968: Drainage area. WRD Texas 1970: 1969(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.70					0	
2					0	.32					0	
3					0	.08					0	
4					0	.01					0	
5					0	0					35	
6					0	0					14	
7					0	0					5.2	
8					0	0					1.3	
9					0	0					.43	
10					0	0					.05	
11					0	0					0	
12					0	12					0	
13					0	80					0	
14					0	5.6					0	
15					0	4.8					0	
16					0	4.4					0	
17					0	3.1					0	
18					0	2.6					0	
19					0	1.8					0	
20					0	.98					0	
21					0	.16					0	
22					0	.04					0	
23					0	.01					0	
24					0	.01					0	
25					0	0					0	
26					11	0					0	
27					6.6	0					0	
28					1.7	.02					0	
29					------	.03					0	
30					------	0					0	
31		------			------	0	------		------		0	------
TOTAL	0	0	0	0	19.3	116.66	0	0	0	0	55.98	0
MEAN	0	0	0	0	.69	3.76	0	0	0	0	1.81	0
MAX	0	0	0	0	11	80	0	0	0	0	35	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	38	231	0	0	0	0	111	0

CAL YR 1970 TOTAL 20,538.59 MEAN 56.3 MAX 3,900 MIN 0 AC-FT 40,740
WTR YR 1971 TOTAL 191.94 MEAN .53 MAX 80 MIN 0 AC-FT 381

PEAK DISCHARGE (BASE, 2,000 CFS).--No peak above base.

08173000 Plum Creek near Luling, Tex.

LOCATION.--Lat 29°41'58", long 97°36'12", Caldwell County, near left bank on downstream side of pier of bridge on county road, 1.2 miles upstream from West Fork, 1.9 miles upstream from Southern Pacific Railroad Co. bridge, 2.2 miles upstream from McNeil Creek, 3.0 miles northeast of Luling, and at mile 7.3.

DRAINAGE AREA.--309 sq mi.

PERIOD OF RECORD.--March 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 326.57 ft above mean sea level.

AVERAGE DISCHARGE.--41 years, 93.3 cfs (67,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,350 cfs Oct. 23 (gage height, 16.08 ft); minimum, 0.32 cfs June 14, 15.
Period of record: Maximum discharge, 78,500 cfs July 1, 1936 (gage height, 25.7 ft, from floodmarks), from rating curve extended above 37,500 cfs; no flow at times.
Maximum stage since at least 1868, that of July 1, 1936; flood in December 1913 reached about same stage, from information by local residents.

REMARKS.--Records good except those for July 13 to Aug. 15, which are fair. Low flow slightly regulated by oilfield operation above station. At end of year, flow from 97.7 sq mi above this station was partly controlled by 21 floodwater-retarding structures with a total combined capacity of 38,160 acre-ft below the flood-spillway crests, of which 34,770 acre-ft is floodwater-retarding capacity and 3,390 acre-ft is sediment-pool capacity. One structure was built during the current and has a capacity below flood-spillway crest of 1,590 acre-ft, of which 156 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. No known diversion above station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1923: 1933. WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	48	9.2	9.7	12	14	5.3	2.0	3.0	3.5	1.5	3.2
2	5.3	42	9.2	9.2	11	10	5.3	5.9	3.0	2.7	3.0	3.0
3	5.0	40	9.2	9.2	11	8.4	5.0	3.8	3.0	2.2	130	4.1
4	5.0	37	9.7	8.8	12	7.9	5.3	3.2	2.7	1.8	585	3.0
5	4.7	34	9.2	8.4	12	8.4	5.6	3.2	2.4	1.6	570	3.0
6	9.7	30	9.2	7.9	11	8.4	5.6	3.8	2.2	1.6	525	2.7
7	9.2	27	9.2	8.4	11	8.4	5.6	4.7	2.2	1.4	185	2.4
8	6.6	24	9.2	8.8	11	8.4	5.6	5.0	2.0	1.4	60	2.4
9	6.2	18	9.2	9.2	10	8.4	5.9	5.0	2.0	1.4	20	2.4
10	5.9	16	9.7	9.7	9.5	8.4	5.9	5.3	1.6	1.4	6.0	13
11	5.9	15	9.7	9.7	12	8.8	6.2	6.6	1.4	1.4	4.0	164
12	6.6	14	9.7	9.7	8.4	9.7	6.2	5.9	1.4	1.4	3.8	22
13	8.4	13	9.7	10	9.7	133	5.3	6.6	.63	1.4	3.8	5.7
14	8.4	11	9.2	10	11	109	4.4	5.0	.32	1.4	3.8	3.5
15	7.0	11	7.0	11	11	37	5.0	3.8	1.9	1.4	3.8	3.2
16	6.2	10	7.4	11	16	13	5.3	3.8	2.2	1.4	3.8	5.0
17	5.9	9.2	11	10	11	14	11	3.8	1.6	1.4	3.8	5.0
18	5.9	9.2	8.4	10	7.9	13	11	3.5	1.8	1.4	3.8	4.4
19	18	9.2	8.4	9.7	8.4	11	6.6	3.5	1.6	1.4	4.1	5.0
20	19	8.8	8.8	8.8	8.8	8.8	6.2	3.2	1.6	1.4	4.1	3.2
21	11	8.8	9.7	9.7	7.4	8.4	5.9	2.4	1.8	1.4	4.1	3.2
22	8.4	8.4	10	11	7.4	7.0	5.9	3.0	1.8	1.4	3.8	3.0
23	1,520	7.4	10	12	7.9	6.6	5.3	3.0	3.0	1.4	3.5	3.2
24	1,740	7.0	9.7	12	7.9	6.2	4.7	4.4	4.4	1.4	3.8	7.3
25	101	7.0	8.8	12	9.7	6.2	4.4	6.2	2.2	1.4	3.5	35
26	75	8.4	8.4	11	18	6.6	4.4	5.3	1.8	1.4	3.5	7.6
27	66	8.8	8.4	11	25	7.0	4.4	4.1	1.6	1.4	6.1	5.0
28	61	9.2	9.2	11	20	6.6	4.4	3.5	9.3	1.4	3.2	4.1
29	55	9.2	9.2	11	------	7.0	4.1	3.2	16	5.0	3.2	4.1
30	55	9.2	9.7	12	------	6.6	3.2	3.0	5.6	6.0	3.0	3.5
31	51	------	10	12	------	5.3	------	3.0	------	3.0	3.2	------
TOTAL	3,897.6	509.8	285.4	313.9	318.0	521.5	169.0	128.7	86.05	58.2	2,165.2	336.2
MEAN	126	17.0	9.21	10.1	11.4	16.8	5.63	4.15	2.87	1.88	69.8	11.2
MAX	1,740	48	11	12	25	133	11	6.6	16	6.0	585	164
MIN	4.7	7.0	7.0	7.9	7.4	5.3	3.2	2.0	.32	1.4	1.5	2.4
AC-FT	7,730	1,010	566	623	631	1,030	335	255	171	115	4,290	667

CAL YR 1970 TOTAL 42,958.30 MEAN 118 MAX 5,010 MIN 3.8 AC-FT 85,210
WTR YR 1971 TOTAL 8,789.55 MEAN 24.1 MAX 1,740 MIN .32 AC-FT 17,430

PEAK DISCHARGE (BASE, 2,300 CFS).--Oct. 23 (2400) 4,350 cfs (16.08 ft).

08174600 Peach Creek below Dilworth, Tex.

LOCATION.--Lat 29°28'26", long 97°18'59", Gonzales County, on right bank at downstream side of bridge on U.S. Highway 90-A, 1.3 miles downstream from Mitchell Creek, 3.1 miles southwest of Dilworth, 6.4 miles upstream from mouth, and 8.5 miles southeast of Gonzales.

DRAINAGE AREA.--460 sq mi.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Prior to Feb. 11, 1960, nonrecording gage at same site and datum. Datum of gage is 213.53 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 132 cfs (95,630 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,780 cfs Sept. 13 (gage height, 21.32 ft); no flow at times.
Period of record: Maximum discharge, 23,800 cfs Oct. 19, 1960 (gage height, 31.28 ft); no flow at times in 1959-67, 1969-71.
Maximum stage since at least 1840, 35.3 ft in June 1940. A stage of 32.8 ft was reached June 30, 1936, but may have been affected by backwater from Guadalupe River, from information by local residents.

REMARKS.--Records good. Recording rain gage located at station.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	19	4.4	4.7	3.6	3.5	1.4	.60	0	3.2	0	20
2	3.0	14	4.4	5.0	3.4	3.0	1.2	.47	0	1.9	0	38
3	2.4	12	4.7	4.9	3.5	2.6	1.1	.36	0	1.1	4.2	30
4	2.0	11	4.9	4.8	3.6	2.4	1.0	.30	0	.79	416	10
5	4.3	9.9	4.7	4.5	3.5	3.1	1.1	.26	0	.79	515	5.2
6	814	9.2	4.4	4.4	3.7	3.3	1.1	.32	0	1.0	105	3.8
7	628	8.6	4.0	4.5	4.6	3.2	1.0	.30	0	.96	51	3.1
8	83	8.0	3.9	4.5	4.0	3.0	1.0	.26	0	.96	20	2.7
9	26	7.5	4.0	4.4	3.6	2.7	1.0	.30	0	1.0	8.7	2.8
10	14	6.7	4.1	4.4	3.4	2.3	1.0	.45	0	.72	5.8	70
11	10	11	4.2	4.5	3.4	2.1	.93	.65	0	.52	5.1	847
12	35	6.7	4.2	4.4	3.4	2.0	.89	1.9	0	.52	4.6	1,340
13	250	6.2	4.1	4.4	3.3	247	.86	8.9	0	.68	8.3	1,630
14	347	5.6	4.1	4.4	3.3	342	.82	12	0	.50	6.4	357
15	65	4.9	4.0	4.5	3.4	47	.82	6.0	0	.28	5.0	38
16	21	4.8	4.1	4.4	3.4	17	.96	4.0	0	.12	3.3	49
17	13	4.8	4.0	4.3	3.4	10	1.4	3.0	0	.02	2.4	84
18	9.0	4.8	4.0	4.2	3.4	7.0	2.5	2.0	0	0	1.7	28
19	8.1	4.7	4.2	4.1	3.5	5.0	2.8	1.0	0	0	1.7	45
20	34	4.7	4.6	3.9	3.4	4.0	2.5	3.0	4.4	0	1.7	88
21	39	4.7	4.5	3.9	3.3	3.5	3.0	15	6.4	0	2.2	25
22	17	4.5	4.7	3.9	3.2	3.0	2.5	7.0	1.7	0	2.0	9.2
23	128	4.3	4.8	3.9	3.2	2.8	2.8	3.0	1.0	0	1.9	6.7
24	658	4.1	4.8	3.9	3.2	2.5	2.3	8.0	1.2	0	1.8	8.4
25	1,130	4.0	4.4	3.9	3.0	2.2	1.9	4.0	1.2	0	1.7	193
26	613	4.2	4.2	3.9	3.0	2.0	1.5	1.5	.93	0	1.7	877
27	53	4.5	4.0	3.8	5.3	1.9	1.2	.70	1.0	0	1.8	579
28	117	5.0	4.1	3.7	5.2	1.8	1.1	.50	2.4	0	1.9	171
29	143	4.8	4.1	3.7	------	1.7	.93	.30	20	0	1.8	68
30	39	4.6	4.3	3.7	------	1.6	.75	.20	17	0	1.9	29
31	26	------	4.5	3.7	------	1.5	------	.10	------	0	21	------
TOTAL	5,335.5	208.8	133.4	131.2	100.2	736.7	43.36	86.37	57.23	15.06	1,205.6	6,657.9
MEAN	172	6.96	4.30	4.23	3.58	23.8	1.45	2.79	1.91	.49	38.9	222
MAX	1,130	19	4.9	5.0	5.3	342	3.0	15	20	3.2	515	1,630
MIN	2.0	4.0	3.9	3.7	3.0	1.5	.75	.10	0	0	0	2.7
AC-FT	10,580	414	265	260	199	1,460	86	171	114	30	2,390	13,210

CAL YR 1970 TOTAL 20,006.73 MEAN 54.8 MAX 1,600 MIN 0 AC-FT 39,680
WTR YR 1971 TOTAL 14,711.32 MEAN 40.3 MAX 1,630 MIN 0 AC-FT 29,180

PEAK DISCHARGE (BASE, 1,800 CFS, REVISED).--No peak above base.

08175000 Sandies Creek near Westhoff, Tex.

LOCATION.--Lat 29°12'54", long 97°26'57", De Witt County, on left bank 100 ft downstream from bridge on county highway, 1.9 miles upstream from Birds Creek, 2.0 miles northeast of Westhoff, and at mile 20.4.

DRAINAGE AREA.--549 sq mi.

PERIOD OF RECORD.--March 1930 to November 1934, August 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.27 ft above mean sea level. Prior to Nov. 9, 1934, water-stage recorder at site 150 ft upstream at datum 0.86 ft higher. Aug. 10, 1959, to Feb. 2, 1960, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--16 years, 110 cfs (79,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,980 cfs Sept. 18 (gage height, 20.71 ft); minimum, 0.10 cfs June 17, 18.
Period of record: Maximum discharge, 79,700 cfs Sept. 22, 1967 (gage height, 32.34 ft), from rating curve extended above 21,000 cfs on basis of slope-area measurement of 92,700 cfs; no flow at times.
Maximum discharge since at least 1864, 92,700 cfs July 2, 1936 (gage height, 33.1 ft, from floodmarks), on basis of computation of peak flow, at present site and datum. Flood in October 1913 reached a stage of 26.0 ft, present site and datum, from information by local residents.

REMARKS.--Records good. No diversions above station. Recording rain gage located at station.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.0	4.3	4.6	3.9	7.5	2.9	3.8	.67	156	.19	6.6
2	4.3	3.0	4.3	4.7	3.6	7.6	2.8	3.5	.70	38	.23	5.4
3	4.0	3.4	4.2	6.2	3.8	7.2	2.7	3.0	.82	20	.40	5.0
4	3.7	3.5	3.8	5.5	4.7	6.5	2.6	3.1	.78	12	145	6.0
5	3.7	3.6	3.5	4.9	4.6	5.9	2.3	3.2	.75	8.8	449	4.5
6	3.9	3.5	3.4	4.9	4.4	5.3	2.1	3.1	.76	6.8	355	4.3
7	4.2	3.3	3.1	4.9	4.3	4.8	2.3	3.0	.80	5.6	263	4.3
8	4.3	3.2	3.3	4.6	4.9	4.9	2.4	2.6	.76	5.2	162	4.0
9	4.3	3.7	4.0	4.6	4.8	5.1	2.5	2.4	.66	4.5	76	3.5
10	4.4	3.9	4.0	5.4	4.7	5.2	2.8	2.0	.56	3.8	35	253
11	4.4	3.9	3.8	6.4	4.7	5.1	2.8	1.7	.49	3.2	21	1,200
12	4.1	3.8	3.6	6.4	4.6	5.1	2.6	1.4	.40	2.2	13	1,320
13	4.1	3.9	3.4	6.3	4.5	4.9	2.4	1.2	.27	1.4	9.2	912
14	5.2	3.4	3.8	5.7	4.5	4.8	2.5	1.1	.17	1.0	7.7	525
15	5.0	3.0	5.4	5.2	4.7	5.0	2.6	1.0	.14	.67	6.7	188
16	4.6	3.0	5.6	4.9	5.0	4.8	3.0	.95	.12	.52	5.8	52
17	4.7	3.2	5.7	5.0	5.3	4.4	3.9	.96	.12	.51	5.4	25
18	4.7	3.0	5.4	5.6	4.9	4.1	3.6	.97	.37	.46	5.0	1,740
19	4.5	3.0	4.9	5.2	4.5	3.6	3.4	.92	13	.37	4.4	3,360
20	4.2	3.1	5.2	4.8	4.1	3.3	5.0	.76	40	.31	4.1	1,140
21	4.4	3.5	5.4	4.6	4.4	3.1	5.7	.70	35	.31	7.9	259
22	4.8	4.5	6.0	4.4	4.6	2.9	5.8	.71	21	.28	33	79
23	4.6	4.5	6.1	4.2	5.0	2.7	5.4	.86	8.1	.23	17	43
24	4.1	4.3	5.7	3.8	5.7	3.1	4.9	1.0	4.2	.21	9.3	27
25	3.7	4.2	5.6	4.2	5.7	3.2	4.8	1.0	2.6	.21	6.7	22
26	4.2	4.1	5.5	5.1	5.8	3.0	5.1	.89	2.1	.21	6.0	22
27	4.2	3.8	5.5	5.1	5.3	2.9	5.2	.76	8.5	.21	4.9	26
28	4.2	4.0	5.5	4.8	5.8	2.8	4.8	.71	236	.19	4.2	26
29	4.1	5.0	5.5	4.7	------	2.3	4.4	.56	1,010	.17	7.2	22
30	3.8	4.6	5.4	4.6	------	2.2	4.3	.44	557	.17	8.4	17
31	3.3	------	5.0	4.4	------	2.8	------	.51	------	.18	7.7	------
TOTAL	132.3	109.9	145.9	155.7	132.8	136.1	107.6	48.80	1,946.84	273.71	1,680.42	11,301.6
MEAN	4.27	3.66	4.71	5.02	4.74	4.39	3.59	1.57	64.9	8.83	54.2	377
MAX	5.2	5.0	6.1	6.4	5.8	7.6	5.8	3.8	1,010	156	449	3,360
MIN	3.3	3.0	3.1	3.8	3.6	2.2	2.1	.44	.12	.17	.19	3.5
AC-FT	262	218	289	309	263	270	213	97	3,860	543	3,330	22,420

CAL YR 1970 TOTAL 11,250.10 MEAN 30.8 MAX 570 MIN .20 AC-FT 22,310
WTR YR 1971 TOTAL 16,171.67 MEAN 44.3 MAX 3,360 MIN .12 AC-FT 32,080

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
6-29	1300	14.01	1,100
9-12	0100	15.50	1,420
9-18	2200	20.71	3,980

08175800 Guadalupe River at Cuero, Tex.

LOCATION.--Lat 29°03'57", long 97°19'16", De Witt County, on left bank at downstream side of bridge on U.S. Highways 77-A, 87, and 183, 2.1 miles upstream from Gohlke Creek, 2.4 miles southwest of Cuero, 4.2 miles downstream from Sandies Creek, and at mile 100.6.

DRAINAGE AREA.--4,934 sq mi.

PERIOD OF RECORD.--December 1902 to December 1906, August 1916 to December 1935, January 1964 to current year. Published as "near Cuero" 1902-6, and as "below Cuero" 1916-35. Gage-height records collected at site 7.1 miles upstream, upstream from Sandies Creek, from 1941 to 1966 are contained in reports of U.S. Weather Bureau and at present site since June 12, 1968.

GAGE.--Water-stage recorder. Datum of gage is 128.64 ft above mean sea level. Dec. 26, 1902, to June 1903, nonrecording gage at site 7.1 miles upstream at different datum (gage heights moved to the site 3.3 miles upstream from present site before computation); July 1903 to December 1906 nonrecording gage 3.3 miles upstream at different datum; Aug. 19, 1916, to Dec. 16, 1935, water-stage recorder at site 5.0 miles downstream at datum 3.19 ft lower.

AVERAGE DISCHARGE.--27 years (1903-6, 1916-18, 1920-35, 1964-71), 1,386 cfs (1,004,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,700 cfs Sept. 13 (gage height, 15.45 ft); minimum, 140 cfs June 16.
Period of record: Maximum discharge, 101,000 cfs May 30, 1929 (gage height, 35.2 ft, site and datum then in use), from rating curve extended above 45,000 cfs; minimum daily, 79 cfs Aug. 13, 14, 1967.
Maximum stage since at least 1900, probably occurred July 2, 1936 (44.33 ft, present site and datum), from information furnished by Texas Highway Department. Other floods at this station occurred Mar. 1, 1903 (43.0 ft, at different site and datum); Oct. 4, 1913 (37.57 ft, at different site and datum); Dec. 6, 1913 (34.57 ft, at different site and datum); Oct. 20, 1919 (32.2 ft, site and datum then in use); May 30, 1929 (35.2 ft, site and datum then in use); June 21, 1961 (37.0 ft, present site and datum); all from information by local residents.

REMARKS.--Records good. Flow below New Braunfels is partly regulated by a series of small power dams (combined capacity of six largest dams 33,550 acre-ft). At end of year, flow from 171 sq mi above this station was partly controlled by 40 floodwater-retarding structures with a total combined capacity of 60,200 acre-ft below the flood-spillway crests, of which 53,970 acre-ft is floodwater-retarding capacity and 6,230 acre-ft is sediment-pool capacity. Two structures were built during the current year and have a total combined capacity below flood-spillway crests of 1,790 acre-ft, of which 172 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Many small diversions above station. Upstream regulation above New Braunfels, same as that for Guadalupe River at Sattler (station 08167800).

REVISIONS.--WRD Texas 1968-69: Drainage areas at all sites.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	688	777	672	650	581	612	410	353	286	1,030	221	1,250
2	678	760	652	645	571	608	394	352	279	501	210	1,250
3	693	733	660	652	576	589	384	339	276	372	199	1,290
4	715	744	680	638	577	574	376	320	273	330	292	1,200
5	668	713	658	641	568	560	371	320	264	307	2,100	1,220
6	813	701	647	626	576	543	375	319	256	290	3,780	1,140
7	1,780	704	644	609	594	536	381	308	252	279	3,220	1,140
8	1,400	710	634	608	591	536	376	316	244	276	1,930	1,130
9	892	705	646	612	578	533	376	339	241	269	1,020	1,120
10	727	691	751	620	556	531	369	347	241	255	761	1,380
11	723	680	642	621	556	535	362	340	229	253	604	5,570
12	722	676	540	639	552	518	360	347	221	246	534	5,960
13	725	672	621	642	552	531	358	368	229	239	519	7,390
14	996	656	646	642	555	620	358	374	190	233	533	4,810
15	1,120	658	652	640	554	935	357	382	151	226	570	2,100
16	797	632	723	641	563	720	357	367	151	220	636	1,450
17	712	632	676	630	577	588	360	345	175	213	626	1,400
18	670	642	554	627	578	591	377	343	212	197	836	3,130
19	661	643	631	616	576	567	405	342	431	192	1,330	6,880
20	628	656	656	615	571	473	424	312	399	198	1,450	5,160
21	702	666	646	618	568	453	439	307	273	197	1,730	3,100
22	784	660	655	623	560	460	432	308	254	191	2,640	1,580
23	740	625	666	622	563	458	413	306	246	182	3,200	1,440
24	951	597	656	619	547	465	398	303	231	179	3,360	1,490
25	3,060	628	635	624	532	475	384	305	227	171	3,420	1,500
26	3,750	634	640	628	552	459	380	318	228	159	3,560	1,790
27	1,730	638	634	609	576	435	373	332	225	154	3,570	2,340
28	1,040	647	634	592	600	433	362	326	933	162	2,790	1,950
29	984	659	637	586	------	428	359	312	2,200	167	2,010	1,600
30	951	679	641	590	------	422	353	304	2,400	171	1,500	1,450
31	827	------	643	590	------	415	------	293	------	229	1,280	------
TOTAL	32,327	20,218	20,072	19,315	15,900	16,603	11,423	10,247	12,217	8,088	50,431	74,210
MEAN	1,043	674	647	623	568	536	381	331	407	261	1,627	2,474
MAX	3,750	777	751	652	600	935	439	382	2,400	1,030	3,780	7,390
MIN	628	597	540	586	532	415	353	293	151	154	199	1,120
AC-FT	64,120	40,100	39,810	38,310	31,540	32,930	22,660	20,320	24,230	16,040	100,000	147,200

CAL YR 1970 TOTAL 574,113 MEAN 1,573 MAX 9,050 MIN 540 AC-FT 1,139,000
WTR YR 1971 TOTAL 291,051 MEAN 797 MAX 7,390 MIN 151 AC-FT 577,300

PEAK DISCHARGE (BASE, 7,500 CFS).--Sept. 13 (1300) 7,700 cfs (15.45 ft); Sept. 18 (2400) 7,610 cfs (15.34 ft).

08176500 Guadalupe River at Victoria, Tex.

LOCATION.--Lat 28°47'35", long 97°00'45", Victoria County, on left bank just upstream from pier of upstream bridge of two bridges on U.S. Highway 59 in Victoria, 1,300 ft upstream from Southern Pacific Railroad Co. bridge, 15 miles upstream from Coleto Creek, and at mile 50.7.

DRAINAGE AREA.--5,198 sq mi.

PERIOD OF RECORD.--November 1934 to current year. Gage-height records collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 29.15 ft above mean sea level.

AVERAGE DISCHARGE.--36 years (1935-71), 1,585 cfs (1,148,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,740 cfs Sept. 12 (gage height, 22.48 ft); minimum, 168 cfs July 28, 29.
Period of record: Maximum discharge, 179,000 cfs July 3, 1936 (gage height, 31.22 ft); minimum daily, 14 cfs Aug. 20, 1956. Maximum stage since at least 1833, that of July 3, 1936. Flood of June 1, 1929, reached a stage of 30.2 ft, present site and datum.

REMARKS.--Records good. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures and upstream regulation, see Guadalupe River at Cuero (station 08175800). Many diversions above station. Records furnished by city of Victoria show that they have discontinued diversion for municipal use above station but discharged 6,380 acre-ft of sewage effluent below station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WRD Texas 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	762	865	725	690	626	634	465	390	328	1,810	213	1,320
2	747	824	714	697	623	645	452	388	321	855	256	1,250
3	739	814	701	693	623	631	439	381	314	551	256	1,260
4	764	782	710	688	627	619	447	368	301	420	299	1,250
5	754	797	716	684	617	610	443	359	299	366	562	1,200
6	740	768	693	690	618	599	414	355	316	338	2,850	1,190
7	982	756	687	672	639	583	414	352	273	317	3,730	1,130
8	1,600	757	684	659	636	581	420	342	266	302	2,880	1,140
9	1,080	759	681	660	637	580	416	347	259	290	1,440	1,120
10	838	752	691	662	625	577	415	364	254	287	970	1,340
11	798	741	799	667	609	579	407	373	256	275	767	6,060
12	971	731	654	669	606	578	399	368	249	268	651	9,240
13	784	744	612	687	597	567	397	369	240	259	593	7,510
14	785	717	671	687	602	575	391	391	243	254	581	6,930
15	997	713	699	686	603	738	389	399	237	247	583	4,060
16	937	706	706	682	600	858	432	406	196	239	634	1,950
17	784	686	767	686	605	692	441	391	178	231	651	1,560
18	750	691	698	674	614	622	403	367	196	225	692	1,670
19	735	697	612	668	618	622	415	366	225	214	925	6,530
20	730	694	700	661	612	596	460	369	471	204	1,240	7,090
21	697	705	702	664	609	533	483	346	457	206	1,310	4,960
22	806	717	696	669	601	519	488	339	315	207	1,880	2,590
23	800	701	707	670	594	519	481	337	271	202	2,640	1,770
24	768	667	710	671	593	517	458	461	263	194	3,150	1,580
25	1,270	656	698	668	582	527	441	371	247	185	3,260	1,650
26	3,690	684	680	670	633	529	429	340	240	186	3,340	1,690
27	2,980	689	687	669	590	518	427	349	245	179	3,490	2,130
28	1,360	689	683	650	613	498	416	359	325	171	3,270	2,660
29	1,010	702	681	638	------	487	405	354	1,030	169	2,420	1,950
30	1,010	715	690	633	------	476	402	342	2,520	173	1,740	1,650
31	934	------	687	631	------	470	------	337	------	177	1,400	------
TOTAL	32,602	21,919	21,541	20,795	17,152	18,079	12,889	11,380	11,334	10,001	48,673	87,430
MEAN	1,052	731	695	671	613	583	430	367	378	323	1,570	2,914
MAX	3,690	865	799	697	639	858	488	461	2,520	3,810	3,730	9,240
MIN	697	656	612	631	582	470	389	337	178	169	213	1,120
AC-FT	64,670	43,480	42,730	41,250	34,020	35,860	25,570	22,570	22,480	19,840	96,540	173,400

CAL YR 1970 TOTAL 605,651 MEAN 1,659 MAX 8,980 MIN 612 AC-FT 1,201,000
WTR YR 1971 TOTAL 313,795 MEAN 860 MAX 9,240 MIN 169 AC-FT 622,400

PEAK DISCHARGE (BASE, 7,800 CFS).--Sept. 12 (0600) 9,740 cfs (22.48 ft); Sept. 19 (2100) 8,080 cfs (19.96 ft).

08177000 Coleto Creek near Schroeder, Tex.

LOCATION.--Lat 28°49'53", long 97°11'10", Goliad-Victoria County line, on left bank 373 ft downstream from bridge on Farm Road 622, 2.5 miles northeast of Schroeder, 4.2 miles downstream from confluence of Twelvemile and Fifteenmile Creeks, 9.1 miles upstream from Perdido Creek, 11.1 miles west of Victoria, and at mile 21.8.

DRAINAGE AREA.--369 sq mi.

PERIOD OF RECORD.--January 1930 to December 1933, October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 87.59 ft above mean sea level. Prior to Dec. 31, 1933, nonrecording gage at site 0.7 mile downstream at same datum; Oct. 20, 1952, to Jan. 17, 1955, and Sept. 22 to Nov. 8, 1967, nonrecording gage at site 0.6 mile downstream at same datum. Jan. 18, 1955, to Sept. 21, 1967, water-stage recorder at same site and datum.

AVERAGE DISCHARGE.--22 years, 87.0 cfs (63,030 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,700 cfs Sept. 11 (gage height, 11.80 ft, from floodmark); no flow at times.
Period of record: Maximum discharge, 122,000 cfs Sept. 21, 1967 (gage height, 33.47 ft, from floodmark), from rating curve extended above 28,000 cfs on basis of slope-area measurement of peak flow; no flow for many days in 1956, 1963-65, 1971.
Maximum stages since at least 1872 at present site and datum, that of Sept. 21, 1967, Oct. 16, 1946, 26.0 ft (discharge, 63,700 cfs), and October 1925, 23.0 ft (discharge, 46,700 cfs), from information by local resident.

REMARKS.--Records good. No known diversions above station.

REVISIONS (WATER YEARS).--WSP 1312: 1930(M). WRD Texas 1968: 1967, Drainage area. WRD Texas 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.7	4.6	6.0	2.4	9.0	3.4	.36	0	50	.19	2.7
2	2.7	2.4	4.2	5.5	2.7	8.0	2.4	.25	0	36	7.7	2.1
3	2.4	2.1	4.2	6.5	3.8	6.0	2.4	.17	0	28	14	1.8
4	2.4	2.1	4.6	4.2	4.6	5.0	6.4	.10	0	23	125	1.8
5	3.0	2.1	4.6	3.8	3.0	5.5	6.9	.08	0	20	437	2.4
6	3.8	2.4	4.2	3.8	3.8	5.0	2.7	.10	0	17	233	1.8
7	3.8	3.0	4.2	3.8	3.4	4.2	1.5	.17	0	15	101	1.3
8	3.4	3.8	4.2	4.6	3.0	4.6	1.3	.08	0	14	40	1.1
9	1.8	3.4	4.6	5.5	3.0	5.0	1.1	.07	0	11	28	.9
10	1.5	2.4	4.6	6.0	3.0	5.0	1.1	.07	0	12	21	203
11	4.6	2.7	4.2	6.5	3.8	5.0	.90	.07	0	13	16	6,200
12	8.5	2.7	3.8	6.5	3.4	5.5	.90	.07	0	11	14	4,220
13	9.5	3.0	4.6	6.5	3.0	5.0	.90	.04	0	9.0	11	621
14	7.0	2.7	5.5	6.5	3.0	5.0	.90	.02	0	8.5	10	205
15	4.6	2.4	6.0	6.0	3.4	4.2	.75	.02	0	8.0	8.5	114
16	3.4	2.7	6.0	5.5	3.4	4.2	2.6	.01	25	7.0	8.0	181
17	2.7	3.0	5.0	5.5	3.4	3.8	7.0	0	4.4	6.5	7.0	108
18	2.7	3.4	5.0	4.2	3.8	4.2	4.6	0	2.7	5.5	7.0	1,610
19	2.7	3.8	6.0	3.0	3.8	3.0	2.7	0	93	4.2	6.5	2,220
20	2.7	3.8	7.5	3.0	3.8	3.0	7.3	0	170	3.8	6.5	346
21	2.7	3.4	7.5	3.4	4.2	3.4	8.5	0	127	3.0	6.5	142
22	5.5	3.8	7.0	4.2	3.4	4.2	3.8	0	548	2.1	6.0	94
23	6.5	2.1	6.5	4.2	3.4	3.8	2.7	0	66	1.8	5.0	76
24	4.2	2.4	5.0	4.2	4.2	3.8	1.3	1.7	32	1.5	4.2	94
25	3.8	3.0	4.6	4.6	4.6	4.2	1.1	6.0	22	.90	3.8	169
26	3.4	3.8	4.6	3.8	14	3.8	1.3	2.1	17	.51	3.4	164
27	4.4	4.2	5.0	3.0	12	3.8	1.3	.43	17	.43	4.8	180
28	7.0	4.2	5.5	3.0	9.5	4.6	1.1	.10	1,350	.36	12	160
29	4.2	4.6	6.5	3.8	------	3.4	.51	.04	304	.21	5.0	80
30	3.0	4.6	7.0	4.2	------	2.4	.51	.01	94	.10	3.0	52
31	2.7	------	6.5	3.4	------	2.7	------	0	------	.06	2.4	------
TOTAL	123.6	92.7	163.3	144.7	122.8	140.3	79.87	12.06	2,872.1	313.47	1,157.49	17,254.9
MEAN	3.99	3.09	5.27	4.67	4.39	4.53	2.66	.39	95.7	10.1	37.3	575
MAX	9.5	4.6	7.5	6.5	14	9.0	8.5	6.0	1,350	50	437	6,200
MIN	1.5	2.1	3.8	3.0	2.4	2.4	.51	0	0	.06	.19	.90
AC-FT	245	184	324	287	244	278	158	24	5,700	622	2,300	34,230

CAL YR 1970 TOTAL 11,662.80 MEAN 32.0 MAX 953 MIN 1.5 AC-FT 23,130
WTR YR 1971 TOTAL 22,477.29 MEAN 61.6 MAX 6,200 MIN 0 AC-FT 44,580

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
6-28	1500	9.11	4,030
9-11	1100	11.80	9,700
9-18	2200	10.43	6,510

08177700 Olmos Creek at Dresden Drive, San Antonio, Tex.

LOCATION.--Lat 29°29'56", long 98°30'36", Bexar County, on right bank 30 ft downstream from low-water bridge on Dresden Drive at San Antonio, 0.15 mile west of intersection of Blanco Road and Dresden Drive, and 4.0 miles upstream from Olmos Dam.

DRAINAGE AREA.--21.2 sq mi.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 726.10 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 282 cfs Aug. 3 (gage height, 6.20 ft); minimum, 0.01 cfs for many days.
Period of record: Maximum discharge, 620 cfs Aug. 24, 1969 (gage height, 6.86 ft); no flow at times.
Maximum stage since 1935, 8.5 ft in September and November 1947, from information by local resident.

REMARKS.--Records good except those below 5 cfs, which are poor. Recording rain gage located at station, with three additional recording rain gages located in watershed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.07	.07	.03	.03	.07	.03	.03	.01	.35	.27	.07
2	.03	.07	.07	.03	.03	.03	.03	.01	.01	.13	35	.07
3	.03	.03	.07	.03	.07	.01	.03	.01	.01	.07	103	.13
4	.03	.03	.07	.03	.03	.03	.03	.01	.01	.03	1.5	.03
5	.13	.07	.07	.03	.03	.07	.03	.01	.01	.03	14	.01
6	.07	.13	.07	.03	.01	.03	.03	.99	.01	.03	12	.01
7	.03	.13	.03	.03	.01	.03	.03	.07	.01	.03	1.5	.01
8	.03	.13	.03	.03	.01	.03	.03	.03	.01	.03	.50	.01
9	.03	.07	.07	.03	.01	.07	.03	.01	.01	.03	.35	.01
10	.03	.07	.07	.03	.01	.07	.03	.01	.01	.03	.35	8.8
11	.03	.07	.07	.03	.03	.07	.03	1.6	.01	.03	.35	24
12	1.4	.03	.07	.03	.01	.07	.03	.35	.01	.03	23	.50
13	.50	.03	.07	.03	.01	.07	.03	.07	.12	.03	5.7	.22
14	.22	.03	.07	.03	.03	.03	.03	.03	3.4	.03	3.9	.22
15	.13	.03	.07	.03	.03	.03	.03	.01	.97	.03	1.2	.63
16	.07	.03	.07	.03	.03	.03	11	.01	.50	.03	1.2	.22
17	.07	.03	.07	.01	.03	.03	1.3	.01	.13	.03	1.0	.07
18	1.3	.07	.07	.01	.03	.01	.22	.01	.07	.01	.82	.03
19	4.0	.07	.07	.01	.03	.01	.13	.01	.35	.01	.82	.07
20	.50	.07	.07	.01	.01	.03	.13	.03	.13	.01	.82	.22
21	.35	.07	.13	.01	.03	.07	.13	.03	11	.01	.66	1.0
22	.22	.07	.13	.03	.01	.07	.07	.03	1.4	.01	.50	22
23	.13	.07	.13	.03	.01	.07	.07	.03	.35	.01	.50	7.4
24	.13	.07	.13	.03	.01	.07	.03	11	.22	.01	.35	.66
25	.13	.07	.07	.03	1.9	.07	.03	.66	.13	.01	.35	.29
26	.13	.07	.07	.03	2.2	.07	.07	.22	.07	1.8	.22	.13
27	.40	.07	.07	.03	.13	.03	.03	.07	2.1	1.9	.13	.13
28	.22	.07	.07	.03	.07	.03	.03	.03	1.5	.03	.13	1.1
29	.07	.07	.07	.03	------	.03	.03	.01	15	.03	.03	2.5
30	.07	.07	.03	.03	------	.01	.03	.01	.66	.03	.22	1.2
31	.07	------	.03	.03	------	.03	------	.01	------	.03	.13	------
TOTAL	10.62	1.96	2.25	.83	4.84	1.37	13.75	15.41	38.22	4.87	210.50	71.74
MEAN	.34	.065	.073	.027	.17	.044	.46	.50	1.27	.16	6.79	2.39
MAX	4.0	.13	.13	.03	2.2	.07	11	11	15	1.9	103	24
MIN	.03	.03	.03	.01	.01	.01	.03	.01	.01	.01	.03	.01
CFSM	.02	.003	.003	.001	.008	.002	.02	.02	.06	.008	.32	.11
IN.	.02	.003	.003	.001	.008	.002	.02	.03	.07	.008	.37	.13
AC-FT	21	3.9	4.5	1.7	9.6	2.7	27	31	76	9.7	418	142
(††)	1.70	0	.20	.06	.73	0	1.48	2.19	3.14	.17	8.39	4.10

CAL YR 1970 TOTAL 473.31 MEAN 1.30 MAX 106 MIN .01 CFSM .06 IN .83 AC-FT 939 †† 22.63
WTR YR 1971 TOTAL 376.36 MEAN 1.03 MAX 103 MIN .01 CFSM .05 IN .66 AC-FT 747 †† 22.16

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 3 (1100) 282 cfs (6.20 ft).

†† Weighted-mean rainfall, in inches, based on four rain gages.

08177800 Olmos Reservoir at San Antonio, Tex.

LOCATION.--Lat 29°28'30", long 98°28'23", Bexar County, in San Antonio, on left bank 147 ft upstream from upstream face of dam, on Olmos Creek, 1.5 miles upstream from Brackenridge Park Zoo, 1.8 miles downstream from Missouri Pacific Railroad bridge, and 4.0 miles downstream from gaging station on Olmos Creek at Dresden Drive, San Antonio (08177700).

DRAINAGE AREA.--32.4 sq mi.

PERIOD OF RECORD.--June 1968 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is mean sea level.

EXTREMES.--Current year: Maximum elevation, none above 694 ft (base elevation for storm hydrographs).
Period of record: Maximum elevation, 696.65 ft May 26, 1970 (contents, 541 acre-ft).

REMARKS.--Olmos Dam is a concrete gravity type with a maximum height of 50 ft and a length of 1,740 ft. There is a 24-foot wide roadway (Olmos Drive) along top of dam at elevation 728.5 ft above mean sea level. The outlet structure consists of six vertical slide-gate controlled concrete conduits with entrance dimensions 6.5 ft wide by 8.5 ft high with an invert elevation of 680.0 ft. The gates are maintained and operated by the city of San Antonio Fire Department as required to control downstream floodflow. The reservoir basin is maintained empty except during flooding when it is used as a detention reservoir. The reservoir has a capacity of about 15,500 acre-ft and a surface area of about 1,050 acres at top of dam, elevation 728.5 ft above mean sea level. The dam is owned by the city of San Antonio. A recording rain gage located at station. This station is part of the San Antonio urban hydrologic network with one gaging station, one stage-rainfall station, and three rain gages in basin above the reservoir. Elevations and contents are not published for floods that do not produce maximum contents of 312 acre-ft (elevation, 694 ft) or more.

08178000 San Antonio River at San Antonio, Tex.

LOCATION.--Lat 29°24'34", long 98°29'41", Bexar County, on left bank 143 ft downstream from South Alamo Street Bridge in San Antonio, 2.1 miles upstream from San Pedro Creek, and at mile 232.0.

DRAINAGE AREA.--41.8 sq mi. Flow of river comes from intermittent spring flow and from artesian wells; drainage area of stream not applicable.

PERIOD OF RECORD.--January 1915 to November 1929, February 1939 to current year. Ground-water discharge into river is discussed by Petit and George, Texas Board of Water Engineers Bull. 5608, vol. 1 (1956, p. 45). December 1895 to June 1906, periodic discharge measurements only.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 605.26 ft above mean sea level. Jan. 26, 1915, to Feb. 27, 1916, nonrecording gage at site 2.2 miles upstream at different datum. Feb. 28, 1916, to Apr. 7, 1920, nonrecording gage at site 1.9 miles upstream at different datum. Apr. 8, 1920, to Nov. 16, 1929, and Feb. 15, 1939, to Apr. 25, 1967, water-stage recorder in vicinity of South Alamo Street Bridge at 7.00 ft higher datum. Apr. 25, 1967, to May 13, 1969, water-stage recorder at site 307 ft downstream at same datum.

AVERAGE DISCHARGE.--46 years, 49.7 cfs (36,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,610 cfs June 21 (gage height, 9.22 ft); no flow part of each day Sept. 12, 13, 23, 25, 26, 29.

Period of record: Maximum discharge, 15,300 cfs Sept. 10, 1921 (gage height, 20.14 ft, from floodmark at former site and datum), from rating curve extended above 2,000 cfs on basis of slope-area measurement of peak flow; no flow at times due to regulation.

Maximum stage since 1819, that of Sept. 10, 1921; flood of July 5, 1819, equaled or exceeded that of Sept. 10, 1921.

REMARKS.--Records good. Floodflow is regulated by Olmos flood-control reservoir (capacity, 15,500 acre-ft) about 8.5 miles upstream. Dam completed in 1926. Springs emerge intermittently from Edwards and associated limestones in Balcones Fault Zone.

REVISIONS (WATER YEARS).--WSP 1312: 1917. WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	15	13	12	23	13	12	13	14	9.0	17
2	9.3	14	15	16	13	9.7	12	9.8	12	11	169	15
3	8.7	14	15	14	13	12	12	12	13	12	727	17
4	7.2	13	14	14	14	12	10	12	13	11	93	16
5	13	14	14	13	13	12	13	12	12	11	79	12
6	9.9	13	12	14	13	12	13	40	9.9	10	119	14
7	9.5	14	15	14	10	9.9	13	9.3	11	11	59	14
8	30	12	15	16	12	12	13	13	11	11	7.5	14
9	9.3	14	16	15	13	12	13	11	11	12	4.7	15
10	8.8	14	15	15	14	12	13	13	13	13	12	171
11	4.0	14	15	15	15	14	11	58	12	11	14	364
12	7.4	14	14	14	14	15	13	21	12	14	171	12
13	9.3	14	12	15	13	13	13	5.5	9.2	12	51	5.8
14	13	13	14	14	11	10	13	9.3	12	12	82	11
15	14	12	14	18	14	15	13	12	100	12	15	11
16	13	14	14	15	13	13	115	9.4	10	11	114	14
17	13	15	14	12	13	12	63	12	1.9	11	16	11
18	22	15	14	14	13	13	11	12	10	8.7	13	11
19	55	15	14	13	13	11	6.6	12	23	12	9.9	9.5
20	5.7	14	13	13	13	11	14	13	25	12	8.5	12
21	16	14	14	14	10	10	13	12	249	12	14	15
22	21	12	16	14	12	13	13	58	84	12	12	148
23	21	13	15	14	12	12	13	.06	9.0	11	15	131
24	14	13	15	12	13	12	12	109	7.7	11	12	18
25	12	14	16	14	38	13	12	17	11	11	12	4.4
26	15	12	16	14	26	12	16	13	14	12	15	8.1
27	15	15	13	14	9.4	13	15	13	51	19	15	20
28	14	14	16	14	6.5	11	13	12	33	25	15	99
29	14	12	16	14	------	13	13	12	49	15	21	27
30	13	15	15	13	------	12	12	10	30	12	16	25
31	13	------	14	11	------	12	------	13	------	11	15	------
TOTAL	440.1	408	450	435	385.9	386.6	529.6	577.36	871.7	382.7	1,935.6	1,261.8
MEAN	14.2	13.6	14.5	14.0	13.8	12.5	17.7	18.6	29.1	12.3	62.4	42.1
MAX	55	15	16	18	38	23	115	109	249	25	727	364
MIN	4.0	12	12	11	6.5	9.7	6.6	.06	1.9	8.7	4.7	4.4
AC-FT	873	809	893	863	765	767	1,050	1,150	1,730	759	3,840	2,500

CAL YR 1970 TOTAL 9,276.50 MEAN 25.4 MAX 806 MIN 4.0 AC-FT 18,400
WTR YR 1971 TOTAL 8,664.36 MEAN 22.1 MAX 727 MIN .06 AC-FT 16,000

08178700 Salado Creek (upper station) at San Antonio, Tex.

LOCATION.--Lat 29°30'57", long 98°25'51", Bexar County, on upstream side of upstream bridge of two bridges on Interstate Highway 410 in San Antonio, 1.0 mile west of Northeast School, 1.2 miles upstream from Perrin-Beitel Creek, and 2.7 miles east of San Antonio International Airport.

DRAINAGE AREA.--137 sq mi.

PERIOD OF RECORD.--September 1960 to current year.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 684.60 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 5.80 cfs (4,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 176 cfs Aug. 3 (gage height, 3.94 ft); no flow Nov. 3, 9-23.
Period of record: Maximum discharge, 13,000 cfs Dec. 3, 1965 (gage height, 11.58 ft); no flow at times.
Maximum stage since at least 1853, 23 to 24 ft in October 1913. Flood in September 1921 reached a stage of 18 ft, and flood of Sept. 27, 1946, reached a stage of 18.2 ft, and are the highest since 1899.

REMARKS.--Records good. No known diversion above station. Recording rain gage located at station. At end of year, flow from 5.74 sq mi above this station was partly controlled by one floodwater-retarding structure with a capacity of 2,290 acre-ft below the flood-spillway crest, of which 2,090 acre-ft is floodwater-retarding capacity and 200 acre-ft is sediment-pool capacity. This structure was built during the current year. The capacity in this pool is allocated to sediment storage and will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.28	.19	.49	.49	.65	.90	.90	.49	.57	.95	.90
2	.41	.01	.19	.49	.57	.65	.75	.90	.57	.57	7.1	2.8
3	.49	0	.19	.49	.57	.57	.65	.90	.57	.57	64	1.3
4	.49	.02	.19	.49	.49	.65	.75	.90	.65	.57	5.5	.75
5	.57	.12	.28	.57	.41	.65	.65	1.1	.65	.57	7.5	.75
6	1.1	.06	.19	.57	.49	.65	.65	1.1	.57	.57	5.1	.75
7	1.1	.06	.19	.57	.49	.75	.65	.90	.57	.57	2.9	.75
8	1.1	.01	.19	.57	.49	.65	.65	.90	.65	.65	1.3	.90
9	1.1	0	.19	.57	.57	.65	.75	1.1	.65	.65	1.1	.90
10	.90	0	.12	.57	.57	.90	.75	.90	.75	.75	1.1	1.4
11	.90	0	.12	.57	.57	.75	.75	.90	.75	.75	.90	16
12	.90	0	.12	.57	.57	.75	.57	1.1	.90	.75	1.8	2.7
13	.75	0	.12	.57	.57	.65	.75	.90	.65	.65	3.4	1.3
14	.65	0	.12	.57	.57	.57	1.1	.75	.57	.65	3.0	1.1
15	.75	0	.28	.57	.57	.49	1.1	1.1	.75	.75	1.5	1.1
16	.65	0	.57	.57	.65	.49	1.3	.90	.57	.75	1.3	.90
17	.49	0	.57	.49	.65	.57	1.3	.75	.57	.75	1.8	1.1
18	.62	0	.57	.49	.65	.57	.90	.75	.75	.75	1.1	1.1
19	1.1	0	.57	.41	.65	.57	.75	.75	.75	.90	.90	1.1
20	.75	0	.57	.41	.65	.49	.75	.65	.90	.75	.90	.75
21	.75	0	.57	.41	.65	.57	.75	.65	1.6	.65	.90	.90
22	.90	0	.57	.41	.57	.57	1.1	.65	1.3	.65	.90	2.7
23	1.1	0	.57	.49	.65	.57	1.1	.75	.90	.75	.90	3.9
24	.65	.12	.57	.75	.75	.57	.75	1.0	.75	.90	.90	2.1
25	.65	.48	.57	.75	.75	.75	.75	.57	.75	1.1	.90	1.5
26	.57	.28	.57	.65	.75	.65	.90	.65	.75	.90	1.1	1.1
27	.57	.19	.57	.49	.65	.65	.90	.65	1.1	.90	1.1	1.3
28	.57	.19	.57	.49	.65	.65	.90	.65	.90	.75	1.1	.90
29	.65	.19	.57	.57	------	.57	.90	.57	.75	.75	4.6	.57
30	.65	.28	.49	.57	------	.57	.90	.49	.57	.75	9.4	.49
31	.49	------	.49	.57	------	.90	------	.49	------	.75	1.8	------
TOTAL	22.78	2.29	11.64	16.75	16.66	19.69	25.37	25.27	22.65	22.34	136.75	53.81
MEAN	.73	.076	.38	.54	.60	.64	.85	.82	.76	.72	4.41	1.79
MAX	1.1	.48	.57	.75	.75	.90	1.3	1.1	1.6	1.1	64	16
MIN	.41	0	.12	.41	.41	.49	.57	.49	.49	.57	.90	.49
AC-FT	45	4.5	23	33	33	39	50	50	45	44	271	107

CAL YR 1970 TOTAL 1,582.49 MEAN 4.34 MAX 719 MIN 0 AC-FT 3,140
WTR YR 1971 TOTAL 376.00 MEAN 1.03 MAX 64 MIN 0 AC-FT 746

PEAK DISCHARGE (BASE, 150 CFS).--Aug. 3 (1230) 176 cfs (3.94 ft).

08178800 Salado Creek (lower station) at San Antonio, Tex.

LOCATION.--Lat 29°21'25", long 98°24'45", Bexar County, on right bank at upstream side of bridge on Loop 13 at San Antonio, 1.4 miles east of Brooks Air Force Base, and 3.3 miles upstream from Rosillo Creek.

DRAINAGE AREA.--189 sq mi.

PERIOD OF RECORD.--September 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 526.95 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 28.4 cfs (20,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 874 cfs Aug. 3 (gage height, 12.68 ft); minimum, 0.66 cfs June 14.
Period of record: Maximum discharge, 6,630 cfs Jan. 18, 1968 (gage height, 22.88 ft); no flow Aug. 13, 1967.
Floods of Sept. 27, 1946, and Aug. 15, 1960, were about equal magnitude and are the highest since at least 1941. Flood of Aug. 15, 1960, reached a stage of 26.8 ft, from floodmarks.

REMARKS.--Records good. Small diversions above station. Most of low flow comes from artesian wells and springs in city of San Antonio. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08178700.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	14	15	13	11	8.2	7.7	6.1	8.6	3.7	21
2	14	12	13	16	13	12	8.2	7.5	6.1	6.4	19	13
3	13	13	14	16	13	11	8.0	6.6	5.5	5.9	503	11
4	14	13	14	16	14	11	8.6	6.4	4.4	5.5	201	13
5	14	14	14	16	13	12	9.3	7.2	3.7	5.6	85	13
6	15	14	14	16	14	12	9.5	11	3.6	5.1	127	11
7	15	14	13	16	13	12	9.4	11	3.3	4.8	64	9.5
8	14	13	14	17	12	12	9.5	8.8	3.0	4.5	30	9.7
9	14	13	14	16	12	11	9.8	7.7	3.0	4.6	20	9.3
10	14	14	15	16	13	12	9.8	7.2	3.3	3.9	16	24
11	15	14	15	16	13	12	9.6	11	3.1	4.2	14	344
12	23	14	15	16	13	12	9.6	14	2.5	4.2	32	94
13	18	13	15	16	13	12	9.2	8.6	1.5	4.7	78	24
14	16	14	15	16	13	12	9.2	7.1	1.4	4.6	68	18
15	15	13	16	16	13	11	9.3	6.8	11	4.3	36	16
16	14	14	16	16	13	10	13	5.7	20	3.8	21	14
17	14	14	16	16	12	9.9	28	5.3	8.4	3.8	50	14
18	14	13	16	16	12	10	16	5.5	6.8	3.8	17	14
19	31	14	16	16	13	9.8	12	5.3	8.4	3.9	14	14
20	20	13	15	15	13	10	11	6.8	12	3.1	13	14
21	15	13	15	16	13	11	10	6.1	71	3.2	14	14
22	13	13	16	16	13	10	9.5	5.3	133	2.8	13	33
23	13	13	16	15	13	9.9	9.5	5.1	26	2.9	12	119
24	14	14	15	14	13	10	9.1	30	12	3.0	12	37
25	13	14	15	14	14	10	9.0	29	9.0	3.5	12	21
26	13	13	14	13	23	10	8.8	12	7.7	2.7	11	17
27	13	14	15	14	14	9.3	8.9	8.8	11	3.4	12	17
28	13	15	15	13	13	9.5	8.7	7.4	32	2.5	12	35
29	13	14	16	13	------	7.9	8.4	6.1	21	2.8	11	42
30	13	14	16	14	------	7.8	8.1	5.5	12	3.0	11	39
31	13	------	16	13	------	8.0	------	6.0	------	2.9	20	------
TOTAL	468	406	463	474	374	328.1	307.2	278.5	451.8	128.0	1,551.7	1,074.5
MEAN	15.1	13.5	14.9	15.3	13.4	10.6	10.2	8.98	15.1	4.13	50.1	35.8
MAX	31	15	16	17	23	12	28	30	133	8.6	503	344
MIN	13	12	13	13	12	7.8	8.0	5.1	1.4	2.5	3.7	9.3
AC-FT	928	805	918	940	742	651	609	552	896	254	3,080	2,130

CAL YR 1970 TOTAL 11,023.0 MEAN 30.2 MAX 1,720 MIN 10 AC-FT 21,860
WTR YR 1971 TOTAL 6,304.8 MEAN 17.3 MAX 503 MIN 1.4 AC-FT 12,510

PEAK DISCHARGE (BASE, 600 CFS).--Aug. 3 (1945) 874 cfs (12.68 ft).

08179000 Medina River near Pipe Creek, Tex.

LOCATION.--Lat 29°40'40", long 98°58'41", Bandera County, on left bank 600 ft upstream from Bandera Falls, 0.8 mile upstream from Red Bluff Creek, and 4 miles southwest of Pipe Creek.

DRAINAGE AREA.--474 sq mi.

PERIOD OF RECORD.--October 1922 to June 1935, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1312 and 1732.

GAGE.--Water-stage recorder. Datum of gage is 1,067.37 ft above mean sea level, unadjusted. December 1922 to June 1935, water-stage recorder at site 2 miles upstream at different datum.

AVERAGE DISCHARGE.--31 years (1922-34, 1952-71), 111 cfs (80,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 41,700 cfs Aug. 13 (gage height, 28.82 ft, from floodmark); minimum, 7.3 cfs June 13, 15.
Period of record: Maximum discharge, 64,000 cfs July 1, 1932 (gage height, 35.2 ft, from floodmarks, present site and datum), from rating curve extended above 32,000 cfs on basis of slope-area measurement of peak flow; minimum, 0.2 cfs July 14-16, 1956. Maximum stage since at least 1880, about 43 ft in 1919, present site and datum, from information by local resident.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Small diversion above station.

REVISIONS (WATER YEARS).--WSP 1312: 1925(M). WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	56	44	43	35	36	26	24	12	22	500	340
2	88	53	44	42	34	35	26	22	12	19	200	318
3	82	53	43	42	35	34	24	22	12	20	100	297
4	79	52	43	40	36	32	24	20	11	18	200	283
5	77	52	43	39	35	31	24	20	10	16	200	266
6	79	52	43	40	34	32	24	24	9.6	15	500	253
7	75	52	42	40	34	31	24	22	9.6	13	200	240
8	73	52	42	40	32	30	24	22	9.0	12	150	234
9	64	47	43	42	32	29	24	20	9.0	11	120	225
10	63	46	43	42	32	30	24	20	8.4	10	100	219
11	63	46	43	42	32	30	24	83	8.4	9.6	100	213
12	68	46	42	40	32	30	24	104	7.8	9.6	15,000	210
13	68	46	42	40	32	30	22	37	7.8	9.5	20,000	204
14	63	43	44	40	32	30	22	29	7.8	9.5	10,000	198
15	61	43	46	40	32	29	22	24	7.8	9.5	5,000	193
16	60	44	46	39	32	29	27	22	7.8	9.0	2,500	184
17	58	46	44	37	32	29	36	20	8.4	9.0	1,580	179
18	60	46	44	36	32	29	32	18	7.8	9.0	1,230	173
19	66	46	44	35	32	28	31	17	7.8	9.0	1,020	168
20	64	44	46	35	34	28	34	16	7.8	9.0	884	173
21	63	44	46	35	32	28	34	16	8.0	9.0	774	160
22	61	46	46	35	30	28	32	16	8.0	9.0	690	211
23	81	43	47	35	30	27	29	16	8.0	9.0	640	233
24	71	42	46	35	29	27	28	17	8.0	9.0	590	238
25	56	43	44	35	37	27	27	18	7.8	10	550	190
26	56	44	44	35	60	27	27	16	7.8	10	510	207
27	58	46	43	35	42	27	28	14	8.0	10	470	198
28	58	44	44	35	37	28	27	14	100	10	440	182
29	58	44	44	36	------	27	26	13	73	10	410	176
30	58	44	44	36	------	27	24	12	43	10	380	193
31	58	------	43	35	------	26	------	12	------	10	359	------
TOTAL	2,081	1,405	1,362	1,181	958	911	800	750	453.4	354.7	65,397	6,558
MEAN	67.1	46.8	43.9	38.1	34.2	29.4	26.7	24.2	15.1	11.4	2,110	219
MAX	92	56	47	43	60	36	36	104	100	22	20,000	340
MIN	56	42	42	35	29	26	22	12	7.8	9.0	100	160
AC-FT	4,130	2,790	2,700	2,340	1,900	1,810	1,590	1,490	899	704	129,700	13,010

CAL YR 1970 TOTAL 43,363.0 MEAN 119 MAX 965 MIN 24 AC-FT 86,010
WTR YR 1971 TOTAL 82,211.1 MEAN 225 MAX 20,000 MIN 7.8 AC-FT 163,100

PEAK DISCHARGE (BASE, 1,600 CFS).--Aug. 13 (about 1700) 41,700 cfs (28.82 ft, from floodmark).

NOTE.--No gage-height record July 13 to Aug. 16.

08179100 Red Bluff Creek near Pipe Creek, Tex.

LOCATION.--Lat 29°40'48", long 98°57'20", Bandera County, on left bank 0.8 mile upstream from bridge on Farm Road 1283, 1.7 miles downstream from Pipe Creek, 1.9 miles upstream from mouth, and 3.2 miles south of town of Pipe Creek.

DRAINAGE AREA.--56.3 sq mi.

PERIOD OF RECORD.--April 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,107.2 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--15 years, 10.0 cfs (7,240 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,660 cfs Aug. 12 (gage height, 12.73 ft, from floodmark), from rating curve extended above 2,000 cfs on basis of slope-area measurement of 46,900 cfs; no flow for many days.
Period of record: Maximum discharge, 46,900 cfs Sept. 27, 1964 (gage height, 22.64 ft), from rating curve extended above 2,000 cfs on basis of slope-area measurement of peak flow; no flow for many days in each year.
Maximum stage since at least 1905, that of Sept. 27, 1964. A stage of about 17 ft was reached in July 1937. Flood in October 1953 reached a stage of 13.8 ft.

REMARKS.--Records good. Small dams on upstream tributaries affect flow during time of storm runoff. No known diversion.

REVISIONS.--WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	14
2											0	27
3											0	17
4											0	13
5											0	11
6											0	9.3
7											0	7.5
8											0	6.4
9											0	5.8
10											0	5.5
11											0	6.7
12											2,640	5.5
13											1,340	4.2
14											494	3.5
15											270	2.8
16											182	2.1
17											122	1.4
18											94	1.2
19											80	1.2
20											68	1.4
21											54	.79
22											45	6.7
23											38	22
24											32	9.6
25											27	5.9
26											25	4.5
27											31	3.3
28											38	2.8
29					------						26	2.5
30					------						27	4.0
31		------			------		------		------		17	------
TOTAL	0	0	0	0	0	0	0	0	0	0	5,650	208.59
MEAN	0	0	0	0	0	0	0	0	0	0	182	6.95
MAX	0	0	0	0	0	0	0	0	0	0	2,640	27
MIN	0	0	0	0	0	0	0	0	0	0	0	.79
AC-FT	0	0	0	0	0	0	0	0	0	0	11,210	414

CAL YR 1970 TOTAL 3,226.19 MEAN 8.84 MAX 133 MIN 0 AC-FT 6,400
WTR YR 1971 TOTAL 5,858.59 MEAN 16.1 MAX 2,640 MIN 0 AC-FT 11,620

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 12 (0800) 8,660 cfs (12.73 ft, from floodmark); Aug. 13 (1430) 3,960 cfs (9.77 ft, from floodmark).

08179500 Medina Lake near San Antonio, Tex.

LOCATION.--Lat 29°32'24", long 98°56'01", Medina County, at gate operating platform, 576 ft from left end of Medina Dam on Medina River, 4.2 miles upstream from Medina diversion dam, 13 miles north of Castroville, 28 miles west of San Antonio, and at mile 70.4.

DRAINAGE AREA.--634 sq mi.

PERIOD OF RECORD.--May 1913 to current year. Prior to October 1967, monthend contents only.

GAGE.--Nonrecording gage read once daily if stage changing materially, otherwise intermittently. Datum of gage is 7.80 ft below mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents observed, 256,300 acre-ft Sept. 3, 4 (gage height, 1,072.4 ft); minimum observed, 100,200 acre-ft Aug. 1 (gage height, 1,035.0 ft).
Period of record: Maximum contents observed, 288,800 acre-ft Sept. 16, 1919 (gage height, 1,078.0 ft); minimum observed since lake first filled, 780 acre-ft about Apr. 11, 1948 (gage height, 944.0 ft).

REMARKS.--Lake is formed by gravity-type concrete dam. Dam completed and storage began May 7, 1913. Spillway section is located near right end of dam and is of natural rock, 880 ft long with a 3-foot-wide cut-off wall. Water used for irrigation by Bexar-Medina-Atascosa Counties Water Improvement District No. 1, which has Certified Filing No. 18 from the Texas Water Rights Commission to irrigate 150,000 acres. Maximum acres irrigated, 35,200 in 1946; 25,320 acres irrigated in 1971. Some water from the lake enters the Edwards and associated limestones in Balcones Fault Zone, part of which is above and part below the dam. Data regarding dam are shown in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	1,084.0	-
Crest of spillway	1,072.0	254,000
Invert of 60-inch water-supply outlet pipes	966.5	4,780
Invert of 30-inch sluice pipes	920.0	0

COOPERATION.--Capacity table, based on survey made prior to June 1912, and gage-height record furnished by Bexar-Medina-Atascosa Counties Water Improvement District No. 1.

REVISIONS.--WSP 1923: Drainage area.

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,030.0	85,900	1,060.0	192,000
1,040.0	114,500	1,070.0	242,400
1,050.0	150,000	1,080.0	300,300

CONTENTS, IN ACRE-FEET, 0800 HOURS (USUALLY), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182,700	179,000	171,800	166,800	159,600	152,100	142,900	133,700	119,800	109,900	100,200	255,700
2	182,700	178,500	171,800	166,300	159,200	152,100	142,500	132,900	119,500	109,600	101,300	255,700
3	182,700	178,100	171,800	166,300	158,800	151,600	142,200	132,600	118,800	109,600	101,300	256,300
4	182,300	178,100	171,400	165,900	158,800	151,600	141,800	131,900	118,100	109,600	101,600	256,300
5	182,700	177,700	171,400	165,500	158,400	151,200	141,400	131,200	117,700	109,400	102,500	255,700
6	182,300	177,700	171,000	165,100	158,400	151,200	140,700	130,500	117,000	109,400	104,800	255,700
7	182,300	177,300	171,000	165,100	157,900	151,200	140,400	130,500	116,600	109,400	104,800	255,700
8	182,300	177,300	170,600	164,700	157,500	150,800	140,000	130,500	115,900	109,100	104,800	255,700
9	182,300	176,900	170,600	164,700	157,500	150,400	139,700	130,100	115,600	108,800	104,800	255,200
10	181,900	176,900	170,100	164,700	157,100	150,400	139,300	129,800	114,900	108,500	104,800	255,200
11	181,900	176,900	170,100	164,200	156,700	150,000	138,600	129,800	114,500	108,200	104,800	255,200
12	181,500	176,400	170,100	164,200	156,300	149,600	138,600	129,400	114,200	107,900	148,500	255,200
13	181,500	176,000	169,700	163,800	156,300	149,600	137,900	129,400	113,700	107,600	160,500	255,200
14	181,100	176,000	169,300	163,800	155,800	149,200	137,500	128,300	113,100	107,400	212,200	255,200
15	181,100	175,600	169,300	163,400	155,800	148,900	137,200	128,000	112,800	107,400	228,800	255,200
16	181,100	175,200	169,300	163,400	155,400	148,500	136,800	128,000	112,200	106,800	234,900	254,600
17	180,600	174,800	168,900	163,400	155,000	148,500	136,800	127,600	111,900	106,500	238,900	254,600
18	181,100	174,300	168,900	163,000	155,000	147,800	136,500	126,600	111,400	106,200	241,400	254,600
19	181,100	174,300	168,500	162,600	154,600	147,500	136,500	126,200	111,100	105,900	243,600	254,600
20	180,600	173,900	168,500	162,100	154,200	147,500	136,500	126,200	110,800	105,300	245,300	254,600
21	180,600	173,900	168,500	162,100	154,200	146,400	136,500	125,500	110,200	105,100	247,100	254,000
22	180,200	173,500	168,000	161,700	153,700	146,400	136,500	125,100	109,900	104,800	248,800	254,600
23	180,200	173,500	168,000	161,700	153,300	146,400	136,100	124,800	109,600	104,200	249,400	254,600
24	180,200	173,100	167,600	161,300	152,900	146,100	135,800	124,400	109,400	103,600	250,500	255,200
25	180,200	173,100	167,600	161,300	152,500	145,300	135,400	124,100	109,100	103,300	251,100	255,200
26	180,200	172,700	167,600	160,900	152,500	145,000	135,100	123,000	109,100	102,800	251,700	255,200
27	180,200	172,700	167,200	160,500	152,100	144,600	135,100	122,700	109,400	102,500	252,300	255,200
28	179,800	172,200	167,200	160,500	152,100	144,300	134,700	122,000	109,400	101,900	254,000	255,200
29	179,800	172,200	167,200	160,000	------	143,900	134,400	121,600	109,600	101,300	254,000	255,200
30	179,400	172,200	166,800	160,000	------	143,600	134,000	121,300	109,900	101,000	254,600	255,200
31	179,400	------	166,800	159,600	------	143,200	------	120,500	------	100,800	255,200	------
(†)	1,057.0	1,055.3	1,054.0	1,052.3	1,050.5	1,048.1	1,045.5	1,041.7	1,038.4	1,035.2	1,072.2	1,072.2
(*)	-3,300	-7,200	-5,400	-7,200	-7,500	-8,900	-9,200	-13,500	-10,600	-9,100	+154,400	0
MAX	182,700	179,000	171,800	166,800	159,600	152,100	142,900	133,700	119,800	109,900	255,200	256,300
MIN	179,400	172,200	166,800	159,600	152,100	143,200	134,000	120,500	109,100	100,800	100,200	254,000

CAL YR 1970..... * -400 MAX 205,100 MIN 166,800
WTR YR 1971..... * +72,500 MAX 256,300 MIN 100,200

† Gage height, in feet, at end of month.
* Change in contents, in acre-feet.

08180000 Medina Canal near Riomedina, Tex.

LOCATION.--Lat 29°30'19", long 98°54'11", Medina County, in center of canal, 54 ft upstream from center pier of double-barrel flume, 350 ft downstream from county highway bridge, 1,900 ft downstream from head of canal and diversion dam, 4.6 miles downstream from Medina Dam, 4.7 miles north of Riomedina, and 25 miles northwest of San Antonio.

PERIOD OF RECORD.--March 1922 to May 1934, July 1957 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--25 years (1922-33, 1957-71), 40.2 cfs (29,120 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 216 cfs May 6, 1971; no flow at times.

REMARKS.--Records good. Station is above all diversions from canal. Canal diverts from right end of Medina Diversion Dam 1,900 ft upstream from gage for irrigation downstream near Lacoste and Natalia.

REVISIONS (WATER YEARS).--WSP 568: 1922. WSP 1712: 1922(M), 1924, 1926.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	61	63	51	94	44	133	114	180	.11	117	41
2	0	71	59	47	73	38	133	114	180	.11	32	42
3	0	79	47	48	57	42	143	115	180	.08	.45	41
4	0	75	46	52	62	39	152	133	182	.14	.25	42
5	0	68	54	50	72	47	152	187	182	.17	.35	43
6	0	66	59	32	72	51	152	216	178	.39	.30	43
7	0	64	59	40	73	54	152	198	175	57	.30	47
8	16	62	59	55	71	58	152	156	182	92	.25	56
9	58	62	57	55	73	56	152	124	182	82	.25	56
10	35	69	55	54	75	67	152	144	178	70	.21	51
11	23	73	54	58	80	76	154	138	178	61	.17	.14
12	27	75	51	65	82	80	155	126	178	60	1.6	.25
13	41	79	48	65	74	85	158	118	178	61	1.4	.21
14	42	73	48	64	66	87	158	124	178	78	.40	.21
15	40	70	46	62	73	89	157	127	168	94	.25	.17
16	39	71	36	63	84	99	141	124	165	94	.25	.14
17	33	67	41	73	102	111	88	127	168	97	.14	.14
18	29	67	56	79	106	126	86	148	168	100	.05	16
19	27	60	58	80	104	129	78	170	171	105	0	32
20	27	54	50	84	104	129	83	170	150	119	0	13
21	26	52	41	85	103	131	82	176	112	118	0	.14
22	26	52	40	85	100	131	80	180	68	118	0	.17
23	31	44	40	84	103	130	96	183	67	140	24	.11
24	36	40	27	83	103	131	115	187	67	146	44	.08
25	42	43	16	84	103	133	120	183	67	142	44	.05
26	41	43	16	76	82	133	97	183	66	140	44	.05
27	40	51	28	63	65	134	86	182	57	146	44	.03
28	39	59	45	70	67	134	99	182	23	140	43	.03
29	43	51	55	74	------	133	105	180	.45	150	42	.03
30	51	55	55	74	------	129	113	180	.17	155	40	.03
31	60	------	57	80	------	130	------	180	------	157	40	------
TOTAL	872	1,856	1,466	2,035	2,323	2,956	3,724	4,869	4,028.62	2,723.00	520.62	524.98
MEAN	28.1	61.9	47.3	65.6	83.0	95.4	124	157	134	87.8	16.8	17.5
MAX	60	79	63	85	106	134	158	216	182	157	117	56
MIN	0	40	16	32	57	38	78	114	.17	.08	0	.03
AC-FT	1,730	3,680	2,910	4,040	4,610	5,860	7,390	9,660	7,990	5,400	1,030	1,040

CAL YR 1970 TOTAL 14,934.29 MEAN 40.9 MAX 146 MIN 0 AC-FT 29,620
WTR YR 1971 TOTAL 27,898.22 MEAN 76.4 MAX 216 MIN 0 AC-FT 55,340

08180500 Medina River near Riomedina, Tex.

LOCATION.--Lat 29°29'53", long 98°54'16", Medina County, on left bank 233 ft upstream from bridge at Haby's Crossing, 0.9 mile downstream from Bexar, Medina, and Atascosa Counties Water Control and Improvement District No. 1 diversion dam, 4.2 miles northwest of Riomedina, 10.0 miles north of Castroville, 10.4 miles upstream from San Geronimo Creek, and at mile 66.4.

DRAINAGE AREA.--650 sq mi.

PERIOD OF RECORD.--January 1922 to September 1934 (daily record of flow over dam and monthly or annual record of seepage under or around dam), January 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 857.6 ft above mean sea level (river-profile survey). Jan. 21, 1922, to Sept. 30, 1934, water-stage recorder on upstream side of diversion dam 0.9 mile upstream at different datum.

AVERAGE DISCHARGE.--30 years, 32.0 cfs (23,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,300 cfs Aug. 12 (gage height, 11.97 ft, from floodmark); minimum, 15 cfs Mar. 6-8.
Period of record: Maximum discharge, about 11,800 cfs Apr. 21, 1926; no flow at times.

REMARKS.--Records good. Flow regulated by Medina Lake (station 08179500), 5 miles upstream, and diversion dam 0.9 mile upstream. See Medina Canal (station 08180000) for diversion canal records. A large part of the streamflow is lost into the Edwards and associated limestones in the Balcones Fault Zone which crosses basin upstream from station and below upstream end of Medina Lake. All flow is seepage under and around dam except for occasional flow over spillway of dam and local runoff downstream from diversion dam. Diversion for irrigation above station.

REVISIONS.--WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	19	19	20	18	19	21	21	26	27	26	92
2	28	19	20	20	18	20	21	21	26	27	28	158
3	29	20	20	20	18	19	22	21	26	27	30	192
4	30	21	20	20	18	18	22	21	26	27	28	205
5	30	21	21	20	18	18	22	22	26	26	29	208
6	31	21	22	20	18	16	22	24	25	26	29	210
7	31	21	21	21	18	15	22	24	25	25	29	205
8	31	21	21	22	18	16	23	24	26	24	29	175
9	31	20	21	22	18	17	23	24	26	23	29	158
10	31	19	22	22	18	18	23	24	27	23	29	151
11	31	19	23	22	18	18	24	22	27	22	28	205
12	30	19	23	21	18	18	25	21	27	22	3,100	178
13	29	18	23	21	18	18	25	20	27	22	2,600	165
14	29	18	23	20	18	19	25	21	27	21	390	160
15	29	18	23	18	18	19	25	21	27	21	200	153
16	29	20	23	18	18	19	26	20	27	20	155	146
17	28	20	23	18	19	19	26	19	27	19	146	135
18	28	21	24	18	20	22	25	20	27	20	148	118
19	28	21	22	18	20	22	24	21	27	21	139	89
20	28	22	21	19	20	23	24	22	27	21	130	84
21	28	22	21	20	20	23	24	23	27	23	124	101
22	27	22	21	19	20	22	24	23	27	23	114	133
23	27	19	22	19	21	22	23	24	26	23	92	155
24	26	20	23	19	21	22	22	25	26	24	65	198
25	26	20	23	19	21	22	23	25	26	23	62	208
26	25	20	23	19	22	22	24	25	26	24	61	200
27	24	20	23	19	21	21	24	25	26	24	70	195
28	23	21	23	19	20	21	23	27	29	24	64	180
29	23	20	22	18	------	21	22	27	28	25	62	175
30	22	19	20	18	------	21	21	27	27	25	64	190
31	21	------	19	17	------	22	------	27	------	25	66	------
TOTAL	861	601	675	606	533	612	700	711	797	727	8,166	4,922
MEAN	27.8	20.0	21.8	19.5	19.0	19.7	23.3	22.9	26.6	23.5	263	164
MAX	31	22	24	22	22	23	26	27	29	27	3,100	210
MIN	21	18	19	17	18	15	21	19	25	19	26	84
AC-FT	1,710	1,190	1,340	1,200	1,060	1,210	1,390	1,410	1,580	1,440	16,200	9,760

CAL YR 1970 TOTAL 10,109 MEAN 27.7 MAX 70 MIN 18 AC-FT 20,050
WTR YR 1971 TOTAL 19,911 MEAN 54.6 MAX 3,100 MIN 15 AC-FT 39,490

NOTE.--No gage-height record Aug. 12-16.

08180800 Medina River near Somerset, Tex.

LOCATION.--Lat 29°15'45", long 98°34'56", Bexar County, on left bank 300 ft upstream from bridge on State Highway 16, 4.9 miles downstream from Medio Creek, 2.1 miles upstream from Elm Creek, 5.2 miles northeast of Somerset, and at mile 14.1.

DRAINAGE AREA.--967 sq mi (634 sq mi above dam forming Medina Lake).

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 493.56 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,840 cfs Aug. 15 (gage height, 16.50 ft); minimum, 21 cfs July 23, 24.
Period of record: Maximum discharge, 2,840 cfs Aug. 15, 1971 (gage height, 16.50 ft); minimum, 21 cfs July 23, 24, 1971.
Maximum stage since about 1890, 25.0 ft Aug. 29, 1946, from information by the Texas Highway Department.

REMARKS.--Records good. Flow regulated by Medina Lake (station 08179500) 56 miles upstream and by Medina Diversion Lake (capacity, 4,500 acre-ft). For diversion of canal records, see Medina Canal near Riomedina (station 08180000). For statement regarding losses into the Edwards and associated limestones formation, see Medina River near Riomedina (station 08180500). There are several small diversions below Medina Diversion Dam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	44	44	40	34	38	32	29	32	117	25	107
2	48	43	43	39	34	36	32	32	30	63	84	109
3	47	42	42	41	33	36	32	30	29	54	492	124
4	45	43	44	42	35	36	32	27	27	49	398	161
5	48	43	43	41	34	36	33	27	27	47	216	174
6	50	45	41	44	35	38	34	30	24	44	501	182
7	48	45	39	42	36	37	33	30	24	41	174	192
8	46	44	41	41	37	37	34	30	24	39	92	193
9	44	44	42	41	36	34	33	30	24	38	66	181
10	43	44	44	41	34	34	32	38	22	38	59	167
11	45	43	44	39	33	36	32	36	23	38	55	206
12	48	42	43	40	32	36	38	36	28	38	187	206
13	47	41	41	40	31	37	38	35	27	37	823	204
14	45	40	41	41	28	36	36	34	32	36	1,780	192
15	44	39	41	39	32	36	36	32	30	35	1,640	172
16	44	38	43	38	31	34	38	33	31	32	677	166
17	43	39	42	38	31	34	44	35	34	34	471	159
18	42	41	42	38	32	34	44	34	32	33	380	152
19	48	41	41	37	34	32	44	29	33	29	323	142
20	48	43	42	37	33	32	39	26	71	27	292	135
21	46	44	42	38	31	32	39	26	76	28	262	109
22	45	42	41	39	32	34	38	29	129	26	236	145
23	48	41	41	38	31	34	37	26	67	25	216	157
24	47	41	41	38	30	32	36	31	53	24	198	160
25	45	41	41	38	34	31	34	33	44	24	167	177
26	44	41	44	36	38	33	35	30	43	27	141	201
27	44	42	43	36	38	32	35	30	46	27	130	198
28	44	43	44	35	37	32	33	31	63	34	122	190
29	44	44	45	37	------	33	32	30	254	30	121	189
30	45	45	44	35	------	32	33	32	332	29	113	186
31	45	------	41	35	------	32	------	32	------	29	110	------
TOTAL	1,417	1,268	1,310	1,204	936	1,066	1,068	963	1,711	1,172	10,551	5,026
MEAN	45.7	42.3	42.3	38.8	33.4	34.4	35.6	31.1	57.0	37.8	340	168
MAX	50	45	45	44	38	38	44	38	332	117	1,780	206
MIN	42	38	39	35	28	31	32	26	22	24	25	107
AC-FT	2,810	2,520	2,600	2,390	1,860	2,110	2,120	1,910	3,390	2,320	20,930	9,970

WTR YR 1971 TOTAL 27,692 MEAN 75.9 MAX 1,780 MIN 22 AC-FT 54,930

NOTE.--No gage-height record Oct. 1 to Nov. 8.

08181400 Helotes Creek at Helotes, Tex.

LOCATION (revised).--Lat 29°34'42", long 98°41'29", Bexar County, 42 ft left of and 44 ft downstream from centerline of bridge on State Highway 16, 0.1 mile northwest of Helotes, and 8.6 miles upstream from mouth.

DRAINAGE AREA.--15.0 sq mi.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,014.82 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 346 cfs Aug. 13 (gage height, 3.24 ft); no flow most of time.
Period of record: Maximum discharge, 3,180 cfs May 26, 1970 (gage height, 5.43 ft), from rating curve extended above 1,400 cfs; no flow most of time.
Maximum stage since 1923, 13.7 ft in 1927, from information by local resident.

REMARKS.--Records good. An undetermined amount of flow is diverted for domestic use above the station, and some flow enters the Edwards and associated limestones through the Balcones Fault Zone which is in the vicinity of the gage. Recording rain gage located at station, with two additional recording rain gages located in watershed.

REVISIONS (WATER YEARS).--Revised figures of discharge for the water year 1970, superseding those published in WRD Texas, 1970, are given herein.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	4.5	.05	0	29	.07		0
2	0	0	0	0	0	4.5	.03	0	23	.02		0
3	0	0	0	0	0	4.5	.03	0	20	0		0
4	0	0	0	0	0	4.0	0	0	17	0		0
5	.34	0	6.9	.01	0	4.5	.03	0	14	0		0
6	0	0	23	0	0	6.3	.01	0	12	0		0
7	0	0	19	0	0	7.6	0	0	9.7	0		0
8	0	0	14	0	0	6.6	0	0	8.5	0		0
9	0	0	10	0	0	6.6	0	0	7.5	0		0
10	0	0	6.9	0	0	6.6	0	0	7.5	0		0
11	0	0	4.5	0	0	6.0	0	0	6.5	0		0
12	.11	0	3.0	0	0	5.1	0	0	6.5	0		0
13	0	0	2.3	0	0	4.5	0	0	6.0	0		.03
14	.11	0	1.4	0	0	4.0	0	1.9	5.2	0		.04
15	.02	0	.65	0	0	3.5	0	13	4.5	0		0
16	0	0	.08	0	0	3.2	0	3.5	4.2	0		0
17	0	0	0	0	0	3.2	0	1.6	3.6	0		0
18	0	.01	0	0	0	2.3	.02	.12	3.3	0		.02
19	0	0	0	0	0	1.9	1.4	0	2.7	0		0
20	0	0	0	0	0	1.4	.01	0	2.4	0		0
21	0	0	0	0	0	2.5	0	0	1.8	0		0
22	0	0	0	0	0	1.7	0	.04	1.4	0		0
23	0	.02	0	0	.04	.34	0	21	1.2	0		.05
24	0	0	0	0	4.8	.95	0	22	1.0	0		0
25	0	0	0	0	10	.55	0	16	2.4	0		.31
26	0	0	0	0	9.4	.47	0	173	1.0	0		1.7
27	0	.01	0	0	7.6	.55	0	98	.40	0		.46
28	.01	0	0	0	6.6	.55	0	75	.24	0		0
29	.03	0	0	0	------	.32	0	55	.19	0		0
30	0	0	0	0	------	.26	0	43	.12	0		0
31	0	------	0	0	------	.26	------	36	------	0		------
TOTAL	.62	.04	91.73	.01	38.44	99.25	1.58	559.16	202.85	.09	0	2.61
MEAN	.020	.001	2.96	.0003	1.37	3.20	.053	18.0	6.76	.003	0	.087
MAX	.34	.02	23	.01	10	7.6	1.4	173	29	.07	0	1.7
MIN	0	0	0	0	0	.26	0	0	.12	0	0	0
CFSM	.001	.0001	.20	0	.09	.21	.004	1.20	.45	.0002	0	.006
IN.	.001	0	.23	0	.10	.25	.003	1.39	.50	0	0	.006
AC-FT	1.2	.08	182	.02	76	197	3.1	1,110	402	.2	0	5.2

CAL YR 1969 TOTAL 368.99 MEAN 1.01 MAX 43 MIN 0 CFSM .07 IN .92 AC-FT 732
WTR YR 1970 TOTAL 996.38 MEAN 2.73 MAX 173 MIN 0 CFSM .18 IN 2.47 AC-FT 1,980

PEAK DISCHARGE (BASE, 50 CFS).--May 23 (2100) 108 cfs (2.69 ft); May 26 (1700) 3,180 cfs (5.43 ft).

08181400 Helotes Creek at Helotes, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						0	0	0		.32	2.0
2	0						0	0	0		10	1.6
3	0						0	0	0		17	1.6
4	0						0	0	0		10	1.4
5	0						0	0	0		3.6	.49
6	.01						0	0	0		2.7	.21
7	0						0	0	0		.19	.08
8	0						0	0	0		0	0
9	0						0	0	0		0	0
10	0						0	0	0		0	.03
11	0						0	.02	0		0	3.1
12	0						0	0	0		30	.20
13	0						0	0	0		81	0
14	0						0	0	0		66	0
15	0						0	0	0		44	0
16	0						.05	0	0		31	0
17	0						0	0	0		21	0
18	0						0	0	0		17	0
19	0						0	0	.13		15	0
20	0						.02	0	0		12	0
21	0						0	0	0		9.0	.02
22	0						0	0	0		8.0	.54
23	0						0	0	0		7.0	4.7
24	0						0	0	0		6.0	.26
25	0						0	0	0		5.2	.01
26	0						0	0	0		4.5	0
27	0						0	0	0		4.5	0
28	0						0	0	0		3.3	0
29	0				------		0	0	.02		3.3	0
30	0				------		0	0	0		3.0	0
31	0	------			------		------	0	------		2.4	------
TOTAL	.01	0	0	0	0	0	.07	.02	.15	0	417.01	16.24
MEAN	.0003	0	0	0	0	0	.002	.0006	.005	0	13.5	.54
MAX	.01	0	0	0	0	0	.05	.02	.13	0	81	4.7
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	0	0	0	0	0	0	.0001	0	.0003	0	.90	.04
IN.	0	0	0	0	0	0	0	0	0	0	1.03	.04
AC-FT	.02	0	0	0	0	0	.1	.04	.3	0	827	32
(††)	1.62	0	.16	.12	.56	0	1.64	2.68	3.06	.55	11.72	4.10

CAL YR 1970 TOTAL 904.00 MEAN 2.48 MAX 173 MIN 0 CFSM .17 IN 2.24 AC-FT 1,790 †† 28.38
WTR YR 1971 TOTAL 433.50 MEAN 1.19 MAX 81 MIN 0 CFSM .08 IN 1.08 AC-FT 860 †† 26.23

PEAK DISCHARGE (BASE, 50 CFS).--Aug. 12 (0845) 145 cfs (2.64 ft); Aug. 13 (1545) 346 cfs (3.24 ft).

†† Weighted-mean rainfall, in inches, based on three rain gages.

08181450 Leon Creek tributary at Kelly Air Force Base, Tex.

LOCATION.--Lat 29°23'12", long 98°36'00", Bexar County, on left bank 128 ft downstream from centerline of bridge on Billy Mitchell Road at Kelly Air Force Base, 0.15 mile upstream from mouth, and 2.0 miles southeast of intersection of U.S. Highway 90 West and Loop 13.

DRAINAGE AREA.--1.19 sq mi.

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 657.57 ft above mean sea level.

EXTREMES.--March to September 1969: Maximum discharge during period, 336 cfs May 4 (gage height, 3.62 ft), from rating curve extended above 100 cfs on basis of formula, $Q=CLH^{3/2}$; no flow most of time.
Water year 1970: Maximum discharge, 555 cfs May 14 (gage height, 4.44 ft), from rating curve extended as explained below; no flow most of time.
Water year 1971: Maximum discharge, 277 cfs June 22 (gage height, 3.37 ft), from rating curve extended as explained below; no flow most of time.
Period of record: Maximum discharge, 555 cfs May 14, 1970 (gage height, 4.44 ft), from rating curve extended above 100 cfs on basis of formula, $Q=CLH^{3/2}$; no flow most of time.
No historical flood information is available.

REMARKS.--Records fair except those for period of no gage-height record, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	.10	0		0	.02
2							0	.02	0		0	.02
3							0	24	.10		0	.02
4							0	27	2.0		0	.02
5							0	.39	0		0	.02
6							0	.06	0		0	.02
7							0	.02	0		0	.02
8							0	7.8	0		0	.02
9							0	.07	0		0	0
10							0	.02	0		0	0
11							0	.02	0		0	0
12							.53	6.2	0		0	0
13							0	.06	0		0	0
14							0	.02	0		0	0
15							0	2.0	0		0	0
16							0	2.7	0		0	0
17							3.0	.18	0		0	0
18							0	.06	0		0	0
19							0	.06	0		0	0
20							0	.06	0		0	0
21							0	.06	0		0	0
22							0	.06	0		0	0
23							0	.02	0		0	2.0
24							0	0	.73		12	.10
25							0	0	0		2.1	0
26						0	0	0	0		2.8	0
27						0	0	0	0		18	0
28						.2	0	0	0		13	0
29					------	0	0	0	0		2.7	0
30					------	0	1.6	0	0		.06	0
31		------			------	0	------	0	------		.02	------
TOTAL						-	5.13	70.98	2.83	0	50.68	2.26
MEAN						-	.17	2.29	.094	0	1.63	.075
MAX						-	3.0	27	2.0	0	18	2.0
MIN						-	0	0	0	0	0	0
CFSM						-	.14	1.92	.08	0	1.37	.06
IN.						-	.16	2.22	.09	0	1.58	.07
AC-FT						-	10	141	5.6	0	101	4.5

08181450 Leon Creek tributary at Kelly Air Force Base, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.14	0	.02	.02	0	0	0	2.1		0	0
2	0	.14	0	.02	.02	0	0	0	.06		0	0
3	0	.11	0	.02	.02	0	0	0	.02		0	0
4	0	0	0	.02	.02	0	0	0	.02		.39	0
5	15	0	4.8	2.7	.02	0	0	0	.02		.13	0
6	3.0	0	5.8	.02	.61	1.6	0	0	.02		0	0
7	1.0	0	.04	.02	.35	.30	0	0	.02		0	0
8	.10	0	.02	.02	.06	.01	0	0	.02		0	0
9	.05	0	.02	.02	.02	0	0	0	.02		0	0
10	.02	0	.02	.02	.02	1.2	0	0	.02		0	0
11	.02	0	0	.02	.06	.52	0	0	.02		0	0
12	10	0	0	.02	.06	0	0	0	.02		0	0
13	2.0	0	0	.02	.06	0	0	0	0		0	.84
14	.10	0	0	.02	.06	0	0	28	0		0	.20
15	.02	0	0	.02	.06	0	0	4.5	0		0	0
16	.02	0	0	.02	.06	2.3	0	0	0		0	0
17	.02	0	0	.02	.03	4.8	0	0	0		0	0
18	.02	5.7	0	.02	0	0	.02	0	0		0	0
19	.02	.02	0	.02	0	0	1.3	0	0		0	0
20	.02	.02	.03	.02	0	0	0	0	0		0	0
21	.02	.02	.02	.02	0	0	0	0	0		0	0
22	.02	.02	.02	.02	0	0	0	.04	0		0	0
23	.02	.02	.02	.02	8.3	0	0	1.5	0		0	.53
24	.02	.02	.02	.02	5.0	0	0	.71	0		0	0
25	.02	.02	.02	.02	.01	0	0	.01	0		0	.42
26	.06	.57	.02	.02	0	0	0	8.1	0		0	1.8
27	.93	1.1	.02	.02	0	0	0	.58	0		0	.05
28	.55	.02	.02	.02	0	0	0	6.6	0		0	0
29	3.5	0	.60	.02	------	0	0	.06	0		0	0
30	.14	0	.71	.02	------	0	0	4.3	0		0	0
31	.14	------	.02	.02	------	0	------	1.9	------		0	------
TOTAL	36.83	7.92	12.22	3.30	14.86	10.73	1.32	56.30	2.36	0	.52	3.84
MEAN	1.19	.26	.39	.11	.53	.35	.044	1.82	.079	0	.017	.13
MAX	15	5.7	5.8	2.7	8.3	4.8	1.3	28	2.1	0	.39	1.8
MIN	0	0	0	.02	0	0	0	0	0	0	0	0
CFSM	1.00	.22	.33	.09	.45	.29	.04	1.53	.07	0	.01	.11
IN.	1.15	.25	.38	.10	.46	.34	.04	1.76	.07	0	.02	.12
AC-FT	73	16	24	6.6	29	21	2.6	112	4.7	0	1.0	7.6
(††)	5.26	1.67	2.16	.91	2.85	1.93	.87	9.25	.55	.64	1.22	3.19

CAL YR 1969	TOTAL	-	MEAN	-	MAX	-	MIN	-	CFSM	-	IN	-
WTR YR 1970	TOTAL	150.20	MEAN	.41	MAX	28	MIN	0	CFSM	.34	IN	4.70

AC-FT	-	††	-			
AC-FT	298	††	30.50			

PEAK DISCHARGE (BASE, 90 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
			about	3-16	2345	2.53	120
10- 5	unknown	unknown	300	5-14	2015	4.44	555
10-12	unknown	a3.1	221	5-26	1715	2.44	108

a From floodmark.

†† Weighted-mean rainfall, in inches, based on two rain gages.

08181450 Leon Creek tributary at Kelly Air Force Base, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						0	0	0		0	.31
2	0						0	0	0		6.9	0
3	0						0	0	0		13	0
4	0						0	0	0		.11	0
5	0						0	0	0		2.5	0
6	0						0	0	0		3.5	0
7	0						0	0	0		.02	0
8	0						0	0	0		0	0
9	0						0	0	0		0	0
10	0						0	0	0		0	2.0
11	0						0	0	0		0	12
12	0						0	0	0		5.0	.06
13	0						0	0	0		.96	.02
14	0						0	0	.72		.03	0
15	0						0	0	3.0		.02	0
16	0						.07	0	0		.90	0
17	0						0	0	0		.07	0
18	.50						0	0	0		.02	0
19	.10						0	0	0		.02	0
20	0						0	0	.34		0	0
21	0						0	0	3.4		0	0
22	0						0	0	14		0	1.3
23	0						0	0	2.7		0	.02
24	0						0	3.5	0		0	0
25	0						0	0	.01		0	.02
26	0						0	0	0		0	0
27	0						0	0	2.2		0	0
28	0						0	0	.06		0	0
29	0				------		0	0	0		0	.40
30	0				------		0	0	0		0	1.4
31	0	------			------		------	0	------		.04	------
TOTAL	.60	0	0	0	0	0	.07	3.5	26.43	0	33.09	17.53
MEAN	.019	0	0	0	0	0	.002	.11	.88	0	1.07	.58
MAX	.50	0	0	0	0	0	.07	3.5	14	0	13	12
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.02	0	0	0	0	0	.002	.09	.74	0	.90	.49
IN.	.02	0	0	0	0	0	.002	.11	.83	0	1.03	.55
AC-FT	1.2	0	0	0	0	0	.1	6.9	52	0	66	35
(††)	.77	.01	.10	0	.26	.03	.62	1.42	5.08	.04	7.17	4.01

CAL YR 1970 TOTAL 93.83 MEAN .26 MAX 28 MIN 0 CFSM .22 IN 2.93 AC-FT 186 †† 22.29
WTR YR 1971 TOTAL 81.22 MEAN .22 MAX 14 MIN 0 CFSM .18 IN 2.54 AC-FT 161 †† 19.51

PEAK DISCHARGE (BASE, 90 CFS).--May 24 (0630) 96 cfs (2.35 ft); June 22 (2145) 277 cfs (3.37 ft).

†† Weighted-mean rainfall, in inches, based on two rain gages.
NOTE.--No gage-height record Oct. 1 to Nov. 1.

08181500 Medina River at San Antonio, Tex.
(Formerly published as Medina River near San Antonio)

LOCATION (revised).--Lat 29°15'15", long 98°28'20", Bexar County, near left bank on downstream side of pier of upstream bridge of two bridges on U.S. Highway 281 in San Antonio and 6.8 miles upstream from mouth.

DRAINAGE AREA.--1,317 sq mi (634 sq mi is above dam forming Medina Lake).

PERIOD OF RECORD.--October 1929 to December 1930, July 1939 to current year. October 1929 to December 1930 records below about 50 cfs in connection with seepage investigation (published as "at Losoya"). Published as "near San Antonio" July 1939 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is 439.0 ft above mean sea level (levels by Corps of Engineers). October 1929 to December 1930 nonrecording gage at Losoya 1.5 miles downstream at different datum.

AVERAGE DISCHARGE.--32 years (1939-71), 106 cfs (76,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,950 cfs Aug. 4 (gage height, 18.88 ft); minimum, 39 cfs June 11.
Period of record: Maximum discharge, 31,800 cfs Aug. 29, 1946; maximum gage height, 41.57 ft Sept. 27, 1946 (backwater from San Antonio River); minimum daily discharge, 3.3 cfs Apr. 18, Nov. 1, 1956, Jan. 24, 1957.
Maximum stage 55 ft sometime prior to construction of Medina Dam in 1913, from information by State Highway Department.

REMARKS.--Records good. Flow slightly regulated by Medina Lake (station 08179500), 60 miles upstream, and diversion dam reservoir (capacity, 4,500 acre-ft). For diversion of canal records, see Medina Canal near Riomedina (station 08180000). For statement concerning losses into the Edwards and associated limestones formation, see Medina River near Riomedina (station 08180500). Several small diversions below diversion dam reservoir. Records furnished by city of San Antonio show that during the water year 1971 the city released approximately 2,580 acre-ft of sewage effluent from Mitchell Lake into river above gage during periods of high water, and 8,410 acre-feet of sewage effluent into the river just above the Mitchell Lake discharge point from the Leon Creek plant. A considerable part of the low flow is waste water from Kelly Field Air Force Base which enters via Leon Creek.

REVISIONS (WATER YEARS).--WSP 1562: 1957. WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	67	66	63	54	66	63	57	56	203	44	179
2	72	65	67	62	55	67	60	54	55	106	84	173
3	72	68	66	65	58	69	58	56	52	84	928	181
4	67	67	66	67	59	65	58	51	49	75	2,280	214
5	71	71	65	66	56	64	56	50	48	73	1,300	228
6	78	74	66	66	54	61	57	55	45	65	1,870	235
7	75	69	63	72	55	60	60	56	44	59	491	242
8	73	67	63	68	56	62	61	54	45	58	214	244
9	70	69	68	69	58	60	60	55	45	60	143	241
10	68	72	70	68	58	56	57	58	43	59	125	228
11	67	72	73	62	58	60	56	62	44	58	109	385
12	76	70	71	62	58	62	63	64	46	59	207	316
13	73	68	71	62	56	62	65	59	45	58	701	287
14	74	66	69	65	54	62	61	57	51	56	1,580	257
15	71	65	68	64	56	60	62	55	53	56	2,180	242
16	70	65	71	62	57	58	66	51	59	51	912	233
17	70	68	70	61	54	58	87	54	53	51	580	225
18	68	71	71	61	55	58	80	54	50	50	462	217
19	77	70	70	60	59	58	74	50	49	48	392	205
20	75	68	70	61	59	57	71	49	138	46	375	203
21	73	69	72	60	56	56	70	48	179	45	335	178
22	71	70	71	61	57	58	67	48	271	44	298	225
23	74	67	69	62	60	57	64	48	312	45	282	264
24	72	67	65	61	61	56	63	60	123	43	259	241
25	68	68	65	61	70	58	59	64	78	42	231	251
26	66	71	67	58	86	58	60	57	65	44	200	271
27	67	70	67	62	75	58	62	57	83	47	190	268
28	66	71	67	61	67	58	62	52	138	48	184	262
29	65	69	66	62	------	58	59	53	241	48	179	260
30	64	69	69	58	------	59	55	58	698	46	181	289
31	67	------	66	55	------	63	------	57	------	46	178	------
TOTAL	2,190	2,063	2,108	1,947	1,661	1,864	1,896	1,703	3,258	1,873	17,494	7,244
MEAN	70.6	68.8	68.0	62.8	59.3	60.1	63.2	54.9	109	60.4	564	241
MAX	78	74	73	72	86	69	87	64	698	203	2,280	385
MIN	64	65	63	55	54	56	55	48	43	42	44	173
AC-FT	4,340	4,090	4,180	3,860	3,290	3,700	3,760	3,380	6,460	3,720	34,700	14,370

CAL YR 1970 TOTAL 38,853 MEAN 106 MAX 2,290 MIN 49 AC-FT 77,060
WTR YR 1971 TOTAL 45,301 MEAN 124 MAX 2,280 MIN 42 AC-FT 89,850

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
8- 4	0330	18.88	2,950
8- 6	0630	18.16	2,660
8-15	1000	18.20	2,680

08181800 San Antonio River near Elmendorf, Tex.

LOCATION.--Lat 29°14'15", long 98°21'43", Bexar County, on left bank 2,000 ft downstream from Braunig Plant Lake and 2.2 miles southwest of Elmendorf.

DRAINAGE AREA.--1,743 sq mi.

PERIOD OF RECORD.--September 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 392.50 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 294 cfs (213,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,240 cfs Aug. 4 (gage height, 27.20 ft); minimum, 25 cfs July 31.
Period of record: Maximum discharge, 29,800 cfs Jan. 18, 1968 (gage height, 40.15 ft, from floodmark); minimum, 12 cfs Aug. 24-26, 1963.
Maximum stage since at least 1900, 61 ft in 1946. Second highest was 53 ft in 1913, from information by local residents.

REMARKS.--Records good. Flow slightly regulated by Medina Lake (station 08179500) and Olmos flood-control reservoir (station 08177800, combined capacity, 269,500 acre-ft). Storage began in Medina Reservoir in 1913, and Olmos Dam was completed in 1926. Water is diverted above station from Medina River for irrigation in the vicinity of Devine and Lytle with some water diverted for irrigation near San Antonio. Records furnished by city of San Antonio show that during year 6,430 acre-ft of sewage effluent was discharged into the San Antonio River from the Salado Creek Plant and 76,110 acre-ft from the Rilling Road Plant, about 7.5 and 15.5 miles, respectively, upstream from this station; records furnished by the San Antonio City Public Service Board show that at pump plant 1,700 ft upstream from this station, 11,250 acre-ft was pumped into Braunig Plant Lake and 14,600 acre-ft was pumped into Calaveras Lake. During the period Aug. 3-8, 1,900 acre-ft was released into the San Antonio River from Braunig Lake. For additional information relative to sewage effluent, see station Medina River at San Antonio (08181500). Water-quality records for the current year are published in Part 2 of this report. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08178700.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	214	163	214	170	209	86	169	163	326	56	344
2	259	167	181	202	170	228	86	158	162	189	392	332
3	239	153	194	212	163	219	74	128	155	149	3,340	316
4	234	147	157	222	175	215	68	84	149	131	4,350	333
5	241	150	142	229	194	219	102	96	117	112	2,780	349
6	227	160	134	222	174	212	152	170	115	129	2,650	354
7	174	152	135	230	160	199	162	142	139	116	1,490	375
8	172	139	140	232	166	199	170	94	163	102	764	368
9	160	149	148	228	166	207	155	106	134	101	361	370
10	147	154	154	223	170	159	158	113	133	92	324	366
11	137	152	157	174	170	129	152	182	139	97	305	1,620
12	297	154	149	149	168	137	161	219	135	109	489	983
13	287	155	143	145	156	108	170	135	129	116	999	496
14	260	209	147	151	152	123	159	105	159	109	1,600	425
15	255	199	152	198	143	123	154	101	298	110	2,060	345
16	241	168	192	219	167	131	232	101	292	100	1,340	306
17	232	150	152	211	197	104	544	102	177	77	1,020	300
18	220	151	153	212	196	106	296	102	121	71	684	284
19	382	133	151	209	198	100	199	92	84	75	593	262
20	325	124	143	207	194	90	187	80	187	81	565	266
21	260	122	149	206	188	108	201	85	414	82	498	256
22	251	119	162	214	189	120	190	65	896	90	461	400
23	265	201	159	190	198	132	185	100	635	88	435	725
24	255	169	148	176	202	116	168	342	254	79	425	569
25	232	149	137	181	235	89	163	365	140	75	398	438
26	193	157	123	194	369	107	170	237	116	72	361	413
27	151	144	134	189	256	99	178	209	138	77	347	423
28	141	151	175	180	212	119	177	163	286	115	332	442
29	135	142	228	188	------	119	174	125	327	127	314	668
30	157	152	229	193	------	121	170	131	848	69	344	544
31	216	------	231	182	------	91	------	150	------	62	340	------
TOTAL	7,014	4,686	4,962	6,182	5,298	4,438	5,243	4,451	7,205	3,328	30,417	13,672
MEAN	226	156	160	199	189	143	175	144	240	107	981	456
MAX	382	214	231	232	369	228	544	365	896	326	4,350	1,620
MIN	135	119	123	145	143	89	68	65	84	62	56	256
AC-FT	13,910	9,290	9,840	12,260	10,510	8,800	10,400	8,830	14,290	6,600	60,330	27,120

CAL YR 1970 TOTAL 111,047 MEAN 304 MAX 4,350 MIN 56 AC-FT 220,300
WTR YR 1971 TOTAL 96,896 MEAN 265 MAX 4,350 MIN 56 AC-FT 192,200

PEAK DISCHARGE (BASE, 3,000 CFS).--Aug. 4 (0300) 6,240 cfs (27.20 ft); Aug. 5 (1430) 4,060 cfs (22.90 ft).

08182400 Calaveras Creek subwatershed No. 6 near Elmendorf, Tex.

LOCATION.--Lat 29°22'49", long 98°17'33", Bexar County, near center of dam on Chupaderas Creek, a tributary to Calaveras Creek, 0.5 mile north of Sayer, 9.1 miles north of Elmendorf, and 9.2 miles upstream from mouth.

DRAINAGE AREA.--7.01 sq mi.

PERIOD OF RECORD.--December 1956 to current year.

GAGE.--Water-stage recorder and concrete drop-inlet control. Datum of gage is 516.06 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--14 years (1957-71), 745 acre-ft per year.

AVERAGE OUTFLOW.--14 years (1957-71), 719 acre-ft per year.

EXTREMES.--Current year: Maximum outflow, 32.0 cfs Aug. 3 (gage height, 19.24 ft); no outflow for most of year. Maximum inflow, 994 cfs (average for 5-minute interval) Aug. 3, computed from change in reservoir contents and adjusted for outflow and rainfall on pool surface; no inflow for many days.
Period of record: Maximum outflow, 47.2 cfs Jan. 21, 1968 (gage height, 31.59 ft); no outflow for many days each year. Maximum inflow, 4,270 cfs (average for 5-minute interval) Jan. 18, 1968, computed from change in reservoir contents and adjusted for outflow and rainfall on pool surface; no inflow at times.

REMARKS.--Records good. Pool is formed by an earthfill dam that was completed Dec. 15, 1956. The outlet structure is a 36-inch square concrete drop inlet connected to a 17-inch concrete outlet pipe. The top of the drop inlet is at a gage height of 18.0 ft; the bottom of four 8- by 8-inch uncontrolled openings are at a gage height of 14.80 ft; the right emergency spillway is at a gage height of 34.3 ft; the left emergency spillway is at a gage height of 34.5 ft. A controlled 8-inch sluice gate is located in the upstream face of the drop-inlet structure at a gage height of 8.52 ft. Pool capacity, 1,640 acre-ft at spillway crest, 107 acre-ft at top of the drop inlet, and 4.2 acre-ft at bottom of sluice gate. The capacity table is based on a survey made Mar. 12, 1968. Two recording rain gages are located in the watershed; one at and one above the station.

REVISIONS (WATER YEARS).--WSP 2123: 1957-65.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	0	0	0	0	0	0	0	0	0	0	214	10.2
Outflow	0	0	0	0	0	0	0	0	0	0	162	0
(†)	-3.6	-2.5	-1.3	-1.5	-1.3	-.1	0	0	0	0	+35.7	-3.7
(††)	1.30	0	.18	0	.41	0	.70	1.77	1.36	.09	7.40	3.65

CAL YR 1970: INFLOW 671 OUTFLOW 641 † -42.4 †† 22.39
WTR YR 1971: INFLOW 224 OUTFLOW 162 † +21.7 †† 16.86

PEAK INFLOW (BASE, 100 CFS).--Aug. 3 (1740) 994 cfs (average for 5-minute interval).

1/ Inflow adjusted for rainfall on pool and pool losses.
† Change in contents, in acre-feet.
†† Weighted-mean rainfall, in Inches, based on two rain gages.
NOTE.--Lake dry Mar. 8 to July 31.

08182500 Calaveras Creek near Elmendorf, Tex.

LOCATION.--Lat 29°15'38", long 98°17'34", Bexar County, near center of span at downstream side of upstream bridge of two bridges on U.S. Highway 181, 1.6 miles downstream from Calaveras dam, 2.5 miles east of Elmendorf, 7.2 miles upstream from mouth, and 9 miles southeast from city limits of San Antonio.

DRAINAGE AREA.--77.2 sq mi.

PERIOD OF RECORD.--August 1954 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 406.45 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 9.08 cfs (1.60 inches per year, 6,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,410 cfs Aug. 3 (gage height, 15.83 ft); no flow most of time.
Period of record: Maximum discharge, 5,310 cfs Sept. 25, 1957 (gage height, 21.83 ft); no flow at times.
Maximum stage since at least 1860, 35 ft Sept. 29, 1946, from information by local residents.

REMARKS.--Records fair. At end of year, flow from 71.1 sq mi above this station was partly controlled by Calaveras Lake (drainage area, 65 sq mi), capacity 63,000 acre-ft and one floodwater-retarding structure (drainage area, 6.12 sq mi), with a capacity of 1,870 acre-ft, of which 1,670 acre-ft is floodwater-retarding capacity and 200 acre-ft is sediment-pool capacity. The capacity in this pool allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by the San Antonio City Public Service Board show that during the year 14,600 acre-ft was diverted from the San Antonio River into Calaveras Lake.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0			0	0	.05	0		0		0	0
2	0			0	0	0	0		0		6.1	0
3	0			0	0	.20	0		0		303	0
4	0			0	.18	.29	0		0		84	0
5	.51			.10	.29	.20	0		0		276	0
6	.01			.01	.31	.03	0		0		53	0
7	0			0	.14	0	0		0		43	0
8	0			0	.21	0	0		0		22	0
9	0			0	.20	0	0		0		4.2	0
10	0			0	.03	0	0		0		1.4	2.1
11	0			0	.01	0	0		0		.66	16
12	.20			0	.20	0	0		0		.49	4.8
13	.08			0	.14	0	0		0		.20	1.8
14	0			0	.02	0	0		0		.01	.90
15	0			0	0	0	0		0		0	.24
16	0			0	0	0	0		0		0	0
17	0			0	.19	0	.25		0		0	0
18	0			0	.16	0	.07		0		0	0
19	0			0	.06	0	0		.01		0	0
20	0			0	0	0	0		.02		0	0
21	0			0	0	0	0		0		0	0
22	0			0	1.8	0	0		0		0	.67
23	0			0	.17	0	0		0		0	.94
24	0			0	.10	0	0		0		0	16
25	0			0	7.2	0	0		0		0	7.3
26	0			0	2.2	0	0		0		0	3.0
27	0			0	.36	0	0		6.2		0	1.6
28	0			0	.21	0	0		.72		0	.58
29	0			.12	------	0	0		.20		0	1.1
30	0			.14	------	0	0		0		0	1.1
31	0	------		.01	------	0	------		------		0	------
TOTAL	.80	0	0	.38	14.18	.77	.32	0	7.15	0	794.06	58.13
MEAN	.026	0	0	.012	.51	.025	.011	0	.24	0	25.6	1.94
MAX	.51	0	0	.14	7.2	.29	.25	0	6.2	0	303	16
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	.0003	0	0	.0002	.007	.0003	.0001	0	.003	0	.33	.03
IN.	0	0	0	0	.006	0	0	0	.003	0	.38	.03
AC-FT	1.6	0	0	.8	28	1.5	.6	0	14	0	1,580	115

CAL YR 1970 TOTAL 134.24 MEAN .37 MAX 33 MIN 0 CFSM .005 IN .06 AC-FT 266
WTR YR 1971 TOTAL 875.79 MEAN 2.40 MAX 303 MIN 0 CFSM .03 IN .42 AC-FT 1,740

08183500 San Antonio River near Falls City, Tex.

LOCATION.--Lat 28°57'05", long 98°03'50", Karnes County, on left bank 23 ft downstream from bridge on Farm Road 791, 0.9 mile upstream from Scared Dog Creek, 3.6 miles southwest of Falls City, and at mile 150.5.

DRAINAGE AREA.--2,113 sq mi.

PERIOD OF RECORD.--April 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 285.49 ft above mean sea level.

AVERAGE DISCHARGE.--46 years, 313 cfs (226,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,420 cfs Aug. 6 (gage height, 7.30 ft); minimum, 48 cfs July 21, 28.
Period of record: Maximum discharge, 47,400 cfs Sept. 29, 1946 (gage height, 33.80 ft, from floodmark); minimum, 15 cfs June 27, 28, 1956.
Maximum stage since at least 1875, that of Sept. 29, 1946. Flood in October 1913 reached a stage of 28.4 ft, from floodmark, from information by local residents.

REMARKS.--Records good. Diversion and regulation above station, see REMARKS for Salado Creek (upper station) at San Antonio (station 08178700), Medina River at San Antonio (station 08181500), San Antonio River near Elmendorf (station 08181800), and Calaveras Creek near Elmendorf (station 08182500). At end of year, flow from 11.9 sq mi above this station was partly controlled by two floodwater-retarding structures with a total combined capacity of 4,160 acre-ft below the flood-spillway crests, of which 3,760 acre-ft is floodwater-retarding capacity and 400 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 2,290 acre-ft, of which 200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1732: 1947(M). WSP 1923: Drainage area.

CORRECTIONS.--The following peaks above base were omitted from WRD Texas, 1970: May 17 (1800) 2,270 cfs (4.39 ft); May 29 (0900) 3,180 cfs (5.68 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	167	149	221	178	250	114	160	113	550	69	306
2	242	202	151	222	167	222	99	158	128	532	71	300
3	234	202	156	209	156	222	87	160	133	246	72	301
4	229	169	179	199	158	229	93	146	138	171	950	286
5	219	151	179	205	153	225	92	122	136	150	2,510	284
6	221	148	158	216	168	222	77	92	136	135	3,980	302
7	228	151	146	221	182	225	83	91	111	120	3,960	307
8	195	162	140	219	167	218	126	150	102	123	3,000	318
9	175	154	134	226	156	208	139	139	121	108	1,560	323
10	170	146	138	230	153	201	149	101	134	95	591	334
11	163	151	141	226	154	204	143	110	112	97	320	412
12	155	157	150	220	156	171	140	126	115	90	291	1,170
13	164	154	154	178	156	147	131	188	124	87	274	1,550
14	280	152	148	155	159	150	144	186	119	91	730	688
15	250	164	141	151	150	126	149	136	343	98	1,180	435
16	237	199	142	156	143	132	155	112	149	90	1,720	363
17	232	197	153	203	135	132	163	110	281	87	1,940	296
18	226	175	174	214	150	136	405	108	210	82	1,350	283
19	216	157	153	204	179	116	341	103	209	64	824	272
20	231	154	156	205	180	109	234	104	166	57	606	255
21	342	141	156	205	186	107	196	93	113	55	537	238
22	259	132	149	204	179	101	196	84	258	59	488	248
23	228	134	150	200	173	106	193	90	649	65	435	267
24	224	132	159	203	172	110	180	70	619	73	394	603
25	237	198	159	180	179	134	185	91	452	72	386	625
26	221	176	151	164	195	119	173	322	199	72	364	467
27	208	158	142	165	277	97	158	250	149	61	334	396
28	173	161	132	177	323	107	156	194	146	58	308	379
29	152	153	140	179	------	107	165	170	184	58	303	404
30	146	158	179	173	------	113	167	145	253	83	289	565
31	140	------	218	179	------	110	------	114	------	110	281	------
TOTAL	6,654	4,855	4,777	6,109	4,884	4,856	4,833	4,225	6,102	3,839	30,117	12,977
MEAN	215	162	154	197	174	157	161	136	203	124	972	433
MAX	342	202	218	230	323	250	405	322	649	550	3,980	1,550
MIN	140	132	132	151	135	97	77	70	102	55	69	238
AC-FT	13,200	9,630	9,480	12,120	9,690	9,630	9,590	8,380	12,100	7,610	59,740	25,740

CAL YR 1970 TOTAL 115,430 MEAN 316 MAX 3,120 MIN 81 AC-FT 229,000
WTR YR 1971 TOTAL 94,228 MEAN 258 MAX 3,980 MIN 55 AC-FT 186,900

PEAK DISCHARGE (BASE, 1,800 CFS).--Aug. 6 (1800) 4,420 cfs (7.30 ft); Aug. 17 (0900) 2,010 cfs (4.02 ft).

08183900 Cibolo Creek near Boerne, Tex.

LOCATION.--Lat 29°46'26", long 98°41'50", Kendall County, on left bank 0.6 mile upstream from Southern Pacific Lines bridge, 0.9 mile downstream from Menger Creek, and 2.5 miles southeast of Boerne.

DRAINAGE AREA.--68.4 sq mi.

PERIOD OF RECORD.--March 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,339.61 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 18.2 cfs (13,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,300 cfs Aug. 13 (gage height, 9.5 ft, from floodmark), from rating curve extended as explained below; no flow July 15 to Aug. 1.
Period of record: Maximum discharge, 36,400 cfs Sept. 27, 1964 (gage height, 19.15 ft, from floodmark), from rating curve extended above 570 cfs on basis of slope-area measurement at 12,000 cfs and contracted-opening measurement of 36,400 cfs; no flow at times in 1962-64, 1966, 1967, 1971.
Maximum stage since at least 1892, that of Sept. 27, 1964. Second highest flood reached a stage of 16.3 ft (discharge, 25,600 cfs) in 1952, from information by local residents.

REMARKS.--Records good. No known diversion above station.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1965(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.5	3.6	2.6	2.0	2.0	1.6	1.2	.83	.11	0	20
2	5.0	4.1	3.9	2.6	1.8	1.8	1.4	1.1	.56	.07	.80	25
3	5.2	4.0	3.6	2.7	2.1	1.5	1.5	.80	.42	.09	.18	22
4	5.2	4.1	3.6	2.5	2.5	1.6	1.5	.77	.40	.08	1.5	20
5	5.2	3.8	3.8	2.3	2.2	1.6	2.1	1.0	.38	.07	2.2	19
6	5.6	3.4	3.5	2.5	2.2	1.4	2.2	1.4	.34	.06	1.6	18
7	6.4	3.0	3.3	2.6	2.3	1.2	2.1	1.2	.31	.05	.61	17
8	5.8	2.8	3.3	2.6	2.1	1.4	2.2	1.2	.25	.06	.24	17
9	4.9	3.2	3.5	2.6	2.3	1.5	2.5	1.1	.18	.06	.12	16
10	4.9	3.1	3.3	2.6	2.4	1.6	2.7	.98	.14	.04	.07	16
11	5.0	3.6	3.2	2.5	2.3	1.5	2.7	1.4	.16	.02	.05	20
12	6.6	4.0	2.7	2.6	2.0	1.4	2.6	1.1	.19	.01	913	18
13	6.6	4.1	2.8	2.8	2.0	1.6	2.5	.77	.15	.01	1,000	17
14	5.1	4.1	2.8	2.9	2.3	1.7	3.0	.92	.11	.01	373	16
15	4.6	4.3	3.1	3.0	2.1	1.4	3.1	.99	.18	0	187	16
16	4.3	3.9	2.9	2.7	2.1	1.6	12	.76	.25	0	124	15
17	4.2	4.3	3.1	2.8	2.1	1.6	8.2	.58	.27	0	91	15
18	4.5	3.6	3.1	2.7	2.1	1.6	3.6	.42	.32	0	73	14
19	8.4	3.6	3.1	2.5	2.3	1.6	2.3	.34	.49	0	63	14
20	4.8	3.3	3.3	2.4	2.1	1.6	11	.26	.44	0	59	15
21	4.1	3.1	3.4	2.4	2.1	1.8	2.5	.28	.29	0	50	15
22	3.9	3.0	3.6	2.6	1.7	1.8	1.9	.27	.27	0	44	269
23	4.1	3.1	3.5	2.5	1.5	2.0	2.1	.23	.22	0	39	360
24	4.3	2.8	3.2	2.5	1.7	2.0	1.8	2.8	.15	0	34	39
25	4.2	2.8	2.9	2.5	5.0	2.0	1.5	2.4	.11	0	30	32
26	4.2	3.0	2.7	2.2	5.6	2.0	1.8	1.6	.09	0	28	26
27	4.5	3.2	2.6	2.0	2.7	2.0	1.7	1.4	.13	0	27	22
28	4.5	3.4	2.8	2.0	2.1	2.0	1.5	1.3	.28	0	31	20
29	4.6	3.6	2.8	2.1	------	1.8	1.7	1.2	.58	0	26	19
30	4.6	3.4	2.8	2.3	------	1.8	1.4	1.3	.22	0	22	25
31	4.5	------	2.6	2.2	------	1.8	------	1.2	------	0	21	------
TOTAL	154.8	106.2	98.4	77.8	65.7	52.2	88.7	32.27	8.71	.74	3,242.37	1,177
MEAN	4.99	3.54	3.17	2.51	2.35	1.68	2.96	1.04	.29	.024	105	39.2
MAX	8.4	4.5	3.9	3.0	5.6	2.0	12	2.8	.83	.11	1,000	360
MIN	3.9	2.8	2.6	2.0	1.5	1.2	1.4	.23	.09	0	0	14
AC-FT	307	211	195	154	130	104	176	64	17	1.5	6,430	2,330

CAL YR 1970 TOTAL 10,404.90 MEAN 28.5 MAX 204 MIN 1.3 AC-FT 20,640
WTR YR 1971 TOTAL 5,104.89 MEAN 14.0 MAX 1,000 MIN 0 AC-FT 10,130

PEAK DISCHARGE (BASE, 450 CFS, REVISED)

DATE	TIME	G.HT.	DISCHARGE
8-12	0400	7.4	2,570
8-13	1400	a9.5	5,300
9-22	2300	a7.81	3,000

a From floodmark.

08185000 Cibolo Creek at Selma, Tex.

LOCATION (revised).--Lat 29°35'38", long 98°18'39", Bexar-Guadalupe County line, on right bank 0.6 mile downstream from Missouri-Kansas-Texas Railroad Co. bridge and 0.9 mile upstream from bridge on Interstate Highway 35 at Selma.

DRAINAGE AREA.--274 sq mi.

PERIOD OF RECORD.--March 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 728.34 ft above mean sea level.

AVERAGE DISCHARGE.--25 years, 10.4 cfs (7,530 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,000 cfs Aug. 14 (gage height, 9.82 ft); no flow most of time.
Period of record: Maximum discharge, 49,200 cfs May 3, 1958 (gage height, 21.7 ft, from floodmark), from rating curve extended above 16,000 cfs on basis of slope-area measurement of 36,400 cfs; no flow most of time.
Maximum stage since at least 1869, 26 ft in 1889, stage of flood in 1913 unknown, from information by local residents.

REMARKS.--Records good. Small diversion above station. Considerable flow of Cibolo Creek enters the Edwards and associated limestones in the Balcones Fault Zone which crosses basin between this station and station near Boerne (station 08183900).

REVISIONS.--WSP 1923: Drainage area. Figures for water year 1960 in WSP 1813 are in error and should be disregarded.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	0	0	0	0	0	0	
2				0	0	0	0	0	0	0	0	
3				0	0	0	0	0	0	0	0	
4				0	0	0	0	0	0	0	0	
5				0	0	0	0	0	0	0	0	
6				0	0	0	0	0	0	0	0	
7				0	0	0	0	0	0	0	0	
8				0	0	0	0	0	0	0	0	
9				0	0	0	0	0	0	0	0	
10				0	0	0	0	0	0	0	0	
11				0	0	0	0	0	0	0	0	
12				0	0	0	0	0	0	0	0	
13				0	0	0	0	0	0	0	477	
14				0	0	0	0	0	0	0	1,670	
15				0	0	0	0	0	0	0	265	
16				0	0	0	0	0	0	0	72	
17				0	0	0	0	0	0	0	13	
18				0	0	0	0	0	0	0	1.6	
19				0	0	0	0	0	0	0	.33	
20				0	0	0	0	0	0	0	.24	
21				0	0	0	0	0	0	0	.17	
22				0	0	0	0	0	0	0	.14	
23				0	0	0	0	0	0	0	.09	
24				0	0	0	0	0	0	0	.05	
25				0	0	0	0	0	0	0	.02	
26				0	0	0	0	0	0	0	.07	
27				0	0	0	0	0	0	0	.10	
28				0	0	0	0	0	0	0	.05	
29				0	------	0	0	0	0	0	.02	
30				0	------	0	0	0	0	0	0	
31		------		0	------	0	------	0	------	0	0	------
TOTAL	0	0	0	0	0	0	0	0	0	0	2,499.88	0
MEAN	0	0	0	0	0	0	0	0	0	0	80.6	0
MAX	0	0	0	0	0	0	0	0	0	0	1,670	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	4,960	0

CAL YR 1970 TOTAL 11.20 MEAN .03 MAX 10 MIN 0 AC-FT 22
WTR YR 1971 TOTAL 2,499.88 MEAN 6.85 MAX 1,670 MIN 0 AC-FT 4,960

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 13 (0430) 1,160 cfs (5.84 ft); Aug. 14 (0600) 6,000 cfs (9.82 ft).

08186000 Cibolo Creek near Falls City, Tex.

LOCATION.--Lat 29°00'50", long 97°55'48", Karnes County, on right bank at downstream side of pier of bridge on State Highway 123, 5.7 miles northeast of Falls City, and 10.4 miles upstream from mouth.

DRAINAGE AREA.--827 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 264.28 ft above mean sea level. Nov. 4, 1930, to Aug. 4, 1940, water-stage recorder at site 1,600 ft upstream at datum 0.56 ft higher. Aug. 5 to Sept. 13, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--41 years, 108 cfs (78,250 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,680 cfs Aug. 6 (gage height, 18.58 ft); no flow Aug. 1.
Period of record: Maximum discharge, 33,600 cfs July 6, 1942 (gage height, 34.45 ft); no flow July 30-31, Aug. 4-22, 1956, Aug. 1, 1971.
Maximum stage since at least 1890, 35 ft in October 1913 (discharge, about 35,000 cfs).

REMARKS.--Records good. Diversions for irrigation above station. Much of the base flow is effluent from the Carrizo Sands in the vicinity of Sutherland Springs. At end of year, flow from 28.9 sq mi above this station was partly controlled by 6 floodwater-retarding structures with a total combined capacity of 8,920 acre-ft below the flood-spillway crests, of which 7,760 acre-ft is floodwater-retarding capacity and 1,160 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 733: 1931. WSP 1058: 1935. WSP 1562: 1931(M), 1933. WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	14	16	15	15	18	4.7	1.8	3.6	9.6	0	25
2	19	14	19	14	15	18	4.1	2.9	3.5	11	754	22
3	18	14	15	15	17	17	3.8	2.5	3.1	7.6	227	21
4	18	13	14	15	17	15	4.3	2.8	2.6	4.8	1,350	20
5	30	14	16	15	16	14	4.9	2.0	2.0	3.3	2,100	20
6	25	15	14	17	16	16	6.2	3.1	1.5	2.5	4,250	19
7	19	16	12	18	15	13	6.9	2.8	1.2	2.0	715	19
8	18	15	14	18	14	12	7.0	2.2	2.0	1.9	186	18
9	17	16	17	18	15	14	6.2	2.2	2.6	1.6	89	18
10	17	16	17	18	15	15	5.3	4.0	1.9	1.2	61	67
11	17	16	18	18	14	14	4.6	5.4	1.5	1.3	45	506
12	17	16	16	18	15	12	4.1	4.1	1.3	1.4	37	1,160
13	18	16	17	18	16	12	4.8	3.9	1.0	1.3	145	243
14	18	15	18	18	15	13	4.1	3.0	.88	.90	223	86
15	17	14	18	15	14	12	4.5	2.9	.99	1.4	653	54
16	17	13	17	14	15	11	3.9	2.7	1.2	2.0	727	43
17	17	16	18	15	14	13	4.7	2.0	1.4	1.4	211	34
18	16	15	18	16	13	12	4.6	2.6	1.4	.96	110	94
19	17	17	16	16	14	9.4	4.3	3.2	2.4	.72	76	135
20	18	17	15	16	15	8.9	7.8	2.4	2.3	.78	82	32
21	17	16	16	17	13	9.1	8.3	4.0	1.7	.95	52	26
22	17	15	19	16	10	9.3	8.0	32	1.7	.81	42	26
23	19	12	18	15	13	9.4	7.2	12	1.8	.49	37	25
24	21	12	17	16	12	8.5	6.3	6.1	1.9	.25	34	43
25	20	13	18	17	13	9.2	5.5	3.6	1.6	.16	31	94
26	18	13	18	19	17	6.9	5.0	3.4	1.4	.12	29	47
27	17	13	17	19	17	5.6	4.4	3.9	1.4	.07	27	45
28	16	14	17	19	21	5.0	4.5	6.2	38	.06	26	33
29	15	14	18	17	------	4.1	3.9	4.4	39	.05	25	28
30	15	14	16	15	------	4.6	3.0	4.2	18	.04	24	51
31	14	------	18	15	------	5.5	------	4.1	------	.03	22	------
TOTAL	559	438	517	512	416	346.5	156.9	142.4	144.87	60.69	12,390.0	3,054
MEAN	18.0	14.6	16.7	16.5	14.9	11.2	5.23	4.59	4.83	1.96	400	102
MAX	30	17	19	19	21	18	8.3	32	39	11	4,250	1,160
MIN	14	12	12	14	10	4.1	3.0	1.8	.88	.03	0	18
AC-FT	1,110	869	1,030	1,020	825	687	311	282	287	120	24,580	6,060

CAL YR 1970 TOTAL 25,586.20 MEAN 70.1 MAX 3,950 MIN 9.2 AC-FT 50,750
WTR YR 1971 TOTAL 18,737.36 MEAN 51.3 MAX 4,250 MIN 0 AC-FT 37,170

PEAK DISCHARGE (BASE, 3,600 CFS).--Aug. 5 (0200) 3,740 cfs (15.53 ft); Aug. 6 (1500) 5,680 cfs (18.58 ft).

08186500 Ecleto Creek near Runge, Tex.

LOCATION.--Lat 28°55'12", long 97°46'19", Karnes County, on left bank 55 ft downstream from Farm Road 81, 215 ft left of left end of bridge, 2.6 miles upstream from Salt Branch, 4.5 miles northwest of Runge, and 5.2 miles upstream from mouth.

DRAINAGE AREA.--239 sq mi.

PERIOD OF RECORD.--March 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 215.03 ft above mean sea level, Texas Highway Department bridge plans.

AVERAGE DISCHARGE.--9 years, 35.4 cfs (25,650 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 740 cfs Sept. 12 (gage height, 8.20 ft); no flow at times.
Period of record: Maximum discharge, 58,400 cfs Sept. 22, 1967 (gage height, 33.3 ft, from floodmark), from rating curve extended above 7,300 cfs on basis of slope-area measurement of peak flow; no flow at times 1962-67, 1969-71.
Flood information begins with the flood in June 1903 which reached a stage of 34 ft (discharge, 71,000 cfs). A stage of 32 ft (discharge, 39,000 cfs) occurred in September 1952, from information by local residents.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.01	.04	.08	.01	.02		0		0	0
2			.01	.06	.08	.02	.02		0		0	0
3			.01	.08	.08	.02	.02		0		0	0
4			0	.04	.08	.02	.02		0		113	0
5			.01	.01	.08	.03	.03		0		211	0
6			0	0	.08	.04	.04		0		36	0
7			0	0	.08	.04	.03		0		38	0
8			0	0	.08	.04	.02		0		36	0
9			.01	.01	.08	.06	.02		0		25	0
10			.01	.01	.08	.06	.02		0		9.3	1.9
11			.01	.01	.08	.06	.02		0		5.1	477
12			.01	.02	.08	.08	.02		0		2.9	542
13			.01	.02	.08	.08	.01		0		1.5	130
14			.01	.02	.10	.08	0		0		.80	25
15			.01	.02	.10	.06	0		0		.30	9.6
16			.01	.01	.10	.06	.02		0		.10	5.3
17			0	.01	.10	.06	.16		0		.08	3.5
18			.01	.01	.10	.06	.13		.39		.03	2.1
19			.01	.01	.10	.06	.06		21		.02	1.2
20			.01	.01	.08	.06	.03		.03		5.3	.60
21			.01	.01	.06	.06	.01		0		14	.94
22			.02	.02	.04	.08	.01		0		4.9	3.5
23			.01	.03	.06	.06	.01		0		2.2	2.2
24			.01	.03	.08	.04	.01		0		.80	1.6
25			.01	.03	.10	.06	0		0		.30	1.2
26			.01	.03	.16	.08	0		0		.10	.90
27			.01	.03	.01	.08	0		0		.04	.80
28			.02	.04	.01	.08	0		0		.01	2.3
29			.03	.06	------	.08	0		0		0	3.5
30			.04	.08	------	.04	0		0		0	2.4
31		------	.04	.08	------	.02	------		------		0	------
TOTAL	0	0	.36	.83	2.24	1.68	.73	0	21.42	0	506.78	1,217.54
MEAN	0	0	.012	.027	.080	.054	.024	0	.71	0	16.3	40.6
MAX	0	0	.04	.08	.16	.08	.16	0	21	0	211	542
MIN	0	0	0	0	.01	.01	0	0	0	0	0	0
AC-FT	0	0	.7	1.7	4.4	3.3	1.5	0	42	0	1,010	2,410

CAL YR 1970 TOTAL 3,154.36 MEAN 8.64 MAX 590 MIN 0 AC-FT 6,260
WTR YR 1971 TOTAL 1,751.58 MEAN 4.80 MAX 542 MIN 0 AC-FT 3,470

PEAK DISCHARGE (BASE, 500 CFS).--Sept. 12 (0700) 740 cfs (8.20 ft).

08187000 Escondido Creek subwatershed No. 1 near Kenedy, Tex.

LOCATION.--Lat 28°46'41", long 97°53'41", Karnes County, near center of dam on an unnamed fork of Panther Creek, 900 ft upstream from State Highway 72, and 3.9 miles southwest of Kenedy.

DRAINAGE AREA.--3.29 sq mi.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder and concrete drop-inlet control. Datum of gage is 350.00 ft above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--17 years, 444 acre-ft per year.

AVERAGE OUTFLOW.--17 years, 206 acre-ft per year.

EXTREMES.--Current year: No outflow during year. Maximum inflow, 407 cfs (average for 5-minute interval) Sept. 10, computed from change in reservoir contents and adjusted for outflow and rainfall on pool surface; no inflow for many days.
Period of record: Maximum outflow, 2,360 cfs Sept. 21, 1967 (gage height, 30.06 ft; 31.0 ft, from floodmarks at spillway), from rating curve extended above 200 cfs on basis of flow-through-culvert measurement; no outflow for most of time each year. Maximum inflow, 5,260 cfs (average for 5-minute interval) Oct. 25, 1960, computed as explained above; no inflow at times.

REMARKS.--Records good except those for periods when water was below intakes, May 19 to June 18, June 23 to Aug. 5, and Aug. 12 to Sept. 9, which are poor. Dam was completed Sept. 21, 1954, but no appreciable storage began until July 1955. The first outflow occurred on Apr. 27, 1957. The pool is formed by a rolled-fill earthen dam about 2,300 ft long, with an earthen spillway at left end of dam at gage height 27.7 ft. The outlet structure is a 2.5-foot square concrete drop inlet connected to a 12-inch concrete outlet pipe. The top of the drop inlet is at gage height 18.0 ft; the 12-inch outlet pipe is at gage height 9.2 ft. There is a 10-inch auxiliary pipe opening into the upstream face of the drop inlet at gage height 16.0 ft. There is also an 8-inch controlled emergency outlet pipe opening into the upstream face of the drop inlet at gage height 9.2 ft. Pool capacity is 905 acre-ft at the spillway crest, 220 acre-ft at top of the drop inlet, 150 acre-ft at bottom of the 10-inch uncontrolled pipe, and 23.2 acre-ft at bottom of the 8-inch controlled outlet. The dam was built by the Soil Conservation Service for flood control. The capacity table is based on a survey made June 21, 1964. Sediment survey dated July 21, 1969, indicated insignificant changes. Rainfall records are collected from two recording rain gages, one located at station and one in the watershed above station.

REVISIONS (WATER YEARS).--WSP 1923: 1955-60.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	0	0	0	0	0	0	0	0	0.1	0	1.0	38.2
Outflow	0	0	0	0	0	0	0	0	0	0	0	0
(†)	-21.8	-15.4	-9.8	-6.8	-4.1	-4.4	-2.6	-5.3	0	0	0	+31.5
(††)	.58	0	.38	0	1.00	0	1.83	.13	3.37	0	4.50	8.80

CAL YR 1970: INFLOW 372 OUTFLOW 107 † +6.2 †† 28.14
WTR YR 1971: INFLOW 39.3 OUTFLOW 0 † -38.7 †† 20.59

PEAK INFLOW (BASE, 100 CFS).--Sept. 10 (1910) 407 cfs (average for 5-minute interval).

1/ Inflow adjusted for rainfall on pool and pool losses.
† Change in contents, in acre-feet.
†† Weighted-mean rainfall, in inches, based on two rain gages.
NOTE.--Lake dry Mar. 31 to June 18, June 30 to July 31, Aug. 15 to Sept. 9.

08187500 Escondido Creek at Kenedy, Tex.

LOCATION.--Lat 28°49'11", long 97°51'32", Karnes County, near center of channel at downstream side of bridge on U.S. Highway 181 at northwest edge of Kenedy, 4.6 miles upstream from Dry Escondido Creek, and 9.6 miles upstream from mouth.

DRAINAGE AREA.--72.4 sq mi.

PERIOD OF RECORD.--July 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 246.40 ft above mean sea level.

AVERAGE DISCHARGE.--17 years, 13.3 cfs (2.50 inches per year, 9,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 627 cfs Aug. 4 (gage height, 15.69 ft); no flow for many days.
Period of record: Maximum discharge, 37,000 cfs Sept. 22, 1967 (gage height, 25.48 ft, from floodmark), from rating curve extended above 4,400 cfs on basis of contracted-opening, flow-over-road, and flow-through-culverts measurement of peak flow; no flow for many days in 1954-67, 1969-71.
Maximum stage since at least 1887, that of Sept. 22, 1967. Flood of Aug. 29, 1946, reached a stage of 24.2 ft (21,500 cfs), from information by local residents.

REMARKS.--Records good. At end of year, flow from 36.5 sq mi above this station was partly controlled by 10 floodwater-retarding structures with a total combined capacity of 14,080 acre-ft below flood-spillway crests, of which 11,880 acre-ft is floodwater-retarding capacity and 2,200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Five rain gages (two standard and three recording) are located in the watershed above this station. Two standard and two recording rain gages discontinued Sept. 30, 1971. The station is part of the cooperative program between the Geological Survey and Soil Conservation Service to evaluate rainfall-runoff relation, soil conservation practices, and to assist the Soil Conservation Service in evaluating the effect of floodwater-retarding structures.

REVISIONS (WATER YEARS).--WSP 1923: 1959, 1960, Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.01	.04	.05	.02	.02	0		0		0	0
2	.03	0	.04	.05	.02	.01	0		0		0	0
3	.02	0	.04	.04	.02	.01	0		0		0	0
4	.02	0	.04	.04	.02	.01	0		0		96	0
5	.03	0	.04	.04	.02	.01	.01		0		65	0
6	.05	0	.04	.04	.02	.01	0		0		6.9	0
7	.04	.01	.04	.04	.02	.02	0		0		4.5	0
8	.03	.01	.04	.04	.02	.02	0		0		1.1	0
9	.02	.01	.04	.04	.02	.02	0		0		.13	0
10	.01	.01	.04	.04	.02	.02	0		0		.04	6.7
11	.02	.01	.04	.04	.02	.02	0		0		.01	160
12	.02	.01	.04	.03	.02	.02	0		0		.01	301
13	.02	.01	.04	.03	.02	.01	0		0		.01	61
14	.01	.01	.04	.03	.02	.01	0		0		0	28
15	.01	.01	.04	.03	.02	.01	0		0		0	26
16	.01	.01	.04	.03	.02	.01	.01		0		0	23
17	.01	.01	.04	.03	.02	.01	.04		0		0	17
18	.01	.01	.04	.03	.02	.01	.01		15		0	8.8
19	.01	.01	.04	.03	.02	.01	.01		120		0	5.1
20	.01	.01	.04	.03	.02	.01	.01		1.9		0	2.8
21	.01	.02	.05	.02	.01	.01	.01		.24		0	1.5
22	.01	.02	.05	.02	.01	.01	.01		22		0	.81
23	.01	.02	.05	.02	.01	.01	.01		.90		0	4.6
24	.01	.02	.05	.02	.01	.01	.01		.06		0	13
25	.01	.02	.05	.02	.02	.01	0		.01		0	2.6
26	.01	.02	.04	.02	.15	.01	0		.01		0	.74
27	.01	.03	.04	.02	.03	.01	0		.01		0	.36
28	.01	.03	.04	.02	.02	.01	0		.37		0	.74
29	0	.03	.05	.02	------	0	0		.05		0	23
30	0	.03	.05	.02	------	0	0		.01		0	36
31	.01	------	.05	.02	------	0	------		------		0	------
TOTAL	.50	.39	1.32	.95	.66	.35	.13	0	160.56	0	173.70	722.75
MEAN	.016	.013	.043	.031	.024	.011	.004	0	5.35	0	5.60	24.1
MAX	.05	.03	.05	.05	.15	.02	.04	0	120	0	96	301
MIN	0	0	.04	.02	.01	0	0	0	0	0	0	0
CFSM	.0002	.0002	.0006	.0004	.0003	.0002	.0001	0	.07	0	.08	.33
IN.	0	0	0	0	0	0	0	0	.08	0	.09	.37
AC-FT	1.0	.8	2.6	1.9	1.3	.7	.3	0	318	0	345	1,430

CAL YR 1970 TOTAL 3,467.29 MEAN 9.50 MAX 1,030 MIN 0 CFSM .13 IN 1.78 AC-FT 6,880
WTR YR 1971 TOTAL 1,061.31 MEAN 2.91 MAX 301 MIN 0 CFSM .04 IN .55 AC-FT 2,110

08187900 Escondido Creek subwatershed No. 11 (Dry Escondido Creek) near Kenedy, Tex.

LOCATION.--Lat 28°51'39", long 97°50'39", Karnes County, near center of dam on Dry Escondido Creek, 0.5 mile upstream from bridge on Farm Road 792, 3 miles north of Kenedy, and 5.0 miles upstream from Escondido Creek.

DRAINAGE AREA.--8.43 sq mi.

PERIOD OF RECORD.--January to August 1958 (outflow, annual maximum only; inflow, peaks above base only), September 1958 to current year.

GAGE.--Water-stage recorder with concrete drop-inlet control. Datum of gage is 285.12 ft above mean sea level.

AVERAGE INFLOW.--13 years, 998 acre-ft per year.

AVERAGE OUTFLOW.--13 years, 870 acre-ft per year.

EXTREMES.--Current year: No outflow during year. Maximum inflow, 36.3 cfs (average for 5-minute interval) Sept. 12, computed from change in reservoir contents and adjusted for outflow and rainfall on pool surface.
Period of record: Maximum outflow, 8,030 cfs Sept. 21, 1967 (gage height, 36.36 ft, from floodmark at gage; 36.3 ft, from floodmarks at spillways), from rating curve extended above 100 cfs on basis of flow-over-spillway measurement (includes two spillways) of 7,900 cfs plus flow through the drop inlet; no outflow for most of time each year. Maximum inflow, 18,000 cfs (average for 5-minute interval) Sept. 21, 1967, computed as explained above; no inflow at times.

REMARKS.--Records good except those for periods when water surface was below intakes Mar. 16 to June 18 and July 7 to Sept. 10, which are poor. The dam was completed Jan. 31, 1958, but the lower drain valve in the drop-inlet structure remained open until Sept. 15, 1958. The first outflow occurred (since lower drain valve was closed) Sept. 22, 1958. The pool is formed by a rolled-fill earthen dam about 2,600 ft long with emergency spillways at both the left and right end of the dam. The outlet structure is a 3-foot square concrete drop inlet connected to a 28-inch concrete outlet pipe. Four 10-inch square portholes are set in the sides of the drop inlet, two on the upstream side and two on the downstream side. Bottom of portholes are at gage height 15.67 ft. The top of the drop inlet is at gage height 18.00 ft. The two emergency spillways (both left and right) are at gage height 32.8 ft. The lower drain valve is an 8-inch-diameter cleanout gate at the bottom of the drop-inlet structure at a gage height of 9.4 ft. The pool capacity is 2,670 acre-ft at the spillway crests, 236 acre-ft at top of the drop inlet, 140 acre-ft at the bottom of portholes, and 29.9 acre-ft at the 8-inch controlled outlet. The dam was built by the Soil Conservation Service for flood control. The capacity table is based on a survey made Sept. 11, 1965. Rainfall records are collected from two recording rain gages, one located at the station and the other in the watershed above station.

REVISIONS (WATER YEARS).--WSP 1923: 1958-60.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	0	0	0	0	0	0	1.1	0	20.8	0	8.5	46.8
Outflow	0	0	0	0	0	0	0	0	0	0	0	0
(†)	-12.2	-9.4	-5.2	-5.5	-3.8	-6.2	-3.8	-5.9	+15.9	-12.2	+1.6	+42.6
(††)	.44	0	.34	0	.92	0	1.39	.18	3.85	.20	3.59	7.51

CAL YR 1970: INFLOW 669 OUTFLOW 566 † +2.0 †† 28.11
WTR YR 1971: INFLOW 77.2 OUTFLOW 0 † -4.1 †† 18.42

PEAK INFLOW (BASE, 100 CFS).--No peak above base.

1/ Inflow adjusted for rainfall on pool and pool losses.
† Change in contents, in acre-feet.
†† Weighted-mean rainfall, in inches, based on two rain gages.

08188500 San Antonio River at Goliad, Tex.

LOCATION.--Lat 28°38'58", long 97°23'04", Goliad County, on right bank at upstream side of bridge on U.S. Highway 183, 1.2 miles southeast of courthouse in Goliad, 11.7 miles upstream from Manahuilla Creek, and at mile 66.5.

DRAINAGE AREA.--3,921 sq mi.

PERIOD OF RECORD.--June 1924 to March 1929, February 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 91.08 ft above mean sea level. Prior to Mar. 31, 1929, nonrecording gage at Texas and New Orleans Railroad Co. bridge 0.9 mile upstream at same datum.

AVERAGE DISCHARGE.--36 years (1924-28, 1939-71), 547 cfs (396,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,970 cfs Aug. 9 (gage height, 22.01 ft); minimum, 46 cfs July 31 to Aug. 1.
Period of record: Maximum discharge, 138,000 cfs Sept. 23, 1967 (gage height, 53.7 ft, from floodmark), from rating curve extended above 26,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 1.2 cfs June 16, 1956.
Maximum stage since 1869, that of Sept. 23, 1967. Flood of July 9, 1942, reached a stage of 44.9 ft; floods in October 1913 and June 15, 1935, reached about the same stage. Maximum stage since about 1800 occurred in 1869 and was several feet higher than flood of Sept. 23, 1967.

REMARKS.--Records good. Many diversions and regulations above station (see stations 08181800 and 08187500). At end of year, flow from 105 sq mi above this station was partly controlled by 22 floodwater-retarding structures with a total combined capacity of 36,040 acre-ft below the flood-spillway crests, of which 31,630 acre-ft is floodwater-retarding capacity and 4,410 acre-ft is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 2,290 acre-ft, of which 200 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	422	201	202	201	221	276	127	167	144	213	54	392
2	328	194	201	253	213	341	130	170	125	284	107	385
3	299	194	199	261	223	290	132	169	100	527	115	401
4	286	233	196	261	214	256	134	161	101	518	607	395
5	281	241	204	256	197	243	130	160	109	296	791	391
6	279	228	206	243	199	253	120	154	117	206	2,590	374
7	281	201	231	244	205	246	121	142	119	172	3,640	367
8	274	197	215	252	203	244	112	119	124	155	4,450	380
9	271	196	203	258	221	247	104	103	110	139	4,910	387
10	254	201	193	256	219	243	119	115	95	134	4,010	456
11	234	204	188	261	203	236	153	152	89	127	1,570	3,250
12	230	196	185	267	198	228	169	122	104	115	698	4,260
13	221	192	189	262	195	229	167	105	106	109	545	3,610
14	214	200	197	259	195	216	162	114	92	110	485	2,940
15	210	199	206	242	202	181	155	131	98	99	700	1,720
16	281	197	207	208	194	174	157	176	139	96	1,050	855
17	286	198	197	196	196	167	174	142	327	102	2,000	642
18	275	226	194	197	184	151	191	109	148	100	2,160	810
19	270	238	201	214	183	157	186	97	237	97	1,850	673
20	265	232	224	250	179	157	304	100	732	95	1,230	599
21	257	208	217	244	206	153	351	98	509	88	867	503
22	261	197	207	238	216	137	271	105	286	72	772	421
23	348	193	209	244	219	132	223	104	159	58	672	395
24	304	179	206	241	223	132	210	117	248	53	604	394
25	277	175	199	237	216	126	209	116	588	58	555	486
26	272	176	206	232	229	126	195	103	593	66	521	839
27	280	190	210	228	237	138	192	90	454	78	514	772
28	270	236	209	210	245	146	188	182	276	72	480	674
29	256	208	202	200	------	131	176	257	240	70	445	551
30	238	204	194	210	------	119	165	195	194	61	419	520
31	208	------	191	225	------	126	------	168	------	54	410	------
TOTAL	8,432	6,134	6,288	7,352	5,835	6,001	5,227	4,243	6,763	4,424	39,821	28,842
MEAN	272	204	203	237	208	194	174	137	225	143	1,285	961
MAX	422	241	231	267	245	341	351	257	732	527	4,910	4,260
MIN	208	175	185	197	179	119	104	90	89	53	54	367
AC-FT	16,720	12,170	12,470	14,580	11,570	11,900	10,370	8,420	13,410	8,780	78,980	57,210

CAL YR 1970 TOTAL 175,482 MEAN 481 MAX 6,040 MIN 145 AC-FT 348,100
WTR YR 1971 TOTAL 129,362 MEAN 354 MAX 4,910 MIN 53 AC-FT 256,600

PEAK DISCHARGE (BASE, 3,000 CFS).--Aug. 9 (1000) 4,970 cfs (22.01 ft); Sept. 12 (0600) 4,480 cfs (20.35 ft).

08188600 Guadalupe-Blanco River Authority Calhoun Canal Flume No. 1 near Long Mott, Tex.

LOCATION.--Lat 28°29'44", long 96°46'18", Calhoun County, on right bank at concrete Parshall Flume No. 1, 518 ft upstream from State Highway 185, 1,900 ft downstream from pumping station on Goff Bayou, and 1.1 miles northwest of Long Mott.

PERIOD OF RECORD.--March 1968 to February 1970 (monthly discharge only). March 1970 to current year.

GAGE.--Deflection-vane recorder, duplex water-stage recorder and Parshall Flume. Datum of gage is 23.53 ft above mean sea level.

EXTREMES.--Period of record: Maximum daily discharge, 311 cfs July 7, 1968; no flow at times in 1968-71.

REMARKS.--Records fair. Flow diverted from Guadalupe River 550 ft upstream from Guadalupe River near Tivoli (station 08188800), and thence through a system of canals, Hog Bayou, and Goff Bayou, a distance of 8.9 miles to the pumping station on Goff Bayou 1,900 ft upstream from flume No. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	48	48	46	48	36	166	194	171	185	76	187
2	114	48	48	48	27	51	136	147	182	216	93	161
3	114	80	29	43	41	56	151	119	179	190	87	152
4	115	80	16	39	13	58	151	140	195	180	39	153
5	115	60	16	28	0	24	151	157	210	193	25	156
6	86	48	16	32	1.1	0	158	173	182	211	31	183
7	73	48	16	21	0	0	190	195	199	239	39	190
8	81	44	16	38	1.7	5.6	220	162	249	257	41	191
9	71	48	16	31	2.7	15	221	160	264	203	33	49
10	63	41	16	28	.30	26	234	161	280	181	46	15
11	62	16	16	27	0	9.9	204	181	276	173	42	0
12	62	16	16	57	28	20	218	118	270	167	70	1.2
13	20	16	16	70	39	38	236	131	259	159	102	22
14	21	16	25	47	39	84	254	180	263	153	134	34
15	18	16	32	6.6	62	120	243	206	282	140	109	5.0
16	32	31	32	0	45	136	145	189	287	163	182	3.6
17	32	48	26	0	5.8	146	98	184	270	160	192	27
18	32	48	16	0	.80	83	93	185	269	162	212	33
19	32	48	16	0	0	57	108	196	272	145	223	25
20	58	16	7.0	0	2.3	57	74	198	220	155	212	37
21	95	16	0	0	0	59	47	190	161	160	214	79
22	87	16	0	7.7	0	74	41	145	154	140	202	106
23	77	16	0	44	0	105	89	118	180	137	193	95
24	66	16	0	33	0	125	130	130	210	146	205	135
25	65	16	0	24	21	142	147	129	236	140	202	173
26	65	16	0	33	39	170	203	144	255	129	212	173
27	58	16	0	47	40	140	247	164	234	103	214	166
28	53	16	20	62	36	114	219	173	231	77	208	169
29	48	16	76	59	------	147	234	161	209	75	201	153
30	50	35	96	59	------	159	251	162	201	72	204	119
31	56	------	76	59	------	191	------	165	------	66	204	------
TOTAL	2,034	995	707.0	989.3	492.70	2,448.5	5,059	5,057	6,850	4,877	4,247	2,992.8
MEAN	65.6	33.2	22.8	31.9	17.6	79.0	169	163	228	157	137	99.8
MAX	115	80	96	70	62	191	254	206	287	257	223	191
MIN	18	16	0	0	0	0	41	118	154	66	25	0
AC-FT	4,030	1,970	1,400	1,960	977	4,860	10,030	10,030	13,590	9,670	8,420	5,940

CAL YR 1970 TOTAL 27,979.95 MEAN 76.7 MAX 267 MIN 0 AC-FT 55,500
WTR YR 1971 TOTAL 36,749.30 MEAN 101 MAX 287 MIN 0 AC-FT 72,890

08188800 Guadalupe River near Tivoli, Tex.

LOCATION.--Lat 28°30'20", long 96°53'04", Calhoun-Refugio County line, on right bank at diversion dam and salt-water barrier, 550 ft downstream from Calhoun County Irrigation Canal intake, 0.4 mile downstream from San Antonio River, 3.5 miles north of Tivoli, and 10.2 miles upstream from mouth.

DRAINAGE AREA.--10,128 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Duplex water-stage recorder. Datum of gage is 0.04 ft above mean sea level.

EXTREMES: above Barrier.--Current year: Maximum gage height, 8.7 ft Sept. 13; minimum, 1.8 ft Feb. 13-15.
Period of record: Maximum gage height, 13.7 ft Sept. 22, 1967; minimum, 1.5 ft Mar. 16, 1967.
below Barrier.--Current year: Maximum gage height, 8.6 ft Sept. 13, 14; minimum, 1.1 ft June 26 and July 20, 31.
Period of record: Maximum gage height, 13.6 ft Sept. 22, 1967; minimum, 0.5 ft July 12, 14, 1967.
Maximum stage since at least 1936, that of Sept. 22, 1967. Flood in July 1936 reached a stage of 11 ft, present site and datum. Levees along the Navigation Canal from San Antonio Bay to Victoria were built in 1961 and decreased the flood plain materially.

REMARKS.--Many small diversions above station. Some regulation by powerplants. Upstream regulation same as that for Guadalupe River at Cuero (station 08175800), and San Antonio River at Goliad (station 08188500). At end of year, flow from 276 sq mi above this station was partly controlled by 62 floodwater-retarding structures with a total combined capacity of 96,250 acre-ft below the flood-spillway crests, of which 85,600 acre-ft is floodwater-retarding capacity and 10,650 acre-ft is sediment-pool capacity. Three structures were built during the current year and have a total combined capacity below flood-spillway crests of 4,080 acre-ft, of which 371 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Water-quality records for the current year are published in Part 2 of this report.

Listed below are discharge measurements, in cubic feet per second, made during the 1970 water year in conjunction with an estuary study:

Nov. 12.....984 Nov. 16.....908 Nov. 20.....872

REVISIONS.--WRD Texas 1968: Drainage area.

MAXIMUM DAILY GAGE HEIGHT, IN FEET, UPSTREAM AND DOWNSTREAM FROM SALT-WATER BARRIER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
	up	down	up	down	up	down	up	down	up	down	up	down	up	down	up	down	up	down	up	down	up	down	up	down
1	3.9	3.8	4.5	4.4	3.2	2.5	2.4	2.3	2.3	2.2	2.6	2.5	3.9	2.2	3.9	1.8	3.9	2.4	4.2	4.1	3.7	1.4	6.0	5.9
2	4.0	3.9	4.2	4.1	2.6	2.5	2.8	2.7	2.5	2.4	2.5	2.4	3.9	1.9	3.8	1.6	3.9	2.2	4.2	4.1	3.7	1.2	5.8	5.7
3	3.8	3.6	3.7	3.6	2.7	2.6	3.2	3.2	2.9	2.9	1.9	1.8	3.9	2.1	3.8	1.6	3.9	2.2	4.9	3.7	3.8	1.7	5.7	5.6
4	4.4	3.3	3.2	3.1	2.5	2.4	2.8	2.8	3.0	2.9	2.2	2.0	3.9	2.2	4.0	2.3	3.8	2.0	4.7	3.3	4.0	1.8	5.6	5.5
5	4.0	3.9	2.9	2.7	2.5	2.4	2.2	2.1	2.7	2.7	2.2	2.1	3.9	2.0	4.1	2.7	3.7	1.8	4.7	3.2	4.5	2.1	5.5	5.4
6	4.0	3.9	2.7	2.6	2.4	2.3	2.2	2.1	2.7	2.6	2.1	2.0	3.8	1.7	4.0	2.7	3.8	1.9	4.7	3.1	5.0	4.8	5.3	5.2
7	4.0	3.8	2.8	2.6	2.5	2.4	2.3	2.2	2.4	2.3	1.9	1.8	3.8	1.3	4.0	2.1	3.8	1.9	4.4	2.6	6.9	6.8	4.7	4.6
8	4.3	4.2	2.8	2.7	2.7	2.6	2.4	2.3	2.1	2.0	2.1	1.9	3.7	1.4	3.9	1.9	3.8	1.9	4.2	1.9	7.2	7.1	4.3	4.3
9	4.2	4.1	2.8	2.7	2.9	2.8	2.4	2.3	2.0	1.9	2.1	2.0	3.7	1.4	3.9	2.3	3.7	2.0	3.9	1.4	7.6	7.5	4.4	4.3
10	4.2	4.1	2.6	2.5	2.9	2.8	2.4	2.4	1.9	1.8	2.2	2.1	3.7	1.2	4.0	2.2	3.7	2.1	3.8	1.6	7.7	7.6	7.4	7.3
11	4.4	4.3	2.5	2.4	2.8	2.7	2.5	2.4	2.2	2.1	2.2	2.1	3.8	1.6	3.9	2.1	3.7	2.2	3.9	1.9	7.7	7.6	8.3	8.2
12	4.3	4.2	2.5	2.5	2.5	2.4	2.5	2.4	2.2	2.1	2.2	2.1	3.8	1.5	3.8	1.6	3.7	2.1	3.9	1.9	7.7	7.6	8.6	8.5
13	4.0	3.9	2.7	2.6	2.5	2.4	2.5	2.4	1.8	1.7	2.6	2.6	3.8	1.8	3.9	1.6	3.6	1.6	3.8	1.8	7.7	7.6	8.7	8.6
14	3.8	3.7	2.4	2.3	2.5	2.4	2.5	2.5	1.8	1.7	2.7	2.6	3.8	1.6	3.8	1.4	3.6	1.8	3.8	1.5	7.2	7.1	8.6	8.6
15	4.4	3.4	2.2	2.1	2.7	2.6	2.5	2.4	1.8	1.7	4.2	2.2	3.9	2.2	3.8	1.8	3.6	1.5	3.8	1.4	5.9	5.8	8.3	8.2
16	4.4	3.5	2.2	2.1	2.5	2.4	2.5	2.4	1.9	1.8	4.1	2.3	4.0	2.5	3.9	1.9	3.5	1.3	3.8	1.4	4.4	4.4	8.2	8.0
17	3.5	3.4	2.2	2.1	2.3	2.2	2.5	2.4	2.4	2.3	4.0	2.6	4.0	2.9	4.0	2.3	3.4	1.3	3.7	1.5	4.5	4.5	7.9	7.8
18	3.5	3.3	2.1	2.0	2.5	2.4	2.4	2.3	2.5	2.4	4.1	2.7	4.0	3.0	4.0	2.7	3.7	2.1	3.7	1.9	5.4	5.3	7.8	7.7
19	3.5	3.3	2.4	2.3	2.6	2.5	2.2	2.1	2.4	2.4	4.0	2.0	4.1	2.9	4.0	2.2	3.9	1.8	3.7	1.2	6.0	5.9	7.6	7.6
20	3.3	3.2	2.3	2.2	2.6	2.5	2.3	2.2	2.3	2.3	4.1	2.1	4.1	2.7	3.9	1.9	3.9	1.4	3.7	1.1	6.3	6.2	7.7	7.6
21	3.3	3.2	2.4	2.4	2.7	2.6	2.5	2.4	2.7	2.7	4.0	2.1	4.0	2.3	3.9	2.1	4.6	3.0	3.7	1.4	6.3	6.2	7.7	7.6
22	3.5	3.4	2.5	2.4	2.9	2.8	2.6	2.5	1.9	1.8	4.0	2.0	4.2	2.6	4.0	2.6	4.7	3.1	3.7	1.6	6.0	5.9	7.5	7.4
23	3.8	3.7	2.4	2.3	2.8	2.7	2.6	2.5	1.9	1.8	3.9	1.7	4.2	2.5	4.1	2.8	4.7	3.0	3.7	1.9	5.6	5.5	7.3	7.3
24	3.5	3.4	2.1	2.0	2.5	2.4	2.6	2.5	2.1	2.0	3.9	2.0	4.1	2.5	4.0	2.7	4.4	2.7	3.7	1.6	5.6	5.5	7.2	7.1
25	3.5	3.4	2.2	2.1	2.5	2.4	2.6	2.5	2.4	2.3	3.9	2.3	4.0	2.3	4.1	2.6	4.0	1.3	3.7	1.7	5.7	5.5	7.0	7.0
26	4.6	4.5	2.3	2.2	3.1	2.3	2.6	2.5	2.4	2.3	3.9	2.1	4.0	2.3	4.0	2.6	3.8	1.1	3.7	1.6	5.8	5.7	6.9	6.9
27	5.4	5.3	2.3	2.2	2.5	2.3	2.7	2.6	2.5	2.5	3.9	2.2	4.0	2.3	4.0	2.3	4.1	2.0	3.8	1.5	5.9	5.8	7.0	7.0
28	5.4	5.2	2.2	2.2	2.6	2.5	2.6	2.5	2.6	2.5	4.0	2.4	3.9	2.1	3.9	2.1	4.1	2.1	3.8	1.5	5.9	5.8	7.1	7.1
29	5.2	5.1	2.2	2.2	2.6	2.5	2.7	2.6	--------		4.0	2.3	4.0	2.2	3.9	2.0	4.5	3.5	3.7	1.4	6.0	5.9	7.1	7.1
30	4.9	4.8	2.5	2.5	2.6	2.5	2.7	2.6	--------		3.9	1.9	3.9	1.7	3.9	2.2	5.0	3.6	3.7	1.4	6.0	5.9	7.1	7.0
31	4.7	4.6	--------		2.4	2.3	2.6	2.5	--------		3.9	2.3	--------		4.0	2.4	--------		3.6	1.1	6.0	6.0	--------	

08189200 Copano Creek near Refugio, Tex.

LOCATION.--Lat 28°18'12", long 97°06'44", Refugio County, on right bank at bridge on Farm Road 774, 3.6 miles upstream from Alameda Creek, 8.1 miles east of Refugio, and 11.9 miles upstream from mouth.

DRAINAGE AREA.--87.8 sq mi.

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 17.25 ft above mean sea level.

EXTREMES.--June to September 1970: Maximum discharge during period, 1,120 cfs June 28 (gage height, 12.35 ft); no flow Aug. 14-31.
Water year 1971: Maximum discharge, 6,300 cfs Sept. 12 (gage height, 21.00 ft), from rating curve extended above 3,800 cfs; no flow for most of year.
Period of record: Maximum discharge, 6,300 cfs Sept. 12, 1971 (gage height, 21.00 ft), from rating curve extended above 3,800 cfs; no flow at times each year.
Maximum stage since early 1920's, 22 ft in September 1967, from information by local residents.

REMARKS.--Records good except those above 5,400 cfs, which are poor. No known diversion above station. Recording rain gage is located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									-	572	.40	5.4
2									-	452	.16	52
3									-	360	.24	26
4									-	273	.65	11
5									-	189	1.5	3.8
6									-	108	2.3	1.9
7									-	58	2.2	1.1
8									-	31	1.5	.53
9									-	18	1.0	.22
10									-	12	.59	.08
11									-	7.1	.25	.04
12									-	4.9	.09	.03
13									-	3.8	.05	4.7
14									-	3.6	0	10
15									-	4.6	0	12
16									-	7.8	0	8.0
17									1.2	6.0	0	4.8
18									.79	3.9	0	3.4
19									.36	2.7	0	2.8
20									.14	2.0	0	2.1
21									3.0	1.6	0	1.9
22									2.8	1.3	0	1.8
23									1.8	1.9	0	1.3
24									37	1.9	0	1.1
25									115	1.4	0	.86
26									165	1.6	0	.74
27									774	1.7	0	.57
28									1,110	1.7	0	.45
29					------				971	1.6	0	.28
30					------				726	1.2	0	.18
31		------			------		------		------	.71	0	------
TOTAL									-	2,136.01	10.93	159.08
MEAN									-	68.9	.35	5.30
MAX									-	572	2.3	52
MIN									-	.71	0	.03
AC-FT									-	4,240	22	316

CAL YR 1969 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -

08189200 Copano Creek near Refugio, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.45		.01							0	3.3
2	.06	.33		.01							0	6.0
3	.03	.20		.05							0	3.2
4	.01	.11		.04							0	1.2
5	2.5	.07		.02							.40	.5
6	61	.05		0							71	.2
7	153	.04		0							153	.1
8	105	.03		0							93	0
9	53	.02		0							35	0
10	22	.01		0							12	295
11	94	.01		0							5.1	2,810
12	72	0		0							2.6	5,960
13	40	0		0							1.5	5,010
14	24	0		0							.94	3,330
15	13	0		.01							.60	2,270
16	6.9	0		.02							.29	1,640
17	4.4	0		.01							.11	1,150
18	2.8	0		.01							.04	947
19	2.1	0		.01							.04	1,460
20	1.6	0		0							.02	1,170
21	1.2	0		0							.55	803
22	1.0	0		0							10	621
23	.78	0		0							12	612
24	.78	0		0							5.8	627
25	.60	0		0							3.1	536
26	.39	0		0							1.9	429
27	1.8	0		0							1.3	342
28	2.8	0		0							.79	305
29	.90	0		0	------						.53	264
30	.90	0		0	------						9.3	232
31	.63	------		0	------		------		------		7.6	------
TOTAL	669.29	1.32	0	.19	0	0	0	0	0	0	428.51	30,827.5
MEAN	21.6	.044	0	.006	0	0	0	0	0	0	13.8	1,028
MAX	153	.45	0	.05	0	0	0	0	0	0	153	5,960
MIN	.01	0	0	0	0	0	0	0	0	0	0	0
AC-FT	1,330	2.6	0	.4	0	0	0	0	0	0	850	61,150

CAL YR 1970	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-
WTR YR 1971	TOTAL	31,926.81	MEAN	87.5	MAX	5,960	MIN	0	AC-FT	63,330

PEAK DISCHARGE (BASE, 500 CFS).--Sept. 12 (1200) 6,300 cfs (21.00 ft); Sept. 19 (1300) 1,500 cfs (13.46 ft).

08189300 Medio Creek near Beeville, Tex.

LOCATION.--Lat 28°28'58", long 97°39'23", Bee County, on left bank at downstream side of bridge on U.S. Highway 59, 8 miles northeast of Beeville, and 9 miles upstream from Parker Hollow Creek.

DRAINAGE AREA.--204 sq mi.

PERIOD OF RECORD.--March 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 163.00 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 26.8 cfs (19,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,980 cfs Sept. 12 (gage height, 14.38 ft); no flow most of time.
Period of record: Maximum discharge, 105,000 cfs Sept. 22, 1967 (gage height, 38.68 ft, from floodmark), from rating curve extended above 30,000 cfs on basis of slope-area measurement of peak flow; no flow at times each year.
Maximum stage since at least 1914, that of Sept. 22, 1967. A stage of about 31 ft (discharge, 25,500 cfs) occurred in September 1919, from information by local resident.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	0
2											13	0
3											4.0	0
4											.61	0
5											.05	0
6											.24	0
7											.15	0
8											.03	0
9											0	0
10											0	0
11											0	1,090
12											0	2,250
13											0	243
14											0	38
15											0	17
16											0	9.8
17											0	6.5
18											0	5.1
19											0	4.1
20											0	3.2
21											0	2.5
22											0	2.5
23											0	1.8
24											0	1.8
25											0	1.8
26											0	6.5
27											0	8.0
28											0	3.5
29					------						0	1.3
30					------						0	11
31		------			------		------		------		0	------
TOTAL	0	0	0	0	0	0	0	0	0	0	18.08	3,707.4
MEAN	0	0	0	0	0	0	0	0	0	0	.58	124
MAX	0	0	0	0	0	0	0	0	0	0	13	2,250
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	36	7,350

CAL YR 1970 TOTAL 3,015.82 MEAN 8.26 MAX 502 MIN 0 AC-FT 5,980
WTR YR 1971 TOTAL 3,725.48 MEAN 10.2 MAX 2,250 MIN 0 AC-FT 7,390

PEAK DISCHARGE (BASE, 500 CFS).--Sept. 12 (0100) 2,980 cfs (14.38 ft).

08189500 Mission River at Refugio, Tex.

LOCATION.--Lat 28°17'30", long 97°16'44", Refugio County, on left bank at upstream side of upstream bridge of two bridges on U.S. Highway 77, 560 ft upstream from Missouri Pacific Railroad Co. bridge, and 0.2 mile southwest of Refugio.

DRAINAGE AREA.--690 sq mi.

PERIOD OF RECORD.--July 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1.00 ft above mean sea level. Prior to Nov. 25, 1958, nonrecording gage at site 59 ft downstream at same datum. Nov. 26, 1958, to Apr. 18, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--32 years, 99.7 cfs (72,230 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 79,000 cfs Sept. 12 (gage height, 38.25 ft); minimum, 0.70 cfs part of each day July 18, 19, 22-26, 31, Aug. 1, 2.

Period of record: Maximum discharge, 79,000 cfs Sept. 12, 1971 (gage height, 38.25 ft); minimum observed, 0.7 cfs Oct. 7, 9, 1940, Aug. 18-20, Sept. 5, 1945, Dec. 29, 31, 1949, Jan. 1, 1950, July 13, Aug. 28, 1963, July 18, 19, 22-26, 31, Aug. 1, 2, 1971.

REVISIONS.--The maximum discharge for the water year 1967 has been revised to 60,200 cfs Sept. 21, 1967 (gage height, 36.5 ft, from floodmarks), superseding figure published in WRD Texas, 1967.

Maximum stage since about 1899, that of Sept. 12, 1971. Flood of Sept. 21, 1967, reached a stage of 36.5 ft (discharge, 60,200 cfs). Flood of July 7, 1942, reached a stage of 33.3 ft (discharge, 41,700 cfs). Floods in August 1914 and May 17, 1938, reached a stage of 32.3 ft, from information by local residents.

REMARKS.--Records good. Several small diversions above station. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1923: Drainage area. Revised figures of discharge, in cubic feet per second, for the high-water period in water year 1967, superseding figures published in WRD Texas, 1967, are given below:

1967		1967--Con.	
Sept. 21	33,900	Sept. 23	41,200
22	49,500	24	21,400

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
September 1967	160,471.4	49,500	9.2	5,349	318,300
Water year 1966-67	167,382.20	49,500	.80	459	332,000
Calendar year 1967	189,707.30	49,500	.80	520	376,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	6.8	5.2	5.0	4.4	4.6	3.2	3.4	2.4	1.1	.72	4
2	8.5	6.9	5.5	5.0	4.4	4.7	3.3	3.2	2.1	1.1	2.4	4
3	7.4	6.2	5.6	5.0	4.4	4.7	3.3	3.2	2.0	1.1	7.4	4
4	7.0	5.9	5.2	5.0	4.7	4.5	3.3	3.1	1.9	1.0	6.5	4
5	28	5.8	5.2	4.9	4.6	4.4	3.6	3.0	1.9	.94	349	4
6	14	5.8	5.2	4.8	4.6	4.6	3.5	3.0	1.7	.90	2,710	4
7	7.9	5.8	5.1	4.8	4.6	4.6	3.2	3.2	1.6	.90	2,000	4
8	6.9	5.9	5.0	4.9	4.6	4.6	3.1	3.2	1.6	.88	614	4
9	6.4	5.8	5.0	5.0	4.6	4.6	3.1	3.2	1.6	.80	158	4
10	6.0	5.6	5.0	5.0	4.6	4.6	3.1	3.2	1.6	.84	75	346
11	12	5.6	5.0	5.0	5.7	4.4	3.0	3.4	1.5	.90	38	11,500
12	11	5.6	4.8	5.0	5.8	4.4	3.1	3.6	1.5	.90	23	67,200
13	11	5.6	5.0	5.0	5.4	4.4	3.1	3.3	1.5	.82	16	28,500
14	7.5	5.4	5.0	5.0	5.4	4.4	3.1	3.0	1.5	.80	12	7,500
15	6.7	5.4	5.0	5.0	5.4	4.0	3.1	2.9	1.3	.79	10	2,330
16	6.4	5.4	5.0	4.6	5.3	4.0	8.1	2.8	1.3	.78	8.8	606
17	6.0	5.3	5.0	4.6	4.7	3.9	7.3	2.7	1.3	.79	7.8	301
18	5.9	5.4	5.0	4.7	4.6	3.9	5.7	2.6	1.3	.74	7.5	599
19	5.8	5.4	5.0	4.6	4.6	3.6	4.1	2.6	2.2	.74	8.2	2,600
20	5.8	5.4	5.2	4.6	4.6	3.6	4.8	2.6	3.4	.77	7.2	2,230
21	5.9	5.4	5.2	4.6	4.6	3.6	4.2	2.6	3.8	.77	5.6	907
22	6.0	5.4	5.1	4.9	4.5	3.6	4.0	2.8	2.6	.75	5.8	470
23	6.0	5.1	5.0	5.0	4.4	3.9	3.9	2.8	2.1	.72	6.8	335
24	5.9	5.1	5.0	5.0	4.4	3.9	3.6	15	1.8	.71	9.3	314
25	5.8	5.2	5.0	5.0	4.7	3.8	3.5	28	1.6	.72	6.2	238
26	5.8	5.1	4.8	4.9	6.9	3.6	3.5	9.4	1.7	.73	5.4	198
27	8.1	5.2	4.8	4.6	5.5	3.6	3.5	6.0	1.8	.76	4.8	183
28	11	5.2	4.8	4.6	4.9	3.5	3.6	3.6	1.4	.77	4.8	780
29	12	5.2	4.8	4.7	------	3.3	3.7	3.0	1.4	.77	5.6	544
30	9.8	5.2	5.0	5.0	------	3.2	3.6	2.6	1.3	.75	4.2	247
31	7.6	------	5.0	4.6	------	3.1	------	2.5	------	.74	4.0	------
TOTAL	263.5	167.1	156.5	150.4	136.9	125.6	115.2	139.5	54.7	25.78	6,124.02	127,964
MEAN	8.50	5.57	5.05	4.85	4.89	4.05	3.84	4.50	1.82	.83	198	4,265
MAX	28	6.9	5.6	5.0	6.9	4.7	8.1	28	3.8	1.1	2,710	67,200
MIN	5.8	5.1	4.8	4.6	4.4	3.1	3.0	2.5	1.3	.71	.72	4.0
AC-FT	523	331	310	298	272	249	229	277	109	51	12,150	253,800

CAL YR 1970 TOTAL 26,908.60 MEAN 73.7 MAX 2,750 MIN 4.8 AC-FT 53,370
WTR YR 1971 TOTAL 135,423.20 MEAN 371 MAX 67,200 MIN .71 AC-FT 268,600

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 6	1000	18.05	2,920	9-19	2030	18.53	3,060
9-12	1000	38.25	79,000	9-28	1530	11.14	1,030

08189700 Aransas River near Skidmore, Tex.

LOCATION.--Lat 28°16'56", long 97°37'14", Bee County, on right bank 160 ft downstream from centerline of county road bridge, 3.8 miles downstream from confluence of West Aransas and Poesta Creeks, and 4.4 miles northeast of Skidmore.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--March 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 72.37 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 60.6 cfs (43,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 65,900 cfs Sept. 12 (gage height, 41.15 ft); no flow July 29 to Aug. 2.
Period of record: Maximum discharge, 82,800 cfs Sept. 22, 1967 (gage height, 42.22 ft, from floodmark), from rating curve extended above 14,000 cfs on basis of slope-area measurement of peak flow; no flow at times in 1964-67, 1971.
Maximum stage since at least 1914, that of Sept. 22, 1967. Flood of September 1954 reached a stage of 33 ft (discharge, 19,600 cfs), from information by local resident.

REMARKS.--Records good. No known diversion. Chase Field Naval Air Station and city of Beeville discharge sewage effluent into the stream via Poesta Creek.

REVISIONS (WATER YEARS).--WRD Texas 1969: 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.47	1.2	1.0	1.0	2.4	.63	.67	.59	3.2	0	11
2	.90	.51	1.2	1.1	.95	1.7	.63	.59	.51	2.1	.15	4.7
3	.75	.51	1.2	1.1	.90	1.5	.63	.51	.47	1.7	89	3.3
4	.71	.47	1.2	1.1	.85	1.3	.67	.43	.47	1.4	146	2.6
5	.75	.40	1.2	1.1	.85	1.2	.80	.37	.47	1.3	410	2.4
6	.80	.34	1.2	1.1	.90	1.2	.85	.34	.47	1.1	627	2.3
7	.80	.90	1.2	1.0	1.1	1.1	1.1	.34	.43	.90	169	2.1
8	.80	.95	1.1	1.0	1.3	1.1	1.1	.47	.40	.85	35	2.1
9	.75	.85	1.1	1.1	1.9	1.0	.90	.55	.37	.80	13	1.9
10	.71	.80	1.1	1.1	1.3	.90	.71	.63	.34	.85	7.5	4.3
11	.71	.75	1.1	1.1	1.1	.95	.71	.67	.31	.90	5.3	15,000
12	.67	.71	1.1	1.2	1.0	1.0	.71	.75	.28	.85	4.4	25,000
13	.67	.71	1.0	1.3	.90	1.0	.71	.71	.28	.80	3.9	1,470
14	.67	.71	1.0	1.3	.90	1.0	.71	.63	.28	.71	3.8	149
15	.67	.71	1.0	1.3	.85	.95	.71	.51	.25	.63	3.5	84
16	.67	.67	1.4	1.2	.80	.80	1.6	.37	.23	.59	3.4	58
17	.63	.59	1.7	1.2	.80	.67	2.0	.31	.23	.55	3.1	45
18	.59	.55	1.3	1.2	.80	.67	1.3	.31	.23	.43	2.9	54
19	.55	.63	1.2	.90	.85	.75	1.6	.34	.21	.40	2.9	99
20	.51	.80	1.3	.90	.85	.75	1.4	.37	.21	.34	2.9	15
21	.51	.85	1.3	.90	1.1	.80	.95	.43	100	.25	2.8	35
22	.55	.90	1.3	.95	1.0	.80	.75	.51	10	.23	2.7	37
23	.63	.85	1.3	1.0	.80	.80	.67	.51	4.0	.19	2.7	33
24	.67	.80	1.2	1.1	.80	.80	.67	19	3.1	.15	2.6	51
25	.63	.71	1.2	1.1	.81	.80	.67	37	2.0	.09	2.6	31
26	.59	.67	1.1	1.1	1.3	.80	.67	3.9	1.6	.05	2.6	29
27	.59	.80	1.1	.90	6.8	.80	.67	1.6	59	.03	2.7	26
28	.63	1.0	1.1	.80	5.4	.80	.63	1.1	329	.02	2.6	24
29	.59	1.2	1.1	.71	------	.75	.63	.75	24	0	3.5	24
30	.55	1.2	1.1	.85	------	.71	.67	.67	6.8	0	3.8	27
31	.51	------	1.1	.95	------	.67	------	.63	------	0	23	------
TOTAL	20.76	22.01	36.7	32.66	37.91	30.47	26.45	75.97	546.53	21.41	1,584.35	42,327.7
MEAN	.67	.73	1.18	1.05	1.35	.98	.88	2.45	18.2	.69	51.1	1,411
MAX	1.0	1.2	1.7	1.3	6.8	2.4	2.0	37	329	3.2	627	25,000
MIN	.51	.34	1.0	.71	.80	.67	.63	.31	.21	0	0	1.9
AC-FT	41	44	73	65	75	60	52	151	1,080	42	3,140	83,960

CAL YR 1970 TOTAL 6,095.94 MEAN 16.7 MAX 1,250 MIN .34 AC-FT 12,090
WTR YR 1971 TOTAL 44,762.92 MEAN 123 MAX 25,000 MIN 0 AC-FT 88,790

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
6-28	0200	10.97	874
8- 6	0100	11.28	876
9-12	0100	41.15	65,900

08189800 Chiltipin Creek at Sinton, Tex.

LOCATION.--Lat 28°02'48", long 97°30'13", San Patricio County, on left bank at upstream end of bridge on U.S. Highway 77, 0.2 mile upstream from Missouri Pacific Railroad bridge, and 0.8 mile northeast of Sinton.

DRAINAGE AREA.--128 sq mi.

PERIOD OF RECORD.--July 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 18.74 ft above mean sea level.

EXTREMES.--July to September 1970: Maximum discharge during period, 45 cfs Aug. 3 (gage height, 3.03 ft); minimum, 0.40 cfs Aug. 14.
Water year 1971: Maximum discharge, 22,300 cfs Sept. 12 (gage height, 29.10 ft), from rating curve extended above 13,400 cfs; minimum, 0.20 cfs Mar. 26.
Period of record: Maximum discharge, 22,300 cfs Sept. 12, 1971 (gage height, 29.10 ft), from rating curve extended above 13,400 cfs; minimum, 0.20 cfs Mar. 26, 1971.
Maximum stages since about 1910, 30.27 ft Sept. 22, 1967, and 28.8 ft in April 1930, from information by local residents.

REMARKS.--Records good except those above 14,000 cfs, which are poor. No known diversions above station. An undetermined amount of water from oilfield operations enters stream upstream at various points. A recording rain gage is located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										-	1.3	11
2										-	1.3	4.8
3										-	10	2.4
4										-	10	1.7
5										-	18	1.5
6										-	16	1.1
7										-	7.7	1.0
8										-	3.0	1.8
9										-	1.9	1.6
10										-	1.4	1.2
11										-	1.2	.98
12										-	.74	2.8
13										-	.74	5.4
14										-	.88	1.7
15										-	1.2	1.5
16										-	.50	1.2
17										-	.74	.86
18										-	.88	2.1
19										-	1.2	.86
20										-	1.2	3.1
21										-	1.3	3.7
22										-	1.2	1.2
23										2.4	1.3	.80
24										1.7	7.6	6.1
25										8.1	1.3	10
26										1.7	1.2	23
27										1.6	1.3	25
28										1.6	1.6	17
29					------					1.6	2.0	9.1
30					------					1.4	1.8	6.9
31		------			------		------		------	1.3	2.6	------
TOTAL										-	103.08	151.40
MEAN										-	3.33	5.05
MAX										-	18	25
MIN										-	.50	.80
AC-FT										-	204	300

CAL YR 1969	TOTAL -	MEAN -	MAX -	MIN -	AC-FT -	
WTR YR 1970	TOTAL -	MEAN -	MAX -	MIN -	AC-FT -	

08189800 Chiltipin Creek at Sinton, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	.77	1.8	1.2	1.1	.64	1.9	1.6	1.3	1.1	.89	9.7
2	3.4	26	1.5	2.3	2.2	.90	1.2	.88	1.6	.93	2.9	8.7
3	1.9	135	1.3	1.3	1.3	.56	2.4	2.0	2.0	1.1	19	9.0
4	1.4	71	1.2	1.2	1.2	.88	3.0	2.5	1.6	1.5	68	9.4
5	9.9	54	1.2	1.1	1.2	1.5	.86	1.7	2.0	1.1	169	9.4
6	64	38	.99	.88	1.6	.89	1.0	2.1	1.5	.98	327	8.6
7	168	24	1.0	.96	1.7	.90	1.7	1.5	1.9	1.0	325	8.4
8	86	15	1.6	.58	1.2	.76	.83	1.6	1.5	1.5	112	9.0
9	50	8.1	1.4	.61	1.0	.49	.97	3.2	1.7	1.2	58	10
10	31	4.5	1.2	1.1	1.3	.44	1.1	1.7	2.7	1.4	34	104
11	23	3.0	1.2	1.1	1.2	1.3	1.3	1.6	2.3	1.2	24	10,800
12	13	1.9	1.3	1.0	1.0	1.3	.90	1.3	1.6	1.6	18	18,900
13	6.0	1.5	1.8	1.9	1.4	.63	.80	2.1	1.6	1.1	15	5,600
14	3.4	1.2	1.4	2.1	1.2	.55	1.0	2.4	1.6	1.1	12	1,060
15	2.4	1.0	1.6	1.4	1.2	.48	1.2	1.8	1.9	1.2	11	498
16	2.0	.89	1.3	1.6	1.3	.55	3.0	2.0	1.6	1.5	9.7	282
17	1.2	1.2	1.3	1.5	1.7	1.2	5.0	1.4	1.4	.98	10	104
18	.82	1.1	1.3	1.7	1.6	1.3	3.0	1.4	1.6	.97	9.4	315
19	.90	1.1	1.5	1.9	1.3	.62	4.0	2.9	2.1	1.2	9.3	1,030
20	.63	.87	1.8	1.8	1.6	.48	3.0	2.8	1.5	1.5	10	906
21	.58	1.2	1.2	1.8	.97	.84	2.0	2.1	1.5	1.3	9.3	379
22	.69	1.5	1.3	1.5	1.4	1.6	1.5	2.1	1.3	1.3	9.6	210
23	.50	1.0	1.3	2.2	1.4	.74	1.4	2.2	1.4	1.4	9.6	139
24	.40	1.4	.97	1.6	1.5	.99	1.4	20	1.9	1.3	9.7	140
25	.45	1.3	1.6	1.7	1.0	1.7	1.4	43	1.4	1.3	10	391
26	.50	1.4	.97	1.8	1.6	1.9	1.4	17	1.3	1.7	10	235
27	1.4	1.5	1.3	1.5	.92	1.7	1.4	11	1.8	1.3	9.7	134
28	.88	1.4	1.0	1.4	1.0	1.4	1.4	4.1	1.3	.98	9.6	65
29	.50	1.6	2.1	2.4	------	1.3	1.4	2.1	1.4	.85	11	44
30	.55	1.4	.93	1.4	------	2.8	1.9	1.6	.98	1.6	15	40
31	.50	------	.99	1.1	------	2.4	------	1.4	------	1.1	11	------
TOTAL	480.70	403.83	41.35	45.63	37.09	33.74	53.36	145.08	49.28	38.29	1,358.69	41,458.2
MEAN	15.5	13.5	1.33	1.47	1.32	1.09	1.78	4.68	1.64	1.24	43.8	1,382
MAX	168	135	2.1	2.4	2.2	2.8	5.0	43	2.7	1.7	327	18,900
MIN	.40	.77	.93	.58	.92	.44	.80	.88	.98	.85	.89	8.4
AC-FT	953	801	82	91	74	67	106	288	98	76	2,690	82,230

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971 TOTAL 44,145.24 MEAN 121 MAX 18,900 MIN .40 AC-FT 87,560

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 7	0100	6.06	433	9-19	2200	11.09	1,140
9-12	0100	29.10	22,300	9-25	1500	6.78	534

08190000 Nueces River at Laguna, Tex.

LOCATION.--Lat 29°25'41", long 99°59'46", Uvalde County, on right bank 0.5 mile downstream from Sycamore Creek, 1.0 mile northeast of Laguna, and at mile 395.4.

DRAINAGE AREA.--764 sq mi.

PERIOD OF RECORD.--October 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,119.72 ft above mean sea level. Prior to Jan. 26, 1925, nonrecording gage at site 2 miles downstream at different datum.

AVERAGE DISCHARGE.--48 years, 143 cfs (103,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 72,000 cfs Aug. 11 (gage height, 20.5 ft, from floodmark); minimum, 31 cfs June 9-12, 14.

Period of record: Maximum discharge, 307,000 cfs Sept. 24, 1955 (gage height, 29.95 ft in gage well, 32.7 ft from floodmarks), from rating curve extended above 40,000 cfs on basis of float measurement of 110,000 cfs and slope-area measurements of 213,000 and 307,000 cfs; minimum, 2.6 cfs Mar. 14-16, 1957.

Maximum stage since at least 1866, that of Sept. 24, 1955. Flood in June 1913 reached a stage of about 29 ft (discharge, 210,000 cfs); flood of Sept. 21, 1923, reached a stage of about 26.5 ft (discharge, 160,000 cfs); from information by local residents. Discharge based on rating curve mentioned above.

REMARKS.--Records good. Many small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1562: 1930, 1931(M), 1932, 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326	136	104	84	71	95	60	58	38	254	85	414
2	305	133	104	84	72	96	60	57	37	194	132	392
3	290	131	104	83	73	97	60	56	35	165	171	377
4	277	129	103	84	72	95	60	56	35	145	161	368
5	272	129	101	84	72	93	58	56	35	132	146	363
6	261	129	100	84	73	90	58	55	35	122	2,220	355
7	246	126	100	84	71	90	58	54	34	116	1,580	350
8	225	125	100	84	77	88	58	53	34	109	963	345
9	207	123	100	84	77	86	58	53	33	103	756	340
10	202	122	98	84	78	84	58	52	33	99	641	340
11	198	122	97	84	78	84	58	53	32	95	24,000	335
12	198	121	97	84	75	83	57	49	33	92	8,360	335
13	191	116	97	84	76	82	57	48	35	89	11,400	330
14	185	113	97	84	76	79	57	48	33	82	5,190	330
15	175	114	99	82	75	78	56	47	49	79	5,340	325
16	174	114	97	82	75	77	65	44	51	75	3,010	325
17	170	113	96	82	73	74	60	43	42	73	2,140	320
18	169	113	92	79	73	74	60	43	40	71	1,620	314
19	167	111	92	79	72	76	60	42	39	67	1,330	304
20	162	110	91	79	72	74	66	41	40	66	1,130	317
21	157	107	90	80	70	73	64	41	39	63	992	319
22	155	105	92	80	69	71	63	43	40	60	876	343
23	151	103	91	80	70	68	60	43	40	59	792	359
24	147	104	90	78	71	68	59	42	38	58	724	338
25	145	104	89	76	82	67	59	41	38	58	658	329
26	145	104	89	76	81	68	59	41	40	61	599	317
27	142	104	87	75	80	68	59	40	42	59	564	308
28	138	104	87	76	84	64	58	40	278	57	535	302
29	137	104	86	76	------	64	57	38	394	56	495	299
30	139	103	85	74	------	63	57	38	369	55	467	294
31	139	------	84	72	------	61	------	38	------	55	434	------
TOTAL	5,995	3,472	2,939	2,501	2,088	2,430	1,779	1,453	2,061	2,869	77,511	10,087
MEAN	193	116	94.8	80.7	74.6	78.4	59.3	46.9	68.7	92.5	2,500	336
MAX	326	136	104	84	84	97	66	58	394	254	24,000	414
MIN	137	103	84	72	69	61	56	38	32	55	85	294
AC-FT	11,890	6,890	5,830	4,960	4,140	4,820	3,530	2,880	4,090	5,690	153,700	20,010

CAL YR 1970 TOTAL 56,310 MEAN 154 MAX 5,650 MIN 37 AC-FT 111,700
WTR YR 1971 TOTAL 115,185 MEAN 316 MAX 24,000 MIN 32 AC-FT 228,500

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6-28	1230	3.95	720	8-11	1300	a20.5	72,000
8- 6	0630	6.10	4,300	8-13	1030	14.32	27,500
				8-15	1200	9.38	10,200

a From floodmark.

08190500 West Nueces River near Brackettville, Tex.

LOCATION.--Lat 29°28'55", long 100°14'20", Kinney County, at Wilson Ranch, 9 miles downstream from Loss Creek, 11 miles upstream from Liveoak Creek, 15.8 miles northeast of Brackettville, and at mile 40.2.

DRAINAGE AREA.--700 sq mi.

PERIOD OF RECORD.--September 1939 to September 1950, April 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,326.79 ft above mean sea level. Prior to Mar. 14, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--26 years, 36.6 cfs (26,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 37,500 cfs Aug. 11 (gage height, 19.03 ft in gage well, 19.43 ft from floodmark); no flow most of time.
Period of record: Maximum discharge, 246,000 cfs Sept. 20, 1964 (gage height, 31.3 ft, from floodmark), from rating curve extended above 4,500 cfs on basis of slope-area measurements of 10,000, 51,000, 150,000 and 246,000 cfs; no flow most of time.
Maximum stage since at least 1879, about 40 ft June 14, 1935 (discharge, 550,000 cfs, based on slope-area measurements of 580,000 cfs at site 33 miles upstream from gage and 536,000 cfs at site 24 miles downstream from gage), present site and datum, from gage-height relation of 1935 and 1955 flood peaks at site 0.6 mile upstream. Flood in 1900 reached a stage of about 34 ft, and flood of Sept. 24, 1955, reached a stage of 27.1 ft; from floodmark at present site (discharge, 150,000 cfs, by slope-area measurement).

REMARKS.--Records good. In ordinary years a large part of streamflow from basin is lost by seepage into the Balcones Fault Zone of the Edwards and associated limestones above station. No known diversion above station.

REVISIONS (WATER YEARS).--WSP 1312: 1949(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2								0	246	6.2	218
2	4.2								0	197	9.5	204
3	3.5								0	164	12	191
4	3.2								0	140	15	176
5	2.5								0	115	18	164
6	1.9								0	90	182	152
7	1.7								0	67	260	138
8	1.0								0	51	280	130
9	.81								0	40	221	120
10	.75								0	33	185	113
11	.63								0	27	13,600	106
12	.53								0	23	4,750	101
13	.48								0	19	2,790	94
14	.36								2,890	16	1,060	86
15	.27								322	14	9,800	82
16	.18								528	12	2,270	76
17	.14								109	10	725	72
18	.10								25	9.5	496	67
19	.08								8.8	9.1	425	64
20	.06								5.4	8.4	369	62
21	.05								4.4	8.0	345	58
22	.05								3.9	7.3	329	58
23	.03								3.5	7.0	309	60
24	.02								3.2	6.6	294	54
25	.01								2.8	6.4	284	54
26	.01								2.8	6.1	274	51
27	0								2.8	5.9	266	47
28	0								4,840	5.4	260	44
29	0				------				1,120	5.2	249	44
30	0				------				364	4.7	238	42
31	0	------			------		------		------	4.2	232	------
TOTAL	27.76	0	0	0	0	0	0	0	10,235.6	1,357.8	40,553.7	2,928
MEAN	.90	0	0	0	0	0	0	0	341	43.8	1,308	97.6
MAX	5.2	0	0	0	0	0	0	0	4,840	246	13,600	218
MIN	0	0	0	0	0	0	0	0	0	4.2	6.2	42
AC-FT	55	0	0	0	0	0	0	0	20,300	2,690	80,440	5,810

CAL YR 1970 TOTAL 77.85 MEAN .21 MAX 5.6 MIN 0 AC-FT 154
WTR YR 1971 TOTAL 55,102.86 MEAN 151 MAX 13,600 MIN 0 AC-FT 109,300

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6-14	0400	9.49	6,300	6-28	1430	13.13	14,900
6-16	0100	5.70	1,100	8-11	1100	19.03	37,500
				8-15	0800	15.10	20,400

08192000 Nueces River below Uvalde, Tex.

LOCATION.--Lat 29°07'25", long 99°53'40", Uvalde County, on right bank at McDaniel Ranch, 5.7 miles upstream from bridge on U.S. Highway 83, 8.8 miles southwest of Uvalde, 18.2 miles downstream from West Nueces River, and at mile 306.0.

DRAINAGE AREA.--1,947 sq mi.

PERIOD OF RECORD.--April 1939 to current year. October 1927 to April 1939 published as "near Uvalde"; records equivalent except during periods of low flow when seepage inflow between sites is a material factor.

GAGE.--Water-stage recorder. Datum of gage is 796.12 ft above mean sea level. Oct. 4, 1927, to Apr. 30, 1939, water-stage recorder at site 6.2 miles upstream at different datum.

AVERAGE DISCHARGE.--32 years, 98.5 cfs (71,360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 90,600 cfs Aug. 11 (gage height, 18.08 ft, from floodmark); minimum, 7.8 June 8, 9, 12, 14, 15.
Period of record: Maximum discharge, 189,000 cfs Sept. 24, 1955 (gage height, 24.61 ft, from floodmark), from rating curve extended above 34,000 cfs on basis of conveyance study and slope-area measurement of peak flow; no flow at times in 1951-57.
Maximum stage since at least 1836, 40.4 ft June 14, 1935, from floodmarks (discharge at former site, 616,000 cfs, by slope-area measurement). Large floods occurred in 1901 and 1913, stages unknown.

REMARKS.--Records good. Part of flow of Nueces River enters Edwards and associated limestones in Balcones Fault Zone which crosses basin just north of Uvalde. At low stage most of headwater flow enters this formation. Many small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1732: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	54	32	26	20	15	12	14	9.4	315	20	549
2	203	51	32	26	20	14	12	13	9.4	109	88	530
3	180	50	32	26	20	12	12	13	9.2	64	52	512
4	164	49	32	25	20	14	12	13	8.8	48	28	465
5	151	48	32	26	21	14	12	13	8.5	40	26	452
6	145	47	31	27	21	13	11	13	8.3	39	52	437
7	134	46	31	27	21	13	12	13	8.3	36	935	400
8	128	46	31	26	20	14	12	14	8.3	33	648	387
9	119	44	31	26	21	14	12	14	8.3	30	474	376
10	108	44	31	26	20	13	12	13	8.4	29	369	339
11	102	43	30	26	20	14	12	14	8.3	26	16,300	331
12	97	42	30	26	19	14	12	13	8.1	24	30,300	328
13	93	39	30	26	20	13	11	13	8.5	23	13,000	322
14	89	39	30	26	20	13	11	13	8.2	22	8,740	320
15	84	39	29	25	19	13	13	13	28	22	9,770	314
16	78	39	29	24	19	13	15	13	20	21	11,900	284
17	76	39	29	24	20	13	14	13	9.8	21	4,090	277
18	74	38	29	24	19	13	15	12	8.9	20	2,610	269
19	72	37	29	23	17	12	15	12	9.5	21	2,010	265
20	71	37	29	23	18	12	15	12	11	27	1,700	272
21	70	37	29	23	15	12	14	12	11	30	1,490	260
22	68	36	28	23	16	12	14	12	10	28	1,280	261
23	67	35	27	23	17	13	14	11	11	27	1,120	276
24	67	35	27	23	18	13	14	10	9.9	27	1,030	283
25	65	35	27	22	18	12	14	10	9.4	27	935	277
26	63	35	27	22	16	12	14	10	12	33	844	285
27	60	35	27	22	15	13	14	10	18	23	799	252
28	59	33	27	22	15	13	14	10	80	19	731	237
29	58	33	27	22	------	12	14	10	5,070	19	700	236
30	57	33	25	21	------	12	14	9.5	1,180	18	636	236
31	55	------	26	21	------	13	------	9.4	------	17	609	------
TOTAL	3,089	1,218	906	752	525	403	392	374.9	6,618.5	1,238	113,286	10,032
MEAN	99.6	40.6	29.2	24.3	18.8	13.0	13.1	12.1	221	39.9	3,654	334
MAX	232	54	32	27	21	15	15	14	5,070	315	30,300	549
MIN	55	33	25	21	15	12	11	9.4	8.1	17	20	236
AC-FT	6,130	2,420	1,800	1,490	1,040	799	778	744	13,130	2,460	224,700	19,900

CAL YR 1970 TOTAL 30,194.0 MEAN 82.7 MAX 5,020 MIN 18 AC-FT 59,890
WTR YR 1971 TOTAL 138,834.4 MEAN 380 MAX 30,300 MIN 8.1 AC-FT 275,400

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6-29	0430	8.45	10,300	8-11	2330	18.08	90,600
8- 7	1400	4.45	1,140	8-13	1730	11.59	27,100
				8-15	2030	10.84	22,200

08193000 Nueces River near Asherton, Tex.

LOCATION.--Lat 28°30'CO" (revised), long 99°40'55", Dimmit County, on right bank 28 ft downstream from bridge on Farm Road 190, 0.1 mile downstream from El Moro Creek, 5.5 miles northeast of Asherton, and at mile 288.3.

DRAINAGE AREA.--4,082 sq mi.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 470.92 ft above mean sea level. Prior to Feb. 2, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 180 cfs (130,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18,200 cfs Aug. 15 (gage height, 30.01 ft); no flow at times.
Period of record: Maximum discharge, 28,500 cfs Oct. 6, 1959 (gage height, 30.88 ft); no flow for many days each year.
Maximum stage since at least 1900, 33 ft June 17, 1935; flood of June 30, 1913, reached about same stage, from information by local residents.

REMARKS.--Records good. Part of flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone which crosses basin just north of Uvalde. At low stages, most of headwater flow enters this formation. Considerable losses of floodflows into various permeable formations occur downstream from the Balcones Fault Zone. Flow slightly regulated by Upper Nueces Reservoir (capacity, 7,590 acre-ft) 13 miles upstream since March 1948. Many small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1118: 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	828	.01							0	13,700	0	677
2	550	0							0	16,400	2,950	627
3	344	0							0	11,500	7,190	584
4	258	0							0	8,070	5,560	545
5	196	0							0	5,180	5,430	514
6	164	0							0	1,580	4,620	488
7	143	0							0	258	3,710	456
8	128	0							0	139	3,300	427
9	109	0							0	91	2,110	397
10	95	0							0	67	1,000	371
11	82	0							0	50	562	366
12	77	0							0	39	1,900	379
13	67	0							0	33	7,570	389
14	57	0							0	26	15,400	355
15	51	0							0	19	13,100	342
16	42	0							0	13	16,400	325
17	38	0							0	8.6	15,400	310
18	34	0							0	5.5	14,800	294
19	31	0							0	3.5	10,700	277
20	28	0							0	1.9	7,860	266
21	23	0							0	1.1	5,340	259
22	17	0							0	.7	2,930	269
23	12	0							0	.4	1,830	304
24	7.4	0							0	.3	1,410	296
25	5.2	0							0	.2	1,210	269
26	3.5	0							0	.2	1,080	265
27	2.3	0							8.1	.2	983	266
28	1.4	0							840	.2	905	260
29	.70	0			------				7,810	.1	841	245
30	.35	0			------				12,700	.1	792	240
31	.12	------			------		------		------	0	729	------
TOTAL	3,394.97	.01	0	0	0	0	0	0	21,358.1	57,188.0	162,612	11,061
MEAN	110	.0003	0	0	0	0	0	0	712	1,845	5,246	369
MAX	828	.01	0	0	0	0	0	0	12,700	16,400	16,100	677
MIN	.12	0	0	0	0	0	0	0	0	0	0	240
AC-FT	6,730	.02	0	0	0	0	0	0	42,360	113,400	322,500	21,940

CAL YR 1970 TOTAL 20,436.74 MEAN 56.0 MAX 1,550 MIN 0 AC-FT 40,540
WTR YR 1971 TOTAL 255,614.08 MEAN 700 MAX 18,100 MIN 0 AC-FT 507,000

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
7- 2	0600	29.73	17,000
8- 3	0400	27.52	7,720
8-15	1100	30.01	18,200

08194000 Nueces River at Cotulla, Tex.

LOCATION.--Lat 28°25'32", long 99°14'26", La Salle County, on left bank at downstream side of bridge on U.S. Highway 81, 0.3 mile upstream from Missouri Pacific Railroad Co. bridge, 0.8 mile south of Cotulla, 1.2 miles upstream from Lind Dam, and at mile 235.7.

DRAINAGE AREA.--5,260 sq mi.

PERIOD OF RECORD.--November 1923 to current year. November 1923 to September 1926 monthly discharge only, published in WSP 1312; figures of daily discharge for Oct. 31, 1923, to Sept. 30, 1926, published in WSP 588, 608, and 628, have been found to be unreliable and should not be used. Gage-height records collected in this vicinity 1914-17 and since 1922 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 368.08 ft above mean sea level. Oct. 31, 1923, to Aug. 3, 1924, nonrecording gage at approximate site of present gage at datum 7.28 ft higher. Aug. 4, 1924, to Nov. 19, 1934, nonrecording gage at site 5,000 ft downstream at datum 8.42 ft higher. Nov. 20, 1934, to July 14, 1938, water-stage recorder and July 15, 1938, to Apr. 30, 1963, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--47 years (1924-71), 280 cfs (202,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33,400 cfs July 1 (gage height, 25.75 ft); no flow for many days.
Period of record: Maximum discharge, 82,600 cfs June 18, 1935 (gage height, 32.4 ft, from floodmarks), from rating curve extended above 43,000 cfs on basis of slope-area measurement of peak flow; no flow at times.
Maximum stage since at least 1879, that of June 18, 1935. Flood of June 19, 1899, reached a stage of 29.7 ft, from information by local residents.

REMARKS.--Records good. Part of flow of Nueces River and its headwater tributaries enter the Edwards and associated limestones in the Balcones Fault Zone just north of Uvalde. At low stages, most of the headwater flow enters this formation. Considerable losses of floodflows into various permeable formations occur downstream from the Balcones Fault Zone. Low flow slightly regulated by small storage reservoirs above station, most of which is diverted above station by pumping (see REMARKS for Nueces River near Asherton, station 08193000).

REVISIONS (WATER YEARS).--WSP 1732: 1957(M). See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,040	1.4							0	31,300	0	800
2	1,630	1.3							0	21,900	256	735
3	1,340	1.1							0	16,100	125	670
4	1,170	.96							0	14,900	1,920	615
5	740	.84							0	13,200	9,000	570
6	412	.72							0	9,970	8,150	538
7	290	.62							0	6,860	7,100	516
8	227	.52							0	3,740	6,970	488
9	180	.44							0	2,000	5,670	472
10	151	.29							0	912	4,530	452
11	122	.23							0	248	3,650	456
12	104	.17							0	141	2,720	488
13	91	.12							0	91	2,070	484
14	81	.03							0	66	4,060	492
15	69	.01							0	46	11,200	480
16	60	0							0	33	17,900	440
17	53	0							0	26	20,300	428
18	49	0							0	20	18,100	579
19	42	0							0	14	15,700	670
20	35	0							0	10	14,600	630
21	32	0							0	6	12,700	520
22	29	0							0	3	9,680	420
23	26	0							0	2	6,860	384
24	23	0							0	1	4,360	376
25	20	0							0	1	2,800	396
26	13	0							0	0	2,080	372
27	10	0							0	0	1,670	336
28	6.2	0							405	0	1,430	325
29	4.4	0			-------				10,200	0	1,230	318
30	2.9	0			-------				11,300	0	1,050	315
31	1.8	------			------		------		------	0	898	------
TOTAL	9,054.3	8.75	0	0	0	0	0	0	21,905	121,590	198,779	14,765
MEAN	292	.29	0	0	0	0	0	0	730	3,922	6,412	492
MAX	2,040	1.4	0	0	0	0	0	0	11,300	31,300	20,300	800
MIN	1.8	0	0	0	0	0	0	0	0	0	0	315
AC-FT	17,960	17	0	0	0	0	0	0	43,450	241,200	394,300	29,290

CAL YR 1970 TOTAL 28,057.95 MEAN 76 MAX 2,040 MIN 0 AC-FT 55,650
WTR YR 1971 TOTAL 366,102.05 MEAN 1,003 MAX 31,300 MIN 0 AC-FT 726,200

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE
7- 1	1200	25.75	33,400
8- 5	1000	18.07	10,300
8-17	0800	22.80	20,600

08194200 San Casimiro Creek near Freer, Tex.

LOCATION.--Lat 27°57'47", long 98°58'05", Webb County, at downstream side of bridge on State Highway 44, 11 miles upstream from Nueces River, and 22 miles northwest of Freer.

DRAINAGE AREA.--469 sq mi.

PERIOD OF RECORD.--January 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 298 ft above mean sea level, State Highway Department bridge plans.

AVERAGE DISCHARGE.--9 years, 57.7 cfs (41,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,700 cfs Sept. 14 (gage height, 23.35 ft); no flow for many days.
Period of record: Maximum discharge, 43,200 cfs Sept. 23, 1967 (gage height, 24.6 ft, from floodmark); no flow for many days each year.
Maximum stage since at least 1946, 26 ft in 1954, from information by State Highway Department.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	0						0	0	1,110	0	0
2	8.3	.79						0	0	278	0	0
3	4.6	.19						0	0	36	0	0
4	20	.07						0	0	17	0	0
5	89	.04						0	0	7.9	5.9	0
6	58	.02						0	0	3.4	60	0
7	18	.01						0	0	1.6	133	0
8	11	0						0	0	.76	133	0
9	5.2	0						0	0	.36	167	0
10	2.8	0						0	0	.20	48	0
11	1.8	0						0	0	.10	16	.8
12	1.0	0						0	0	.03	7.9	2,170
13	.56	0						0	0	0	4.0	5,710
14	.30	0						0	3.1	0	2.0	16,400
15	.18	0						0	6.6	0	.88	4,510
16	.10	0						0	.38	0	9.1	1,860
17	.03	0						0	.02	0	11	837
18	.01	0						0	6.7	0	3.3	297
19	0	0						0	2.7	0	1.0	90
20	0	0						2.1	.34	0	.24	170
21	0	0						1.7	.03	0	.07	80
22	0	0						.01	17	0	0	52
23	0	0						67	26	0	0	35
24	0	0						40	59	0	0	68
25	0	0						11	25	0	0	746
26	0	0						3.1	24	0	0	64
27	0	0						.72	287	0	0	24
28	0	0						.13	645	0	0	17
29	0	0			------			.03	493	0	0	14
30	0	0			------			0	1,630	0	0	15
31	0	------			------		------	0	------	0	0	------
TOTAL	235.88	1.12	0	0	0	0	0	125.79	3,225.87	1,455.35	602.39	33,159.8
MEAN	7.61	.037	0	0	0	0	0	4.06	108	46.9	19.4	1,105
MAX	89	.79	0	0	0	0	0	67	1,630	1,110	167	16,400
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	468	2.2	0	0	0	0	0	250	6,400	2,890	1,190	65,770

CAL YR 1970 TOTAL 13,211.91 MEAN 36.2 MAX 1,970 MIN 0 AC-FT 26,210
WTR YR 1971 TOTAL 38,806.20 MEAN 106 MAX 16,400 MIN 0 AC-FT 76,970

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6-28	0700	14.75	770	9-14	0200	23.35	25,700
6-30	1500	17.83	1,890	9-25	0700	16.18	1,130

08194500 Nueces River near Tilden, Tex.

LOCATION.--Lat 28°18'31", long 98°33'25", McMullen County, on right bank at downstream side of pier of bridge on State Highway 16, 1.8 miles upstream from Kings Branch, 10.5 miles south of Tilden, and at mile 141.2.

DRAINAGE AREA.--8,192 sq mi.

PERIOD OF RECORD.--November 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 183.5 ft above mean sea level.

AVERAGE DISCHARGE.--28 years (1943-71), 434 cfs (314,400 acre-ft per year).

EXTREMES.--Current year: Maximum peak discharge, 36,800 cfs Sept. 16 (gage height, 23.58 ft); no flow Mar. 30 to June 15.
Period of record: Maximum discharge, 76,500 cfs Sept. 24, 1967 (gage height, 26.57 ft); no flow at times.
Maximum stage since about 1902, that of Sept. 24, 1967. Flood of Oct. 11, 1946, reached a stage of 26.46 ft (discharge, 70,000 cfs). Floods in June 1935 reached a stage of 23.7 ft and in July 1942 about 22 ft, from information by local residents.

REMARKS.--Records good. Part of flow of Nueces River and its headwater tributaries enters Edwards and associated limestones in the Balcones Fault Zone which crosses basin just north of Uvalde and upstream from this station. At low stage most of headwater flow enters this formation. Some losses of floodflows into various permeable formations occur downstream from the Balcones Fault Zone. Some diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1512: 1947. WSP 1732: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	786	5.7	.36	.16	.08	.08			0	1,020	1	2,320
2	897	4.9	.34	.16	.08	.06			0	6,740	2	1,860
3	960	4.3	.34	.18	.11	.03			0	18,800	6	1,490
4	1,010	2.8	.34	.16	.13	.04			0	20,900	13	1,210
5	1,050	1.7	.34	.12	.11	.06			0	27,900	439	910
6	1,100	1.0	.29	.12	.12	.09			0	22,900	767	711
7	1,160	.67	.27	.14	.10	.09			0	18,900	897	644
8	1,230	.53	.28	.16	.07	.10			0	17,200	1,010	594
9	1,280	.37	.33	.18	.06	.13			0	15,600	3,200	556
10	1,070	.27	.33	.21	.08	.16			0	13,100	10,700	531
11	349	.19	.28	.21	.09	.16			0	10,100	9,330	652
12	199	.14	.23	.21	.09	.09			0	7,560	8,070	5,190
13	148	.12	.26	.21	.09	.09			0	5,310	7,410	20,900
14	114	.09	.27	.21	.09	.07			0	3,780	6,510	29,700
15	97	.05	.29	.21	.09	.05			0	2,920	5,530	33,000
16	86	.03	.27	.21	.09	.04			699	1,710	4,710	33,700
17	78	.05	.26	.21	.09	.04			98	269	3,760	23,600
18	74	.11	.27	.21	.08	.03			6.2	102	2,950	14,800
19	66	.18	.27	.17	.08	.02			128	61	3,220	8,300
20	60	.21	.27	.16	.06	.01			95	40	13,100	4,440
21	54	.24	.27	.13	.05	.01			38	29	22,300	2,720
22	46	.29	.27	.16	.04	.01			55	19	21,700	1,940
23	38	.34	.26	.16	.04	.01			31	13	19,600	1,350
24	30	.25	.20	.16	.07	.01			5.6	9	17,800	925
25	24	.21	.16	.16	.40	.01			4.7	7	15,900	852
26	20	.22	.16	.16	1.2	.01			111	5	13,400	857
27	18	.27	.16	.12	.37	.01			476	4	10,500	1,000
28	13	.27	.17	.12	.12	.01			768	3	7,860	1,150
29	9.4	.40	.18	.12	------	.01			977	2	5,540	1,330
30	8.1	.42	.21	.12	------	0			1,180	2	3,960	1,470
31	6.5	------	.16	.10	------	0	------		------	1	2,910	------
TOTAL	12,081.0	26.32	8.09	5.11	4.08	1.53	0	0	4,672.5	195,006	223,095	198,702
MEAN	390	.88	.26	.16	.15	.049	0	0	156	6,291	7,197	6,623
MAX	1,280	5.7	.36	.21	1.2	.16	0	0	1,180	27,900	22,300	33,700
MIN	6.5	.03	.16	.10	.04	0	0	0	0	1.0	1.0	531
AC-FT	23,960	52	16	10	8.1	3.0	0	0	9,270	386,800	442,500	394,100

CAL YR 1970 TOTAL 65,793.86 MEAN 180 MAX 3,120 MIN .03 AC-FT 130,500
WTR YR 1971 TOTAL 633,601.63 MEAN 1,736 MAX 33,700 MIN 0 AC-FT 1,257,000

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7- 5	0300	22.81	29,100	8-21	1500	22.05	22,800
8-10	1100	20.06	11,200	9-16	0200	23.58	36,800

08194600 Nueces River at Simmons, Tex.

LOCATION.--Lat 28°25'16", long 98°17'03", Live Oak County, on right bank 58 ft upstream from centerline of county road, 714 ft to right of right abutment of county road bridge, 1.1 miles north of Simmons, 1.5 miles upstream from Lang Creek, 10.1 miles upstream from Frio River, and at mile 113.7.

DRAINAGE AREA.--8,561 sq mi.

PERIOD OF RECORD.--April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 119.63 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 618 cfs (447,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 31,700 cfs Sept. 17 (gage height, 37.65 ft); no flow at times.
Period of record: Maximum discharge, 72,000 cfs Sept. 25, 1967 (gage height, 43.21 ft); no flow at times each year.
Maximum stage since at least 1875, 43.5 ft (discharge, 75,800 cfs) in September 1919; floods in June 1935 and July 1942 reached a stage of 42.0 ft (discharge, 58,500 cfs), from information by local residents.

REMARKS.--Records good. Part of flow of the Nueces River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone which crosses the basin just north of Uvalde and upstream from this station. At low stage most of headwater flow enters this formation. Some losses of floodflows into various permeable formations occur downstream from the Balcones Fault Zone. Some diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	7.4	.70	.05	.02	.02	0		0	1,140	6	3,360
2	618	5.8	.70	.06	.02	.03	0		0	1,050	7	2,720
3	699	5.0	.70	.13	.02	.02	0		0	1,990	28	2,150
4	725	4.2	.70	.12	.03	.01	0		0	11,200	32	1,700
5	755	3.8	.70	.09	.02	.01	0		0	17,000	68	1,260
6	770	3.3	.60	.09	.02	.01	0		0	24,500	487	887
7	784	2.8	.60	.07	.03	0	0		0	23,400	690	654
8	824	2.6	.60	.07	.01	0	0		0	19,400	818	577
9	874	2.2	.60	.07	.01	0	0		0	16,500	964	539
10	922	1.8	.59	.08	.01	0	0		0	14,800	1,590	509
11	757	1.5	.50	.09	.01	0	0		0	12,700	6,320	860
12	274	1.4	.51	.11	.01	0	0		0	10,100	8,420	5,710
13	191	1.3	.51	.12	0	0	0		0	7,460	7,610	10,200
14	150	1.1	.51	.12	.01	0	0		0	5,460	6,760	18,300
15	120	.92	.51	.12	.01	0	0		22	3,990	6,020	25,300
16	97	.89	.50	.09	.01	0	5.2		628	3,090	5,180	29,200
17	81	.86	.43	.08	.01	0	1.9		665	1,930	4,510	30,800
18	72	.83	.43	.06	.01	0	.35		93	237	3,920	25,200
19	64	.91	.43	.04	.01	0	.11		40	98	3,380	17,400
20	55	.87	.50	.04	0	0	.04		136	66	2,960	9,950
21	48	.99	.43	.04	0	0	.02		87	47	7,800	5,330
22	43	1.1	.43	.04	0	0	.01		42	36	15,100	3,580
23	38	.91	.40	.05	0	0	0		43	29	19,500	2,660
24	32	.46	.26	.05	0	0	0		35	22	18,500	1,850
25	27	.66	.19	.05	0	0	0		12	17	16,800	1,140
26	24	.81	.16	.04	.01	0	0		15	13	14,900	972
27	20	.70	.12	.03	.02	0	0		253	11	12,400	988
28	18	.70	.10	.03	.02	0	0		571	10	10,300	1,090
29	14	.66	.06	.03	------	0	0		968	8	7,920	1,260
30	11	.66	.08	.03	------	0	0		1,270	7	5,730	1,440
31	9.0	------	.05	.02	------	0	------		------	6	4,190	------
TOTAL	9,626.0	57.13	13.60	2.11	.32	.10	7.63	0	4,880	176,317	192,910	207,586
MEAN	311	1.90	.44	.068	.011	.003	.25	0	163	5,688	6,223	6,920
MAX	922	7.4	.70	.13	.03	.03	5.2	0	1,270	24,500	19,500	30,800
MIN	9.0	.46	.05	.02	0	0	0	0	0	6.0	6.0	509
AC-FT	19,090	113	27	4.2	.6	.2	15	0	9,680	349,700	382,600	411,700

CAL YR 1970 TOTAL 67,899.29 MEAN 186 MAX 3,860 MIN .05 AC-FT 134,700
WTR YR 1971 TOTAL 591,399.89 MEAN 1,620 MAX 30,800 MIN 0 AC-FT 1,173,000

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7- 6	1730	36.17	25,800	8-23	1300	34.27	19,800
8-12	0900	28.99	8,590	9-17	0800	37.65	31,700

NOTE.--Aug. 11 to Sept. 30 gage-height record computed from twice-daily nonrecording gage readings.

08195000 Frio River at Concan, Tex.

LOCATION.--Lat 29°29'18", long 99°42'16", Uvalde County, on left bank 0.7 mile southeast of Concan Post Office, 15 miles upstream from Dry Frio River, and at mile 224.1.

DRAINAGE AREA.--405 sq mi.

PERIOD OF RECORD.--October 1923 to September 1929, October 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,203.71 ft above mean sea level. Oct. 26, 1923, to July 28, 1924, nonrecording gage at site 86 ft upstream at datum 5.08 ft lower. July 29, 1924, to Oct. 3, 1930, nonrecording gage and Oct. 4, 1930, to May 18, 1939, water-stage recorder, at site 130 ft downstream at present datum.

AVERAGE DISCHARGE.--46 years (1924-29, 1930-71), 101 cfs (73,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 22,800 cfs Aug. 13 (gage height, 14.28 ft); minimum, 17 cfs July 23.
Period of record: Maximum discharge, 162,000 cfs July 1, 1932 (gage height, 34.44 ft, from floodmarks), from rating curve extended above 44,000 cfs on basis of flow-over-dam measurement of 56,600 cfs and slope-area measurement of 162,000 cfs; no flow Aug. 5, 1956, to Jan. 6, 1957.
Maximum stage since at least 1869, that of July 1, 1932.

REMARKS.--Records good. Many small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1342: Drainage area. WSP 1512: 1926, 1931-32, 1934(M), 1935-36. WSP 1712: 1958. WSP 1923: 1954(M), 1957(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	121	95	80	64	62	54	49	36	35	27	290
2	213	118	95	80	64	61	54	48	35	33	46	277
3	201	115	94	79	64	62	54	47	32	32	39	263
4	194	114	94	76	63	65	54	49	29	31	35	254
5	187	111	94	77	63	64	53	48	29	29	35	246
6	184	111	92	78	64	62	53	48	28	29	35	236
7	177	111	91	78	62	62	52	47	28	28	36	228
8	166	111	91	78	62	62	52	46	26	28	59	220
9	160	109	91	76	63	62	52	50	25	27	59	213
10	157	110	91	75	62	62	49	51	24	27	55	204
11	153	111	89	75	62	62	49	52	25	27	64	201
12	165	111	88	75	60	61	50	48	25	27	6,130	200
13	170	108	91	75	61	60	49	44	26	28	6,530	198
14	156	106	88	75	62	59	49	44	29	27	7,660	188
15	151	106	88	74	61	60	49	43	26	26	3,360	183
16	146	108	87	72	61	59	56	43	29	25	1,300	174
17	145	107	87	73	62	59	57	41	26	26	890	170
18	145	107	86	72	61	59	54	40	24	25	724	165
19	146	105	86	71	60	59	52	39	25	25	618	164
20	142	105	86	69	60	59	58	39	24	24	559	166
21	140	104	86	69	56	58	54	38	25	23	512	165
22	137	101	86	68	57	58	53	37	22	22	472	180
23	135	100	84	68	59	58	50	39	23	21	441	190
24	133	101	83	67	60	58	50	38	22	22	416	185
25	133	101	83	67	68	58	50	37	21	24	393	185
26	135	101	83	67	72	58	52	36	24	26	375	180
27	133	99	83	67	67	58	51	36	37	29	358	175
28	128	98	83	67	63	57	50	37	39	28	359	165
29	126	98	81	67	------	56	50	34	47	26	340	180
30	125	97	81	64	------	55	49	35	40	25	322	210
31	125	------	80	64	------	55	------	38	------	24	305	------
TOTAL	4,831	3,205	2,717	2,243	1,743	1,850	1,559	1,321	851	829	32,554	6,055
MEAN	156	107	87.6	72.4	62.3	59.7	52.0	42.6	28.4	26.7	1,050	202
MAX	223	121	95	80	72	65	58	52	47	35	7,660	290
MIN	125	97	80	64	56	55	49	34	21	21	27	164
AC-FT	9,580	6,360	5,390	4,450	3,460	3,670	3,090	2,620	1,690	1,640	64,570	12,010

CAL YR 1970 TOTAL 45,261 MEAN 124 MAX 2,770 MIN 42 AC-FT 89,780
WTR YR 1971 TOTAL 59,758 MEAN 164 MAX 7,660 MIN 21 AC-FT 118,500

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-12	1100	13.52	20,600
8-13	1700	14.28	22,800
8-14	2200	12.26	16,800

08196000 Dry Frio River near Reagan Wells, Tex.

LOCATION.--Lat 29°30'05", long 99°46'55", Uvalde County, on right bank 2.1 miles upstream from bridge on U.S. Highway 83, 3.5 miles upstream from Rock Creek, and 4.6 miles southeast of Reagan Wells.

DRAINAGE AREA.--117 sq mi.

PERIOD OF RECORD.--September 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,335.2 ft above mean sea level, adjustment unknown.

AVERAGE DISCHARGE.--19 years, 31.4 cfs (22,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,000 cfs Aug. 13 (gage height, 12.84 ft); no flow part of day May 28 (result of regulation).
Period of record: Maximum discharge, 123,000 cfs Aug. 13, 1966 (gage height, 27.6 ft, from floodmark), from rating curve extended above 900 cfs on basis of slope-area measurements of 11,400, 30,700, 64,700, and 123,000 cfs; no flow at times.
Maximum stage since at least 1875 occurred in 1880 (about 33 ft). Flood of June 14, 1935, reached a stage of 26.0 ft (discharge at site 2.6 miles upstream, 64,700 cfs) and that of July 1, 1932, reached a stage of 23 ft (discharge at site 2.0 miles upstream, 30,700 cfs), from information by local residents.

REMARKS.--Records good. Several small diversions above station.

REVISIONS (WATER YEARS).--WSP 1712: 1953. WSP 1923: 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	29	21	16	13	18	10	10	5.3	37	11	101
2	109	29	21	16	13	17	9.5	9.5	5.0	33	46	95
3	97	29	20	16	13	16	9.0	9.0	5.0	31	54	87
4	87	28	20	16	13	15	9.0	8.5	5.0	28	41	81
5	81	27	20	15	13	15	9.0	8.5	4.7	27	37	79
6	74	27	19	14	13	15	9.0	9.0	4.7	24	36	74
7	68	27	19	14	13	14	8.5	9.0	4.4	21	44	72
8	62	26	19	14	13	13	8.5	8.5	4.4	20	44	68
9	51	26	19	14	13	13	8.5	8.0	4.1	20	42	64
10	51	25	19	15	13	13	8.5	8.0	4.1	20	40	63
11	50	25	19	15	13	13	8.5	10	4.1	18	198	62
12	51	25	18	15	13	13	8.5	20	4.1	18	1,270	60
13	57	26	18	15	13	13	8.5	13	3.8	16	1,980	58
14	50	26	18	15	13	13	8.0	10	3.8	16	1,240	56
15	44	25	18	15	13	13	8.0	10	4.1	15	698	52
16	40	25	18	14	13	13	13	9.0	4.1	15	458	51
17	38	25	18	14	13	13	14	8.5	4.1	14	352	48
18	36	24	18	14	13	12	13	8.0	4.4	13	288	46
19	36	24	18	13	13	12	15	7.6	4.4	13	252	46
20	35	24	18	13	12	11	16	7.2	4.4	12	222	46
21	35	23	18	13	12	11	16	6.8	4.1	12	205	45
22	35	23	19	13	11	11	15	6.4	4.1	11	191	52
23	35	22	18	13	11	10	14	6.0	4.1	10	177	52
24	33	22	18	13	11	8.5	13	6.4	3.8	10	164	51
25	32	21	17	13	15	10	12	6.0	3.8	10	152	58
26	32	21	17	13	25	10	12	5.6	4.1	11	140	63
27	31	22	17	13	23	10	12	5.6	4.7	16	130	52
28	30	22	17	13	20	11	12	4.7	14	15	125	48
29	30	22	17	13	------	10	11	5.0	76	13	115	46
30	30	21	17	14	------	10	10	5.3	64	12	111	46
31	29	------	16	13	------	10	------	5.3	------	11	105	------
TOTAL	1,594	741	569	437	387	386.5	329.0	254.4	270.7	542	8,968	1,822
MEAN	51.4	24.7	18.4	14.1	13.8	12.5	11.0	8.21	9.02	17.5	289	60.7
MAX	125	29	21	16	25	18	16	20	76	37	1,980	101
MIN	29	21	16	13	11	8.5	8.0	4.7	3.8	10	11	45
AC-FT	3,160	1,470	1,130	867	768	767	653	505	537	1,080	17,790	3,610

CAL YR 1970 TOTAL 11,598.2 MEAN 31.8 MAX 1,480 MIN 3.2 AC-FT 23,010
WTR YR 1971 TOTAL 16,300.6 MEAN 44.7 MAX 1,980 MIN 3.8 AC-FT 32,330

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-12	1230	8.90	4,300
8-13	0700	12.84	9,000
8-14	1230	5.88	1,840

08197500 Frio River below Dry Frio River, near Uvalde, Tex.

LOCATION.--Lat 29°14'35", long 99°40'30", Uvalde County, on right bank 1.0 mile upstream from crossing of old Uvalde-Sabinal road, 5.0 miles downstream from Dry Frio River, 5.7 miles downstream from bridge on U.S. Highway 90, and 7.4 miles northeast of Uvalde.

DRAINAGE AREA.--661 sq mi.

PERIOD OF RECORD.--September 1952 to current year. Sum of records published as Frio River at Knippa and Dry Frio River at Knippa for period September 1952 to September 1953 is equivalent to record for this station.

GAGE.--Water-stage recorder. Datum of gage is 882.47 ft above mean sea level.

AVERAGE DISCHARGE.--19 years, 23.4 cfs (16,950 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Aug. 13 (gage height, 12.62 ft); no flow most of time.
Period of record: Maximum discharge, 88,500 cfs, Aug. 13, 1966 (gage height, 23.88 ft, from floodmark), from rating curve extended above 12,000 cfs (revised) on basis of slope-area measurements of 24,400, 53,000, and 88,500 cfs; no flow most of time.
Maximum stage since at least 1887, about 35 ft in 1894. Flood of July 1, 1932, reached a stage of about 30 ft. A higher flood than that of 1894 occurred prior to 1887. Above information by local residents.

REMARKS.--Records good. Part of flow of Frio River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses basin just north of Uvalde and above this station. Most of low flow enters this formation. Many diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2										0	17
2	.57										0	5.6
3	.11										0	1.3
4	0										0	.62
5	0										0	.25
6	0										0	.09
7	0										0	.05
8	0										0	.03
9	0										0	.03
10	0										0	.03
11	0										0	.03
12	0										4,440	.03
13	0										8,080	.03
14	0										6,050	.01
15	0										4,520	.01
16	0										1,260	.01
17	0										738	0
18	0										536	0
19	0										405	0
20	0										333	0
21	0										276	0
22	0										238	0
23	0										198	0
24	0										163	0
25	0										137	0
26	0										112	0
27	0										90	0
28	0										81	0
29	0				------						71	0
30	0				------						54	0
31	0	------			------		------		------		35	------
TOTAL	2.88	0	0	0	0	0	0	0	0	0	27,817	25.12
MEAN	.093	0	0	0	0	0	0	0	0	0	897	.84
MAX	2.2	0	0	0	0	0	0	0	0	0	8,080	17
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	5.7	0	0	0	0	0	0	0	0	0	55,180	50

CAL YR 1970 TOTAL 3,741.27 MEAN 10.3 MAX 1,710 MIN 0 AC-FT 7,420
WTR YR 1971 TOTAL 27,845.00 MEAN 76.3 MAX 8,080 MIN 0 AC-FT 55,230

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-12	1600	11.95	12,500
8-13	2200	12.62	14,600
8-15	0330	11.34	10,400

08198000 Sabinal River near Sabinal, Tex.

LOCATION (revised).--Lat 29°29'35", long 99°29'49", Uvalde County, on right bank 108 ft upstream from concrete dam, 2.3 miles downstream from mouth of Onion Creek, and 12.5 miles north of Sabinal. Prior to Apr. 9, 1971, at site 0.3 mile downstream.

DRAINAGE AREA.--206 sq mi.

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,131.20 ft above mean sea level. Prior to Apr. 9, 1971, at site 0.3 mile downstream at same datum.

AVERAGE DISCHARGE.--29 years, 41.5 cfs (30,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 23,700 cfs Aug. 12 (gage height, 19.72 ft, from floodmark); minimum, 0.02 cfs July 31, Aug. 1.
Period of record: Maximum discharge, 55,200 cfs June 17, 1958 (gage height, 28.3 ft, from floodmark at present site), from rating curve extended above 6,900 cfs (revised) on basis of slope-area measurement of 55,200 cfs; no flow at times.
Maximum stage since at least 1892, about 33 ft (revised) July 2, 1932, from information by local residents. There is a legend that a flood in the middle 1800's reached a stage of near 63 ft (revised), see flood history for station 08198500.

REMARKS.--Records good except those below 50 cfs prior to Apr. 9, which are poor. Several small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1312: 1943(M), 1944(M), 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	20	17	15	12	12	8.2	7.4	2.4	4.5	27	172
2	23	20	17	15	11	12	7.7	6.8	2.7	3.8	42	164
3	22	20	17	15	11	12	7.7	6.2	2.4	2.7	46	157
4	22	20	17	15	11	12	7.7	5.6	2.1	2.7	32	151
5	21	20	18	15	11	12	7.8	5.6	2.1	2.4	27	142
6	20	20	17	15	11	12	7.7	5.0	1.8	1.8	22	136
7	20	20	17	15	11	12	7.5	5.0	1.8	1.8	19	130
8	19	20	18	15	11	12	7.5	5.0	1.6	1.6	18	124
9	18	20	18	15	11	12	7.4	5.0	1.6	1.6	16	115
10	18	19	18	16	11	12	6.8	5.0	1.4	1.4	14	112
11	17	19	18	16	11	12	6.8	5.0	1.4	1.1	13	106
12	20	18	18	15	10	12	6.2	5.6	1.1	.88	8,070	106
13	23	18	17	15	10	12	6.2	5.0	1.1	.70	2,580	103
14	23	17	18	15	10	11	6.2	4.5	1.1	.70	2,510	98
15	22	16	18	14	10	10	6.2	4.5	1.1	.54	1,660	94
16	21	15	18	14	10	9.9	9.5	4.1	1.1	.54	860	92
17	21	16	18	14	10	9.6	12	3.8	1.1	.40	592	90
18	20	16	18	14	9.9	9.4	9.6	3.4	1.4	.40	520	88
19	22	16	18	13	9.8	8.9	9.6	3.4	1.4	.40	448	86
20	23	16	18	13	9.8	8.9	25	3.4	1.1	.40	400	90
21	23	17	18	13	9.5	8.9	17	3.0	1.4	.30	358	84
22	23	17	18	13	8.9	9.1	13	3.0	1.1	.30	322	94
23	22	17	18	13	8.9	9.1	11	3.0	1.1	.20	292	96
24	22	16	18	13	9.6	8.9	10	3.0	1.1	.20	272	94
25	22	16	17	13	11	8.9	9.6	3.4	1.1	.20	252	103
26	22	17	17	12	12	8.8	9.6	3.4	1.1	.20	240	98
27	21	17	17	12	12	8.6	9.6	3.0	1.8	.20	232	92
28	19	18	17	12	12	8.6	8.8	2.7	3.4	.13	248	88
29	19	18	17	12	------	8.5	8.0	2.4	5.0	.08	216	94
30	19	18	17	12	------	8.2	7.4	2.4	7.4	.04	200	103
31	19	------	16	12	------	8.2	------	2.4	------	.04	188	------
TOTAL	649	537	543	431	295.4	319.5	277.3	131.0	56.3	32.25	20,736	3,302
MEAN	20.9	17.9	17.5	13.9	10.6	10.3	9.24	4.23	1.88	1.04	669	110
MAX	23	20	18	16	12	12	25	7.4	7.4	4.5	8,070	172
MIN	17	15	16	12	8.9	8.2	6.2	2.4	1.1	.04	13	84
AC-FT	1,290	1,070	1,080	855	586	634	550	260	112	64	41,130	6,550

CAL YR 1970 TOTAL 14,930.40 MEAN 40.9 MAX 145 MIN 5.2 AC-FT 29,610
WTR YR 1971 TOTAL 27,309.75 MEAN 74.8 MAX 8,070 MIN .04 AC-FT 54,170

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-12	0700	a19.72	23,700
8-13	0630	9.75	6,270
8-14	2000	10.20	7,080

a From floodmark.

08198500 Sabinal River at Sabinal, Tex.

LOCATION.--Lat 29°18'47", long 99°28'46", Uvalde County, on left bank 80 ft downstream from bridge on U.S. Highway 90, 1,100 ft downstream from Southern Pacific Lines railroad bridge, 0.8 mile west of Sabinal, and 5.8 miles upstream from Ranchero Creek.

DRAINAGE AREA.--247 sq mi.

PERIOD OF RECORD.--September 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 882.17 ft above mean sea level. Prior to July 29, 1958, nonrecording gage and July 29, 1958, to Mar. 19, 1964, water-stage recorder at site 80 ft upstream at same datum.

AVERAGE DISCHARGE.--19 years, 24.4 cfs (17,680 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 32,400 cfs Aug. 12 (gage height, 24.67 ft); minimum, 0.14 cfs Mar. 28.
Period of record: Maximum discharge, 73,300 cfs June 17, 1958 (gage height, 33.3 ft); no flow at times.
Maximum stage since at least 1890, 40 ft Aug. 24, 1919, from information by local residents. Flood of July 2, 1932, reached a stage of 31 ft (discharge, 60,000 cfs), from information by Southern Pacific Lines. There is a legend that a flood in 1858 covered the townsite of Sabinal. This would call for a stage of 70 to 80 ft which seems unlikely. However, it is possible that a flood occurred in 1858 that covered part of the townsite and was higher than any flood since that date.

REMARKS.--Records good. Several small diversions for irrigation above station. Most of low flow of the Sabinal River enters the Edwards and associated limestones in the Balcones Fault Zone which crosses basin upstream from this station and below the next upstream station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	.99	.79	.71	.59	.71	.51	.59	.39	.75	.5	110
2	.99	1.0	.79	.75	.59	.67	.51	.55	.39	.71	1.3	95
3	.99	1.0	.79	.75	.55	.63	.51	.55	.39	.67	1.3	91
4	.99	1.0	.79	.71	.55	.63	.51	.55	.39	.63	.8	83
5	.99	1.0	.75	.71	.55	.67	.51	.55	.39	.63	.7	72
6	1.0	1.0	.75	.70	.55	.67	.47	.51	.39	.63	.7	69
7	.99	1.0	.75	.70	.55	.63	.47	.51	.35	.63	.8	63
8	.95	.99	.75	.70	.51	.63	.47	.51	.32	.63	.8	56
9	.91	.99	.71	.70	.51	.63	.47	.51	.29	.63	.7	52
10	.95	.99	.71	.65	.51	.63	.47	.51	.29	.63	.7	47
11	1.1	.99	.71	.65	.51	.63	.47	.63	.29	.63	.8	44
12	1.1	.99	.71	.65	.47	.63	.43	.55	.29	.59	9,030	40
13	1.0	.99	.71	.65	.47	.67	.43	.51	.29	.55	3,730	39
14	1.0	.99	.71	.65	.47	.67	.43	.51	.29	.55	2,160	35
15	1.0	.99	.71	.65	.51	.67	.43	.51	.39	.51	1,910	30
16	1.0	.99	.67	.60	.51	.67	.51	.51	.39	.51	868	26
17	1.0	.99	.67	.60	.51	.67	.51	.51	.29	.47	638	21
18	1.0	.95	.71	.60	.51	.67	.47	.47	.26	.43	522	16
19	1.1	.95	.71	.59	.55	.63	1.6	.47	.29	.43	438	13
20	1.0	.91	.71	.59	.55	.63	6.3	.43	.29	.43	387	14
21	1.0	.91	.75	.59	.59	.63	.71	.51	.29	.43	339	16
22	1.0	.91	.75	.59	.51	.55	.71	.51	.26	.43	300	16
23	.99	.87	.75	.59	.51	.51	.67	.51	.26	.43	264	20
24	.95	.87	.75	.59	.51	.51	.63	.47	.26	.43	234	18
25	.99	.87	.75	.55	.75	.35	.63	.43	.23	.43	206	17
26	.99	.83	.75	.55	.87	.29	.63	.43	.26	.47	182	27
27	1.0	.83	.75	.55	.71	.23	.67	.39	.91	.47	158	20
28	.95	.83	.75	.55	.71	.23	.67	.39	1.5	.47	182	13
29	.91	.83	.75	.59	------	.39	.67	.39	4.1	.43	158	10
30	.91	.83	.71	.59	------	.43	.63	.39	1.1	.39	137	9.5
31	.91	------	.71	.59	------	.47	------	.39	------	.39	124	------
TOTAL	30.65	28.28	22.77	19.64	15.68	17.63	23.10	15.25	15.83	16.41	21,976.1	1,182.5
MEAN	.99	.94	.73	.63	.56	.57	.77	.49	.53	.53	709	39.4
MAX	1.1	1.0	.79	.75	.87	.71	6.3	.63	4.1	.75	9,030	110
MIN	.91	.83	.67	.55	.47	.23	.43	.39	.23	.39	.50	9.5
AC-FT	61	56	45	39	31	35	46	30	31	33	43,590	2,350

CAL YR 1970 TOTAL 818.04 MEAN 2.24 MAX 20 MIN .47 AC-FT 1,620
WTR YR 1971 TOTAL 23,363.84 MEAN 64.0 MAX 9,030 MIN .23 AC-FT 46,340

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE
8-12	1600	24.67	32,400
8-13	1000	14.18	6,560
8-14	2400	13.47	5,610

08200000 Hondo Creek near Tarpley, Tex.

LOCATION.--Lat 29°34'10", long 99°14'47", Medina County, on left bank 460 ft downstream from bridge on Ranch Road 462, 6.3 miles southeast of Tarpley, and 16.6 miles northwest of Hondo.

DRAINAGE AREA.--86.2 sq mi.

PERIOD OF RECORD.--August 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,169.1 ft above mean sea level (Magnolia Oil Co. bench mark).

AVERAGE DISCHARGE.--19 years, 30.2 cfs (21,880 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,500 cfs Aug. 13 (gage height, 18.43 ft, from floodmark), from rating curve extended above 2,600 cfs as explained below; no flow July 22-31.
Period of record: Maximum discharge, 69,800 cfs June 17, 1958 (gage height, 28.2 ft, from floodmark), from rating curve extended above 2,600 cfs (revised) on basis of slope-area measurements of 18,600 and 69,800 cfs; no flow at times in 1952-57, 1962-64, 1967, 1971.
Maximum stage since at least 1907, that of June 17, 1958. Flood in July 1932, reached a stage of about 26 ft (58,500 cfs), from information by local resident.

REMARKS.--Records good. Several small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1712: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	8.2	4.6	3.3	3.0	1.5	.40	1.8	.60	5.0	188	115
2	13	8.2	4.6	3.3	3.0	1.5	.40	1.5	.52	3.0	163	105
3	13	8.2	4.6	3.3	3.0	1.1	.34	1.3	.40	2.0	81	98
4	12	8.2	4.6	3.0	3.0	1.1	.34	1.1	.34	1.5	41	93
5	12	7.4	4.6	3.0	2.6	1.1	.34	1.1	.28	1.0	120	88
6	14	7.4	4.6	3.7	2.6	1.1	.34	1.1	.23	.80	76	83
7	12	7.4	4.6	3.7	2.6	.80	.28	1.1	.19	.70	49	79
8	11	7.4	4.6	3.7	2.6	.80	.34	1.3	.19	.60	40	75
9	9.8	7.4	4.6	3.7	2.6	.80	.46	1.1	.16	.50	32	71
10	9.8	6.6	4.2	3.7	2.6	.80	.46	1.1	.09	.40	29	67
11	9.8	6.6	4.2	3.7	2.2	.80	.46	6.1	.08	.34	29	66
12	11	6.6	4.2	3.7	2.2	.80	.46	2.6	.07	.34	4,040	66
13	9.8	6.6	4.2	3.7	2.0	.80	.40	1.1	.06	.23	6,250	63
14	9.8	5.6	4.2	3.7	2.0	.70	.40	1.3	.05	.19	3,020	60
15	9.0	5.6	4.2	3.7	2.0	.60	.40	1.5	.03	.16	1,200	60
16	9.0	5.6	3.7	3.7	2.0	.60	5.5	1.3	.07	.16	838	58
17	9.0	5.6	3.7	3.7	2.0	.60	6.1	1.1	.34	.13	619	56
18	9.0	5.6	3.7	3.7	2.2	.52	2.6	.95	.35	.11	480	55
19	12	5.1	3.7	3.3	2.2	.52	2.2	.95	.30	.09	402	55
20	9.8	4.6	3.7	3.3	2.0	.52	6.4	.95	.60	.05	352	56
21	9.8	4.6	4.2	3.3	2.2	.52	4.2	.95	.40	.02	310	51
22	9.8	5.1	4.2	3.3	2.0	.52	3.7	.80	.30	0	272	57
23	9.8	4.6	3.7	3.3	1.8	.52	3.0	.80	.20	0	250	56
24	9.0	4.2	3.3	3.3	2.0	.52	2.6	1.1	.20	0	232	109
25	9.0	4.6	3.3	3.3	7.3	.60	2.6	2.0	.40	0	212	81
26	9.0	5.1	3.7	3.0	6.9	.60	2.6	1.1	1.0	0	197	72
27	9.0	4.6	3.7	3.0	1.5	.60	2.6	.80	.80	0	192	68
28	8.2	4.6	3.7	3.0	1.5	.60	2.2	.80	2.0	0	163	60
29	8.2	4.6	3.7	3.3	------	.52	2.0	.46	5.0	0	139	60
30	8.2	4.6	3.7	3.3	------	.40	2.0	.40	15	0	127	64
31	8.2	------	3.3	3.3	------	.34	------	.46	------	0	126	------
TOTAL	317.0	180.5	125.6	106.0	73.6	22.80	56.12	40.02	30.25	17.32	20,269	2,147
MEAN	10.2	6.02	4.05	3.42	2.63	.74	1.87	1.29	1.01	.56	654	71.6
MAX	14	8.2	4.6	3.7	7.3	1.5	6.4	6.1	15	5.0	6,250	115
MIN	8.2	4.2	3.3	3.0	1.5	.34	.28	.40	.03	0	29	51
AC-FT	629	358	249	210	146	45	111	79	60	34	40,200	4,260

CAL YR 1970 TOTAL 9,209.00 MEAN 25.2 MAX 146 MIN 2.2 AC-FT 18,270
WTR YR 1971 TOTAL 23,385.21 MEAN 64.1 MAX 6,250 MIN 0 AC-FT 46,380

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 1	0600	5.51	1,230	8-13	0730	18.43	27,500
8-12	1100	17.50	24,400	8-14	0930	10.90	9,140
				8-16	2100	4.73	1,180

08200700 Hondo Creek at King Waterhole, near Hondo, Tex.

LOCATION (revised).--Lat 29°23'26", long 99°09'04", Medina County, on left bank 0.3 mile downstream from county road low-water crossing, 3.1 miles north of Hondo, and 7.8 miles upstream from Verde Creek.

DRAINAGE AREA.--142 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 897.87 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 12.3 cfs (8,910 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 44,500 cfs Aug. 13 (gage height, 16.0 ft, from floodmark), from rating curve extended above 9,800 cfs as explained below; no flow most of time.
Period of record: Maximum discharge, 44,500 cfs Aug. 13, 1971 (gage height, 16.0 ft, from floodmark), from rating curve extended above 9,800 cfs on basis of contracted-opening measurement of peak flow; no flow most of time.
Maximum stage since at least 1875, 21 ft (revised) in September 1919, from information by local resident. Other floods occurred in July 1932 (18 ft, revised) and June 17, 1958 (17 ft, revised).

REMARKS.--Records good. Most of the low flow of Hondo Creek enters Edwards and associated limestones in the Balcones Fault Zone which crosses basin upstream from station. Small diversions above station for irrigation, amounts unknown.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											33	27
2											469	20
3											277	14
4											131	10
5											1,050	7.6
6											53	3.7
7											2.8	1.9
8											.7	.97
9											.2	.55
10											.1	.33
11											0	.19
12											9,870	.12
13											11,700	.06
14											3,390	.01
15											1,170	0
16											722	0
17											583	0
18											400	0
19											320	0
20											255	0
21											208	0
22											168	0
23											132	0
24											108	0
25											86	0
26											74	0
27											65	0
28											72	0
29					------						52	0
30					------						40	0
31		------			------		------		------		34	------
TOTAL	0	0	0	0	0	0	0	0	0	0	31,465.8	86.43
MEAN	0	0	0	0	0	0	0	0	0	0	1,015	2.88
MAX	0	0	0	0	0	0	0	0	0	0	11,700	27
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	62,410	171

CAL YR 1970 TOTAL 1,169.70 MEAN 3.20 MAX 976 MIN 0 AC-FT 2,320
WTR YR 1971 TOTAL 31,552.23 MEAN 86.4 MAX 11,700 MIN 0 AC-FT 62,580

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 2	2300	5.50	1,700	8-13	1000	a16.0	44,500
8- 4	2400	9.77	11,800	8-14	1200	8.37	10,000
8-12	1200	15.0	38,500	8-17	0130	3.79	912

a From floodmark.

08201500 Seco Creek at Miller Ranch, near Utopia, Tex.

LOCATION (revised).--Lat 29°34'23", long 99°24'10", Medina County, on right bank 200 ft upstream from county road crossing, 4.5 miles downstream from Cascade Creek, and 7.9 miles southeast of Utopia.

DRAINAGE AREA.--43.1 sq mi.

PERIOD OF RECORD.--May 1961 to current year.

GAGE.--Water-stage recorder, crest-stage gages, and concrete control. Datum of gage is 1,265.8 ft above mean sea level, adjustment unknown (Magnolia Oil Co. bench mark).

AVERAGE DISCHARGE.--10 years, 13.8 cfs (10,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,100 cfs Aug. 1 (gage height, 9.43 ft), from rating curve extended as explained below; minimum, 0.20 cfs part of each day July 21-23, 26.

Period of record: Maximum discharge, 14,100 cfs Aug. 1, 1971 (gage height, 9.43 ft), from rating curve extended above 910 cfs on basis of flow over and around end of dam field estimate of 14,100 cfs and slope-area measurement of 52,600 cfs; no flow for many days in 1963-64.

Maximum stage since at least 1901, 16.4 ft June 17, 1958, from floodmarks (discharge, 52,600 cfs, by slope-area measurement of peak flow).

REMARKS.--Records good except those above 1,000 cfs, which are fair. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	3.4	2.6	2.0	1.5	2.1	.92	1.1	.90	2.5	1,270	65
2	6.9	3.3	2.6	2.0	1.5	1.8	1.0	.97	.78	1.8	196	62
3	6.3	3.0	2.6	2.0	1.5	1.8	.81	.94	.70	1.4	97	58
4	5.9	3.0	2.6	2.0	1.5	1.4	.90	.87	.69	1.1	65	54
5	5.8	2.8	2.6	1.9	1.5	1.3	1.0	.94	.70	1.1	60	53
6	6.1	2.9	2.4	1.6	1.5	1.3	.96	1.1	.69	.94	53	50
7	5.0	3.1	2.4	1.7	1.4	1.3	.89	1.1	.61	.91	47	50
8	4.9	3.1	2.4	1.8	1.4	1.2	.79	1.2	.55	.78	42	48
9	4.0	2.9	2.4	1.8	1.4	1.3	.78	1.3	.54	.77	37	45
10	4.3	2.7	2.4	1.8	1.4	1.2	.87	1.2	.49	.67	33	43
11	4.5	2.7	2.4	1.8	1.4	1.3	.88	9.2	.47	.64	35	42
12	4.5	2.8	2.4	1.9	1.3	1.3	.83	3.4	.43	.67	1,710	41
13	4.6	2.7	2.4	1.9	1.4	1.3	.77	2.3	.42	.55	1,190	39
14	4.3	2.9	2.3	1.9	1.3	1.3	.82	1.9	.44	.47	996	37
15	4.2	2.4	2.2	1.9	1.4	1.2	.78	1.4	.53	.41	493	35
16	4.0	2.4	2.1	1.9	1.4	1.1	2.1	1.2	.57	.39	344	35
17	4.0	2.4	2.1	1.7	1.4	1.1	2.3	1.1	.45	.34	271	33
18	4.2	2.4	2.1	1.6	1.4	1.1	2.0	1.0	.39	.31	224	32
19	6.1	2.6	2.1	1.7	1.5	1.1	1.7	1.0	.47	.27	191	30
20	4.2	2.6	2.1	1.6	1.5	.94	8.3	.96	.75	.26	165	29
21	4.0	2.6	2.2	1.5	1.5	1.0	2.9	.86	.48	.24	145	27
22	4.0	2.6	2.2	1.6	1.7	1.1	2.5	.90	.41	.24	129	30
23	5.3	2.6	2.3	1.6	1.2	1.1	2.0	.92	.42	.25	117	32
24	3.7	2.5	2.4	1.6	1.2	1.1	1.5	1.4	.39	.25	109	178
25	3.7	2.4	2.3	1.6	7.0	1.2	1.2	1.5	.35	.25	100	151
26	3.9	2.4	2.2	1.6	5.7	1.2	1.4	1.2	.41	.22	94	97
27	3.9	2.5	2.1	1.5	2.6	1.1	1.5	.98	.74	.33	112	82
28	3.3	2.6	2.1	1.5	2.4	1.3	1.4	.86	1.3	.94	95	73
29	3.2	2.6	2.1	1.6	------	1.2	1.2	.82	1.8	.43	80	73
30	3.4	2.6	2.1	1.6	------	.98	1.2	.86	2.7	.34	73	68
31	3.4	------	2.1	1.6	------	.82	------	.94	------	.30	71	------
TOTAL	143.2	81.5	71.3	53.8	51.9	38.54	46.20	45.42	20.57	20.07	8,644	1,692
MEAN	4.62	2.72	2.30	1.74	1.85	1.24	1.54	1.47	.69	.65	279	56.4
MAX	7.6	3.4	2.6	2.0	7.0	2.1	8.3	9.2	2.7	2.5	1,710	178
MIN	3.2	2.4	2.1	1.5	1.2	.82	.77	.82	.35	.22	33	27
AC-FT	284	162	141	107	103	76	92	90	41	40	17,150	3,360

CAL YR 1970 TOTAL 2,748.91 MEAN 7.53 MAX 45 MIN .85 AC-FT 5,450
WTR YR 1971 TOTAL 10,908.50 MEAN 29.9 MAX 1,710 MIN .22 AC-FT 21,640

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 1	0800	9.43	14,100	8-13	0345	5.03	2,880
8- 2	1645	3.41	754	8-14	0730	4.60	2,150
8-12	1200	8.53	11,100	9-24	0430	3.63	960

08202700 Seco Creek at Rowe Ranch, near D'Hanis, Tex.
(Formerly published as Seco Creek at Crook Ranch, near D'Hanis)

LOCATION.--Lat 29°21'43", long 99°17'05", Medina County, on left bank 2.9 miles north of D'Hanis and 8.0 miles downstream from Rocky Creek.

DRAINAGE AREA.--168 sq mi.

PERIOD OF RECORD.--November 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 900.88 ft above mean sea level. Prior to October 1970, published as "at Crook Ranch, near D'Hanis".

AVERAGE DISCHARGE.--10 years (1961-71), 9.10 cfs (6,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,100 cfs Aug. 13 (gage height, 23.7 ft, from floodmark), from rating curve extended above 16,000 cfs as explained below; no flow most of time.
Period of record: Maximum discharge, 25,100 cfs Aug. 13, 1971 (gage height, 23.7 ft, from floodmark), from rating curve extended above 16,000 cfs on the basis of slope-area measurement of 35,800 cfs; no flow most of time.
Maximum stage since at least 1852, 35.7 ft May 31, 1935, present site and datum, from information by local resident. Other floods occurred Aug. 31, 1894, 33 ft; September 1919, 28 ft; July 2, 1932, 28.2 ft (discharge, 35,800 cfs, by slope-area measurement); June 17, 1958, 32.4 ft; all at present site and datum.

REMARKS.--Records fair. All of low flow of Seco Creek enters Edwards and associated limestones in the Balcones Fault Zone which crosses basin just north of Uvalde and upstream from station. No diversion above station. Beginning December 1958, discharge measurements have been made at Farm Road 1796 crossing 5.5 miles upstream from gage (see station 08202500 for records prior to water year 1965). Observations of no flow were made Oct. 5, Nov. 9, Dec. 14, 1970, Jan. 19, Feb. 22, Mar. 30, May 6, June 8, July 11, Sept. 20, 1971, and a discharge of 326 cfs was measured on Aug. 16, 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											3,150	.15
2											2,240	.03
3											1,260	.01
4											270	0
5											3,140	0
6											300	0
7											50	0
8											3.6	0
9											1.4	0
10											.9	0
11											2.0	0
12											5,000	0
13											7,230	0
14											2,690	0
15											590	0
16											329	0
17											196	0
18											119	0
19											79	0
20											44	0
21											24	0
22											10	0
23											2.7	0
24											1.4	0
25											1.0	0
26											.5	0
27											1.2	0
28											.7	0
29					------						.4	0
30					------						.1	0
31		------			------		------		------		.2	------
TOTAL	0	0	0	0	0	0	0	0	0	0	26,737.1	.19
MEAN	0	0	0	0	0	0	0	0	0	0	862	.006
MAX	0	0	0	0	0	0	0	0	0	0	7,230	.15
MIN	0	0	0	0	0	0	0	0	0	0	.10	0
AC-FT	0	0	0	0	0	0	0	0	0	0	53,030	.4

CAL YR 1970 TOTAL 0.00 MEAN .00 MAX 0 MIN 0 AC-FT 0
WTR YR 1971 TOTAL 26,737.29 MEAN 73.3 MAX 7,230 MIN 0 AC-FT 53,030

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8-1	1700	a19.5	14,400	8- 5	0100	a16.7	10,400
8-2	0900	13.5	4,660	8-12	1300	19.40	15,800
8-3	0100	14.4	6,120	8-13	1100	a23.7	25,100
				8-14	1100	16.10	9,200

a From floodmark.

08205500 Frio River near Derby, Tex.

LOCATION.--Lat 28°44'10", long 99°08'45", Frio County, on left bank at downstream side of pier of bridge on U.S. Highway 81, 150 ft upstream from Missouri Pacific Railroad Co. bridge, 750 ft downstream from Leona River, 2.4 miles south of Derby, and at mile 122.4.

DRAINAGE AREA.--3,493 sq mi.

PERIOD OF RECORD.--August 1915 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 449.11 ft above mean sea level. Aug. 1, 1915, to Apr. 21, 1931, nonrecording gage and Apr. 22, 1931, to Mar. 6, 1940, water-stage recorder at railroad bridge 150 ft downstream at same datum.

AVERAGE DISCHARGE.--56 years, 127 cfs (92,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 82,500 cfs Aug. 15 (gage height, 22.96 ft); no flow at times.
Period of record: Maximum discharge, 230,000 cfs July 4, 1932 (gage height, 29.45 ft, present site, from floodmarks at former site), from rating curve extended above 46,000 cfs on basis of slope-area measurement of peak flow; no flow at times. Maximum stage since at least 1860, that of July 4, 1932.

REMARKS.--Records good. Part of flow of Frio River and its headwater tributaries enters the Edwards and associated limestones in the Balcones Fault Zone just north of Uvalde. At low stages most of headwater flow enters this formation. Considerable losses of floodflows into various permeable formations occur downstream from the Balcones Fault Zone. Many small diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 568: 1915-16, 1918-22. WSP 763: Drainage area. WSP 1312: 1917-18(M), 1920-21(M). WSP 1923: 1954.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	13	13	16	5.7	.05			0	4.8	0	347
2	93	12	13	16	4.8	.04			0	910	32	300
3	46	12	14	15	2.5	0			0	755	943	266
4	32	11	13	13	1.7	0			0	247	3,330	229
5	21	12	13	13	1.1	0			0	70	2,450	201
6	15	12	13	12	.76	0			0	26	1,210	177
7	13	13	14	12	.64	0			0	13	2,330	157
8	10	14	14	12	.54	0			0	6.9	414	145
9	13	14	12	13	.37	0			0	2.8	133	127
10	11	13	12	13	.30	0			0	1.5	66	116
11	11	13	10	13	.24	0			0	.90	45	111
12	11	13	9.7	13	.19	0			0	.45	46	111
13	12	12	10	15	.15	0			0	.24	1,170	105
14	11	13	11	15	.12	0			0	.15	38,600	95
15	12	13	12	15	.09	0			0	.09	65,300	90
16	14	12	10	14	.07	0			0	.04	28,600	86
17	15	12	9.7	13	.05	0			0	.01	10,000	78
18	15	12	10	11	.04	0			0	0	5,220	70
19	15	14	10	11	.01	0			0	0	3,660	64
20	15	13	12	9.7	0	0			0	0	2,700	60
21	15	14	13	8.2	0	0			0	0	1,940	56
22	15	15	14	7.5	0	0			0	0	1,360	53
23	15	16	14	8.2	0	0			0	0	1,010	53
24	15	15	12	9.9	0	0			0	0	822	56
25	15	10	11	7.5	.05	0			0	0	711	52
26	15	10	10	6.3	2.6	0			0	0	628	62
27	15	10	11	5.7	.24	0			0	0	560	58
28	14	10	11	4.8	.12	0			0	0	501	54
29	13	10	11	4.8	------	0			15	0	452	51
30	12	11	14	3.5	------	0			.20	0	460	54
31	12	------	15	4.3	------	0	------		------	0	399	------
TOTAL	724	374	371.4	334.4	22.38	.09	0	0	15.20	2,038.88	175,092	3,494
MEAN	23.4	12.5	12.0	10.8	.80	.003	0	0	.51	65.8	5,648	116
MAX	183	16	15	16	5.7	.05	0	0	15	910	65,300	347
MIN	10	10	9.7	3.5	0	0	0	0	0	0	0	51
AC-FT	1,440	742	737	663	44	.2	0	0	30	4,040	347,300	6,930

CAL YR 1970 TOTAL 12,880.67 MEAN 35.3 MAX 2,700 MIN 0 AC-FT 25,550
WTR YR 1971 TOTAL 182,466.35 MEAN 500 MAX 65,300 MIN 0 AC-FT 361,900

PEAK DISCHARGE (BASE, 1,100 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7-19	1900	4.72	1,510	8- 7	0900	7.10	2,800
8- 4	2000	8.35	3,730	8-15	0200	22.96	82,500

08206700 San Miguel Creek near Tilden, Tex.

LOCATION.--Lat 28°35'14", long 98°32'44", McMullen County, on left bank 25 ft downstream from State Highway 16, 0.3 mile upstream from mouth of Bruce Branch, 0.9 mile downstream from mouth of Far Live Oak Creek, 3 miles upstream from San Patricio Creek, 7 miles downstream from Clear Creek, 8.7 miles north of Tilden, and 13 miles upstream from mouth.

DRAINAGE AREA.--793 sq mi.

PERIOD OF RECORD.--January 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 242.95 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 65.3 cfs (47,310 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 896 cfs Aug. 6 (gage height, 9.09 ft); no flow at times.
Period of record: Maximum discharge, 13,700 cfs Sept. 22, 1967 (gage height, 25.99 ft); no flow at times in 1964-67, 1969-71.
Maximum stage since 1919, 32.6 ft in 1942; stage of 1919 flood not known, from information by local residents.

REMARKS.--Records good. Five diversions above station, amounts unknown. At times excess water from Bexar-Medina-Atascosa Counties Water Improvement District No. 1 system enters San Miguel Creek Basin via Chacon Creek 52 miles upstream, amounts unknown.

REVISIONS (WATER YEARS).--WRD Texas 1967: 1966.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	.97	.73	1.4	.42	.59	0		0	47	0	2.8
2	15	.53	.73	.73	.42	.59	0		0	73	.05	2.7
3	11	.47	.66	.59	.47	.59	0		0	29	.03	2.4
4	8.9	.47	.53	.59	.59	.47	0		0	15	193	1.9
5	20	.42	.42	.47	.53	.90	.01		0	9.6	720	1.6
6	70	.42	.37	.47	.53	5.7	.02		0	5.7	594	1.4
7	20	.59	.33	.53	.53	5.5	.53		0	2.8	102	1.3
8	11	.53	.42	.53	.59	5.5	.37		0	.97	185	.97
9	7.4	.33	.53	.53	.53	4.5	.11		0	.29	67	.73
10	5.5	.37	.53	.59	.53	3.0	.07		0	.09	32	1.4
11	3.2	.42	.59	.66	.47	2.1	.05		0	.03	20	19
12	1.1	.47	.59	.73	.53	1.5	.02		0	0	15	69
13	.81	.59	.53	.66	.53	1.2	.02		0	0	11	12
14	.66	.53	.66	.66	.53	.89	.02		0	0	162	12
15	.53	.29	.66	.73	.47	.66	.01		0	0	300	14
16	.47	.26	.59	.73	.42	.53	4.9		0	0	628	8.3
17	.47	.26	.59	.66	.37	.37	15		0	0	576	5.0
18	.47	.26	.53	.59	.42	.33	3.3		0	0	56	3.2
19	.47	.26	.53	.53	.37	.23	.53		0	0	34	6.2
20	.53	.29	.59	.59	.37	.15	.17		0	0	24	3.8
21	.53	.33	.59	.53	.33	.13	.08		.48	0	19	5.0
22	.53	.37	.59	.59	.29	.11	.05		15	0	14	3.4
23	9.6	.33	.66	.53	.23	.09	.03		135	0	12	2.8
24	3.3	.29	.66	.53	.23	.09	.02		9.3	0	11	9.6
25	1.3	.37	.59	.53	.42	.08	.01		2.5	0	9.6	8.3
26	1.1	.59	.53	.53	.73	.06	0		11	0	8.3	11
27	.89	.59	.53	.47	2.2	.04	0		19	0	7.7	6.0
28	1.1	.47	.53	.42	1.1	.03	0		86	0	6.2	3.6
29	1.3	.59	.59	.42	------	.02	0		169	0	5.0	3.4
30	1.4	.73	.66	.47	------	0	0		39	0	4.3	8.6
31	1.2	------	.73	.47	------	.01	------		------	0	3.6	------
TOTAL	221.76	13.39	17.77	18.46	15.15	35.96	25.32	0	486.28	183.48	3,819.78	231.40
MEAN	7.15	.45	.57	.60	.54	1.16	.84	0	16.2	5.92	123	7.71
MAX	70	.97	.73	1.4	2.2	5.7	15	0	169	73	720	69
MIN	.47	.26	.33	.42	.23	0	0	0	0	0	0	.73
CFSM	.009	.0006	.0007	.0008	.0007	.002	.001	0	.02	.008	.16	.010
IN.	.01	0	0	0	0	.001	.001	0	.02	.008	.18	.01
AC-FT	440	27	35	37	30	71	50	0	965	364	7,580	459

CAL YR 1970 TOTAL 25,123.92 MEAN 68.8 MAX 2,930 MIN .03 CFSM .09 IN 1.18 AC-FT 49,830
WTR YR 1971 TOTAL 5,068.75 MEAN 13.9 MAX 720 MIN 0 CFSM .02 IN .24 AC-FT 10,050

PEAK DISCHARGE (BASE, 600 CFS).--Aug. 6 (1200) 896 cfs (9.09 ft); Aug. 17 (0700) 889 cfs (9.06 ft).

08207000 Frio River at Calliham, Tex.

LOCATION.--Lat 28°29'31", long 98°20'47", McMullen County, on right bank at upstream side of county bridge, 0.6 mile upstream from bridge on Farm Road 99, 0.8 mile north of Calliham, 10.7 miles downstream from San Miguel Creek, and at mile 20.8.

DRAINAGE AREA.--5,491 sq mi.

PERIOD OF RECORD.--October 1924 to April 1926 (monthly discharge only), April 1932 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 153.47 ft above mean sea level. Prior to Apr. 30, 1926, non-recording gage at present site and datum.

AVERAGE DISCHARGE.--40 years (1924-25, 1932-71), 237 cfs (171,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 42,800 cfs Aug. 18 (gage height, 36.18 ft, from floodmark); no flow at times.
Period of record: Maximum discharge, 80,200 cfs (revised) July 6, 1932 (gage height, 39.2 ft, from floodmarks), from rating curve extended above 24,000 cfs on basis of contracted-opening measurement and flow-over-road measurement of 42,400 cfs (revised); no flow at times.
Maximum stage since at least 1870, that of July 6, 1932, from information by local resident.
REVISIONS.--Figures of maximum discharge for the water years 1932 and 1967 have been revised to 80,200 cfs July 6, 1932 (gage height, 39.2 ft, from floodmarks), and 42,400 cfs Sept. 23, 1967 (gage height, 36.15 ft, from floodmark), superseding figures published in WSP's 733, 1312, 1562, 1682, 1732, 1880, 1923, and in WRD Texas, 1967.

REMARKS.--Records good. Part of flow of Frio River and its headwater tributaries enter the Edwards and associated limestones in the Balcones Fault Zone which crosses basin just north of Uvalde. At low stages, most of headwater flow enters this formation. Considerable losses of floodflows into various permeable formations also occur downstream from the Balcones Fault Zone. Many small diversions above station for irrigation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 788: Drainage area. WSP 1923: 1932. Revised figures of discharge, in cubic feet per second, for high-water periods in water years 1932 and 1967, superseding figures published in WSP's 733, 1562, 1923, and in WRD Texas, 1967, are given below:

July 6, 1932	35,700	July 8, 1932	36,000	Sept. 23, 1967	40,200
July 7, 1932	67,200	Sept. 22, 1967	27,100	Sept. 24, 1967	34,600

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 1932	196,995	67,200	0	6,355	390,700
September 1967	171,457	40,200	27	5,715	340,100
Water year 1966-67	179,630.70	40,200	0	492	356,300
Calendar year 1967	199,983.81	40,200	0	548	396,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	11	6.4	6.9	4.9	2.1	.04	.03	0	542	0	482
2	175	10	8.0	6.9	4.5	2.1	.03	.04	0	324	.01	422
3	161	10	9.2	6.4	4.1	1.8	.03	0	0	200	.47	392
4	179	9.8	9.2	5.4	3.7	1.6	.08	0	0	202	.23	332
5	170	9.2	9.2	4.1	3.7	.90	.14	0	0	202	322	283
6	150	9.2	8.6	4.1	4.1	.59	.10	0	0	392	977	251
7	126	9.8	7.4	4.5	3.7	.47	.08	0	0	527	984	229
8	87	9.2	6.9	4.9	3.0	.37	.06	0	0	310	1,580	209
9	65	6.9	6.4	6.9	2.4	.37	.06	0	0	94	3,080	192
10	43	6.4	4.9	7.4	2.4	1.6	.04	0	0	45	2,520	182
11	32	6.9	4.5	7.4	2.1	2.7	.04	0	0	29	1,730	295
12	27	5.9	4.1	7.4	1.8	2.4	.03	0	0	21	1,370	1,630
13	24	5.9	4.9	8.6	1.6	2.1	.01	0	0	14	563	1,420
14	21	6.9	5.9	8.6	1.6	1.6	.01	0	0	10	176	1,150
15	18	6.9	6.4	8.6	1.8	1.1	.01	0	100	7.4	322	994
16	16	6.4	6.4	8.0	1.8	.74	11	0	75	5.4	525	850
17	16	6.9	5.9	8.0	1.8	.59	18	0	2.1	3.7	1,710	347
18	15	6.4	5.4	8.6	1.6	.47	6.9	0	.59	2.7	28,100	192
19	14	6.4	4.9	8.0	1.6	.37	8.6	0	1.1	1.8	36,700	172
20	14	6.4	4.9	8.0	1.6	.29	3.4	0	.14	1.4	25,300	165
21	13	5.9	4.9	8.6	1.4	.29	2.1	0	29	.90	15,300	142
22	13	5.9	4.9	9.2	1.1	.23	1.1	0	74	.59	9,220	115
23	13	5.9	4.5	9.2	1.4	.18	1.4	0	12	.37	5,360	108
24	13	5.4	4.1	9.2	1.4	.18	.47	0	72	.29	2,960	162
25	19	5.4	4.1	8.6	1.7	.18	.47	0	14	.18	1,910	340
26	16	5.4	4.9	7.4	5.7	.14	.18	0	8.0	.08	1,520	221
27	15	5.4	5.9	6.9	1.8	.10	.08	0	38	.06	1,230	211
28	20	5.9	6.4	7.4	2.1	.10	.08	0	133	.02	1,010	225
29	12	6.4	6.9	8.0	------	.08	.08	0	398	0	898	200
30	10	6.4	7.4	7.4	------	.06	.04	0	771	0	818	142
31	11	------	7.4	6.4	------	.04	------	0	------	0	602	------
TOTAL	1,728	214.5	190.9	227.0	70.4	25.84	54.66	.07	1,727.93	2,936.89	146,787.71	12,055
MEAN	55.7	7.15	6.16	7.32	2.51	.83	1.82	.002	57.6	94.7	4,735	402
MAX	220	11	9.2	9.2	5.7	2.7	18	.04	771	542	36,700	1,630
MIN	10	5.4	4.1	4.1	1.1	.04	.01	0	0	0	0	108
AC-FT	3,430	425	379	450	140	51	108	.1	3,430	5,830	291,200	23,910

CAL YR 1970 TOTAL 46,223.35 MEAN 127 MAX 3,280 MIN .18 AC-FT 91,680
WTR YR 1971 TOTAL 166,018.90 MEAN 455 MAX 36,700 MIN 0 AC-FT 329,300

PEAK DISCHARGE (BASE, 2,700 CFS).--Aug. 9 (1700) 3,260 cfs (19.84 ft); Aug. 18 (2000) 42,800 cfs (36.18 ft).

08208000 Atascosa River at Whitsett, Tex.

LOCATION.--Lat 28°37'18", long 98°17'02", Live Oak County, on right bank 1,000 ft upstream from bridge on Farm Road 99, 1.1 miles southwest of Whitsett, 3.9 miles downstream from La Parita Creek, and at mile 13.1.

DRAINAGE AREA.--1,171 sq mi.

PERIOD OF RECORD.--September 1924 to May 1926, May 1932 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 159.04 ft above mean sea level. Prior to May 8, 1926, nonrecording gage at bridge 1,200 ft downstream at datum 1.38 ft higher.

AVERAGE DISCHARGE.--40 years (1924-25, 1932-71), 134 cfs (97,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,690 cfs Aug. 7 (gage height, 23.48 ft); no flow at times.
Period of record: Maximum discharge, 121,000 cfs Sept. 23, 1967 (gage height, 41.3 ft, from floodmark), from rating curve extended above 24,000 cfs on basis of slope-area measurement of peak flow; no flow at times.
Maximum stage since at least 1881, that of Sept. 23, 1967. Second highest stage, 41 ft (discharge, 106,000 cfs) occurred in September 1919.

REMARKS.--Records good. Considerable losses of floodflows into various permeable formations occur upstream from station. Records of the Lower Nueces River Water Supply District indicate that during the 1971 water year Campbellton water wells had no authorized discharge into the Atascosa River 12 miles upstream from this station. Several small diversions above station.

REVISIONS (WATER YEARS).--WRD Texas 1969: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	4.8	7.0	7.3	7.6	16	4.1	3.2	.56	2.4	.01	17
2	19	4.8	6.7	7.0	7.3	14	3.8	3.2	.81	2.4	.07	17
3	14	4.6	6.7	7.0	7.6	10	3.6	2.8	.72	13	3.1	15
4	11	4.6	6.7	7.0	7.6	9.7	3.8	2.1	.56	3.6	40	13
5	9.7	4.8	6.7	6.7	7.0	9.0	4.8	2.0	.40	1.8	374	11
6	9.0	4.8	6.7	6.4	7.0	8.3	3.8	8.0	.26	.90	1,300	10
7	8.3	4.8	6.7	6.1	7.3	7.3	3.2	2.3	.15	.64	3,410	9.7
8	8.0	4.8	6.7	6.1	7.3	6.7	3.2	2.1	.10	.40	2,380	7.6
9	7.3	4.8	6.7	5.8	7.3	6.4	3.2	2.0	.01	.33	604	8.0
10	7.0	4.8	7.0	5.8	7.3	6.4	4.3	2.3	.01	.20	142	9.9
11	6.7	4.8	7.0	5.8	7.6	6.4	4.1	2.6	.05	.10	74	43
12	7.3	5.6	7.0	6.1	8.0	6.4	3.8	2.4	.15	.05	55	302
13	7.3	5.3	7.0	6.1	7.3	6.1	3.8	3.3	.05	.01	54	456
14	7.3	4.6	7.0	6.4	7.0	6.1	3.8	8.0	.01	.01	127	343
15	6.7	4.6	7.3	6.7	6.4	5.8	3.6	4.6	.01	0	104	92
16	6.7	4.3	7.3	6.7	6.4	5.6	4.1	3.8	86	0	83	52
17	6.4	4.3	7.6	6.7	6.4	5.6	12	3.0	39	0	62	37
18	6.4	4.6	7.6	6.7	6.7	5.6	13	2.1	7.9	0	49	30
19	6.4	4.6	8.0	6.7	7.3	5.3	11	1.7	50	0	38	22
20	6.4	6.1	8.3	6.4	7.3	5.3	7.6	1.4	121	0	32	29
21	6.4	5.8	8.3	6.7	6.4	5.1	6.4	1.1	35	0	28	26
22	6.4	5.6	8.7	7.0	5.8	5.1	5.6	1.1	16	0	25	18
23	6.1	5.1	8.7	7.3	5.8	5.1	4.6	1.0	68	0	23	16
24	6.1	4.8	8.3	7.3	5.6	5.1	4.1	1.0	21	0	21	16
25	5.8	4.6	8.0	7.6	5.6	5.1	3.8	.90	7.3	.27	20	30
26	5.8	4.6	8.0	8.0	8.0	5.3	3.6	.81	5.6	.33	19	29
27	5.8	4.8	7.6	8.0	9.0	5.1	3.6	.81	5.3	.33	18	27
28	5.8	5.1	7.3	8.0	17	5.1	3.6	.72	4.8	.40	17	88
29	5.3	5.3	7.3	8.3	------	5.1	3.6	.56	3.4	.26	18	171
30	4.8	5.6	7.3	8.3	------	4.6	3.4	.48	2.8	.05	17	90
31	4.8	------	7.6	8.0	------	4.3	------	.48	------	.01	17	------
TOTAL	253.0	147.7	228.8	214.0	206.9	207.0	146.9	71.86	476.95	27.49	9,154.18	2,035.2
MEAN	8.16	4.92	7.38	6.90	7.39	6.68	4.90	2.32	15.9	.89	295	67.8
MAX	29	6.1	8.7	8.3	17	16	13	8.0	121	13	3,410	456
MIN	4.8	4.3	6.7	5.8	5.6	4.3	3.2	.48	.01	0	.01	7.6
AC-FT	502	293	454	424	410	411	291	143	946	55	18,160	4,040

CAL YR 1970 TOTAL 63,818.70 MEAN 175 MAX 11,200 MIN 4.3 AC-FT 126,600
WTR YR 1971 TOTAL 13,169.98 MEAN 36.1 MAX 3,410 MIN 0 AC-FT 26,130

PEAK DISCHARGE (BASE, 1,500 CFS).--Aug. 7 (1700) 3,690 cfs (23.48 ft).

08210000 Nueces River near Three Rivers, Tex.

LOCATION.--Lat 28°26'10", long 98°11'06", Live Oak County, on left bank 100 ft downstream from Missouri Pacific Railroad bridge, 0.2 mile downstream from Frio River, 1.7 miles south of Three Rivers, and at mile 102.6.

DRAINAGE AREA.--15,600 sq mi.

PERIOD OF RECORD.--July 1915 to current year. Monthly discharge only for November 1919 to January 1920, published in WSP 1312.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 101.13 ft above mean sea level. Prior to Apr. 5, 1932, nonrecording gage at railroad bridge 100 ft upstream at same datum.

AVERAGE DISCHARGE.--56 years, 846 cfs (612,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 35,800 cfs Sept. 17 (gage height, 41.23 ft); minimum, 0.15 cfs June 7-9, 14.
Period of record: Maximum discharge, 141,000 cfs Sept. 23, 1967 (gage height, 49.21 ft); no flow at times.
Maximum stage since about 1875, that of Sept. 23, 1967.

REMARKS.--Records good. Part of flow of Nueces and Frio Rivers and their headwater tributaries enter the Edwards and associated limestones in the Balcones Fault Zone just north of Uvalde. At low stages, most of headwater flow enters this formation. Considerable losses of floodflows into various permeable formations occur downstream from the Balcones Fault Zone. Many small diversions for irrigation and municipal supply above station. Upstream regulation same as that for Nueces River near Asherton (station 08193000).

REVISIONS (WATER YEARS).--WSP 548: 1920-21. WSP 1562: 1916, 1918-21, 1922(M), 1923, 1929.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	812	33	13	16	15	15	4.6	2.7	.26	1,810	6	4,850
2	784	32	13	16	13	20	4.1	2.6	.22	1,490	10	3,700
3	827	29	14	16	12	16	4.0	2.8	.21	1,560	25	2,970
4	884	26	16	15	12	12	4.9	2.5	.21	4,540	28	2,410
5	947	24	16	13	11	11	6.1	2.2	.21	11,400	155	1,960
6	960	22	15	12	12	11	5.2	1.8	.21	18,900	1,590	1,400
7	994	21	15	11	12	10	4.9	1.6	.19	23,700	2,970	1,030
8	994	20	14	12	12	8.4	4.1	1.8	.20	21,800	3,990	866
9	1,020	18	14	12	11	7.6	3.8	1.5	.20	18,800	4,670	767
10	1,050	16	13	13	10	7.3	3.7	1.6	.21	16,800	4,610	731
11	973	15	13	15	10	7.1	3.5	1.9	.22	14,700	5,300	1,460
12	419	14	12	15	10	7.1	4.3	7.8	.21	11,700	8,450	5,690
13	228	14	12	15	10	15	4.0	3.0	.21	9,420	9,200	10,600
14	179	12	12	17	9.7	9.3	3.6	1.8	.20	7,290	8,040	15,900
15	149	12	13	17	9.5	8.0	3.7	3.8	.94	5,390	7,050	22,800
16	126	13	14	17	9.0	7.1	9.6	4.4	664	3,940	6,270	30,200
17	109	12	14	17	8.6	7.0	56	2.8	1,030	2,840	5,690	35,000
18	99	12	14	17	9.0	6.7	28	2.4	229	790	6,330	32,100
19	94	13	14	17	9.3	6.0	24	1.9	399	162	14,600	23,000
20	83	13	15	16	9.0	5.7	23	1.5	363	95	29,000	15,400
21	76	12	15	16	9.6	5.8	14	1.3	252	64	26,700	9,530
22	68	14	15	17	7.2	5.5	9.8	.87	192	48	27,800	5,980
23	65	12	16	18	6.8	5.2	7.5	.59	101	39	30,100	3,890
24	58	11	15	19	7.1	5.3	5.5	.46	162	32	25,900	2,700
25	53	11	14	19	7.1	5.4	4.5	.35	85	27	21,600	1,830
26	54	11	13	18	9.0	5.3	4.1	.28	47	23	19,000	1,310
27	48	11	13	17	12	5.4	4.1	.26	130	19	16,800	1,260
28	45	11	15	16	13	5.5	3.8	.21	561	16	14,100	1,360
29	47	11	15	16	------	5.1	3.3	.21	1,030	13	11,300	1,630
30	39	12	15	17	------	5.0	3.0	.21	1,790	9	9,080	1,770
31	34	------	16	16	------	4.8	------	.24	------	7	6,640	------
TOTAL	12,318	487	438	488	285.9	255.6	264.7	57.38	7,038.90	177,424	327,004	244,094
MEAN	397	16.2	14.1	15.7	10.2	8.25	8.82	1.85	235	5,723	10,550	8,136
MAX	1,050	33	16	19	15	20	56	7.8	1,790	23,700	30,100	35,000
MIN	34	11	12	11	6.8	4.8	3.0	.21	.19	7.0	6.0	731
AC-FT	24,430	966	869	968	567	507	525	114	13,960	351,900	648,600	484,200

CAL YR 1970 TOTAL 190,460.20 MEAN 522 MAX 14,400 MIN 7.0 AC-FT 377,800
WTR YR 1971 TOTAL 770,155.48 MEAN 2,110 MAX 35,000 MIN .19 AC-FT 1,528,000

PEAK DISCHARGE (BASE, 6,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7- 7	1100	39.82	24,000	8-23	1000	40.52	30,400
8-13	0300	33.02	9,410	9-17	1700	41.23	35,800

08210300 Ramirena Creek near George West, Tex.

LOCATION.--Lat 28°08'30", long 98°06'11", Live Oak County, near left bank at downstream side of bridge on U.S. Highway 281, 1.7 miles downstream from Elm Creek, and 13.5 miles south of George West.

DRAINAGE AREA.--84.4 sq mi.

PERIOD OF RECORD.--February 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 175.79 ft above mean sea level.

EXTREMES.--February to September 1968: Maximum discharge during period, 490 cfs May 8 (gage height, 7.90 ft); no flow for many days.
Water year 1969: Maximum discharge, 174 cfs Aug. 26 (gage height, 6.76 ft); no flow for many days.
Water year 1970: Maximum discharge, 635 cfs Nov. 26 (gage height, 8.50 ft); no flow for many days.
Water year 1971: Maximum discharge, 11,700 cfs Sept. 12 (gage height, 18.80 ft); no flow for many days.
Period of record: Maximum discharge, 11,700 cfs Sept. 12, 1971 (gage height, 18.80 ft); no flow for many days each year.
Flood of Sept. 22, 1967 (caused by Hurricane Beulah), reached a stage of 19.7 ft (discharge, 13,600 cfs).

REMARKS.--Records good. No known regulation or diversion in vicinity of gage.

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					-			0	0	0		0
2					-			0	0	0		0
3					-			0	17	0		0
4					-			0	0	0		0
5					-			0	0	0		.02
6					-			0	0	0		0
7					-			19	0	0		0
8					-			88	0	0		0
9					-			.55	0	0		0
10					-			0	0	0		0
11					-			31	0	.55		0
12					-			34	0	.07		0
13					-			.50	0	0		0
14					-			0	0	0		.02
15					-			0	0	0		0
16					-			0	0	0		0
17					-			0	0	0		0
18					-			0	0	0		0
19					-			0	0	0		0
20					-			0	0	0		0
21					-			0	0	0		0
22					-			0	1.0	0		0
23					-			0	0	0		0
24					-			0	0	0		0
25					-			0	0	0		0
26					0			0	0	0		0
27					0			0	0	0		0
28					0			0	0	0		0
29					0			0	0	0		0
30					------			0	0	0		0
31		------			------		------	0	------	0		------
TOTAL					-	0	0	173.05	18.0	.62	0	.04
MEAN					-	0	0	5.58	.60	.020	0	.001
MAX					-	0	0	88	17	.55	0	.02
MIN					-	0	0	0	0	0	0	0
AC-FT					-	0	0	343	36	1.2	0	.08

CAL YR 1967 TOTAL - MEAN - MAX - MIN - AC-FT -
CAL YR 1968 TOTAL - MEAN - MAX - MIN - AC-FT -

08210300 Ramirena Creek near George West, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0		0	0			0			0	0
2	0	0		0	0			0			0	0
3	0	0		0	0			0			0	0
4	.03	0		0	0			0			0	0
5	0	0		0	0			0			0	.04
6	0	0		0	0			0			0	0
7	0	0		0	0			0			0	0
8	0	0		0	0			0			0	0
9	.02	0		0	0			0			0	0
10	.02	0		0	0			0			0	0
11	0	0		0	0			0			0	0
12	.01	0		0	0			.01			0	0
13	0	0		0	.02			0			0	0
14	0	0		0	3.5			0			0	0
15	0	0		0	.39			0			0	0
16	0	0		.20	0			.01			0	0
17	0	0		0	0			0			0	0
18	0	0		0	0			0			0	0
19	0	0		0	0			0			0	0
20	0	0		0	0			0			0	0
21	0	0		0	0			0			0	.02
22	0	0		0	0			0			0	0
23	0	0		0	0			0			0	.01
24	.01	0		0	0			0			0	0
25	0	0		0	0			0			0	0
26	0	0		0	0			0			18	0
27	0	0		0	0			0			5.3	0
28	0	0		0	0			0			.02	0
29	0	0		0	------			0			0	0
30	0	.02		0	------			0			0	0
31	0	------		0	------		------	0	------		.01	------
TOTAL	.09	.02	0	.20	3.91	0	0	.02	0	0	23.33	.07
MEAN	.003	.0007	0	.007	.14	0	0	.0006	0	0	.75	.002
MAX	.03	.02	0	.20	3.5	0	0	.01	0	0	18	.04
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.2	.04	0	.4	7.8	0	0	.04	0	0	46	.1

CAL YR 1968	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-
WTR YR 1969	TOTAL	27.64	MEAN	.076	MAX	18	MIN	0	AC-FT	55

08210300 Ramirena Creek near George West, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0					0	4.6		0	
2		0	0					0	6.8		0	
3		0	0					0	.05		0	
4		0	0					0	0		0	
5		0	7.1					0	0		0	
6		0	.04					0	0		0	
7		0	0					0	0		0	
8		0	0					0	0		0	
9		0	0					0	0		0	
10		0	0					0	0		0	
11		0	0					0	0		0	
12		0	0					0	0		0	
13		0	0					0	0		0	
14		0	0					0	0		0	
15		0	0					.03	0		0	
16		0	0					0	0		0	
17		0	0					0	0		0	
18		0	0					0	0		0	
19		0	0					0	0		0	
20		0	0					0	0		0	
21		0	0					0	0		0	
22		0	0					0	0		0	
23		0	0					5.8	0		0	
24		0	0					49	0		9.6	
25		0	0					.69	0		2.8	
26		56	0					1.4	0		.03	
27		26	0					19	0		0	
28		.14	0					35	0		0	
29		.74	0		------			5.7	0		0	
30		.05	0		------			.13	0		0	
31		------	0		------		------	8.2	------		0	------
TOTAL	0	82.93	7.14	0	0	0	0	124.95	11.45	0	12.43	0
MEAN	0	2.76	.23	0	0	0	0	4.03	.38	0	.40	0
MAX	0	56	7.1	0	0	0	0	49	6.8	0	9.6	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	164	14	0	0	0	0	248	23	0	25	0

CAL YR 1969 TOTAL 117.60 MEAN .32 MAX 56 MIN 0 AC-FT 233
WTR YR 1970 TOTAL 238.90 MEAN .65 MAX 56 MIN 0 AC-FT 474

08210300 Ramirena Creek near George West, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	0		0	0
2								0	0		0	0
3								0	0		0	0
4								0	0		0	0
5								0	0		126	0
6								0	0		50	0
7								0	0		2.4	0
8								0	0		0	0
9								0	0		0	0
10								3.0	0		0	0
11								73	0		0	1,290
12								.14	0		.10	6,490
13								0	0		0	435
14								0	0		0	36
15								0	0		0	16
16								0	0		0	9.2
17								0	0		0	4.1
18								0	0		0	1.6
19								0	0		0	.17
20								0	0		0	0
21								0	0		0	0
22								0	0		0	0
23								0	0		0	0
24								0	0		0	0
25								0	0		0	0
26								0	6.2		0	0
27								0	.77		0	.20
28								0	.17		0	0
29					------			0	23		1.4	.25
30					------			0	.51		0	.74
31		------			------		------	0	------		0	------
TOTAL	0	0	0	0	0	0	0	76.14	30.65	0	179.90	8,283.26
MEAN	0	0	0	0	0	0	0	2.46	1.02	0	5.80	276
MAX	0	0	0	0	0	0	0	73	23	0	126	6,490
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	151	61	0	357	16,430

CAL YR 1970	TOTAL	148.83	MEAN	.41	MAX	49	MIN	0	AC-FT 295
WTR YR 1971	TOTAL	8,569.95	MEAN	23.5	MAX	6,490	MIN	0	AC-FT 17,000

08210500 Lake Corpus Christi near Mathis, Tex.

LOCATION.--Lat 28°02'17", long 97°52'15", San Patricio-Jim Wells County line, on right upstream corner of outlet tower at right end of Wesley E. Seale Dam on Nueces River, 0.6 mile upstream from bridge on State Highway 359, and 4.5 miles southwest of Mathis.

DRAINAGE AREA.--16,656 sq mi.

PERIOD OF RECORD.--September 1948 to current year. Prior to October 1960, monthend records only. The Soil Conservation Service, U.S. Department of Agriculture, in cooperation with the Texas Board of Water Engineers (now Texas Water Development Board), collected fragmentary gage-height records in connection with sedimentation studies from Feb. 2, 1942, to July 10, 1947.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level. Prior to Oct. 1, 1957, nonrecording gage at various sites 0.2 mile upstream at datum 0.52 ft higher. Oct. 1, 1957, to Apr. 3, 1961, nonrecording gage near left end of Mathis Dam 0.2 mile upstream at present datum.

EXTREMES (at 0600).--Current year: Maximum contents, 320,000 acre-ft Sept. 12 (elevation, 94.75 ft); minimum, 191,000 acre-ft June 16, 17; minimum elevation, 88.30 ft June 17.
Period of record: Maximum contents, 320,000 acre-ft Sept. 22, 1967, and Sept. 12, 1971; maximum elevation, 94.82 ft Sept. 22, 1967; minimum contents, 14,740 acre-ft May 5, 1951 (elevation, 67.62 ft).

REMARKS.--Mathis Dam was completed and storage began July 24, 1934. The original capacity at spillway crest (elevation, 74.5 ft) of 54,000 acre-ft had decreased to 39,400 acre-ft by March 1948. Wesley E. Seale Dam was completed and impoundment began on Apr. 26, 1958, submerging the old Mathis Dam. Wesley E. Seale Dam is a rolled-fill earthen dam, 5,930 ft long, with two spillways. On the 1,320-foot north spillway there are 33 gates which are operated by movable hydraulic lifts. The 27 gates on the 1,080-foot south spillway are electrically operated from the control tower. Gates were repaired and modified in August 1966; each gate is 37.5 ft wide. Water for municipal supply for the city of Corpus Christi is released through 4.0-foot-diameter cylinder valve and three rectangular openings 2.5- by 4-foot and is diverted from river at Calallen 35 miles downstream. The city of Alice withdrew 3,370 acre-ft from Lake Corpus Christi during the water year. Data regarding dam and lake are shown in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of gates (when closed) on north spillway	94.3	308,700
Top of gates (when closed) on south spillway	94.0	302,100
Crest of spillways	88.0	185,900
Invert of three 2.5- by 4-foot rectangular openings	55.5	140

COOPERATION.--Capacity curve, from a June 1956 survey, furnished by the Lower Nueces River Water Supply District. Elevation record furnished by city of Corpus Christi.

REVISIONS (WATER YEARS).--WSP 1923: 1953(M), 1957(M).

Capacity table (elevation, in feet, and total contents, in acre-feet)

88.0	185,900	92.0	259,800
90.0	221,100	94.0	302,100
		95.0	324,600

CONTENTS, IN ACRE-FEET, AT 0600, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276,300	286,900	274,200	265,900	255,800	243,900	228,500	215,700	201,400	199,600	289,100	299,900
2	278,400	286,900	274,200	263,900	253,800	243,900	228,500	215,700	199,600	203,100	289,100	302,100
3	280,500	286,900	272,100	263,900	253,800	245,900	226,700	213,900	199,600	204,900	293,400	302,100
4	282,700	286,900	274,200	268,000	253,800	242,000	226,700	213,900	199,600	206,700	293,400	302,100
5	282,700	286,900	274,200	263,900	251,800	242,000	228,500	212,100	199,600	212,100	293,400	302,100
6	284,800	284,800	274,200	263,900	251,800	242,000	228,500	213,900	197,900	224,800	297,800	302,100
7	286,900	284,800	272,100	263,900	253,800	242,000	224,800	212,100	196,100	242,000	297,800	302,100
8	284,800	284,800	272,100	261,900	251,800	240,000	224,800	212,100	196,100	263,900	302,100	304,300
9	291,200	284,800	272,100	256,800	251,800	240,000	224,800	210,300	196,100	299,900	302,100	302,100
10	291,200	284,800	272,100	259,800	249,900	240,000	224,800	210,300	194,400	302,100	302,100	304,300
11	293,400	284,800	272,100	259,800	249,900	240,000	224,800	210,300	194,400	297,800	302,100	317,700
12	295,600	282,700	272,100	259,800	253,800	240,000	223,000	210,300	194,400	304,300	302,100	320,000
13	295,600	282,700	272,100	259,800	249,900	240,000	223,000	210,300	192,700	299,900	302,100	302,100
14	295,600	284,800	270,000	259,800	247,900	238,100	223,000	210,300	192,700	299,900	302,100	299,900
15	295,600	280,500	270,000	259,800	247,900	238,100	223,000	208,500	192,700	302,100	302,100	302,100
16	297,800	280,500	270,000	259,800	247,900	238,100	223,000	208,500	191,000	299,900	299,900	299,900
17	295,600	278,400	270,000	259,800	247,900	236,100	223,000	206,700	191,000	299,900	299,900	302,100
18	293,400	280,500	268,000	259,800	243,900	236,100	223,000	204,900	192,700	302,100	299,900	302,100
19	291,200	278,400	268,000	259,800	247,900	238,100	223,000	206,700	194,400	302,100	299,900	302,100
20	291,200	278,400	270,000	257,800	247,900	234,200	223,000	206,700	194,400	302,100	302,100	302,100
21	291,200	278,400	268,000	257,800	245,900	234,200	223,000	204,900	194,400	299,900	302,100	302,100
22	291,200	276,300	268,000	257,800	245,900	232,300	219,300	203,100	194,400	297,800	302,100	302,100
23	291,200	280,500	268,000	257,800	243,900	232,300	219,300	203,100	194,400	297,800	302,100	302,100
24	291,200	276,300	268,000	255,800	243,900	232,300	219,300	203,100	194,400	297,800	302,100	302,100
25	289,100	276,300	268,000	255,800	243,900	232,300	217,500	204,900	194,400	295,600	302,100	302,100
26	289,100	274,200	268,000	255,800	245,900	232,300	217,500	203,100	194,400	295,600	302,100	304,300
27	289,100	274,200	265,900	255,800	245,900	230,400	217,500	203,100	194,400	293,400	302,100	311,000
28	291,200	274,200	265,900	255,800	245,900	230,400	217,500	203,100	194,400	293,400	302,100	302,100
29	289,100	274,200	265,900	255,800	------	230,400	217,500	203,100	194,400	291,200	304,300	302,100
30	286,900	274,200	263,900	255,800	------	230,400	215,700	201,400	196,100	291,200	302,100	304,300
31	286,900	------	265,900	255,800	------	228,500	------	201,400	------	291,200	302,100	------
(†)	93.31	92.70	92.29	91.78	91.27	90.37	89.74	88.89	88.65	93.50	94.00	94.08
(*)	+10,600	-12,700	-8,300	-10,100	-9,900	-17,400	-12,800	-14,300	-5,300	+95,100	+10,900	+2,200
MAX	297,800	286,900	274,200	268,000	255,800	245,900	228,500	215,700	201,400	304,300	304,300	320,000
MIN	276,300	274,200	263,900	255,800	243,900	228,500	215,700	201,400	191,000	199,600	289,100	299,900

CAL YR 1970..... * -34,000 MAX 306,500 MIN 228,500
WTR YR 1971..... * +28,000 MAX 320,000 MIN 191,000

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08211000 Nueces River near Mathis, Tex.

LOCATION.--Lat 28°02'17", long 97°51'36", San Patricio-Jim Wells County line, on left bank 6 ft downstream from pier of bridge on State Highway 359, 200 ft downstream from Texas and New Orleans Railroad Co. bridge, 0.6 mile downstream from Wesley E. Seale Dam, 4 miles southwest of Mathis, and at mile 46.7.

DRAINAGE AREA.--16,660 sq mi.

PERIOD OF RECORD.--August 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 27.53 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 842 cfs (610,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 64,900 cfs Sept. 12 (gage height, 39.19 ft); minimum daily, 34 cfs Aug. 2.
Period of record: Maximum discharge, 138,000 cfs Sept. 24, 1967 (gage height, 47.7 ft, from floodmark); minimum daily, 6.8 cfs Aug. 15, 1940.
Maximum stage since at least 1888, that of Sept. 24, 1967. A stage of about 40 ft occurred Sept. 20, 1919, from information by Texas and New Orleans Railroad Co. and is the second highest known.

REMARKS.--Records good. Flow regulated by Lake Corpus Christi 0.6 miles upstream (station 08210500). Numerous diversions above station for irrigation and municipal use. Water for municipal and industrial use at Corpus Christi is released from Lake Corpus Christi above gage and is diverted from river at Calallen 34 miles downstream. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	85	99	98	101	105	131	112	125	173	45	6,130
2	98	168	98	98	101	134	127	113	121	160	34	5,050
3	98	76	99	100	96	140	128	111	118	149	296	3,990
4	98	80	98	162	93	108	108	108	113	149	283	2,020
5	98	57	98	103	92	106	91	111	108	150	410	1,960
6	99	89	98	100	92	106	92	117	108	240	863	1,900
7	98	96	98	99	95	104	90	122	118	600	539	504
8	150	80	98	98	106	104	100	177	130	986	3,160	393
9	135	88	98	98	103	105	112	131	162	11,800	4,200	590
10	95	90	98	98	115	108	112	129	130	19,500	4,300	2,050
11	94	186	100	98	115	108	111	101	122	15,400	4,370	15,900
12	137	102	97	98	109	121	121	98	118	16,500	5,690	56,800
13	87	195	97	98	100	131	129	110	124	13,400	8,680	34,800
14	81	290	94	100	100	131	132	121	131	11,300	8,990	13,000
15	89	125	90	104	100	182	132	121	133	8,170	8,810	13,000
16	255	104	91	104	116	137	112	121	176	5,980	7,310	16,300
17	438	103	90	104	177	118	71	121	143	4,240	6,620	23,100
18	427	102	90	100	133	111	70	125	170	1,120	6,100	26,900
19	236	101	90	96	125	120	100	130	181	267	6,490	27,600
20	89	101	91	96	115	125	121	133	179	178	11,200	22,800
21	88	101	94	94	230	143	121	133	149	159	19,000	17,600
22	87	101	98	96	119	143	121	123	168	150	26,600	11,900
23	96	122	99	95	107	143	107	123	166	130	27,100	6,950
24	87	91	100	95	106	137	103	122	166	103	27,100	4,840
25	87	101	100	95	103	127	113	97	165	81	26,300	1,360
26	87	100	99	93	103	126	120	97	149	77	22,500	2,060
27	142	100	99	98	105	126	118	97	137	71	19,700	1,790
28	453	99	99	103	105	127	118	111	131	59	15,700	984
29	93	98	99	102	------	127	118	125	123	64	15,700	950
30	87	98	100	102	------	124	113	125	136	63	13,000	2,460
31	86	------	98	102	------	127	------	125	------	55	10,500	------
TOTAL	4,393	3,329	2,997	3,127	3,162	3,854	3,342	3,690	4,200	111,474	311,590	325,681
MEAN	142	111	96.7	101	113	124	111	119	140	3,596	10,050	10,860
MAX	453	290	100	162	230	182	132	177	181	19,500	27,100	56,800
MIN	81	57	90	93	92	104	70	97	108	55	34	393
AC-FT	8,710	6,600	5,940	6,200	6,270	7,640	6,630	7,320	8,330	221,100	618,000	646,000

CAL YR 1970 TOTAL 180,665 MEAN 495 MAX 12,200 MIN 57 AC-FT 358,300
WTR YR 1971 TOTAL 780,839 MEAN 2,139 MAX 56,800 MIN 34 AC-FT 1,549,000

08211800 San Diego Creek at Alice, Tex.

LOCATION.--Lat 27°45'59", long 98°04'31", Jim Wells County, at bridge on Edith Drive in Alice, 540 ft downstream from Texas and New Orleans Railroad Co. bridge, and 3.2 miles upstream from confluence with Chiltipin Creek.

DRAINAGE AREA.--319 sq mi.

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 189.60 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 12.4 cfs (8,980 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,400 cfs Sept. 12 (gage height, 14.85 ft); no flow most of time.
Period of record: Maximum discharge, 14,000 cfs Sept. 23, 1967 (gage height, 16.35 ft); no flow most of time each year.
Maximum stage since at least 1928, 18.2 ft April 1949 (equivalent gage height in channel modified in 1955, 17.2 ft), from information by local residents.

REMARKS.--Records good. At end of year, flow from 170 sq mi above this station was partly controlled by 10 floodwater-retarding structures with a total combined capacity of 37,750 acre-ft below the flood-spillway crests, of which 35,980 acre-ft is floodwater-retarding capacity and 1,770 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	0			0	0
2							0	0			0	0
3							0	0			648	0
4							0	0			175	0
5							0	0			90	0
6							0	0			665	0
7							0	0			101	0
8							0	0			34	0
9							0	0			23	0
10							0	0			15	0
11							0	23			6.6	1,740
12							0	38			1.4	8,960
13							0	5.6			.05	1,580
14							0	.89			0	749
15							0	.02			0	439
16							0	0			0	359
17							1.4	0			0	294
18							.67	0			0	223
19							0	0			0	185
20							0	0			0	137
21							0	0			0	103
22							0	0			0	66
23							0	0			0	39
24							0	0			0	48
25							0	0			0	21
26							0	0			0	33
27							0	0			0	21
28							0	0			0	15
29					------		0	0			0	18
30					------		0	0			0	8.7
31		------			------		------	0	------		0	------
TOTAL	0	0	0	0	0	0	2.07	67.51	0	0	1,759.05	15,038.7
MEAN	0	0	0	0	0	0	.069	2.18	0	0	56.7	501
MAX	0	0	0	0	0	0	1.4	38	0	0	665	8,960
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	4.1	134	0	0	3,490	29,830

CAL YR 1970 TOTAL 126.07 MEAN .35 MAX 77 MIN 0 AC-FT 250
WTR YR 1971 TOTAL 16,867.33 MEAN 46.2 MAX 8,960 MIN 0 AC-FT 33,460

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.HT.	DISCHARGE
8- 3	1400	8.34	1,840
8- 6	1100	7.29	1,160
9-12	0600	14.85	12,400

08211850 Lake Alice at Alice, Tex.

LOCATION.--Lat 27°47'25", long 98°03'39", Jim Wells County, on right bank just upstream from Alice Dam on Chiltipin Creek, 1 8 miles upstream from confluence of Chiltipin and San Diego Creeks, and 2.6 miles northeast of Alice.

DRAINAGE AREA.--150 sq mi.

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by city of Alice).

EXTREMES.--Current year: Maximum contents, 4,780 acre-ft Sept. 12 (elevation, 198.83 ft, from floodmark); minimum, 79 acre-ft Jan. 26 (elevation, 188.94 ft).
Period of record: Maximum contents, 4,780 acre-ft Sept. 12, 1971 (elevation, 198.83 ft, from floodmark); minimum, 14 acre-ft Feb. 3, 1965 (elevation, 185.67 ft).

REMARKS.--Lake is formed by Alice Dam, which has a total length of 11,525 ft including 4,275 ft of west protective levee, a 1,000-foot temporary weir between the main embankment and the west protective levee, rolled earthfill west embankment 3,470 ft long, concrete siphon spillway 22.5 ft wide, and concrete main spillway 414 ft wide, and rolled earthfill east embankment 2,343 ft long. Service spillway is a concrete siphon type, 22.5 ft wide with two 3,200 gallons per minute pumps. Main spillway is concrete, 414 ft wide with thirteen 30-foot wide slots for gates. Emergency spillway is 50 wood gates 20 ft wide by 3.5 ft high, resting on concrete. Rolled earthfilled embankments are 15 ft thick on top with varying bottom widths. The levee is a rolled earthfill embankment 8 ft thick on top with varying bottom widths. Dam is property of Alice Water Authority and was built to store water for use by the city of Alice. Storage began Oct. 26, 1964; dam completed Mar. 16, 1965. Capacity table is based on data furnished by Alice Water Authority using revised maps surveyed in 1963. At end of year, flow from 73.4 sq mi above this station was partly controlled by six floodwater-retarding structures with a total combined capacity of 15,690 acre-ft below the flood-spillway crest, of which 14,780 acre-ft is floodwater-retarding capacity and 912 acre-ft is sediment-pool capacity. All of these structures were built during the period September 1960 to January 1965. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by city of Alice show that they diverted 3,920 acre-ft for municipal use, and records furnished by city of Corpus Christi show that 3,370 acre-ft was diverted to Lake Alice from Lake Corpus Christi during the water year. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	205.0	-
Top of west levee	202.0	-
Top of east levee	199.0	4,910
Elevation siphon spillway	196.0	2,780

Capacity table (elevation, in feet, and total contents, in acre-feet)

188.5	56	191.0	423
189.0	82	192.0	754
189.5	127	193.0	1,160
190.0	195	195.0	2,180
190.5	288	197.0	3,440
		199.0	4,910

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,400	868	420	110	107	177	133	177	330	237	98	197
2	1,390	903	412	115	107	185	133	173	317	243	103	198
3	1,370	876	377	124	109	177	133	173	305	237	111	194
4	1,370	860	361	114	117	177	147	154	298	239	123	186
5	1,360	849	352	104	117	186	152	151	291	232	349	183
6	1,340	841	328	101	126	186	152	156	284	232	659	179
7	1,320	829	315	104	137	188	155	151	275	223	652	175
8	1,310	818	300	107	133	183	154	151	268	218	638	170
9	1,290	803	284	109	140	186	151	139	256	221	624	163
10	1,270	791	266	114	143	189	155	148	246	218	611	185
11	1,260	769	260	113	139	191	152	394	239	218	594	4,600
12	1,230	754	250	112	134	191	150	386	228	223	578	4,390
13	1,220	740	243	107	137	188	150	389	220	216	571	3,810
14	1,190	729	237	103	136	189	150	377	216	215	519	3,570
15	1,170	694	235	104	142	179	148	375	202	206	497	3,550
16	1,150	666	218	100	137	177	166	372	195	198	475	3,550
17	1,140	638	208	99	140	177	166	349	194	194	441	3,550
18	1,120	618	203	95	146	176	170	358	176	188	426	3,550
19	1,100	601	210	92	148	165	192	349	179	182	412	3,550
20	1,100	588	197	92	148	163	188	366	179	185	377	3,550
21	1,080	565	185	89	143	163	188	344	185	169	361	3,470
22	1,050	552	172	85	146	163	191	344	194	166	338	3,390
23	1,040	535	163	84	148	150	189	344	188	159	307	3,370
24	1,010	510	151	84	151	143	195	358	189	146	291	3,350
25	992	500	139	80	192	147	191	366	189	142	268	3,330
26	960	487	131	82	166	143	194	361	198	127	254	3,290
27	939	478	125	84	163	143	192	372	216	116	230	3,270
28	919	469	109	88	170	143	183	361	228	110	211	3,252
29	896	462	104	92	------	139	185	347	241	105	205	3,220
30	868	444	104	104	------	134	183	355	239	101	200	3,180
31	868	------	110	102	------	128	------	336	------	99	202	------
(†)	192.30	191.07	189.34	189.25	189.83	189.51	189.92	190.69	190.26	189.22	190.04	196.61
(*)	-552	-424	-334	-8	+68	-42	+55	+153	-97	-140	+103	+2,978
MAX	1,400	903	420	124	192	191	195	394	330	243	659	4,600
MIN	868	444	104	80	107	128	133	139	176	99	98	163

CAL YR 1970..... * -174 MAX 2,350 MIN 104
WTR YR 1971..... * +1,760 MAX 4,600 MIN 80

† Elevation, in feet, at end of month.
* Change in contents, in acre-feet.

08211900 San Fernando Creek at Alice, Tex.

LOCATION.--Lat 27°46'20", long 98°02'00", Jim Wells County, on left bank 34 ft downstream from downstream bridge of two bridges on State Highways 44 and 359, 0.5 mile downstream from confluence of San Diego and Chiltipin Creeks, 2.3 miles upstream from head of Pintas Creek, and 2.7 miles northeast of Alice.

DRAINAGE AREA.--507 sq mi.

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 161.68 ft above mean sea level.

AVERAGE DISCHARGE.--6 years (1965-71), 40.2 cfs (29,120 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 26,800 cfs Sept. 12 (gage height, 16.51 ft); minimum, 0.26 cfs July 13.
Period of record: Maximum discharge, 26,800 cfs Sept. 12, 1971 (gage height, 16.51 ft); no flow part of each day Aug. 23-26, Sept. 14, 1965, and for several days in June, July, and August 1967.
Maximum stage since at least 1949, that of Sept. 12, 1971. Other high stages for this period are 15.86 ft Sept. 23, 1967 (discharge, 16,900 cfs); 15.5 ft Sept. 9, 1962 (discharge, 14,600 cfs, from field estimate); 14.2 ft Sept. 14, 1951. Discharge for flood of Sept. 14, 1951, may have exceeded that for 1962 as the highway was raised between 1952 and 1962. Flood in 1951 was higher at site of discontinued station "San Fernando Creek near Alice". Flood in 1962 was higher than that of 1967 at site of discontinued station; there is a diversion into the Pintas Creek Basin between the two gaging sites, and apparently this diversion was greater in 1967 than in 1962.

REMARKS.--Records good. San Diego Creek joins Chiltipin Creek below Lake Alice to form San Fernando Creek. Flow regulated by Lake Alice (station 08211850) 2.3 miles upstream on Chiltipin Creek since Oct. 26, 1964. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see San Diego Creek at Alice (station 08211800). Records furnished by city of Alice show that they discharged 1,490 acre-ft of sewage effluent into San Diego Creek 1.3 miles upstream, which comprises most of the low flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.0	2.1	1.8	2.2	1.8	1.9	1.9	2.4	2.1	2.7	2.0
2	2.5	9.5	1.8	1.8	2.1	1.8	2.0	1.7	2.7	2.1	2.9	2.0
3	2.4	3.9	1.9	1.8	2.4	1.8	2.4	2.3	1.9	1.8	691	1.8
4	5.0	2.3	2.0	1.9	2.2	1.7	2.5	1.9	1.9	1.7	419	1.4
5	4.4	2.1	1.9	1.8	2.0	2.0	2.6	1.9	1.7	1.9	248	1.2
6	2.6	1.9	1.9	1.8	2.2	2.0	1.9	1.9	1.8	1.8	922	1.7
7	2.4	2.0	1.8	1.8	2.1	1.6	1.8	2.4	2.0	1.8	246	1.7
8	2.2	1.9	1.9	2.0	2.0	1.7	1.8	2.0	1.8	1.9	37	1.6
9	2.4	2.1	1.8	1.9	2.1	1.9	2.1	2.1	1.7	1.9	27	1.6
10	2.3	1.9	1.8	1.9	2.0	1.8	2.2	2.5	1.8	2.0	19	1.9
11	2.2	1.7	1.8	1.9	2.2	1.9	1.7	30	1.8	2.1	10	4,370
12	2.4	1.9	1.8	1.8	2.2	2.0	1.9	54	1.7	2.3	5.4	22,200
13	2.2	1.9	1.9	1.9	2.2	1.9	2.1	12	1.7	2.1	3.0	6,980
14	2.0	1.9	2.0	1.9	2.0	1.9	1.8	3.7	1.9	1.9	2.0	1,740
15	2.2	1.8	1.9	1.9	2.1	1.9	2.0	2.4	1.6	1.9	1.9	1,130
16	2.1	1.8	1.9	2.1	2.1	1.9	2.0	2.2	1.8	2.0	2.2	959
17	2.1	1.9	1.9	1.8	2.2	1.9	2.5	2.0	1.9	2.0	1.9	750
18	2.0	1.9	1.9	2.0	2.1	2.1	2.1	1.8	1.9	1.9	1.9	1,090
19	2.1	1.8	1.9	1.8	2.2	2.2	2.5	2.1	1.9	1.9	2.1	688
20	2.0	1.7	1.8	1.9	5.3	2.3	2.4	1.9	1.9	2.0	2.1	520
21	2.4	1.9	2.0	2.1	1.9	2.3	2.1	2.3	2.0	1.9	2.0	466
22	2.1	1.8	2.0	2.0	1.6	1.9	2.1	2.2	2.5	1.7	1.8	352
23	2.0	2.0	1.9	2.0	1.6	2.1	2.0	2.1	2.2	1.9	2.2	227
24	2.0	1.8	2.4	1.8	1.6	2.0	2.0	2.7	2.1	1.7	2.1	364
25	2.0	1.8	2.0	2.1	1.7	2.1	1.7	2.4	1.7	1.9	2.1	271
26	2.0	1.9	2.3	2.0	2.2	1.9	1.8	2.5	2.0	2.4	1.9	141
27	2.0	2.1	1.9	2.1	1.9	2.2	2.3	2.2	2.7	1.8	1.9	93
28	1.8	2.0	1.9	2.2	1.6	1.8	2.1	1.9	2.5	1.8	2.1	80
29	1.8	2.2	1.8	2.5	------	1.7	2.1	1.8	2.6	1.4	1.8	74
30	1.9	2.1	1.8	2.2	------	2.0	1.9	1.9	2.4	2.3	2.1	55
31	2.1	------	1.7	1.9	------	2.0	------	2.1	------	2.6	2.1	------
TOTAL	72.0	67.5	59.4	60.4	60.0	60.1	62.3	156.8	60.5	60.5	2,669.2	42,566.9
MEAN	2.32	2.25	1.92	1.95	2.14	1.94	2.08	5.06	2.02	1.95	86.1	1,419
MAX	5.0	9.5	2.4	2.5	5.3	2.3	2.6	54	2.7	2.6	922	22,200
MIN	1.8	1.7	1.7	1.8	1.6	1.6	1.7	1.7	1.6	1.4	1.8	1.2
AC-FT	143	134	118	120	119	119	124	311	120	120	5,290	84,430

CAL YR 1970 TOTAL 1,694.0 MEAN 4.64 MAX 277 MIN 1.3 AC-FT 3,360
WTR YR 1971 TOTAL 45,955.6 MEAN 126 MAX 22,200 MIN 1.2 AC-FT 91,150

08212400 Los Olmos Creek near Falfurrias, Tex.

LOCATION.--Lat 27°15'51", long 98°08'08", Brooks County, at downstream side of bridge on U.S. Highway 281 and 2.6 miles north of Falfurrias.

DRAINAGE AREA.--480 sq mi, of which 4.5 sq mi is probably noncontributing.

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder and V-notch weir low-water control. Datum of gage is 116.58 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 5,300 cfs Sept. 13 (gage height, 12.66 ft); no flow at times.
Period of record: Maximum discharge, 5,300 cfs Sept. 13, 1971 (gage height, 12.66 ft); no flow at times in 1970-71.
Maximum stage since at least 1929, 15.0 ft Sept. 13, 1951, from information by Texas Highway Department.

REMARKS.--Records good. Flow of less than 1.0 cfs is mostly waste water from La Gloria Oil Refinery located 1.1 miles upstream. No flow was observed in the creek above the refinery on Dec. 28, Mar. 12, and July 27. An estimate of 0.10 cfs was made Apr. 14 and 0.01 cfs May 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01			0	.01				0	26	0	0
2	0			0	0				0	15	0	0
3	0			0	0				0	3.0	0	0
4	3.7			0	0				0	.64	3.0	0
5	1.3			0	0				0	.12	191	0
6	.12			0	0				0	.04	151	0
7	.04			0	0				0	.02	39	0
8	.03			0	0				0	.01	30	0
9	.03			0	0				0	0	21	0
10	.03			0	0				0	0	5.9	0
11	.02			0	0				0	0	1.6	2.0
12	.01			0	0				0	0	.47	44
13	.01			0	0				0	0	.13	3,640
14	0			0	0				0	0	.06	3,790
15	0			0	0				0	0	.03	2,670
16	0			0	0				0	0	.02	1,210
17	0			0	0				0	0	.01	299
18	0			0	0				0	0	.01	43
19	0			0	0				0	0	.01	28
20	0			0	0				0	0	0	21
21	0			0	0				0	0	0	10
22	0			0	0				0	0	0	5.6
23	0			0	0				0	0	0	3.1
24	0			0	0				0	0	0	4.0
25	0			0	0				0	0	0	9.6
26	0			0	0				0	0	0	4.8
27	0			0	0				0	0	0	2.1
28	0			0	0				0	0	0	1.1
29	0			.13	------				99	0	0	.9
30	0			.04	------				71	0	0	.6
31	0	------		.03	------		------		------	0	0	------
TOTAL	5.30	0	0	.20	.01	0	0	0	170	44.83	443.24	11,788.8
MEAN	.17	0	0	.007	.0004	0	0	0	5.67	1.45	14.3	393
MAX	3.7	0	0	.13	.01	0	0	0	99	26	191	3,790
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	11	0	0	.4	.02	0	0	0	337	89	879	23,380

CAL YR 1970 TOTAL 150.08 MEAN .41 MAX 3 MIN 0 AC-FT 298
WTR YR 1971 TOTAL 12,452.38 MEAN 34.1 MAX 3,790 MIN 0 AC-FT 24,700

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.HT.	DISCHARGE
6-29	2100	5.49	189
8- 5	2100	6.88	341
9-13	1500	12.66	5,300

08363840 Rio Grande at Vinton Bridge near Anthony, Tex.

LOCATION.--Lat 31°57'32", long 106°36'14", El Paso County, on left bank 40 ft downstream from Farm Road 273, 170 ft west of U.S. Highway 80, and 2.8 miles south of Anthony.

DRAINAGE AREA.--28,680 sq mi, approximately.

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,766.72 ft above mean sea level

EXTREMES.--Current year: Maximum discharge, 1,000 cfs Mar. 7 (gage height, 3.35 ft); minimum daily, 29 cfs Feb. 27, 28.
Period of record: Maximum discharge, 1,770 cfs July 25, 1970 (gage height, 5.10 ft); minimum daily, 29 cfs Feb. 27, 28, 1971.

REMARKS.--Records good. Flow regulated by Caballo Reservoir (capacity, 344,000 acre-ft, 1958 survey) and Elephant Butte Reservoir (capacity, 2,137,000 acre-ft, 1959 survey), both in New Mexico. About 84,000 acre-ft was diverted for irrigation above station and below Caballo Reservoir during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	54	65	63	49	414	594	341	502	439	304	419
2	104	54	63	63	47	448	539	419	481	531	341	398
3	104	56	65	63	45	423	594	468	439	720	333	386
4	152	54	63	58	34	406	573	464	345	573	271	378
5	439	56	63	58	39	548	481	464	320	443	159	370
6	333	58	65	74	40	594	415	485	357	423	93	300
7	202	56	65	110	40	636	333	518	386	370	117	190
8	130	58	65	104	40	678	337	481	386	345	120	247
9	110	58	63	56	42	615	341	419	366	411	218	255
10	101	56	65	53	40	573	357	448	353	427	242	178
11	96	58	60	53	39	615	443	406	398	406	247	124
12	90	58	60	53	36	594	443	366	448	341	242	107
13	90	60	60	51	37	741	419	357	481	333	210	107
14	87	56	60	49	37	783	353	361	506	300	210	120
15	76	56	65	47	36	720	411	304	514	382	292	113
16	79	56	60	47	34	699	527	279	468	386	308	96
17	81	56	63	49	34	720	552	242	415	374	230	79
18	81	58	60	51	33	783	431	238	439	423	304	74
19	84	60	58	49	33	699	370	255	481	457	398	74
20	79	60	60	49	34	699	357	284	506	472	263	74
21	81	63	65	51	34	615	296	320	489	489	238	72
22	79	65	65	51	33	594	304	329	527	548	288	67
23	74	60	63	51	33	615	279	357	431	535	324	65
24	63	67	63	51	32	573	284	398	452	552	304	67
25	65	70	63	51	32	594	292	435	485	548	275	65
26	60	70	63	44	32	552	300	415	472	514	353	63
27	60	65	63	44	29	552	316	411	493	485	398	58
28	60	63	65	45	29	573	312	386	497	288	361	56
29	60	63	63	45	------	615	337	398	527	226	366	58
30	58	65	65	49	------	657	333	406	460	284	406	63
31	56	------	63	49	------	636	------	464	------	255	472	------
TOTAL	3,344	1,789	1,949	1,731	1,023	18,964	11,923	11,918	13,424	13,280	8,687	4,723
MEAN	108	59.6	62.9	55.8	36.5	612	397	384	447	428	280	157
MAX	439	70	65	110	49	783	594	518	527	720	472	419
MIN	56	54	58	44	29	406	279	238	320	226	93	56
AC-FT	6,630	3,550	3,870	3,430	2,030	37,620	23,650	23,640	26,630	26,340	17,230	9,370

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971 TOTAL 92,755.00 MEAN 254 MAX 783 MIN 29 AC-FT 184,000

08365550 Franklin Canal at El Paso, Tex.

LOCATION.--Lat 31°44'50", long 106°28'45", El Paso County, in center of canal between the Southern Pacific Railroad and the Rio Grande and at the south end of Kansas and Campbell Streets in El Paso.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Period of record: Maximum daily discharge, 292 cfs Aug. 4, 1969 (gage height, 5.77 ft); no flow at times.

REMARKS.--Records good. Station is above all diversions. Canal diverts from lower end of American Canal for irrigation in the El Paso Valley.

COOPERATION.--Gage-height record and 31 discharge measurements furnished by the U.S. Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	75	0	0	64	30	282	188	181	216	174	167
2	195	121	0	0	64	121	272	181	181	177	181	167
3	195	124	0	0	62	115	282	188	174	112	195	174
4	181	121	0	0	62	112	282	181	181	112	207	167
5	111	118	0	0	62	115	272	174	181	112	202	167
6	.20	121	0	0	58	136	262	181	181	112	209	167
7	1.0	121	0	0	1.2	136	167	188	188	112	216	167
8	0	118	0	0	0	139	160	188	181	109	209	167
9	0	118	0	0	0	154	181	188	181	118	209	174
10	0	115	0	0	0	167	188	188	188	139	202	174
11	0	115	0	0	0	181	202	188	188	181	202	167
12	0	115	0	0	0	188	209	188	188	202	188	142
13	0	115	50	0	0	195	209	181	188	209	188	136
14	0	112	84	0	0	202	202	181	188	190	188	136
15	2.0	112	82	0	0	202	188	181	195	216	188	136
16	0	48	89	0	0	202	202	188	195	209	188	136
17	0	1.8	92	0	0	216	199	188	202	209	188	136
18	0	1.0	89	0	0	230	209	174	202	202	195	136
19	0	0	84	0	0	282	202	181	223	202	171	86
20	0	0	84	0	0	272	202	188	216	202	188	86
21	0	0	86	0	0	272	202	188	216	202	188	86
22	0	0	86	0	0	272	195	188	216	209	188	86
23	0	0	61	0	0	282	188	188	216	209	188	92
24	0	0	.74	38	0	272	167	181	209	202	188	82
25	0	0	0	64	0	282	174	181	216	202	188	58
26	0	0	0	62	0	282	188	181	216	223	188	8.0
27	0	0	0	62	0	282	188	188	216	223	181	3.4
28	0	0	0	64	0	282	188	188	216	209	181	0
29	0	0	0	64	------	282	181	188	216	195	181	0
30	0	0	0	64	------	282	188	188	216	181	181	0
31	0	------	0	66	------	282	------	181	------	174	181	------
TOTAL	894.20	1,771.8	887.74	484	373.2	6,467	6,231	5,723	5,955	5,570	5,921	3,403.4
MEAN	28.8	59.1	28.6	15.6	13.3	209	208	185	198	180	191	113
MAX	209	124	92	66	64	282	282	188	223	223	216	174
MIN	0	0	0	0	0	30	160	174	174	109	171	0
AC-FT	1,770	3,510	1,760	960	740	12,830	12,360	11,350	11,810	11,050	11,740	6,750

CAL YR 1970 TOTAL 57,520.74 MEAN 158 MAX 282 MIN 0 AC-FT 114,100
WTR YR 1971 TOTAL 43,681.34 MEAN 120 MAX 282 MIN 0 AC-FT 86,640

08365600 McKelligon Canyon at El Paso, Tex.

LOCATION.--Lat 31°49'20", long 106°28'09", El Paso County, on left bank 120 ft south of McKelligon Canyon Drive, 0.2 mile west of Alabama Avenue, 0.5 mile south of crest of Sugarloaf Mountain, 1.6 miles west of U.S. Highway 54, and 4.5 miles north of El Paso Post Office.

DRAINAGE AREA.--2.3 sq mi, approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and small earthfill dam with uncontrolled concrete outlet tower. Datum of gage is 4,257.33 ft above mean sea level (levels by city of El Paso).

AVERAGE DISCHARGE.--14 years, 0.003 cfs (2.2 acre-ft per year).

EXTREMES.--Current year: No flow during year.
Period of record: Maximum discharge, 76 cfs Sept. 11, 1958 (on basis of culvert measurement of peak flow); no flow except Sept. 11, 12, 1958.

REMARKS.--No flow since Sept. 12, 1958. Floodflow controlled by four small reservoirs upstream with a total capacity of about 95 acre-ft.

08365800 Government Ditch at El Paso, Tex.

LOCATION.--Lat 31°47'02", long 106°26'41", El Paso County, at intersection of Montana and Houston Streets and 2 miles northeast of the business center of El Paso.

DRAINAGE AREA.--6.4 sq mi, approximately.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,740 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 0.14 cfs (101 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 540 cfs July 2 (gage height, 2.60 ft); no flow most of time.
Period of record: Maximum discharge, 550 cfs Sept. 11, 1958 (gage height, 2.64 ft), from rating curve extended above 148 cfs on basis of slope-area measurement of peak flow; no flow most of time.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1923: 1958-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						0			0	0	0
2	1.1						0			50	0	0
3	.47						0			0	0	0
4	.12						0			0	0	0
5	0						0			0	0	0
6	0						0			0	0	0
7	0						0			0	0	0
8	0						0			0	0	.91
9	0						0			0	.03	0
10	0						0			0	.24	0
11	0						0			0	0	0
12	0						0			0	0	0
13	0						0			0	3.4	0
14	0						1.7			0	0	0
15	0						.35			0	0	0
16	0						0			0	0	0
17	0						0			0	2.4	0
18	0						0			0	.10	0
19	0						.10			0	0	0
20	0						0			0	0	0
21	0						0			0	0	0
22	0						0			4.3	0	0
23	0						0			13	.04	23
24	0						0			4.9	.63	.28
25	0						0			0	0	.02
26	0						0			0	0	0
27	0						0			0	0	0
28	0						0			0	0	0
29	0				------		0			0	0	3.8
30	0				------		0			0	0	.01
31	0	------			------		------		------	0	0	------
TOTAL	1.69	0	0	0	0	0	2.15	0	0	72.2	6.84	28.02
MEAN	.055	0	0	0	0	0	.072	0	0	2.33	.22	.93
MAX	1.1	0	0	0	0	0	1.7	0	0	50	3.4	23
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	3.4	0	0	0	0	0	4.3	0	0	143	14	56

CAL YR 1970 TOTAL 31.41 MEAN .086 MAX 14 MIN 0 AC-FT 62
WTR YR 1971 TOTAL 110.90 MEAN .30 MAX 50 MIN 0 AC-FT 220

PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
7- 2	0800	2.60	540	8-13	1900	.63	79
7-22	1900	.45	43	8-17	1900	.45	43
7-23	1800	1.22	217	9-23	1900	1.40	256
				9-29	1800	.47	47

08366400 Riverside Canal near Socorro, Tex.

LOCATION.--Lat 31°39'30", long 106°19'32", El Paso County, on right bank 0.2 mile downstream from headgates and 1.5 miles west of Socorro.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,656.79 ft above mean sea level (levels by Bureau of Reclamation). Auxiliary water-stage recorder at site 1.9 miles downstream from base gage at same datum used Mar. 5, 1969, to Mar. 8, 1971.

EXTREMES.--Period of record: Maximum daily discharge, 1,160 cfs July 20, 1970 (gage height, 7.08 ft); maximum gage height, 7.35 ft Aug. 5, 1969; no flow at times.

REMARKS.--Records fair. Canal diverts from left bank of Rio Grande for irrigation in the lower El Paso Valley.

COOPERATION.--Gage-height record and 64 discharge measurements furnished by the U.S. Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	95	96	117	14	203	420	133	364	310	255	435
2	133	53	95	117	16	605	390	170	339	396	301	377
3	155	41	95	114	12	640	377	290	315	519	290	310
4	160	44	97	113	12	622	495	339	292	605	281	339
5	177	44	97	117	13	622	405	352	249	622	268	315
6	191	44	97	117	12	900	315	352	274	555	179	306
7	203	45	99	113	35	980	203	405	339	301	144	243
8	176	43	100	88	57	1,040	111	352	364	223	217	181
9	153	42	100	91	58	920	121	339	339	235	247	200
10	147	44	100	97	57	710	92	352	315	253	299	192
11	139	44	97	93	57	728	144	327	313	297	264	157
12	136	49	99	81	57	728	215	260	270	262	274	104
13	134	51	88	83	54	840	229	205	304	352	237	93
14	136	56	38	90	53	900	164	223	364	294	239	86
15	134	90	33	95	56	728	150	211	377	270	288	84
16	127	95	34	91	57	675	229	186	352	339	352	67
17	128	95	15	91	55	658	279	172	292	327	339	57
18	128	104	12	99	57	840	339	157	283	339	364	56
19	134	99	10	91	57	692	310	152	288	390	339	56
20	136	99	9.0	93	52	692	308	149	408	435	424	55
21	130	96	8.0	85	50	640	255	152	390	435	266	44
22	128	100	7.0	83	46	570	198	128	377	420	304	38
23	126	92	6.0	81	49	570	183	138	352	555	352	66
24	117	92	82	69	52	495	162	185	235	658	339	77
25	111	97	88	54	52	435	144	260	249	622	297	69
26	111	96	54	42	53	377	141	268	264	640	262	66
27	106	99	87	30	53	306	132	245	270	658	389	60
28	106	97	56	23	51	315	123	235	352	450	377	58
29	111	96	54	15	------	364	118	223	377	225	377	79
30	110	96	106	14	------	435	141	268	377	243	420	95
31	110	------	120	14	------	465	------	313	------	264	525	------
TOTAL	4,223	2,238	2,079.0	2,501	1,247	19,695	6,893	7,541	9,684	12,494	9,509	4,365
MEAN	136	74.6	67.1	80.7	44.5	635	230	243	323	403	307	146
MAX	203	104	120	117	58	1,040	495	405	408	658	525	435
MIN	106	41	6.0	14	12	203	92	128	235	223	144	38
AC-FT	8,380	4,440	4,120	4,960	2,470	39,070	13,670	14,960	19,210	24,780	18,860	8,660

CAL YR 1970 TOTAL 96,873.00 MEAN 265 MAX 1,160 MIN 0 AC-FT 192,100
WTR YR 1971 TOTAL 82,469.00 MEAN 226 MAX 1,040 MIN 6.0 AC-FT 163,600

08368000 Tornillo Drain at mouth near Tornillo, Tex.

LOCATION.--Lat 31°24'01", long 106°01'34", El Paso County, on left bank just downstream from confluence of Tornillo and Alamo Alto drains, 1.2 miles upstream from Hudspeth regulating reservoir, and 5 miles southeast of Tornillo.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Period of record: Maximum daily discharge, 98 cfs Sept. 8, 1970; maximum gage height, 2.51 ft July 9, 1971; minimum daily discharge, 16 cfs Feb. 12, 13, 17-19, 22-26, 1969.

REMARKS.--Records good. Discharge past this station is return flow from irrigation in the El Paso valley. There is no regulation above this station.

COOPERATION.--Gage-height record and 51 discharge measurements furnished by the U.S. Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	46	38	39	29	27	49	38	42	35	50	47
2	75	45	39	39	29	27	49	38	43	44	49	49
3	78	44	38	38	29	29	49	38	43	75	49	49
4	75	43	40	38	28	36	47	40	43	70	52	47
5	68	43	35	37	29	36	51	39	43	65	49	47
6	62	44	34	37	30	32	50	38	43	63	50	48
7	62	44	34	35	31	35	51	43	43	65	49	47
8	60	44	33	32	30	36	50	45	43	78	48	47
9	59	43	34	31	29	38	49	44	42	85	47	46
10	59	42	42	31	29	40	47	45	43	75	46	46
11	56	42	36	30	30	41	45	46	43	68	47	45
12	54	42	35	30	30	44	47	48	43	61	46	45
13	53	42	34	30	29	42	47	49	42	56	44	44
14	59	41	31	30	29	44	44	49	41	49	44	44
15	56	42	29	29	31	44	44	49	42	49	44	41
16	55	42	28	28	29	46	44	45	41	49	44	37
17	56	42	32	28	28	49	43	43	41	49	45	37
18	52	42	38	28	27	48	42	44	43	50	44	36
19	50	42	46	26	28	48	43	43	43	51	44	37
20	50	42	45	26	28	48	44	40	42	52	46	37
21	49	42	42	30	28	50	46	41	41	56	45	36
22	57	41	42	29	26	47	46	43	42	54	45	36
23	55	41	46	31	26	46	46	41	42	51	40	34
24	56	40	43	34	26	48	45	38	42	54	41	34
25	57	40	43	37	27	49	45	40	43	53	46	35
26	56	40	43	33	30	48	45	41	42	53	45	34
27	53	39	43	30	31	47	42	42	42	52	45	34
28	52	39	42	30	28	44	39	42	42	46	47	30
29	53	38	42	29	------	44	38	43	41	46	48	29
30	51	38	41	29	------	44	39	42	36	45	45	28
31	47	------	40	30	------	46	------	42	------	45	45	------
TOTAL	1,795	1,255	1,188	984	804	1,303	1,366	1,319	1,262	1,744	1,429	1,206
MEAN	57.9	41.8	38.3	31.7	28.7	42.0	45.5	42.5	42.1	56.3	46.1	40.2
MAX	78	46	46	39	31	50	51	49	43	85	52	49
MIN	47	38	28	26	26	27	38	38	36	35	40	28
AC-FT	3,560	2,490	2,360	1,950	1,590	2,580	2,710	2,620	2,500	3,460	2,830	2,390

CAL YR 1970 TOTAL 17,914 MEAN 49.1 MAX 98 MIN 20 AC-FT 35,530
WTR YR 1971 TOTAL 15,655 MEAN 42.9 MAX 85 MIN 26 AC-FT 31,050

08368300 Tornillo Canal near Tornillo, Tex.

LOCATION.--Lat 31°24'09", long 106°01'13", El Paso County, on left bank 300 ft downstream from check gates and 5.2 miles southeast of Tornillo.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Period of record: Maximum daily discharge, 228 cfs June 8, 1970; maximum gage height, 3.31 ft Oct. 7, 1970; no flow at times each year.

REMARKS.--Records poor. The canal diverts water from Riverside Canal extension and Franklin Canal for irrigation in Hudspeth County.

COOPERATION.--Gage-height record and 21 discharge measurements furnished by the U.S. Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	49	73	13	3.8	32	16	1.1	3.6	4.3	6.9	.47
2	71	54	67	13	7.4	9.9	21	1.0	3.6	20	3.7	.61
3	125	57	26	12	4.1	3.3	6.9	.90	6.1	87	.61	.56
4	157	46	46	24	6.6	3.7	61	.80	3.2	120	.76	.61
5	157	40	57	25	5.1	6.4	72	.71	2.8	65	.76	.51
6	169	42	70	27	4.6	19	28	2.3	2.0	.76	.71	1.5
7	175	49	94	29	2.6	22	8.0	3.4	1.8	.61	.71	.76
8	157	48	53	31	2.3	8.1	5.5	6.2	3.6	.56	.66	.61
9	122	52	45	27	2.3	7.0	1.8	5.1	5.0	.98	.71	.61
10	64	60	42	33	2.3	12	1.7	4.0	4.7	1.4	.76	.56
11	58	58	41	33	2.0	9.9	1.6	4.9	4.0	1.3	.76	.56
12	52	50	43	37	1.5	18	1.5	5.0	2.9	.42	.81	1.0
13	36	41	45	32	1.7	8.8	1.4	3.5	2.6	.37	.71	.98
14	84	37	37	28	1.8	8.3	1.4	3.1	3.3	.61	.71	1.0
15	70	51	11	40	1.8	13	1.3	2.6	2.1	.81	.71	.92
16	64	69	26	42	2.5	1.4	1.2	2.1	1.4	.81	.98	.86
17	51	60	16	42	4.0	2.1	1.1	2.1	1.4	.76	.98	.76
18	72	53	3.8	42	4.1	1.7	5.1	2.0	1.5	.71	.76	.66
19	76	58	15	30	2.4	18	45	2.0	1.4	.86	1.2	.66
20	74	67	58	10	2.2	4.0	1.7	2.0	2.0	.92	1.1	.66
21	68	61	55	38	1.8	14	2.3	2.0	3.5	.92	.98	.66
22	51	58	21	24	5.1	3.8	2.5	2.2	3.2	.81	.81	.61
23	25	59	4.1	9.2	2.9	10	2.0	2.2	3.8	1.2	.86	.37
24	17	54	12	9.4	2.5	63	1.9	2.2	2.4	2.4	.81	.18
25	20	37	28	9.4	2.7	73	1.5	1.8	1.6	.97	.81	.28
26	29	56	2.4	10	2.0	29	1.5	1.4	1.1	3.7	.81	.32
27	16	94	.92	3.7	1.9	15	1.6	1.3	1.2	1.0	.81	.42
28	49	90	.61	3.5	1.9	5.2	1.6	4.8	1.3	.71	.76	.56
29	86	88	6.7	3.2	------	59	1.2	4.5	1.4	.56	.71	.56
30	97	52	16	7.2	------	3.8	1.2	3.7	3.1	.61	.66	.51
31	80	------	27	6.1	------	6.4	------	3.6	------	.56	.56	------
TOTAL	2,397	1,690	1,042.53	693.7	85.9	490.8	300.5	84.51	81.6	321.62	33.58	19.33
MEAN	77.3	56.3	33.6	22.4	3.07	15.8	10.0	2.73	2.72	10.4	1.08	.64
MAX	175	94	94	42	7.4	73	72	6.2	6.1	120	6.9	1.5
MIN	16	37	.61	3.2	1.5	1.4	1.1	.71	1.1	.37	.56	.18
AC-FT	4,750	3,350	2,070	1,380	170	974	596	168	162	638	67	38

CAL YR 1970 TOTAL 16,596.39 MEAN 45.5 MAX 228 MIN 0 AC-FT 32,920
WTR YR 1971 TOTAL 7,241.07 MEAN 19.8 MAX 175 MIN .18 AC-FT 14,360

08368900 Hudspeth Feeder Canal near Tornillo, Tex.

LOCATION.--Lat 31°24'30", long 106°05'27", El Paso County, on right bank on Rio Grande Levee Road, 2.5 miles southeast of Tornillo, and 5.3 miles upstream from Hudspeth regulating reservoir.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,570.36 ft above mean sea level.

EXTREMES.--Period of record: Maximum daily discharge, 180 cfs July 11, 1969 (gage height, 4.95 ft); no flow Jan. 25, 1969.

REMARKS.--Records good. Flow may be regulated by headgates of the Fabens waste channel at Fabens, Tex.

COOPERATION.--Gage-height record and 47 measurements furnished by the U.S. Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	110	45	43	33	9.6	80	48	21	30	30	18
2	93	86	44	44	30	62	86	48	28	60	29	18
3	92	61	46	45	27	32	75	45	21	139	25	17
4	114	60	52	43	24	30	113	24	25	144	25	18
5	102	68	53	41	24	33	114	22	23	143	44	19
6	106	68	56	40	25	32	84	53	21	99	24	20
7	106	62	51	38	25	37	80	39	19	64	21	18
8	90	60	48	37	25	42	72	76	23	42	20	16
9	88	60	49	38	17	89	61	82	22	42	28	15
10	77	64	50	38	17	42	56	70	22	40	19	14
11	76	56	50	41	13	45	56	58	23	41	23	16
12	77	56	46	42	14	49	66	61	21	40	17	14
13	93	54	48	38	13	50	62	56	19	39	16	14
14	71	56	47	38	12	47	53	29	23	34	16	12
15	67	59	41	42	12	56	55	54	23	33	17	12
16	76	56	37	38	12	52	56	34	22	32	56	12
17	71	56	41	38	11	54	55	42	22	30	28	12
18	68	56	45	38	9.6	64	64	42	19	28	30	13
19	65	56	45	40	9.8	72	79	21	20	26	35	15
20	64	53	47	41	9.8	75	64	21	23	23	29	14
21	64	50	47	38	9.4	74	66	22	23	22	32	12
22	66	49	46	36	9.6	64	58	20	22	23	23	12
23	74	48	48	36	9.6	69	56	22	23	24	28	13
24	88	49	57	34	10	90	54	19	22	47	23	14
25	72	52	52	34	11	86	56	19	23	59	23	14
26	68	54	45	32	9.0	82	52	19	23	56	21	13
27	64	48	43	36	9.2	72	51	19	23	36	20	12
28	65	45	41	40	10	73	49	18	22	24	21	11
29	64	44	40	34	------	94	49	20	21	23	20	10
30	61	45	40	32	------	72	52	18	22	24	21	13
31	83	------	42	33	------	78	------	22	------	24	18	------
TOTAL	2,459	1,741	1,442	1,188	441.0	1,826.6	1,974	1,143	664	1,491	782	431
MEAN	79.3	58.0	46.5	38.3	15.8	58.9	65.8	36.9	22.1	48.1	25.2	14.4
MAX	114	110	57	45	33	94	114	82	28	144	56	20
MIN	61	44	37	32	9.0	9.6	49	18	19	22	16	10
AC-FT	4,880	3,450	2,860	2,360	875	3,620	3,920	2,270	1,320	2,960	1,550	855

CAL YR 1970 TOTAL 26,165.0 MEAN 71.7 MAX 142 MIN 16 AC-FT 51,900
WTR YR 1971 TOTAL 15,582.6 MEAN 42.7 MAX 144 MIN 9.0 AC-FT 30,910

08376300 Sanderson Canyon at Sanderson, Tex.

LOCATION.--Lat 30°07'45", long 102°23'00", Terrell County, on left bank at downstream side of bridge on U.S. Highway 90, 1.0 mile south of Sanderson, 2.5 miles downstream from Three Mile Draw, and 30 miles upstream from mouth.

DRAINAGE AREA.--195 sq mi.

PERIOD OF RECORD.--February 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,706.35 ft above mean sea level.

EXTREMES.--Water year 1969: Maximum discharge, 32,600 cfs Sept. 18 (gage height, 9.18 ft); no flow most of time.
Water year 1970: Maximum discharge, 3,230 cfs June 9 (gage height, 3.63 ft); no flow most of time.
Water year 1971: Maximum discharge, 10,500 cfs Aug. 13 (gage height, 5.77 ft); no flow most of time.
Period of record: Maximum discharge, 32,600 cfs Sept. 18, 1969 (gage height, 9.18 ft); no flow most of time.
The maximum flood since at least 1935, 14.2 ft on June 11, 1965 (discharge about 100,000 cfs, by combining two slope-area measurements within 4 miles upstream from gage). The next highest flood occurred in 1935 (about 20,000 cfs, estimated channel capacity by Corps of Engineers).

REMARKS.--No known regulation or diversion above the station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEARS OCTOBER 1968 TO SEPTEMBER 1971

Apr. 12, 1969	442	Aug. 1, 1971	232
Apr. 13, 1969	16	Aug. 9, 1971	81
May 6, 1969	10	Aug. 11, 1971	842
Sept. 18, 1969	11,500	Aug. 12, 1971	31
Sept. 19, 1969	212	Aug. 13, 1971	1,230
June 9, 1970	382	Aug. 14, 1971	1,770
Sept. 18, 1970	245	Aug. 16, 1971	816
June 21, 1971	794	Aug. 17, 1971	8.7
June 22, 1971	9.1	Aug. 24, 1971	71

Date	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
April 1969	458	442	0	15.3	908
May	10	10	0	.32	20
September	712	11,500	0	390	23,230
WTR YR 1969	12,180	11,500	0	33.4	24,160
June 1970	382	382	0	12.7	758
September	245	245	0	8.17	486
CAL YR 1969	12,180	11,500	0	33.4	24,160
WTR YR 1970	627	382	0	1.72	1,240
June 1971	803.1	794	0	26.8	1,590
August	5,081.7	1,770	0	164	10,080
CAL YR 1970	627	382	0	1.72	1,240
WTR YR 1971	5,884.8	1,770	0	16.1	11,670

PEAK DISCHARGE (BASE, 1,500 CFS).--Apr. 12, 1969 (0600) 3,290 cfs (3.44 ft); Sept. 18, 1969 (time unknown) 32,600 cfs (9.18 ft); June 9, 1970 (0600) 3,230 cfs (3.63 ft); Sept. 18, 1970 (0300) 2,640 cfs (3.38 ft); June 21, 1971 (0400) 4,580 cfs (4.11 ft); Aug. 1, 1971 (1100) 2,000 cfs (3.08 ft); Aug. 11, 1971 (0330) 7,670 cfs (5.10 ft); Aug. 13, 1971 (2400) 10,500 cfs (5.77 ft); Aug. 16, 1971 (0700) 5,540 cfs (4.44 ft).

NOTE.--Flow occurred only on days listed above.

08407500 Pecos River at Red Bluff, N. Mex.

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¼NW¼NE¼ sec. 1, T.26 S., R.28 E., Eddy County, on right bank at Red Bluff, 0.2 mile downstream from Red Bluff Draw, 1.6 miles northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 miles north of the New Mexico-Texas State line, and 5.6 miles upstream from Delaware River.

DRAINAGE AREA.--19,540 sq mi, approximately (contributing area).

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,850.05 ft above mean sea level.

AVERAGE DISCHARGE.--34 years, 196 cfs (142,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,810 cfs Aug. 16 (gage height, 8.13 ft); minimum, 0.85 cfs June 25, 26.
Period of record: Maximum discharge, 111,000 cfs Aug. 23, 1966 (gage height, 33.32 ft), from rating curve extended above 30,000 cfs on basis of slope-area measurement of peak flow; minimum, 0.19 cfs Aug. 1, 1966.
The flood of Aug. 23, 1966, exceeded all known floods at this location. Flood in October 1904 reached a stage of 28.0 ft, from information by Panhandle and Santa Fe Railway Co.

REMARKS.--Records good. Flow regulated by storage in Alamogordo Reservoir, Lake McMillan, Lake Avalon, and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (1959 determination). Water-quality records for the current year are published in Part 2 of the WRD for New Mexico.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	37	50	48	30	36	14	15	9.1	3.0	126	11
2	29	37	51	49	28	39	22	12	11	3.3	53	10
3	28	37	51	52	28	39	24	9.7	6.9	4.7	21	10
4	28	35	51	52	27	36	22	8.2	4.1	6.9	12	9.1
5	27	34	51	53	24	36	23	6.4	3.8	8.2	11	8.6
6	32	32	50	54	26	38	20	4.7	5.0	7.3	9.7	8.6
7	41	32	50	52	27	37	24	4.7	5.0	5.3	8.2	8.6
8	34	35	50	52	26	40	19	4.7	5.0	3.3	6.9	9.7
9	35	35	50	52	24	38	17	4.7	5.0	3.3	4.4	11
10	42	39	51	53	24	36	19	4.7	5.0	3.3	7.3	12
11	48	43	52	54	24	43	15	4.3	4.7	3.6	7.7	10
12	48	42	52	54	25	51	12	6.9	4.7	3.8	13	9.1
13	50	44	50	53	25	51	13	9.7	4.7	6.1	17	9.1
14	51	42	47	52	26	50	12	8.2	7.3	5.0	42	9.7
15	52	43	48	53	25	40	11	10	7.3	5.0	18	9.7
16	59	42	48	56	24	34	7.7	11	5.0	5.7	923	8.2
17	58	45	49	52	24	31	6.4	8.6	3.6	4.1	113	7.7
18	59	46	59	48	23	31	10	7.3	3.3	2.4	77	9.1
19	55	44	50	47	24	33	9.1	6.4	22	1.8	30	9.1
20	55	44	41	47	23	33	12	6.0	4.4	1.8	22	9.1
21	55	48	48	47	41	30	15	6.0	1.8	2.0	19	11
22	49	47	48	45	41	30	11	7.7	1.5	2.2	17	111
23	39	42	46	39	31	28	27	9.1	1.2	3.3	18	289
24	40	43	47	38	27	27	25	8.2	1.1	11	25	106
25	40	44	48	40	23	25	18	7.7	.96	9.5	112	67
26	41	44	48	39	23	21	15	7.7	1.2	27	261	42
27	43	45	48	38	21	28	12	11	3.8	64	92	30
28	39	45	48	36	27	21	9.7	8.6	5.7	45	45	24
29	39	45	47	34	------	20	9.7	8.2	4.7	18	28	22
30	38	49	48	31	------	20	9.7	7.7	3.3	125	20	21
31	37	------	48	31	------	16	------	9.7	------	54	17	------
TOTAL	1,319	1,240	1,525	1,451	741	1,038	464.3	244.8	152.16	448.9	2,176.2	912.4
MEAN	42.5	41.3	49.2	46.8	26.5	33.5	15.5	7.90	5.07	14.5	70.2	30.4
MAX	59	49	59	56	41	51	27	15	22	125	923	289
MIN	27	32	41	31	21	16	6.4	4.3	.96	1.8	4.4	7.7
AC-FT	2,620	2,460	3,020	2,880	1,470	2,060	921	486	302	890	4,320	1,810

CAL YR 1970 TOTAL 15,189.50 MEAN 41.6 MAX 467 MIN 5.6 AC-FT 30,130
WTR YR 1971 TOTAL 11,712.76 MEAN 32.1 MAX 923 MIN .96 AC-FT 23,230

08408500 Delaware River near Red Bluff, N. Mex.

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¼SW¼SE¼ sec. 23, T.26 S., R.28 E., Eddy County, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 miles northwest of the New Mexico-Texas State line, 3.6 miles southwest of Red Bluff, 3.7 miles upstream from mouth, and 14 miles south of Malaga.

DRAINAGE AREA.--689 sq mi.

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year. Published as "near Malaga, N. Mex." 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,900.66 ft above mean sea level. Prior to May 1914, at site 3 miles upstream at different datum. May 1914 to June 1915 at site 2.5 miles downstream at different datum.

AVERAGE DISCHARGE.--34 years (1937-71), 14.5 cfs (10,510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,150 cfs Aug. 1 (gage height, 7.32 ft); no flow many days.
Period of record: Maximum discharge, 81,400 cfs Oct. 2, 1955 (gage height, 27.0 ft, from floodmark), from rating curve extended above 1,500 cfs on basis of slope-area measurements at gage heights 8.65, 12.84, 18.00, and 27.0 ft; no flow for many days most years.
Maximum stage since at least 1911, that of Oct. 2, 1955. Flood of June 27, 1938, reached a stage of 18.00 ft, from floodmark.

REMARKS.--Records poor. One small upstream diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.8	4.0	4.1	4.1	3.8	3.2	2.1	.43	0	1,320	3.3
2	4.1	3.9	3.9	4.1	4.1	3.8	3.2	2.1	.36	0	103	7.6
3	4.0	3.9	4.0	4.3	4.1	3.9	3.2	2.1	.32	0	75	14
4	4.0	3.9	3.9	4.3	3.9	4.0	3.2	1.8	.32	0	60	5.9
5	4.1	3.9	3.9	4.3	3.9	3.7	3.3	1.5	.30	0	52	3.8
6	3.6	4.0	3.9	3.8	3.9	3.6	3.4	1.3	.26	0	36	3.3
7	3.1	4.1	3.9	3.7	3.9	3.5	3.4	1.2	.18	0	19	3.0
8	2.7	4.1	3.9	4.1	3.9	3.7	3.4	1.3	.13	0	8.9	2.2
9	2.7	4.0	3.9	4.4	4.0	3.7	3.4	.83	.09	0	6.7	.39
10	2.9	4.0	3.9	4.4	4.1	3.7	3.3	.62	.05	0	5.2	.15
11	3.1	3.9	4.0	4.4	4.1	3.7	3.1	.83	0	0	98	.05
12	3.2	4.0	4.0	4.4	4.0	3.6	2.8	.62	0	0	24	0
13	3.2	4.0	4.0	4.3	4.0	3.6	2.9	.55	0	0	16	.08
14	3.2	4.0	4.0	4.3	4.0	3.5	2.8	.74	0	0	9.9	.05
15	3.3	4.0	4.1	4.1	4.0	3.4	5.0	.62	0	0	14	.05
16	4.6	4.0	4.1	4.1	4.0	3.4	3.4	.62	0	0	355	.05
17	4.9	4.1	4.1	4.1	4.0	3.4	3.2	.84	0	0	82	.05
18	4.9	4.1	4.1	4.1	4.0	3.4	3.1	.55	0	0	49	1.3
19	4.6	4.0	4.1	4.1	4.0	3.4	2.8	.38	0	0	28	5.9
20	4.4	4.0	4.0	4.1	4.0	3.4	2.8	.43	0	0	16	4.1
21	4.2	4.0	4.0	4.3	4.0	3.4	2.7	.58	0	0	8.4	3.3
22	3.9	4.0	4.0	4.1	4.0	3.4	2.7	.49	0	1.2	7.1	62
23	3.6	4.0	4.1	4.1	4.0	3.4	2.7	.34	0	0	8.4	166
24	3.5	4.0	4.1	4.0	4.1	3.3	2.7	.36	0	0	49	146
25	3.4	4.0	4.0	4.0	4.2	3.3	2.7	.34	0	0	20	40
26	3.3	4.1	4.0	4.0	4.1	3.3	2.5	.50	0	0	8.4	12
27	3.3	4.0	4.0	4.0	4.0	3.3	2.4	.80	0	0	6.7	7.1
28	3.3	4.0	4.1	4.1	3.9	3.3	2.3	.55	0	0	5.2	5.5
29	3.4	4.0	4.1	4.1	------	3.2	2.2	.59	0	0	4.5	4.8
30	3.7	4.0	4.1	4.3	------	3.2	2.0	.60	0	5.6	4.1	4.5
31	3.8	------	4.1	4.3	------	3.2	------	.58	------	29	3.8	------
TOTAL	114.4	119.8	124.3	128.8	112.3	108.5	89.8	26.76	2.44	35.8	2,503.3	506.47
MEAN	3.69	3.99	4.01	4.15	4.01	3.50	2.99	.86	.081	1.15	80.8	16.9
MAX	4.9	4.1	4.1	4.4	4.2	4.0	5.0	2.1	.43	29	1,320	166
MIN	2.7	3.8	3.9	3.7	3.9	3.2	2.0	.34	0	0	3.8	0
AC-FT	227	238	247	255	223	215	178	53	4.8	71	4,970	1,000

CAL YR 1970 TOTAL 2,282.31 MEAN 6.25 MAX 550 MIN 0 AC-FT 4,530
WTR YR 1971 TOTAL 3,872.67 MEAN 10.6 MAX 1,320 MIN 0 AC-FT 7,680

08410000 Red Bluff Reservoir near Orla, Tex.

LOCATION.--Lat 31°54'06", long 103°54'42", Reeves County, at right end of Red Bluff Dam on Pecos River, 3 miles upstream from Salt (Screwbean) Draw, and 4.5 miles north of Orla.

DRAINAGE AREA.--20,720 sq mi, approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage read at irregular intervals. Datum of gage is 0.30 ft below mean sea level.

EXTREMES.--Current year: Maximum contents observed, 65,500 acre-ft Feb. 5 (gage height, 2,808.5 ft); minimum observed, 31,100 acre-ft July 29 (gage height, 2,796.4 ft).
Period of record: Maximum contents observed, 352,000 acre-ft Sept. 27, 28, 1941 (gage height, 2,846.2 ft, observed on nonrecording gage at service spillway, affected by variable drawdown due to flow through tainter gates); minimum observed, 11,080 acre-ft May 13, 1948 (gage height, 2,781.4 ft).

REMARKS.--Reservoir is formed by a rock-faced earthfill dam 9,200 ft long. Dam completed and storage began in September 1936. The concrete service spillway is equipped with 12 tainter gates 25 ft wide by 15 ft high. The emergency spillway, located on the right bank, is 790 ft long. Water is used for power development and irrigation from Mentone to Grandfalls. Inflow partly regulated by major reservoirs above station include Alamogordo Reservoir, Lake McMillan, and Lake Avalon, with a total combined capacity of 154,400 acre-ft. Also several small diversion dams divert water for power and irrigation. Contents computed from intermittent gage readings. Figures given herein represent total contents. Data regarding dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Crest of emergency spillway	2,845.0	340,000
Top of tainter gates (top of conservation storage)	2,842.0	310,000
Crest of service spillway	2,827.0	166,500
Bottom of two 7.0- by 9.0-foot conduits	2,764.0	3,000

COOPERATION.--Gage-height records and capacity curve furnished by Red Bluff Water Power and Control District. Capacity curve based on Geological Survey topographic map, survey of 1925.

Capacity table (gage height, in feet, and total contents, in acre-feet)

2,796.0	30,300	2,804.0	50,000
2,798.0	34,400	2,806.0	56,500
2,800.0	39,000	2,808.0	63,500
2,802.0	44,000	2,809.0	67,500

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58,250	60,000	61,050	63,150	65,100	65,100	65,100	56,150	43,000	38,520	33,980	41,000
2	58,600	60,000	61,400	63,150	65,100	65,100	64,300	55,800	42,750	38,280	36,160	40,750
3	58,600	60,000	61,400	63,150	65,100	65,100	63,150	55,100	42,500	38,280	36,380	40,750
4	58,600	60,000	61,400	63,500	65,100	65,100	62,800	54,400	42,000	38,040	36,600	40,500
5	58,600	60,000	61,400	63,500	65,500	65,100	62,450	53,700	41,750	38,040	36,600	40,250
6	58,600	60,000	61,400	63,500	65,100	65,100	62,100	52,700	41,500	37,800	36,600	40,250
7	58,600	60,000	61,400	63,500	65,100	65,100	62,100	52,100	41,000	37,800	36,840	40,000
8	58,600	60,000	61,750	63,500	65,100	65,100	61,750	51,800	40,750	37,560	36,840	39,750
9	58,600	60,000	61,750	63,900	65,100	65,100	61,400	51,500	40,500	37,080	36,840	39,500
10	58,600	60,000	61,750	63,900	65,100	65,100	61,050	50,600	40,250	36,840	36,840	39,250
11	58,600	60,000	61,750	63,900	65,100	65,100	60,700	50,000	40,000	36,380	36,840	38,760
12	58,600	60,350	62,100	63,900	65,100	65,100	60,700	49,400	40,000	36,160	37,080	38,520
13	58,600	60,350	62,100	63,900	65,100	65,100	60,350	48,800	40,000	35,720	37,080	38,280
14	58,600	60,350	62,100	64,300	65,100	65,100	60,000	48,200	40,000	35,500	37,080	38,040
15	58,600	60,350	62,100	64,300	65,100	65,100	59,650	47,600	39,750	35,060	37,320	37,800
16	58,600	60,350	62,100	64,300	65,100	65,100	59,300	47,000	39,750	34,620	38,280	37,560
17	58,950	60,350	62,100	64,300	65,100	65,100	59,300	46,400	39,750	34,400	40,500	37,320
18	59,300	60,350	62,100	64,700	65,100	65,100	58,600	46,100	39,500	33,980	41,000	37,080
19	59,300	60,700	62,100	64,700	65,100	65,100	58,250	45,800	39,750	33,770	41,250	37,080
20	59,300	60,700	62,450	64,700	65,100	65,100	57,900	45,800	39,750	33,350	41,250	36,840
21	59,300	60,700	62,450	64,700	65,100	65,100	57,550	45,800	39,500	32,930	41,250	36,600
22	59,650	60,700	62,450	65,100	65,100	65,100	57,550	45,500	39,500	32,720	41,250	36,380
23	59,650	60,700	62,450	65,100	65,100	65,100	57,200	45,500	39,500	32,510	41,250	39,500
24	59,650	60,700	62,800	65,100	65,100	65,100	57,200	45,200	39,250	32,300	41,250	41,000
25	59,650	60,700	62,800	65,100	65,100	65,100	56,850	45,200	39,250	31,900	41,500	41,750
26	59,650	60,700	62,800	65,100	65,100	65,100	56,850	44,900	39,250	31,700	41,500	42,000
27	59,650	60,700	62,800	65,100	65,100	65,100	56,850	44,600	39,000	31,500	42,000	42,000
28	59,650	61,050	62,800	65,100	65,100	65,100	56,500	44,300	39,000	31,300	42,250	42,000
29	59,650	61,050	62,800	65,100	------	65,100	56,500	44,000	38,760	31,100	42,250	42,000
30	59,650	61,050	63,150	65,100	------	65,100	56,150	43,750	38,520	31,700	42,250	41,750
31	60,000	------	63,150	65,100	------	65,100	------	43,500	------	31,900	41,500	------
(†)	2,807.0	2,807.3	2,807.9	2,808.4	2,808.4	2,808.4	2,805.9	2,801.9	2,799.8	2,796.8	2,801.0	2,801.1
(#)	+1,750	+1,050	+2,100	+1,950	0	0	-8,950	-12,650	-4,980	-6,620	+9,600	+250
MAX	60,000	61,050	63,150	65,100	65,500	65,100	65,100	56,150	43,000	38,520	42,250	42,000
MIN	58,250	60,000	61,050	63,150	65,100	65,100	56,150	43,500	38,520	31,100	33,980	31,100

CAL YR 1970..... # -36,350 MAX 105,600 MIN 58,250
WTR YR 1971..... # -16,500 MAX 65,500 MIN 31,100

† Gage height, in feet, at end of month.
# Change in contents, in acre-feet.

08412500 Pecos River near Orla, Tex.

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, on right bank at bridge on Farm Road 652, 5.5 miles downstream from Salt (Screwbean) Draw, 5.9 miles northeast of Orla, and 8.5 miles downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 sq mi, approximately (contributing area).

PERIOD OF RECORD.--May 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft above mean sea level. Prior to Nov. 16, 1969, at site 6.9 miles downstream at datum 12.81 ft lower.

AVERAGE DISCHARGE.--34 years, 192 cfs (139,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,560 cfs Aug. 2 (gage height, 18.40 ft); minimum, 8.6 cfs Jan. 18-21.
Period of Record: Maximum discharge, 23,700 cfs Sept. 29, 1941 (gage height, 20.74 ft, site and datum then in use); no flow at times in 1946 and 1965.

REMARKS.--Records good. Flow largely regulated by Red Bluff Reservoir (station 08410000) and reservoirs above Carlsbad, N. Mex. Occasional runoff from draws between dam and station. Many diversions above Red Bluff Reservoir for irrigation. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 928: 1937.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	12	13	13	12	23	74	82	134	11	1,900	106
2	22	12	13	13	23	15	480	300	135	87	2,660	86
3	20	12	13	13	21	12	432	273	154	31	401	88
4	18	12	12	13	22	12	98	273	196	29	58	96
5	18	12	12	13	21	12	72	273	138	28	38	86
6	16	12	13	13	21	9.1	72	273	138	29	33	86
7	16	16	13	13	21	9.1	119	273	140	32	31	87
8	14	23	12	13	21	10	120	273	140	107	29	87
9	14	17	12	13	21	10	119	282	116	130	28	88
10	14	17	13	12	22	9.8	119	282	29	135	31	88
11	14	16	13	12	22	9.8	119	282	27	137	32	89
12	14	15	13	12	22	9.8	119	282	23	138	25	91
13	14	14	13	12	22	9.8	117	282	13	140	24	93
14	14	14	13	12	22	9.8	114	282	12	140	28	95
15	14	14	14	11	22	8.6	114	282	12	140	42	96
16	14	14	13	11	22	8.6	114	291	12	141	83	98
17	16	14	13	9.8	22	8.6	114	223	11	141	557	102
18	16	14	13	9.1	24	8.2	116	26	12	142	234	117
19	16	14	14	9.1	22	9.1	117	23	28	144	41	120
20	14	14	14	9.1	22	9.1	114	24	17	145	26	113
21	14	13	14	9.1	22	9.8	112	25	16	147	22	112
22	14	13	14	9.8	22	10	48	25	12	151	19	112
23	13	12	14	11	22	11	41	24	11	159	17	555
24	12	12	14	10	22	12	41	23	9.8	151	17	1,020
25	12	12	14	10	22	12	41	25	9.8	154	17	442
26	11	13	14	9.8	23	12	41	127	9.8	155	18	75
27	12	13	13	9.8	22	12	38	137	10	156	17	55
28	12	13	13	9.8	23	12	20	133	10	158	16	45
29	12	13	14	9.8	------	11	19	133	10	159	15	44
30	12	14	13	9.8	------	11	19	133	11	449	52	92
31	12	------	13	9.8	------	11	------	133	------	245	414	------
TOTAL	462	416	409	344.8	605	337.2	3,283	5,499	1,596.4	4,111	6,925	4,464
MEAN	14.9	13.9	13.2	11.1	21.6	10.9	109	177	53.2	133	223	149
MAX	28	23	14	13	24	23	480	300	196	449	2,660	1,020
MIN	11	12	12	9.1	12	8.2	19	23	9.8	11	15	44
AC-FT	916	825	811	684	1,200	669	6,510	10,910	3,170	8,150	13,740	8,850

CAL YR 1970 TOTAL 32,952.6 MEAN 90.3 MAX 1,760 MIN 9.1 AC-FT 65,360
WTR YR 1971 TOTAL 28,452.4 MEAN 78.0 MAX 2,660 MIN 8.2 AC-FT 56,440

08414000 Pecos River near Mentone, Tex.

LOCATION.--Lat 31°40'07", long 103°37'34", Reeves-Loving County line, at bridge on State Highway 302 and 3.0 miles southwest of Mentone.

DRAINAGE AREA.--21,650 sq mi, approximately (contributing area).

PERIOD OF RECORD.--February 1922 to July 1926 (published as "near Porterville"), September to December 1968 (low-flow measurements only), December 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,647.55 ft above mean sea level. Nonrecording gage prior to Dec. 10, 1968, and at different datum prior to Sept. 25, 1968.

EXTREMES.--Current year: Maximum discharge, 3,010 cfs Aug. 2 (gage height, 19.56 ft); minimum, 5.5 cfs Aug. 30, 31.
Period of record: Maximum discharge, 5,690 cfs Aug. 12, 1925 (gage height, 12.70 ft, datum then in use); minimum, 0.08 cfs May 20, 1969.

REMARKS.--Records good. Flow largely regulated by Red Bluff Reservoir (station 08410000) and reservoirs above Carlsbad, N. Mex. Many diversions above Red Bluff Reservoir for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	10	9.6	11	7.7	18	10	42	130	30	1,120	443
2	41	10	10	11	7.7	18	57	77	141	29	1,720	146
3	35	10	9.6	11	11	18	320	257	145	83	2,770	90
4	31	10	10	11	15	12	272	278	176	56	734	92
5	30	10	10	11	15	8.3	71	278	222	42	111	97
6	35	10	10	11	15	7.1	66	285	172	40	90	86
7	26	10	10	11	15	7.1	70	285	170	40	64	83
8	24	10	10	11	15	7.1	92	292	176	40	49	84
9	20	13	10	11	15	7.1	92	299	180	92	45	88
10	19	12	10	11	14	7.1	92	299	166	120	69	90
11	18	12	10	11	14	7.1	92	299	90	127	95	90
12	17	12	10	11	14	7.1	93	299	71	128	37	91
13	16	12	10	11	16	7.1	93	306	60	127	25	93
14	15	12	10	11	16	7.1	95	313	55	125	34	96
15	14	12	10	10	16	7.1	100	313	42	125	120	100
16	14	12	10	8.3	15	7.1	103	313	40	125	43	102
17	14	11	10	8.9	15	7.1	111	327	40	124	199	104
18	14	9.6	10	8.3	16	7.1	107	242	40	123	697	117
19	17	9.6	11	7.7	16	7.1	102	69	115	121	369	144
20	16	9.6	11	7.1	18	7.1	102	61	92	118	53	141
21	16	9.6	11	7.1	15	7.1	107	62	45	117	30	127
22	15	9.6	11	7.7	15	7.1	94	62	56	118	20	124
23	14	9.6	11	7.7	15	7.7	57	60	49	123	19	688
24	14	9.6	11	7.7	15	7.7	56	60	44	123	214	700
25	13	9.6	11	7.7	17	8.3	53	56	42	116	51	1,970
26	12	9.6	11	7.7	17	8.3	55	67	37	113	12	703
27	12	9.6	11	7.7	17	8.3	58	118	36	111	11	114
28	11	9.6	11	7.7	17	8.3	61	125	35	109	8.3	64
29	10	9.6	11	7.7	------	8.3	46	127	36	109	6.5	36
30	10	9.6	11	7.7	------	8.9	43	123	32	226	6.0	29
31	10	------	11	7.1	------	9.6	------	127	------	605	88	------
TOTAL	597	312.8	322.2	287.8	414.4	270.4	2,770	5,921	2,735	3,685	8,909.8	6,932
MEAN	19.3	10.4	10.4	9.28	14.8	8.72	92.3	191	91.2	119	287	231
MAX	44	13	11	11	18	18	320	327	222	605	2,770	1,970
MIN	10	9.6	9.6	7.1	7.7	7.1	10	42	32	29	6.0	29
AC-FT	1,180	620	639	571	822	536	5,490	11,740	5,420	7,310	17,670	13,750

CAL YR 1970 TOTAL 33,610.7 MEAN 92.1 MAX 1,760 MIN 4.6 AC-FT 66,670
WTR YR 1971 TOTAL 33,157.4 MEAN 90.8 MAX 2,770 MIN 6.0 AC-FT 65,770

08431700 Limpia Creek above Fort Davis, Tex.
(Hydrologic Bench-Mark Station)

LOCATION.--Lat 30°36'55", long 104°00'10", Jeff Davis County, on left bank about 600 ft upstream from low-water crossing on State Highway 118, about 2,000 ft upstream from Jones Creek, and 6.8 miles west of Fort Davis.

DRAINAGE AREA.--52.4 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is about 5,200 ft above mean sea level, from topographic map.

AVERAGE DISCHARGE.--6 years, 1.72 cfs (1,250 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 221 cfs July 23 (gage height, 4.86 ft); no flow most of year.
Period of record: Maximum discharge, 2,530 cfs Aug. 31, 1966 (gage height, 8.03 ft); no flow at times.
Maximum stage since at least 1925, about 10 ft in 1939, from information by local resident.

REMARKS.--Records poor. No diversion above station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	.98	.04							0	0	
2	3.1	.98	.02							0	0	
3	3.1	.98	.01							0	0	
4	3.1	.83	0							0	0	
5	4.6	.83	0							0	0	
6	4.0	.70	0							0	0	
7	3.4	.60	0							0	0	
8	3.4	.51	0							0	1.4	
9	3.4	.51	0							0	6.2	
10	3.1	.51	0							0	4.1	
11	3.1	.51	0							0	.01	
12	2.8	.51	0							0	0	
13	2.6	.43	0							0	0	
14	2.3	.35	0							0	0	
15	2.1	.35	0							0	0	
16	2.1	.29	0							0	8.0	
17	2.1	.29	0							0	2.7	
18	2.1	.29	0							0	0	
19	2.1	.29	0							0	0	
20	1.9	.24	0							0	0	
21	1.9	.24	0							0	0	
22	1.9	.15	0							0	0	
23	1.9	.15	0							14	0	
24	1.9	.12	0							1.1	0	
25	1.7	.12	0							0	0	
26	1.5	.09	0							0	0	
27	1.3	.07	0							0	0	
28	1.3	.07	0							0	0	
29	1.3	.06	0		------					0	0	
30	1.1	.04	0		------					0	0	
31	1.1	------	0		------		------		------	0	0	------
TOTAL	74.7	12.09	.07	0	0	0	0	0	0	15.1	22.41	0
MEAN	2.41	.40	.002	0	0	0	0	0	0	.49	.72	0
MAX	4.6	.98	.04	0	0	0	0	0	0	14	8.0	0
MIN	1.1	.04	0	0	0	0	0	0	0	0	0	0
AC-FT	148	24	.1	0	0	0	0	0	0	30	44	0

CAL YR 1970 TOTAL 162.33 MEAN .44 MAX 22 MIN 0 AC-FT 322
WTR YR 1971 TOTAL 124.37 MEAN .34 MAX 14 MIN 0 AC-FT 247

PEAK DISCHARGE (BASE, 1,000 CFS).--No peak above base.

08431800 Limpia Creek below Fort Davis, Tex.

LOCATION.--Lat 30°40'52", long 103°47'27", Jeff Davis County, on downstream side of bridge on State Highway 17, 0.7 mile upstream from Frazier Canyon, and 9.0 miles northeast of Fort Davis.

DRAINAGE AREA.--227 sq mi.

PERIOD OF RECORD.--November 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,459.22 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 4.14 cfs (3,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,250 cfs Aug. 23 (gage height, 4.98 ft); no flow at times.
Period of record: Maximum discharge, 3,700 cfs June 26, 1962, and June 10, 1964; maximum gage height, 7.85 ft June 10, 1964; no flow at times each year.
Maximum stages since 1904 occurred in 1932 and 1946 (stages unknown), the 1932 flood was the greatest, from information by local residents.

REMARKS.--Records fair. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.16	.03	0	.39	.46	.11	.17	.05		0	.11
2	2.0	.16	.03	0	.39	.46	.11	.17	.11		0	.11
3	1.5	.16	.03	0	.42	.46	.11	.17	.04		0	.11
4	1.4	.17	.03	0	.42	.46	.11	.17	.03		0	.11
5	1.4	.17	.03	0	.42	.46	.11	.17	.02		0	.11
6	.98	.17	.03	0	.42	.36	.11	.17	.02		0	.10
7	.91	.17	.03	0	.42	.39	.11	.17	.01		0	.10
8	.58	.17	.02	0	.42	.39	.11	.17	0		0	.10
9	.50	.17	.02	0	.39	.39	.11	.17	0		0	.10
10	.46	.17	.02	0	.39	.39	.14	.17	0		0	.10
11	.39	.16	.01	0	.39	.39	.14	.14	0		0	.09
12	.33	.16	.01	0	.39	.39	.14	.14	0		0	.09
13	.36	.16	.01	0	.39	.39	.14	.14	0		0	.09
14	.33	.16	.01	0	.39	.39	.14	.14	0		25	.09
15	.30	.12	.02	0	.46	.39	.14	.14	0		50	.09
16	.30	.12	.03	0	.46	.36	.17	.10	0		180	.09
17	.25	.10	.03	0	.42	.36	.17	.10	0		71	.09
18	.25	.10	.03	0	.42	.33	.16	.09	0		5.7	.09
19	.25	.08	.02	.07	.42	.33	.16	.09	0		47	.10
20	.21	.06	.02	.30	.42	.33	.16	.09	0		7.0	.10
21	.17	.06	.02	.39	.42	.27	.17	.09	0		1.6	.10
22	.17	.06	.02	.42	.42	.25	.17	.09	0		.62	.09
23	.17	.05	.01	.39	.50	.23	.17	.09	0		256	.09
24	.17	.05	.01	.36	.50	.19	.16	.09	0		64	.09
25	.17	.05	0	.33	.54	.19	.16	.08	0		5.3	.09
26	.17	.05	0	.33	.50	.17	.17	.08	0		1.0	.09
27	.16	.05	0	.33	.50	.16	.21	.07	0		.42	.09
28	.16	.05	0	.33	.50	.16	.19	.25	0		.21	.09
29	.16	.03	0	.33	------	.12	.19	.09	0		.16	.09
30	.16	.03	0	.33	------	.12	.17	.09	0		.12	.08
31	.16	------	0	.36	------	.12	------	.06	------		.11	------
TOTAL	16.32	3.37	.52	4.27	12.12	9.86	4.41	3.95	.28	0	715.24	2.87
MEAN	.53	.11	.017	.14	.43	.32	.15	.13	.009	0	23.1	.096
MAX	2.0	.17	.03	.42	.54	.46	.21	.25	.11	0	256	.11
MIN	.16	.03	0	0	.39	.12	.11	.06	0	0	0	.08
AC-FT	32	6.7	1.0	8.5	24	20	8.7	7.8	.6	0	1,420	5.7

CAL YR 1970 TOTAL 99.38 MEAN .27 MAX 48 MIN 0 AC-FT 197
WTR YR 1971 TOTAL 773.21 MEAN 2.12 MAX 256 MIN 0 AC-FT 1,530

PEAK DISCHARGE (BASE, 1,300 CFS).--No peak above base.

08435600 Paisano Creek near Alpine, Tex.

LOCATION.--Lat 30°21'30", long 103°42'48", Brewster County, on right bank 200 ft upstream from bridge on Farm Road 1703 and 3.4 miles west of Alpine.

DRAINAGE AREA.--27.9 sq mi.

PERIOD OF RECORD.--November 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 4,614.80 ft above mean sea level.

EXTREMES.--Maximum discharge during period November 1970 to September 1971, 3,530 cfs Aug. 14 (gage height, 4.73 ft); no flow most of time.
Period of record: Maximum discharge, 3,530 cfs Aug. 14, 1971 (gage height, 4.73 ft); no flow most of time.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											9.7	0
2											0	0
3											0	0
4											0	0
5											0	0
6											0	0
7											0	0
8											0	0
9											0	0
10											0	0
11											0	0
12											0	0
13											2.7	0
14											204	0
15											94	0
16											0	0
17											0	0
18											0	0
19											0	0
20											0	0
21											0	0
22											0	0
23											27	33
24											6.7	1.4
25											8.1	0
26											0	0
27											0	0
28											0	0
29					------						0	0
30					------						0	0
31		------			------		------		------		0	------
TOTAL		0	0	0	0	0	0	0	0	0	352.2	34.4
MEAN		0	0	0	0	0	0	0	0	0	11.4	1.15
MAX		0	0	0	0	0	0	0	0	0	204	33
MIN		0	0	0	0	0	0	0	0	0	0	0
AC-FT		0	0	0	0	0	0	0	0	0	699	68

CAL YR 1970: TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971: TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 1	0640	0.92	105	8-23	1435	1.01	139
8-14	2200	4.73	3,530	9-23	0925	.88	90

08435620 Alpine Creek at Alpine, Tex.

LOCATION.--Lat 30°21'06", long 103°40'00", Brewster County, on left bank on upstream side of low-water crossing at Avenue G in Alpine.

DRAINAGE AREA.--18.1 sq mi.

PERIOD OF RECORD.--November 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 4,489.49 ft above mean sea level.

EXTREMES.--Maximum discharge during period November 1970 to September 1971, 58 cfs Aug. 24 (gage height, 1.59 ft); no flow most of time.
Period of record: Maximum discharge, 58 cfs Aug. 24, 1971 (gage height, 1.59 ft); no flow most of time.

REMARKS.--Records good. Rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0	1.2	0
2										0	0	0
3										0	0	0
4										0	0	0
5										0	0	0
6										0	0	0
7										0	0	0
8										0	0	0
9										0	0	0
10										0	0	0
11										0	2.2	0
12										0	.43	0
13										0	.13	0
14										0	0	0
15										0	.06	0
16										0	.03	0
17										0	0	.19
18										0	0	.61
19										0	0	0
20										0	0	0
21										0	0	0
22										0	0	0
23										0	0	.61
24										.07	6.5	0
25										0	.24	0
26										0	0	0
27										0	0	0
28										0	0	0
29					------					0	0	0
30					------					0	0	0
31		------			------		------		------	0	0	------
TOTAL		0	0	0	0	0	0	0	0	.07	10.79	1.41
MEAN		0	0	0	0	0	0	0	0	.002	.35	.047
MAX		0	0	0	0	0	0	0	0	.07	6.5	.61
MIN		0	0	0	0	0	0	0	0	0	0	0
AC-FT		0	0	0	0	0	0	0	0	.1	21	2.8

CAL YR 1970: TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971: TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 10 CFS)

DATE	TIME	G.HT.	DISCHARGE
8- 1	0815	0.99	12
8-11	1725	1.15	20
8-24	1855	1.59	58

08435660 West Moss Creek near Alpine, Tex.

LOCATION.--Lat 30°20'10", long 103°38'24", Brewster County, on right bank 0.3 mile upstream from State Highway 118 and 1.8 miles south of Alpine.

DRAINAGE AREA.--11.3 sq mi.

PERIOD OF RECORD.--November 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 4,577.72 ft above mean sea level.

EXTREMES.--Maximum discharge during period November 1970 to September 1971, 270 cfs Sept. 22 (gage height, 3.05 ft); no flow most of time.
Period of record: Maximum discharge, 270 cfs Sept. 22, 1971 (gage height, 3.05 ft); no flow most of time.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	0	.40	0
2									0	0	0	0
3									0	0	0	0
4									0	0	0	0
5									2.9	0	0	0
6									.08	0	0	0
7									0	0	0	0
8									0	0	0	0
9									0	0	0	0
10									0	0	0	0
11									0	0	0	0
12									0	0	0	0
13									0	0	0	0
14									0	0	0	0
15									0	0	0	0
16									0	0	0	0
17									0	0	0	6.2
18									0	0	0	0
19									0	0	0	0
20									0	0	0	0
21									0	0	0	0
22									0	0	0	14
23									0	0	0	4.6
24									0	.08	0	0
25									0	0	0	0
26									0	0	0	0
27									0	.55	0	0
28									0	.04	0	0
29					------				0	0	0	0
30					------				0	0	0	0
31		------			------		------		------	0	0	------
TOTAL		0	0	0	0	0	0	0	2.98	.67	.40	24.8
MEAN		0	0	0	0	0	0	0	.099	.022	.013	.83
MAX		0	0	0	0	0	0	0	2.9	.55	.40	14
MIN		0	0	0	0	0	0	0	0	0	0	0
AC-FT		0	0	0	0	0	0	0	5.9	1.3	.8	49

CAL YR 1970: TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1971: TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 20 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6- 5	1910	1.79	62	9-17	2110	2.69	191
7-27	1630	1.18	20	9-22	1610	3.05	270

08435700 Sunny Glen Canyon near Alpine, Tex.

LOCATION.--Lat 30°22'52", long 103°44'08", Brewster County, on right bank just upstream from private low-water crossing, about 200 ft north of the end of Farm Road 1703, 4.7 miles northwest of Alpine, and 9.2 miles upstream from Paisano Creek.

DRAINAGE AREA.--29.7 sq mi.

PERIOD OF RECORD.--February 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is about 4,660 ft, from AMS topographic map.

EXTREMES.--Current year: Maximum discharge, 230 cfs Aug. 14 (gage height, 1.90 ft); no flow most of time.
Period of record: Maximum discharge, 230 cfs Aug. 14, 1971 (gage height, 1.90 ft); no flow most of time.

REMARKS.--Records poor. No known diversions or regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											.01	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											.43	
14											7.3	
15											.12	
16											0	
17											0	
18											0	
19											0	
20											0	
21											0	
22											0	
23											0	
24											0	
25											0	
26											0	
27											0	
28											0	
29					------						0	
30					------						0	
31		------			------		------		------		0	------
TOTAL	0	0	0	0	0	0	0	0	0	0	7.86	0
MEAN	0	0	0	0	0	0	0	0	0	0	.25	0
MAX	0	0	0	0	0	0	0	0	0	0	7.3	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	16	0

CAL YR 1970 TOTAL 0.00 MEAN .0000 MAX .00 MIN 0 AC-FT .0
WTR YR 1971 TOTAL 7.86 MEAN .022 MAX 7.3 MIN 0 AC-FT 16

08435800 Coyanosa Draw near Fort Stockton, Tex.

LOCATION.--Lat 31°02'27", long 103°08'15", Pecos County, at downstream side of bridge on U.S. Highway 285 and 18.4 miles northwest of Fort Stockton.

DRAINAGE AREA.--1,182 sq mi.

PERIOD OF RECORD.--February 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,846.86 ft above mean sea level (Texas Highway Department bridge plans). Jan. 22 to Sept. 30, 1969, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--7 years, 2.88 cfs (2,090 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 840 cfs Aug. 1 (gage height, 8.00 ft); no flow most of year.
Period of record: Maximum discharge, 12,600 cfs June 15, 1967 (gage height, 15.20 ft); no flow most of time.
Maximum stage occurred in 1954, stage 19.6 ft. Discharge for flood of Sept. 4, 1925, 4,070 cfs (by slope-area measurement) at a site 8 miles upstream on U.S. Highway 290.

REMARKS.--Records poor. No known regulation or diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0							0			100	0
2	0							0			0	0
3	0							0			0	0
4	0							0			0	0
5	0							0			0	0
6	0							0			0	0
7	0							0			0	0
8	0							0			0	0
9	0							0			0	0
10	0							0			0	0
11	0							0			0	0
12	0							0			0	0
13	0							0			0	0
14	0							0			0	0
15	0							0			0	0
16	5.2							0			0	0
17	0							0			2.6	.14
18	0							0			.80	.04
19	0							0			.36	0
20	0							0			.44	0
21	0							0			0	0
22	0							0			0	0
23	0							0			67	17
24	0							0			13	.02
25	0							0			0	0
26	0							9.8			0	0
27	0							.09			0	0
28	0							40			0	0
29	0				------			7.8			0	0
30	0				------			0			0	0
31	0	------			------		------	0	------		0	------
TOTAL	5.2	0	0	0	0	0	0	57.69	0	0	184.20	17.20
MEAN	.17	0	0	0	0	0	0	1.86	0	0	5.94	.57
MAX	5.2	0	0	0	0	0	0	40	0	0	100	17
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	10	0	0	0	0	0	0	114	0	0	365	34

CAL YR 1970 TOTAL 65.40 MEAN .18 MAX 47 MIN 0 AC-FT 130
WTR YR 1971 TOTAL 264.29 MEAN .72 MAX 100 MIN 0 AC-FT 524

08446500 Pecos River near Girvin, Tex.

LOCATION.--Lat 31°06'40", long 102°25'00", Pecos County, on right bank 2.4 miles upstream from Comanche Creek, 2.6 miles northwest of Girvin, and 7.8 miles upstream from bridge on U.S. Highway 67.

DRAINAGE AREA.--29,560 sq mi, approximately (contributing area of supplementary gage 7.8 miles downstream).

PERIOD OF RECORD.--August 1939 to current year.

GAGE.--Water-stage recorder and combination concrete control and measuring flume. Supplementary water-stage recorder (used as regular gage prior to July 17, 1951, now used only for flows exceeding about 1,200 cfs) 7.8 miles downstream at datum 2,269.65 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 103 cfs (74,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 219 cfs Sept. 30 (gage height, 2.31 ft); minimum daily, 3.9 cfs July 18, 19.
Period of record: Maximum discharge, 20,000 cfs Oct. 5, 1941 (gage height, 20.49 ft, at supplementary gage); minimum daily, 2.2 cfs July 18, 1964.
Maximum stage since at least 1932, that of Oct. 5, 1941.

REMARKS.--Records good. Flow largely regulated by Red Bluff Reservoir (station 08410000) and reservoirs above Carlsbad, N. Mex. Numerous diversions above station for irrigation. Water-quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	27	26	28	28	24	20	38	5.8	14	6.8	13
2	25	27	26	27	28	24	20	32	5.8	12	105	13
3	24	27	26	27	28	25	20	26	6.3	12	93	13
4	23	27	27	26	28	24	21	25	7.4	11	33	13
5	26	27	26	26	28	25	20	24	6.8	10	31	12
6	34	27	26	26	30	25	20	23	6.8	9.4	19	12
7	26	27	26	26	28	26	20	22	6.8	8.7	21	12
8	25	27	26	27	28	25	19	21	7.4	6.8	24	12
9	25	27	27	27	28	28	19	24	8.0	6.8	25	12
10	25	27	27	28	28	32	18	19	8.0	6.8	37	12
11	24	27	27	28	30	30	64	16	8.0	6.3	38	12
12	26	26	27	28	28	27	74	16	8.0	5.8	51	12
13	30	26	27	28	28	26	54	16	8.0	5.3	63	11
14	30	26	27	28	27	26	38	16	8.0	4.8	48	11
15	31	26	27	28	28	26	31	16	14	4.8	37	12
16	37	26	28	28	30	25	31	13	15	4.8	74	12
17	38	25	28	28	30	23	25	13	11	4.3	108	13
18	36	31	28	28	30	25	26	12	9.4	3.9	61	22
19	33	31	28	28	28	24	21	11	8.7	3.9	36	26
20	32	26	28	28	28	23	18	9.4	10	4.3	25	22
21	33	26	28	28	27	21	21	10	13	4.3	20	14
22	33	24	28	28	26	20	31	10	12	4.3	17	14
23	32	23	28	28	24	20	23	8.7	11	4.8	16	37
24	31	22	28	30	24	20	20	8.0	9.7	4.3	17	36
25	28	22	28	30	25	21	18	7.4	8.7	4.8	25	28
26	28	21	27	30	26	20	17	7.4	8.0	4.8	24	23
27	27	23	27	30	26	21	20	8.7	8.7	5.3	18	28
28	27	24	26	30	25	22	21	8.7	22	5.3	15	27
29	27	26	26	30	------	21	21	22	20	5.3	15	30
30	27	26	26	30	------	22	38	17	17	5.8	14	166
31	27	------	27	28	------	21	------	5.8	------	5.8	14	------
TOTAL	897	777	837	870	772	742	809	506.1	298.3	200.5	1,130.8	680
MEAN	28.9	25.9	27.0	28.1	27.6	23.9	27.0	16.3	9.94	6.47	36.5	22.7
MAX	38	31	28	30	30	32	74	38	22	14	108	166
MIN	23	21	26	26	24	20	17	5.8	5.8	3.9	6.8	11
AC-FT	1,780	1,540	1,660	1,730	1,530	1,470	1,600	1,000	592	398	2,240	1,350

CAL YR 1970 TOTAL 9,087.8 MEAN 24.9 MAX 100 MIN 4.3 AC-FT 18,030
WTR YR 1971 TOTAL 8,519.7 MEAN 23.3 MAX 166 MIN 3.9 AC-FT 16,900

Principal diversions from Pecos River between Red Bluff Reservoir and Imperial, Tex.

Records of discharge are collected for eight canals that divert water from the Pecos River between Red Bluff Reservoir and Imperial. A stream-gaging station equipped with a water-stage recorder for obtaining gage-height record is maintained on each of these canals. All stream-gaging stations are located within 2 miles of the canal headgate except as noted herein. Water diverted into these canals is used for irrigation on both sides of the Pecos River in Reeves, Ward, and Pecos Counties. Local runoff is deleted from the record. Prior to 1941, daily discharge records were published separately for each station.

08414500 REEVES COUNTY WATER IMPROVEMENT DISTRICT NO. 2 CANAL NEAR MENTONE, diverts from right bank, lat 31°37'57", long 103°34'30". Period of record, February 1922 to July 1925, August 1939 to September 1957, March 1964 to current year. Average discharge, 25 years (1922-24, 1939-40, 1942-57, 1964-71), 10.8 cfs (7,820 acre-ft per year). Published as "Farmers Independent Canal near Porterville" 1922-25.

08415000 WARD COUNTY WATER IMPROVEMENT DISTRICT NO. 3 CANAL NEAR BARSTOW, diverts from left bank, lat 31°34'28", long 103°30'04". Period of record, August 1939 to September 1957, March 1964 to current year. Average discharge, 23 years (1939-40, 1942-57, 1964-71), 9.17 cfs (6,640 acre-ft per year).

08418000 WARD COUNTY IRRIGATION DISTRICT NO. 1 CANAL NEAR BARSTOW, diverts from left bank, lat 31°32'26", long 103°29'42". Period of record, February 1922 to September 1925, August 1939 to September 1957, March 1964 to current year. Average discharge, 27 years (1922-25, 1939-40, 1941-57, 1964-71), 34.1 cfs (24,710 acre-ft per year). Published as "Barstow Canal near Barstow" 1922-25.

08435000 GRANDFALLS-BIG VALLEY CANAL NEAR BARSTOW, diverts from left bank, lat 31°25'21", long 103°15'21". Period of record, March 1922 to November 1925, September 1939 to September 1957, March 1964 to current year. Average discharge, 23 years (1939-40, 1942-57, 1964-71), 4.35 cfs (3,150 acre-ft per year). Water diverted through Ward County Water Improvement District No. 2 canal irrigates most of lands formerly supplied by this canal.

08436500 PECOS COUNTY WATER IMPROVEMENT DISTRICT NO. 2 (UPPER DIVERSION) CANAL NEAR GRANDFALLS, diverts from right bank, lat 31°18'50", long 102°55'10". Gage located 12.5 miles downstream from headgates. Period of record, March 1922 to July 1925, August 1939 to September 1957, March 1964 to current year. Average discharge, 26 years (1923-24, 1939-57, 1964-71), 35.0 cfs (25,360 acre-ft per year). Published as "Imperial High-line Canal near Grandfalls" 1922-25.

08437500 PECOS COUNTY WATER IMPROVEMENT DISTRICT NO. 2 CANAL NEAR IMPERIAL, diverts from Imperial Reservoir on right bank, lat 31°16'40", long 102°44'05". Period of record, April 1940 to September 1957, March 1964 to current year. Average discharge, 22 years (1942-57, 1964-71), 13.9 cfs (10,070 acre-ft per year).

08437600 PECOS COUNTY WATER IMPROVEMENT DISTRICT NO. 3 CANAL NEAR IMPERIAL, diverts from Pecos County Water Improvement District No. 2 canal above station near Imperial on that canal, lat 31°17'00", long 102°44'25". Period of record, March 1940 to September 1957, March 1964 to current year. Average discharge, 23 years (1940-41, 1942-57, 1964-71), 12.1 cfs (8,770 acre-ft per year).

08437700 WARD COUNTY WATER IMPROVEMENT DISTRICT NO. 2 CANAL NEAR GRANDFALLS, diverts from left bank, lat 31°22'10", long 103°00'20". Period of record, August 1939 to September 1957, March 1964 to current year. Average discharge, 23 years (1939-40, 1942-57, 1964-71), 24.2 cfs (17,500 acre-ft per year).

Several small diversions (pumps) divert water from the Pecos River between Red Bluff Reservoir and Imperial for irrigation of lands adjacent to the river, but no records for them were obtained.

Principal diversions from Pecos River between Red Bluff Reservoir and Imperial, Tex.--Continued

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Reeves County District No. 2 Canal near Mentone	Ward County District No. 3 Canal near Barstow	Ward County District No. 1 Canal near Barstow	Grandfalls-Big Valley Canal near Barstow
October	17	0	211	0
November	31	0	1.8	0
December	29	0	0	0
CAL YR 1970	2,190	2,380	10,180	3,040
January	79	0	0	0
February	405	0	0	0
March	246	0	0	0
April	272	838	709	1,040
May	76	7.1	411	215
June	334	302	390	190
July	439	690	275	535
August	304	959	3,090	214
September	116	698	2,420	177
WTR YR 1971	2,350	3,490	7,500	2,370

Month	Pecos County District No. 2 Canal (upper diversion) near Grandfalls	Pecos County District No. 2 Canal near Imperial †	Pecos County District No. 3 Canal near Imperial †	Ward County District No. 2 Canal near Grandfalls
October	508	0	0	275
November	0	37	105	0
December	25	0	0	0
CAL YR 1970	15,490	5,220††	2,220	8,590
January	0	0	0	0
February	0	657	258	0
March	0	0	0	89
April	92	940	260	1,350
May	6,150	338	0	373
June	176	305	209	1,780
July	0	508	33	969
August	3,540	939	433	3,180
September	1,460	1,080	0	2,280
WTR YR 1971	11,950	4,800	1,300	10,300

† Combined flow of Pecos County Water Improvement District No. 2 Canal near Imperial and Pecos County Water Improvement District No. 3 Canal near Imperial represents released water from Imperial Reservoir (fed by Pecos County Water Improvement District No. 2 Canal, upper diversion).

†† Does not include 15 acre-ft diverted from canal 75 ft upstream.

08449000 Devils River near Juno, Tex.

LOCATION.--Lat 29°57'48", long 101°08'42", Val Verde County, on left bank 500 ft downstream from Walter Baker ranchhouse, 2 miles upstream from Phillips Creek, and 13.5 miles southwest of Juno.

DRAINAGE AREA.--2,730 sq mi.

PERIOD OF RECORD.--June 1925 to September 1949, September 1952 to September 1963 (miscellaneous measurements or low-flow partial record only), October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,489.7 ft above mean sea level.

AVERAGE DISCHARGE.--32 years (1925-49, 1963-71), 184 cfs (133,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 102,000 cfs Aug. 15 (gage height, 21.30 ft); minimum, 16 cfs Apr. 15.
Period of record: Maximum discharge, 370,000 cfs Sept. 1, 1932 (gage height, 33.8 ft, from floodmarks), from rating curve extended above 16,000 cfs on basis of slope-area measurements of 44,700, 104,000, 245,000, and 370,000 cfs; minimum, 9.5 cfs July 5, 1969 (result of temporary unknown obstruction upstream).
Maximum stage since at least 1882, 35.0 ft June 28, 1954 (discharge, 393,000 cfs), from floodmark, information by local resident.

REMARKS.--Records good. No known diversion upstream from station. At end of year, flow from 158 sq mi above this station was partly controlled by 13 floodwater-retarding structures with a total combined capacity of 37,860 acre-ft below the flood-spillway crests, of which 36,050 acre-ft is floodwater-retarding capacity and 1,810 acre-ft is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

COOPERATION.--Gage-height record furnished by International Boundary and Water Commission, United States and Mexico.

REVISIONS (WATER YEARS).--WSP 1118: 1932 (maximum gage height).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	29	28	23	22	22	19	34	34	44	869	138
2	35	28	28	24	23	22	18	34	32	41	35,000	136
3	35	28	28	24	23	21	18	32	32	40	16,000	134
4	32	28	26	23	23	21	19	32	32	40	466	134
5	30	28	26	24	22	21	19	34	30	40	1,070	131
6	29	28	24	24	23	21	19	32	29	38	293	129
7	29	28	24	24	23	21	19	32	28	38	248	129
8	28	28	26	24	22	21	18	32	28	38	215	126
9	26	26	26	24	23	22	19	34	28	38	197	126
10	24	26	24	23	22	21	19	35	28	38	187	129
11	28	26	24	23	23	22	18	34	47	38	1,070	126
12	24	26	24	24	22	21	18	32	1,920	38	404	129
13	24	28	26	23	22	21	18	32	655	38	3,380	126
14	24	26	24	23	22	21	18	30	131	38	2,680	126
15	26	26	24	23	23	19	18	30	78	36	48,100	129
16	24	26	23	22	23	21	28	29	70	36	29,900	126
17	26	26	23	22	23	19	641	29	65	36	2,450	126
18	28	26	23	22	23	21	314	30	62	35	818	141
19	29	26	24	22	22	19	73	34	58	35	434	151
20	28	24	24	22	21	19	56	34	55	35	296	148
21	28	26	26	23	22	21	48	32	53	35	234	146
22	28	26	26	23	21	21	47	32	52	35	206	141
23	26	24	24	22	21	21	42	32	48	36	190	141
24	26	24	23	22	22	21	40	30	47	38	171	916
25	28	26	23	22	28	19	38	30	44	74	169	552
26	28	28	22	22	23	19	36	30	44	144	161	230
27	26	28	24	22	21	21	34	32	47	3,090	156	203
28	26	28	24	23	22	21	35	32	46	3,340	151	197
29	28	26	24	23	------	19	34	30	44	1,350	146	184
30	28	28	23	22	------	18	32	30	46	330	143	187
31	28	------	23	22	------	19	------	34	------	176	141	------
TOTAL	864	801	761	709	630	636	1,775	989	3,913	9,408	145,945	5,537
MEAN	27.9	26.7	24.5	22.9	22.5	20.5	59.2	31.9	130	303	4,708	185
MAX	35	29	28	24	28	22	641	35	1,920	3,340	48,100	916
MIN	24	24	22	22	21	18	18	29	28	35	141	126
AC-FT	1,710	1,590	1,510	1,410	1,250	1,260	3,520	1,960	7,760	18,660	289,500	10,980

CAL YR 1970 TOTAL 14,178 MEAN 38.8 MAX 70 MIN 22 AC-FT 28,120
WTR YR 1971 TOTAL 171,968 MEAN 471 MAX 48,100 MIN 18 AC-FT 341,100

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-17	1500	5.66	2,080	8-11	1500	7.98	6,350
6-12	1700	8.20	6,830	8-13	0530	8.37	7,310
7-27	2130	11.38	17,800	8-14	0300	8.82	8,410
8- 2	1930	18.96	74,500	8-15	1400	21.30	102,000
				9-24	2000	6.83	3,880

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in Texas made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of that stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Arkansas River Basin				
07227700	Chicken Creek near Amarillo, Tex.	Lat 35°28'29", long 101°45'35", Potter County, about 1.5 miles northeast of LX Ranch headquarters and about 18 miles northeast of Amarillo.	(c)	1953-71	1-19-71 7-22-71	1.44 2.21
		Red River Basin				
07299750	Wanderers Creek at Odell, Tex.	Lat 34°20'50", long 99°25'15", Wilbarger County, at county road bridge and 0.25 mile northwest of Odell Post Office.	199	1949-50, 1952-71	2- 8-71 7-28-71	.38 .28
07299890	Lelia Lake Creek below Bell Creek near Hedley, Tex.	Lat 34°56'08", long 100°41'46", Donley County, 150 ft downstream from county road crossing, about 1 mile downstream from mouth of Bell Creek, and 5 miles north of Hedley.	74	1964-71	1-13-71 7-28-71	.80 1.43
07303300	Elm Creek near Shamrock, Tex.	Lat 35°07'21", long 100°17'07", Collingsworth County, at county road bridge, 1,500 ft downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, and 6 miles southwest of Shamrock.	(c)	1947-71	1-14-71 7-29-71	1.76 a.06
07307500	Quitaque Creek near Quitaque, Tex.	Lat 34°14', long 101°07', Floyd County, 0.75 mile upstream from W. F. Saul's Ranchhouse, 1 mile downstream from Wilson Creek, 1.5 miles upstream from Turkey Creek, and 10 miles southwest of Quitaque.	h293	1945-59‡, 1960-71	1-13-71 7-28-71	1.41 2.49
07307700	Roaring Springs near Roaring Springs, Tex.	Lat 33°51'12", long 100°51'53", Motley County, 3.5 miles south of Roaring Springs.	(c)	1937, 1943-71	9-16-71	1.25
07308400	China Creek near Electra, Tex.	Lat 34°06'20", long 98°53'58", Wichita County, on paved county road and 5.3 miles northeast of Electra.	37	1968-71	10-26-70 11-30-70 1- 4-71 2- 8-71 3-15-71 4-21-71 5-24-71 7- 1-71 8- 4-71 9- 5-71 9- 6-71 9- 7-71	0 0 0 0 af.02 af.03 0 0 0 ef19.0 ef1.22 a.02

‡ Operated as a continuous-record station.
a Estimated.
c Not applicable.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.
h Of which 258 miles is probably noncontributing.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Red River Basin--Continued				
07316230	Sandy Creek near Sadler, Tex.	Lat 33°44'14", long 96°51'04", Grayson County, at bridge on Farm Road 901 and 3.9 miles north of Sadler.	24	1968-71	10- 7-70	af0.1
					11- 4-70	af.03
					12- 8-70	f.06
					1-14-71	f.13
					2-23-71	.76
					4- 6-71	f.06
					6-11-71	f1.49
					7- 7-71	af.01
					7- 9-71	0
					7-28-71	0
					8-24-71	0
07343480	White Oak Creek near Mount Vernon, Tex.	Lat 33°16'25", long 95°14'20", Franklin County, at bridge on State Highway 37 and 6.0 miles north of Mount Vernon.	434	1965-66, 1969-71	10-14-70	ef4,460
					11- 6-70	f11.5
					12-14-70	f9.46
					1-16-71	ef192
					2-28-71	ef344
					4- 1-71	f11.9
					6- 8-71	f1.18
07343850	White Oak Creek near Omaha, Tex.	Lat 33°16'30", long 94°44'30", Morris County, at bridge on U.S. Highway 259 and 6.2 miles north of Omaha.	773	1965-67, 1969-71	10-14-70	ef388
					11-10-70	f63.1
					12-10-70	f33.7
					1-15-71	ef63.7
					3- 9-71	ef500
					4- 2-71	f33.5
					6-11-71	f6.05
					9- 4-71	f7.79
07346160	Frazier Creek near McLeod, Tex.	Lat 32°54'17", long 94°07'16", Cass County, at bridge on Farm Road 125 and 3.3 miles southwest of McLeod.	199	1964-71	10- 7-70	0
					11- 4-70	a3.0
					3- 4-71	e66.9
					4-13-71	22.9
		Sabine River Basin				
08018950	Dry Creek near Quitman, Tex.	Lat 32°47'52", long 95°27'50", Wood County, at bridge on State Highways 154 and 182 and 0.8 mile west of Quitman.	63.6	1967-71	10-29-70	f3.39
					12- 3-70	f1.69
					1- 7-71	f2.36
					2-18-71	f3.49
					4- 1-71	f2.07
					4-30-71	f3.82
					6- 2-71	f1.99
					8- 6-71	f1.66
					9-15-71	f.28
08019400	Big Sandy Creek near Winnsboro, Tex.	Lat 32°52'33", long 95°20'23", Wood County, at bridge on State Highway 37, 0.8 mile downstream from Lake Winnsboro Dam, 1.7 miles upstream from Indian Creek, and 6 miles southwest of Winnsboro.	(c)	1963-71	10-29-70	1.54
					1- 7-71	1.28
					4- 1-71	1.19
					6- 2-71	a1.0
					8- 4-71	1.01
08022020	Potters Creek near Marshall, Tex.	Lat 32°26'02", long 94°25'24", Harrison County, at bridge on Farm Road 2625, 5 miles upstream from mouth, and 8.5 miles southwest of Marshall (discontinued).	50.5	1962-71	2-10-71	e24.4
					3-17-71	e24.5
					4-23-71	e20.2
					5-26-71	4.86
08022050	Eight Mile Creek near Tatum, Tex.	Lat 32°22'33", long 94°19'32", Harrison County, at bridge on U.S. Highway 59, 3.5 miles upstream from mouth, and 11.5 miles northeast of Tatum (discontinued).	106	1962-71	2-10-71	e9.06
					3-17-71	e12.8
08022080	Martin Creek near Beckville, Tex.	Lat 32°15'28", long 94°21'07", Panola County, at bridge on U.S. Highway 59, 2.5 miles upstream from mouth, and 6 miles east of Beckville (discontinued).	192	1962-71	2-10-71	e38.7
					3-17-71	e32.5
					7-14-71	0
08022100	Irons Bayou near Carthage, Tex.	Lat 32°14'03", long 94°21'06", Panola County, at bridge on U.S. Highway 59, 2.5 miles upstream from mouth, and 5 miles north of Carthage (discontinued).	104	1962-71	2-10-71	e12.0
					7-14-71	0
08022150	Six Mile Creek near Carthage, Tex.	Lat 32°07'17", long 94°17'24", Panola County, at bridge on Farm Road 1401 and 3.5 miles southeast of Carthage (discontinued).	33.9	1962-71	2-10-71	e1.47
					3-17-71	e1.56
					4-22-71	e1.82

a Estimated.
c Not applicable.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Sabine River Basin--Continued				
08022350	Murvaul Bayou near Carthage, Tex.	Lat 32°04'35", long 94°14'55", Panola County, at bridge on Farm Road 1401, 2.5 miles upstream from mouth, and 7 miles southeast of Carthage (discontinued).	231	1962-71	2-10-71 3-17-71 4-22-71 7-14-71	e4.09 e6.03 e7.57 0
08022450	Socagee Creek near Deadwood, Tex.	Lat 32°04'42", long 94°07'06", Panola County, at bridge on State Highway 31, 4.5 miles upstream from mouth, and 4.5 miles south of Deadwood (discontinued).	201	1962-71	2-10-71 7-14-71	e12.5 0
08023330	Half Branch Bayou near Huxley, Tex.	Lat 31°44'16", long 93°51'55", Shelby County, at bridge on county road about 1.8 miles southeast of Huxley (discontinued).	4.36	1963-67, 1969-71	2- 9-71 4-22-71	0.24 .18
08025770	Hickman Creek near Burkeville, Tex.	Lat 31°05'37", long 93°35'12", Newton County, at box culvert on Farm Road 692, about 1.3 miles upstream from mouth, and 8.5 miles northeast of Burkeville (discontinued).	5.19	1952-53, 1957, 1963, 1965-71	2- 8-71 3-16-71	4.57 4.36
08026050	Mill Creek near Burkeville, Tex.	Lat 31°03'29", long 93°34'10", Newton County, at bridge on State Highway 63 and 7.1 miles northeast of Burkeville (discontinued).	2.90	1963, 1965-71	2- 8-71 3-17-71	0 0
08026600	Little Cow Creek near mouth near Burkeville, Tex.	Lat 30°56', long 93°33', Newton County, 0.5 mile upstream from mouth and 8 miles southwest of Burkeville (discontinued).	128	1959-63, 1965-71	2-10-71 3-17-71	e52.6 57.1
08028510	Quicksand Creek near Bon Wier, Tex.	Lat 30°44'49", long 93°37'05", Newton County, at bridge on U.S. Highway 190, 0.7 mile upstream from mouth, and 1.2 miles east of Bon Wier (discontinued).	65.1	1932-33, 1939-54, 1957, 1959-67, 1969-71	2- 9-71 3-17-71	31.2 41.7
08028570	Dempsey Creek near Bon Wier, Tex.	Lat 30°40'25", long 93°40'42", Newton County, at bridge on Farm Road 1416, about 1 mile south of Belgrade, and about 5 miles southwest of Bon Wier (discontinued).	11.7	1952-53, 1963-71	2- 9-71 3-17-71	5.09 5.86
		Neches River Basin				
08031300	Flat Creek below Flat Creek Reservoir near Athens, Tex.	Lat 32°12'19", long 95°43'29", Henderson County, downstream from Flat Creek Dam and 7.7 miles east of Athens.	21.6	1963-71	1-27-71 2-24-71 3-31-71 5- 5-71 6-11-71 7-13-71 8-17-71 9-29-71	0 .01 .04 0 .01 a.01 a.01 a.002
08033600	Bowles Creek near Selman City, Tex.	Lat 32°11'41", long 94°58'36", Rush County, at bridge on State Highway 64 and 1.5 miles west of Selman City.	-	1968-71	10- 6-70 11-11-70 12-16-70 1-26-71 2-25-71 4- 2-71 5- 6-71 6-10-71 7-14-71 8-18-71 9-28-71	ef1.90 f3.37 f5.49 4.44 ef7.34 f3.23 f2.51 ef.46 0 .03 ef.77
		East Bayou Basin				
08042540	East Bay Bayou near Stowell, Tex.	Lat 29°42'15", long 94°25'35", Chambers County, at bridge on Farm Road 1941 and about 6.6 miles southwest of Stowell.	-	1968, 1971	5- 4-71 5-18-71 6- 8-71 6-21-71 7-12-71 7-21-71	fr5.77 fr1.90 fr3.95 efr28.4 fr5.67 fr10.2
		Double Bayou Basin				
*08042550	West Fork Double Bayou near Anahuac, Tex.	Lat 29°45'39", long 94°38'00", Chambers County, at bridge on Farm Road 562 (Smith Point Road) and 3 miles southeast of Anahuac.	4.43	1967-71	5- 4-71 5-18-71 6- 8-71 7-12-71 7-21-71	fr7.86 fr2.09 fr8.76 efr19.2 efr12.1

* Also a crest-stage partial-record station.
a Estimated.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.
r Includes irrigation water return flow.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Trinity River Basin				
08065950	Nelson Creek near Riverside, Tex.	Lat 30°53'40", long 95°30'51", Walker County, at low-water crossing on county road, 3.1 miles north of Farm Road 980, 6.0 miles upstream from mouth at Lake Livingston, and 7.4 miles northwest of Riverside.	-	1949, 1965, 1970-71	10-21-70 11- 2-70 12- 8-70 1-26-71 2-26-71 3-16-71 4-21-71 5-25-71 6-18-71 7-13-71 8-17-71 9-21-71	ef4.62 f1.74 f1.32 f1.61 ef3.14 f1.27 ef38.6 ef4.91 f.74 0 .63 4.56
08066050	West Carolina Creek near Oakhurst, Tex.	Lat 30°49'32", long 95°20'10", Walker County, on county road, 4.2 miles southeast of Riverside, and 6.2 miles north of Oakhurst.	15.2	1949, 1966-71	10-13-70 11-30-70 12-21-70 1-25-71 3- 1-71 4- 5-71 5-10-71 6- 7-71 7-13-71 8-20-71 9-20-71	ef.20 f.08 f.17 f.08 f.11 0 f.26 0 0 0 ef.79
08066140	Tantaboque Creek near Trinity, Tex.	Lat 31°03'51", long 95°25'26", Trinity County, at bridge on State Highway 19 and 9.4 miles north of Trinity.	61.3	1949, 1966-71	10-13-70 11-30-70 12-21-70 1-25-71 3- 1-71 4- 6-71 5-10-71 6- 7-71 7-13-71 8-20-71 9-20-71	ef51.3 f.42 f.65 f.36 ef2.39 f.04 ef.76 f.12 0 0 a.005
08066145	Caney Creek near Groveton, Tex.	Lat 30°59'14", long 95°12'52", Trinity County, at county road crossing and 7.3 miles southwest of Groveton.	41.4	1966-71	11-30-70 12-22-70 1-26-71 3- 2-71 4- 6-71 5-11-71 6- 7-71 7-13-71 8-20-71 9-21-71	f.14 f.68 f.61 f.60 f.21 ef66.6 f.13 f.04 f.06 f.16
08066150	Brushy Creek near Onalaska, Tex.	Lat 30°50'00", long 95°08'49", Polk County, at bridge on Farm Road 356 and 3.4 miles northwest of Onalaska (discontinued).	34.1	1966-71	10-12-70 12- 1-70	ef3.05 (s)
08066180	Rocky Creek near Onalaska, Tex.	Lat 30°52'02", long 95°03'42", Polk County, at end of county road and 5.4 miles northeast of Onalaska.	40.6	1966-71	10-12-70 12- 1-70 12-22-70 1-26-71 3- 2-71 4- 7-71 5-11-71 6- 8-71 7-14-71 8-19-71 9-21-71	ef63.7 f.53 f.76 f.61 ef1.78 f.04 ef20.9 f.06 0 0 f.67
08066800	Gaylor Creek near Moss Hill, Tex.	Lat 30°16'55", long 94°51'36", Liberty County, at bridge on county road and 7.5 miles northwest of Moss Hill.	32.3	1966-71	11- 5-70 12- 8-70 1-13-71 2-17-71 3- 1-71 4-26-71 6-14-71 7- 7-71 8-12-71 9-16-71	f.77 af.01 f.04 af.02 ef.70 f.04 af.002 0 ef.22 f.01

a Estimated.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.
s Discharge not determined; backwater from Livingston Reservoir.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Trinity River Basin--Continued				
08067120	Turtle Bayou near Hankamer, Tex.	Lat 29°53'47", long 94°39'48", Liberty County, at culvert on private road, 2.1 miles east of Farm Road 563, and 3.5 miles northwest of Hankamer.	-	1971	5- 4-71	f0.69
					5-18-71	f1.68
					5-25-71	fr5.04
					6- 8-71	fr3.59
					6-21-71	fr9.80
					7-12-71	fr5.62
					7-23-71	fr7.30
					8-11-71	f2.65
					8-25-71	f1.03
		Cedar Bayou Basin				
08067300	Cedar Bayou near Crosby, Tex.	Lat 29°58'20", long 94°59'10", Harris-Liberty County line, at bridge on U.S. Highway 90 and about 6.6 miles northeast of Crosby.	-	1946, 1963-64, 1971	5- 5-71	f2.45
					5-19-71	f3.91
					6-23-71	fr14.9
					7-21-71	fr12.3
					8- 4-71	efr177
		Goose Creek Basin				
08067400	Goose Creek near McNair, Tex.	Lat 29°48'00", long 95°00'15", Harris County, at bridge on Interstate Highway 10 and 0.7 mile southeast of McNair.	-	1963-65, 1971	5- 5-71	ef10.3
					5-18-71	f.45
					5-25-71	ef8.17
					6- 8-71	f.19
					6-21-71	f1.78
					7-12-71	f.52
					8- 4-71	ef7.00
					8-25-71	f.41
					9-10-71	ef135
		San Jacinto River Basin				
08067900	Lake Creek near Conroe, Tex.	Lat 30°15'12", long 95°34'43", Montgomery County, at bridge on county road and 8.3 miles southwest of Conroe.	291	1969-71	10-16-70	ef60.3
					11-25-70	f4.49
					12-21-70	f6.65
					1-25-71	f7.11
					3- 1-71	f6.01
					4- 5-71	f3.55
					5-10-71	f4.28
					6- 7-71	ef7.79
					7-13-71	f2.09
					8-23-71	f2.79
					9-20-71	f2.60
08068100	West Fork San Jacinto River near Porter, Tex.	Lat 30°03'36", long 95°16'28", Montgomery County, 100 ft west of River Club Estates park (formerly River Ridge) and 4.0 miles southwest of Porter.	970	1968-71	12-11-70	28.0
					3-22-71	28.6
					4-13-71	21.2
08068600	Spring Creek near Humble, Tex.	Lat 30°02'04", long 95°18'43", Montgomery-Harris County line, 600 ft upstream from confluence with Cypress Creek and about 4 miles northwest of Humble.	435	1937, 1962, 1970-71	12-11-70	18.2
					3-23-71	12.6
					4-13-71	9.15
08068750	Cypress Creek near Cypress, Tex.	Lat 29°57'23", long 95°40'41", Harris County, at bridge on U.S. Highway 290 and 1.5 miles southeast of Cypress.	138	1970-71	12- 4-70	f1.96
					2-19-71	ef.18
					3-23-71	1.13
					4-15-71	2.87
					6-17-71	f.74
					8-19-71	f1.38
08069200	Cypress Creek near Humble, Tex.	Lat 30°01'49", long 95°19'47", Harris County, 500 ft north of end of dirt road extension of Tettar Road, about 2 miles upstream from mouth, and 4.7 miles northwest of Humble.	319	1970-71	10-21-70	ef60.0
					2-19-71	f2.20
					3-18-71	1.71
					4-15-71	5.70
					6-17-71	f2.88
					8-19-71	ef8.28
08070200	East Fork San Jacinto River near New Caney, Tex.	Lat 30°08'43", long 95°07'27", Montgomery County, at bridge on Farm Road 1485 and 5.5 miles east of New Caney.	388	1952-54, 1956-57, 1969-71	12-10-70	19.9
					3-22-71	21.7
					4-13-71	14.4
08070600	Caney Creek near New Caney, Tex.	Lat 30°08'55", long 95°11'31", Montgomery County, at bridge on Farm Road 1485 and 1.3 miles east of New Caney.	178	1970-71	12-10-70	13.1
					3-22-71	13.8
					4-13-71	11.0
08071100	Peach Creek near New Caney, Tex.	Lat 30°08'48", long 95°10'16", Montgomery County, at bridge on Farm Road 1485 and 2.5 miles east of New Caney.	155	1970-71	12-10-70	14.8
					3-22-71	14.4
					4-13-71	8.41

e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.
r Includes irrigation water return flow.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		San Jacinto River Basin--Continued				
08071200	Tarkington Bayou near Dayton, Tex.	Lat 30°11'23", long 95°00'05", Liberty County, on county road about 1.5 miles upstream from mouth and about 12 miles northwest of Dayton.	142	1964-71	2-17-71	0
					3-19-71	0
					4-26-71	0
08074550	Little Whiteoak Bayou at Houston, Tex.	Lat 29°47'05", long 95°21'56", Harris County, at bridge on North Main Street, 0.8 mile upstream from mouth, and 1.7 miles north of Harris County courthouse.	-	1971	5-11-71	f4.41
					5-18-71	f5.20
					6-10-71	f3.23
					6-23-71	f4.24
					8- 3-71	ef135
					9-10-71	ef2,600
					9-10-71	e817
08075100	Brays Bayou at Scott Street at Houston, Tex.	Lat 29°42'35", long 95°21'23", Harris County, at bridge on Scott Street, Houston.	-	1971	5-10-71	f35.5
					5-18-71	f36.1
					6- 8-71	f32.9
					6-22-71	f40.1
					7-15-71	f46.3
					7-21-71	ef137
					8- 3-71	ef622
					9-10-71	ef8,510
08075720	Plum Creek at Houston, Tex.	Lat 29°42'11", long 95°17'00", Harris County, at bridge on Berkley Street, Houston.	-	1971	5- 6-71	f.35
					5-17-71	f.27
					7-13-71	f.57
					8- 3-71	ef4.78
					9-10-71	ef334
					9-10-71	e37.8
08075730	Vince Bayou at Pasadena, Tex.	Lat 29°41'40", long 95°12'58", Harris County, at concrete-lined channel at end of West Ellaine Avenue, Pasadena.	-	1971	5- 5-71	f3.60
					5-17-71	f.29
					7-13-71	f.35
					8- 3-71	ef105
					8-24-71	f1.92
					9- 1-71	ef146
08075740	Little Vince Bayou at Pasadena, Tex.	Lat 29°42'38", long 95°12'08", Harris County, at bridge on East Eagle Street, Pasadena.	-	1963-65, 1971	5- 5-71	f.13
					5-11-71	ef126
					5-17-71	f.95
					7-13-71	f.15
					7-22-71	f.51
					8- 3-71	ef51.4
					9-10-71	ef520
08076700	Greens Bayou at Ley Road at Houston, Tex.	Lat 29°50'13", long 95°13'59", Harris County, at bridge on Ley Road, 300 ft downstream from mouth of Halls Bayou, and 9.2 miles northeast of the courthouse in downtown Houston.	-	1963-65, 1971	5-25-71	ef311
					8- 3-71	ef357
					9-10-71	ef2,090
08076800	Buffalo Bayou tributary at Pasadena, Tex.	Lat 29°43'31", long 95°09'59", Harris County, at wooden bridge just off a private road used as the south entrance to Ethyl Corporation and about 0.9 mile north of State Highway 225 at Pasadena.	-	1971	5- 4-71	f2.74
					5-17-71	f1.48
					7-13-71	f2.50
					7-22-71	f2.70
					8- 3-71	ef30.1
					8-24-71	f1.44
08076850	Patrick Bayou at Deer Park, Tex.	Lat 29°42'38", long 95°06'53", Harris County, at bridge on State Highway 225 at Deer Park.	-	1971	5- 4-71	f1.26
					5-17-71	f1.60
					7-13-71	f.69
					7-22-71	ef2.33
					8- 3-71	ef8.79
					8-24-71	f1.47
					9-10-71	ef146
08076900	Carpenters Bayou at Cloverleaf, Tex.	Lat 29°46'21", long 95°09'21", Harris County, at bridge on East Belt Drive, 0.1 mile north of Interstate Highway 10, and about 0.5 mile east of Cloverleaf.	-	1963-64, 1971	5- 4-71	f1.10
					5-19-71	f1.71
					5-25-71	ef13.5
					6- 8-71	f2.28
					7-14-71	f3.61
					7-21-71	ef21.6
					8- 4-71	ef207
					9-10-71	ef886
					9-10-71	e1,070
					9-12-71	e151

e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Clear Creek Basin				
08077540	Clear Creek at Farm Road 2351 at Friendswood, Tex.	Lat 29°32'31", long 95°11'48", Harris County, at bridge on Farm Road 2351 at Friendswood.	-	1971	5- 4-71	f7.93
					5-17-71	f4.54
					8- 6-71	er98.4
					9-10-71	ef790
					9-12-71	e729
08077620	Middle Bayou near Genoa, Tex.	Lat 29°38'02", long 95°06'51", Harris County, at bridge on Genoa-Red Bluff Road and about 4.8 miles east of Genoa.	-	1968, 1971	5- 4-71	f4.23
					5-17-71	f2.21
					6- 9-71	f2.11
					6-22-71	ef19.6
					7-15-71	f2.37
					7-23-71	f3.92
					8- 6-71	ef30.7
					8-26-71	ef17.1
					9-10-71	e1,060
		Dickinson Bayou Basin				
08077640	Dickinson Bayou near Alvin, Tex.	Lat 29°26'09", long 95°10'11", Galveston County, at bridge on Farm Road 517 and about 5.0 miles east of Alvin.	-	1963-65, 1971	5- 3-71	fr6.93
					5-17-71	fr7.67
					6- 9-71	fr12.7
					6-22-71	fr18.6
					7-15-71	fr13.5
					7-23-71	fr10.7
					8- 5-71	efr40.6
					8-26-71	f.79
					9-12-71	e380
					9-13-71	ef205
		Highland Bayou Basin				
08077680	Highland Bayou near Alta Loma, Tex.	Lat 29°21'59", long 95°02'56", Galveston County, at bridge on road to Frank's oilfield, 0.5 mile north of State Highway 6, and about 2.0 miles east of Alta Loma.	-	1971	5- 3-71	f.36
					5-17-71	f.31
					6- 9-71	f.16
					7-15-71	f.10
					7-22-71	f.70
					8- 5-71	ef3.80
					8-26-71	ef7.86
					9-12-71	e96.7
		Halls Bayou Basin				
08077800	Halls Bayou near Algoa, Tex.	Lat 29°21'26", long 95°10'37", Brazoria County, at wooden bridge on private road and about 3.0 miles south of Algoa.	-	1971	5-19-71	fr2.56
					6-10-71	fr1.62
					7-15-71	fr2.86
					8- 5-71	fr1.68
					8-26-71	af.03
		Mustang Bayou Basin				
08077900	Mustang Bayou near Liverpool, Tex.	Lat 29°17'36", long 95°11'11", Brazoria County, at bridge on county road and about 5.6 miles east of Liverpool.	-	1971	5- 3-71	fr7.47
					5-19-71	fr7.98
					5-25-71	efr22.4
					6-10-71	fr6.16
					6-23-71	fr19.8
					7-16-71	fr6.40
					7-22-71	efr26.1
					8- 4-71	efr43.5
					8-26-71	efr59.2
					9-11-71	ef1,120
					9-12-71	e565
					9-13-71	ef439
		Bastrop Bayou Basin				
08078400	Austin Bayou near Liverpool, Tex.	Lat 29°16'51", long 95°19'53", Brazoria County, at bridge on State Highway 35 and 3.4 miles southwest of Liverpool.	-	1968, 1971	5- 3-71	fr13.2
					5-19-71	fr17.6
					5-25-71	efr31.0
					6-10-71	fr3.17
					6-23-71	efr38.6
					7-16-71	fr28.4
					7-22-71	fr26.0
					8- 4-71	efr64.3
					8-26-71	fr21.8
					9-11-71	e880
					9-15-71	ef209

a Estimated.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.
r Includes irrigation water return flow.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Bastrop Bayou Basin--Continued				
08078700	Flores Bayou near Danbury, Tex.	Lat 29°12'56", long 95°21'32", Brazoria County, at bridge on county road and 1.2 miles southwest of Danbury.	-	1967-71	5- 3-71	f0.46
					5-19-71	f2.19
					6-10-71	f1.16
					6-23-71	f2.20
					7-16-71	f3.58
					7-21-71	f.44
					8- 4-71	ef15.6
					8-26-71	ef12.9
					9-11-71	ef613
					9-13-71	e288
					9-15-71	e29.5
		Brazos River Basin				
08079530	North Fork Double Mountain Fork Brazos River above Buffalo Springs Lake near Lubbock, Tex.	Lat 33°31'33", long 101°43'38", Lubbock County, at Farm Road 835, upstream from Buffalo Springs Lake, and 7.8 miles southeast of Lubbock.	-	1952-54, 1957, 1962, 1967-71	11- 6-70	7.53
					12-10-70	9.54
					1-13-71	9.19
					2-18-71	12.1
					3-24-71	9.13
					4-29-71	7.17
					6- 2-71	20.9
					7-15-71	7.44
					8-17-71	39.6
					9-28-71	34.4
08079551	North Fork Double Mountain Fork Brazos River below Buffalo Springs Lake near Lubbock, Tex.	Lat 33°31'58", long 101°41'34", Lubbock County, at downstream end of Buffalo Springs Lake spillway and 9 miles southeast of Lubbock.	-	1952-54, 1962-63, 1969-71	11- 6-70	27.8
					12-10-70	10.6
					1-13-71	14.3
					2-18-71	22.2
					3-24-71	6.75
					4-29-71	3.43
					6- 2-71	27.8
					7-15-71	3.01
					8-17-71	51.4
					9-28-71	36.8
08080900	White River below falls near Crosbyton, Tex.	Lat 33°39'57", long 101°09'35", Crosby County, at bridge on U.S. Highway 82 and 4.5 miles east of Crosbyton.	(c)	1951-71	11- 6-70	.78
					1-12-71	1.23
					7-15-71	.23
08080916	Salt Fork Brazos River at Farm Road 1081 near Clairemont, Tex.	Lat 33°14'33", long 101°55'40", Kent County, at bridge on Farm Road 1081 and 11.7 miles northwest of Clairemont.	-	1965, 1967 1968-71	11- 6-70	0
					12- 9-70	0
					1-12-71	0
					2-17-71	0
					3-23-71	0
					4-28-71	0
					5-31-71	26.4
					7-14-71	0
					8-17-71	16.3
					9-22-71	10.3
08080940	Salt Fork Brazos River at State Highway 208 near Clairemont, Tex.	Lat 33°12'22", long 100°44'50", Kent County, at bridge on State Highway 208 and 2.8 miles north of Clairemont.	-	1967, 1968-71	11- 4-70	0
					12- 9-70	0
					1-12-71	0
					2-17-71	0
					3-23-71	0
					4-27-71	0
					5-31-71	65.1
					7-14-71	0
					8-17-71	54.2
					9-22-71	24.3
08080959	Salt Fork Brazos River at U.S. Highway 380 near Jayton, Tex.	Lat 33°10'06", long 100°37'50", Kent County, at bridge on U.S. Highway 380 and 6.5 miles southwest of Jayton.	-	1965-67, 1968-71	11- 4-70	.11
					12- 9-70	.71
					1-12-71	1.45
					2-17-71	1.68
					3-23-71	1.08
					4-27-71	.34
					5-31-71	111
					7-14-71	.10
					8-17-71	123
					9-22-71	46.2

c Not applicable.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Brazos River Basin--Continued				
08081050	Short Croton Creek at mouth near Jayton, Tex.	Lat 33°18'27", long 100°31'57", Kent County, at mouth, 0.2 mile upstream from county road crossing on Croton Creek, and 4.7 miles northeast of Jayton.	-	1959-71	10-20-70	0
					11-10-70	0
					12- 2-70	0
					12-22-70	0
					2- 2-71	0
					2-26-71	0
					3-16-71	0
					4-28-71	0
					5-18-71	1.12
					6- 9-71	0
					7-21-71	0
					9- 1-71	0
					9-28-71	.06
08081100	Croton Creek below Short Croton Creek near Jayton, Tex.	Lat 33°18'23", long 100°31'55", Kent County, at county road crossing and 4.7 miles northeast of Jayton.	-	1959-71	10-20-70	.002
					11-10-70	0
					12- 2-70	0
					12-22-70	0
					2- 2-71	0
					2-26-71	0
					3-16-71	0
					4-28-71	0
					5-18-71	3.33
					6- 9-71	0
					7-21-71	0
					9- 1-71	.63
					9-28-71	12.4
08081400	Salt Croton Creek at Weir D near Aspermont, Tex.	Lat 33°24'00", long 100°24'39", King County, 500 ft upstream from Haystack Creek, 1,000 ft upstream from streamflow station Salt Croton Creek near Aspermont, and 20 miles northwest of Aspermont.	(c)	1957-71	10-19-70	1.22
					11- 9-70	.47
					12- 1-70	.76
					12-22-70	.93
					2- 2-71	.63
					2-25-71	.88
					3-16-71	.47
					4- 6-71	.48
					4-27-71	.08
					5-19-71	.58
					6- 8-71	.46
					7- 1-71	5.66
					7-20-71	.66
					8-11-71	1.46
					8-31-71	.82
					9-22-71	.79
08081450	Haystack Creek near Aspermont, Tex.	Lat 33°24'04", long 100°24'41", King County, 400 ft upstream from Salt Croton Creek and 20 miles northwest of Aspermont.	(c)	1957-71	10-19-70	.21
					11- 9-70	.15
					12- 1-70	.12
					12-22-70	.16
					2- 2-71	.13
					2-25-71	.16
					3-16-71	.15
					4- 6-71	.17
					4-27-71	.16
					5-19-71	.13
					6- 8-71	.06
					7- 1-71	.34
					7-20-71	.10
					8-11-71	.15
					8-31-71	.13
					9-22-71	.20
08082950	Elm Creek near Proffitt, Tex.	Lat 33°11'00", long 98°53'40", Young County, at bridge on State Highway 24 in Proffitt community and about 9 miles west of Newcastle.	-	1969-71	10-20-70	0
					11-24-70	0
					12-28-70	0
					1-26-71	0
					3- 2-71	0
					4- 6-71	0
					5-11-71	0
					6-16-71	0
					7-20-71	0
					8-23-71	0
					9-27-71	0

c Not applicable.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Brazos River Basin--Continued				
08083000	Brazos River near Graham, Tex.	Lat 33°04'55", long 98°43'36", Young County, at bridge on Farm Road 209 and about 8 miles southwest of Graham.	15,730	1969-71	11-24-70 12-28-70 1-26-71 3- 2-71 4- 7-71 5-11-71 6-16-71 7-20-71 9-27-71	f4.40 f5.84 f6.03 f9.05 f.23 0 ef39.0 f3.20 ef4,320
08084100	Deadman Creek near Nugent, Tex.	Lat 32°40'36", long 99°37'00", Jones County, at low-water crossing on county road, 3.2 miles east of Nugent, and 4.4 miles upstream from Clear Fork Brazos River.	168	1968-71	10-28-70 12- 9-70 1-12-71 2-17-71 3-24-71 4-29-71 6- 3-71 7-15-71 8-16-71 9-21-71	3.79 3.77 4.60 1.53 4.26 4.29 11.8 3.37 15.0 17.1
08086015	Hubbard Creek near Sedwick, Tex.	Lat 32°36'06", long 99°14'20", Shackelford County, at bridge on county road, 1.0 mile upstream from Reynolds Creek, and 2.2 miles west of Sedwick.	127	1964-66*, 1967-71	1-12-71 6- 2-71 8-17-71	0 a.35 0
08086020	Hubbard Creek at U.S. Highway 380 near Moran, Tex.	Lat 32°37'24", long 99°13'12", Shackelford County, at bridge on U.S. Highway 380 and 6.1 miles northwest of Moran.	152	1963-71	1-12-71 6- 2-71 8-17-71	0 a1.12 a.30
08086120	Salt Prong Hubbard Creek at U.S. Highway 380 near Albany, Tex.	Lat 32°41'01", long 99°16'05", Shackelford County, at dam downstream from U.S. Highway 380, 2.0 miles upstream from North Fork Hubbard Creek, and 3.2 miles southeast of Albany.	65.2	1963, 1964-68*, 1969-71	1-12-71 6- 2-71 8-17-71	0 a.21 0
08086130	Cook Creek near Albany, Tex.	Lat 32°44'53", long 99°20'06", Shackelford County, at first crossing of Farm Road 1084 and 2.7 miles northwest of Albany.	10.7	1963-71	1-12-71 6- 3-71 8-18-71	0 a.03 0
08086200	Salt Prong Hubbard Creek near Albany, Tex.	Lat 32°42'02", long 99°12'42", Shackelford County, at bridge on Farm Road 601, 2.7 miles downstream from North Prong Hubbard Creek, 4.9 miles upstream from Hubbard Creek, and 5.2 miles southeast of Albany.	116	1962-63*, 1964-71	1-12-71 6- 2-71 8-17-71	0 .52 0
08086210	Snailum Creek near Albany, Tex.	Lat 32°43'27", long 99°10'55", Shackelford County, at low-water crossing on county road, 0.6 mile upstream from Salt Prong Hubbard Creek, and 6.6 miles east of Albany.	25.5	1963, 1964-66*, 1968-71	1-12-71 6- 2-71 8-17-71	0 0 0
08086220	Big Sandy Creek near Eolian, Tex.	Lat 32°35'23", long 98°58'44", Stephens County, at county road crossing (extension of Farm Road 1032), 2.1 miles upstream from Live Oak Creek, and 5.5 miles southeast of Eolian.	91.4	1963-66, 1968-71	1-12-71 6- 2-71 8-17-71	0 .23 a.60
08086235	Battle Creek near Moran, Tex.	Lat 32°33'10", long 99°06'32", Shackelford County, at Farm Road 2408 and 3.4 miles east of Moran.	108	1966-68*, 1969-71	1-12-71 6- 2-71 8-17-71	0 a1.20 a1.60
08088420	Brazos River at Farm Road 1287 near Graham, Tex.	Lat 33°03'20", long 98°34'54", Young County, at Gooseneck bridge on Farm Road 1287 and about 3.5 miles south of Graham.	-	1970-71	10-20-70	ef177
08103300	Sulphur Creek below Gold Springs at Lampasas, Tex.	Lat 31°02'58", long 98°11'09", Lampasas County, 0.2 mile south of Lampasas and 0.5 mile downstream from Gold Springs.	(c)	1924, 1931, 1957-71	10-26-70 11-25-70 12-30-70 2- 1-71 3- 8-71 4-12-71 5-17-71 6-14-71 8-10-71 8-30-71	6.32 5.10 5.41 4.95 4.12 4.07 6.56 3.72 4.04 3.25

* Operated as a continuous-record station.
a Estimated.
c Not applicable.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Brazos River Basin--Continued				
08103400	Sulphur Creek below Hancock Springs at Lampasas, Tex.	Lat 31°03'14", long 98°10'53", Lampasas County, at bridge on U.S. Highway 281 in Hancock Park, 200 ft downstream from swimming pool discharge outlet, and 1,800 ft downstream from city pumping plant.	(c)	1901-2, 1906, 1911, 1924, 1931, 1957-71	10-26-70 11-25-70 12-30-70 2- 1-71 3- 8-71 4-12-71 5-17-71 6-14-71 8-10-71 8-12-71 8-30-71	m13.7 m11.1 m13.6 m10.2 m9.26 m9.35 m12.7 m7.27 m9.14 m9.99 m6.66
08103500	Hannah Springs at Lampasas, Tex.	Lat 31°04'08", long 98°10'25", Lampasas County, at Hackberry Street low-water crossing in Lampasas and 200 ft below Hannah Springs.	(c)	1901-2, 1906, 1910, 1957-71	2- 1-71 8-10-71	1.64 1.46
08103700	Sulphur Creek below Lampasas, Tex.	Lat 31°05'10", long 98°03'10", Lampasas County, at county road bridge at Hallmark crossing, 1.8 miles upstream from Lampasas River, and 7.2 miles east of Lampasas.	(c)	1958-71	2- 1-71 8-10-71	13.9 13.9
08104200	Salado Creek above Salado Springs near Salado, Tex.	Lat 30°56'23", long 97°33'16", Bell County, just downstream from mouth of Elm Creek upstream from Salado Springs and 1.5 miles upstream from Salado.	133	1948, 1950-71	12-18-70 2-25-71 6-10-71 8-25-71	6.50 4.75 .40 2.19
08104300	Salado Springs at Salado, Tex.	Lat 30°56'50", long 97°31'51", Bell County, downstream from springs at Salado.	(c)	1902-3, 1934, 1948, 1950-71	12-18-70 2-25-71 6-10-71 8-25-71	12.7 12.3 9.26 7.93
08105200	Berry Creek near Georgetown, Tex.	Lat 30°40'33", long 97°36'52", Williamson County, at Farm Road 2606, 0.4 mile upstream from San Gabriel River, and 4.4 miles northeast of Georgetown.	121	1964-71	1-18-71 7- 7-71	5.46 1.33
08111200	New Year Creek near Chappell Hill, Tex.	Lat 30°09'57", long 96°13'24", Washington County, at bridge on Farm Road 2447 and 2.6 miles northeast of Chappell Hill.	167	1948, 1964-71	3- 5-71 4-16-71 5-10-71 7-21-71	e13.1 5.86 6.18 .63
08111600	Piney Creek near Bellville, Tex.	Lat 29°57'06", long 96°10'20", Austin County, at bridge on county road and about 5.1 miles east of Bellville.	30.7	1948, 1955, 1958, 1964-71	3- 5-71 4-16-71 5-10-71 7-21-71	e5.71 2.38 1.70 0
08111650	West Fork Mill Creek near Industry, Tex.	Lat 29°58'55", long 96°30'00", Austin County, at bridge on Farm Road 109 and 0.6 mile north of Industry.	75.3	1964-71	3- 8-71 4-16-71 5-10-71 7-22-71	e.84 .03 .20 0
		San Bernard River Basin				
08117700	San Bernard River near West Columbia, Tex.	Lat 29°09'37", long 95°45'56", Brazoria County, at bridge on Farm Road 1301 and 7.6 miles west of West Columbia.	-	1949, 1970-71	10-21-70 12- 1-70 12-28-70 1-29-71 3-10-71 9-22-71	f2,090 f34.4 f30.7 f28.6 f13.0 f3,980

c Not applicable.
e Includes surface runoff.
f Water-quality records are published in Part 2 of this report.
m Pumping upstream from measuring site not included in measurement.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Colorado River Basin				
08129500	Dove Creek Spring near Knickerbocker, Tex.	Lat 31°11'06", long 100°43'51", Irion County, at headquarters ranchhouse, 500 ft upstream from Dove Creek, 1.8 miles upstream from Stilson Dam on Dove Creek, and 8.5 miles southwest of Knickerbocker.	(c)	1944-58, 1959-71	10- 8-70 11-10-70 12-15-70 1-15-71 2-23-71 3-29-71 5- 4-71 6- 8-71 7-20-71 8-27-71 9-25-71	3.74 4.30 4.37 3.84 3.99 3.28 9.28 10.4 6.29 36.3 24.2
08131300	South Concho River above Pecan Creek near San Angelo, Tex.	Lat 31°20'13", long 100°28'46", Tom Green County, 1,000 ft upstream from Pecan Creek and 9 miles south of San Angelo.	(c)	1963-71	3-29-71 6- 3-71 8-26-71	2.12 1.11 2.32
08136150	Concho River near Veribest, Tex.	Lat 31°32'07", long 100°13'05", Tom Green County, at bridge on county road, 2.8 miles downstream from Crownest Creek, 3.0 miles upstream from Willow Creek, 4.5 miles northeast of Veribest, and 17.3 miles downstream from gaging station near San Angelo.	-	1970-71	10- 9-70 11-12-70 12-14-70 1-19-71 2-22-71 3-30-71 5- 3-71 6- 8-71 7-21-71 8-24-71 9- 4-71	8.15 5.27 3.87 4.28 3.43 0 5.93 0 0 9.86 9.54
08143900	Springs at Fort McKavett, Tex.	Lat 30°50'03", long 100°05'37", Menard County, at Fort McKavett.	(c)	1902, 1905, 1922, 1942, 1948-49, 1951-52, 1955-56, 1958-71	1-15-71 7-14-71	11.6 8.42
08146500	San Saba Springs at San Saba, Tex.	Lat 31°11'44", long 98°42'42", San Saba County, 150 ft upstream from bridge on U.S. Highway 190 at San Saba and 0.8 mile east of courthouse.	(c)	1939, 1952, 1957, 1959-71	1- 5-71 7- 8-71	p13.6 5.84
08149400	South Llano River near Telegraph, Tex.	Lat 30°15'43", long 99°56'01", Edwards County, 3.7 miles upstream from Paint Creek, 5.7 miles south of Telegraph, and 18.7 miles southwest of Junction.	(c)	1939, 1952, 1956, 1959-71	1-13-71 7-13-71	18.2 12.3
08149500	Seven Hundred Springs near Telegraph, Tex.	Lat 30°16'12", long 99°55'22", Edwards County, 3 miles upstream from Paint Creek, 5 miles south of Telegraph, and 18 miles southwest of Junction.	(c)	1939, 1952, 1955-56, 1959-71	1-13-71 7-13-71	18.6 17.2
08155400	Barton Creek above Barton Springs at Austin, Tex.	Lat 30°15'48", long 97°46'19", Travis County, just upstream from upper dam of Barton Creek swimming pool in Zilker Park and upstream from all springs known as Barton Springs at Austin.	125	1919-71	10- 1-70 3-18-71 6- 9-71 7- 7-71	.36 0 0 0
08155500	Barton Springs at Austin, Tex.	Lat 30°15'49", long 97°46'02", Travis County, in Zilker Park at Austin.	(c)	1895-1916, 1917-18‡, 1919-71	10- 1-70 3-18-71 6- 9-71 7- 7-71	82.1 31.7 35.6 20.9
08158700	Onion Creek near Driftwood, Tex.	Lat 30°05'00", long 98°00'20", Hays County, at bridge at lower crossing on Farm Road 150, 3.2 miles southeast of Driftwood, and 10 miles west of Buda.	-	1958, 1962-71	12-30-70 2-22-71 4-26-71 6- 1-71 7- 6-71 9-15-71	1.90 1.05 .60 .14 0 .16
08158800	Onion Creek at Buda, Tex.	Lat 30°05'12", long 97°50'49", Hays County, 600 ft downstream from bridge on Farm Road 967 and 0.4 mile northwest of Buda.	-	1958, 1962-71	12-30-70 2-22-71 4-26-71 6- 1-71 7- 6-71 9-15-71	0 0 0 0 0 0

‡ Operated as a continuous-record station.
c Not applicable.
p Includes 1.34 cfs pumpage by city of San Saba.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Colorado River Basin--Continued				
08159100	Onion Creek below Del Valle, Tex.	Lat 30°11'22", long 97°37'12", Travis County, 600 ft upstream from bridge on State Highway 71 and 2.4 miles southeast of Del Valle.	-	1958, 1962-71	12-30-70 2-22-71 4-26-71 6- 1-71 7- 6-71 9-15-71	5.08 3.42 1.73 1.16 0 .71
08159300	Cedar Creek near Bastrop, Tex.	Lat 30°01'47", long 97°20'19", Bastrop County, at county road, 0.6 mile downstream from Walnut Creek, and 6.0 miles south of Bastrop.	284	1964-71	1-14-71 6- 2-71 7-12-71 9-10-71	1.52 .07 0 0
08159400	Piney Creek near Bastrop, Tex.	Lat 30°01'43", long 97°18'55", Bastrop County, 0.6 mile upstream from mouth and 6.0 miles south of Bastrop.	59.3	1964-71	1-14-71 4-26-71 6- 2-71 7-12-71 9-10-71	1.76 .84 .33 .15 0
		Cashs Creek Basin				
08162650	Cashs Creek near Blessing, Tex.	Lat 28°48'38", long 96°11'51", Matagorda County, at bridge on county road and 4.4 miles southeast of Blessing.	-	1969-71	11- 2-70 12- 9-70 1-13-71 2-18-71 2-25-71 3- 3-71 3-24-71 4-28-71 6- 2-71 7- 8-71 8-12-71 9-13-71	f1.28 f.43 f.44 f.12 af.13 af.23 f.61 f.43 f5.36 f5.62 f2.73 f111
		East Carancahua Creek Basin				
08162700	East Carancahua Creek near Blessing, Tex.	Lat 28°51'48", long 96°17'05", Matagorda County, at bridge on Farm Road 616 and 4.2 miles west of Blessing.	-	1967-68, 1970-71	11- 2-70 12-10-70 1-12-71 2-18-71 2-25-71 3- 4-71 3-25-71 4-28-71 6- 2-71 7- 9-71 8-12-71 9-13-71	f12.8 f.97 f.87 f1.50 f1.00 f1.07 f10.1 f5.72 f7.69 f7.47 f15.4 f439
08162800	West Carancahua Creek near LaWard, Tex.	Lat 28°53'19", long 96°27'03", Jackson County, at bridge on county road and 3.2 miles northeast of LaWard.	-	1967-68, 1970-71	11- 2-70 12-10-70 1-12-71 2-18-71 2-24-71 2-26-71 3- 3-71 3-24-71 4-28-71 6- 2-71 7- 9-71 8-12-71 9-13-71	f3.28 f.32 0 0 0 0 0 f4.03 f.11 f1.94 f4.06 f4.52 f188
		Chocolate Bayou Basin				
08164850	Chocolate Bayou near Port Lavaca, Tex.	Lat 28°35'40", long 96°41'48", Calhoun County, at bridge on Sweetwater Road and 4.5 miles southwest of Port Lavaca.	-	1967-68, 1970-71	11- 4-70 12- 9-70 1-13-71 2-17-71 2-26-71 3- 3-71 3-25-71 4-28-71 6- 1-71 7- 9-71 8-11-71 9-15-71	af.04 af.10 af.04 af.04 f.11 f.03 f.08 f.01 f.82 f1.11 f8.55 f973

a Estimated.
f Water-quality records are published in Part 2 of this report.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Guadalupe River Basin				
08168000	Hueco Springs near New Braunfels, Tex.	Lat 29°45'31", long 98°08'34", Comal County, two springs located 200 ft and 400 ft west of Guadalupe River, 0.3 mile upstream from mouth of Elm Creek, and 4.2 miles north of New Braunfels.	(c)	1944-71	10- 1-70 10-29-70 12-30-70 1-29-71 3- 1-71 4- 2-71 4-29-71 6- 4-71 6-30-71 7-28-71 9- 1-71 9-30-71	26.9 28.1 11.2 9.33 7.16 5.38 4.33 3.03 4.52 1.53 71.0 62.7
08168600	Blieders Creek at New Braunfels, Tex.	Lat 29°43'14", long 98°07'23", Comal County, at Grove Avenue crossing in northwest New Braunfels and 0.25 mile upstream from mouth.	-	1962-71	1- 4-71 7- 1-71	0 0
08168700	Panther Canyon at New Braunfels, Tex.	Lat 29°42'47", long 98°08'14", Comal County, at Landa Park Drive crossing in Landa Park at New Braunfels.	-	1962-71	1- 4-71 7- 1-71	0 0
08168800	Dry Comal Creek at New Braunfels, Tex.	Lat 29°41'52", long 98°08'11", Comal County, at Floral Avenue crossing in New Braunfels, 0.6 mile upstream from Missouri Pacific Railroad Co. bridge, and 0.9 mile upstream from mouth.	-	1962-71	1- 4-71 7- 1-71	a.10 a.02
		Salt Creek Basin				
08189100	Salt Creek near Refugio, Tex.	Lat 28°19'00", long 97°00'24", Refugio County, at culvert on Farm Road 774 and 16.4 miles east of Refugio.	-	1967-68, 1970-71	11- 4-70 12- 8-70 1-14-71 2-17-71 3-26-71 4-26-71 6- 1-71 7- 6-71 8-10-71 9-14-71	0 0 0 0 0 0 0 0 0 f246
		Nueces River Basin				
08204000	Leona River spring flow near Uvalde, Tex.	Lat 29°09'10", long 99°44'30", Uvalde County, at old road crossing on White's ranch, 2.0 miles downstream from Cooks Slough, and 4.7 miles southeast of Uvalde.	(c)	1939-65‡, 1966-71	10- 8-70 11- 9-70 12-15-70 1-21-71 2-24-71 3-31-71 5- 4-71 6- 8-71 7-13-71 8-17-71 9-21-71	19.5 18.8 19.9 16.6 5.27 7.00 3.58 q.02 7.53 19.3 18.1
		Rio Grande Basin				
08407600	Smith Spring in Guadalupe Mountain National Park near Salt Flat, Tex.	Lat 31°55'09", long 104°48'25", Hudspeth County, at end of Smith Canyon Road north of Frijole Ranch, 1.8 miles north of U.S. Highways 62 and 180, 1.9 miles north of Pine Spring, and 21 miles northeast of Salt Flat.	-	1969-71	10-17-70 1-18-71 4-20-71 5-22-71 6-26-71 8-28-71 9- 4-71	g.09 d.08 .09 g.08 g.08 g.08 g.08
08425500	Phantom Lake Spring near Toyahvale, Tex.	Lat 30°56'01", long 103°50'43", Jeff Davis County, 375 ft downstream from source of spring, 3.5 miles southwest of Toyahvale, and 7.0 miles southwest of Balmorhea.	(c)	1931-33‡, 1942-66‡, 1967-71	10-22-70 12- 3-70 1-13-71 2-24-71 3-31-71 5- 6-71 6- 3-71 7-15-71 8-12-71 9-16-71	9.73 6.01 5.59 5.85 5.77 5.59 5.25 5.05 5.22 5.47
08427000	Giffin Springs at Toyahvale, Tex.	Lat 30°56'51", long 103°47'19", Reeves County, 2,000 ft northwest of post office in Toyahvale.	(c)	1919, 1922-23, 1925, 1932-33‡, 1941-71	1-13-71 7-15-71	3.28 3.57

‡ Operated as a continuous-record station.
a Estimated.
c Not applicable.
d From formula for 90° V-notch weir.
f Water-quality records are published in Part 2 of this report.
g Measured volumetrically.
q Decrease of 0.74 cfs from tributary which enters 2.0 mile upstream.

Discharge measurements made at low-flow partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Rio Grande Basin--Continued				
08427500	San Solomon Springs at Toyahvale, Tex.	Lat 30°56'34", long 103°47'16", Reeves County, on South Canal at Toyahvale, 540 ft downstream from headgate at pool of springs, and 4.0 miles southwest of Balmorhea.	(c)	1931-33≠, 1941-65≠, 1966-71	10-22-70 1-13-71 2-24-71 3-31-71 5- 6-71 6- 3-71 7-15-71 8-12-71 9-16-71	28.6 30.9 27.1 26.7 26.4 27.2 26.3 27.2 29.1
08444500	Comanche Springs at Fort Stockton, Tex.	Lat 30°53'20", long 102°51'59", Pecos County, on outlet canal of Pecos County Water Improvement District No. 1 in Fort Stockton, 0.2 mile upstream from bridge on U.S. Highway 290, and 0.5 mile downstream from head of springs.	(c)	1899-1935, 1936-64≠, 1965-71	1-12-71 7-14-71	0 0
08447000	Pecos River near Sheffield, Tex.	Lat 30°39'34", long 101°46'11", Pecos-Crockett County line, at U.S. Highway 290 and 3.8 miles southeast of Sheffield.	-	1922-25, 1940-49≠, 1969-71	11- 2-70 12- 8-70 1-12-71 2-16-71 3-22-71 4-27-71 6- 2-71 7-12-71 9-21-71	29.4 21.3 38.1 28.2 21.6 19.5 10.9 9.64 23.8
08456300	Las Moras Springs at Brackettville, Tex.	Lat 29°18'33", long 100°25'13", Kinney County, in springflow pool at Brackettville, 160 ft south of U.S. Highway 90, and 1,550 ft upstream from bridge on Brackettville-Fort Clark Road.	(c)	1896, 1899-1900, 1902, 1904-6, 1910, 1912, 1925, 1928, 1951-71	10-13-70 10-27-70 11-10-70 11-24-70 12- 8-70 12-29-70 1-20-71 2- 2-71 2-17-71 3- 9-71 3-23-71 4- 9-71 4-27-71 5-11-71 5-25-71 6- 8-71 6-22-71 7- 7-71 7-20-71 8-10-71 8-25-71 9-14-71	k20.8 k15.8 k14.7 k9.1 k7.94 k7.74 k4.39 k4.4 k2.2 k3.1 ak1.7 ak.32 k.73 k6.86 k3.51 k0 k27.4 k40.2 k41.3 k37.2 k46.7 k41.3

≠ Operated as a continuous-record station.
a Estimated.
c Not applicable.
k Measured by International Boundary and Water Commission.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Arkansas River Basin					
07227460	East Fork Cheyenne Creek tributary near Channing, Tex. a/	Lat 35°40'35", long 102°16'55", Hartley County, at culvert on State Highway 354 and 2.5 miles east of Channing.	0.86	1965-71	1971	<2.73	<26
07227480	Tecovas Creek tributary near Bushland, Tex. a/	Lat 35°15'55", long 102°00'20", Potter County, at culvert on Farm Road 1061 and 5.5 miles northeast of Bushland.	-	1966-71	1971	<1.89	<5.5
07234150	White Woman Creek tributary near Darrouzett, Tex. a/	Lat 36°24'00", long 100°16'30", Lipscomb County, at culvert on State Highway 305 and 4.5 miles southeast of Darrouzett.	-	1966-71	1971	<2.36	<16
		Red River Basin					
07297920	Middle Tule Draw near Tulia, Tex. a/	Lat 34°31'42", long 101°53'30", Swisher County, at culvert on State Highway 86 and 6.5 miles west of Tulia.	-	1967-71	1971	<5.40	<230
07298150	Rock Creek tributary near Silverton, Tex. a/	Lat 34°28'40", long 101°25'50", Briscoe County, at culvert on State Highway 86 and 6.7 miles west of Silverton.	-	1966-71	1971	<4.99	<3.0
07299575	North Groesbeck Creek tributary near Kirkland, Tex. a/	Lat 34°23'55", long 100°03'25", Childress County, at culvert on Farm Road 1033, and 1.4 miles north of Kirkland.	-	1966-71	8-16-71	7.84	62
07299940	Oklahoma Draw tributary near Hedley, Tex. a/	Lat 34°53'12", long 100°37'18", Donley County, at culvert on State Highway 203 and 2.7 miles northeast of Hedley.	1.15	1966-71	1971	<5.09	<73
07301405	Doodlebug Creek near Wheeler, Tex. a/	Lat 35°26'40", long 100°13'50", Wheeler County, at culvert on State Highway 152 and 2.5 miles southeast of Wheeler.	.19	1967-71	1971	<6.68	<120
07307720	Cottonwood Creek tributary near Afton, Tex. a/	Lat 33°44'20", long 100°50'30", Dickens County, at culvert on State Highway 70 and 2 miles southwest of Afton.	-	1967-71	8-10-71	4.42	860
07308220	Plum Creek near Vernon, Tex. a/	Lat 34°06'38", long 99°13'22", Wilbarger County, at culvert on Farm Road 433 and 4.0 miles southeast of Vernon.	-	1967-71	9-18-71	6.23	305
07312140	Beaver Creek tributary near Crowell, Tex. a/	Lat 33°58'54", long 99°41'30", Foard County, at culvert on U.S. Highway 70 and 2 miles east of Crowell.	-	1966-71	1971	<3.56	<38
07312300	Wolf Creek near Iowa Park, Tex. a/	Lat 33°54'45", long 98°48'30", Wichita County, at culvert on Farm Road 367 and 8.5 miles southwest of Iowa Park.	-	1966-71	10-17-70	4.12	320
07314200	North Fork Little Wichita River tributary near Archer City, Tex. a/	Lat 33°39'50", long 98°43'30", Archer County, at culvert on State Highway 25, 1.3 miles upstream from North Fork Little Wichita River, and 7.4 miles northwest of Archer City.	-	1966-71	9- 5-71	4.23	120
07315550	Farmers Creek near Saint Jo, Tex. a/	Lat 33°42'45", long 97°33'05", Montague County, at culvert on U.S. Highway 82 and 2.0 miles northwest of Saint Jo.	.82	1967-71	1971	<3.38	<18
07332602	Cooper Creek near Bonham, Tex. a/	Lat 33°32'24", long 96°12'03", Fannin County, at culvert on Farm Road 1629, 1.7 miles upstream from Bois d'Arc Creek, and 2.9 miles south of Bonham.	-	1966-71	7-28-71	12.52	450
07336940	McKinney Bayou near Leary, Tex. a/	Lat 33°31'33", long 94°11'32", Bowie County, at culvert on Farm Road 2253, 1.1 miles north of Mount Zion, 3.2 miles north of Farm Road 2148, and 4.3 miles north of Leary.	3.33	1966-71	3- 2-71	12.59	65

< Less than.
a Equipped with stage-rainfall recorder.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Red River Basin--Continued					
07342450	Nelson Branch near Leonard, Tex. a/	Lat 33°21'20", long 96°13'25", Hunt County, at culvert on U.S. Highway 69, 0.4 mile southeast of Hunt-Fannin county line, and 2.2 miles southeast of Leonard.	-	1966-71	7-30-71	11.33	26
07343350	Dial Branch near Bagwell, Tex. a/	Lat 33°37'50", long 95°10'15", Red River County, at culvert on U.S. Highway 82, 1.8 miles upstream from mouth, and 2.3 miles south of Bagwell.	-	1966-71	5-10-71	11.97	124
07343900	Buck Creek near Cookville, Tex. a/	Lat 33°11'10", long 94°52'20", Titus County, at culvert on U.S. Highway 67, 1.0 mile west of Cookville, and 5.5 miles east of Mount Pleasant.	-	1966-71	7-26-71	13.14	176
07344490	Dragoo Creek near Mount Pleasant, Tex. a/	Lat 33°09'40", long 95°01'55", Titus County, at culvert on Interstate Highway 30, 1.8 miles upstream from mouth, and 3.8 miles west of Mount Pleasant.	-	1967-71	2-13-71	13.09	585
07344600	Williamson Creek near Pittsburg, Tex. a/	Lat 33°02'55", long 94°52'35", Titus County, at culvert on Farm Road 2348 and 1.3 miles northeast of Pittsburg.	-	1967-71	1971	<11.39	<135
07346010	Cypress Creek tributary near Jefferson, Tex. a/	Lat 32°42'50", long 94°25'52", Marion County, at culvert on Farm Road 2208, 4.3 miles upstream from Cypress Creek, and 5.5 miles southwest of Jefferson.	0.21	1966-71	3-10-71	11.01	12
07346072	Taylor Branch near Smithland, Tex. a/	Lat 32°47'20", long 94°15'02", Marion County, at culvert on State Highway 49 and 6.4 miles northeast of Jefferson.	.73	1966-71	7-24-71	10.80	44
		Sabine River Basin					
08017700	Burnett Branch near Canton, Tex. a/	Lat 32°32'17", long 95°51'44", Van Zandt County, at culvert on State Highway 19 and 1.3 miles south of Canton.	.33	1966-71	10-26-70	12.54	135
08020800	Grace Creek tributary at Longview, Tex. a/	Lat 32°31'02", long 94°44'23", Gregg County, at culvert on U.S. Highway 259, 1.2 miles north of Longview, and 1.7 miles upstream from mouth.	5.05	1967-71	10-27-70	13.03	610
08022010	Redmon Branch near Hallsville, Tex. a/	Lat 32°29'41", long 94°28'47", Harrison County, at culvert on Farm Road 968, 2.6 miles upstream from Potters Creek, and 5.6 miles east of Hallsville.	-	1966-71	10-27-70	12.90	76
08024290	Dorsey Branch near Milam, Tex. a/	Lat 31°30'44", long 93°50'45", Sabine County, at culvert on State Highway 87 and 5.5 miles north of Milam.	-	1967-71	1971	(f)	<85
08028505	Moore Branch near Newton, Tex. a/	Lat 30°53'00", long 93°40'59", Newton County, at culvert on Farm Road 1414 and 5.2 miles north of Newton.	-	1967-71	1971	(f)	<18
08030700	Adams Bayou tributary near Deweyville, Tex. a/	Lat 30°14'53", long 93°48'56", Newton County, at culvert on State Highway 12 and 5.5 miles southwest of Deweyville.	-	1967-71	10-28-70	4.15	b2,000
		Neches River Basin					
08031100	Bethlehem Branch near Van, Tex. a/	Lat 32°29'04", long 95°38'35", Van Zandt County, at culvert on Farm Road 314, 0.7 mile upstream from mouth, and 3.1 miles south of Van.	-	1966-71	10-26-70	12.00	132
08032100	Hurricane Creek tributary near Palestine, Tex. a/	Lat 31°52'10", long 95°34'20", Anderson County, at culvert on State Highway 155 and 8.5 miles northeast of Palestine.	-	1967-71	10-23-70	2.0	37
08032250	One Arm Creek near Maydelle, Tex. a/	Lat 31°48'29", long 95°17'19", Cherokee County, at culvert on U.S. Highway 84 and 1.0 mile east of Maydelle.	-	1967-71	1971	(f)	(†)
08032300	Squirrel Creek near Elkhart, Tex. a/	Lat 31°37'09", long 95°30'15", Anderson County, at culvert on State Highway 294 and 4.5 miles east of Elkhart.	-	1967-71	8- 3-71	2.55	170

† Discharge not determined.
< Less than.
a Equipped with stage-rainfall recorder.
b Estimated.
f Flow did not reach bottom of intakes.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Neches River Basin--Continued					
08033250	Piney Creek tributary near Pennington, Tex. a/	Lat 31°12'12", long 95°06'58", Trinity County, at culvert on Farm Road 358 and 7.5 miles east of Pennington.	1.17	1967-71	10-23-70	1.84	71
08033450	Shawnee Creek tributary near Huntington, Tex. a/	Lat 31°13'17", long 94°30'51", Angelina County, at culvert on U.S. Highway 69 and 5.3 miles southeast of Huntington.	.52	1967-71	1971	(f)	<35
08033480	Greenwood Creek tributary near Colmesneil, Tex. a/	Lat 30°58'48", long 94°24'22", Tyler County, at culvert on U.S. Highway 69 and 5.2 miles north of Colmesneil.	-	1967-71	1971	<2.70	<26
08037300	Gingham Branch near Mount Enterprise, Tex. a/	Lat 31°55'14", long 94°33'33", Rusk County, at culvert on U.S. Highway 84 and 7.5 miles east of Mount Enterprise.	-	1967-71	e3- 4-70 1971	e7.01 (f)	e25 (†)
08039900	Little Sandy Creek tributary near Jasper, Tex. a/	Lat 30°56'39", long 93°56'16", Jasper County, at culvert on State Highway 63 and 4.0 miles east of Jasper.	-	1967-71	1971	<2.35	<20
08041400	Drakes Branch near Spurger, Tex. a/	Lat 30°41'02", long 94°15'32", Tyler County, at culvert on Farm Road 1013 and 5.2 miles west of Spurger.	-	1967-71	10-23-70	1.81	111
		Double Bayou Basin					
08042550	West Fork Double Bayou near Anahuac, Tex. a/	Lat 29°45'39", long 94°38'00", Chambers County, at bridge on Farm Road 562 and 3 miles southeast of Anahuac.	4.43	1967-71	10-11-70	14.75	230
		Trinity River Basin					
08044200	Walker Creek near Boyd, Tex. a/	Lat 33°04'32", long 97°34'58", Wise County, at culvert on State Highway 114, 1.1 miles upstream from Salt Creek, and 1.1 miles west of Boyd.	2.95	1965-71	1971	<11.38	<15
08047200	West Creek at Fort Worth, Tex. a/	Lat 32°40'25", long 97°22'06", Tarrant County, at culvert on Bilglade Road at intersection of West Creek Drive in Fort Worth.	.31	1965-71	7-29-71	17.04	857
08048550	Dry Branch at Blandin Street, Fort Worth, Tex. m/	Lat 32°47'19", long 97°18'22", Tarrant County, at culvert on Blandin Street in north Fort Worth and 2.8 miles upstream from mouth.	1.08	1969-71	8-15-71	587.16	218
08048820	Little Fossil Creek at Interstate Highway 820, Fort Worth, Tex. m/	Lat 32°50'22", long 97°19'20", Tarrant County, at culvert on south access road to Interstate Highway 820 and 5.7 miles north of Tarrant county courthouse, Fort Worth.	5.64	1969-71	5-29-71	612.71	505
08048900	Deer Creek tributary near Crowley, Tex. a/	Lat 32°35'06", long 97°21'04", Tarrant County, at culvert on Farm Road 731, 0.7 mile upstream from mouth, and 0.7 mile northeast of Crowley.	5.86	1967-71	1971	<11.51	<170
08053100	Jones Valley Creek tributary near Forestburg, Tex. a/	Lat 33°33'15", long 97°37'05", Montague County, at culvert on Farm Road 455, 0.7 mile upstream from Jones Valley Creek, and 3.8 miles northwest of Forestburg.	-	1966-71	10-23-70	11.56	81
08054200	Gamble Branch near Argyle, Tex. a/	Lat 33°04'53", long 97°11'48", Denton County, at culvert on U.S. Highway 377 and 2.8 miles south of Argyle.	.50	1966-71	10-24-70	12.11	108
08055600	Joes Creek at Dallas, Tex. a/	Lat 32°51'33", long 96°53'00", Dallas County, at bridge on State Highway 114, Dallas, and 0.9 mile upstream from mouth.	7.51	1962-71	8-14-71	422.87	1,940
08057020	Coombs Creek at Sylvan Avenue, Dallas, Tex. a/	Lat 32°46'01", long 96°50'07", Dallas County, at bridge on Sylvan Avenue, Dallas, and 1.2 miles upstream from mouth.	4.75	1965-71	5-29-71	423.18	2,700
08057050	Cedar Creek at Bonnie View Road, Dallas, Tex. a/	Lat 32°44'50", long 96°47'44", Dallas County, at bridge on Bonnie View Road, Dallas, and 0.9 mile upstream from mouth.	9.42	1965-71	5-29-71	401.66	4,840
08057120	Spanky Branch at McCallum Lane, Dallas, Tex. a/	Lat 32°57'58", long 96°48'11", Dallas County, at bridge on McCallum Lane, Dallas, and 0.5 mile upstream from mouth.	6.77	1962-71	8-14-71	558.93	1,330

† Discharge not determined.
< Less than.
a Equipped with stage-rainfall recorder.
e Revised.
f Flow did not reach bottom of intakes.
m Equipped with stage recorder.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Trinity River Basin--Continued					
08057140	Cottonwood Creek at Forest Lane, Dallas, Tex. a/	Lat 32°54'33", long 96°45'54", Dallas County, at bridge on Forest Lane, Dallas, and 0.2 mile upstream from Floyd Branch.	8.50	1962-71	7-28-71	503.82	950
08057160	Floyd Branch at Forest Lane, Dallas, Tex. a/	Lat 32°54'33", long 96°45'34", Dallas County, at bridge on Forest Lane, Dallas, and 0.3 mile upstream from mouth.	4.17	1962-71	7-28-71	503.90	1,240
08057320	Ash Creek at Highland Road, Dallas, Tex.	Lat 32°48'18", long 96°43'04", Dallas County, at bridge on Highland Road, Dallas, and 0.4 mile upstream from mouth.	6.92	1963-71	7-28-71	419.75	775
08057340	Forney Creek at Lawnview Avenue, Dallas, Tex. a/	Lat 32°46'45", long 96°43'02", Dallas County, at culvert on Lawnview Avenue, Dallas, and 0.8 mile upstream from mouth.	1.84	1963-71	4-17-71	431.33	756
08057420	Fivemile Creek at U.S. Highway 77, Dallas, Tex. m/	Lat 32°41'15", long 96°49'22", Dallas County, at bridge on U.S. Highway 77, Dallas, 0.2 mile mile upstream from Woody Branch, and 8.0 miles upstream from mouth.	13.2	1965-71	10-26-70	466.78	4,840
08057425	Woody Branch at U.S. Highway 77, Dallas, Tex. m/	Lat 32°40'58", long 96°49'22", Dallas County, at bridge on U.S Highway 77, Dallas, and 0.4 mile upstream from mouth.	11.5	1965-71	10-26-70	474.56	4,900
08057430	Fivemile Creek at Lancaster Road, Dallas, Tex. m/	Lat 32°40'49", long 96°47'10", Dallas County, at bridge on Lancaster Road, Dallas, and 6.7 miles upstream from mouth.	37.9	1965-71	10-26-70	436.51	7,860
08059200	Arls Branch near Westminster, Tex. a/	Lat 33°21'20", long 96°26'35", Collin County, at culvert on State Highway 121 and 1.2 miles east of Westminster.	-	1965-71	7-30-71	17.97	588
08061620	Duck Creek at Buckingham Road, Garland, Tex. m/	Lat 32°55'53", long 96°39'55", Dallas County, at dam 200 ft upstream from Buckingham Road in north Garland and 17.5 miles upstream from mouth.	8.05	1969-71	7-28-71	560.77	650
08061920	South Mesquite Creek at State Highway 352, Mesquite, Tex. a/	Lat 32°46'09", long 96°37'18", Dallas County, at bridge on State Highway 352 in west Mesquite and 9.6 miles upstream from mouth.	13.4	1969-71	10-26-70	439.41	761
08062850	Bachelor Creek near Terrell, Tex. a/	Lat 32°42'42", long 96°17'52", Kaufman County, at culvert on Interstate Highway 20, 1.7 miles northwest of State Highway 34, and 2.2 miles southwest of Terrell.	12.96	1967-71	10-11-70	14.71	820
08063005	Red Oak Branch near Eustace, Tex. a/	Lat 32°18'36", long 95°57'38", Henderson County, at culvert on Farm Road 2709, 1.3 miles upstream from Clear Creek, and 2.2 miles east of Eustace.	-	1966-71	2-13-71	10.74	14
08063180	Briar Creek tributary near Corsicana, Tex. a/	Lat 32°02'55", long 96°34'45", Navarro County, at culvert on Farm Road 744, 1.3 miles upstream from Briar Creek, and 7.7 miles west of Corsicana.	-	1966-71	10-27-70	12.52	295
08063550	Alvarado Branch near Alvarado, Tex. a/	Lat 32°24'49", long 97°12'20", Johnson County, at culvert on Farm Road 1706, 0.2 mile south of U.S. Highway 67, and 0.6 mile northeast of Alvarado.	.84	1966-71	10-23-70	13.10	326
08063620	Kings Branch near Reagor Springs, Tex. a/	Lat 32°20'41", long 96°47'02", Ellis County, at culvert on Rock Island and Pacific Railroad, 0.7 mile upstream from Waxahachie Creek, and 1.8 miles northwest of Reagor Springs.	.62	1965-71	8-26-71	13.37	107
08064630	Saline Branch tributary near Bethel, Tex. a/	Lat 31°55'46", long 95°55'58", Anderson County, at culvert on U.S. Highway 287 and 1.0 mile northwest of Bethel.	-	1967-71	7-28-71	3.71	32
08065320	Mayes Branch near Latexo, Tex. a/	Lat 31°25'58", long 95°28'29", Houston County, at culvert on U.S. Highway 287 and 2.6 miles north of Latexo.	4.26	1967-71	1971	<4.96	<173

< Less than.
a Equipped with stage-rainfall recorder.
m Equipped with stage recorder.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Trinity River Basin--Continued					
08066280	Bluff Creek tributary near Livingston, Tex. a/	Lat 30°41'52", long 94°46'58", Polk County, at culvert on U.S. Highway 190 and 9.2 miles east of Livingston.	-	1967-71	10-23-70	2.28	10
		San Jacinto River Basin					
08067550	Welch Branch near Huntsville, Tex. a/	Lat 30°38'33", long 95°40'47", Walker County, at culvert on Farm Road 1791 and 6.9 miles southwest of Huntsville.	2.35	1966-71	e3-17-70 5-11-71	4.34 5.89	65 182
08067750	Landrum Creek tributary near Montgomery, Tex. a/	Lat 30°21'03", long 95°41'50", Montgomery County, at culvert on State Highway 149 and 2.4 miles south of Montgomery.	.10	1966-71	10-11-70	7.28	104
08068300	Mill Creek tributary near Dobbin, Tex. a/	Lat 30°15'37", long 95°46'14", Montgomery County, at culvert on Farm Road 1486 and 7.8 miles south of Dobbin.	4.07	1967-71	10-11-70	5.20	90
08069850	Bear Creek near Cleveland, Tex. a/	Lat 30°26'58", long 95°13'11", San Jacinto County, at culvert on Farm Road 1725 and 12.9 miles northwest of Cleveland.	1.46	1967-71	1971	<2.58	<80
08073750	Stoney Brook Street Ditch at Houston, Tex. a/	Lat 29°44'05", long 95°30'22", Harris County, at culvert on Stoney Brook Street in west Houston.	.50	1967-71	10-11-70	67.21	230
08073800	Bering Ditch at Woodway Drive, Houston, Tex. a/	Lat 29°45'22", long 95°29'44", Harris County, at bridge on Woodway Drive in west Houston.	2.96	1965-71	10-11-70	58.47	1,900
08074100	Cole Creek at Guhn Road, Houston, Tex. a/	Lat 29°51'24", long 95°30'55", Harris County, at bridge on Guhn Road in northwest Houston.	7.05	1965-71	10-23-70	91.47	522
08074200	Brickhouse Gully at Clarblak Street, Houston, Tex. a/	Lat 29°49'53", long 95°31'42", Harris County, at bridge on Clarblak Street in northwest Houston.	2.05	1965-71	10-23-70	93.54	314
08074780	Keegans Bayou at Keegan Road near Houston, Tex. a/	Lat 29°39'55", long 95°35'42", Harris County, at bridge on Keegan Road about 16 miles southwest of Houston.	5.77	1965-71	10-11-70	83.02	201
08074850	Bintliff Ditch at Bissonnet Street, Houston, Tex. a/	Lat 29°41'16", long 95°30'20", Harris County, at bridge on Bissonnet Street in southwest Houston.	4.29	1968-71	10-11-70	62.82	1,120
08074900	Willow Waterhole Bayou at Landsdowne Street, Houston Tex. a/	Lat 29°39'01", long 95°29'11", Harris County, at bridge on Landsdowne Street in southwest Houston.	11.2	1965-71	10-11-70	61.05	1,350
08075300	Sims Bayou at Carlsbad Street, Houston, Tex. a/	Lat 29°37'33", long 95°29'56", Harris County, at bridge on Carlsbad Street in southwest Houston.	4.99	1965-71	2-21-69 10-11-70	61.52 63.77	e220 454
08075550	Berry Bayou at Gilpin Street, Houston, Tex. a/	Lat 29°38'32", long 95°13'22", Harris County, at bridge on Gilpin Street in southeast Houston.	3.26	1965-71	10-23-70	34.12	339
08075600	Berry Bayou tributary at Globe Street, Houston, Tex. a/	Lat 29°39'00", long 95°14'48", Harris County, at bridge on Globe Street in southeast Houston.	1.58	1965-71	10-23-70	p38.70	186
08075700	Berry Creek at Galveston Road, Houston, Tex. a/	Lat 29°40'59", long 95°15'11", Harris County, at bridge on Galveston Road and 0.5 mile upstream from mouth in southeast Houston.	4.86	1965-71	10-23-70	17.75	370
08075750	Hunting Bayou tributary at Cavalcade Street, Houston, Tex. a/	Lat 29°48'00", long 95°20'02", Harris County, at bridge on Cavalcade Street in northeast Houston.	e1.20	1965-71	10-23-70	46.81	275
08075760	Hunting Bayou at Falls Street, Houston, Tex. a/	Lat 29°48'22", long 95°19'50", Harris County, at bridge on Falls Street in northeast Houston.	e3.50	1965-71	10-23-70	45.90	666

< Less than.
a Equipped with stage-rainfall recorder.
e Revised.
p Occurred at different time than peak discharge.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		San Jacinto River Basin--Continued					
08075780	Greens Bayou at Cutten Road near Houston, Tex. a/	Lat 29°56'56", Long 95°31'10", Harris County, at bridge on Cutten Road and about 16.5 miles northwest of Houston.	8.73	1965-71	10-23-70	117.38	318
08076200	Halls Bayou at Deertrail Street near Houston, Tex. a/	Lat 29°54'07", long 95°25'21", Harris County, at bridge on Deertrail Street, 0.6 mile west of U.S. Highway 75, and about 11 miles northwest of Houston.	6.31	1965-71	10-23-70	85.14	451
		Clear Creek Basin					
08077100	Clear Creek tributary at Hall Road, Houston, Tex. a/	Lat 29°36'09", long 95°16'41", Harris County, at bridge on Hall Road in south Houston.	1.33	1965-71	9-30-71	42.87	291
08077550	Cowart Creek near Friendswood, Tex. a/	Lat 29°30'46", long 95°13'21", Brazoria County, at bridge on county road and 1.7 miles southwest of Friendswood.	18.0	1966-71	11-30-70	16.06	491
08077600	Clear Creek near Friendswood, Tex. a/	Lat 29°31'02", long 95°10'42", Galveston County, at bridge on Farm Road 528 and 1.5 miles southeast of Friendswood.	-	1966-71	1971	<10.74	(†)
		Highland Bayou Basin					
08077750	Highland Bayou tributary near Texas City, Tex. a/	Lat 29°20'31", long 94°57'03", Galveston County, at Texas City Terminal Railway Company tracks, 600 ft downstream from U.S. Highway 75, 0.4 mile upstream from mouth, and 3 miles southwest of Texas City.	1.97	1966-71	9-10-70	5.08	(†)
		Brazos River Basin					
08079300	Blackwater Draw tributary near Floyd, N. Mex.	NW¼SW¼ sec. 13, T. 1 S., R. 30 E., Roosevelt County, 0.5 mile below section road and 10 miles west of Floyd.	b10	1963-71	1971		0
08079570	Barnum Springs Draw near Post, Tex. a/	Lat 33°16'54", long 101°23'30", Garza County, at culvert on Farm Road 122 and 6.4 miles north of Post.	-	1966-71	8-23-71	5.39	175
08079580	Rattlesnake Creek near Post, Tex. a/	Lat 33°13'36", long 101°21'36", Garza County, at culvert on Farm Road 651 and 2.7 miles north of Post.	-	1966-71	8-23-71	13.45	1,910
08080510	Guest-Flowers Draw near Aspermont Tex. a/	Lat 33°07'25", long 100°08'15", Stonewall County, at culvert on U.S. Highway 380, 0.2 mile upstream from Tonk Creek, and 5.3 miles east of Aspermont.	-	1966-71	8-25-71	17.25	80
08080600	Running Water Draw near Clovis, N. Mex.	NE¼ sec. 31, T. 4 N., R. 36 E., 0.25 mile upstream from State Highway 18 and 8 miles north of Clovis.	109	1953-56, 1957-64‡, 1965-71	8- 8-71	2.43	160
08080750	Callahan Draw near Lockney, Tex. a/	Lat 33°59'48", long 101°32'54", Floyd County, at culvert on Farm Road 784, 7 miles upstream from Running Water Draw, and 10.5 miles southwest of Lockney.	37.5	1966-71	1971	<2.02	<5.0
08080918	Red Mud Creek near Spur, Tex. a/	Lat 33°19'24", long 100°55'18", Dickens County, at culvert on Farm Road 1081 and 11 miles southwest of Spur.	65.1	1966-71	9-23-71	10.12	1,450
08082900	North Elm Creek near Throckmorton, Tex. a/	Lat 33°10'50", long 99°22'05", Throckmorton County, at culvert on State Highway 24 and 11.3 miles west of Throckmorton.	-	1966-71	8-15-71	23.77	398
08085300	Humphries Draw near Haskell, Tex. a/	Lat 33°10'40", long 99°34'30", Haskell County, at culvert on State Highway 24 and 9.3 miles east of Haskell.	-	1966-71	8-15-71	19.41	1,840
08089100	Elm Creek tributary near Graford, Tex. a/	Lat 32°54'35", long 98°17'35", Palo Pinto County, at culvert on Farm Road 4, 0.2 mile upstream from Elm Creek, and 3.2 miles southwest of Graford.	-	1966-71	10-16-70	10.21	5.0
08090850	Cidwell Branch near Granbury, Tex. a/	Lat 32°35'41", long 97°46'24", Hood County, at culvert on State Highway 51 and 10.5 miles north of Granbury.	3.37	1966-71	7-29-71	13.80	230

† Discharge not determined.
‡ Operated as a continuous-record station.
< Less than.
a Equipped with stage-rainfall recorder.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Brazos River Basin--Continued					
08091200	Morris Branch near Bluff Dale, Tex. a/	Lat 32°21'25", long 98°00'00", Erath County, at culvert on U.S. Highway 377 and 1.2 miles east of Bluff Dale.	-	1966-71	7-29-71	13.55	104
08091700	Panter Branch near Tolar, Tex. a/	Lat 32°20'59", long 97°51'25", Hood County, at culvert on State Highway 51, 2.5 miles upstream from mouth, and 4.6 miles southeast of Tolar.	7.82	1966-71	7-29-71	14.53	890
08093200	Bond Branch near Hillsboro, Tex. a/	Lat 32°02'20", long 97°06'30", Hill County, at culvert on U.S. Highway 77 and 2.3 miles northeast of Hillsboro.	-	1965-71	4-17-71	12.83	168
08095220	South Bosque River near McGregor, Tex. a/	Lat 31°23'22", long 97°22'54", McLennan County, at bridge on State Highway 317 and 3.8 miles south of McGregor.	-	1967-71	7-25-71	9.18	(†)
08095250	Willow Branch at McGregor, Tex. a/	Lat 31°26'25", long 97°25'15", McLennan County, at culvert on U.S. Highway 84 on west edge of McGregor.	-	1966-71	7-30-71	6.59	610
08096550	Box Branch at Robinson, Tex. a/	Lat 31°29'35", long 97°08'45", McLennan County, at culvert on Loop 340 in Robinson city limits, 0.2 mile east of Interstate Highway 35, and 4.9 miles south of Waco.	.40	1966-71	7-27-71	11.14	179
08099350	Sabana River tributary near De Leon, Tex. a/	Lat 32°06'44", long 98°33'58", Comanche County, at culvert on Farm Road 587 and 1.6 miles west of De Leon.	-	1966-71	5-27-71	4.15	56
08100100	Eidson Creek near Hamilton, Tex. a/	Lat 31°46'10", long 98°07'25", Hamilton County, at culvert on U.S. Highway 281 and 4.6 miles north of Hamilton.	2.91	1966-71	9-23-71	10.18	180
08100400	Bermuda Branch near Gatesville, Tex. a/	Lat 31°32'26", long 97°47'53", Coryell County, at culvert on State Highway 36 and 8.0 miles northwest of Gatesville.	.50	1966-71	1967 1-21-68 2-21-69 11- 1-69 7-25-71	e<5.63 e5.6 e5.79 e5.74 6.79	e<46 e44 e60 e56 213
08100800	Hoffman Branch near Hamilton, Tex. a/	Lat 31°35'01", long 98°11'45", Hamilton County, at culvert on Farm Road 2414 and 9.3 miles southwest of Hamilton.	5.56	1966-71	7-28-71	12.75	*1,400
08102900	School Branch near Lampasas, Tex. a/	Lat 31°13'48", long 98°09'25", Lampasas County, at culvert on Farm Road 1690 and 11.5 miles north of Lampasas.	.90	1966-71	1971	<4.76	<50
08103450	Fleece Branch near Lampasas, Tex. a/	Lat 31°05'46", long 98°12'30", Lampasas County, at culvert on U.S. Highways 183 and 190, 0.7 mile upstream from Burleson Creek, and 2.8 miles northwest of Lampasas.	1.08	1966-71	5- 9-71	12.01	*298
08104850	South Fork San Gabriel River near Bertram, Tex. a/	Lat 30°43'14", long 98°06'10", Burnet County, at bridge on Farm Road 243 and 3.4 miles southwest of Bertram.	8.84	1967-71	7-30-71	6.28	(†)
08105900	Avery Branch near Taylor, Tex. a/	Lat 30°29'11", long 97°27'27", Williamson County, at culvert on Farm Road 973 and 6.4 miles southwest of Taylor.	-	1966-71	10-23-70	6.46	352
08108800	Little Branch near Bryan, Tex. a/	Lat 30°45'14", long 96°28'01", Robertson County, at culvert on U.S. Highway 190 and State Highway 6 and 8.3 miles northwest of Bryan.	.14	1966-71	1971	12.01	48
08110350	Plummers Creek at Mexia, Tex. a/	Lat 31°40', long 96°30', Limestone County, at culvert on State Highway 14 at southwest city limits of Mexia.	4.42	1966-71	10-12-70	14.01	1,450
08111100	Winkleman Creek near Brenham, Tex. a/	Lat 30°15'19", long 96°15'44", Washington County, at culvert on State Highway 90 and 10.7 miles northeast of Brenham.	.75	1966-71	10-11-70	12.58	364
08114900	Seabourne Creek near Rosenberg, Tex. a/	Lat 29°31'27", long 95°48'29", Fort Bend County, at culvert on State Highway 36 and 2.4 miles south of Rosenberg.	-	1967-71	9-10-71	6.37	310

* Twenty percent of culvert barrels plugged by drift.
† Discharge not determined.
< Less than.
a Equipped with stage-rainfall recorder.
e Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		San Bernard River Basin					
08117800	Mound Creek tributary at Guy, Tex. a/	Lat 29°20'49", long 95°46'30", Fort Bend County, at culvert on State Highway 36 and 0.2 mile southeast of Guy.	1.48	1967-71	10-11-70	2.28	206
		Colorado River Basin					
08123620	Sulphur Springs Draw near Wellman, Tex. a/	Lat 33°04'36", long 102°27'54", Terry County, at culvert on Farm Road 402 and 3 miles northwest of Wellman.	-	1966-71	6- 5-71	3.78	91
08123750	Coahoma Draw tributary near Big Spring, Tex. a/	Lat 32°21'17", long 101°24'18", Howard County, at culvert on State Highway 350 and 8.5 miles northeast of Big Spring.	-	1966-71	6- 9-69 8- 8-71	6.12 5.89	e870 520
08123760	Bull Creek tributary near Forsan, Tex. a/	Lat 32°08'23", long 101°10'53", Howard County, at culvert on Farm Road 2183 and 11.4 miles east of Forsan.	.40	1966-71	8-11-71	8.74	175
08123920	Bitter Creek near Silver, Tex. a/	Lat 31°58'48", long 100°42'52", Coke County, at culvert on Farm Road 2059, 2.5 miles upstream from mouth and 6.4 miles south of Silver.	-	1967-71	6-22-71	10.42	850
08126300	Fish Creek tributary near Hylton, Tex. a/	Lat 32°07'57", long 100°14'02", Nolan County, at culvert on Farm Road 1170 and 1.8 miles west of Hylton.	.25	1966-71	8- 1-71	6.84	96
08127100	Dry Creek near Christoval, Tex. a/	Lat 31°05'21", long 100°20'56", Tom Green at culvert on Farm Road 2084 and 11.4 miles southeast of Christoval.	-	1966-71	5-29-71	7.26	1,050
08133300	Quarry Creek near Sterling City, Tex. a/	Lat 31°50'48", long 101°09'18", Sterling County, at culvert on State Highway 158 and 9.8 miles west of Sterling City.	3.25	1966-71	9-22-71	5.48	380
08133800	Broome Creek near Broome, Tex. a/	Lat 31°46'05", long 100°51'09", Sterling County, at culvert on U.S. Highway 87 and 1.1 miles northwest of Broome.	-	1969-71	1971	<2.37	50
08134300	Nolke Station Creek near San Angelo, Tex. a/	Lat 31°31'34", long 100°33'46", Tom Green County, at culvert on Farm Road 2288 and 8.6 miles northwest of San Angelo.	.59	1965-71	8-10-71	7.80	300
08134400	Gravel Pit Creek near San Angelo, Tex. a/	Lat 31°27'54", long 100°31'17", Tom Green County, at culvert on Farm Road 2288 and 5.0 miles west of San Angelo.	.19	1966-71	8- 1-71	3.49	62
08136200	Puddle Creek near Veribest, Tex. a/	Lat 31°30'38", long 100°09'31", Tom Green County, at culvert on Farm Road 1692 and 6.2 miles northeast of Veribest.	-	1966-71	7-25-71	6.38	127
08136300	Frog Pond Creek near Eden, Tex. a/	Lat 31°14'21", long 99°59'54", Concho County, at culvert on U.S. Highway 87 and 9.4 miles west of Eden.	-	1967-71	1971	<1.77	<10
08141100	McCall Branch near Coleman, Tex. a/	Lat 31°50'57", long 99°33'12", Coleman County, at culvert on State Highway 53, 1 mile upstream from Hords Creek, and 8.2 miles west of Coleman.	2.17	1966-71	9-22-71	3.85	410
08143700	Brown's Creek tributary near Goldthwaite, Tex. a/	Lat 31°31'01", long 98°34'00", Mills County, at culvert on State Highway 16 and 4.6 miles north of Goldthwaite.	-	1967-71	8- 2-71	3.86	136
08145100	Brady Creek tributary near Brady, Tex. a/	Lat 31°05'05", long 99°17'33", McCulloch County, at culvert on Farm Road 734 and 4.3 miles southeast of Brady.	-	1967-71	9-24-71	14.73	3,970
08150200	Llano River tributary near London, Tex. a/	Lat 30°38'22", long 99°35'52", Kimble County, at culvert on U.S. Highway 377 and 2.7 miles south of London.	.58	1966-71	7-26-71	6.44	84
08150900	Stone Creek tributary near Art, Tex. a/	Lat 30°44'17", long 99°03'29", Mason County, at culvert on State Highway 29, 3.2 miles east of Art, and 10.6 miles east of Mason.	.40	1966-71	9-22-71	6.78	218

< Less than.
a Equipped with stage-rainfall recorder.
e Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Colorado River Basin--Continued					
08151300	Johnson Creek near Valley Spring, Tex. a/	Lat 30°51'38", long 98°49'52", Llano County, at culvert on Farm Road 734, 0.8 mile west of Valley Spring, and 12 miles west of Llano.	5.66	1967-71	5- 8-71	3.67	330
08152700	Little Flatrock Creek near Marble Falls, Tex. a/	Lat 30°30'52", long 98°18'44", Burnet County, at culvert on State Highway 71 and 4.8 miles southwest of Marble Falls.	-	1966-71	1971	<4.80	<50
08152800	Spring Creek near Fredericksburg, Tex. a/	Lat 30°18'10", long 99°03'20", Gillespie County, at downstream side of bridge on U.S. Highway 290 and 11.0 miles west of Fredericksburg.	-	1967-71	8-13-71	3.68	200
08153100	Cane Branch at Stonewall, Tex. a/	Lat 30°14'07", long 98°39'21", Gillespie County, at culvert on U.S. Highway 290 at Stonewall, and 0.6 mile upstream from Pedernales River.	1.37	1966-71	1971	<9.82	<20
08158900	Fox Branch near Oak Hill, Tex. a/	Lat 30°14'00", long 97°52'25", Travis County, at culvert on State Highway 71 near intersection with U.S. Highway 290, 0.2 mile upstream from Williamson Creek, and 1.0 mile west of Oak Hill.	-	1966-71	7-26-71	10.72	34
08159450	Reeds Creek near Bastrop, Tex. a/	Lat 30°00'26", long 97°15'03", Bastrop County, at bridge on Farm Road 2571 and 8.3 miles southeast of Bastrop.	5.31	1965-71	1971	<2.38	<660
08161580	Dry Branch tributary near Altair, Tex. a/	Lat 29°34'39", long 96°28'16", Colorado County, at culvert on State Highway 71 and 0.9 mile northwest of Altair.	.68	1967-71	3-17-70 9-10-71	.54 2.61	c<20 240
		Guadalupe River Basin					
08166300	Turtle Creek tributary near Kerrville, Tex. a/	Lat 29°58'11", long 99°11'02", Kerr County, at culvert on Farm Road 2771 and 5.9 miles south of Kerrville.	.45	1966-71	8-12-71	10.80	(†)
08168720	Trough Creek near New Braunfels, Tex. a/	Lat 29°46'20", long 98°15'55", Comal County, at culvert on State Highway 46 and 11.0 miles northwest of New Braunfels.	.48	1966-71	1971	f<6.47	<20
08168750	West Prong Dry Comal Creek tributary near New Braunfels, Tex. a/	Lat 29°42'48", long 98°17'26", Comal County, at culvert on Farm Road 1863 and 10.3 miles west of New Braunfels.	.32	1966-71	1971	f<6.37	<100
08169750	Walnut Branch at Seguin, Tex. a/	Lat 29°34'47", long 97°58'46", Guadalupe County, at culvert on U.S. Highway 90 (West Kingsbury Street), at Seguin.	5.46	1967-71	8- 3-71	4.50	300
08169850	East Pecan Branch near Gonzales, Tex. a/	Lat 29°29'58", long 97°31'36", Gonzales County, at culvert on U.S. Highway 90-A and 3.7 miles west of Gonzales.	.24	1966-71	6-23-68 4-11-69 6-28-71	6.02 5.71 6.19	e43 e33 48
08172100	West Elm Creek near Niederwald, Tex. a/	Lat 29°59'04", long 97°44'39", Caldwell County, at culvert on Farm Road 2001 and 2.3 miles southwest of Niederwald.	.46	1965-71	3-12-71	4.82	65
08176200	Irish Creek near Cuero, Tex. a/	Lat 29°08'02", long 97°12'10", DeWitt County, at bridge on Farm Road 1447 and 6.2 miles northeast of Cuero.	15.5	1967-71	e4-12-69 9-11-71	6.83 3.19	(†) (†)
08176600	Threemile Creek near Cuero, Tex. a/	Lat 29°02'00", long 97°20'52", DeWitt County, at culvert on Farm Road 2718 and 5.2 miles southwest of Cuero.	.48	1966-71	9-11-71	7.40	50
08177600	Olmos Creek tributary at Farm Road 1535, Shavano Park, Tex. a/	Lat 29°34'35", long 98°32'45", Bexar County, at culvert on Farm Road 1535 at Shavano Park.	.33	1969-71	5-16-69 5-26-70 1971	j2.94 j3.05 f<3.04	c27 c42 <40
08178300	Alazan Creek at St. Cloud Street, San Antonio, Tex. a/	Lat 29°27'29", long 98°32'59", Bexar County, at bridge on St. Cloud Street at San Antonio.	3.26	1969-71	9-22-71	8.0	406
08178600	Panther Springs Creek at Farm Road 2696 near San Antonio, Tex. a/	Lat 29°37'31", long 98°31'06", Bexar County, at culvert on Farm Road 2696 and 5.5 miles north of San Antonio.	9.54	1969-71	8- 4-71	6.55	457

† Discharge not determined.
< Less than.
a Equipped with stage-rainfall recorder.
c Not previously published.
e Revised.
f Flow did not reach bottom of intakes.
j Maximum observed.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Guadalupe River Basin--Continued					
08178690	Salado Creek tributary at Bitters Road, San Antonio, Tex. a/	Lat 29°31'36", long 98°26'25", Bexar County, at culvert on Bitters Road at San Antonio.	0.26	1967-71	9-22-71	3.87	45
08178736	Salado Creek tributary at Bee Street, San Antonio, Tex. a/	Lat 29°26'38", long 98°27'12", Bexar County, at culvert at intersection of Bee and Shirley Streets at San Antonio.	-	1970-71	8-13-71	5.06	(†)
08178900	Bandera Creek tributary near Bandera, Tex. a/	Lat 29°50'51", long 99°06'12", Bandera County, at culvert on Farm Road 689 and 10 miles north of Bandera.	.27	1966-71	8-12-71	6.48	<80
08179200	Medina River tributary near Pipe Creek, Tex. a/	Lat 29°38'12", long 98°56'13", Bandera County, at culvert on Farm Road 1283 and 6.8 miles south of Pipe Creek.	-	1966-71	9-21-71	7.83	270
08181000	Leon Creek tributary at Farm Road 1604, San Antonio, Tex. a/	Lat 29°35'14", long 98°37'40", Bexar County, at culvert on Farm Road 1604 at San Antonio.	5.57	1969-71	1969 5-26-70 8- 2-71	f<3.04 7.93 2.95	c<23 c1,200 11
08181200	French Creek tributary near Helotes, Tex. a/	Lat 29°33'43", long 98°39'26", Bexar County, at culvert on Farm Road 1604 and 2.2 miles east of Helotes.	1.08	1966-71	6-19-71	6.92	240
08188400	Baugh Creek at Goliad, Tex. a/	Lat 28°39'50", long 97°25'05", Goliad County, at culvert on U.S. Highway 59 and 1.5 miles west of Goliad.	3.02	1966-71	9-10-71	5.38	130
		Aransas River Basin					
08189600	Olmos Creek tributary near Skidmore, Tex. a/	Lat 28°15'27", long 97°44'15", Bee County, at culvert on Farm Road 797 and 3.4 miles west of Skidmore.	.58	1966-71	e5-24-70 9-12-71	6.52 9.01	78 (†)
		Nueces River Basin					
08194550	Plant Creek near Tilden, Tex. a/	Lat 28°24'15", long 98°33'11", McMullen County, at culvert on State Highway 16 and 3.9 miles south of Tilden.	.36	1965-71	9-11-71	7.60	44
08198900	East Elm Creek near Sabinal, Tex. a/	Lat 29°18'36", long 99°23'50", Medina County, at bridge on U.S. Highway 90 and 4 miles east of Sabinal.	-	1967-71	9- 3-67 1-19-68 5- 3-69 5-15-70 8-13-71	1.09 1.81 1.89 2.29 7.18	c6.7 c150 c195 c400 5,600
08200900	Bone Creek near Hondo, Tex. a/	Lat 29°33'16", long 99°06'12", Medina County, at culvert on Farm Road 689 and 14 miles north of Hondo.	.19	1966-71	8-12-71	9.77	350
08203500	Leona River tributary near Uvalde, Tex. a/	Lat 29°17'30", long 99°45'31", Uvalde County, at culvert on U.S. Highway 83 and 5.2 miles north of Uvalde.	-	1966-71	8-12-71	6.80	34
08207200	Rutledge Hollow Creek at Poteet, Tex. a/	Lat 29°02'29", long 98°34'41", Atascosa County, at culvert on Farm Road 476 (School Road) at Poteet.	18.3	1967-71	5-28-70 8- 3-71	5.30 8.56	c215 1,650
08207700	Lucas Creek near Pleasanton, Tex. a/	Lat 29°00'52", long 98°22'47", Atascosa County, at bridge on State Highway 97 and 8 miles northeast of Pleasanton.	32.8	1967-71	8-12-71	11.75	1,650
		Petronila Creek Basin					
08211550	Pintas Creek tributary near Banquete, Tex. a/	Lat 27°42'36", long 97°49'57", Nueces County, at culvert on Farm Road 666 and 7.0 miles south of Banquete.	3.28	1966-71	9-12-71	10.10	568
		San Fernando Creek Basin					
08212300	Tranquitas Creek at Kingsville, Tex. a/	Lat 27°31'33", long 97°52'02", Kleberg County, at bridge on U.S. Highway 77 Business Route at Kingsville, 4.9 miles above San Fernando Creek, and 5.9 miles downstream from Tranquitas Dam.	48.5	1965-71	8- 5-71	h2.96	(†)
08212320	North Las Animas Creek tributary near Freer, Tex. a/	Lat 27°47'07", long 98°37'03", Duval County, at culvert on State Highway 16 and 6.8 miles south of Freer.	.12	1969-71	1969 6-14-70 9-11-71	f<3.74 f<3.74 4.61	c<20 c<20 52

† Discharge not determined.
< Less than.
a Equipped with stage-rainfall recorder.
c Not previously published.
e Revised.
f Flow did not reach bottom of intakes.
h Stage record.

Annual maximum discharge at crest-stage partial-record stations during water year 1971--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande Basin					
08370200	Camp Rice Arroyo tributary near Fort Hancock, Tex. a/	Lat 31°17'51", long 105°48'52", Hudspeth County, at culvert on Interstate Highway 10 and 1.6 miles east of Fort Hancock.	-	1966-71	1971	<5.06	<40
08370800	Wildhorse Creek tributary near Van Horn, Tex. a/	Lat 31°02'55", long 104°40'13", Culberson County, at culvert on U.S. Highway 80 and 9.5 miles east of Van Horn.	0.74	1966-71	7-24-71	4.87	105
08377600	Rio Grande tributary near Langtry, Tex. a/	Lat 29°48'17", long 101°29'01", Val Verde County, at culvert on U.S. Highway 90 and 4.7 miles east of Langtry.	-	1966-71	8-15-71	8.92	98
08407800	Delaware River tributary near Orla, Tex. a/	Lat 31°55'46", long 104°28'52", Reeves County, at culvert on State Highway 652 and 36 miles west of Orla.	-	1966-71	8-15-71	5.26	54
08436800	Courtney Creek tributary near Fort Stockton, Tex. a/	Lat 31°00'28", long 103°04'20", Pecos County, at culvert on Farm Road 1776, 0.2 mile north of U.S. Highway 285, and 14 miles northwest of Fort Stockton.	-	1966-71	5-28-71	2.44	29
08437550	Lake Leon tributary near Fort Stockton, Tex. a/	Lat 30°54'04", long 103°02'50", Pecos County, at culvert on U.S. Highway 290 and 10 miles west of Fort Stockton.	-	1966-71	8-15-71	7.37	770
08437650	Monument Draw tributary at Pyote Tex. a/	Lat 31°33'33", long 103°07'43", Ward County, at culvert on Spur 247 and 2.1 miles northwest of Pyote.	-	1966-71	8-15-71	2.37	15
08444400	Three Mile Mesa Creek near Fort Stockton, Tex. a/	Lat 30°50'16", long 102°50'26", Pecos County, at culvert on State Highway 285 and 4.6 miles southeast of Fort Stockton.	-	1966-71	8-15-71	3.21	(†)
08447200	Howards Creek tributary near Ozona, Tex. a/	Lat 30°41'18", long 101°20'51", Crockett County, at culvert on U.S. Highway 290 and 8.7 miles west of Ozona.	7.53	1967-71	8- 1-71	6.54	1,460
08448800	Sonora Field Creek at Sonora, Tex. a/	Lat 30°34'40", long 100°38'54", Sutton County, at culvert on U.S. Highway 277 at Sonora (discontinued).	2.60	1966-71	5-29-71	q3.26	<50
08449470	Rough Canyon tributary near Del Rio, Tex. a/	Lat 29°35'50", long 100°51'51", Val Verde County, at culvert on U.S. Highway 277 and 16 miles north of Del Rio.	-	1967-71	8-11-71	13.08	2,950
08449600	Evans Creek tributary near Del Rio, Tex. a/	Lat 29°33'00", long 101°04'58", Val Verde County, at culvert on U.S. Highway 90 and 16 miles northwest of Del Rio.	-	1966-71	8-11-71	6.73	313
08453100	Zorro Creek near Del Rio, Tex. a/	Lat 29°19'52", long 100°49'54", Val Verde County, at culvert on U.S. Highway 277 and 4.7 miles southeast of Del Rio.	-	1966-71	4-10-69 e9-25-70 8-12-71	11.85 e8.30 7.50	e2,000 e300 400
08454900	East Perdido Creek near Brackettville, Tex. a/	Lat 29°20'50", long 100°34'32", Kinney County, at culvert on U.S. Highway 90 and 9.7 miles northwest of Brackettville.	-	1966-71	8-12-71	10.51	630
08459600	Arroyo San Bartolo at Zapata, Tex. a/	Lat 26°55'39", long 99°17'20", Zapata County, at culvert on U.S. Highway 83 and 1.0 mile north of Zapata.	.61	1966-71	8- 5-71	5.22	300
08466100	Rio Grande tributary near Rio Grande City, Tex. a/	Lat 26°18'58", long 98°39'45", Starr County, at culvert on U.S. Highway 83 and 10.7 miles southeast of Rio Grande City.	3.37	1966-71	9-12-71	4.34	64
08466200	Rio Grande tributary near Sullivan City, Tex. a/	Lat 26°17'12", long 98°35'16", Starr County, at culvert on U.S. Highway 83 and 1.6 miles northwest of Sullivan City.	2.47	1966-71	e6- 3-69 2-25-71	e8.23 8.69	e81 100

† Discharge not determined.
< Less than.
a Equipped with stage-rainfall recorder.
e Revised.
q Maximum for period October 1970 to July 1971.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1971

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Canadian River Basin						
Canadian River	Arkansas River	Lat 35°42'55", long 101°32'55", Hutchinson County, at Parshall Flume about 200 ft downstream from Sanford Dam, 1.2 miles northwest of Sanford, and at mile 508.	-	1968-69	1-11-68	k4.16
					2-14-68	k4.78
					3-20-68	k4.14
					5- 2-68	k4.28
					7- 6-68	k5.41
					8- 1-68	k4.24
					8-23-68	k4.53
					9-21-68	k4.52
					1-23-69	k4.33
San Jacinto River Basin						
Greens Bayou	Buffalo Bayou	Lat 29°53'30", long 95°14'17", Harris County, at bridge on Lake Houston Parkway about 11 miles northeast of Houston, Tex.	-	1963	5-19-71	4.80
					6-10-71	6.06
					6-23-71	56.3
					7-14-71	4.33
					8-25-71	6.89
.....Do.....	.....do.....	Lat 29°52'57", long 95°14'10", Harris County, at end of an unimproved extension of Garrett Road, 0.7 mile west of Ralston Road, and 11 miles northeast of Houston, Tex.	-	-	5- 6-71	6.33
Halls Bayou	Greens Bayou	Lat 29°50'52", long 95°53'14", Harris County, at bridge on East Houston Road at Houston, Tex.	-	1963	5- 6-71	9.69
					5-19-71	8.11
					6-10-71	6.60
					6-23-71	12.3
					7-14-71	6.34
					8-25-71	6.00
Clear Creek Basin						
Clear Creek	Gulf of Mexico	Lat 29°33'36", long 95°11'57", Harris-Galveston County line, at wooden bridge on private road and 1.9 miles north of Friendswood, Tex.	-	-	6- 9-71	2.30
					6-22-71	er24.1
					7-16-71	er13.1
					7-21-71	er26.1
Turkey Creek	Clear Creek	Lat 29°33'35", long 95°11'33", Harris County, at wooden bridge on private road and 2.0 miles northeast of Friendswood, Tex.	-	-	6- 9-71	.94
					6-22-71	e3.67
					7-16-71	1.79
Brazos River Basin						
Brazos River near Palo Pinto	Gulf of Mexico	Lat 32°51'52", long 98°25'02", Palo Pinto County, 4,000 ft downstream from Possum Kingdom Dam and 9.5 miles northwest of Palo Pinto, Tex.	-	-	1-25-71	12.4
					2-22-71	3.63
					6-15-71	21.4
.....Do.....	.....do.....	Lat 32°51'00", long 98°24'20", Palo Pinto County, 2.0 miles downstream from Possum Kingdom Dam and 8.25 miles northwest of Palo Pinto, Tex.	-	1949-51, 1967	2-22-71	5.39
					6-15-71	24.6
Walnut Creek	Leon River	Lat 31°57'18", long 98°27'24", Comanche County, 60 ft upstream from mouth and 2.2 miles northeast of Hasse, Tex.	-	1968-70	12- 2-70	.75
					2-10-71	.66
					3-16-71	.71
					4-20-71	.76
Brazos River Authority's Canal B	Brazos River (Diversion)	Lat 29°30'21", long 95°32'21", Fort Bend County, at bridge 4,500 ft downstream from pump plant and about 4.0 miles east of Thompsons, Tex.	-	1947-48, 1952, 1969-70	4-23-71	166
					5-19-71	299
					6-10-71	283
					7-20-71	281
					8-11-71	160
South Texas Water Co.'s Canal	.....do.....	Lat 29°27'07", long 95°29'30", Fort Bend County, at concrete flume over Oyster Creek, 1.0 mile west of Juliff, and 2.5 miles below pumps.	-	1939, 1948-49, 1951-52, 1956, 1958, 1963-70	3-10-71	155
					4-13-71	268
					5-14-71	300
					6-10-71	401
					8-17-71	0
					9-23-71	0
San Bernard River Basin						
San Bernard River	Gulf of Mexico	Lat 29°09'37", long 95°45'56", Brazoria County, at bridge on Farm Road 1301 and 7.6 miles west of West Columbia, Tex.	-	1949, 1970	10-21-70	d2,090
					12- 1-70	d34.4
					12-28-70	d30.7
					1-29-71	d28.6
					3-10-71	d13.0
					9-22-71	d3,980

d Water-quality records are published in Part 2 of this report.
e Includes discharge from two wells in park.
k Not previously published.
r Probably includes irrigation return flow.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Colorado River Basin				
North Champion Creek	Champion Creek	Lat 32°19'07", long 100°49'23", Mitchell County, 200 ft above mouth, about 0.2 mile below State Highway 208, and 6.6 miles south of Colorado City, Tex.	-	-	6-14-71	1.76
South Champion Creek	.....do.....	Lat 32°19'07", long 100°49'21", Mitchell County, 500 ft above mouth, about 0.2 mile below State Highway 208, and 6.6 miles south of Colorado City, Tex.	-	-	6-14-71	12.9
Bluff Creek Tributary	Bluff Creek	Lat 31°56'59", long 99°58'15", Runnels County, at Farm Road 53 and 0.5 mile west of junction with U.S. Highway 83 at Winters, Tex.	4.48	-	6- 7-71	†2,980
Little Coyote Creek	Coyote Creek	Lat 31°57'35", long 100°01'46", Runnels County, at Farm Road 384 and 3.9 miles west of Winters, Tex.	6.31	-	6- 7-71	†8,000
Anson Springs	South Concho River	Lat 31°08'16", long 100°29'36", Tom Green County, 200 ft downstream from dam on Boulware Ranch and 3.9 miles south of Christoval, Tex.	-	1941, 1948-50, 1958-66, 1970	12-15-70 2-11-71 3-22-71 3-29-71 5- 3-71 5-24-71 7- 1-71 7-30-71	7.09 5.90 4.46 5.54 6.42 5.34 6.86 8.51
South Concho Irrigation Company Canal	.....do.....	Lat 31°14'40", long 100°29'40", Tom Green County, 50 ft upstream from South Concho River and 3.7 miles north of Christoval, Tex.	-	-	2-11-71	.58
South Concho River	Concho River	Lat 31°14'55", long 100°29'40", Tom Green County, 300 ft below return of South Concho Irrigation Company Canal and 3.8 miles north of Christoval, Tex.	-	-	2-11-71	9.65
.....Do.....	.....do.....	Lat 31°17'11", long 100°30'21", Tom Green County, at Gardner Dam, 2.25 miles upstream from Twin Buttes Dam, and 13 miles south of San Angelo, Tex.	-	1966-68	11-13-70 12-15-70 1-21-71 2-11-71 3-22-71 3-25-71 3-29-71 4- 7-71 4-12-71 4-23-71 5- 3-71 5-17-71 5-27-71 6- 2-71 7- 1-71 7-30-71 8- 3-71 8- 3-71	5.34 8.15 7.45 9.14 4.74 2.74 9.58 9.98 10.1 12.6 12.6 9.04 7.88 20.5 10.6 9.47 250 106
West Rocky Creek	Middle Concho River	Lat 31°30'15", long 100°50'16", Irion County, at headquarters of John Cargile Ranch and 16.4 miles north of Mertzon, Tex.	-	1950, 1970	10-21-70	2.02
.....Do.....	.....do.....	Lat 31°28'24", long 100°47'44", Irion County, on Joe Funk Ranch and 14.2 miles north of Mertzon, Tex.	-	1970	10-21-70	2.41
Dry Rocky Creek	.....do.....	Lat 31°28'08", long 100°46'04", Irion County, on Joe Funk Ranch and 14.2 miles north of Mertzon, Tex.	-	1970	10-21-70	.41
West Rocky Creek	.....do.....	Lat 31°27'36", long 100°45'30", Irion County, on Joe Funk Ranch and 14.0 miles north of Mertzon, Tex.	-	1970	10-21-70	1.64
.....Do.....	.....do.....	Lat 31°26'35", long 100°45'29", Irion County, about 500 ft downstream from crossing on Farm Road 853 and 12.6 miles north of Mertzon, Tex.	-	1950, 1970	10-21-70 12-11-70 9-17-71	1.94 2.72 1.12

† Peak discharge.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Colorado River Basin--Continued						
San Angelo Lake from toe drain on left bank	North Concho River	Lat 31°29'04", long 100°28'46", Tom Green County, on toe drain located on left downstream side of San Angelo Lake and about 50 ft above North Concho River at San Angelo, Tex.	-	1959-70	10- 8-70 11-12-70 12-15-70 1-21-71 2-24-71 3-31-71 5- 4-71 6- 9-71 7-20-71 8-23-71	0.002 0 0 0 0 0 0 0 0 .10
Little Robin Slough Basin						
Little Robin Slough	Matagorda Bay	Lat 28°44'00", long 96°03'20", Matagorda County, at county road and 6.0 miles northwest of Matagorda, Tex.	-	1969	2-25-71 3- 4-71	.05 .05
Mad Island Slough Basin						
West Branch Mad Island Slough	Mad Island Slough	Lat 28°42'09", long 96°07'29", Matagorda County, at bridge on county road and 3.5 miles southeast of Collegeport, Tex.	-	-	2-25-71 3- 1-71 3- 2-71 3- 4-71	0 0 0 0
Oyster Lake Basin						
Unnamed Tributary	Oyster Lake	Lat 28°38'45", long 96°08'52", Matagorda County, at bridge on private road and 5.5 miles south of Collegeport, Tex.	-	-	2-25-71 3- 2-71 3- 4-71	0 0 0
Matagorda Bay Basin						
Unnamed Tributary	Matagorda Bay	Lat 28°39'18", long 96°11'35", Matagorda County, at bridge on county road and 5.0 miles south of Collegeport, Tex.	-	-	2-25-71 3- 2-71 3- 4-71	0 0 0
Tres Palacios Bay Basin						
Willow Dam Slough	Tres Palacios Bay	Lat 28°46'00", long 96°07'35", Matagorda County, at culvert on Farm Road 1095 and 4.3 miles northeast of Collegeport, Tex.	-	-	2-25-71 3- 1-71 3- 2-71 3- 4-71	0 0 0 0
Johnsons Timber Slough	Tres Palacios Creek	Lat 28°47'02", long 96°07'44", Matagorda County, at culvert on Farm Road 521 and 5.2 miles northeast of Collegeport, Tex.	-	-	2-25-71 3- 1-71 3- 2-71 3- 4-71	0 0 0 0
Turtle Creek Basin						
Turtle Creek	Turtle Bay	Lat 28°46'18", long 96°14'04", Matagorda County, at county road and 4.0 miles north of Palacios, Tex.	-	1969	2-25-71 3- 3-71	0 .003
East Carancahua Creek Basin						
Lunis Creek	West Carancahua Creek	Lat 28°54'48", long 96°23'41", Jackson County, at bridge on county road and 6.3 miles east at La Ward, Tex.	-	-	2-24-71 2-26-71 3- 3-71	0 0 0
Keller Creek Basin						
Keller Creek	Keller Bay	Lat 28°50'37", long 96°29'00", Jackson County, at bridge on Farm Road 616 and 1.2 miles west of La Ward, Tex.	-	1967-68, 1970	2-24-71 2-25-71 2-26-71 3- 1-71 3- 2-71 3- 3-71	0 0 0 0 0 0
Huisache Creek Basin						
Huisache Creek	Huisache Cove	Lat 28°49'23", long 96°32'32", Jackson County, at bridge on county road, 50 yards east of Farm Road 1593, and 1.2 miles south of Lolita, Tex.	-	1967-68	2-24-71 2-25-71 2-26-71 3- 1-71 3- 3-71	0 0 0 0 0
Swan Lake Basin						
Unnamed Drainage Ditch	Swan Lake	Lat 28°44'10", long 96°33'12", Jackson County, at culvert on Farm Road 1593 and 4.3 miles north of Point Comfort, Tex.	-	-	2-25-71 3- 4-71	.53 .38
Lavaca River Basin						
Mustang Creek	Navidad River	Lat 29°02'32", long 96°28'11", Jackson County, at bridge on Farm Road 1157 and 2.8 miles east of Ganado, Tex.	-	1970	2-24-71 2-25-71 2-26-71 3- 3-71	0 0 0 0

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Garcitas Creek Basin				
Casa Blanco Creek	Garcitas Creek	Lat 28°51'35", long 96°48'47", Victoria County, at bridge on county road and 3.4 miles southwest of Inez, Tex.	-	-	2-24-71 2-26-71 3- 3-71	0.25 .08 .04
Marcado Creek	.....do.....	Lat 28°49'10", long 96°46'22", Victoria County, at bridge on private road and 6.0 miles southwest of Inez, Tex.	-	-	2-26-71 3- 3-71	.07 .05
Arenosa Creek	.....do.....	Lat 28°54'46", long 96°46'24", Jackson-Victoria County line, at bridge on U.S. Highway 59 and 1.1 miles northeast of Inez, Tex.	-	1965-70	2-24-71 3- 3-71	0 0
Dry Creek	Arenosa Creek	Lat 28°55'21", long 96°45'18", Victoria County, at bridge on U.S. Highway 59 and 2.4 miles northeast of Inez, Tex.	-	1968	2-24-71 3- 3-71	0 0
		Coloma Creek Basin				
East Coloma Creek	Coloma Creek	Lat 28°30'06", long 96°38'47", Calhoun County, at bridge on State Highway 238 and 7.8 miles south of Port Lavaca, Tex.	-	1969	2-26-71 3- 3-71	5.05 .14
West Coloma Creek	.....do.....	Lat 28°28'41", long 96°40'10", Calhoun County, at bridge on State Highway 238 and 5.2 miles northeast of Seadrift, Tex.	-	1969	2-26-71 3- 3-71	11.2 .13
		San Antonio Bay Basin				
Drain	San Antonio Bay	Lat 28°23'03", long 96°41'50", Calhoun County, 0.2 mile upstream from mouth, 1.0 mile southeast of Swan Point, and 2.1 miles south of Seadrift, Tex.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
.Do.....	.....do.....	Lat 28°23'38", long 96°42'00", Calhoun County, 0.4 mile upstream from mouth, 0.8 mile northeast of Swan Point, and 1.4 miles south of Seadrift, Tex.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
.Do.....	.....do.....	Lat 28°24'09", long 96°41'42", Calhoun County, at county road, 0.7 mile upstream from mouth, 1.2 miles southeast of Seadrift, and 1.4 miles northeast of Swan Point, Tex.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
Seadrift Drain	Seadrift Creek	Lat 28°24'47", long 96°41'58", Calhoun County, at State Highway 185, 0.7 mile east of Seadrift, 100 ft north of Missouri Pacific Railroad Co. tracks, and 0.4 mile upstream from Seadrift Creek.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
Seadrift Creek	San Antonio Bay	Lat 28°52'02", long 96°42'36", Calhoun County, north of Seadrift, 200 ft east of county road, and 0.4 mile upstream from Seadrift drain.	-	-	11-10-70 11-12-70 11-16-70 11-18-70	ad.2 ad.22 ad.07 ad.07
Drain	.....do.....	Lat 28°24'55", long 96°43'55", Calhoun County, at end of county road, 0.6 mile upstream from mouth, 1.3 miles east of Seadrift, and 1.6 miles south of intersection of State Highways 185 and 238.	-	-	11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0
		Mission Lake Basin				
Schwing Bayou	Mission Lake	Lat 28°29'13", long 96°51'08", Calhoun County, at bridge on State Highway 35 and 3.2 miles northeast of Tivoli, Tex.	-	-	11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0
		Guadalupe River Basin				
San Antonio River	Guadalupe River	Lat 29°27'40", long 98°28'21", Bexar County, about 50 ft downstream from first ford at zoo entrance in Brackenridge Park, San Antonio, Tex.	-	1934	11-15-32	ek58.5

a Estimated.
d Water-quality records are published in Part 2 of this report.
e Includes discharge from two wells in park.
k Not previously published.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Guadalupe River Basin--Continued				
San Antonio River	Guadalupe River	Lat 29°26'43", long 98°28'52", Bexar County, at West Josephine Street bridge, San Antonio, Tex.	-	1933-35	12- 3-32	k70.6
					12-26-32	k68.2
					2-22-33	fk67.9
					2-22-33	k65.3
					4-14-33	k59.2
					5-13-33	k41.7
					6-20-33	k42.4
					6-24-33	k42.8
					7-15-33	k35.9
					10-24-33	k23.4
					10-27-33	k8.38
					5- 7-34	k38.5
					5- 9-34	k28.5
					5- 9-34	k28.9
					5-31-34	k16.1
					5-31-34	k16.2
					6- 4-34	k7.41
					6- 4-34	k6.46
					6-22-34	k7.24
					8-27-34	k5.60
					10-29-34	k3.34
.....Do.....	.....do.....	Lat 29°24'34", long 98°29'40", Bexar County, at South Alamo Street bridge and 2.1 miles upstream from San Pedro Creek, San Antonio, Tex.	-	1915-29#, 1933-35, 1939-70#	11-15-32	k81.1
					2-11-33	k71.4
					4-13-33	k73.5
					5-13-33	k56.1
					6-22-33	k44.8
					7-15-33	k48.8
					10-24-33	k37.8
					12- 8-33	k40.3
					5- 8-34	k50.4
					5- 9-34	k43.9
					5- 9-34	k44.6
					5-31-34	k27.8
					5-31-34	k27.2
					6-25-34	k18.6
					8-27-34	k16.4
					9-11-34	k15.9
					10-29-34	k14.0
.....Do.....	.....do.....	Lat 29°23'34", long 98°29'39", Bexar County, at Mitchell Street bridge, San Antonio, Tex.	-	1934	9-11-34	k25.2
San Pedro Springs	San Pedro Creek	Lat 29°26'42", long 98°30'06", Bexar County, at San Pedro Park in San Antonio, Tex.	-	1933-35, 1951-52, 1958-61, 1966	11- 9-32	k5.34
					12- 5-32	k4.82
					7-15-33	k5.04
					10-24-33	k4.71
					5- 7-34	k5.62
					5-31-34	k5.14
					6-25-34	k3.69
					10-29-34	k2.72
San Pedro Creek	San Antonio River	Lat 29°26'20", long 98°30'16", Bexar County, 300 ft upstream from bridge on U.S. Highway 87, San Antonio, Tex.	-	1964-65	11-20-64	ak.1
					11-25-64	ak.1
					12- 3-64	ak.1
					2-16-65	ak3.0
					3- 3-65	k3.71
					3-10-65	k2.97
					4-29-65	k3.91
					5-25-65	k10.4
					7- 2-65	k3.16
.....Do.....	.....do.....	Lat 29°25'52", long 98°29'51", Bexar County, at Kingsbury Road, San Antonio, Tex.	-	1934	11- 9-32	k7.07
.....Do.....	.....do.....	Lat 29°25'30", long 98°24'54", Bexar County, at Arsenal Street bridge, San Antonio, Tex.	-	1916-29#, 1933-34	11- 9-32	k9.67
					4-13-33	k9.45
					10-24-33	k6.81
San Antonio River	Guadalupe River	Lat 29°21'30", long 98°28'19", Bexar County, at Pyron Road bridge, San Antonio, Tex.	-	1934	9-11-34	gk24.2
Canal	San Antonio River	Lat 29°21'30", long 98°28'19", Bexar County, at Pyron Road, San Antonio, Tex.	-	1934	9-11-34	k7.30

Operated as a continuous-record gaging station.
a Estimated.
f At 7th Street bridge.
g Flow of canal not included.
k Not previously published.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Guadalupe River Basin--Continued				
Headrace	San Antonio River	Lat 29°20'03", long 98°27'21", Bexar County, at Mission Road, San Antonio, Tex.	-	1934	9-11-34	k19.8
San Antonio River	Guadalupe River	Lat 29°20'03", long 98°27'21", Bexar County, at Mission Road bridge, San Antonio, Tex.	-	1934	9-11-34	hk1.49
.....Do.....	.....do.....	Lat 29°19'18", long 98°26'58", Bexar County, at upstream side of downstream bridge on Interstate Highway 410 South at San Antonio, Tex.	-	-	1-12-71 3-22-71 5-10-71 7-26-71	d95.0 d182 d159 d123
.....Do.....	.....do.....	Lat 29°17'28", long 98°26'25", Bexar County, at low-water crossing, 1.0 mile upstream from Salado Creek, and 3.4 miles downstream from Interstate Highway 410 South.	-	-	1-12-71 3-23-71 5-11-71 7-26-71	d114 d79.5 d114 d121
Salado Creek	San Antonio River	Lat 29°29'05", long 98°24'59", Bexar County, at Rittiman Road, San Antonio, Tex.	-	1919, 1932-35, 1951-52	5- 8-19 11-14-32 12- 5-32 4-14-33 5-20-33 7-17-33 10-23-33 5- 7-34 6-25-34 8-28-34 10-29-34 7- 1-35 1-15-51 9- 6-51 1-14-52	k3.0 k2.02 k1.40 k1.86 k.96 k1.15 k1.05 k.91 k1.01 k.75 k.49 k4.1 k.7 k0 k.1
.....Do.....	.....do.....	Lat 29°27'54", long 98°25'36", Bexar County, at W. W. White Road crossing, which is below Government wells and above Farmers well at Fort Sam Houston Military Reservation, San Antonio, Tex.	-	1919, 1932-35, 1951-52	5- 8-19 1-14-32 11-14-32 12- 5-32 4-14-33 5-20-33 7-17-33 10-23-33 5- 7-34 6-25-34 8-28-34 10-29-34 1-15-51 1-14-52	k14.9 k10.6 k10.8 k10.2 k11.3 k4.63 k7.91 k13.5 k11.6 k11.6 k13.6 k10.1 k.2 k.1
.....Do.....	.....do.....	Lat 29°27'24", long 98°25'56", Bexar County, at Binz-Engleman Road crossing, which is below Farmers well, San Antonio, Tex.	-	1919, 1932-35, 1951-52	5- 8-19 1-14-32 11-14-32 12- 5-32 4-14-33 5-20-33 6-21-33 7-17-33 10-23-33 5- 7-34 6-25-34 8-28-34 10-29-34 7- 1-35 1-15-51	k24.0 k23.0 k22.1 k21.9 k22.6 k14.8 k18.3 k22.3 k25.8 k21.7 k22.9 k24.7 k22.8 k28.5 k8.6
.....Do.....	.....do.....	Lat 29°26'06", long 98°25'08", Bexar County, at Gembler Road crossing, San Antonio, Tex.	-	1933	11-14-32	k24.0
.....Do.....	.....do.....	Lat 29°25'28", long 98°25'54", Bexar County, at St. Hedwig Road crossing, San Antonio, Tex.	-	1933, 1951-52	11-14-32 1-16-51 2- 5-51 8-23-51 1-14-52	k24.9 k10.0 k10.1 k5.5 k8.2
.....Do.....	.....do.....	Lat 29°24'18", long 98°25'38", Bexar County, 0.5 mile upstream from bridge on Rigsby Avenue, San Antonio, Tex.	-	1933	11-14-32	k23.9

d Water-quality records are published in Part 2 of this report.
h To obtain total flow of river, add canal and headrace = 28.6 cfs.
k Not previously published.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Guadalupe River Basin--Continued				
Salado Creek	San Antonio River	Lat 29°23'26", long 98°25'22", Bexar County, at Sulphur Springs Road crossing, San Antonio, Tex.	-	1933	11-14-32	k20.3
Irrigation Pump	.....do.....	Lat 29°23'26", long 98°25'22", Bexar County, at Sulphur Springs Road crossing, San Antonio, Tex.	-	1933	11-14-32	jk1.77
Unnamed Tributary	Salado Creek	Lat 29°23'24", long 98°25'02", Bexar County, at Sulphur Springs Road crossing, San Antonio, Tex.	-	1933	11-14-32	k4.47
Salado Creek	San Antonio River	Lat 29°19'03", long 98°24'42", Bexar County, at bridge on U.S. Highway 181, San Antonio, Tex.	-	1933, 1951-52	11-14-32 1-15-51 1-14-52	k24.6 k11.7 k9.1
.....Do.....	.....do.....	Lat 29°17'53", long 98°25'16", Bexar County, at bridge on Southton Road and 1.6 miles upstream from San Antonio River at Southton, Tex.	-	-	1-12-71 3-22-71 5-10-71 7-27-71	d18.1 d11.6 d8.48 d3.69
San Antonio River	Guadalupe River	Lat 29°16'28", long 98°25'40", Bexar County, at Aquilla Dam, 1.5 miles downstream from Salado Creek, and 0.2 mile downstream from bridge at Blue Wing Road.	-	-	1-12-71 3-23-71 5-10-71 7-27-71	d155 d88.9 d183 d82.6
.....Do.....	.....do.....	Lat 29°14'04", long 98°24'29", Bexar County, 100 ft upstream from Medina River and 5.7 miles downstream from Salado Creek.	-	-	1-13-71 3-23-71 5-11-71 7-27-71	d115 d111 d124 d78.3
San Geronimo Creek	Medina River	Lat 29°34'44", long 98°48'47", Medina County, at ranch road crossing and 4.4 miles north of intersection of Farm Roads 471 and 1608.	-	-	9- 2-71	11.5
.....Do.....	.....do.....	Lat 29°33'16", long 98°49'54", Medina County, 500 ft upstream from ranch road crossing and 2.8 miles northwest of intersection of Farm Roads 471 and 1608.	-	-	8-16-71 9- 2-71	209 8.82
.....Do.....	.....do.....	Lat 29°32'47", long 98°49'03", Medina County, at ranch road crossing and 2.0 miles north of intersection of Farm Roads 471 and 1608.	-	-	8-16-71 8-20-71 8-30-71 9- 2-71	204 68.6 6.25 3.75
.....Do.....	.....do.....	Lat 29°32'17", long 98°48'40", Medina County, below water gap in fence and 1.5 miles north of intersection of Farm Roads 471 and 1608.	-	-	8-20-71 9- 2-71	69.8 2.19
.....Do.....	.....do.....	Lat 29°32'03", long 98°48'26", Medina County, at ranch road crossing and 1.3 miles north of intersection of Farm Roads 471 and 1608.	-	-	8-16-71 8-20-71 8-30-71 9- 2-71	161 60.7 a2 0
.....Do.....	.....do.....	Lat 29°31'17", long 98°48'54", Medina County, at Farm Road 471.	-	-	8-20-71 8-30-71	54.5 a.5
Leon Creek	.....do.....	Lat 29°21'56", long 98°35'07", Bexar County, at Loop 13 on south side of Kelly Field, San Antonio, Tex.	-	1934, 1951-52	8-30-34 9- 7-51 1-16-52	k.15 k.1 k.2
.....Do.....	.....do.....	Lat 29°20'32", long 98°35'15", Bexar County, 500 ft above Quintana Road and above T. & N.O. Railroad bridge, San Antonio, Tex.	-	1934, 1951-52	8-30-34 9- 7-51 1-16-52	k1.64 k9.4 k9.4
.....Do.....	.....do.....	Lat 29°19'43", long 98°35'04", Bexar County, at bridge on Somerset Road, San Antonio, Tex.	-	1934	8-30-34	k2.12
.....Do.....	.....do.....	Lat 29°16'56", long 98°33'35", Bexar County, at bridge on State Highway 346 and 6.7 miles northeast of Somerset, Tex.	-	1927, 1934, 1951-52	11-16-26 8-31-34 9- 7-51 1-15-52	k.9 k1.03 k11.3 k9.3
.....Do.....	.....do.....	Lat 29°15'52", long 98°29'38", Bexar County, at confluence with Medina River.	-	1934	9-10-34	k1.0

a Estimated.
d Water-quality records are published in Part 2 of this report.
j Not known whether irrigation pump above or below Sulphur Springs Road.
k Not previously published.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Guadalupe River Basin--Continued				
Medina River	San Antonio River	Lat 29°14'02", long 98°24'31", Bexar County, 100 ft upstream from San Antonio River and 5.7 miles downstream from U.S. Highway 281.	-	-	1-13-71 3-23-71 5-11-71 7-27-71	d69.6 d47.6 d64.7 d42.8
San Antonio River	Guadalupe River	Lat 29°14'02", long 98°24'27", Bexar County, 100 ft downstream from Medina River and 5.7 miles downstream from Salado Creek.	-	-	1-13-71 3-23-71 5-11-71 7-27-71	d198 d172 d184 d112
.....Do.....	.....do.....	Lat 29°13'17", long 98°26'18", Bexar County, at bridge on Farm Road 1518, 7.4 miles downstream from Medina River, and 13.1 miles downstream from Salado Creek.	-	-	1-13-71 3-24-71 5-11-71 7-27-71	d164 d128 d125 d55.4
Cibolo Creek	San Antonio River	Lat 29°47'20", long 98°43'25", Bexar County, below dam and 0.4 mile east of U.S. Highway 87, Boerne, Tex.	-	1933	3- 7-33	k13.9
.....Do.....	.....do.....	Lat 29°29'02", long 98°10'04", Bexar County, at bridge on Trainer Hale Road on Bexar-Guadalupe County line and 0.3 mile southwest of Zuehl, Tex.	-	1934	9-13-34	k.61
		Townsend Bayou Basin				
Unnamed Tributary	Townsend Bayou	Lat 28°28'32", long 96°52'03", Refugio County, at culvert on State Highway 35, 0.3 mile west of Guadalupe River, and 1.9 miles northeast of Tivoli, Tex.	-	-	11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0
Drain	.....do.....	Lat 28°28'02", long 96°52'50", Refugio County, at culvert on State Highway 35, 0.3 mile northeast of Missouri Pacific Railroad Co. tracks, and 1.0 mile north of Tivoli, Tex.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
Miller Creek	.....do.....	Lat 28°27'00", long 96°52'24", Refugio County, 0.9 mile east of Tivoli and 3.4 miles north of intersection of State Highway 113 and Farm to Market Highway 3035.	-	-	11-10-70 11-12-70 11-16-70 11-18-70	ad.01 ad.01 ad.03 ad.01
		Hynes Bay Basin				
Drain	Hynes Bay	Lat 28°25'08", long 96°52'14", Refugio County, at culvert on county road, 0.5 mile north of intersection with State Highway 113, 1.3 miles east of Maudlowe, and 2.7 miles southeast of Tivoli, Tex.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
.....Do.....	.....do.....	Lat 28°22'22", long 96°50'18", Refugio County, at culvert on Farm to Market Highway 2040, 1.0 mile upstream from mouth, and 1.1 miles south of Austwell, Tex.	-	-	11-10-70 11-11-70 11-12-70 11-16-70 11-18-70	0 0 0 0 0
.....Do.....	.....do.....	Lat 28°21'49", long 96°49'09", Refugio County, at culvert on Farm to Market Highway 2040, 1.5 miles west of McDowell Point, and 2.3 miles southeast of Austwell, Tex.	-	-	11-10-70 11-12-70	0 0
Unnamed Tributary	.....do.....	Lat 28°20'55", long 96°48'11", Refugio County, at culvert on Farm to Market Highway 2040, 1.2 miles southwest of McDowell Point, and 2.2 miles north of Aransas-Refugio County line.	-	-	11-10-70 11-12-70 11-16-70	0 d.16 ad.07
.....Do.....	.....do.....	Lat 28°21'42", long 96°47'42", Refugio County, 0.2 mile upstream from mouth and 0.2 mile south of McDowell Point	-	-	11-18-70	ad.16
		Nueces River Basin				
San Roque Creek	Nueces River	Lat 28°17'05", long 99°36'48", Dimmit County, at bridge on U.S. Highway 83 about 4.0 miles south of Caterina, Tex.	-	-	6-29-71	†54,900
Frio River	.....do.....	Lat 29°41'40", long 99°45'20", Real County, at bridge on Ranch Road 1120 and 2.0 miles southeast of Leakey, Tex.	-	1968-69	6- 2-71	d29.0

† Peak discharge.
a Estimated.
d Water-quality records are published in Part 2 of this report.
k Not previously published.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Nueces River Basin--Continued				
Frio River	Nueces River	Lat 29°36'16", long 99°44'15", Uvalde County, at bridge on Ranch Road 1050, 1.0 mile north of Garner State Park, and 7.4 miles north of Concan, Tex.	-	1968-69	6- 2-71	d33.5
....Do....	.....do.....	Lat 29°34'36", long 99°43'30", Uvalde County, at Magers Crossing on county road, 0.2 mile below Garner State Park, and 5.6 miles north of Concan, Tex.	-	1968-69	6- 2-71	d32.0
Verde Creek	Hondo Creek	Lat 29°24'16", long 99°06'59", Medina County, 1,000 ft downstream from bridge on Farm Road 689 and 5.6 miles northeast of Hondo, Tex.	-	-	8-12-71	†90,000
Lagarto Creek	Nueces River	Lat 28°03'33", long 98°05'49", Live Oak County, at bridge on U.S. Highway 281 and 19.3 miles south of George West, Tex.	-	-	9-12-71 9-13-71	†23,100 †9,400
Oso Creek	Oso Bay	Lat 27°42'39", long 97°30'06", Nueces County, at bridge on Farm Road 763, 1.5 miles north of Farm Road 43, 1.6 miles south of Farm Road 665, and 2.0 miles southwest of Corpus Christi city limits.	-	-	9-13-71	†2,010
		Rio Grande Basin				
La Union East Canal	Rio Grande	Lat 32°00'15", long 106°39'08", Dona Ana County, N. Mex., at headgate of Main Canal and 2.8 miles west of Anthony, Tex.	-	1970	10- 7-70 11-24-70 12-22-70 1-27-71 3-11-71 4-21-71 5-25-71 6-30-71 8- 2-71 9- 7-71	0 0 0 0 98.8 40.0 47.2 153 125 161
Vinton Drain	.....do.....	Lat 31°57'27", long 106°37'08", El Paso County, at Farm Road 273 and 4.2 miles southwest of Anthony, Tex.	-	1970	10-12-70 11-24-70 12-22-70 1-26-71 2-18-71 3-11-71 3-25-71 4-21-71 5-25-71 6-30-71 8- 2-71 9- 7-71	1.37 .80 .67 .52 .48 .45 .97 1.03 .75 .93 .94 .99
La Union West Canal	.....do.....	Lat 32°00'15", long 106°39'12", Dona Ana County, N. Mex., at headgate of the Main Canal and 2.8 miles west of Anthony, Tex.	-	1970	10- 5-70 11-24-70 12-22-70 1-27-71 3-11-71 4-21-71 5-25-71 6-30-71 8- 2-71 9- 7-71	0 0 0 0 101 32.6 38.9 178 119 110
Nemexas Drain	.....do.....	Lat 31°57'22", long 106°38'12", Dona Ana County, N. Mex., at Farm Road 273 and 0.5 mile east of La Union, N. Mex.	-	1970	10-12-70 12-22-70 1-26-71 2-18-71 3-11-71 3-25-71 4-21-71 5-25-71 6-30-71 8- 2-71 9- 7-71	9.44 6.08 3.08 2.51 2.23 8.87 9.43 8.77 12.9 9.87 10.3

† Peak discharge.
d Water-quality records are published in Part 2 of this report.

Discharge measurements made at miscellaneous sites during water year 1971--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Rio Grande Basin--Continued				
West Drain	Rio Grande	Lat 31°57'07", long 106°39'29", Dona Ana County, N. Mex., at Farm Road 273 and 0.7 mile west of La Union, N. Mex.	-	1970	10-12-70	17.0
					11-24-70	9.88
					12-22-70	8.64
					1-26-71	7.64
					2-18-71	4.71
					3-11-71	22.5
					3-25-71	21.2
					4-22-71	13.4
					5-25-71	13.4
					6-30-71	14.2
					8- 2-71	19.5
					9- 7-71	20.9
Montoya Drain	....do....	Lat 31°48'50", long 106°34'12", El Paso County, at Frontera Road in the Upper Rio Grande Valley at El Paso, Tex.	-	1970	10-13-70	58.4
					11-24-70	46.3
					12-22-70	47.4
					1-27-71	36.9
					2-18-71	29.3
					3-11-71	41.0
					3-25-71	45.8
					4-21-71	58.2
					5-26-71	42.3
					7- 1-71	48.0
					8- 2-71	54.7
					9- 8-71	61.9
Mud Springs 1/	Mud Creek	Lat 29°27'10", long 100°37'30", Kinney County, on Mays Ranch and 16 miles northwest of Brackettville, Tex.	-	1939-41, 1952-53, 1962, 1965-70	10-13-70	8.2
					10-27-70	7.3
					11-10-70	7.0
					11-24-70	6.08
					12- 8-70	5.61
					1-20-71	3.85
					2- 2-71	3.5
					2-17-71	3.2
					3- 9-71	2.3
					3-23-71	1.65
					4- 6-71	1.2
					4-27-71	.68
					5-11-71	.19
					5-25-71	a.15
					6- 8-71	0
					6-22-71	.85
					7- 7-71	5.18
					7-20-71	5.55
					8-10-71	9.29
					8-25-71	16.6
					9-14-71	17.0
Pinto Springs 1/	Pinto Creek	Lat 29°24'10", long 100°27'15", Kinney County, on C. C. Belcher Ranch and 7.5 miles northwest of Brackettville, Tex.	-	1939-41, 1952-53, 1962, 1965-70	10-13-70	0
					10-27-70	0
					11-10-70	0
					11-24-70	0
					12- 8-70	0
					12-29-70	0
					1-20-71	0
					2- 2-71	0
					2-17-71	0
					3- 9-71	0
					3-23-71	0
					4- 6-71	0
					4-27-71	0
					5-11-71	0
					5-25-71	0
					6- 8-71	0
					6-22-71	0
					7- 7-71	0
					7-20-71	0
					8-10-71	.39
					8-25-71	20.9
					9-14-71	26.0

1/ Measurements by International Boundary and Water Commission.
a Estimated.

A seepage or low-flow investigation along a watercourse involves discharge measurements or observations of no flow at selected sites in a given reach of the channel, plus measurements of inflow and diversions, field commentary relative to observations, water samples and temperatures, and other relevant data. Measuring sites are described to the extent that they may be used in subsequent investigations. Sometimes temporary recording installations are used to supplement records at regular gaging stations in the study of flow trends.

In the tabulated results the indicated gains or losses may sometimes appear incompatible because of diurnal or other flow variations or because of small inaccuracies in open-channel measurements. Trends in a given reach may vary with the seasons or because of regulation. Successive investigations can serve to delineate a progressive change.

COLORADO RIVER BASIN

Barton Creek Low-Flow Investigation

REACH.--From a county road crossing, 2 miles northeast of Henly near the headwaters of Barton Creek to a point 200 ft below the lower dam at Barton Springs in Austin, Texas, a distance of 49.5 miles.

PURPOSE.--To determine the changes in quantity of low flow in Barton Creek.

SUMMARY.--This investigation was conducted during periods of relatively higher and lower base flows. These data provided the basis for Barton Creek being designated a "perennial interrupted stream" in the Barton Creek court case. The results of specific conductance analyses of water samples collected during this investigation are published in the U.S. Geological Survey open-file report on Barton Creek.

Date	Stream	Location	River mile (a)	Water temp. (°C)	Water temp. (°F)	Discharge in cfs: Main stream	Discharge in cfs: Tributary	Remarks
7-6-70	Barton Creek	Lat 30°12'40", long 98°11'02", 2 miles northeast of Henly at county road crossing.	50.0	-	-	0	-	No defined channel.
10-1-70				-	-	0	-	
7-6-70	Barton Creek (headwaters)	Lat 30°12'46", long 98°10'36", about 150 yards downstream from highline crossing, Breed Ranch, and 5.5 miles northwest of Dripping Springs.	49.4	-	-	b.08	-	Poorly defined marshy channel.
10-1-70				-	-	0	-	
7-6-70	Barton Creek	Lat 30°13'07", long 98°10'28", 40 ft upstream from confluence with unnamed tributary of Barton Creek, Breed Ranch.	49.0	24	75	.19	-	Channel is largely marl beds and some gravel.
10-1-70				21	70	b.004	-	
7-6-70	Unnamed tributary	Lat 30°13'07", long 98°10'29", 80 ft upstream from confluence with Barton Creek, Breed Ranch.	c49.0	26	79	-	0.06	.....do.....
10-1-70				-	-	-	0	
7-6-70	Barton Creek	Lat 30°13'37", long 98°09'14", 125 ft downstream from county bridge near Moore settlement.	47.2	27	80.5	.34	-	Channel is nodular to flaky limestone.
10-1-70				20.5	69	b.01	-	
7-6-70	.....do.....	Lat 30°14'39", long 98°06'50", 300 ft downstream from east fork of Bell Springs county road crossing.	43.1	31.5	88.5	1.12	-	Channel is chalky, platy limestone with boulders lying about.
10-1-70				25.5	78	.16	-	
7-6-70	.....do.....	Lat 30°14'15", long 98°03'57", 100 ft downstream from Ranch Road 12 bridge.	39.4	32.5	90.5	2.91	-	Channel is cobbly gravel. Banks are marly limestone.
10-1-70				28.5	83.5	.31	-	
7-6-70	.....do.....	Lat 30°14'32", long 98°00'39", at bridge on Fitzhugh Road, near Hays-Travis County line.	34.1	32	89.5	4.80	-	Channel is nodular, flaky limestone. Banks are alluvial sand, silt and gravel with cobbles and a few boulders.
10-1-70				24	75	.59	-	
7-6-70	Little Barton Creek	Lat 30°17'45", long 97°55'38", 300 ft upstream from mouth and 800 ft upstream from State Highway 71 bridge.	c21.1	32.5	90.5	-	1.75	Channel is gravel, cobbles and some boulders. Right bank is a 14-foot section of alluvial sand, silt, and clay.
10-1-70				25	77	-	.06	
7-7-70	Barton Creek	Lat 30°17'45", long 97°55'34", 250 ft downstream from mouth of Little Barton Creek and 300 ft upstream from State Highway 71 bridge.	21.0	28.5	83.5	9.64	-	Channel is cobbles and gravel on nodular limestone. Right bank is extensive gravel bar.
10-2-70				22	71.5	1.29	-	

a River miles above mouth.
b Discharge estimated.
c River miles on Barton Creek at mouth of tributary.

Barton Creek Low-Flow Investigation--Continued

Date	Stream	Location	River mile (a)	Water temp. (°C)	Water temp. (°F)	Discharge in cfs: Main stream	Discharge in cfs: Tributary	Remarks
7-7-70 10-2-70	Barton Creek	Lat 30°17'40", long 97°53'18", 0.4 mile southeast of Roberts Cemetery and 2.8 miles southeast of Trading Post.	16.9	- -	- -	Not meas. 0	- -	Surface flow ceases here for October run only as about 0.45 cfs, estimated a short distance upstream, passes into an extensive channel deposit of cobbly gravel stabilized by a heavy growth of sycamore trees. Banks of alluvium.
7-7-70 10-2-70	.....do.....	Lat 30°18'13", long 97°51'52", about 1.0 mile south of the intersection of Bee Cave and Commons Ford Roads.	13.6	- -	- -	Not meas. b.11	- -	Flow is on solid bedrock of hard limestone.
7-7-70 10-3-70	.....do.....	Lat 30°17'37", long 97°51'04", on Street Ranch below Camelot community.	11.4	- -	- -	Not meas. 0	- -	Surface flow ceases here for October run only as small flow detected upstream passes into a 3-foot thick cobbly gravel bar. Flow reappears (Oct. run only) on bedrock at termination of bar 300 ft downstream. Stream is braided into two channels. Banks are alluvium.
7-7-70 10-3-70	.....do.....	Lat 30°17'26", long 97°50'34", on Street Ranch below Camelot community.	10.6	- -	- -	Not meas. b.02	- -	Flow is on solid bedrock of hard limestone.
7-7-70 10-2-70	Short Spring Branch	Lat 30°16'33", long 97°50'46", near mouth, Sun Valley Ranch.	c9.2	- -	- -	- -	b0.12 0	
7-7-70 10-2-70	Barton Creek	Lat 30°16'30", long 97°50'42", 300 ft downstream from mouth of Short Spring Branch, Sun Valley Ranch.	9.1	29 -	84 -	10.9 0	- -	Channel is predominantly limestone with some cobbly gravel. Gravel bars form islands and pools.
7-7-70 10-2-70	.....do.....	Lat 30°16'26", long 97°50'29", 0.3 mile downstream from Site 16 on Sun Valley Ranch.	8.8	- -	- -	Not meas. .01	- -	Flow for October run appears at this point on limestone bedrock. Left bank is limestone topped by bluff of consolidated alluvium. Right bank is cobbly gravel deposit. No surface flow on channel boulder and gravel deposit in reach upstream. About 0.01 cfs flow detected on bedrock 0.2 mile upstream; small perched zone of seepage in right bluff here about 100 ft above channel bed.
7-7-70 10-2-70	.....do.....	Lat 30°16'29", long 97°50'11", 0.4 mile upstream from Site 19 at dam.	8.4	- -	- -	Not meas. 0	- -	All detectable flow on surface for October run ceases here. A very small flow disappears (Oct. run) into a deposit of boulders and cobbly gravel here. Banks are alluvium.
7-7-70 10-2-70	.....do.....	Lat 30°16'16", long 97°49'54", at low-water crossing on rock and earthfill dam and 0.7 mile upstream from westernmost fault of the Balcones system (Mount Bonnell Fault).	8.0	32 -	89.5 -	9.10 0	- -	Channel is thick cobbly gravel. Banks are composed of thick alluvium and terrace deposits.

a River miles above mouth.
b Discharge estimated.
c River miles on Barton Creek at mouth of tributary.

Barton Creek Low-Flow Investigations--Continued

Date	Stream	Location	River mile (a)	Water temp. (°C)	Water temp. (°F)	Discharge in cfs: Main stream	Discharge in cfs: Tributary	Remarks
7-7-70 10-3-70	Barton Creek	Lat 30°15'33", long 97°49'23", 0.5 mile downstream from westernmost fault of the Balcones system.	6.8	32 -	89.5 -	5.74 0	- -	Channel is cobbles and gravel on limestone. Two springs 160 ft upstream discharging 0.04 cfs total July 7 and still flowing Oct. 3.
7-8-70 10-3-70	.....do.....	Lat 30°14'59", long 97°48'46", 600 ft downstream from tributary on left bank where Barton Creek bends to the right before its southerly crossing at Loop 360.	5.8	- -	- -	0 0	- -	Flow ceases here for July run only. Channel is dense limestone; fractured from faulting.
7-7-70 10-3-70	.....do.....	Lat 30°14'40", long 97°48'07", at Loop 360 bridge.	4.5	- -	- -	0 0	- -	No flow at this site. Channel is boulders and cobbly gravel. Banks are alluvium.
7-8-70 10-3-70	.....do.....	Lat 30°15'16", long 97°47'30", about 200 ft upstream from tributary on left bank and 0.7 mile upstream from Campbell's Hole.	2.3	- -	- -	0 0	- -	No flow at this site. Flow begins a few feet downstream for July run only. Channel is cobbles and boulders grown up in a moderate growth of ash, sycamore, and buttonbush.
7-8-70 10-3-70	.....do.....	Lat 30°15'22", long 97°47'15", about 0.4 mile upstream from Campbell's Hole.	2.0	- -	- -	b.04 0	- -	Channel is dense limestone.
7-8-70 10-3-70	.....do.....	Lat 30°15'46", long 97°46'38", 1,400 ft upstream from upper dam at Barton Springs.	1.0	- -	- -	Not meas. -	- -	No flow at this site with flow beginning a few feet downstream for October run only. Channel is cobbly gravel alluvium supporting hydrophytes. Right bank is alluvium; left is cobbly gravel.
7-7-70 10-1-70	.....do.....	Lat 30°15'48", long 97°46'22", 200 ft upstream from upper dam at Barton Springs and 100 ft downstream from spring flow on right bank (a part of Barton Springs).	.8	e26 e24	e79 e75	d1.49 d.36	- -	Channel is cobbly gravel on limestone.
7-8-70 10-1-70	.....do.....	Lat 30°15'50", long 97°46'06", 200 ft below lower dam and 100 ft above Old Mill Spring at Barton Springs.	.5	23.5 g22	74.5f101 g71.5 f82.5		- -	Channel is gravel.

a River miles above mouth.
b Discharge estimated.
d Indicated discharge deletes the flow of a small spring (0.96 cfs on July 7 and 0.05 cfs on Oct. 1) as these deleted flows represent part of flow of Barton Springs.
e Water temperatures based on inclusion of flow of a small spring (a part of Barton Springs).
f Indicated discharge includes flow of Old Mill Spring (a part of Barton Springs).
g Water temperatures based on exclusion of 10.4 cfs flow of Old Mill Spring.

Lavaca River Low-Flow Investigation

REACH.--From stream-gaging station 08163500 on the Lavaca River at U.S. Highways 77 and 90-A, at east edge of Hallettsville to a private road crossing (leading to site of Camp Independence) 4.1 miles southeast of Edna, and 12.3 miles upstream from the railroad bridge at the junction of Navidad and Lavaca Rivers, a distance of 65.4 miles.

PURPOSE.--To determine the changes in quantity of low flow in the Lavaca River to aid in studies of the proposed Palmetto Bend Reservoir.

SUMMARY.--This investigation was performed during a period of low evapotranspiration. Most tributaries in the reach studied had no flow. There were no diversions from the river during the investigation.

Date	Stream	Location	River mile	Water temp. (°C)	Discharge in cfs: Main stream	Discharge in cfs: Tributary	Remarks
1970 Dec.							
14	Lavaca River	Lat 29°26'34", long 96°54'41, 200 ft downstream from stream-gaging station 08163500 at U.S. Highways 77 and 90-A at Hallettsville.	77.7	14.5	4.21	-	Sandy channel.
14	Unnamed draw	Lat 29°26'32", long 96°56'39", 10 ft upstream from mouth and 250 ft downstream from stream-gaging station 08163500 at Hallettsville.	a/77.6	25.5	-	0.23	.....do.....
14	Lavaca River	Lat 29°23'02", long 96°54'52", 100 ft downstream from unnamed draw and 4.4 miles southeast of Hallettsville.	71.8	15.0	5.40	-	.....do.....
14	.....do.....	Lat 29°21'11", long 96°54'50", 100 ft downstream from county bridge, 4.7 miles north of Ezzell community, and 6.5 miles south of Hallettsville.	67.7	14.5	6.27	-	Smooth channel.
15	Rocky Creek	Lat 29°20'19", long 96°54'35", about 1,000 ft upstream from mouth, 3.9 miles north of Ezzell community, and 7.4 miles southeast of Hallettsville.	a/66.0	14.0	-	12.6	Irregular sandy channel.
15	Lavaca River	Lat 20°20'13", long 96°54'25", 300 ft downstream from mouth of Rocky Creek, 3.7 miles north of Ezzell community, and 7.5 miles southeast of Hallettsville.	66.0	14.0	19.0	-	Sandy channel.
15	.....do.....	Lat 29°18'39", long 96°54'12", 50 ft upstream from mouth of Kent Branch, about 2 miles north of Ezzell community, and 9.3 miles south of Hallettsville.	62.3	14.5	20.2	-	.....do.....
15	.....do.....	Lat 29°18'57", long 96°51'09", 10 ft upstream from mouth of Spring Branch, about 4 miles northeast of Ezzell community, and 10.2 miles southeast of Hallettsville.	57.5	15.0	22.3	-	.....do.....
15	.....do.....	Lat 29°14'53", long 96°51'11", 150 ft upstream from Wallace bridge, 3.8 miles southeast of Ezzell community, and 14.5 miles south of Hallettsville.	49.3	15.5	21.9	-	Firm sand, small dunes.
16	Clarks Creek	Lat 29°10'43", long 96°52'51", 30 ft upstream from mouth, 7.2 miles south of Ezzell community, and 18.5 miles south of Hallettsville.	a/42.2	15.0	-	1.20	Sandy channel with small gravel.
16	Lavaca River	Lat 29°09'28", long 96°52'28", 150 ft upstream from State Highway 111, 8.8 miles south of Ezzell community, and about 20 miles south of Hallettsville.	40.6	13.5	26.0	-	Irregular sandy channel.
16	Chicolete Creek	Lat 29°05'06", long 96°49'03", 30 ft upstream from mouth and 12.6 miles northwest of Edna.	a/33.3	17.0	-	.83	Sandy channel.
16	Lavaca River	Lat 29°05'04", long 96°49'02", 100 ft downstream from mouth of Chicolete Creek and 12.6 miles northwest of Edna.	33.3	16.5	28.3	-	Flat, firm, sandy channel.

a/ River mile at mouth of tributary.

Lavaca River Low-Flow Investigation--Continued

Date	Stream	Location	River mile	Water temp. (°C)	Discharge in cfs: Main stream	Discharge in cfs: Tributary	Remarks
1970 Dec. 16	Lavaca River	Lat 29°03'33", long 96°46'39", 150 ft upstream from county bridge and 9.6 miles northwest of Edna.	29.2	15.0	31.5	-	Sandy channel.
17	.....do.....	Lat 29°02'31", long 96°43'48", near Laughter Cemetery and 6.6 miles northwest of Edna.	25.3	12.0	32.7	-	.....do.....
17	.....do.....	Lat 29°00'44", long 96°42'22", 0.6 mile northwest of Lost Bridge Road and 4.3 miles northwest of Edna.	22.2	19.0	34.4	-	.....do.....
16	.....do.....	Lat 28°57'34", long 96°41'10", about 300 ft upstream from U.S. Highway 59 and 2.7 miles southeast of Edna.	16.8	15.5	34.9	-	Smooth sandy channel.
16	.....do.....	Lat 28°55'09", long 96°39'44", at bridge leading to Camp Independence and 4.1 miles southeast of Edna.	12.3	15.5	37.3	-	.....do.....

Navidad River Low-Flow Investigation

REACH.--From stream-gaging station 08164300 on the Navidad River at U.S. Highway 90-A, 8.2 miles east of Hallettsville to State Highway 111 bridge, and 13.8 miles upstream from the Lavaca River, a distance of 64.4 river miles.

PURPOSE.--To determine the changes in quantity of low flow in the Navidad River to aid in studies of the proposed Palmetto Bend Reservoir.

SUMMARY.--This investigation was performed during a period of low evapotranspiration. Most tributaries in the reach studied had no flow. There were no diversions from the river during the investigation.

Date	Stream	Location	River mile	Water temp. (°C)	Discharge in cfs: Main stream	Discharge in cfs: Tributary	Remarks
1970 Dec. 14	Navidad River	Lat 29°28'02", long 96°48'40", 400 ft downstream from stream-gaging station 08164300 near U.S. Highway 90-A, 1.0 mile west of Sublime, and 8.0 miles east of Hallettsville.	78.2	-	18.8	-	
14	Brushy Creek	Lat 29°25'55", long 96°48'11", upstream from confluence with Navidad River, 2.7 miles south of Sublime, and 8.5 miles east of Hallettsville.	a/75.3	15.0	-	0.06	Flow estimated.
14	Navidad River	Lat 29°25'56", long 96°48'06", just downstream from confluence with Brushy Creek, 2.7 miles south of Sublime, and 8.5 miles east of Hallettsville.	75.4	13.5	18.6	-	Fairly uniform channel.
14	.....do.....	Lat 29°22'55", long 96°46'45", 100 ft downstream from county bridge, 0.8 mile east of Vienna community, and 10.6 miles southeast of Hallettsville.	70.0	13.5	20.3	-	
14	Willow Creek	Lat 29°23'04", long 96°46'12", at county bridge upstream from confluence with Navidad River, 1.4 miles east of Vienna community, and about 6 miles southeast of Hallettsville.	a/69.0	-	-	.013	Flow estimated.
14	Ragsdale Creek	Lat 29°19'19", long 96°42'30", just upstream from confluence with Navidad River, 4.7 miles north of Speaks community, and 16.5 miles southeast of Hallettsville.	a/61.8	-	-	.08	
14	Navidad River	Lat 29°19'18", long 96°42'30", downstream from bridge at Farm Road 530, just downstream from confluence with Ragsdale Creek, 4.7 miles north of Speaks community, and 16.5 miles southeast of Hallettsville.	61.8	14.0	22.8	-	
14	.....do.....	Lat 29°16'22", long 96°42'58", just upstream from county bridge, 1.5 miles northwest of Speaks community, and about 18 miles southeast of Hallettsville.	57.4	13.5	21.1	-	
15	Hardys Sandy Creek	Lat 29°12'38", long 96°44'32", 0.1 mile upstream from confluence with Navidad River, 4 miles southwest of Speaks community, and about 20 miles southeast of Hallettsville.	a/49.9	-	-	.07	Shallow sandy channel.
15	Navidad River	Lat 29°11'51", long 96°44'26", about 5 miles north of Morales community and about 16 miles northwest of Edna.	48.7	14.0	24.5	-	
15	.....do.....	Lat 29°08'07", long 96°44'38", 10 ft downstream from county bridge, 1.2 miles east of Morales community, and 12.3 miles northwest of Edna.	43.9	14.0	27.2	-	
15	.....do.....	Lat 29°05'46", long 96°42'50", at end of private road leading to gas well, 2.0 miles northwest of Mount Olive community, and about 9 miles northeast of Edna.	39.0	14.5	26.2	-	
15	.....do.....	Lat 29°03'56", long 96°40'25", 75 ft downstream from county bridge, 1.3 miles east of Mount Olive community, and 6.2 miles northwest of Edna.	33.1	14.5	28.1	-	

a/ River mile at mouth of tributary.

Navidad River Low-Flow Investigation--Continued

Date 1970	Stream	Location	River mile	Water temp. (°C)	Discharge in cfs		Remarks
					Main stream	Tributary	
Dec.							
15	Navidad River	Lat 29°01'52", long 96°37'14", 100 ft upstream from Farm Road 530 and about 4 miles northeast of Edna.	27.8	14.5	29.2	-	
16	Sandy Creek	Lat 29°01'39", long 96°33'14", 200 ft upstream from confluence with Navidad River and 2.6 miles southwest of Ganado.	a/22.1	-	-	0.43	
16	Navidad River	Lat 29°01'35", long 96°33'09", 400 ft upstream from U.S. Highway 59 and 2.6 miles southwest of Ganado.	22.0	-	29.1	-	
16	Mustang Creek	Lat 28°59'33", long 96°32'05", 100 ft downstream from bridge on Farm Road 2982 and 3.5 miles south of Ganado.	a/17.3	-	-	.45	
16	Navidad River	Lat 28°57'13", long 96°31'53", 50 ft downstream from bridge on State Highway 111 and about 6 miles south of Ganado.	13.8	14.0	31.0	-	

a/ River mile at mouth of tributary.

Lower Mesilla Valley Seepage Investigations

REACH.--Reaches of about 2 miles in length on each of two canals and two drains of the Elephant Butte Irrigation District, Mesilla Valley Unit, near Anthony, Texas, were selected for these seepage investigations. Three measurements were made in each reach.

PURPOSE.--A study is being made of the ground-water and surface-water relationship in the El Paso area. These investigations, made on Apr. 21, 1971, are part of that study. The measurements tabulated below give an indication of the rate at which water is lost from unlined canals and the gain in drain flow. The primary purpose of a drain is to reduce the level of the water table in the irrigated area.

IRRIGATION.--Irrigation had been in progress for about six weeks prior to these investigations and was nearly complete. Flow in La Union East Canal had been reduced from 118 cfs on Apr. 18 to 40 cfs on Apr. 20, and flow in La Union West Canal had remained steady at about 30 cfs since Apr. 15. The drains were near maximum flow for the year.

SUMMARY.--The reaches selected for these investigations were short to assure suitable measuring sections on the drains and to avoid checks and diversions on the canals. Conditions were favorable for accurate results in that canal flow had been constant for at least 24 hours prior to the time measurements were made and no precipitation had occurred in more than a month.

Stream	Location	Distance (miles)	Discharge (cfs)		
			Main stream	Diversion	Indicated gain or loss
La Union East Canal	Lat 32°00'15", long 106°39'08", Dona Ana County, N. Mex., at headgate on Main Canal and 2.8 miles southwest of Anthony, Tex.	0	40.0	-	-
.....Do.....	Lat 31°59'06", long 106°38'21", Dona Ana County, N. Mex., 2.3 miles southwest of Anthony, Tex.	1.24	37.9	-	-2.1
Vinton Lateral	Lat 31°58'22", long 106°38'06", Dona Ana County, N. Mex., 100 feet downstream from headgate on La Union East Canal and 2.5 miles southwest of Anthony, Tex.	2.51	-	-18.4	-
La Union East Canal	Lat 31°58'21", long 106°38'07", Dona Ana County, N. Mex., 2.5 miles southwest of Anthony, Tex.	2.51	18.5	-	-1.0
La Union West Canal	Lat 32°00'15", long 106°39'12", Dona Ana County, N. Mex., at headgate on Main Canal and 2.8 miles west of Anthony Tex.	0	32.6	-	-
.....Do.....	Lat 31°59'10", long 106°38'56", Dona Ana County, N. Mex., 2.7 miles southwest of Anthony, Tex.	1.38	27.6	-	-5.0
Small irrigation ditch	Lat 31°59'10", long 106°38'54", Dona Ana County, N. Mex., 100 feet downstream from headgate on La Union West Canal and 2.7 miles southwest of Anthony, Tex.	1.38	-	-6.59	-
La Union West Canal	Lat 31°58'15", long 106°39'28", Dona Ana County, N. Mex., 3.6 miles southwest of Anthony, Tex.	2.70	19.8	-	-1.2
Nemexas Drain	Lat 31°58'04", long 106°38'21", Dona Ana County, N. Mex., at bridge on private road 0.9 mile upstream from Farm Road 273 and 0.9 mile northeast of La Union, N. Mex.	0	8.19	-	-
.....Do.....	Lat 31°57'22", long 106°38'12", Dona Ana County, N. Mex., at Farm Road 273 and 0.5 mile east of La Union, N. Mex.	.9	9.43	-	+1.24
.....Do.....	Lat 31°56'44", long 106°37'39", Dona Ana County, N. Mex., at culvert under La Union East Canal and 1.2 miles southeast of La Union, N. Mex.	2.0	10.0	-	+.57
West Drain	Lat 31°58'14", long 106°39'37", Dona Ana County, N. Mex., at private bridge, 1.4 miles north of old La Union, N. Mex.	0	11.4	-	-
....Do....	Lat 31°57'07", long 106°39'22", Dona Ana County, N. Mex., at bridge on Farm Road 273 and 0.7 mile west of La Union, N. Mex.	1.3	13.5	-	+2.1
....Do....	Lat 31°56'42", long 106°39'16", Dona Ana County, N. Mex., at private bridge 0.5 mile southwest of Old La Union, N. Mex.	1.8	16.4	-	+2.9

Lower El Paso Valley Seepage Investigations

REACH.--A 2.0-mile reach of Franklin Canal below Ysleta and a 2.4-mile reach of Franklin Drain below Socorro were selected for these investigations.

PURPOSE.--A study is being made of the ground-water and surface-water relationship in the El Paso area. These investigations, made on Apr. 22, 1971, are part of that study. The measurements tabulated below give an indication of the rate at which water is lost from the unlined canal and also the gain in drain flow. The primary purpose of a drain is to reduce the level of the water table in the irrigated area.

IRRIGATION.--Irrigation had been in progress for about six weeks prior to these investigations and was nearly complete. Flow in the Franklin Canal reach had been reduced the preceding day.

SUMMARY.--The reaches selected for these investigations were short to assure suitable measuring sections and to avoid drain interceptions on Franklin Drain, and to avoid checks and diversions on Franklin Canal. Precipitation at Ysleta, 0.30 inch on Apr. 15 and 0.10 inch on Apr. 19, did not affect the results of the investigations.

Stream	Location	Distance (miles)	Discharge (cfs)	
			Main stream	Indicated gain or loss
Franklin Canal	Lat 31°41'18", long 106°19'11", El Paso County, at U.S. Highway 80 in El Paso.	0	12.1	-
.....Do.....	Lat 31°40'35", long 106°18'33", El Paso County, 1.0 mile downstream from bridge on U.S. Highway 80 in El Paso.	1.0	11.7	-0.4
.....Do.....	Lat 31°39'54", long 106°17'56", El Paso County, 2.0 miles downstream from bridge on U.S. Highway 80 and 0.8 mile north of Socorro.	2.0	11.5	-.2
Franklin Drain	Lat 31°38'13", long 106°17'08", El Paso County, 1.2 miles upstream from Passmore Road, and 1.6 miles southeast of Socorro.	0	11.3	-
.....Do.....	Lat 31°37'18", long 106°16'33", El Paso County, at Passmore Road and 2.8 miles southeast of Socorro.	1.2	11.7	+.4
.....Do.....	Lat 31°36'21", long 106°16'04", El Paso County, 1.2 miles downstream from Passmore Road and 1.3 miles north of San Elizario.	2.4	13.6	+1.9

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