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PART 8

WESTERN GULF OF MEXICO BASINS

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In cooperation with the States of

COLORADO, LOUISIANA, NEW MEXICO, AND TEXAS

and other agencies



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ILLUSTRATION

Figure 1. Gaging-station structures; A, Sabine River near Gladewater, Tex.; B, Pecos River at Red Bluff, N. Mex.; C, Colorado River at San Saba, Tex.

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SURFACE WATER SUPPLY OF WESTERN GULF OF MEXICO BASINS, 1943

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1943. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,670 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1943, 5,130 gaging stations, including those in Hawaii, were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made during the water year at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged, under the heading "Cooperation," in the introductory matter that precedes the gaging-station records in each volume. In the present volume, the section on cooperation of the second kind appears on page 13.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-foot" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-foot per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards time and area.

"Runoff in inches" is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing runoff with rainfall, which is usually expressed in inches.

An "acre-foot" is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section, a reach of the channel, or an artificial structure.

"Contents" is a term applied to the volume of water in a reservoir, not including water in bank storage unless so indicated.

EXPLANATION OF DATA

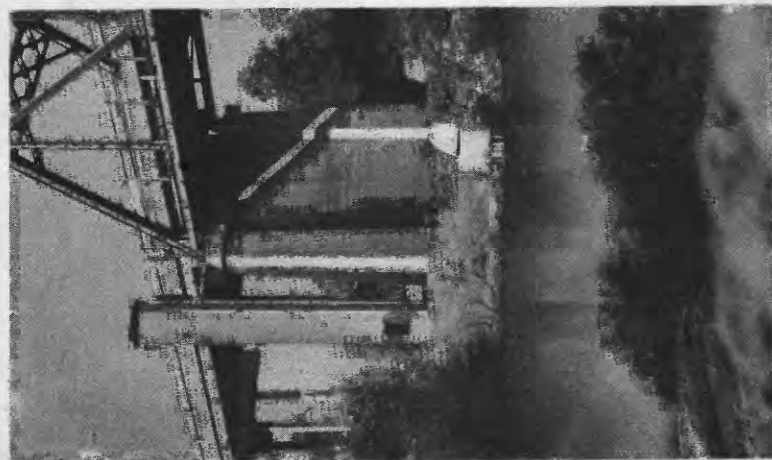
The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown in figure 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these rating tables gives the daily mean discharge, from which the monthly and the 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. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

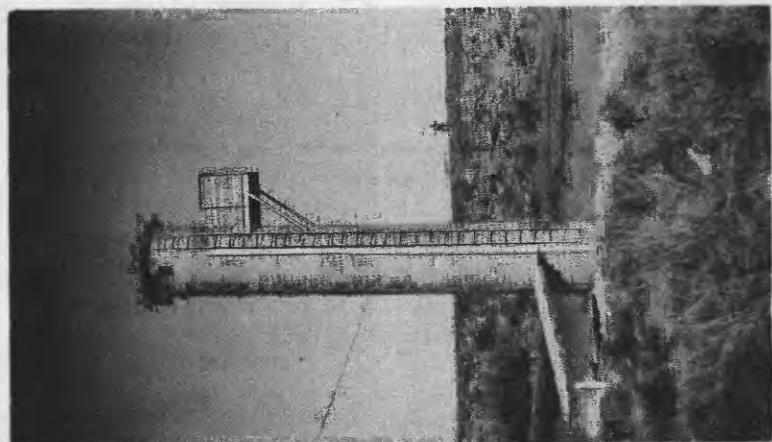
At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite 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, and for them the rate of change of stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it 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 engineers, and comparable records of discharge for stations in the same or nearby basins. The days included in the periods of ice effect and the days during the winter period on which discharge measurements were made are indicated in the table by symbols referring to footnotes or are given in a general note following the table.

For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.



A. SABINE RIVER NEAR GLADEWATER, TEX.



B. PECOS RIVER AT RED BLUFF, N. MEX.



C. COLORADO RIVER NEAR SAN SABA, TEX.

FIGURE 1.—GAGING-STATION STRUCTURES.

The description of the station gives the type of gage, its latitude and longitude as determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given below the table of monthly discharge for some stations. This supplementary information is generally omitted for a station at which the drainage area of the stream is less than 10 or more than 10,000 square miles or at which, on most days, the peak discharge exceeds the mean discharge by less than 10 percent.

For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing as an essential element a curve representing the stage-discharge relation at the station. For stations equipped with nonrecording gages, the table of daily discharge gives the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For periods of rapidly changing stage the daily mean discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge, not the momentary discharge when the water surface was at crest stage. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. Records of daily discharge prior to February 9, 1942, were computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. To convert war time to standard time, subtract 1 hour.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency 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 flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more accurate than the daily records.

Yield at some stations as indicated by monthly means may vary widely from natural yield, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "runoff in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless its inclusion is indicated. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.

9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.
3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:

Albany, N. Y., 528 Federal Building.
 Asheville, N. C., 220 Post Office Building.
 Atlanta, Ga., 3 North Rhodes Center NW.
 Augusta, Maine, Statehouse.
 Baton Rouge, La., 124 Geology Building, Louisiana State University.
 Boston, Mass., 939 Post Office Building.
 Charleston, W. Va., 408 Union Building.
 Charlottesville, Va., House G, Dawson Row, University of Virginia.
 Chattanooga, Tenn., 442 Post Office Building.
 College Park, Md., 105 Engineering Building, University of Maryland.
 Columbia, S. C., 119 United States Courthouse.
 Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
 Harrisburg, Pa., 490 Education Building.
 Hartford, Conn., 203 Federal Building.
 Indianapolis, Ind., 205 Underwriters Building.
 Jackson, Miss., 208 Millsaps Building.
 Knoxville, Tenn., 337 Post Office Building.
 Louisville, Ky., 531 Federal Building.
 Madison, Wis., 666 State Office Building.
 Montgomery, Ala., 507 Post Office Building.
 Morgantown, W. Va., 308 Mineral Industries Building.
 New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
 Ocala, Fla., 302 Post Office Building.
 Pittsburgh, Pa., 515 Plaza Building.
 Raleigh, N. C., 242 Education Building.
 St. Paul, Minn., 1427 New Post Office Building.
 Trenton, N. J., 228 Federal Building.
 Urbana, Ill., 14 Post Office Annex, Elm Street.
 Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:

Albuquerque, N. Mex., 723 North Second Street.
 Austin, Tex., 302 West Fifteenth Street.
 Boise, Idaho, 429 Federal Building.
 Denver, Colo., 310 Denham Building.
 Fort Smith, Ark., 6 Post Office Building.
 Helena, Mont., 408 Federal Building.
 Honolulu, Hawaii, 225 Federal Building.
 Idaho Falls, Idaho, 204 Federal Building.
 Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
 Lincoln, Nebr., 1404 Statehouse.
 Los Angeles, Calif., 429-F United States Post Office and Courthouse.
 Oklahoma City, Okla., 535 Capital Building.
 Portland, Oreg., 606 Post Office Building.
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
 St. Louis, Mo., 1002 New Federal Building.
 Salt Lake City, Utah, 303 Federal Building.
 San Francisco, Calif., 625 Market Street Building.
 Santa Fe, N. Mex., 204 United States Courthouse.
 Tacoma, Wash., 207 Federal Building.
 Topeka, Kans., 305 Federal Building.
 Tucson, Ariz., 210 Post Office Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Early records of the flow of streams in the United States are published in the reports listed below:

Stream-flow data for the years 1884-1901, in reports of the Geological Survey

(A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2	.....do.....	1884 to June 30, 1891.
13th A, pt. 5	.....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93).....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4	Monthly discharge.....	1900.
W 55, 56.....	Descriptions, measurements, gage heights, and ratings.....	1901.
W 75.....	Monthly discharge.....	1901.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 8. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 8), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1943
(For basins included see pp. 5-6)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	335, 36	36	36	36	35, 37	37	37	37	37	36	36	36	36
1900 a...	47, 148	48, 149	49	49	49	49, 150	50	50	50	50	50	51	51	51
1901 a...	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75	65, 75
1902 a...	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82	65, 82
1903 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1904 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1905 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1906 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1907 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1908 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1909 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1910 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1911 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1912 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1913 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1914 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1915 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1916 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1917 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1918 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1919 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1920 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1921 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1922 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1923 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1924 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1925 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1926 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1927 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1928 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1929 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1930 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1931 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1932 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1933 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1934 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1935 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1936 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1937 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1938 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1939 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1940 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1941 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1942 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83
1943 a...	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83	65, 83

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.

b Same river only.

c Same river only.

d Green and Gunnison Rivers and Colorado River above Gunnison River.

e Mojave River only.

f Kings and Kern Rivers and south Pacific slope basins.

g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52.

h Monthly discharge for 1900 in 22d Annual Report, part 4.

i Wisconsin and Schuykill Rivers to James River.

j Scioto River.

k Loup, Platte, and Elkhorn Rivers and tributaries below Platte River. Tributaries of Mississippi River from east.

l Same as k and tributaries to St. Lawrence River proper.

m New England rivers only.

n New England rivers only.

o Hudson River to Delaware River, inclusive.

p Susquehanna River to York River, inclusive.

q Platte and Kansas Rivers.

r The Great Basin in California, except Truckee and Carson River Basins.

s Below mouth of Gila River.

t Rogue, Umpqua, and Siletz Rivers only.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetic order by States and drainage basins.

Reports containing compilations of records of discharge by States and drainage basins

Water-supply Paper	Period	State or drainage basin and title
STATE		
107	1895-1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1887-1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1878-1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1891-1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.
447	1890-1918	California, southern, Surface water supply of Pacific slope of.
597-E	1895-1927	California, Surface water supply of Sacramento River Basin.
636-D	1895-1927	California, Surface water supply of San Joaquin River Basin.
636-E	1894-1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1895-1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1884-1900	Colorado, Water resources of.
197	1895-1908	Georgia, Water resources of.
415	1845-1915	Massachusetts, Surface waters of.
230	1894-1906	Nebraska, Surface water supply of.
370	1878-1910	Oregon, Surface water supply of.
580	1896-1937	Texas, Summary of records of surface waters of.
424	1875-1916	Vermont, Surface waters of.
492	1878-1919	Washington, Summary of hydrometric data in.
870	1919-35	Washington, Summary of records of surface waters of.
156	1895-1906	Wisconsin, northern, Water powers of.
469	1894-1921	Wyoming, Surface waters of, and their utilization.
DRAINAGE BASIN		
395	1888-1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1897-1927	Colorado River, upper (Colo., Utah), and its utilization.
918	1891-1938	Colorado River Basin (Ariz., Calif., Colo., Utah, Wyo.), Surface waters at base stations in.
916	1898-1938	Columbia River Basin, upper (Mont., Idaho), Surface waters of.
617	1889-1920	Great Salt Lake Basin, Water powers of.
618	1894-1926	Green River (Colo., Idaho, Wyo.) and its utilization.
198	1890-1906	Kennebec River Basin (Maine) Water resources of.
491	1896-1917	Milk River. See St. Mary and Milk Rivers.
917	1881-1938	Missouri and St. Mary River Basins (Mont.), Surface waters of.
636	1896-1920	New Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of.
279	1904-9	Penobscot River Basin (Maine), Water resources of.
192	1898-1906	Potomac River Basin (D. C., Md., W. Va.)
358	1896-1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1898-1913.
491	1898-1917	St. Mary and Milk Rivers (Mont., Canada), Water supply of.
917	1881-1938	St. Mary River Basin. See Missouri and St. Mary River Basins.
109	1890-1904	Susquehanna River Basin (Pa., Md.), Hydrography of.

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama.....	1895-1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas.....	1887-1928	Stream-gaging Rept. 1.....	Arkansas Geological Survey.
Colorado.....	1881-1938	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado. ¹	State Planning Commission, Water Conservation Board, State engineer.
Do.....	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut.....	1900-1927	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1912-33	5th biennial report ²	Connecticut State Water Commission.
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 38, Water powers of Georgia.....	Do.
Illinois.....	1908-11	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1900-1934	Stream-flow data of Illinois.....	Division of Waterways.

1 Contains records of yearly discharge only.

2 Contains records of monthly discharge in second-feet per square mile.

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Indiana.....	1925-27	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1875-1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Do.....	1875-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do.....	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	.....do.....	Do.
Do.....	1924-28	Report of Division of Water Resources...	Kansas State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	.....do.....	Do.
Do.....	1939-41	.....do.....	Do.
Kentucky....	1910-80	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana....	1905-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report ²	Maine Water Power Commission.
Maryland....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Montana.....	1889-1911	5th biennial report.....	Office of the State engineer.
Do.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Jersey...	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1898-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams. ³	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams. ⁴	Do.
North Dakota	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1958	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island	1929-41	7th annual report.....	Department of Public Works.
Tennessee...	1874-1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee. ⁵	Do.
Utah.....	1889-1908	8th biennial report, State engineer....	Office of the State Engineer.
Do.....	1908-10	7th biennial report, State engineer....	Do.
Do.....	1911-16	10th biennial report, State engineer....	Do.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia...	Conservation Commission.
Washington...	1878-1935	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

² Contains records of monthly discharge in second-feet per square mile.

³ Contains records of weekly discharge.

⁴ Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

Note.—In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, Rhode Island, Washington, and Wyoming.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports.

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
467	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, part 1, New England Rivers.
799	The floods of March 1936, part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.
914	Texas floods of 1936 and 1939.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the water year October 1942 to September 1943 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by	Remarks
Alamito Creek.....	Near Presidio, Tex....	1932-43	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Arrey Canal.....	Near Arrey, N. Mex....	1918, 1920-43	Bureau of Reclamation.	Unpublished.
Calcasieu River...	Near Burton's landing, La.	1941-43	Corps of Engineers, U. S. Army.	Unpublished.
Do.....	Lake Charles, La.....	1941-43	.....do.....	Do.
Do.....	Cameron, La.....	1941-43	.....do.....	Do.
Carlsbad project main canal.	Near Carlsbad, N. Mex.	1941-43	Bureau of Reclamation.	Unpublished.
Devils River.....	Near Del Rio, Tex....	†1931-43	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
El Paso sewage outfall.	Near El Paso, Tex....	1936-43	.....do.....	Do.
East Side Canal...	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-43	Bureau of Reclamation.	Unpublished.
Fort Sumner Canal.	Near Fort Sumner, N. Mex.	1940-43	.....do.....	Do.
Goodenough Springs	Near Comstock, Tex....	†1931-43	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.

† Records for earlier years published in Geological Survey water-supply papers.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by	Remarks
Hagerman Canal....	Near Roswell, N. Mex.	1942-43	Hagerman Irrigation Co.	Unpublished.
Las Vacas Arroyo..	Near Villa Acuna, Coahuila, Mexico.	1938-43	International Boundary Commission, Mexican Section.	Published in bulletins of International Boundary Commission.
Leasburg Canal....	At head, near Fort Selden, N. Mex.	1917-18, 1920-43	Bureau of Reclamation.	Unpublished.
Pecos River.....	At Gage site 3, near Carlsbad, N. Mex.	1942-43	Bureau of Reclamation.	Do.
Do.....	Near Comstock, Tex.....	†1931-43	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Pinto Creek.....	Near Del Rio, Tex.....	†1931-43	.....do.....	Do.
Rio Alamo.....	Mier, Tamaulipas, Mexico.	1924-43	International Boundary Commission, Mexican Section.	Do.
Rio Escondido.....	At Villita de Fuente, Coahuila, Mexico.	1923-43	.....do.....	Records for 1923-24 and 1928 published in H. Doc. 359, 71st Cong., 2d sess., as Rio San Antonio above Puente; records for 1932-43 published in bulletins of International Boundary Commission.
Rio Grande.....	Below American Dam, near El Paso, Tex.	1938-43	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Do.....	Below Brownsville, Tex.	1934-43	.....do.....	Do.
Do.....	County-line station near El Paso, Tex.	1938-43	.....do.....	Do.
Do.....	Near Del Rio, Tex.....	†1931-43	.....do.....	Do.
Do.....	Eagle Pass, Tex.....	†1931-43	International Boundary Commission, Mexican Section.	Do.
Do.....	Near El Paso, Tex.....	†1931-43	International Boundary Commission, U. S. Section.	Do.
Do.....	Below old Fort Quitman, Tex.	†1931-43	.....do.....	Do.
Do.....	Hidalgo, Tex.....	†1931-43	.....do.....	Do.
Do.....	At island station, near El Paso, Tex.	1938-43	.....do.....	Do.
Do.....	At Johnson Ranch, Tex.	1936-43	.....do.....	Do.
Do.....	Guadalupe, Chihuahua, Mexico.	1938-43	International Boundary Commission, Mexican Section.	Do.
Do.....	Langtry, Tex.....	†1931-43	International Boundary Commission, U. S. Section.	Do.
Do.....	Laredo, Tex.....	†1926-43	International Boundary Commission, Mexican Section.	Do.
Do.....	Leasburg Dam, at Fort Selden, N. Mex.	1919-43	Bureau of Reclamation..	Unpublished.
Do.....	Matamoros, Tamaulipas, Mexico.	†1926-43	International Boundary Commission, Mexican Section.	Published in bulletins of International Boundary Commission.
Do.....	Above Presidio, Tex...	†1926-43	International Boundary Commission, U. S. Section.	Do.
Do.....	Below Presidio, Tex...	†1926-43	.....do.....	Do.
Do.....	Rio Grande City, Tex..	1932-48	.....do.....	Do.
Do.....	Roma, Tex.....	†1926-28, 1931-43	International Boundary Commission, Mexican Section.	Do.
Do.....	Zapata, Tex.....	1932-43	International Boundary Commission, U. S. Section.	Do.
Rio Salado.....	Near Guerrero, Tamaulipas, Mexico.	1924-43	International Boundary Commission, Mexican Section.	Do.
Rio San Diego.....	Jimenez, Coahuila, Mexico.	1924-43	.....do.....	Records for 1924-28 published in report of International Water Commission, United States and Mexico, U. S. Section; records for 1932-43 published in bulletins of International Boundary Commission.
Rio San Juan.....	Santa Rosalia, Tamaulipas, Mexico.	1923-43	.....do.....	Published in bulletins of International Boundary Commission.

† Records for earlier years published in Geological Survey water-supply papers.

‡ Records for earlier years published in Geological Survey water-supply papers as Rio Grande near Brownsville, Tex.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by	Remarks
Rio San Rodrigo...	Near El Moral, Coahuila, Mexico.	1922-43	International Boundary Commission, Mexican Section.	Records for 1923-24 and 1927-28 pub- lished in H. Doc. 359, 71st Cong., 2d sess.; records for 1932-43 pub- lished in bullet- ins of Inter- national Boundary Commission.
San Felipe Creek..	Near Del Rio, Tex....	1931-43	International Boundary	Published in bullet- ins of Interna- tional Boundary Commission.
Terlingua Creek...	Near Terlingua, Tex...	1932-43	....do.....	Do.
West Side Canal...	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-43	Bureau of Reclamation.	Unpublished.

Note.-- The Soil Conservation Service of the United States Department of Agriculture has been making studies of runoff in selected areas in the western Gulf of Mexico basins as follows: In Texas, from 6 areas of less than 100 acres each near Mesquite and from 35 areas near Waco--23 of less than 50 acres each and 10 between 50 and 6,000 acres each; in New Mexico, from 5 areas of less than 800 acres each near Santa Fe and 3 areas of less than 190 acres each near Albuquerque. Records of these studies are in the files of the Soil Conservation Service.

COOPERATION

The work in the several States was done under cooperative agreements with the organizations listed below:

Colorado: Office of the State engineer, M. C. Hinderlider.

Louisiana: State Department of Public Works, D. L. Pyburn, director.

New Mexico: Office of the State engineer, T. M. McClure; Interstate Stream Commission, T. M. McClure, secretary; and New Mexico State Highway Department, B. G. Dwyre and F. M. Limbaugh, State highway engineers.

Texas: Board of Water Engineers, consisting of C. S. Clark, chairman, A. H. Dunlap, and J. W. Pritchett; Red Bluff Water Power Control District; Pecos River Compact Commission; Nueces River Conservation and Reclamation District; and city of Dallas.

Financial assistance was furnished by the Corps of Engineers, United States Army, in the operation of 70 gaging stations, of which 4 were in Louisiana, 7 in New Mexico, and 59 in Texas.

Financial assistance was also furnished by the Office of Indian Affairs of the United States Department of Interior in the operation of gaging stations on the Indian Pueblo lands in New Mexico.

Acknowledgments are due the Bureau of Reclamation of the United States Department of the Interior and the Weather Bureau of the United States Department of Commerce for assistance in collecting the records published herein.

Assistance in collecting records was rendered also by the following organizations:

New Mexico: Agua Pura Co., Alamogordo Community ditch, town of Alamogordo, New Mexico Power Co., Middle Rio Grande Conservancy District, and San Luis Power & Water Co.

Texas: Dallas County, the cities of Abilene, Corpus Christi, and Houston, Coleman Chamber of Commerce, City Public Service Board, Tarrant County Water Control and Improvement District No. 1, West Texas Utilities Co., Lower Colorado River Authority, Brazos River Conservation and Reclamation District, Pecos County Water Improvement District No. 1, and Reeves County Water Improvement District No. 1.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey -- Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface water. The data for the stations in the several States were collected and prepared for publication under the supervision of district engineers as follows: In Colorado, Robert Follansbee, the work being done in collaboration with M. C. Hinderlider, State engineer, and L. T. Burgess, State chief hydrographer; in Louisiana, R. E. Marsh; in New Mexico, Berkeley Johnson; and in Texas, C. E. Ellsworth.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, hydraulic engineer in charge, and D. L. Milliken, assistant engineer, section of reports.

MERMENTAU RIVER BASIN

Bayou Nezpique near Basile, La.

Location.- Wire-weight gage, lat. 30°28'50", long. 92°37'55", in NE 1/4 sec. 1, T. 7 S., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 180, a quarter of a mile downstream from Missouri Pacific Railroad bridge and 2 miles west of Basile. Datum of gage is 3.60 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1943.

Extremes.- Maximum discharge during year, 5,770 second-foot Feb. 8 (gage height, 22.40 feet); minimum, 0.1 second-foot June 7-13 (gage height, 1.45 feet).
1938-43: Maximum discharge, 22,900 second-foot Aug. 11, 1940 (gage height, 31.08 feet); minimum, that of June 7-13, 1943; minimum gage height, 1.16 feet June 6, 1940.

Remarks.- Records fair. Gage read twice daily. Diversions above station for irrigation.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-foot)
(Shifting-control method used Dec. 15-22, Jan. 5-7, 23-26)

Oct. 1 to Feb. 8						Feb. 9 to Sept. 30					
1.5	0.4	2.7	23	8.0	366	20.0	3,220	1.4	0	2.4	16
1.6	.7	3.0	32	10.0	600	21.0	4,030	1.5	.2	2.7	24
1.8	2.1	3.5	52	14.0	1,170	22.3	5,630	1.6	.8	3.0	33
2.0	4.6	4.0	76	16.0	1,580			1.7	2.0	3.5	52
2.2	8.6	5.0	132	18.0	2,300			1.8	3.5	4.0	75
2.4	14	6.0	199	19.0	2,720			2.0	7.0	5.0	132

Note.- Same as preceding table above 5.0 feet.

Discharge, in second-foot, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	34	3.9	1,490	2,090	42	k5,770	34	0.6	223	13	k673
2	74	43	3.5	k1,250	k1,750	54	k5,400	24	.5	202	13	542
3	68	48	4.3	k754	k1,200	k308	k1,840	16	1.4	97	11	676
4	66	42	22	k356	k834	k505	k1,100	14	1.5	42	8.9	823
5	46	38	109	163	k2,170	k853	k585	11	.7	24	7.4	878
6	37	34	k646	92	k3,700	k1,450	k319	9.3	.3	19	7.0	785
7	29	26	k1,100	129	k8,130	k2,010	k170	9.1	.1	16	13	516
8	21	20	1,170	k404	5,870	k2,560	k176	8.7	.1	11	255	841
9	16	16	1,230	k745	5,600	2,610	k1,070	7.6	.1	8.7	426	966
10	16	13	1,140	781	5,080	2,690	1,170	7.0	.1	160	306	990
11	14	9.6	k749	k572	4,320	2,620	1,210	6.4	.1	144	143	k708
12	11	7.3	k519	418	3,720	2,460	1,180	6.6	.1	236	84	k415
13	9.4	5.7	k360	k557	k2,860	k1,960	1,060	6.6	.2	263	95	265
14	7.3	5.0	265	k970	k2,470	k1,390	k637	6.0	.6	161	114	159
15	5.3	4.2	159	968	k1,610	k759	k308	6.8	.4	104	112	125
16	4.5	3.5	102	1,010	k973	k404	k155	11	1.2	54	82	101
17	4.6	2.8	78	k764	k502	398	k251	22	1.5	44	60	k867
18	4.0	2.2	89	k495	k226	400	k1,300	15	2.9	35	78	k1,650
19	4.0	2.1	108	360	96	337	k1,970	10	2.4	30	149	k2,530
20	3.3	1.7	60	295	67	k525	k2,630	7.2	1.8	30	166	k3,970
21	3.0	1.6	60	254	59	k967	2,690	5.1	2.0	25	161	4,300
22	2.3	1.5	k465	201	65	1,090	2,770	6.1	1.0	22	103	4,540
23	1.9	1.0	k1,090	128	60	1,100	2,610	4.5	1.2	105	57	4,350
24	2.1	.7	1,190	93	69	k767	k2,080	3.7	25	117	35	3,970
25	3.5	1.3	1,290	68	63	k958	k1,630	7.0	33	74	27	3,580
26	3.5	4.8	1,260	k687	51	k1,860	k899	5.9	22	43	20	3,170
27	2.9	4.2	1,160	k1,320	44	k2,620	k420	3.8	15	27	12	2,610
28	5.3	5.7	1,250	k1,700	37	k3,110	k187	2.3	14	25	9.1	k1,970
29	4.3	5.7	1,430	k2,160	-	3,230	96	1.8	92	16	10	k1,270
30	4.3	4.3	1,610	2,200	-	3,360	61	1.0	154	16	12	k755
31	5.5	-	1,620	2,180	-	3,200	-	.8	-	15	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	545.9	77	1.9	17.6	1,080
November.....	395.9	48	.7	13.2	785
December.....	20,350.7	1,620	5.5	65.9	40,370
Calendar year 1942	220,780.9	4,800	.7	60.5	437,900
January.....	23,424	2,200	68	75.5	46,460
February.....	50,356	5,600	37	1,793	99,880
March.....	46,518	3,360	42	1,850	92,270
April.....	35,734	2,770	61	1,191	70,680
May.....	279.3	34	.8	9.01	-
June.....	375.8	154	.1	13.5	745
July.....	2,420.7	283	8.7	73.1	4,600
August.....	2,626.4	426	7.0	8.7	5,210
September.....	49,095	4,540	101	1,635	97,580
Water year 1942-43	232,121.7	5,600	.1	65.5	460,400

k Computed by using rate of change of stage as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MERMENTAU RIVER BASIN

Bayou Des Cannes near Eunice, La.

Location.- Water-stage recorder, lat. 30°29'00", long. 92°29'25", in SW¼SE¼ sec. 32, T. 6 S., R. 1 W., Louisiana meridian, at bridge on U. S. Highway 190, 3 miles downstream from Missouri Pacific Railroad bridge and 4 miles west of Eunice. Datum of gage is 14.84 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark; levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1943.

Extremes.- Maximum discharge during year, 5,480 second-feet Feb. 7 (gage height, 18.55 feet); minimum, 0.1 second-foot May 24 to June 6, June 8-12, 18-21; minimum gage height, 1.26 feet June 5, 6.
1938-43: Maximum discharge, 9,520 second-feet Aug. 10, 1940 (gage height, 21.13 feet); no flow May 7, 10-18, July 10, 1939.

Remarks.- Records fair except those below 1 second-foot which are poor. Diversions above station for irrigation. Some regulation May to October by small irrigation diversion dams.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	31	3.1	358	232	14	99	al	0.1	66	26	146
2	13	46	3.2	95	47	22	25	a.8	1	21	20	398
3	7.9	25	12	36	25	44	18	a.8	1	10	13	417
4	5.1	14	12	22	35	100	78	a.7	1	4.8	9.2	259
5	7.2	8.9	62	15	1,230	326	125	a.7	1	2.8	6.4	146
6	10	6.3	457	13	3,710	887	80	.7	1	2.0	6.5	102
7	10	4.1	710	48	5,210	1,070	39	.7	1	1.3	8.5	228
8	8.3	2.7	994	218	3,450	1,370	17	.7	1	1.0	86	413
9	9.3	2.2	1,180	354	1,840	1,230	11	.6	1	1.6	133	481
10	13	1.7	1,140	305	1,250	905	74	.6	1	2.3	80	412
11	14	1.3	876	160	836	393	268	.7	1	3.4	86	238
12	13	1.0	397	76	305	78	275	.7	1	9.7	181	114
13	13	.9	98	146	60	31	128	.6	1	36	165	63
14	13	.8	31	274	25	28	41	.5	1	134	78	41
15	14	.7	19	334	18	37	16	.4	1	90	38	34
16	14	.5	16	254	15	36	8.5	.4	1	39	23	33
17	10	.4	40	129	12	48	13	.4	1	17	17	391
18	6.3	.4	76	61	9.9	256	440	.2	1	7.1	12	1,030
19	4.4	.4	51	34	10	280	778	.2	1	5.0	26	1,370
20	3.3	.4	29	20	13	529	1,050	.2	1	4.2	49	1,810
21	3.0	.3	18	14	14	727	1,270	.2	1	4.3	39	1,860
22	2.6	.6	178	11	17	845	1,090	.2	1	5.4	20	1,510
23	2.7	1.9	516	7.9	27	877	701	.2	1	6	40	1,210
24	3.0	13	716	6.5	19	766	196	.2	1	4.4	29	899
25	3.5	31	831	11	16	608	28	.1	1	9	23	445
26	3.7	19	793	566	13	982	12	.1	1	4	17	118
27	4.0	11	634	923	10	1,380	8.5	.1	1	8.6	14	68
28	7.2	7.6	610	1,200	7.3	1,840	6.8	.1	1	127	14	3.7
29	8.3	5.1	702	1,360	-	1,350	4.0	.1	1	233	27	3.4
30	9.1	3.7	771	1,180	-	997	a2	.1	1	199	30	4.4
31	13	-	695	762	-	485	-	.1	1	-	25	10

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	270.9	28	2.6	8 74	537
November.....	241.9	46	3.5	8.06	480
December.....	12,650.3	1,180	3.1	408	26,090
Calendar year 1942.....	99,165.1	5,380	.3	272	196,700
January.....	8,991.4	1,360	6.5	290	17,830
February.....	18,456.2	5,210	7.3	659	36,610
March.....	18,521	1,840	14	597	36,740
April.....	6,907.8	1,270	2	230	13,690
May.....	13.1	1	.1	.42	26
June.....	586.8	233	.1	19.6	1,160
July.....	704.2	134	1	22.7	1,400
August.....	1,171.6	181	3.4	37.8	2,320
September.....	14,323	1,860	23	477	28,410
Water year 1942-43.....	82,832.2	5,210	.1	227	164,300

a No gage-height record; discharge interpolated.

Note.- Discharge Apr. 6-29, July 31 to Aug. 23 computed from graph based on twice-daily readings of auxiliary staff gage, 1½ miles downstream.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Plaquemine Brule near Crowley, La.

Location.- Staff gage, lat. 30°14'05", long. 92°23'44", in NW 1/4 sec. 29, T. 9 S., R. 1 E., Louisiana meridian, at bridge on State Highway 370, 1 1/4 miles upstream from Missouri Pacific Railroad bridge, 1 mile downstream from bridge on State Highway 26, and 1 1/4 miles northwest of Crowley.

Records available.- October 1942 to September 1943.

Extremes.- Maximum discharge during year, 6,760 second-feet Sept. 20 (gage height, 16.73 feet); no flow on many days.

Remarks.- Records fair except those below 300 second-feet and those for periods of no gage-height record, which are poor. Gage read twice daily. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a400	1,280	0	k1,290	k540	10	490	6	39	850	110	328
2	a250	1,260	0	k850	209	0	265	0	32	882	104	635
3	130	1,210	0	420	89	0	166	0	19	832	93	598
4	66	k1,040	294	176	66	0	150	0	19	788	78	976
5	48	k499	450	51	k946	41	143	0	14	651	60	595
6	38	182	645	32	k3,390	367	128	0	0	517	73	712
7	26	78	k1,170	197	k5,960	740	107	0	0	352	136	530
8	23	51	k1,540	k656	k5,070	792	101	10	0	101	80	622
9	19	28	1,640	997	k3,210	775	108	50	0	96	35	647
10	12	21	k1,510	1,040	k2,170	596	91	52	0	98	26	665
11	9	12	k1,280	874	k1,320	270	100	409	0	141	a20	545
12	5	25	k213	668	k770	93	95	571	0	160	a200	292
13	3	a18	426	586	430	72	91	526	62	397	587	131
14	0	8	276	660	379	60	69	355	77	446	599	91
15	0	5	a160	738	172	57	60	175	183	353	439	78
16	0	a4	88	632	130	46	101	75	187	224	213	112
17	0	3	47	374	117	24	179	31	90	135	86	k637
18	0	3	36	186	100	10	599	1	17	106	50	k3,490
19	0	3	22	66	92	13	921	0	7	86	32	k6,580
20	0	3	16	40	a92	205	1,230	0	21	68	14	6,660
21	0	1	15	30	91	544	1,150	0	3	46	9	k5,170
22	0	0	361	24	83	738	842	0	0	8	24	k3,630
23	0	0	k955	23	100	768	472	87	0	0	14	k2,490
24	1	0	k1,660	13	100	635	282	85	0	2	0	k1,840
25	89	0	1,900	10	86	484	121	270	0	22	0	k1,320
26	111	0	1,780	254	78	k910	85	160	3	1	1	k688
27	171	0	1,460	k697	57	k2,020	107	88	55	0	0	k688
28	285	0	1,380	k1,520	25	2,540	72	70	224	103	0	310
29	495	0	1,520	1,660	-	k2,020	42	58	601	135	41	243
30	k798	0	1,780	k1,420	-	k1,400	24	64	859	133	121	227
31	1,190	-	1,620	k998	-	k860	-	37	-	118	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,165	1,190	0	134	8,260
November.....	5,750	1,260	0	191	11,370
December.....	24,744	1,900	0	779	49,080
Calendar year	-	-	-	-	-
January.....	17,370	1,660	10	560	34,460
February.....	25,862	8,990	25	924	51,300
March.....	17,068	2,540	0	561	33,890
April.....	9,390	1,230	24	279	16,420
May.....	3,187	571	0	102	6,280
June.....	2,512	859	0	63.7	4,980
July.....	7,729	832	0	249	15,330
August.....	3,356	599	0	108	6,660
September.....	41,840	6,660	78	1,375	82,990
Water year 1942-43	161,940	6,660	0	444	321,200

a No gage-height record; discharge interpolated or computed on basis of precipitation records and records for Bayou Des Cannes near Eunice.

k Computed by using rate of change of stage as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

CALCASIEU RIVER BASIN

Calcasieu River near Oberlin, La.

Location.- Water-stage recorder, lat. 30°38'25", long. 92°48'50", in NW 1/4 sec. 7, T. 5 S., R. 4 W., Louisiana meridian, at bridge on State Highway 52, 3 miles northwest of Oberlin and 15 miles upstream from Whiskey Chitto Creek. Datum of gage is 39.43 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench marks).

Drainage area.- 753 square miles.

Records available.- August 1922 to January 1925, September 1938 to September 1943.

Extremes.- Maximum discharge during year, 3,230 second-feet Mar. 27 (gage height, 13.56 feet); minimum, 57 second-feet Aug. 28, 27 (gage height, 3.17 feet).
1922-25, 1938-43: Maximum discharge, 34,700 second-feet Apr. 7, 1923 (gage height, 18.48 feet, datum then in use), from rating curve extended above 14,000 second-feet; minimum, 42 second-feet Aug. 18, 1924.

Remarks.- Records good. Paper mill at Elizabeth pumps about 5 second-feet from wells which is later discharged into Mill Creek 20 miles above station. This discharge is continuous and fairly constant.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	82	72	259	487	203	1,410	161	109	400	216	127
2	103	82	72	343	556	318	1,400	147	98	346	152	346
3	97	74	71	446	616	649	1,460	135	90	360	108	293
4	94	70	70	536	699	611	1,540	126	85	340	98	127
5	89	69	76	631	2,020	604	1,650	120	81	288	90	92
6	85	66	121	728	2,560	1,680	1,630	115	77	213	93	80
7	82	65	102	854	2,070	1,950	1,250	112	75	161	97	116
8	79	64	97	956	1,300	1,610	780	109	74	140	93	327
9	78	64	90	750	828	1,010	506	106	73	123	84	173
10	76	63	83	515	595	786	398	109	72	106	85	110
11	74	62	80	407	492	738	358	133	69	98	79	87
12	73	62	79	409	425	743	325	136	72	104	80	74
13	72	62	81	618	366	753	294	125	72	224	99	67
14	70	61	81	760	315	736	306	131	72	187	99	61
15	69	60	80	780	278	656	325	141	68	133	82	59
16	67	60	81	778	246	526	317	151	67	115	74	61
17	66	60	82	758	225	416	313	160	67	130	73	320
18	66	a60	84	666	206	377	371	168	64	161	71	1,160
19	66	a60	84	600	194	366	1,720	160	61	167	72	1,930
20	65	a60	82	556	185	354	1,810	134	68	151	76	2,110
21	64	a60	78	524	182	329	1,570	116	79	131	73	1,890
22	63	a60	172	489	202	286	1,280	105	88	116	67	1,450
23	62	a60	261	429	193	255	926	98	93	101	65	982
24	62	62	190	354	180	245	746	94	86	89	58	560
25	63	62	128	294	171	902	577	94	80	84	57	269
26	64	61	108	605	163	2,880	420	92	89	88	57	190
27	64	61	136	986	162	3,220	310	94	93	113	57	156
28	65	61	375	709	173	3,070	242	99	93	117	59	136
29	66	66	359	404	-	2,580	203	100	235	242	59	122
30	70	71	267	407	-	1,930	190	104	442	244	63	112
31	79	-	230	420	-	1,600	-	117	-	302	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,304	111	62	74.3	4,570
November.....	1,930	82	60	64.3	3,830
December.....	3,972	375	70	127	7,890
Calendar year 1942.....	307,965	12,100	60	84	610,900
January.....	18,041	986	259	587	35,780
February.....	16,059	2,560	162	575	31,910
March.....	32,382	3,220	203	1,045	64,230
April.....	25,137	1,810	180	837	49,860
May.....	3,792	168	92	123	7,520
June.....	2,895	442	61	94.5	5,740
July.....	5,874	420	84	187	11,080
August.....	2,610	216	57	84.2	5,180
September.....	13,577	2,110	59	457	26,930
Water year 1942-43.....	128,303	3,220	57	357	254,500

a No gage-height records; discharge computed on basis of records for other stations in basin.
Time Basis: Central war time. To convert war time to standard time, subtract 1 hour.

Calcasieu River near Kinder, La.

Location.- Water-stage recorder, lat. 30°30'10", long. 92°54'55", in NW 1/4 sec. 30, T. 6 S., R. 5 W., Louisiana meridian, at bridge on State Highway 7, 0.5 mile downstream from Whiskey Chitto Creek and 4 miles west of Kinder. Datum of gage is 12.02 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark).

Drainage area.- 1,700 square miles.

Records available.- August 1922 to January 1925, October 1938 to September 1943.

Extremes.- Maximum discharge during year, 8,840 second-feet Mar. 27 (gage height, 14.85 feet); minimum, 245 second-feet Aug. 29 (gage height, 2.25 feet).
1922-25, 1938-43: Maximum discharge, 68,000 second-feet Jan. 23, 1924 (gage height, 21.69 feet, datum then in use), from rating curve extended above 40,000 second-feet; minimum, 200 second-feet Aug. 9, 10, 1924 (gage height, 0.81 foot, datum then in use).

Remarks.- Records good. Paper mill at Elizabeth pumps about 5 second-feet from wells which is later discharged into Mill Creek 35 miles above station. This discharge is continuous and fairly constant. Diversions from left bank of Calcasieu River immediately above station and 5 miles above station for irrigation.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

2.2	225	8.0	2,280	14.0	7,170
3.0	485	9.0	2,730	14.5	8,070
4.0	810	10.0	3,270	15.0	9,190
5.0	1,140	12.0	4,800		
6.0	1,490	13.0	5,850		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	550	463	407	1,360	1,140	667	k2,610	664	427	1,270	1,440	570
2	518	463	446	1,090	1,110	729	k2,280	641	410	1,040	989	1,200
3	492	466	554	1,010	1,120	1,030	2,120	605	358	869	809	1,070
4	479	446	498	1,010	1,160	1,540	2,080	568	358	755	459	693
5	469	427	534	1,050	k4,130	k1,730	2,110	534	358	654	388	508
6	456	410	901	1,110	k7,300	k4,440	2,150	611	349	547	572	453
7	443	394	788	1,300	k5,430	k5,580	2,050	506	342	495	459	475
8	430	388	732	1,690	k4,160	k4,670	1,630	502	323	453	485	722
9	427	385	622	1,740	k2,490	k3,610	1,210	485	323	375	398	947
10	420	361	593	1,620	k1,790	k2,560	1,020	495	310	349	381	680
11	417	372	534	1,450	1,530	1,790	943	670	303	326	394	611
12	414	372	492	1,290	1,140	1,520	956	781	300	492	528	440
13	407	368	463	1,750	1,040	1,440	918	1,150	310	690	677	391
14	401	368	450	2,260	950	1,380	849	1,090	404	748	739	362
15	394	368	446	2,100	885	1,340	833	830	407	716	745	349
16	389	368	450	1,890	830	1,300	830	680	407	705	593	349
17	388	365	450	1,670	781	1,190	963	625	375	566	456	1,030
18	385	362	446	1,440	745	1,050	k2,710	540	381	511	398	k4,200
19	385	368	443	1,260	716	989	k4,210	495	349	485	375	k6,470
20	381	362	435	1,140	696	1,040	3,930	482	323	407	320	k5,690
21	376	365	453	1,070	690	973	3,960	453	303	375	326	k4,700
22	372	361	810	1,010	693	618	k3,240	427	316	329	326	k3,460
23	365	378	1,269	956	706	966	k2,240	430	297	300	316	k2,390
24	362	378	1,110	885	735	950	k1,680	482	358	290	293	k1,670
25	378	378	797	820	752	k3,030	1,330	466	404	283	264	1,100
26	404	385	658	1,680	703	k7,650	1,110	430	446	284	261	828
27	378	381	746	2,610	658	8,690	983	459	482	290	255	708
28	401	381	1,990	2,610	645	k7,410	553	453	476	1,240	248	635
29	423	407	2,330	2,030	-	k5,340	765	433	467	k2,320	252	595
30	420	414	1,780	1,620	-	k5,420	710	430	1,190	k2,320	469	976
31	602	-	1,570	1,290	-	k5,760	-	427	-	1,690	479	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	13,024	550	362	420	25,630
November.....	11,734	466	358	371	23,270
December.....	24,184	2,330	407	780	47,970
Calendar year 1942	768,980	19,400	358	2,177	1,525,000
January.....	45,861	2,610	620	1,479	90,960
February.....	45,575	7,300	645	1,628	90,400
March.....	85,282	8,690	667	2,751	169,200
April.....	53,103	4,210	710	1,770	105,300
May.....	17,652	1,150	427	539	35,010
June.....	12,102	1,180	297	473	24,000
July.....	22,185	2,320	284	716	44,000
August.....	14,694	1,440	248	474	29,155
September.....	45,180	6,690	349	1,675	89,570
Water year 1942-43	390,556	8,690	248	1,070	774,700

k Computed by using rate of change of stage as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Whiskey Chitto Creek near Oberlin, La.

Location.— Wire-weight gage, lat. 30°41'55", long. 92°53'35", in NE¼ sec. 20, T. 4 S., R. 5 W., Louisiana meridian, at bridge on State Highway 52, 1 mile downstream from Ten-mile Creek, 8 miles upstream from Bundick Creek, and 10 miles northwest of Oberlin.

Drainage area.— 510 square miles.

Records available.— January 1939 to September 1943.

Extremes.— Maximum discharge during year, 2,130 second-feet Mar. 26 (gage height, 11.13 feet); minimum observed, 143 second-feet July 23; minimum gage height observed, 4.08 feet Aug. 27, Sept. 16.

1939-43: Maximum discharge, 35,000 second-feet Aug. 9, 1940 (gage height, 23.42 feet); minimum observed, 102 second-feet Sept. 19, 1939 (gage height, 3.73 feet).

Maximum stage known, 25.7 feet in June 1886, from floodmarks preserved by local residents.

Remarks.— Records fair. Gage read twice daily.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 3, Jan. 1-27, Aug. 1 to Sept. 17).

Oct. 1 to May 13

May 14 to Sept. 30

4.4	165	7.0	770	4.2	145	6.0	502
5.0	278	9.0	1,390	5.0	293	7.0	770
5.6	380	10.0	1,720	5.5	392	9.0	1,590
6.0	495	11.0	2,080				

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	229	200	213	478	357	255	562	238	217	554	366	236
2	221	210	314	359	330	395	495	229	208	392	249	374
3	217	217	292	308	314	424	429	225	208	235	230	212
4	217	208	238	278	298	429	393	217	189	228	206	188
5	213	192	225	257	678	415	372	212	189	203	188	122
6	210	187	223	250	979	1,090	355	206	185	192	190	176
7	206	179	212	255	796	1,280	332	206	177	181	186	181
8	204	179	213	326	617	1,370	316	208	170	177	188	390
9	200	179	248	556	454	1,000	310	202	163	186	221	334
10	196	176	229	741	380	578	298	206	163	188	221	232
11	194	174	221	551	340	461	370	272	163	210	282	195
12	192	172	212	402	320	411	389	617	172	291	360	176
13	189	170	206	417	298	384	326	712	189	282	366	161
14	185	178	206	543	296	378	296	502	189	274	390	154
15	186	176	204	634	278	426	280	336	189	328	302	149
16	185	174	202	554	267	461	261	280	181	274	242	147
17	161	176	202	420	259	378	278	247	181	213	210	284
18	161	176	198	357	253	358	378	230	181	195	203	732
19	179	176	217	316	250	316	1,080	219	163	170	201	1,170
20	178	176	219	288	248	298	1,540	210	163	163	186	738
21	178	178	206	266	251	294	1,650	206	145	156	183	626
22	176	179	240	255	257	393	963	203	145	149	174	481
23	172	161	217	248	278	458	963	278	145	145	169	350
24	172	181	267	242	351	363	404	299	199	4145	158	299
25	172	167	240	240	310	898	363	264	236	4145	154	244
26	170	192	244	318	278	2,080	396	276	264	4145	160	217
27	176	183	312	512	259	2,070	300	302	236	145	145	199
28	181	179	753	695	250	1,980	278	282	257	177	156	188
29	198	202	889	756	-	1,830	263	236	495	507	177	181
30	194	194	926	512	-	1,510	250	217	704	384	251	424
31	198	-	853	402	-	753	-	219	-	424	192	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	5,949	229	170	192	0.376	0.43	11,800
November	5,551	217	170	184	0.361	0.40	10,970
December	9,551	226	199	311	0.610	0.70	19,100
Calendar year 1942	260,570	9,600	170	714	1.40	1.98	516,800
January	12,718	756	240	410	0.804	0.93	25,230
February	10,246	979	248	366	0.718	0.75	20,320
March	23,713	2,080	255	765	1.50	1.73	47,030
April	18,170	1,650	250	508	0.992	1.11	30,090
May	8,568	712	202	276	0.541	0.62	16,970
June	6,456	704	145	215	0.422	0.47	12,810
July	7,507	554	145	242	0.475	0.55	14,890
August	6,886	390	145	222	0.435	0.50	13,560
September	9,624	1,170	147	321	0.629	0.70	19,090
Water year 1942-43	121,989	2,080	145	354	0.656	0.89	242,000

d Doubtful gage-height record; discharge computed on basis of records for other stations in basin.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bundick Creek near Dry Creek, La.

Location.- Wire-weight gage, lat. 30°40'55", long. 93°02'15", on line between NE $\frac{1}{4}$ and NW $\frac{1}{4}$ sec. 25, T. 4 S., R. 7 W., Louisiana meridian, at bridge on State Highway 251, 1 mile northeast of town of Dry Creek and 8 miles upstream from mouth.

Drainage area.- 238 square miles.

Records available.- January 1939 to September 1943.

Extremes.- Maximum discharge observed during year, 1,030 second-feet Sept. 30 (gage height, 17.28 feet); minimum daily, 58 second-feet Sept. 15.
1939-43: Maximum discharge, 22,000 second-feet Aug. 10, 1940 (gage height, 26.28 feet, from floodmark); minimum, 49 second-feet on many days in September and October 1939; minimum gage height, 9.69 feet Sept. 24, 25, 1939.

Remarks.- Records good. Gage read twice daily.

Rating table, water year 1942-43 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Feb. 23,
Sept. 18-20)

9.9	54	15.5	437
10.5	99	15.0	660
11.0	140	17.0	980
12.0	238		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	92	96	206	138	105	166	86	83	87	450	99
2	85	103	104	150	129	112	149	86	80	82	222	89
3	83	89	105	113	122	154	155	85	80	86	120	85
4	82	85	92	105	148	172	129	84	79	77	99	79
5	84	81	85	100	562	377	129	81	75	78	88	78
6	82	77	85	98	516	960	126	78	72	85	110	75
7	81	75	81	108	319	839	120	80	71	80	144	85
8	78	74	87	147	250	774	114	81	67	69	126	112
9	79	74	101	219	189	497	112	83	65	67	95	91
10	77	74	95	239	144	250	109	83	68	65	91	96
11	76	72	89	228	129	201	105	218	65	65	115	82
12	75	72	84	194	123	159	106	503	69	105	234	72
13	75	70	80	289	118	153	105	437	162	156	284	67
14	74	70	78	343	116	155	101	256	172	261	262	a62
15	74	70	78	302	113	171	97	150	154	239	203	a56
16	74	70	79	244	109	180	93	113	127	156	121	a60
17	74	69	79	183	106	158	99	97	144	93	103	340
18	73	69	79	149	103	136	288	91	121	86	84	662
19	73	70	81	130	101	128	242	86	92	77	77	581
20	72	70	90	120	101	123	378	82	77	72	74	409
21	72	70	84	113	103	121	415	80	72	69	74	317
22	71	72	209	107	106	148	275	85	69	68	73	260
23	70	70	157	105	116	158	153	87	68	67	69	163
24	70	71	103	103	121	142	123	80	85	67	67	120
25	71	71	96	106	119	400	112	86	129	67	65	102
26	72	70	106	145	115	842	102	85	183	66	65	91
27	74	71	494	402	105	841	99	85	184	67	84	35
28	77	75	472	406	100	847	93	85	153	237	84	81
29	77	88	364	306	-	730	88	80	144	676	66	85
30	76	91	328	228	-	360	86	77	109	766	137	678
31	79	-	335	163	-	205	-	78	-	671	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	2,367	87	70	76.4	0.321	0.37	4,690
November	2,275	103	69	75.8	.318	.36	4,510
December	4,486	494	78	145	.609	.70	8,900
Calendar year 1942	114,444	6,440	69	314	1.32	17.89	227,000
January	5,820	406	98	188	.790	.91	11,540
February	4,501	562	100	161	.676	.70	8,930
March	10,498	960	105	339	1.42	1.64	20,820
April	4,447	415	86	148	.622	.69	8,820
May	3,765	503	77	121	.508	.59	7,470
June	3,099	183	65	103	.433	.48	6,150
July	4,907	766	65	158	.564	.77	9,730
August	3,935	450	64	127	.534	.61	7,800
September	5,264	678	58	175	.735	.82	10,440
Water year 1942-43	55,364	860	58	152	.639	8.64	109,800

a No gage-height record; discharge computed on basis of records for other stations in basin.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sabine River near Mineola, Tex.

Location.- Water-stage recorder, lat. 32°36'45", long. 95°29'10", at bridge on U. S. Highway 69, 3.2 miles south of Mineola, Wood County, 4.5 miles upstream from International-Great Northern Railroad bridge, and 16.5 miles upstream from Lake Fork. Datum of gage is 304.2 feet above mean sea level, datum of 1929.

Drainage area.- 1,445 square miles.

Records available.- May 1939 to September 1943.

Extremes.- Maximum discharge during year, 64,100 second-feet June 8 (gage height, 24.37 feet), from rating curve extended above 52,000 second-feet; minimum, 0.7 second-foot Aug. 30 to Sept. 2.

1939-43: Maximum discharge, that of June 8, 1943; no flow at times.

Maximum stage since about 1919 and prior to 1942, 20.6 feet Jan. 25, 1938, from information by local resident.

Remarks.- Records good except those above 1,000 second-feet and those for periods of rapidly changing stage, which are poor. No large diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	90	54	3,120	56	46	3,280	28	3,950	32	4.3	0.3
2	14	204	47	2,810	55	46	1,780	24	3,300	37	3.2	2.5
3	14	384	42	1,890	82	44	756	22	3,500	139	3.0	5.0
4	64	408	41	968	300	42	228	19	3,500	112	2.6	2.4
5	310	270	51	358	210	43	114	17	3,090	60	2.2	3.2
6	408	240	79	157	279	44	87	16	9,880	39	2.0	3.3
7	480	549	92	332	444	42	72	261	34,000	29	2.7	2.4
8	444	765	84	795	324	40	51	1,040	58,500	26	2.4	2.0
9	198	860	193	1,020	178	39	632	1,700	57,300	20	2.0	1.5
10	72	940	312	1,100	120	39	1,260	2,540	34,000	20	1.5	1.3
11	42	1,020	250	900	90	43	1,640	2,960	13,700	45	1.5	1.0
12	31	980	194	537	74	54	1,520	2,550	7,580	116	2.1	.8
13	25	868	150	270	62	175	897	2,020	4,600	47	2.0	.7
14	21	250	114	178	58	230	325	1,540	2,830	29	1.4	.7
15	19	96	87	144	53	265	141	793	1,540	49	1.1	.7
16	20	60	74	126	50	610	93	243	599	30	1.0	.7
17	21	50	60	114	46	980	224	93	186	17	.9	.8
18	54	42	55	98	47	1,480	606	64	107	15	.8	.8
19	220	38	51	32	47	1,830	504	54	210	11	.8	.7
20	230	34	53	66	48	1,390	540	58	312	7.5	.7	.8
21	364	31	64	62	62	598	735	58	152	6.2	.7	1.0
22	492	29	144	64	132	166	690	64	128	5.4	.6	1.1
23	492	29	459	64	99	87	363	201	230	4.5	.6	1.0
24	269	338	690	62	74	72	140	633	141	4.1	.6	1.0
25	105	600	1,170	60	64	368	52	980	79	3.6	.5	1.1
26	56	492	1,440	60	50	993	60	1,290	72	3.3	.5	1.2
27	40	247	2,340	62	53	1,350	49	1,610	62	7.4	.4	1.4
28	32	129	2,810	62	48	2,020	41	2,020	44	5.0	.4	3.6
29	29	82	2,960	60	-	7,980	36	2,460	34	3.6	.4	18
30	37	62	3,120	56	-	5,320	31	2,670	34	3.3	.3	31
31	60	-	3,200	58	-	5,410	-	4,250	-	4.3	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	4,696	492	13	151	0.104	0.12	9,310
November	9,937	1,020	29	333	.230	.26	19,810
December	20,674	3,200	41	667	.462	.53	41,010
Calendar year 1942	549,594.8	42,600	.1	1,506	1.04	14.16	1,090,000
January	16,786	3,120	56	509	.352	.41	31,310
February	3,217	444	47	115	.080	.08	6,380
March	34,859	9,380	39	1,124	.778	.90	69,100
April	16,895	3,280	31	563	.390	.43	33,510
May	32,278	4,250	16	1,041	.720	.83	64,020
June	243,700	58,500	34	8,123	5.62	6.27	483,400
July	934.5	139	3.3	30.1	.021	.02	1,850
August	43.4	4.3	.3	1.40	.0010	.001	86
September	92.0	31	.3	3.07	.0021	.002	182
Water year 1942-43	583,141.9	58,500	.3	1,050	.727	9.85	760,000

Peak discharges.- Dec. 31 (2 p.m. to 5 p.m.) 3,500 sec.-ft.; Mar. 29 (6:30 p.m.) 10,500 sec.-ft.; May 31 (6 p.m.) 4,500 sec.-ft.; June 8 (9:15 p.m.) 64,100 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sabine River near Gladewater, Tex.

Location.- Water-stage recorder, lat. 32°32', long. 94°57', at bridge on U. S. Highway 271, half a mile downstream from Glade Creek and 1 mile southwest of Gladewater, Gregg County. Datum of gage is 243.65 feet above mean sea level (Texas Reclamation Department bench mark based on Geological Survey datum).

Drainage area.- 2,846 square miles.

Records available.- October 1932 to September 1943.

Average discharge.- 11 years, 1,733 second-feet.

Extremes.- Maximum discharge during year, 66,200 second-feet (result of discharge measurement) June 11 (gage height, 41.15 feet); minimum, 22 second-feet Aug. 31, Sept. 1, 1932-43; Maximum discharge, that of June 11, 1943; minimum, 5.6 second-feet Aug. 16, 1939.

Maximum discharge known prior to 1943, 48,500 second-feet in January 1932 (gage height, 39.4 feet, from floodmarks).

Remarks.- Records fair. Small diversions above station for oil field operations and municipal supply.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	137	542	416	5,610	578	399	3,620	288	4,830	297	75	22
2	139	360	369	5,700	559	378	4,540	270	5,350	270	70	25
3	144	360	333	5,740	559	369	5,500	243	5,790	238	66	25
4	161	398	315	5,790	559	360	5,700	227	6,180	212	60	25
5	185	540	324	5,740	635	360	5,740	211	6,500	238	56	31
6	238	673	333	5,390	850	360	6,220	202	6,770	279	51	36
7	464	692	360	5,000	890	360	3,210	480	7,120	243	50	40
8	635	692	416	5,970	890	342	1,720	1,300	7,510	214	49	50
9	654	810	474	2,790	994	333	1,100	1,820	18,400	192	52	56
10	616	930	483	1,990	972	333	910	1,980	54,500	182	56	53
11	474	1,020	621	1,840	850	342	1,150	2,280	64,500	202	56	46
12	315	1,100	635	1,690	673	399	1,480	2,620	59,400	270	50	46
13	234	1,150	654	1,690	559	340	1,840	2,960	48,500	324	47	45
14	196	1,170	597	1,560	502	635	2,140	3,260	37,100	333	42	42
15	178	1,100	521	1,340	464	830	2,280	3,390	26,000	288	42	39
16	183	830	464	1,170	445	930	1,920	3,330	18,600	236	41	36
17	229	521	416	960	426	994	1,470	2,790	14,000	227	40	32
18	243	378	369	850	416	1,240	2,230	1,920	10,600	236	38	31
19	252	324	369	750	416	1,660	2,450	965	8,490	212	34	28
20	279	297	351	673	407	1,870	2,370	445	6,930	182	33	28
21	360	279	369	616	416	2,120	1,870	454	5,000	154	31	28
22	398	270	445	597	416	2,269	1,410	635	3,080	127	31	27
23	464	261	540	597	436	2,000	1,270	830	1,550	108	30	26
24	540	252	635	578	502	1,310	1,190	730	1,060	95	28	26
25	578	243	630	578	578	972	972	530	569	87	27	26
26	502	426	1,190	597	559	1,020	673	1,190	416	80	26	26
27	360	616	2,490	616	502	1,410	474	1,530	351	74	25	27
28	261	730	3,660	635	436	1,920	388	1,970	324	69	27	33
29	218	692	4,390	635	-	2,310	333	2,260	324	69	26	46
30	261	540	4,910	635	-	2,690	306	2,960	324	74	26	356
31	342	-	5,350	597	-	2,930	-	4,040	-	75	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	10,239	5,654	137	330	0.116	0.15	20,310
November	17,996	3,333	600	330	0.22	.24	35,990
December	35,538	5,350	315	1,092	0.380	.44	66,620
Calendar year 1942	1,001,261	45,500	45	2,743	.964	13.09	1,986,000
January	66,904	5,790	578	2,158	.758	.87	132,700
February	16,469	994	407	688	.207	.22	32,670
March	33,774	2,930	333	1,099	.385	.44	66,990
April	65,276	5,740	306	2,176	.765	.86	129,600
May	48,210	4,040	202	1,555	.546	.63	95,620
June	430,048	64,500	324	14,330	5.04	5.62	853,000
July	5,991	333	68	190	.067	.09	11,690
August	1,511	75	25	42.3	.015	.02	2,600
September	1,057	56	22	34.6	.012	.01	2,060
Water year 1942-43	730,693	64,500	22	2,002	.704	9.55	1,449,000

Peak discharge.- Jan. 5 (12 m.) 5,830 sec.-ft.; Apr. 5 (10 a.m.) 5,740 sec.-ft.; June 11 (12 m.) 66,200 sec.-ft.

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sabine River near Tatum, Tex.

Location.- Wire-weight gage, lat. 32°22', long. 94°28', at bridge on State Highway 43, 5 miles upstream from Potter Creek, 5.2 miles northeast of Tatum, Rusk County, and 7 miles downstream from Cherokee Bayou. Datum of gage is 204.2 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,686 square miles.

Records available.- January 1939 to September 1943.

Extremes.- Maximum discharge during year, 50,500 second-feet June 14 (gage height, 29.84 feet); minimum observed, 43 second-feet Sept. 24-26.

1939-43: Maximum discharge, that of June 14, 1943; minimum observed, 9.1 second-feet Oct. 9, 1939.

Maximum stage known, 32 feet in May 1884, from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read twice daily, oftener during high water. Several small diversions above station for oil field operations and municipal supply.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	580	820	4,470	1,340	a840	2,680	490	3,580	635	97	47
2	278	610	710	4,530	1,230	a790	2,920	440	3,940	570	91	47
3	285	510	600	4,580	1,160	a730	3,240	410	4,150	500	85	47
4	278	510	580	4,690	1,120	a670	3,430	370	4,370	480	98	47
5	309	540	520	4,740	1,120	a570	3,940	326	4,550	361	98	50
6	352	660	520	4,800	1,120	a510	4,250	317	4,580	326	91	53
7	352	950	540	5,070	1,120	a470	4,530	334	4,740	326	86	61
8	380	1,120	550	5,350	1,230	a460	4,690	578	4,860	334	84	69
9	570	1,120	570	5,410	1,230	a450	4,690	1,300	4,960	317	84	74
10	685	1,230	622	5,410	1,260	a440	4,100	1,340	5,240	301	81	67
11	710	1,340	660	5,130	1,300	a440	2,640	2,080	5,580	309	89	66
12	660	1,370	710	4,640	1,260	a450	2,000	2,320	7,420	309	94	71
13	540	1,340	760	3,940	1,120	a460	1,920	2,560	21,400	343	99	73
14	440	1,340	820	3,340	950	a510	2,120	2,680	48,600	400	93	71
15	362	1,340	790	2,340	820	a580	2,240	2,800	48,600	420	84	66
16	309	1,260	735	2,480	760	a670	2,400	2,920	42,300	420	81	64
17	285	1,020	685	a2,080	710	a570	2,480	3,020	36,000	361	79	63
18	309	880	635	1,640	685	al,000	2,760	3,060	28,800	309	73	60
19	343	685	590	1,370	685	al,400	2,970	2,840	23,800	293	69	56
20	370	580	560	1,200	685	a2,000	3,060	2,120	19,800	278	66	52
21	400	510	540	1,060	660	2,160	2,970	1,170	17,000	270	62	49
22	390	480	570	985	a668	2,240	2,800	820	14,400	240	62	48
23	440	470	660	950	a677	2,320	2,440	790	13,000	214	57	47
24	480	460	760	915	685	2,320	2,000	950	11,300	192	57	43
25	520	440	790	915	685	2,200	1,680	950	9,280	170	54	43
26	580	430	660	1,160	a730	2,080	1,370	915	7,380	150	52	43
27	600	420	1,930	1,520	a890	2,040	950	1,120	5,240	121	50	44
28	540	550	3,060	al,500	a870	2,000	820	1,440	2,170	106	50	44
29	450	735	3,790	al,480	-	2,120	650	1,760	968	121	48	102
30	390	850	4,150	al,460	-	2,320	550	2,120	685	118	48	430
31	430	-	4,310	1,440	-	2,480	-	2,880	-	106	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	13,297	710	270	429	0.120	0.14	26,370
November	24,330	1,370	420	811	.226	.25	48,260
December	34,167	4,310	620	1,102	.307	.35	67,770
Calendar year 1942	1,187,472	36,800	79	3,253	.907	11.50	2,355,000
January	91,096	5,410	915	2,939	.820	.94	180,700
February	26,820	1,340	660	968	.267	.26	53,200
March	38,590	2,480	440	1,245	.347	.40	76,540
April	79,710	4,690	550	2,657	.741	.83	158,100
May	47,720	3,060	317	1,539	.429	.49	94,680
June	408,650	48,600	685	15,680	3.60	4.24	910,500
July	9,340	635	106	301	.084	.10	16,630
August	2,317	99	48	74.7	.021	.02	4,600
September	2,096	430	43	69.9	.019	.02	4,160
Water year 1942-43	778,132	48,600	43	2,132	.595	8.06	1,543,000

a No gage-height record; discharge computed on basis of weather records, engineer's notes, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sabine River at Logansport, La.

Location.- Wire-weight gage, lat. $31^{\circ}58'$, long. $94^{\circ}00'$, at bridge on U. S. Highway 84, 200 feet upstream from Texas & New Orleans (Southern Pacific) Railroad bridge in Logansport, De Soto Parish, and 3 miles upstream from Bayou Castor. Datum of gage is 147.72 feet above mean sea level, datum of 1929.

Drainage area.- 4,858 square miles.

Records available.- July 1903 to September 1943. (January 1907 to September 1923, monthly records only, published in Water-Supply Paper 850). U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 37 years (1903-19, 1922-43), 2,930 second-feet.

Extremes.- Maximum discharge during year, 31,400 second-feet June 21 (gage height, 33.40 feet); minimum observed, 70 second-feet Sept. 27.

1903-43: Maximum discharge observed, 47,000 second-feet May 5, 1915 (gage height, 36.9 feet); minimum observed during periods of daily records, 16 second-feet Sept. 26-28, Oct. 3, 4, 1939.

Maximum stage known, 39.4 feet, present datum, in May 1884.

Remarks.- Records fair except those for periods of backwater or rapidly changing stage, which are poor. Gage read twice daily. Small diversions above station.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	528	440	800	5,660	2,120	992	2,730	1,020	2,390	13,400	190	82
2	473	440	964	5,540	1,990	1,020	2,770	a871	c2,540	10,600	179	81
3	430	574	1,050	5,900	1,850	992	2,870	722	c3,420	5,920	169	84
4	400	670	964	5,780	c1,850	964	3,050	622	c3,950	2,320	164	86
5	364	646	852	5,660	c1,850	956	3,290	550	4,260	984	159	86
6	364	598	748	5,540	c1,850	956	3,600	495	4,560	826	159	86
7	382	598	722	5,600	c1,850	908	3,850	440	4,530	670	159	94
8	400	670	670	5,780	c1,790	908	4,150	410	4,640	598	150	94
9	430	936	670	5,960	c1,720	908	4,420	420	4,750	574	150	89
10	462	1,220	696	6,220	1,720	908	4,640	800	c4,900	562	146	85
11	574	1,340	748	6,420	1,690	880	4,800	1,690	c4,970	a592	159	83
12	748	1,430	800	6,520	1,660	880	4,640	2,120	c5,060	622	154	84
13	826	1,500	880	6,620	1,660	880	3,560	2,560	5,300	670	146	84
14	800	1,470	908	6,550	1,590	c936	2,560	2,550	5,660	774	141	85
15	722	1,430	992	6,100	1,470	c992	2,260	2,630	6,160	992	137	87
16	588	1,400	1,020	5,190	1,310	c1,060	2,290	2,700	6,660	1,050	137	88
17	484	1,400	1,020	4,150	1,190	c1,100	2,460	2,800	7,580	936	133	88
18	420	1,370	992	3,250	1,100	c1,160	2,730	2,870	9,980	900	125	87
19	382	1,310	956	2,600	1,060	c1,310	3,090	2,940	17,700	696	121	85
20	375	1,150	880	2,190	1,020	c1,470	3,560	2,980	27,200	586	113	83
21	382	936	826	1,880	964	1,720	3,900	2,770	31,000	495	109	81
22	400	826	800	1,690	964	1,880	3,550	2,160	31,000	440	106	79
23	400	748	774	1,550	964	2,160	3,520	1,500	30,000	410	106	77
24	420	696	774	1,470	964	2,330	3,130	1,100	27,600	382	102	75
25	430	670	c880	1,400	956	c2,500	2,730	c992	24,800	346	98	73
26	462	622	c936	1,450	936	c2,670	2,260	c964	22,500	314	95	71
27	517	598	c1,160	1,560	936	c2,980	1,990	c964	20,100	282	94	70
28	562	574	c1,660	1,880	964	c3,170	1,720	c1,020	19,700	254	91	71
29	568	574	c2,420	2,220	-	3,090	1,500	1,190	17,200	240	86	75
30	598	622	c4,040	2,350	-	2,870	1,220	1,530	15,600	c240	87	74
31	528	-	c5,140	2,260	-	2,800	-	c2,020	-	202	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	15,445	626	364	498	0.102	0.12	30,630
November	27,438	1,500	440	915	.168	.21	54,480
December	36,722	5,140	670	1,185	.244	.28	72,840
Calendar year 1942	1,656,925	26,700	144	4,540	.934	12.69	3,286,000
January	127,310	6,620	1,400	4,107	.845	.97	282,500
February	39,958	2,130	956	1,427	.294	.31	79,260
March	48,300	3,170	980	1,558	.321	.37	95,800
April	93,140	4,800	1,220	3,105	.639	.71	184,700
May	48,180	2,980	410	1,554	.320	.37	95,560
June	374,750	31,000	2,390	12,490	2.57	2.87	743,300
July	47,737	13,400	802	1,540	.317	.37	94,680
August	4,051	190	54	151	.027	.03	5,040
September	2,465	94	70	82.2	.017	.02	4,680
Water year 1942-43	865,496	31,000	70	2,371	.488	6.63	1,717,000

a No gage-height record; discharge interpolated.

c Backwater effect from Bayou Castor and several other small bayous downstream.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

SABINE RIVER BASIN

Sabine River near Milam, Tex.

Location.— Wire-weight gage, lat. 31°28', long. 93°45', at bridge on State Highway 21, 6.5 miles northeast of Milam, Sabine County, and 7.2 miles upstream from Palo Gaucho Bayou. Datum of gage is 97.96 feet above mean sea level, datum of 1928.

Drainage area.— 6,543 square miles.

Records available.— January 1939 to September 1943. October 1923 to August 1925, at Sabinetown, 7.4 miles downstream, records equivalent except those for periods of extreme low flow and high runoff from Palo Gaucho Bayou.

Extremes.— Maximum discharge during year, 21,700 second-feet July 1 (gage height, 33.91 feet); minimum observed, 105 second-feet Sept. 26, 27.
1939-43: Maximum discharge, 54,200 second-feet Nov. 29, 1940 (gage height, 44.70 feet); minimum observed, 32 second-feet Oct. 15, 22, 1939.
Maximum stage known, 48 feet about July 28, 1933, from information by observer.

Remarks.— Records good. Gage read twice daily, oftener during high water. No large diversions above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 12 to Sept. 30)

7.4	406	12.0	2,250
7.8	534	14.0	3,380
8.2	670	16.0	4,710
9.0	960	18.0	6,160
10.0	1,350	20.0	7,710

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	602	670	602	4,990	2,400	1,040	3,580	1,310	2,200	21,700	318	128
2	568	602	670	5,270	2,250	1,070	3,140	1,150	3,020	20,700	290	128
3	534	602	814	5,680	2,100	1,070	2,960	960	4,100	19,900	277	131
4	500	602	922	5,640	2,150	1,070	3,020	850	4,920	18,700	264	122
5	468	706	998	5,640	2,960	1,070	3,140	742	5,270	16,400	238	126
6	436	778	922	5,640	3,320	1,070	3,320	670	5,480	11,600	238	147
7	436	742	850	5,860	3,320	1,150	3,580	670	5,640	4,450	238	147
8	436	706	778	6,240	3,080	1,150	3,900	656	5,780	1,510	226	140
9	406	742	742	6,240	2,720	1,110	4,100	568	5,860	1,100	131	131
10	468	814	742	6,160	2,400	1,110	4,360	602	6,010	922	128	128
11	468	1,040	742	6,240	2,050	1,110	4,570	814	6,080	860	a270	128
12	500	1,230	706	6,310	1,820	1,470	4,710	1,190	6,240	814	126	126
13	602	1,350	778	6,540	1,690	1,560	4,710	1,640	6,310	778	119	119
14	742	1,430	814	6,610	1,600	1,640	4,100	2,080	6,460	814	119	119
15	778	1,470	886	6,540	1,560	1,640	3,080	2,300	6,680	814	226	119
16	778	1,430	922	6,310	1,560	1,560	2,400	2,560	6,990	860	226	119
17	706	1,430	960	5,780	1,470	1,600	2,300	2,720	7,390	960	213	117
18	602	1,390	998	4,920	1,350	1,690	2,500	2,900	7,870	960	213	128
19	534	1,390	998	5,640	1,270	1,740	2,840	3,080	8,670	860	188	131
20	468	1,350	960	2,960	1,190	1,690	3,200	3,260	9,670	814	168	131
21	436	1,270	922	2,720	1,150	1,690	3,640	3,440	10,900	742	176	126
22	436	1,110	922	2,500	1,110	1,740	4,030	3,320	12,100	670	164	119
23	436	960	922	1,670	1,070	1,870	4,100	2,840	13,200	568	159	117
24	436	850	922	1,690	1,070	2,050	3,770	2,150	14,300	500	154	111
25	436	742	886	1,590	1,070	2,670	3,440	1,690	15,600	468	150	109
26	468	742	922	1,390	1,040	4,290	2,960	1,470	16,900	436	150	107
27	500	670	960	1,690	1,040	6,860	2,450	1,430	18,100	406	145	107
28	534	670	1,160	1,820	998	5,060	2,100	1,430	19,400	436	145	109
29	602	706	2,130	2,100	-	4,920	1,820	1,390	20,500	406	140	113
30	636	636	3,580	2,300	-	4,640	1,610	1,610	21,300	370	135	119
31	670	-	4,290	2,450	-	4,100	-	1,690	-	340	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	16,622	778	406	536	0.082	0.09	32,970
November	22,830	1,470	602	961	.147	.16	57,180
December	34,410	4,290	602	1,110	.170	.20	68,250
Calendar year 1942-43	1,975,674	20,800	251	5,413	.827	11.22	3,919,000
January	124,810	6,610	1,390	4,349	.665	.77	267,400
February	50,808	3,320	998	1,815	.277	.29	100,800
March	65,500	5,860	1,040	2,113	.323	.37	129,900
April	99,380	4,710	1,510	3,311	.506	.56	197,000
May	53,032	3,440	568	1,711	.261	.30	106,200
June	282,940	21,300	2,200	9,431	1.44	1.61	561,200
July	150,978	21,700	346	4,225	.646	.74	259,800
August	6,612	-	131	213	.033	.04	15,110
September	3,702	147	107	123	.019	.02	7,340
Water year 1942-43	907,674	21,700	107	2,487	.380	5.15	1,800,000

a No gage-height record; discharge computed on basis of weather records, engineer's notes, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sabine River near Bon Wier, Tex.

Location.— Wire-weight gage, lat. 30°44', long. 93°37', at bridge on U. S. Highway 190, 1½ miles east of Bon Wier, Newton County, and 2.4 miles upstream from Coney Creek. Datum of gage is 46.4 feet above mean sea level, datum of 1929.

Drainage area.— 8,323 square miles.

Records available.— October 1923 to September 1934, January 1939 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1913.

Average discharge.— 15 years (1923-34, 1939-43), 7,369 second-feet.

Extremes.— Maximum discharge during year, 16,500 second-feet July 5-7; maximum gage height, 16.28 feet July 6; minimum observed, 380 second-feet Sept. 29.

1923-34, 1939-43: Maximum discharge observed, 63,000 second-feet Aug. 1, 2, 1933; maximum gage height, 23.04 feet Aug. 2, 1933; minimum discharge observed, 185 second-feet Sept. 11, 22, 1925.

Maximum stage known, 26 feet, present site and datum, in May 1884, from information by local resident.

Remarks.— Records good. Gage read twice daily, oftener during high stages. No large diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,440	1,130	1,480	6,190	3,770	1,760	5,750	2,450	1,630	16,400	1,040	477
2	1,370	1,160	1,410	5,860	3,770	1,850	5,200	2,180	1,670	17,200	905	509
3	1,260	1,130	1,330	6,080	3,770	1,900	4,650	1,850	1,900	17,600	805	505
4	1,260	1,130	1,200	6,300	3,560	1,900	4,210	1,720	2,450	18,300	738	486
5	1,200	1,160	1,230	6,410	3,330	1,980	3,990	1,520	3,280	18,600	670	426
6	1,130	1,130	1,410	6,580	3,550	2,280	3,990	1,410	3,770	18,500	648	420
7	1,070	1,130	1,630	6,640	4,210	2,560	3,990	1,330	4,100	18,500	648	426
8	1,070	1,230	1,760	7,900	4,430	2,450	4,210	1,370	4,320	16,000	625	692
9	1,040	1,230	1,670	9,240	4,430	2,120	6,010	1,630	4,430	9,180	692	670
10	1,000	1,200	1,560	8,980	4,320	2,080	7,220	1,660	4,540	4,430	625	541
11	970	1,160	1,520	8,140	3,990	1,900	6,520	1,840	4,650	2,670	625	462
12	970	1,160	1,480	7,680	3,550	1,900	6,190	4,100	4,760	2,180	760	437
13	1,040	1,300	1,410	8,140	3,320	1,980	5,750	4,100	4,980	1,980	878	402
14	1,040	1,560	1,410	8,730	3,000	2,280	5,640	2,890	5,090	1,850	850	392
15	1,070	1,800	1,370	8,850	2,780	2,450	5,420	2,340	5,200	1,720	738	398
16	1,160	1,980	1,410	8,490	2,620	2,450	4,970	2,230	5,310	41,560	670	396
17	1,260	2,030	1,520	8,020	2,620	2,400	4,210	2,230	5,830	41,440	605	420
18	1,260	2,030	1,520	7,280	2,500	2,280	3,660	2,670	5,640	1,370	545	492
19	1,260	2,030	1,560	6,760	2,340	2,230	4,210	2,890	5,970	1,410	525	625
20	1,160	2,030	1,600	5,860	2,180	2,400	3,990	2,890	6,410	1,440	517	692
21	1,100	2,080	1,600	5,310	2,080	2,400	3,990	3,220	7,100	1,440	513	625
22	1,000	2,030	1,600	4,450	2,080	2,400	4,210	3,330	7,900	1,410	473	545
23	938	1,940	1,850	3,770	2,080	2,400	4,540	3,330	8,850	1,300	473	501
24	905	1,800	2,080	3,330	2,030	2,340	4,650	3,330	9,890	1,230	448	454
25	905	1,670	2,230	3,110	1,980	3,040	4,760	2,890	10,800	1,070	426	434
26	905	1,480	2,520	3,220	1,940	7,040	4,430	2,780	11,600	970	420	406
27	905	1,330	3,260	4,100	1,800	9,370	4,100	2,080	12,600	878	409	392
28	858	1,230	6,880	4,760	1,760	9,630	3,660	1,760	13,500	938	437	356
29	970	1,230	6,980	4,430	-	8,620	3,220	1,560	14,500	1,260	448	398
30	1,000	1,410	5,970	3,890	-	7,220	2,890	1,560	15,400	1,410	462	477
31	1,070	-	5,420	3,660	-	6,410	-	1,600	-	1,160	481	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acres-feet
October	33,666	1,440	905	1,086	0.130	0.15	66,780
November	44,910	2,080	1,130	1,497	0.180	0.20	89,080
December	69,870	6,980	1,200	2,254	0.271	0.31	138,600
Calendar year 1942	2,716,858	27,900	760	7,443	0.894	12.12	5,369,000
January	192,010	9,240	3,110	6,194	0.744	0.86	380,900
February	85,680	4,430	1,760	2,989	0.359	0.37	166,000
March	104,020	9,630	1,760	3,355	0.403	0.46	206,300
April	140,130	7,220	2,690	4,671	0.561	0.63	277,900
May	72,640	4,100	1,330	2,343	0.282	0.32	144,100
June	197,710	15,400	1,630	6,590	0.792	0.88	392,200
July	185,296	16,500	878	5,977	0.718	0.83	367,500
August	19,089	1,040	409	616	0.074	0.09	37,890
September	14,444	692	386	451	0.055	0.06	28,650
Water year 1942-43	1,157,475	18,500	386	3,171	0.381	5.16	2,296,000

d Doubtful gage-height record; discharge computed from estimated gage heights.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sabine River near Ruliff, Tex.

Location.— Wire-weight gage, lat. 30°18'10", long. 93°44'40", at bridge on State Highway 235, 2.4 miles north of Ruliff, Newton County, and 4.5 miles downstream from Cypress Creek. Datum of gage is 4.08 feet above mean sea level, datum of 1929.

Drainage area.— 9,440 square miles.

Records available.— October 1924 to September 1943.

Average discharge.— 19 years, 8,026 second-feet.

Extremes.— Maximum discharge during year, 15,800 second-feet July 9, 10 (gage height, 13.95 feet); minimum observed, 730 second-feet Sept. 15.

1924-43: Maximum discharge, 76,600 second-feet May 24, 25, 1935 (gage height, 17.9 feet, present site and datum); minimum observed, 338 second-feet Sept. 25-27, Oct. 2, 3, 22-24, 1939.

Higher stages are known to have occurred in the past.

Remarks.— Records good. Gage read twice daily, oftener during high water. No large diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,210	1,650	1,910	8,550	5,410	2,720	11,000	3,280	2,260	11,400	a7,470	910
2	2,110	1,670	2,060	7,470	4,960	2,720	9,480	2,680	2,260	11,900	4,630	930
3	2,010	1,760	2,060	6,530	4,710	2,780	8,270	2,720	2,260	12,700	3,500	990
4	1,960	1,860	2,010	6,320	4,600	2,780	6,980	2,510	2,310	13,200	2,670	990
5	1,860	1,860	1,960	6,530	6,320	2,940	6,120	2,260	2,560	14,000	2,410	970
6	1,810	1,860	1,960	6,750	7,220	3,980	5,250	2,060	2,690	14,700	1,670	910
7	1,710	1,860	2,010	7,220	6,750	5,250	4,830	1,950	3,280	15,000	1,590	950
8	1,670	1,810	2,160	7,750	6,120	5,410	4,600	2,110	3,620	15,400	1,550	852
9	1,630	1,760	2,260	8,270	6,120	4,600	4,600	2,010	3,800	15,800	1,550	930
10	1,590	1,810	2,310	9,480	5,930	3,980	4,960	2,160	3,920	15,500	1,510	1,150
11	1,550	1,760	2,260	9,830	5,580	3,620	6,320	2,620	4,050	15,000	1,470	1,390
12	1,550	1,710	2,160	10,600	5,250	3,530	7,220	2,780	4,130	12,200	1,430	990
13	1,510	1,710	2,110	11,900	4,830	3,220	7,750	3,560	4,390	9,150	1,510	870
14	1,510	1,810	2,010	12,200	4,300	3,110	7,220	4,050	4,490	10,120	1,870	752
15	1,510	1,910	1,960	12,400	3,980	3,220	6,750	3,980	4,600	4,130	1,710	730
16	1,510	2,060	1,960	12,700	3,740	3,530	6,320	3,380	4,710	3,530	1,630	1,030
17	1,590	2,210	1,960	12,400	3,560	3,530	6,120	3,000	4,830	2,840	1,470	1,110
18	1,670	2,310	1,960	11,900	3,500	3,530	5,930	2,690	4,960	a2,580	1,510	1,350
19	1,710	2,360	2,010	11,400	3,380	3,220	6,120	2,940	5,100	2,510	1,230	1,630
20	1,710	2,410	2,060	10,200	3,530	3,220	6,980	3,000	5,250	2,210	1,110	1,670
21	1,710	2,410	2,110	9,480	3,220	3,220	7,220	3,110	5,580	2,160	1,030	1,630
22	1,630	2,410	2,360	8,000	3,110	3,280	6,320	3,280	5,930	2,160	1,030	1,550
23	1,590	2,410	2,840	6,750	3,110	3,530	5,750	3,440	6,320	2,060	990	1,390
24	1,510	2,360	2,890	5,580	3,060	3,280	5,410	3,500	7,220	2,060	950	1,230
25	1,470	2,360	3,000	4,710	3,060	3,500	5,250	3,500	7,730	2,110	910	1,030
26	1,470	2,260	3,000	4,490	3,000	6,530	4,960	3,380	8,000	2,160	870	910
27	1,430	2,110	3,110	5,100	2,890	9,150	4,710	3,220	8,840	1,610	835	890
28	1,470	2,010	3,920	5,930	2,780	11,400	4,390	3,000	9,150	4,070	818	835
29	1,470	1,960	5,750	6,530	-	12,400	3,980	2,560	9,830	10,200	800	818
30	1,510	1,910	6,000	6,320	-	12,900	3,620	2,310	11,000	11,400	835	852
31	1,550	-	9,160	6,320	-	12,400	-	2,260	-	10,200	590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inch-s	Acres-foot
October	51,190	2,210	1,430	1,661	0.175	0.20	101,500
November	60,330	2,410	1,630	2,011	.215	.24	119,700
December	87,280	9,150	1,910	2,815	.298	.34	173,100
Calendar year 1942	3,333,560	32,700	1,350	9,133	.987	13.11	6,612,000
January	259,590	12,700	4,490	8,374	.887	1.02	514,900
February	123,820	7,220	2,760	4,422	.468	.49	245,600
March	151,780	12,900	2,720	4,896	.518	.60	301,100
April	154,410	11,000	3,620	6,147	.651	.73	368,800
May	59,770	4,050	1,960	2,896	.307	.35	173,100
June	155,270	11,000	2,260	5,176	.545	.61	308,000
July	250,160	15,800	1,810	6,070	.855	.99	495,200
August	53,248	7,470	800	1,718	.182	.21	105,600
September	32,209	1,670	730	1,074	.114	.13	63,890
Water year 1942-43	1,499,067	15,800	730	4,107	.435	5.91	2,973,000

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake Fork Sabine River near Quitman, Tex.

Location.- Wire-weight gage, lat. 32°46', long. 95°28', at bridge on State Highway 37, half a mile downstream from Dry Creek and 2.5 miles south of Quitman, Wood County. Datum of gage is 317.42 feet above mean sea level, datum of 1929.

Drainage area.- 586 square miles.

Records available.- June 1924 to April 1926, February 1939 to September 1943.

Extremes.- 1941-42: Maximum discharge during water year, 28,400 second-feet Apr. 9 (gage height, 23.00 feet, from floodmark); no flow Aug. 6-14.
1942-43: Maximum discharge during water year, 51,600 second-feet June 7 (gage height, 25.9 feet, from floodmark); no flow Aug. 8 to Sept. 6, Sept. 12-18.
1924-26, 1939-43: Maximum discharge, that of June 7, 1943; no flow at times.
Flood of July 1895 reached same stage as that of June 7, 1943, from information by local residents.

Remarks.- Records fair. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, 1941-43

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	74	21	82	924	98	33	2,920	38	9.5	0.2	5.8
2	5.1	116	28	76	746	332	31	1,560	32	8.6	.2	2.5
3	4.4	118	36	70	605	463	30	790	28	7.8	.1	1.8
4	4.3	62	28	82	325	530	29	320	25	7.8	.1	1.5
5	3.8	31	22	86	176	600	29	160	23	10	.1	2.5
6	3.1	21	20	74	129	498	41	160	34	8.6	0	2.3
7	3.2	15	19	68	99	331	301	243	140	7.8	0	38
8	7.4	12	20	65	82	293	6,070	479	129	7.2	0	54
9	5.5	10	20	61	70	453	25,600	868	146	6.6	0	81
10	3.9	8.2	19	56	61	600	17,600	1,280	185	6.2	0	230
11	2.7	7.4	144	56	53	684	6,270	687	340	5.6	0	272
12	2.2	7.2	346	56	48	790	2,800	199	404	4.8	0	190
13	2.0	7.2	451	56	46	682	1,610	102	334	4.3	0	93
14	2.0	6.5	516	56	44	311	862	80	138	3.6	1.2	24
15	2.2	6.2	544	57	45	183	398	71	194	3.2	91	9.5
16	2.5	6.2	466	57	110	129	243	116	320	2.6	68	6.8
17	2.4	6.2	220	55	269	105	213	192	451	2.1	50	5.4
18	2.2	6.4	105	52	311	89	164	3,470	586	1.7	10	4.8
19	2.0	9.2	82	47	392	74	132	7,160	694	1.3	5.6	4.0
20	2.0	86.0	64	40	319	66	348	6,020	395	1.0	48	2.8
21	1.6	108	53	36	164	55	2,590	3,570	143	.9	21	2.2
22	1.4	280	90	35	105	47	8,650	2,400	41	.6	9.4	1.7
23	2.0	380	168	33	86	44	3,650	1,580	42	.5	41	1.4
24	2.4	226	178	32	74	41	2,140	1,080	156	.4	100	1.1
25	2.8	129	270	31	64	40	1,540	704	118	.4	178	.7
26	2.8	108	340	30	56	47	1,660	476	56	.3	160	.6
27	7.1	86	264	30	53	52	7,530	190	32	.3	117	.5
28	4.5	49	206	28	48	44	4,750	108	22	.2	33	.4
29	7.6	31	136	28	-	40	4,320	74	18	.3	11	.4
30	20	24	105	226	-	38	4,990	56	12	.3	7.2	.3
31	42	-	80	778	-	36	-	43	-	.2	5.4	-

a No gage-height record; discharge computed from estimated gage height.

Discharge, in second-feet, of Lake Fork Sabine River near Quitman, Tex., 1941-43--Continued

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	17	12	975	34	33	113	14	2,710	16	0.1	0
2	.3	11	10	344	38	31	76	12	2,230	16	.1	0
3	1.0	11	8.0	124	85	29	63	10	1,590	16	.1	0
4	.76	19	9.0	92	89	28	53	9.6	1,000	14	.1	0
5	104	40	40	72	79	28	45	8.7	411	13	.1	0
6	46	53	58	72	136	27	38	8.4	2,010	12	.1	2.4
7	14	80	43	264	121	26	34	23	41,600	9.3	.1	1.7
8	6.7	121	30	464	74	26	38	100	25,000	11	0	.5
9	3.4	95	24	436	68	26	120	194	6,730	8.4	0	.3
10	2.4	61	25	336	49	26	372	149	2,640	6.9	0	.2
11	1.6	79	32	186	40	27	600	224	1,460	12	0	.1
12	1.0	63	32	115	36	39	746	336	494	12	0	0
13	.7	34	26	92	33	137	377	299	138	14	0	0
14	.5	21	23	81	31	228	106	172	88	58	0	0
15	.3	12	23	74	30	422	68	74	79	43	0	0
16	2.8	8.7	20	70	28	520	46	31	79	14	0	0
17	16	7.6	18	65	27	394	40	22	76	9.1	0	0
18	5.6	6.7	18	57	27	130	53	17	57	6.7	0	0
19	2.0	5.6	17	50	27	86	98	14	44	5.2	0	0
20	1.4	4.1	22	43	29	74	100	16	34	4.1	0	0
21	11	3.7	46	40	97	61	74	102	29	3.1	0	0
22	9.6	3.2	120	39	178	50	51	263	24	2.3	0	0
23	7.8	2.2	254	40	170	43	36	586	21	1.7	0	0
24	20	12	380	38	100	45	29	841	18	1.3	0	0
25	7.6	127	478	38	65	297	25	2,050	17	.8	0	0
26	5.4	92	422	39	52	703	22	3,160	16	.6	0	0
27	4.1	41	863	40	41	890	20	1,960	15	.5	0	0
28	3.4	25	1,310	37	1,660	18	1,590	15	4	0	0	.1
29	2.8	20	1,240	38	-	1,670	17	1,010	20	.3	0	6.0
30	7.6	16	2,470	37	-	964	15	2,090	18	.2	0	6.9
31	14	-	1,960	35	-	351	-	4,270	-	.2	0	-

Monthly discharge, in second-feet, 1941-43

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October 1941	1,630	42	1.4	5.26	0.0090	0.01	323
November	2,016.7	360	6.2	67.2	.115	.13	4,000
December	5,061	544	19	163	.278	.32	10,040
Calendar year 1941	141,031.8	5,800	2	386	.699	8.94	279,700
January 1942	2,539	778	28	81.9	.140	.16	5,040
February	5,493	924	44	196	.334	.35	10,900
March	7,795	790	36	251	.428	.49	15,460
April	104,624	25,600	29	3,487	5.95	6.64	207,500
May	37,118	7,160	43	1,197	2.04	2.36	73,620
June	5,263	684	12	175	.299	.33	10,440
July	114.7	10	.2	3.70	.0063	.007	228
August	957.5	178	0	30.9	.053	.06	1,900
September	1,039.0	272	.3	34.6	.059	.07	2,060
Water year 1941-42	172,183.9	25,600	0	472	.805	10.93	341,500
October 1942	379.2	104	.2	12.2	.021	.02	762
November	1,091.8	127	2.2	36.4	.062	.07	2,170
December	10,034	2,470	8.0	324	.553	.64	19,900
Calendar year 1942	176,446.2	26,600	0	483	.824	11.20	350,000
January 1943	4,435	975	36	143	.244	.28	8,600
February	1,808	178	27	64.6	.110	.11	3,590
March	9,261	1,660	26	299	.610	.59	18,370
April	3,493	746	15	116	.198	.22	6,350
May	19,605.7	4,270	8.4	632	1.08	1.24	38,890
June	88,663	41,600	15	2,960	5.05	5.63	175,900
July	312.1	58	.2	10.1	.017	.02	619
August	.7	.1	0	.02	.00003	.00004	1.4
September	17.2	6.9	0	.57	.00097	.001	34
Water year 1942-43	139,097.7	41,600	0	361	.650	8.82	276,000

Time basis: Central standard time prior to Feb. 9, 1942; central war time thereafter.
 To convert war time to standard time, subtract 1 hour.

Big Sandy Creek near Big Sandy, Tex.

Location.-- Water-stage recorder, lat. 32°37', long. 95°06', at county highway bridge, 2.2 miles northeast of Big Sandy, Upshur County, and 7.8 miles upstream from mouth. Datum of gage is 281.6 feet above mean sea level, unadjusted.

Drainage area.-- 235 square miles.

Records available.-- February 1939 to September 1943.

Extremes.-- 1942: Maximum discharge during year, 4,840 second-feet Apr. 10 (gage height, 18.20 feet); minimum, 18 second-feet Aug. 8.

1943: Maximum discharge during year, 4,240 second-feet June 8 (gage height, 17.63 feet); minimum, 14 second-feet Aug. 26-31.

1939-43: Maximum discharge, that of Apr. 10, 1942; minimum observed, 7.7 second-feet Sept. 30, 1939.

Maximum stage known, 20.4 feet (probably affected by backwater from Sabine River) in January 1938, from information by observer.

Remarks.-- Records fair. No large diversions above station.

Discharge, in second-feet, 1941-43

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	74	130	282	166	140	98	682	82	57	21	63
2	29	74	130	238	179	222	88	850	70	88	21	48
3	29	74	137	222	200	193	82	650	64	72	20	41
4	32	75	126	222	262	193	76	472	57	51	20	38
5	32	68	120	200	348	207	72	348	52	45	20	46
6	31	61	109	193	348	230	122	278	77	44	19	63
7	30	52	102	193	274	254	246	230	88	48	19	97
8	94	46	98	126	207	262	1,020	200	92	56	19	66
9	146	42	92	172	168	270	2,550	168	100	48	23	70
10	66	40	88	165	144	246	4,640	162	210	41	26	168
11	44	38	157	158	126	230	3,080	165	186	36	*26	112
12	36	38	214	151	116	222	1,380	176	154	34	24	82
13	32	36	230	144	106	238	850	186	137	32	24	82
14	31	36	222	140	102	262	600	200	148	30	104	82
15	34	36	214	134	102	254	447	222	184	28	58	72
16	53	37	214	130	156	230	369	238	230	27	28	60
17	126	37	207	130	165	193	310	238	207	26	26	50
18	134	36	214	126	140	162	270	326	179	27	35	45
19	79	40	207	123	134	140	246	1,240	162	27	100	41
20	50	98	193	120	137	126	254	3,740	172	26	36	37
21	41	79	168	116	154	116	270	1,950	176	25	32	34
22	36	151	260	109	165	106	246	950	158	25	164	33
23	34	207	380	106	168	98	238	650	123	24	359	32
24	32	168	302	106	151	92	262	472	98	24	548	32
25	32	162	328	102	130	88	457	354	116	23	304	31
26	31	151	348	98	120	108	625	278	123	23	230	31
27	32	148	310	98	112	106	479	222	92	23	207	31
28	30	151	328	92	106	95	403	176	65	22	186	30
29	29	151	319	92	-	92	391	144	50	22	179	30
30	36	144	286	158	-	98	479	120	45	22	146	30
31	66	-	270	179	-	102	-	98	-	22	95	-

SABINE RIVER BASIN

Discharge, in second-feet, of Big Sandy Creek near Big Sandy, Tex., 1941-43--Continued

1942-43											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	31	69	64	732	146	79	246	41	497	80	20
2	32	57	60	525	137	76	207	38	850	50	20
3	33	52	59	398	137	72	172	35	915	39	20
4	33	52	61	310	134	70	144	34	676	36	19
5	36	62	75	270	144	72	126	32	461	37	18
6	43	69	88	238	179	76	112	32	451	32	18
7	42	78	95	278	222	76	102	219	702	29	18
8	42	75	102	286	254	76	102	207	2,390	27	18
9	42	75	112	270	238	76	162	172	3,300	27	17
10	40	76	126	278	200	75	154	165	1,240	26	17
11	37	75	134	294	162	74	151	207	660	29	17
12	35	74	130	336	134	79	140	193	515	35	18
13	34	72	120	336	112	126	137	193	356	41	18
14	33	68	109	302	102	134	130	186	286	39	17
15	33	63	98	262	92	154	112	179	246	37	17
16	44	58	95	230	88	179	95	151	200	36	16
17	66	52	88	200	82	200	205	109	148	45	16
18	92	51	82	179	82	214	278	79	126	65	16
19	92	50	79	165	79	222	206	43	116	71	16
20	82	49	79	154	79	207	144	60	95	53	15
21	64	48	88	148	82	166	130	75	74	36	15
22	48	48	123	148	82	162	123	85	59	28	15
23	40	47	120	144	82	144	109	112	52	24	15
24	35	47	123	140	85	140	92	116	44	22	15
25	35	47	126	137	88	166	79	137	39	20	15
26	32	46	148	144	88	193	69	151	35	19	15
27	30	45	523	148	85	193	60	172	33	19	14
28	30	45	820	148	82	207	53	186	34	22	14
29	30	58	1,450	148	-	222	47	200	57	22	15
30	46	63	1,920	144	-	254	44	248	98	20	14
31	75	-	1,120	140	-	270	-	529	-	20	14

Peak discharge-- Dec. 30 (2:30 a.m.) 2,200 sec.-ft.; June 2 (12 p.m.) 1,020 sec.-ft.; June 8 (10:30 p.m.) 4,240 sec.-ft.

Monthly discharge, in second-feet, 1941-43 /

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October 1941	1,536	146	29	49.5	0.211	0.24	3,050
November	2,550	207	36	85.0	.362	.40	5,080
December	6,503	280	88	210	.894	1.03	12,900
Calendar year 1941	63,626	1,190	20	174	-	-	126,200
January 1942	4,665	262	92	150	.638	.74	9,250
February	4,685	348	102	167	.711	.74	9,290
March	5,373	270	88	173	.736	.85	10,660
April	20,580	4,540	72	685	2.91	3.25	40,760
May	16,185	3,740	98	522	2.22	2.66	32,100
June	3,697	280	45	123	.523	.68	7,330
July	1,098	88	22	35.4	.151	.17	2,180
August	3,120	548	19	101	.430	.49	6,190
September	1,677	168	30	55.9	.238	.27	3,330
Water year 1941-42	71,639	4,540	19	196	.634	11.32	142,100
October 1942	1,368	95	30	44.6	.191	.22	2,750
November	1,768	76	45	58.9	.251	.28	3,610
December	8,417	1,920	59	272	1.16	1.33	16,690
Calendar year 1942	72,623	4,540	19	199	.847	11.48	144,000
January 1943	7,834	732	137	246	1.05	1.21	15,140
February	3,471	254	79	124	.528	.65	6,590
March	4,494	270	70	145	.617	.71	8,910
April	3,935	278	44	131	.557	.62	7,800
May	4,406	529	32	142	.604	.70	8,740
June	14,754	3,300	33	492	2.09	2.33	29,280
July	1,067	80	19	35.1	.149	.17	2,160
August	512	20	14	16.5	.070	.08	1,020
September	627	71	15	20.9	.087	.10	1,240
Water year 1942-43	52,491	3,300	14	144	.613	8.30	104,100

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Cherokee Bayou near Elderville, Tex.

Location.- Water-stage recorder, lat. 32°20', long. 94°42', at bridge on county highway, 3.8 miles southeast of Elderville, Gregg County, 4.5 miles upstream from bridge on State Highway 149, and 19.3 miles upstream from mouth. Datum of gage is 266.8 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army bench mark).

Drainage area.- 110 square miles.

Records available.- August 1939 to September 1943.

Extremes.- Maximum discharge during year, 820 second-feet Nov. 7 (gage height, 5.90 feet); no flow at times.

1939-43: Maximum discharge, 10,200 second-feet Nov. 23, 1940 (gage height, 12.81 feet), from rating curve extended above 3,500 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, about 14.0 feet in September 1913, from information by local residents.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	116	66	125	158	63	90	28	408	7.6	0.3	0
2	22	136	68	112	142	70	84	26	338	5.7	.1	0
3	24	92	61	103	142	70	79	25	126	5.4	0	0
4	30	63	55	84	145	72	75	20	41	4.7	0	0
5	38	70	54	86	156	85	70	18	28	3.5	0	0
6	42	210	50	90	151	81	65	17	24	2.6	.1	0
7	55	617	54	178	131	73	58	43	23	2.0	1.4	.3
8	39	511	54	232	114	72	75	79	19	2.5	.8	.2
9	30	225	54	272	107	68	260	90	17	2.0	.5	.4
10	26	127	66	192	101	66	255	94	16	1.6	.4	.4
11	24	83	70	134	96	68	293	72	12	2.0	1.4	.3
12	23	70	73	116	92	79	162	52	11	2.0	1.2	.2
13	22	68	79	105	88	94	92	48	10	2.8	.8	.1
14	22	61	68	101	84	101	70	36	11	4.7	.6	.1
15	22	54	61	96	81	105	60	29	12	3.4	.5	0
16												
18	44	52	61	96	79	103	62	25	12	2.9	.3	0
17	54	54	48	94	77	88	149	22	10	2.8	.2	0
18	68	55	56	90	77	84	258	19	8.0	2.3	.1	0
19	61	54	56	83	79	92	537	16	14	2.0	0	0
20	41	55	58	83	81	96	412	17	30	1.7	0	0
21	32	60	65	77	81	94	200	16	14	1.4	0	0
22	30	60	86	77	81	98	109	16	20	1.1	0	0
23	27	56	92	81	81	96	81	17	46	.9	0	0
24	25	60	107	83	79	79	66	17	14	.7	0	0
25	26	58	92	96	75	136	55	18	11	.6	0	0
26												
26	25	54	107	198	72	212	49	18	9.1	.4	0	0
27	24	48	352	283	66	263	42	19	8.2	.3	0	0
28	24	48	486	336	66	212	38	17	14	.2	0	0
29	28	65	530	269	-	147	32	20	19	.2	0	.8
30	50	65	246	228	-	114	30	126	12	.6	0	1.1
31	90	-	156	195	-	96	-	376	-	.5	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,086	90	20	35.0	0.318	0.37	2,150
November	3,347	617	48	112	1.02	1.13	6,640
December	3,521	530	50	114	1.04	1.19	6,980
Calendar year 1942	64,756.5	3,720	3.1	177	1.61	21.89	128,400
January	4,395	358	77	141	1.28	1.48	8,700
February	2,781	158	65	99.3	.903	.94	5,580
March	3,167	263	63	102	.927	1.07	6,280
April	3,901	537	30	130	1.18	1.28	7,740
May	1,436	376	16	46.3	.421	.49	2,860
June	1,337.3	408	8.0	44.6	.406	.46	2,650
July	71.1	7.6	.2	2.29	.021	.08	141
August	8.7	1.4	0	.28	.0025	.003	17
September	3.9	1.1	0	.13	.0012	.001	7.7
Water year 1942-43	25,045.0	617	0	68.6	.624	8.46	49,680

Peak discharge.- Nov. 7 (5 p.m.) 920 sec.-ft.; Dec. 28 (10 p.m.) 695 sec.-ft.; Apr. 19 (1 p.m.) 610 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neches River near Neches, Tex.

Location.— Wire-weight gage, lat. $31^{\circ}54'$, long. $95^{\circ}28'$, at bridge on U. S. Highway 79, half a mile downstream from International-Great Northern Railroad bridge, 1 mile downstream from Walnut Creek, and 4.4 miles northeast of Neches, Anderson County. Datum of gage is 263.9 feet above mean sea level, datum of 1929.

Drainage area.— 1,129 square miles.

Records available.— February 1939 to September 1943.

Extremes.— Maximum discharge during year, 4,060 second-feet June 12 (gage height, 15.24 feet); minimum observed, 5.6 second-feet Sept. 3, 1939-43. Maximum discharge, 14,400 second-feet Apr. 12, 1942 (gage height, 18.30 feet), from rating curve extended above 8,000 second-feet; no flow Oct. 3-5, 1939. Flood of May 1908 reached a stage of 24.3 feet from information by local resident. Flood of May 1884 was probably higher.

Remarks.— Records poor. Gage read twice daily. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	156	186	2,430	510	320	1,020	370	1,570	213	36	6.2
2	90	160	186	3,320	610	320	1,020	222	2,040	236	37	5.7
3	86	150	186	2,980	610	330	1,020	206	2,540	244	36	5.6
4	86	168	186	2,760	536	310	1,020	174	3,320	236	33	6.0
5	156	220	192	2,210	536	510	965	166	3,930	213	29	9.4
6	192	268	192	1,770	550	320	900	160	3,680	180	27	12
7	120	300	192	1,670	510	310	780	220	2,040	156	25	15
8	174	360	306	1,440	474	300	606	455	2,600	122	24	11
9	174	360	213	1,290	462	292	692	606	1,990	106	21	11
10	168	380	220	1,250	450	292	606	750	1,670	96	18	11
11	156	380	244	1,140	438	292	522	1,040	3,020	96	17	12
12	160	390	252	990	426	300	474	2,200	4,060	106	20	13
13	160	390	260	940	402	320	474	3,520	3,930	108	22	13
14	160	380	260	840	390	360	426	3,440	3,090	126	18	13
15	147	350	268	840	370	414	522	3,440	2,210	132	16	12
16	147	320	268	840	360	438	536	3,090	1,720	150	13	11
17	147	284	276	840	340	474	564	2,760	1,250	206	12	9.8
18	152	268	268	966	340	498	652	2,260	1,020	228	12	8.7
19	114	244	260	966	350	522	665	1,720	786	220	12	8.4
20	108	220	252	966	350	578	662	1,290	536	192	12	7.6
21	108	213	244	768	340	606	636	1,070	370	150	11	7.3
22	108	206	260	700	350	678	636	880	284	106	10	7.3
23	98	192	284	592	350	592	700	668	228	83	9.4	6.9
24	98	192	320	522	340	606	786	564	192	76	9.1	6.6
25	96	196	402	498	350	684	680	620	180	55	8.5	6.2
26	93	180	522	498	340	822	900	716	162	55	8.0	5.9
27	90	180	620	550	340	900	860	768	150	47	7.6	6.2
28	90	174	823	564	330	940	804	732	156	43	7.6	22
29	88	174	1,000	550	-	966	700	668	150	42	7.3	248
30	96	192	1,210	536	-	966	550	750	186	40	6.7	174
31	141	-	1,400	610	-	990	-	1,020	-	37	6.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	3,908	192	86	126	0.112	0.13	7,750
November	7,637	260	150	266	.226	.28	15,150
December	11,659	1,400	186	376	.333	.36	22,136
Calendar year 1942	302,097	13,900	25	828	.733	9.94	599,200
January	36,628	5,320	498	1,182	1.06	1.21	72,650
February	11,514	550	330	411	.364	.38	22,840
March	15,948	990	292	514	.455	.53	31,630
April	21,493	1,020	474	716	.634	.71	42,630
May	36,356	3,440	150	1,173	1.04	1.20	72,110
June	50,020	4,060	150	1,667	1.48	1.66	99,210
July	4,109	244	37	133	.118	.14	8,150
August	532.6	37	6.4	17.2	.015	.02	1,060
September	689.3	248	6.6	23	.020	.02	1,370
Water year 1942-43	200,491.4	4,060	5.6	549	.486	6.62	397,700

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neches River near Diboll, Tex.

Location.— Wire-weight gage, lat. 31°08', long. 94°48', at bridge on U. S. Highway 59, 150 feet downstream from Texas & New Orleans Railroad bridge, 2.8 miles downstream from Alabama Creek, and 3.8 miles south of Diboll, Angelina County. Datum of gage is 134.46 feet above mean sea level, datum of 1929.

Drainage area.— 2,670 square miles.

Records available.— November 1923 to August 1925, March 1939 to September 1943.

Extremes.— Maximum discharge during year, 2,850 second-feet Dec. 31 (gage height, 11.88 feet); minimum observed, 27 second-feet Sept. 27.

1923-25, 1939-43: Maximum discharge, 22,800 second-feet Nov. 28, 1940 (gage height, 16.53 feet); no flow Aug. 15-22, 1925.

Maximum stage known, 21.5 feet in May 1884, from information by local residents.

Remarks.— Records good. Gage read twice daily, more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	360	182	320	2,420	1,400	a628	1,200	810	2,020	944	408	34
2	304	196	312	1,900	1,310	a628	1,200	832	1,900	648	248	34
3	275	234	296	1,530	1,250	a608	1,200	832	1,710	384	196	33
4	254	352	304	1,340	1,250	608	1,200	832	1,400	512	151	33
5	241	368	296	1,250	1,250	608	1,200	854	1,250	266	121	34
6	222	320	296	1,230	1,460	608	1,170	832	1,230	241	101	36
7	215	238	296	1,630	1,560	608	1,170	788	1,230	248	89	36
8	208	229	288	1,900	1,500	608	1,140	608	1,230	268	77	35
9	202	312	288	1,960	1,340	628	1,140	614	1,220	268	60	36
10	196	336	296	2,250	1,250	628	1,170	442	1,340	258	47	41
11	196	352	312	2,340	1,170	628	1,140	442	1,370	275	50	41
12	202	368	320	2,340	1,090	608	1,140	478	1,400	275	90	41
13	215	384	336	2,620	1,020	628	1,140	496	1,460	304	134	41
14	234	400	360	2,620	968	628	1,140	550	1,530	400	110	38
15	228	416	376	2,740	920	608	1,170	608	1,640	478	117	35
16	222	424	392	2,740	854	588	1,170	668	1,710	400	91	35
17	215	433	392	2,740	810	588	1,140	728	1,800	328	76	33
18	215	442	392	2,620	768	588	1,070	788	1,900	275	68	33
19	215	460	392	2,620	748	588	968	854	2,020	254	59	32
20	228	460	400	2,520	708	588	898	920	2,100	222	53	30
21	241	478	400	2,420	688	608	876	1,020	2,160	208	47	29
22	241	478	416	2,340	688	628	920	1,090	2,250	202	50	28
23	241	478	424	2,160	688	648	944	1,200	2,340	202	54	28
24	222	460	442	2,020	688	668	944	1,280	2,420	208	52	28
25	215	442	478	1,860	a668	810	920	1,400	2,520	215	50	28
26	202	424	496	1,800	a648	1,090	898	1,530	2,520	202	42	28
27	189	400	715	1,710	a648	1,140	854	1,640	2,520	196	38	28
28	182	375	1,200	1,640	a648	1,230	832	1,760	2,420	208	40	29
29	182	352	1,650	1,640	-	1,230	810	1,960	2,100	439	38	41
30	182	336	2,420	1,600	-	1,200	810	2,250	1,530	688	36	35
31	182	-	2,650	1,500	-	1,200	-	2,250	-	460	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	6,928	360	182	223	0.084	0.10	13,740
November	11,233	478	182	374	.140	.14	22,280
December	18,067	2,650	289	582	.218	.21	35,820
Calendar year 1942	668,513	13,200	93	1,682	.686	9.5	1,526,000
January	63,800	2,740	1,230	2,058	.771	.80	126,500
February	27,990	1,560	648	1,000	.374	.39	55,580
March	22,652	1,230	588	731	.274	.33	44,930
April	31,574	1,200	810	1,052	.394	.44	62,630
May	31,236	2,250	442	1,008	.377	.44	61,980
June	54,320	2,520	1,230	1,811	.678	.70	107,700
July	10,288	944	196	332	.124	.14	20,410
August	2,828	408	35	91.2	.034	.04	5,610
September	1,051	69	28	35.0	.013	.01	2,080
Water year 1942-43	251,955	2,650	28	772	.289	3.9	559,200

a No gage-height record; discharge computed on basis of observer's notes and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neches River near Rockland, Tex.

Location.- Staff gage, lat. 31°01'45", long. 94°23'50", a quarter of a mile upstream from bridge on U. S. Highway 89, half a mile upstream from Texas & New Orleans Railroad bridge, 1 mile north of Rockland, Tyler County, and 3 1/2 miles downstream from Billams Creek. Datum of gage is 91.4 feet above mean sea level, datum of 1929.

Drainage area.- 3,539 square miles.

Records available.- July 1903 to September 1943. (July 1903 to September 1923, monthly records only, in Water-Supply Paper 850.) U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 37 years (1903-10, 1913-43); 2,341 second-feet.

Extremes.- Maximum discharge during year, 4,580 second-feet Jan. 13, 15 (gage height, 9.34 feet); minimum observed, 39 second-feet Sept. 27.

1903-43: Maximum discharge, 48,500 second-feet Apr. 2, 1922 and May 22, 1935 (gage height, 28.90 feet), from rating curve extended above 36,000 second-feet; minimum observed during period of daily records, 3.0 second-feet Oct. 15, 1931.

Maximum stage known, 34.9 feet in May 1884, from information by local resident.

Remarks.- Records good. Gage read twice daily; more often during high water. No diversion above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

-0.7	38	0.5	246	5.0	2,170
-0.5	60	1.0	370	7.0	3,260
-0.3	90	2.0	720	9.0	4,400
0	142	3.0	1,150	10.0	5,000
0.2	182	4.0	1,650		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	244	565	2,170	2,070	820	1,600	902	2,480	2,430	1,450	63
2	495	246	512	2,380	1,960	800	1,450	880	2,270	2,170	1,020	55
3	430	556	460	2,690	1,810	800	1,400	902	2,120	1,600	880	49
4	370	970	430	2,760	1,700	780	1,400	902	2,010	945	720	46
5	359	1,500	400	2,810	1,700	780	1,350	925	1,910	530	582	48
6	313	1,020	400	2,700	1,810	790	1,350	948	1,750	445	445	55
7	299	680	400	3,380	1,760	780	1,350	970	1,650	360	359	74
8	287	495	385	3,600	1,810	760	1,300	992	1,300	344	282	63
9	277	415	385	3,710	1,880	760	1,300	925	1,250	345	176	61
10	270	385	400	3,820	1,860	740	1,300	948	1,300	400	154	60
11	265	385	400	3,760	1,760	970	1,300	1,450	1,300	395	138	59
12	258	400	400	3,820	1,580	1,060	1,300	1,250	1,350	367	128	58
13	256	415	400	4,400	1,450	1,100	1,300	880	1,450	400	153	58
14	265	430	415	5,990	1,300	1,020	1,250	780	1,910	430	154	56
15	284	445	430	4,280	1,220	925	1,250	740	1,650	460	170	55
16	282	460	460	4,580	1,150	890	1,250	720	1,650	475	192	55
17	294	460	460	4,400	1,100	820	1,300	720	1,600	475	198	53
18	289	478	478	4,170	1,060	800	1,400	780	1,950	445	198	53
19	284	495	478	3,820	1,020	760	1,400	820	1,750	395	162	55
20	277	512	478	3,600	970	780	1,300	860	1,810	360	133	54
21	272	530	495	3,430	948	720	1,250	925	1,910	341	126	52
22	284	548	500	3,260	902	800	1,100	992	1,960	316	115	46
23	294	548	680	3,090	925	780	1,060	1,060	2,010	282	84	44
24	296	565	700	2,920	880	800	1,060	1,130	2,120	270	77	44
25	292	565	720	2,810	860	1,300	1,060	1,180	2,170	265	77	42
26	282	530	760	2,760	840	2,170	1,040	1,300	2,170	280	88	40
27	275	512	1,150	2,920	840	2,330	1,020	1,350	2,330	295	87	44
28	284	495	1,500	2,760	820	2,170	992	1,450	2,380	385	74	71
29	270	382	1,960	2,590	-	2,010	948	1,460	2,430	800	71	68
30	255	640	1,910	2,380	-	1,910	925	1,650	2,490	1,500	70	124
31	246	-	2,010	2,170	-	1,750	-	2,480	-	1,750	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	9,509	620	246	307	0.087	0.10	18,860
November	16,286	1,300	244	545	.153	.17	32,300
December	21,121	2,010	385	681	.192	.22	41,890
Calendar year 1942	905,637	10,500	149	2,481	.701	9.50	1,795,000
January	101,770	4,580	2,170	3,285	.928	1.07	201,900
February	37,915	2,070	820	1,354	.383	.40	75,200
March	35,715	2,330	740	1,068	.307	.35	66,870
April	37,505	1,600	925	1,244	.352	.39	75,990
May	35,261	2,480	720	1,075	.305	.35	66,970
June	56,920	2,480	1,250	1,864	.527	.59	110,900
July	20,250	2,450	865	1,185	.21	.21	40,170
August	8,594	1,450	66	277	.078	.09	17,050
September	1,724	124	40	57.5	.016	.02	3,420
Water year 1942-43	377,370	4,580	40	1,034	.292	3.96	748,500

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neches River at Evadale, Tex.

Location.- Staff gage, lat. 30°21', long. 94°05', at bridge on U. S. Highway 59, 200 feet upstream from Gulf, Colorado & Santa Fe Railway bridge at Evadale, Jasper County, and 15 miles upstream from Village Creek. Datum of gage is 8.3 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 7,908 square miles.

Records available.- July 1904 to December 1906, October 1923 to September 1943.

Average discharge.- 22 years (1904-6, 1923-43), 6,118 second-feet.

Extremes.- Maximum discharge during year, 9,500 second-feet Jan. 16, 17 (gage height, 13.10 feet); minimum observed, 292 second-feet Sept. 29.

1904-6, 1923-43: Maximum discharge, 83,800 second-feet June 1, 1929 (gage height, 22.20 feet); minimum observed, about 148 second-feet Sept. 10, 1928.

Maximum stage known, 26.2 feet in 1884 (discharge, about 175,000 second-feet, from rating curve extended above 72,000 second-feet by logarithmic plotting), from records of Gulf, Colorado & Santa Fe Railway Co.

Remarks.- Records good. Gage read twice daily. No diversion above station.

Rating tables, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-19)

Oct. 1 to Apr. 30

May 1 to Sept. 30

2.5	670	6.0	2,420	0.0	300	2.0	815	6.0	2,420
3.0	1,040	8.0	3,600	0.2	338	3.0	1,180	8.0	3,600
3.5	1,230	10.0	5,080	0.5	395	4.0	1,580	9.0	4,250
4.0	1,450	12.0	7,400	1.0	508	5.0	1,960		
5.0	1,920	14.0	11,800						

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,920	1,080	1,680	4,120	5,420	2,480	4,790	2,220	2,280	3,060	3,470	357
2	1,820	1,040	1,720	4,250	5,080	2,420	4,480	2,180	2,580	3,170	2,700	357
3	1,720	1,110	1,680	4,390	4,790	2,420	4,250	2,090	3,050	3,170	2,180	348
4	1,680	1,150	1,840	4,540	4,540	2,370	3,920	2,000	3,170	3,060	1,840	348
5	1,500	1,270	1,500	4,780	4,480	2,480	3,660	1,920	3,060	2,700	1,900	338
6	1,560	1,680	1,400	4,970	4,320	2,640	3,470	1,840	2,930	2,090	1,410	319
7	1,270	1,970	1,380	5,240	4,250	2,640	3,350	1,840	2,810	1,640	1,260	328
8	1,150	2,270	1,360	5,330	4,390	2,580	3,290	2,090	2,700	1,290	1,140	328
9	1,110	2,270	1,400	6,000	4,700	2,480	3,230	2,870	2,480	1,140	1,030	328
10	1,040	1,970	1,400	6,780	4,880	2,370	3,470	2,990	2,270	1,070	869	338
11	1,040	1,650	1,360	7,400	4,970	2,420	3,660	2,640	2,180	1,110	728	367
12	1,000	1,450	1,390	7,940	4,970	2,530	3,540	2,640	2,140	1,220	647	386
13	970	1,320	1,320	8,300	4,880	2,750	3,230	3,470	2,180	1,180	617	376
14	935	1,270	1,380	8,300	4,620	2,930	2,990	3,990	2,180	1,220	589	357
15	935	1,270	1,320	8,900	4,250	2,990	2,810	3,470	2,270	1,180	561	338
16	900	1,270	1,580	9,300	3,920	3,110	2,640	2,530	2,480	1,110	520	338
17	900	1,270	1,360	9,500	3,800	3,110	2,700	2,040	2,700	1,030	496	396
18	935	1,320	1,400	9,300	3,410	2,990	3,050	1,840	2,580	1,030	508	472
19	970	1,320	1,450	8,900	3,290	2,750	3,600	1,760	2,530	1,030	575	547
20	970	1,360	1,450	8,300	3,110	2,640	3,660	1,720	2,480	1,030	677	632
21	970	1,400	1,400	7,940	2,990	2,530	3,650	1,680	2,480	995	728	647
22	935	1,450	1,540	7,080	2,870	2,370	3,290	1,720	2,480	969	728	561
23	900	1,500	1,620	6,500	2,810	2,320	3,050	1,720	2,480	959	603	461
24	900	1,580	2,020	6,000	2,750	2,270	2,870	1,760	2,530	995	508	406
25	870	1,530	2,120	5,700	2,700	2,700	2,810	1,640	2,580	959	450	367
26	900	1,580	2,120	5,800	2,640	3,470	2,700	1,920	2,640	869	417	328
27	900	1,580	2,170	5,600	2,580	4,250	2,580	2,000	2,640	815	366	310
28	935	1,680	2,640	6,000	2,530	4,790	2,480	2,000	2,700	1,740	376	300
29	970	1,580	2,600	6,240	-	5,240	2,370	2,000	2,870	2,750	357	282
30	1,000	1,580	4,060	6,240	-	5,350	2,270	2,040	2,930	3,750	337	310
31	1,080	-	4,060	5,800	-	5,080	-	2,090	-	3,990	357	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	34,385	1,920	870	1,109	0.140	0.16	68,200
November	44,750	2,270	1,040	1,492	.189	.21	88,780
December	56,060	4,060	1,320	1,808	.229	.26	111,200
Calendar year 1942	2,275,217	20,000	744	6,228	.788	10.68	4,569,000
January	205,250	9,500	4,120	6,621	.638	.97	407,100
February	109,700	5,420	2,530	3,918	.496	.52	217,500
March	95,430	5,330	2,270	3,014	.381	.44	185,300
April	98,060	4,790	2,270	3,268	.413	.46	194,500
May	68,910	3,990	1,680	2,223	.281	.32	126,700
June	77,510	3,170	2,140	2,577	.326	.36	153,300
July	52,271	3,990	815	1,686	.213	.25	103,700
August	28,664	3,470	387	925	.117	.13	56,890
September	11,559	647	292	385	.049	.05	22,930
Water year 1942-43	880,359	9,500	292	2,412	.305	4.13	1,746,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mud Creek near Jacksonville, Tex.

Location.- Water-stage recorder, lat. $31^{\circ}58'40''$, long. $95^{\circ}09'40''$, at bridge on U. S. Highway 79, 5 miles downstream from International-Great Northern Railroad bridge, and 6.9 miles east of Jacksonville, Cherokee County. Datum of gage is 271.6 feet above mean sea level, datum of 1929.

Drainage area.- 382 square miles.

Records available.- May 1939 to September 1943.

Extremes.- Maximum discharge during year, 1,220 second-feet Dec. 31 (gage height, 7.69 feet); no flow at times.
1939-42: Maximum discharge, 14,200 second-feet Nov. 23, 1940 (gage height, 12.50 feet); no flow at times.
Maximum stage known occurred in May 1884 from information by local residents.

Remarks.- Records good. No large diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	86	65	881	292	114	253	50	284	19	12	0
2	22	108	70	880	247	117	180	47	465	21	12	0
3	24	106	71	828	237	160	127	44	505	22	9.6	0
4	25	80	70	346	247	123	149	41	820	19	7.3	0
5	38	78	66	237	252	123	135	38	620	16	7.7	0
6	70	105	66	202	268	126	126	36	360	14	5.5	0
7	69	108	70	249	247	123	117	49	177	13	4.6	0
8	49	168	77	348	238	120	108	50	180	11	3.6	0
9	37	214	80	360	181	114	114	136	222	9.8	0	0
10	32	242	83	398	177	108	188	166	302	10	0	0
11	29	270	91	480	166	108	247	202	384	18	0	0
12	28	242	100	498	160	114	258	222	273	21	0	0
13	28	149	108	435	160	132	202	232	97	28	0	0
14	27	108	102	292	149	160	142	237	65	25	0	0
15	26	94	91	237	142	184	114	195	56	22	0	0
16	89	88	86	214	135	206	100	105	54	22	0	0
17	67	86	86	206	132	206	105	75	58	20	0	0
18	45	83	83	194	132	177	152	62	52	16	0	0
19	49	85	83	180	129	160	163	54	46	12	0	0
20	43	50	80	166	132	177	180	47	37	9.1	0	0
21	37	80	80	156	135	174	194	43	33	7.5	0	0
22	33	78	94	152	142	196	166	51	31	6.3	0	0
23	30	75	114	156	142	210	117	62	28	5.6	0	0
24	28	74	129	168	142	188	100	56	29	5.0	0	0
25	27	72	138	166	135	223	88	60	27	3.9	0	0
26	26	70	138	206	129	336	78	97	24	0	0	0
27	26	65	532	284	123	348	70	126	22	0	0	0
28	26	64	743	348	117	381	63	80	21	00	0	0
29	27	64	642	378	-	460	57	52	21	0	0	0
30	36	64	850	360	-	498	53	94	20	0	0	9.4
31	78	-	1,160	536	-	410	-	194	-	4.4	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	1,193	89	22	38.5	0.101	0.12	2,370
November	3,348	270	64	112	.293	.33	6,640
December	6,238	1,160	65	201	.526	.61	12,370
Calendar year 1942	96,075.2	4,700	1.6	263	.689	9.56	190,600
January	9,841	881	152	317	.830	.96	19,520
February	4,868	292	117	174	.456	.47	9,660
March	6,244	498	108	201	.526	.61	12,380
April	4,179	258	53	139	.364	.41	8,290
May	2,995	237	36	86.6	.285	.29	5,940
June	5,711	903	20	190	.497	.56	11,530
July	380.8	28	0	12.3	.032	.04	755
August	62.6	12	0	2.02	.006	.008	124
September	9.4	9.4	0	.31	.0008	.0009	19
Water year 1942-43	45,069.8	1,160	0	123	.322	4.41	89,400

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Angelina River near Alto, Tex.

Location.- Chain gage, lat. 31°40', long. 94°58', at bridge on State Highway 21, 3 miles upstream from Bingham Creek and 7 miles east of Alto, Cherokee County. Datum of gage is 204.3 feet above mean sea level, datum of 1929.

Drainage area.- 1,261 square miles.

Records available.- May to August 1940 (discharge measurements only). September 1940 to September 1943 (fragmentary for 1941, 1942).

Extremes.- Maximum discharge during year, 1,930 second-feet Jan. 5 (gage height, 14.18 feet); minimum observed, 11 second-feet, Aug. 30, 31, Sept. 25-27, 1940-43; Maximum discharge not determined; minimum observed, that of A. C. 30, 31, Sept. 25-27, 1943.

Remarks.- Records good. Gage read twice daily. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	194	241	1,390	942	361	825	196	420	95	30	13
2	151	229	241	1,620	910	361	808	175	502	110	32	29
3	151	290	241	1,780	944	361	775	160	575	104	32	18
4	151	329	241	1,880	980	361	744	150	590	84	30	13
5	151	355	241	1,930	980	394	680	140	530	68	28	16
6	151	355	241	1,810	980	420	575	135	518	68	28	24
7	151	368	241	1,720	944	420	474	135	580	66	28	26
8	173	368	253	1,520	910	407	420	191	942	55	25	a24
9	205	368	253	1,370	942	407	420	235	859	48	30	22
10	217	368	255	1,240	776	394	446	272	760	61	30	23
11	217	420	290	1,160	712	394	446	332	560	74	43	23
12	206	488	303	1,120	665	361	446	332	581	74	38	24
13	194	530	316	1,120	605	394	446	332	320	107	26	24
14	162	530	342	1,110	560	407	460	356	344	254	29	22
15	151	516	342	1,090	516	420	516	356	368	290	39	20
16	140	488	342	1,050	460	420	545	344	366	308	40	18
17	140	446	329	998	460	433	575	344	236	242	33	17
18	140	394	316	910	446	445	665	332	a180	165	54	15
19	184	342	316	825	433	420	545	284	124	135	48	14
20	229	303	315	712	420	474	560	208	119	116	46	14
21	241	277	303	635	420	474	605	155	115	98	37	13
22	229	290	316	590	433	474	635	135	107	79	28	13
23	229	277	329	560	433	474	680	123	93	60	23	13
24	296	277	342	530	433	460	698	118	83	55	20	12
25	184	290	a374	516	420	502	635	140	75	50	16	11
26	162	277	407	516	420	590	502	165	75	44	15	11
27	151	265	620	516	394	665	361	180	82	39	13	11
28	134	253	776	530	394	744	302	191	79	34	13	12
29	140	253	842	590	-	808	254	191	80	35	12	13
30	140	241	980	650	-	825	218	290	89	33	11	16
31	162	-	1,160	760	-	825	-	356	-	31	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	5,395	241	134	174	0.138	0.16	10,700
November	10,371	530	184	346	.274	.31	20,570
December	12,119	1,180	241	391	.310	.36	24,040
Calendar year 1942	-	-	-	-	-	-	-
January	32,748	1,930	516	1,056	.837	.97	64,950
February	17,732	980	394	633	.502	.52	36,170
March	15,038	825	361	485	.385	.44	29,820
April	16,280	925	218	543	.431	.48	32,290
May	7,064	566	118	228	.181	.21	13,990
June	10,140	859	75	338	.268	.30	20,110
July	3,112	308	31	100	.079	.09	6,170
August	880	54	11	23.4	.023	.03	1,750
September	524	29	11	17.5	.014	.02	1,040
Water year 1942-43	131,391	1,930	11	360	.285	3.89	260,600

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Angelina River near Lufkin, Tex.

Location.- Water-stage recorder, lat. 31°27'40", long. 94°43'35", at bridge on State Highway 35, 400 feet upstream from Procaccia Creek, half a mile downstream from Little Loco Bayou, 1.5 miles upstream from Texas & New Orleans Railroad bridge, and 8 miles north of Lufkin, Angelina County. Datum of gage is 164.72 feet above mean sea level, datum of 1929.

Drainage area.- 1,575 square miles.

Records available.- October 1923 to September 1934, July 1939 to September 1943.

Average discharge.- 15 years, 1,243 second-feet.

Extremes.- Maximum discharge during year, 2,200 second-feet Jan. 8 (gage height, 9.94 feet); minimum, 15 second-feet Sept. 27.

1923-34, 1939-43: Maximum discharge, 38,200 second-feet Feb. 24, 1932; maximum gage height, 17.97 feet Nov. 28, 1940; minimum discharge, 2.3 second-feet Oct. 12, 1939.

Maximum stage known, about 26.5 feet in May 1884, from information by local residents.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	187	269	1,040	685	464	860	292	378	107	43	17
2	211	176	262	1,060	755	464	860	266	388	110	42	17
3	201	363	262	1,160	842	464	842	236	409	122	39	19
4	191	269	256	1,280	1,430	453	885	218	453	128	38	38
5	186	292	256	1,400	1,400	453	790	206	486	122	37	37
6	181	324	256	1,550	1,210	464	755	193	508	104	37	27
7	181	342	262	2,070	1,110	486	702	186	555	84	35	22
8	176	351	262	2,200	1,040	486	615	181	542	76	35	23
9	172	360	262	2,120	990	486	542	186	585	76	34	29
10	186	360	276	1,990	950	486	497	218	668	71	32	28
11	211	351	292	1,850	895	508	486	250	702	92	45	25
12	226	360	308	1,720	825	508	497	300	668	87	92	23
13	226	388	316	1,660	755	497	333	333	530	104	134	23
14	216	431	324	1,490	702	486	486	333	420	131	84	23
15	201	464	333	1,340	650	486	475	333	351	170	54	24
16	181	475	342	1,260	585	486	486	342	342	226	43	24
17	167	475	361	1,210	555	486	519	342	351	250	42	23
18	158	464	361	1,140	530	486	570	333	324	256	46	22
19	154	442	342	1,080	508	497	668	394	250	222	43	21
20	158	409	333	970	508	497	755	316	197	178	45	20
21	186	378	342	895	508	497	668	276	164	150	52	20
22	216	360	378	808	508	497	615	226	147	131	49	19
23	221	369	388	738	508	497	615	193	137	110	45	17
24	221	353	378	668	508	497	615	174	131	92	58	16
25	226	316	369	615	497	631	650	164	122	76	52	16
26	216	300	378	702	486	790	680	160	107	64	27	16
27	206	300	1,010	825	475	808	800	167	98	56	24	16
28	186	292	1,830	720	464	808	519	178	92	52	22	16
29	167	292	1,870	688	-	790	431	197	95	58	20	18
30	158	276	1,520	650	-	808	351	256	104	59	19	19
31	162	-	1,210	650	-	842	-	300	-	55	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	5,974	226	154	193	0.123	0.14	11,850
November	10,479	475	167	349	.222	.25	20,760
December	15,588	1,870	256	503	.319	.37	30,980
Calendar year 1942	434,752	6,110	82	1,191	.756	10.27	862,400
January	37,489	2,200	615	1,209	.768	.89	74,560
February	20,879	1,430	464	745	.474	.49	41,410
March	17,108	842	463	552	.350	.40	33,930
April	18,458	860	351	615	.390	.44	36,610
May	7,646	342	160	247	.157	.18	15,170
June	10,304	702	92	343	.218	.24	20,440
July	3,616	256	52	117	.074	.09	7,170
August	1,351	134	18	43.6	.028	.03	2,680
September	660	58	16	22.0	.014	.02	1,510
Water year 1942-43	149,552	2,200	16	410	.260	3.54	296,600

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Angelina River at Horger, Tex.

Location.- Chain gage, lat. 31°00', long. 94°10', at bridge on State Highway 63, a quarter of a mile east of Horger, Jasper County, 7 miles upstream from Indian Creek, and 20 miles upstream from mouth. Datum of gage is 68.4 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,435 square miles.

Records available.- March 1928 to September 1943.

Average discharge.- 15 years, 2,871 second-feet.

Extremes.- Maximum discharge during year, 4,540 second-feet Jan. 14 (gage height, 10.98 feet); minimum not determined.

1928-43: Maximum discharge, 48,800 second-feet Feb. 24, 1932 (gage height, 36.35 feet, from graph based on gage readings); minimum observed, 13 second-feet Sept. 22, 1937.

Maximum discharge known, 82,000 second-feet August 1915 (gage height, 39.5 feet, from information by local residents), from rating curve extended above 47,000 second-feet by logarithmic plotting.

Remarks.- Records good except those below 100 second-feet, which are poor. Gage read twice daily. Occasional backwater from Neches River. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	545	460	575	1,970	1,680	1,040	1,780	790	460	317	199	80
2	516	460	545	2,120	1,550	1,040	1,600	710	474	288	166	76
3	602	460	545	2,180	1,460	960	1,500	635	545	283	150	73
4	460	710	530	2,120	1,460	1,000	1,420	560	560	287	142	69
5	432	665	530	1,970	1,600	1,040	1,370	502	545	242	131	66
6	418	860	516	1,820	2,120	1,040	1,380	474	545	218	131	67
7	404	860	502	2,340	2,670	1,040	1,280	545	530	206	116	84
8	387	758	502	3,720	2,840	1,040	1,240	502	516	260	104	136
9	390	620	502	3,660	2,840	1,160	1,200	502	590	404	83	201
10	382	590	516	3,560	2,780	1,160	1,160	550	575	275	95	184
11	374	575	530	3,240	2,620	1,160	1,080	1,630	605	225	95	150
12	379	575	530	3,420	2,340	1,160	1,000	2,210	590	218	120	146
13	371	575	545	4,160	2,020	1,320	920	935	650	227	136	142
14	374	575	575	4,480	1,780	1,500	840	680	695	208	125	116
15	390	575	590	4,090	1,640	1,500	823	620	710	182	120	100
16	404	575	590	3,840	1,550	1,460	823	575	680	174	172	89
17	404	590	575	3,540	1,460	1,280	823	560	605	166	197	688
18	404	605	560	3,240	1,370	1,160	840	530	545	220	210	86
19	404	635	575	2,780	1,280	1,160	860	516	516	258	371	84
20	390	635	590	2,400	1,240	1,080	920	502	446	339	293	77
21	390	650	590	2,120	1,200	1,040	1,080	488	432	390	174	71
22	379	680	806	1,920	1,200	1,040	1,120	488	390	404	136	70
23	368	635	742	1,820	1,200	1,040	1,160	474	360	355	107	69
24	374	635	725	1,680	1,200	1,000	1,160	450	369	268	94	70
25	382	665	774	1,600	1,200	1,200	1,040	432	280	250	100	71
26	418	665	880	1,620	1,120	1,780	940	404	252	210	95	69
27	460	650	1,320	2,620	1,080	2,500	860	339	218	182	90	76
28	474	620	1,420	2,280	1,080	2,500	860	374	252	213	89	90
29	488	650	1,460	2,120	-	2,340	860	358	306	488	84	90
30	502	620	1,730	1,920	-	2,120	823	355	344	331	92	84
31	488	-	1,620	1,820	-	1,920	-	418	-	278	82	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	13,053	545	368	421	0.123	0.14	25,890
November	18,828	860	460	628	1.83	.20	37,340
December	23,191	1,820	502	748	2.18	.26	45,000
Calendar year 1942	1,042,698	12,400	225	2,857	.632	11.29	2,068,000
January	82,170	4,480	1,600	2,651	.772	.89	163,000
February	47,580	2,840	1,050	1,699	.495	.52	94,370
March	41,740	2,500	960	1,346	.392	.45	82,790
April	32,702	1,780	823	1,090	.317	.35	64,860
May	19,196	2,210	355	619	.180	.21	38,070
June	14,495	710	218	463	.141	.16	28,750
July	8,416	488	174	271	.079	.09	16,690
August	4,299	371	82	139	.040	.06	8,530
September	2,874	201	66	95.8	.028	.03	5,700
Water year 1942-43	308,544	4,480	66	845	.246	3.34	612,000

a No gage-height record; discharge interpolated.

d Doubtful gage height; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Striker Creek near Summerfield, Tex.

Location.- Chain gage, lat. 32°00'10", long. 94°59'35", at bridge on U. S. Highway 79, 3½ miles downstream from Johnson Creek and 6½ miles northeast of Summerfield, Cherokee County. Datum of gage is 287.0 feet above mean sea level, datum of 1929.

Drainage area.- 135 square miles.

Records available.- May to August 1940 (discharge measurements only). September 1940 to September 1943.

Extremes.- Maximum discharge during year, 1,620 second-feet Dec. 28 (gage height, 9.18 feet); minimum observed, 0.7 second-foot Aug. 31, Sept. 1.
1940-43: Maximum discharge, 10,800 second-feet Nov. 24, 1940 (gage height, 17.23 feet, from floodmark), from rating curve extended above 5,000 second-feet by velocity-area studies; minimum observed, that of Aug. 31, Sept. 1, 1943.

Remarks.- Records fair. Gage read twice daily, more often during floods. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	101	41	209	163	51	72	24	82	15	4.2	0.8
2	25	137	44	145	141	54	63	23	148	30	4.2	.9
3	26	133	46	120	137	60	59	21	130	32	4.2	.9
4	28	92	42	103	134	65	56	19	79	22	4.0	1.0
5	35	73	42	93	147	68	53	18	44	14	3.6	1.1
6	64	78	41	93	150	67	50	18	31	11	3.6	1.6
7	102	143	43	109	134	64	46	21	28	8.6	3.5	4.2
8	84	358	45	192	114	61	42	36	21	8.6	3.1	5.3
9	55	334	46	346	100	58	41	58	19	8.6	2.9	7.2
10	38	195	50	278	84	55	62	78	18	22	3.3	7.5
11	33	120	54	176	77	53	140	72	18	47	3.9	6.8
12	32	87	60	141	75	54	148	60	15	44	4.7	6.8
13	30	69	62	115	72	62	104	53	15	48	4.6	4.7
14	29	59	62	102	67	69	85	41	15	50	4.3	4.0
15	28	52	56	93	65	80	70	31	18	66	4.3	3.4
16	34	50	51	89	61	82	56	26	22	72	4.0	2.8
17	35	46	49	84	60	76	53	22	23	47	3.6	2.4
18	133	46	50	79	60	68	74	20	17	26	3.3	1.9
19	132	47	51	75	58	66	360	13	14	18	2.9	1.9
20	75	47	49	67	59	74	408	16	10	14	2.5	1.7
21	58	48	51	64	63	82	231	15	10	11	2.2	1.7
22	43	48	55	64	64	91	119	15	8.9	10	1.8	1.5
23	36	46	69	65	64	81	82	15	8.2	8.9	1.8	1.5
24	32	45	87	68	64	68	63	13	7.7	7.7	1.8	1.5
25	30	42	94	71	63	80	51	23	14	6.9	1.6	1.7
26	29	40	104	88	60	118	43	25	25	6.2	1.5	1.7
27	28	39	402	176	56	205	37	37	22	5.4	1.5	1.9
28	28	39	1,310	358	53	192	32	48	17	4.9	1.4	3.0
29	28	39	1,130	346	-	148	29	32	15	4.6	1.1	4.4
30	35	39	570	299	-	108	28	33	14	4.4	.8	17
31	65	-	299	202	-	84	-	49	-	4.3	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	1,501	133	24	48.4	0.358	0.41	2,980
November	2,690	358	39	89.7	0.664	.74	5,340
December	5,164	1,310	41	166	1.23	1.42	10,220
Calendar year 1942	57,783.1	2,720	7.6	158	1.17	16.9	114,600
January	4,510	358	64	145	1.07	1.24	8,980
February	2,448	183	53	87.3	.847	.67	4,880
March	2,544	205	61	85.1	.608	.70	5,050
April	2,755	408	26	91.3	.690	.78	5,460
May	983	78	15	31.7	.235	.27	1,950
June	906.8	148	7.7	30.2	.224	.25	1,800
July	678.1	72	4.3	21.5	.162	.19	1,340
August	90.9	4.7	.7	2.93	.022	.03	180
September	101.8	17	.8	3.39	.025	.03	200
Water year 1942-43	24,359.6	1,310	.7	66.7	.494	6.71	48,320

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bowles Creek seepage investigation

A series of discharge measurements on Bowles Creek (tributary to Striker Creek) and tributaries, in Rusk and Smith Counties, Tex., was made between county-road bridge on West Fork Bowles Creek 1.8 miles west of Old London, Rusk County, and a point just upstream from Horsepen Branch, 2.6 miles northwest of Carlisle, Rusk County. The measurements were made during a period of constant stage of the creek, in order to determine seepage. All tributaries and diversions were measured. The seepage investigation was made in connection with a study of oil-field waste.

Discharge measurements made on Bowles Creek and tributaries, Tex.,
in 1942, in order to determine seepage

Date	Stream	Location	Distance below initial point (miles)	Discharge in second-feet			
				Main stream	Tribu- tary	Gain or loss in section	Total gain or loss
Oct. 28	West Fork Bowles Creek.	0.5 mile upstream from confluence with East Fork, 1.8 miles west of Old London.	0	1.4	-	-	-
28	East Fork Bowles Creek.	0.4 mile upstream from confluence with West Fork, 1.4 miles west of Old London.	.5	-	1.0	-	-
28	Bowles Creek....	Just downstream from confluence of West and East Forks, 1.7 miles southwest of Old London.	.5	2.8	-	+0.4	-
28	.....do.....	0.7 mile upstream from Allan Branch, 1.8 miles southwest of Old London.	1.3	2.7	-	-.1	+0.3
28	Allan Branch....	0.6 mile upstream from mouth, 2.1 miles southwest of Old London.	2.0	-	1.1	-	-
28	Bowles Creek....	Just upstream from Wright Branch, 0.8 mile southwest of Wright City.	3.7	3.3	-	-.5	-.2
28	Wright Branch...	Just upstream from mouth, 0.8 mile southeast of Wright City.	3.7	-	1.3	-	-
28	Henson Creek....	Just upstream from mouth, 2.1 miles south of Wright City.	5.2	-	.5	-	-
28	Bowles Creek....	0.2 mile upstream from Denton Creek, 2.7 miles northwest of Carlisle.	5.6	8.2	-	+3.1	+2.9
28	Denton Creek....	Just upstream from mouth, 2.7 miles northwest of Carlisle.	5.8	-	.6	-	-
28	Bowles Creek....	Just upstream from Horsepen Branch, 2.6 miles northwest of Carlisle.	6.5	8.9	-	+1.1	+3.0
28	Horsepen Branch.	Just upstream from mouth, 2.4 miles northwest of Carlisle.	6.6	-	1.3	-	-

Attoyac Bayou near Chireno, Tex.

Location.-- Water-stage recorder, lat. 31°30'15", long. 94°18'15", at bridge on State Highway 21, 3 miles northeast of Chireno, Nacogdoches County, and 7 miles downstream from Arenoso Creek. Datum of gage is 169.9 feet above mean sea level, datum of 1929.

Drainage area.-- 602 square miles.

Records available.-- January 1924 to August 1925, July 1939 to September 1943.

Extremes.-- Maximum discharge during year, 814 second-feet Feb. 6 (gage height, 12.37 feet); minimum, 17 second-feet Aug. 28-30.
1924-25, 1939-43: Maximum discharge, 31,900 second-feet Nov. 24, 1940 (gage height, 25.97 feet); minimum observed, 7.0 second-feet Aug. 27, 1925.
Maximum stage known, 29.9 feet in June 1912 (result of local storm), from information by local residents.

Remarks.-- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	113	135	562	256	150	215	78	180	56	35	18
2	102	113	129	552	240	170	195	73	116	56	34	18
3	102	896	126	402	265	190	178	73	113	46	30	22
4	102	362	126	276	532	186	164	71	94	39	29	75
5	102	195	123	218	763	176	153	69	66	34	25	152
6	102	160	123	195	814	352	146	66	54	32	23	110
7	99	160	135	502	775	362	139	71	51	30	26	73
8	96	146	143	680	635	276	135	104	52	35	26	86
9	94	146	146	660	422	215	129	100	48	34	24	91
10	98	143	143	616	322	196	126	84	44	32	23	54
11	98	139	167	572	285	472	129	124	42	30	46	36
12	98	139	174	482	258	594	139	136	42	36	78	30
13	96	133	164	502	240	392	136	102	52	35	69	26
14	93	136	156	472	226	312	120	91	58	39	96	24
15	93	136	146	382	213	267	104	80	48	91	96	22
16	80	136	143	342	204	231	107	69	46	96	66	22
17	83	136	150	303	195	218	129	62	44	96	42	21
18	83	139	143	267	190	200	213	58	41	70	32	22
19	83	139	136	240	186	186	312	56	37	43	28	25
20	80	139	133	218	182	190	342	53	35	35	25	30
21	80	143	136	204	186	190	312	51	34	39	23	30
22	80	174	213	200	208	178	213	49	32	36	22	30
23	78	213	276	200	208	156	146	49	36	33	21	30
24	76	208	231	200	190	146	123	54	35	29	20	28
25	83	182	213	204	178	339	110	66	37	26	19	26
26	99	160	213	322	170	583	102	68	50	24	19	25
27	107	139	482	382	160	616	96	76	55	24	18	24
28	110	129	562	412	150	542	91	78	48	24	17	27
29	104	129	572	402	-	472	86	69	52	27	17	34
30	102	136	562	322	-	342	80	100	60	31	17	36
31	99	-	562	285	-	249	-	178	-	33	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	2,841	110	76	91.6	0.182	0.21	5,640
November	4,898	395	113	163	.325	.36	9,780
December	6,859	572	123	221	.440	.51	13,600
Calendar year 1942	173,496	3,290	56	475	.946	17.88	344,100
January	11,536	660	195	372	.741	.85	22,880
February	8,658	814	150	309	.616	.64	17,170
March	9,153	616	146	295	.588	.68	18,150
April	4,666	342	80	156	.311	.35	9,250
May	2,463	178	49	80.1	.160	.18	4,920
June	1,687	150	32	55.6	.111	.12	3,310
July	1,291	96	24	41.6	.083	.10	2,560
August	1,066	96	17	34.4	.069	.08	2,110
September	1,282	782	18	42.7	.085	.09	2,540
Water year 1942-43	56,400	814	17	155	.309	4.17	111,800

Peak discharge.-- Jan. 8 (10 p.m.) 682 sec.-ft.; Feb. 6 (7 a.m.) 814 sec.-ft.; Mar. 12 (9 a.m.) 627 sec.-ft.; Mar. 27 (1 a.m.) 638 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Village Creek near Kountze, Tex.

Location.— Water-stage recorder, lat. 30°24', long. 94°16', at bridge on Kountze-Silsbee county highway, 1.2 miles upstream from Gulf, Colorado & Santa Fe Railway bridge, 3.2 miles northeast of Kountze, Hardin County, and 4½ miles downstream from Birch Creek. Datum of gage is 25.1 feet above mean sea level, datum of 1929.

Drainage area.— 837 square miles.

Records available.— May 1924 to November 1929, April 1939 to September 1943, October 1927 to November 1929 (discharge measurements only).

Extremes.— Maximum discharge during year, 6,870 second-feet July 30 (gage height, 16.36 feet); minimum, 99 second-feet July 27.
1924-27, 1939-43: Maximum discharge, 67,200 second-feet Nov. 26, 1940 (gage height, 27.6 feet, from floodmark), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum, 32 second-feet Sept. 28, 1939.
Maximum stage known, 34 feet present site and datum, August 1915. Flood of May 27, 1929, reached a stage of about 32 feet, present site and datum. Above stages were determined on basis of information by engineers of Gulf, Colorado & Santa Fe Railway for site 1.2 miles downstream.

Remarks.— Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	279	238	317	1,180	794	344	666	222	298	267	4,480	132
2	250	222	358	860	706	337	514	206	434	250	3,550	180
3	238	314	394	828	828	365	482	195	514	279	2,880	165
4	238	568	330	514	606	379	450	185	498	228	1,790	155
5	233	632	267	466	772	402	402	180	358	185	885	170
6	228	550	244	434	838	514	372	170	250	160	434	175
7	222	454	233	657	772	666	351	260	211	141	361	170
8	216	337	228	1,250	646	568	344	1,350	190	141	310	206
9	206	285	255	1,670	560	450	666	4,040	178	160	291	190
10	200	255	330	1,780	498	386	606	4,180	180	211	279	170
11	195	244	317	1,890	482	385	666	3,030	150	285	261	150
12	190	233	285	1,850	466	372	580	2,250	150	422	273	132
13	190	233	287	2,550	450	532	418	1,680	180	750	255	119
14	185	228	261	3,010	418	706	351	1,110	443	586	228	110
15	185	216	255	3,080	394	728	310	644	816	402	216	104
16	180	211	244	2,870	379	666	279	450	838	337	195	104
17	173	206	233	2,620	365	498	493	372	586	287	160	148
18	200	233	2,200	358	434	992	324	351	211	175	538	
19	170	200	238	1,700	351	394	1,200	285	386	170	195	1,080
20	170	200	250	1,180	351	379	1,670	261	394	146	244	948
21	165	206	244	838	365	386	1,780	498	372	132	304	606
22	165	233	244	686	402	394	1,370	550	291	123	287	366
23	165	298	388	646	466	372	772	317	250	116	206	279
24	160	319	686	628	482	344	482	255	255	110	175	228
25	160	317	816	606	450	534	394	287	498	105	165	200
26	160	310	666	794	402	1,310	344	337	466	162	146	180
27	160	279	646	1,250	372	1,740	304	330	344	106	136	165
28	166	250	1,190	1,420	351	1,850	273	310	291	517	132	165
29	190	250	1,670	1,420	-	1,700	250	261	233	4,760	128	160
30	200	279	1,670	1,270	-	1,300	253	244	250	6,690	121	284
31	233	-	1,510	1,040	-	992	-	255	-	5,990	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	6,043	279	160	195	0.233	7.27	11,990
November	8,638	568	200	288	.344	.58	17,130
December	15,169	1,670	228	489	.584	.67	30,090
Calendar year 1942	355,837	14,000	141	975	1.17	16.79	705,800
January	42,693	3,080	434	1,377	1.65	1.80	84,660
February	14,112	635	351	504	.602	.53	27,990
March	20,407	1,680	337	658	.786	.91	40,490
April	17,984	1,780	233	599	.716	.80	35,870
May	24,998	4,180	170	806	.963	1.11	49,580
June	10,612	838	150	354	.423	.47	21,050
July	24,348	6,690	102	785	.958	1.08	48,290
August	19,344	4,480	121	624	.746	.86	38,370
September	7,727	1,080	104	256	.308	.54	15,330
Water year 1942-43	212,065	6,690	102	561	.694	7.42	420,600

Peak discharge.— Jan. 15 (12:30 a.m.) 3,150 sec.-ft.; May 9 (10:30 p.m.) 4,530 sec.-ft.; July 30 (6 p.m.) 6,670 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

West Fork Trinity River at Fort Worth, Tex.

Location.—Water-stage recorder above spillway of Fort Worth Power & Light Co. concrete dam, lat. 32°48', long. 97°20', in old pump house of Fort Worth Power & Light Co.'s plant in Fort Worth, Tarrant County, 150 feet upstream from Paddock viaduct and a quarter of a mile downstream from Clear Fork. Datum of gage is 519.2 feet above mean sea level (Texas Reclamation Department bench mark based on Coast & Geodetic Survey datum).

Drainage area.—2,431 square miles.

Records available.—October 1920 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1910.

Average discharge.—23 years, 469 second-feet.

Extremes.—Maximum discharge during year, 9,870 second-feet Oct. 16 (gage height, 9.84 feet); minimum, 1.5 second-feet Aug. 22-24.

1920-43: Maximum discharge, 85,000 second-feet Apr. 25, 1922 (gage height, 23.95 feet), by slope-area method, data furnished by City engineer of Fort Worth; no flow at times.

Remarks.—Records good. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet). Considerable diversion above station for municipal supply of city of Fort Worth. Several small diversions above Fort Worth.

Rating table, water year 1942-43 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Nov. 1 to Dec. 20, June 18-29, Sept. 9-21)

0.95	1.1	1.15	27.0	1.6	188	3.2	1,240
.98	2.9	1.20	37.0	1.8	258	4.0	2,180
1.00	4.5	1.30	61.0	2.0	364	5.0	3,570
1.05	10.5	1.4	92.0	2.4	520	6.0	5,170
1.10	18.0	1.5	128	2.8	910		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	1,040	177	67	48	33	1,860	72	488	37	4.8	5.8
2	20	1,100	113	67	61	33	1,850	67	263	31	4.6	4.8
3	20	1,100	117	67	69	33	1,800	53	164	23	4.8	17
4	25	1,100	92	64	67	33	1,740	46	117	20	3.8	1,530
5	20	1,580	120	58	61	33	988	41	120	16	3.8	394
6	20	1,270	113	64	56	33	449	41	420	16	3.8	136
7	20	1,180	120	69	48	35	249	57	2,620	14	3.8	56
8	18	1,140	102	69	44	35	757	822	2,100	12	3.8	31
9	16	1,110	92	67	44	33	742	2,030	2,360	12	3.8	16
10	16	910	82	67	48	33	316	2,960	2,620	12	3.8	68.0
11	16	870	86	61	53	33	253	2,620	2,450	14	3.8	63.8
12	16	1,010	78	61	41	445	216	720	1,480	15	4.8	84.8
13	16	1,460	72	58	39	342	152	807	1,740	14	135	84.8
14	16	1,220	69	58	37	142	223	1,140	1,350	10	106	84.8
15	92	792	76	58	35	75	425	1,330	1,330	9.2	61	63.8
16	3,210	698	72	58	37	85	540	1,340	1,010	8.0	23	g22
17	4,270	684	58	64	37	204	802	1,280	452	8.0	16	g96
18	2,190	663	58	56	37	314	992	1,280	225	8.0	9.0	g12
19	1,140	634	56	64	37	287	713	1,060	124	8.0	4.8	g3.8
20	1,620	634	58	44	39	109	648	925	86	6.9	2.9	g3.8
21	2,160	720	131	46	37	69	613	843	61	5.8	2.1	g4.8
22	2,220	663	273	51	37	67	641	978	56	5.8	1.5	g6.9
23	2,160	548	187	56	37	64	670	1,100	51	4.8	1.5	g8.0
24	1,270	573	106	53	35	439	648	584	41	3.8	1.9	g8.0
25	843	627	95	48	35	1,910	508	342	35	18	122	g9.0
26	691	613	95	46	33	710	278	181	29	12	198	g9.2
27	607	560	164	44	33	514	172	124	27	5.8	156	8.0
28	607	593	136	44	33	641	132	140	25	4.8	76	9.2
29	613	494	82	46	-	940	102	394	180	4.8	33	15
30	903	207	72	51	-	1,330	89	598	64	4.8	18	22
31	965	-	69	48	-	1,740	-	763	-	4.8	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	25,844	4,270	16	6.4	51,280
November.....	25,321	1,460	207	6.4	50,360
December.....	3,189	273	56	1.03	5,330
Calendar year 1942	557,379	17,700	15	1.577	1,106,000
January.....	1,776	69	44	57.3	3,520
February.....	1,216	69	33	45.4	2,410
March.....	10,614	1,910	33	3.9	21,450
April.....	19,578	1,860	89	6.3	38,630
May.....	24,518	2,960	41	7.1	48,630
June.....	23,287	2,620	25	7.76	46,130
July.....	369.3	37	3.8	11.9	732
August.....	1,015.3	198	1.5	32.8	2,010
September.....	2,767.3	1,630	3.8	91.9	5,470
Water year 1942-43	159,724.9	4,270	1.5	3.35	277,100

Peak discharge.—Oct. 16 (10 p.m.) 9,870 sec.-ft.; May 10 (8:30 p.m.) 5,170 sec.-ft.; Sept. 4

(6 p.m.) 4,690 sec.-ft.

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Fork Trinity River at Grand Prairie, Tex.

Location.- Water-stage recorder, lat. 32°46', long. 96°59', 440 feet downstream from bridge on Grand Prairie-Sowers-Irving highway, 1 mile northeast of Grand Prairie, Dallas County, and 6 miles upstream from Mountain Creek. Datum of gage is 412.96 feet above mean sea level, datum of 1929.

Drainage area.- 2,886 square miles.

Records available.- March 1925 to September 1943.

Average discharge.- 18 years, 602 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet Oct. 18 (gage height, 23.22 feet); minimum, 32 second-feet Aug. 10, 23, 24.

1925-43: Maximum discharge, 27,200 second-feet Apr. 25, 1942 (gage height, 25.86 feet), from rating curve extended above 14,000 second-feet on basis of velocity-area study; minimum observed, 3.2 second-feet June 6, 1925.

Maximum stage known, 29 feet in April 1922.

Remarks.- Records good. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet). City of Fort Worth diverts considerable water for municipal supply. Several small diversions above Fort Worth.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	1,180	282	153	101	a84	1,850	147	783	143	40	48
2	76	1,200	241	148	100	86	1,910	136	501	104	39	44
3	71	1,260	194	147	126	80	1,880	124	263	8	35	42
4	64	1,230	180	136	160	83	1,850	118	247	75	38	681
5	63	1,630	191	136	136	86	1,700	103	224	63	39	3,580
6	59	1,620	211	131	151	86	916	97	278	5	38	508
7	58	1,420	209	137	118	80	465	99	2,920	50	39	207
8	61	1,340	211	145	103	a82	1,010	771	3,000	60	39	132
9	59	1,310	189	142	99	a82	3,890	2,440	2,040	55	37	90
10	58	1,230	167	136	97	a82	1,030	2,690	2,360	54	32	71
11	56	937	156	132	94	a82	489	5,330	2,600	54	36	60
12	54	758	155	125	112	262	384	1,870	2,620	50	37	53
13	50	1,260	150	124	93	1,040	338	886	2,620	50	37	47
14	53	1,590	139	124	a88	466	269	963	1,530	54	89	43
15	55	1,200	137	122	a86	267	316	1,310	1,340	51	151	46
16	533	833	137	122	a84	175	489	1,480	1,340	40	94	48
17	7,360	768	147	118	a83	159	609	1,420	902	40	62	179
18	9,670	733	125	114	a84	252	989	1,490	454	40	49	153
19	4,400	708	122	107	a85	350	963	1,340	294	40	45	80
20	1,640	683	122	113	a86	316	758	1,100	213	41	44	53
21	2,010	708	149	108	a86	189	683	1,040	158	44	40	46
22	2,350	753	368	104	a87	151	689	1,100	136	43	39	48
23	2,320	683	384	110	a86	134	683	1,590	122	40	36	49
24	1,880	597	267	114	a86	368	708	1,200	112	40	32	50
25	1,310	633	201	108	a84	3,720	658	708	107	30	36	48
26	937	683	189	99	a82	2,380	489	419	92	44	79	47
27	758	633	597	97	a82	926	316	294	86	50	209	45
28	683	586	294	96	a81	683	234	234	75	44	182	46
29	683	683	235	96	-	806	194	253	72	40	126	45
30	833	430	182	100	-	1,100	163	625	345	40	80	136
31	1,310	-	156	104	-	1,660	-	808	-	40	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	39,463	9,670	50	1,273	79,270
November.....	29,198	1,820	480	973	67,910
December.....	6,477	587	122	209	12,650
Calendar year 1942.....	685,026	24,900	50	1,877	1,359,000
January.....	3,746	153	96	121	7,430
February.....	12,738	160	81	97.8	5,430
March.....	16,227	3,720	80	563	32,190
April.....	26,891	3,890	153	896	53,340
May.....	31,954	5,330	97	1,031	63,390
June.....	27,334	3,000	72	911	54,820
July.....	1,710	143	39	55.2	3,390
August.....	1,932	209	32	62.3	3,850
September.....	6,624	3,690	42	221	13,140
Water year 1942-43.....	194,294	9,670	32	532	385,400

Peak discharge.- Oct. 18 (9 a.m.) 10,600 sec.-ft.; Mar. 25 (1:30 p.m.) 4,750 sec.-ft.; Apr. 9 (9:30 a.m.) 5,020 sec.-ft.; May 11 (7 a.m.) 5,820 sec.-ft.; June 7 (12:30 p.m.) 4,440 sec.-ft.; Sept. 5 (7:30 a.m.) 4,840 sec.-ft.

a No gage-height record; discharge computed on basis of weather records, engineer's notes, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Trinity River at Dallas, Tex.

Location.- Water-stage recorder, lat. 32°47', long. 96°48', at Commerce Street viaduct in Dallas, Dallas County, 5½ miles downstream from confluence of West and Elm Forks. Datum of gage is 368.14 feet above mean sea level, datum of 1929.

Drainage area.- 6,001 square miles.

Records available.- July 1903 to July 1930, October 1932 to September 1943 (January 1907 to September 1920, monthly records only, in Water-Supply Paper 850). October 1898 to December 1899 (gage height only), at site 2 miles upstream. July 1930 to September 1932, at site 6 miles downstream. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 40 years (1903-43), 1,510 second-feet.

Extremes.- Maximum discharge during year, 21,300 second-feet Mar. 26 (gage height, 34.52 feet); minimum, 70 second-feet Oct. 13.

1903-43: Maximum discharge, 184,000 second-feet May 25, 1908 (gage height, 52.6 feet), from rating curve extended above 76,000 second-feet by logarithmic plotting; minimum discharge observed for periods 1903-6, 1920-43, 6.8 second-feet Sept. 11, 1924.

Remarks.- Records good except those for period of no gage-height record, which are fair. Flow partly regulated by Bridgeport, Eagle Mountain, Lake Worth, Mountain Creek, and Lake Dallas Reservoirs (combined capacity, 757,000 acre-feet). Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2	g324	1,540	443	552	2,530	224	2,470	362	2,090	422	186	155
3	g258	1,430	348	339	2,520	214	2,520	348	1,980	352	174	151
4	g252	1,370	300	324	1,840	208	2,470	318	1,840	312	157	176
5	g278	1,290	278	294	682	214	2,360	294	2,560	294	155	264
6	g300	1,700	321	275	522	224	2,250	278	2,420	280	a155	4,320
7												
8	g252	4,870	333	275	470	217	1,590	272	4,530	250	a155	1,420
9	g252	2,200	326	281	415	219	1,060	288	2,250	230	a155	494
10	g248	1,840	348	294	339	214	2,000	397	2,930	221	a155	355
11	248	1,540	357	278	291	210	10,600	2,880	6,030	214	a152	285
12	202	1,370	294	278	276	221	6,400	3,600	4,250	221	a152	221
13												
14	97	1,130	275	268	262	212	2,410	10,800	3,960	258	a152	208
15	77	880	270	258	280	542	1,100	13,800	4,070	224	a152	199
16	72	1,100	268	248	248	3,810	855	8,110	4,510	219	a152	183
17	80	1,480	268	248	242	1,800	705	3,260	3,870	219	a159	176
18	98	1,370	245	250	238	705	660	2,640	3,020	226	a257	172
19												
20	558	1,000	235	258	230	570	805	3,400	2,030	214	a225	176
21	9,760	880	240	248	228	474	1,220	3,300	1,520	199	a190	258
22	17,800	855	224	235	235	470	2,140	3,130	g555	197	a179	353
23	17,300	830	217	214	240	592	1,580	2,640	g515	195	a186	245
24	5,410	808	226	202	255	510	1,130	1,370	g474	180	a160	212
25												
26	3,130	830	306	217	245	384	1,000	1,320	g408	180	a156	189
27	2,520	855	948	199	235	300	955	3,170	g375	176	a159	139
28	2,420	830	1,100	199	230	275	930	4,910	g552	172	a180	186
29	2,300	705	550	228	230	708	965	3,080	g333	168	a148	185
30	1,560	730	418	230	226	12,000	950	1,690	g521	168	a143	193
31												
1	1,100	755	520	204	224	16,300	805	880	g318	168	143	189
2	955	755	3,400	191	221	18,000	638	660	g315	176	270	193
3	880	705	3,110	187	221	8,340	530	1,680	309	178	278	225
4	855	705	1,000	191	-	3,560	436	2,690	294	187	240	208
5	1,030	682	615	723	-	2,490	390	1,640	535	185	197	310
6	1,540	-	482	2,420	-	2,300	-	1,560	-	172	166	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	72,176	17,800	72	2,553	143,200
November	36,652	4,870	682	1,623	78,700
December	18,252	2,400	217	569	56,800
Calendar year 1942	1,647,007	105,000	72	4,517	3,267,060
January	10,418	2,420	187	337	80,880
February	13,527	2,620	221	467	86,860
March	78,507	16,300	208	2,517	158,700
April	53,904	10,600	390	1,767	106,900
May	85,147	13,800	272	2,747	168,900
June	71,852	9,250	294	2,355	142,500
July	6,857	422	166	221	13,600
August	5,454	278	143	176	10,280
September	12,080	4,320	151	422	25,900
Water year 1942-43	464,826	18,300	72	1,273	922,000

Peak discharge.- Oct. 19 (12:30 a.m.) 20,900 sec.-ft.; Mar. 26 (10:30 p.m.) 21,300 sec.-ft.; Apr. 9 (8 p.m.) 11,900 sec.-ft.; May 12 (5 p.m.) 14,300 sec.-ft.; June 7 (9:30 p.m.) 11,700 sec.-ft.
 a No gage-height record; discharge computed on basis of records for stations upstream and pumpage for city of Dallas.

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

TRINITY RIVER BASIN

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Trinity River near Rosser, Tex.

Location.- Water-stage recorder, lat. 32°25'40", long. 96°27'50", at bridge on State Highway 24, 1.4 miles downstream from Texas & New Orleans Railroad bridge, 1.9 miles downstream from East Fork, and 2.5 miles south of Rosser, Kaufman County. Datum of gage is 302.6 feet above mean sea level, datum of 1929.

Drainage area.- 8,057 square miles.

Records available.- November 1932 to September 1943. July 1924 to September 1925 (October 1924 to September 1925, gage heights only), at site 1.7 miles upstream.

Extremes.- Maximum discharge during year, 22,900 second-feet Mar. 29 (gage height, 30.92 feet); minimum, 121 second-feet Oct. 14. 1924, 1938-43: Maximum discharge not determined but occurred Apr. 23 or 24, 1942 following numerous breaks in levee system on both banks; maximum gage height, 41.55 feet Apr. 22, 1942, just prior to levee breaks; minimum discharge, 34 second-feet Sept. 8-11, 1924.

Flood of May 1908 reached a stage of about 33.0 feet, present site and datum, from information by Corps of Engineers, U. S. Army (discharge believed to have been approximately the same as that of Apr. 23 or 24, 1942).

Remarks.- Records good except those for period of no gage-height record, which are poor.

Flow partly regulated by reservoirs above Dallas. Levee system constructed in 1916. Levee breaks which occurred during April 1942 flood were repaired on left bank only prior to high water of 1943. Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	425	2,180	a860	1,980	2,760	a470	11,000	816	4,240	1,200	218	204
2	407	a2,460	a700	1,920	2,980	a440	7,680	788	4,680	1,010	204	190
3	354	a2,580	582	1,860	2,980	a480	5,650	720	5,880	816	204	190
4	354	2,110	536	1,360		a410	4,370	674	6,300	681	197	226
5	345	2,610	536	1,030		407	3,680	606	5,850	502	190	728
6	354	3,060	628	888		416	3,250	606	8,000	454	190	3,270
7	328	5,120	720	1,060		407	2,460	960	16,700	398	190	1,960
8	320	3,970	792	1,180		416	1,960	1,990	21,400	354	190	674
9	320	3,170	792	1,100		a410	3,760	2,140	20,800	356	190	462
10	311	3,020	816	954	a1,200	a416	6,650	3,780	19,500	328	190	545
11	279	2,910	768	912		a410	7,700	6,010	17,200	416	183	297
12	190	2,610	674	840		a406	6,560	7,070	14,400	371	176	263
13	140	2,320	628	792			3,720	7,650	10,900	426	183	240
14	125	2,280	659	744			3,730	8,210	8,840	345	176	233
15	129	2,180	548	720			4,600	8,280	6,980	320	176	226
16	200	1,890	613	720			4,190	5,700	4,700	320	263	218
17	1,880	1,460	513	697			4,350	4,680	3,090	295	279	218
18	6,360	1,250	480	674			4,330	4,650	2,720	271	226	271
19	8,830	1,200	462	605	a490		3,610	3,850	1,600	256	204	398
20	9,120	1,150	720	582		a2,900	2,910	3,000	1,200	256	197	303
21	10,200		1,140	602			2,320	1,950	984	240	190	256
22	10,600		2,780	502			2,180	2,980	888	226	183	226
23	7,910		2,650	490			2,320	7,660	792	226	176	226
24	5,160		2,610	490			2,390	7,770	697	218	183	218
25	3,300		2,010	513			2,010	7,210	628	211	183	218
26	2,010	a1,200	2,020	582	a770		1,660	5,920	562	204	170	226
27	1,410		3,280	548			1,410	4,300	559	322	170	226
28	1,180		5,010	471		17,700	1,180	3,360	697	248	256	226
29	1,060		4,660	443		22,900	984	4,100	792	240	356	362
30	1,130		2,740	434		21,400	888	4,960	1,030	223	226	303
31	1,650		2,110	1,030		16,800	-	4,530	-	253	248	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	76,361	10,600	125	2,463	151,500
November.....	61,310	5,120	-	2,044	121,600
December.....	43,837	5,010	422	1,414	86,950
Calendar year 1942.....	2,548,774	133,000	125	6,455	4,669,000
January.....	26,653	1,980	434	860	52,970
February.....	31,170	-	-	1,113	61,680
March.....	127,326	22,900	-	4,107	252,500
April.....	113,462	11,000	888	3,782	225,000
May.....	126,578	8,280	605	4,083	251,100
June.....	192,599	21,400	559	6,420	382,000
July.....	11,906	1,200	204	384	23,610
August.....	6,416	356	170	207	12,750
September.....	13,450	3,270	190	448	26,640
Water year 1942-43.....	831,047	22,900	125	2,277	1,648,000

a No gage-height record; discharge computed on basis of weather records and records for stations at Dallas and East Fork near Rockwall.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Trinity River near Oakwood, Tex.

Location.—Water-stage recorder, lat. 31°39', long. 95°47', at bridge on U. S. Highways 79 and 84, 1½ miles upstream from International-Great Northern Railroad bridge and 6 miles northeast of Oakwood, Leon County. Datum of gage is 178.03 feet above mean sea level, datum 1929.

Drainage area.—12,340 square miles.

Records available.—July 1932 to September 1943. October 1923 to July 1932, at site 1½ miles downstream. (Records for January 1905 to September 1923 published in Water-Supply Papers 850 and 878. Figures below 500 second-feet in these publications end minimum yearly discharge for water year 1923-24 published in Water-Supply Paper 878, have been found to be in error.) U. S. Weather Bureau has collected gage-height records in this vicinity since 1904.

Average discharge.—20 years (1923-43), 4,932 second-feet.

Extremes.—Maximum discharge during year, 29,200 second-feet June 15 (gage height, 41.39 feet); minimum not determined.

1923-43: Maximum discharge, 153,000 second-feet Apr. 29, 1942 (gage height, 51.64 feet); minimum observed for period 1924-43, 22 second-feet Aug. 18, 1934.

Flood of June 4, 1908, reached a stage of about 52.2 feet, present site and datum, from information by U. S. Weather Bureau.

Remarks.—Records good except those for periods of no gage-height record, which are fair. Flow partly regulated by reservoirs above Dallas. Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 24 to Sept. 30)

4.5	158	10.0	1,250	25.0	7,420	41.0	26,000
5.0	240	12.0	1,790	30.0	10,700	42.0	34,000
5.5	375	14.0	2,410	35.0	14,000		
7.0	545	16.0	3,120	38.0	16,080		
8.0	750	20.0	4,820	40.0	21,700		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	860	2,650	1,470	15,000	932	884	16,700	1,470	9,970	908	361	224
2	750	3,560	1,420	14,500	932	838	16,800	1,280	12,100	1,000	312	282
3	646	3,900	1,390	11,200	1,790	794	16,700	1,150	13,200	1,280	292	279
4	605	3,600	1,310	6,340	2,930	772	16,600	1,080	12,900	1,420	286	240
5	585	3,280	1,130	3,590	3,240	750	16,700	980	10,900	1,260	272	f208
6	750	4,160	980	2,720	3,280	750	17,000	864	8,750	1,050	253	f190
7	1,130	5,840	884	2,510	2,890	750	17,000	1,360	9,320	880	248	f269
8	1,200	7,840	860	3,650	2,000	708	16,500	7,720	10,100	708	240	2,430
9	908	9,760	932	5,800	1,760	645	15,800	11,600	12,200	585	220	4,500
10	625	11,200	1,050	6,480	1,670	645	11,800	13,600	13,700	508	220	5,250
11	509	11,600	1,130	5,650	1,500	666	12,100	15,300	15,100	491	214	5,120
12	455	9,860	1,150	4,450	1,260	687	12,900	17,600	17,100	455	a210	2,690
13	439	6,430	1,180	3,020	1,100	708	13,700	20,000	20,400	545	a208	379
14	407	4,290	1,130	2,090	1,050	750	14,100	22,300	26,000	750	a206	423
15	368	3,400	1,080	1,760	980	838	13,400	22,600	29,200	838	a202	319
16	305	3,040	1,000	1,610	932	2,240	10,500	22,300	27,500	772	a200	272
17	266	2,820	932	1,500	884	3,690	7,040	20,200	24,700	772	a215	220
18	253	2,610	884	1,420	838	3,690	5,850	19,400	23,000	605	a250	a190
19	2,030	2,280	960	1,340	838	2,610	5,850	16,200	21,300	509	a236	a165
20	5,650	1,940	838	1,280	838	2,510	7,200	12,100	19,400	455	a276	a163
21	8,260	1,730	838	1,200	838	2,790	8,140	7,760	15,600	407	a245	236
22	9,970	1,640	884	1,130	884	3,520	7,460	4,900	9,810	375	a215	423
23	11,500	1,700	2,160	1,080	1,860	3,600	4,960	3,440	4,310	354	a210	399
24	12,600	2,620	5,520	1,030	2,510	2,860	3,320	3,040	2,000	340	a210	312
25	13,500	3,200	7,360	1,030	2,030	2,480	2,890	5,990	1,500	312	a210	260
26	13,200	3,280	8,200	1,050	1,340	5,690	2,890	8,560	1,260	305	a210	227
27	11,900	2,910	8,750	1,030	1,030	9,720	2,680	10,000	1,080	286	a210	220
28	8,270	2,140	10,900	1,030	932	12,200	2,510	10,800	960	279	a210	227
29	4,120	1,700	12,700	1,030	-	13,800	1,970	10,300	908	298	a210	319
30	2,250	1,580	13,600	1,030	-	15,100	1,700	8,880	860	399	a215	319
31	1,880	-	14,800	980	-	16,000	-	8,380	-	455	a220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	115,990	13,300	253	3,772	230,100
November	126,560	11,600	1,580	4,279	251,000
December	107,222	14,500	838	3,458	212,700
Calendar year 1942	3,805,229	153,000	253	10,425	7,548,000
January	107,540	15,000	980	3,469	213,500
February	42,858	3,280	338	1,530	84,970
March	113,595	16,000	645	3,664	225,300
April	300,840	17,100	1,700	10,070	594,700
May	311,164	22,600	584	10,070	517,200
June	374,448	29,200	880	12,460	742,700
July	19,582	1,420	279	632	36,840
August	7,333	361	200	277	14,640
September	27,023	5,250	163	901	53,600
Water year 1942-43	1,654,135	29,200	163	4,532	3,281,000

a No gage-height record; discharge computed on basis of weather records and records for nearby stations.

f Computed from partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Trinity River near Midway, Tex.

Location.- Wire-weight gage, lat. 31°04'40", long. 95°42'00", at bridge on State Highway 21, 5 miles northeast of Midway, Madison County, and 8 miles downstream from Boggy Creek. Datum of gage is 117.6 feet above mean sea level, datum of 1929.

Drainage area.- 14,390 square miles.

Records available.- April 1939 to September 1943.

Extremes.- Maximum discharge during year, 23,000 second-feet June 20 (gage height, 31.94 feet); minimum observed, 221 second-feet Aug. 20, 21.

1939-43: Maximum discharge, 146,000 second-feet May 1, 1942 (gage height, 48.58 feet); minimum observed, 100 second-feet Oct. 4, 1939.

Maximum discharge known occurred in May 1890 (gage height, about 45.0 feet, discharge not determined), from information by local residents. Flood of May 27, 1930, reached a stage of 48.7 feet from floodmark (flow confined within levee system constructed in 1916). Flood of June 9, 1908, reached a stage of 44.3 feet, from floodmarks and from information by local residents.

Remarks.- Records good. Gage read twice daily, more often during high stages. Flow partly regulated by reservoirs above Dallas. Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,250	2,440	1,810	14,000	1,380	1,200	14,700	2,010	9,840	1,300	588	242
2	1,140	2,600	1,710	14,700	1,340	1,160	15,600	1,760	10,200	1,200	553	236
3	1,020	3,650	1,610	15,100	1,300	1,120	16,300	1,560	11,400	1,250	454	323
4	925	4,110	1,580	14,300	1,710	1,070	16,700	1,380	12,700	1,340	396	366
5	866	4,250	1,520	10,700	2,940	1,020	16,900	1,250	13,400	1,520	383	354
6	825	3,830	1,430	5,600	3,430	1,000	17,000	1,140	12,700	1,620	370	323
7	805	4,350	1,250	4,770	3,480	1,020	17,000	1,050	10,600	1,340	360	323
8	985	5,450	1,160	4,350	3,040	1,000	17,200	1,160	9,070	1,160	352	292
9	1,250	7,140	1,120	4,470	2,440	985	17,400	5,100	9,490	985	339	886
10	1,200	9,070	1,120	5,710	2,060	925	17,000	9,070	10,900	865	334	3,380
11	945	10,500	1,250	6,560	1,910	925	15,400	11,300	12,100	785	323	4,530
12	765	11,400	1,340	6,620	1,760	905	13,400	13,000	13,400	725	313	4,890
13	665	11,000	1,380	6,420	1,560	925	12,900	14,500	14,700	725	313	3,460
14	625	8,720	1,380	4,830	1,380	965	13,300	16,000	16,200	705	297	1,770
15	606	5,580	1,340	3,430	1,250	965	13,800	17,400	17,800	805	266	906
16	588	4,050	1,300	2,660	1,200	1,000	14,100	18,700	19,400	945	247	588
17	583	3,430	1,250	2,530	1,120	1,610	13,000	19,700	20,900	945	234	454
18	536	3,160	1,160	2,110	1,120	3,320	9,490	20,400	21,800	925	232	410
19	466	2,990	1,120	1,910	1,090	3,480	7,140	20,700	22,600	825	225	360
20	731	2,720	1,070	1,810	1,070	2,990	6,420	20,500	22,900	665	221	328
21	3,960	2,380	1,070	1,660	1,070	2,770	7,140	19,000	22,900	806	221	305
22	6,620	2,110	1,140	1,610	1,070	2,680	5,020	14,400	22,300	535	247	227
23	9,790	1,960	1,160	1,520	1,090	3,480	7,950	8,970	20,000	613	279	357
24	10,200	1,910	1,580	1,480	1,520	3,760	6,300	4,950	12,800	470	279	502
25	11,400	2,330	4,310	1,380	2,440	3,480	4,350	3,870	4,920	454	236	486
26	12,400	3,100	6,490	1,380	2,380	3,320	3,480	5,450	2,820	425	225	425
27	12,900	3,320	9,700	1,480	1,760	4,950	3,260	7,810	2,220	410	225	410
28	12,900	3,210	10,600	1,620	1,340	8,230	3,100	9,280	1,610	396	247	596
29	11,200	2,600	11,400	1,520	-	10,500	2,720	10,300	1,660	496	247	525
30	8,630	2,060	12,200	1,480	-	12,200	2,380	11,200	1,520	470	242	1,140
31	3,640	-	13,100	1,480	-	13,600	-	10,400	-	570	247	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	177,595	12,900	486	3,793	233,200
November.....	135,500	11,400	1,910	4,517	268,800
December.....	99,630	13,100	1,070	3,214	197,600
Calendar year 1942.....	4,084,935	144,000	454	11,190	8,103,000
January.....	149,090	15,100	1,380	4,809	285,700
February.....	98,755	14,070	905	3,769	97,600
March.....	333,480	17,400	2,380	11,110	191,900
April.....	302,710	20,700	1,080	9,765	600,400
May.....	384,450	22,900	1,520	12,810	762,500
June.....	25,891	1,520	396	1,835	51,380
July.....	9,495	588	221	306	18,880
August.....	29,283	4,890	256	976	59,050
September.....					
Water year 1942-43.....	1,735,464	22,900	221	4,749	3,437,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Trinity River at Riverside, Tex.

Location.— Wire-weight gage, lat. 30°52', long. 95°24', at bridge on State Highway 45, 1,200 feet upstream from International-Great Northern Railroad bridge, 0.5 mile north of Riverside, Walker County, and three-quarters of a mile downstream from Harmon Creek. Datum of gage is 89.86 feet above mean sea level, datum of 1929.

Drainage area.— 15,510 square miles.

Records available.— January 1903 to December 1906, October 1923 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.— 23 years (1903-06, 1923-43), 6,766 second-feet.

Extremes.— Maximum discharge during year, 23,700 second-feet June 21, 22; maximum gage height, 23.15 feet June 22, from graph based on gage readings; minimum discharge observed, 275 second-feet Aug. 22, 23, 28, 29.

1903-6, 1923-43: Maximum discharge, 121,000 second-feet May 5, 1942 (gage height, 52.75 feet, from floodmark); minimum observed, 70 second-feet Aug. 20-26, Sept. 8-13, 1925, Sept. 29 to Oct. 4, 1931.

Flood of June 11, 1908, reached a stage of 50.1 feet, present site and datum (discharge, 100,000 second-feet).

Remarks.— Records good. Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth. Flow partly regulated by reservoirs above Dallas. Gage read twice daily.

Cooperation.— Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1942-43 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Feb. 27 to Mar. 28, June 10 to July 12)

1.1	275	8.0	4,830	16.0	16,400
1.5	430	10.0	6,780	20.0	19,000
2.0	720	12.0	8,980	22.0	21,600
4.0	1,920	14.0	11,400	23.0	22,900
6.0	3,230	16.0	13,800	23.6	23,700

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,470	3,270	h2,100	14,100	1,680	1,560	15,000	2,300	14,700	d1,630	930	305
2	1,380	2,500	h1,920	15,000	1,620	1,410	16,000	2,040	13,800	d1,410	792	319
3	1,260	2,950	h1,800	16,700	1,530	1,380	16,700	1,800	12,800	d1,320	720	348
4	1,140	4,060	h1,740	16,000	1,560	1,320	17,300	1,620	13,400	d1,350	582	390
5	1,050	4,470	h1,680	14,400	2,170	1,320	17,600	1,470	14,100	1,470	480	528
6	960	4,380	h1,620	10,100	3,300	1,280	17,600	1,320	14,500	1,560	425	486
7	900	4,140	h1,470	11,100	3,660	1,260	17,900	1,350	15,800	1,560	410	470
8	930	4,740	h1,350	8,380	3,660	1,230	18,000	1,260	11,500	1,380	395	430
9	1,170	6,280	h1,260	6,180	3,090	1,230	18,400	1,760	10,100	1,230	360	395
10	1,410	6,150	1,230	6,080	2,620	1,200	18,400	6,710	11,100	1,080	368	1,170
11	1,320	9,940	1,260	6,980	2,300	1,170	17,800	10,800	12,400	960	372	3,440
12	1,050	11,300	1,290	10,500	2,100	1,140	16,100	12,800	15,900	960	425	4,650
13	870	11,900	1,410	13,800	1,980	1,140	14,500	14,800	16,100	1,470	405	4,650
14	774	10,900	1,470	10,200	1,740	1,140	14,100	15,100	16,500	1,600	368	3,080
15	708	7,930	1,600	6,980	1,620	1,170	14,500	17,400	17,800	1,170	356	1,890
16	732	5,380	1,470	4,630	1,440	1,200	16,000	18,600	19,200	960	330	1,080
17	708	3,980	1,380	3,300	1,410	1,200	14,800	19,600	20,600	1,050	302	736
18	648	3,440	1,350	2,560	1,320	2,240	13,600	20,500	21,300	1,020	326	558
19	606	3,160	1,290	2,300	1,290	3,880	9,700	21,300	25,800	960	300	480
20	540	2,950	1,230	2,100	1,260	3,510	7,280	21,300	25,300	900	305	435
21	1,210	2,690	1,230	1,980	1,260	3,080	6,980	20,900	23,700	744	284	400
22	4,760	2,360	1,620	1,860	1,260	2,950	7,820	19,000	23,700	688	275	344
23	7,600	2,170	1,440	1,800	1,230	3,230	8,820	14,800	22,900	876	287	333
24	9,580	1,980	1,440	1,740	1,290	3,620	8,040	8,260	19,500	566	266	364
25	11,100	2,040	2,740	1,680	1,920	4,920	5,880	5,100	11,700	510	326	552
26	12,400	2,690	5,240	1,620	2,560	4,470	4,140	4,470	4,790	460	263	588
27	13,100	3,230	13,800	1,620	2,360	4,220	3,370	6,380	2,690	420	281	588
28	13,600	3,370	13,100	1,620	1,600	6,780	3,160	8,740	2,170	430	275	672
29	13,000	h3,020	12,400	1,740	-	9,940	3,020	10,700	1,920	5,710	281	818
30	10,500	h2,660	12,700	1,740	-	12,200	2,620	12,600	1,740	2,980	299	1,170
31	6,260	-	13,400	1,680	-	13,600	-	13,600	-	1,290	299	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	122,636	13,600	540	3,966	243,200
November.....	141,930	11,900	1,980	4,731	281,500
December.....	108,930	13,800	1,230	5,514	216,100
Calendar year 1942.....	4,246,569	120,000	540	11,530	8,423,000
January.....	199,670	16,000	1,620	6,441	396,000
February.....	55,030	3,660	1,250	1,965	109,200
March.....	100,110	13,800	1,140	3,829	198,600
April.....	364,130	16,400	2,620	12,140	722,200
May.....	318,760	21,300	1,260	10,380	632,300
June.....	427,510	23,700	1,740	14,840	847,600
July.....	39,476	5,710	420	1,273	76,300
August.....	12,287	930	275	396	24,370
September.....	31,569	4,656	305	1,063	62,660
Water year 1942-43.....	1,921,878	23,700	275	5,265	3,612,000

d Doubtful gage height; discharge computed on basis records for nearby stations.

h Computed from graph based on auxiliary-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Trinity River at Romayor, Tex.

Location.- Chain gage, lat. 30°27', long. 94°51', at Gulf, Colorado & Santa Fe Railway bridge, a quarter of a mile west of Romayor, Liberty County, and 2½ miles downstream from Big Creek. Gage readings indicate distance from base of rail to water surface. Datum of gage (base of rail) is 89.62 feet above mean sea level, datum of 1929.

Drainage area.- 17,190 square miles.

Records available.- May 1924 to September 1943.

Average discharge.- 19 years, 7,562 second-feet.

Extremes.- Maximum discharge during year, 24,100 second-feet Jan. 8 (gage height, -52.30 feet, from graph based on gage readings); minimum observed, 394 second-feet Aug. 29, Sept. 1.

1924-43: Maximum discharge, 111,000 second-feet May 9, 1942 (gage height, -15.7 feet, from floodmark); minimum observed, 132 second-feet Aug. 21, 22, 1925 (gage height, -53.46 feet).

Remarks.- Records good. Gage read twice daily. Flow partly regulated by reservoirs above Dallas. Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth.

Rating table, water year 1942-43 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Aug. 2 to Sept. 11,
Sept. 17-30)

-50.4	370	-46.0	3,580	-38.0	13,600
-50.0	540	-44.0	5,500	-36.0	17,100
-49.0	1,100	-42.0	7,700	-34.0	20,800
-48.0	1,800	-40.0	10,300	-32.0	24,700

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,280	3,300	4,300	13,600	2,500	2,680	12,800	3,490	14,100	2,410	6,440	394
2	2,100	5,500	3,400	13,800	2,320	2,180	14,500	3,220	14,400	2,100	3,580	410
3	1,920	4,300	2,860	14,100	2,320	1,800	15,300	2,770	13,900	1,800	2,000	485
4	1,760	5,500	2,500	15,300	2,280	1,720	16,400	2,410	12,900	1,640	1,180	535
5	1,600	5,940	2,320	15,700	2,680	1,640	17,100	2,100	12,600	1,490	1,040	574
6	1,420	6,050	2,230	16,700	2,590	1,680	17,500	1,840	13,300	1,490	980	560
7	1,350	5,610	2,140	19,900	3,400	1,490	17,600	1,760	13,900	1,560	920	650
8	1,250	5,200	2,050	22,200	4,300	1,350	17,800	2,140	13,300	1,760	860	660
9	1,160	5,200	1,960	16,700	4,400	1,350	18,400	2,100	11,400	1,800	776	605
10	1,130	6,160	1,760	15,300	4,120	1,350	18,900	2,140	9,980	1,640	695	565
11	1,320	7,700	1,640	8,660	3,580	1,680	18,700	5,750	10,000	1,580	670	525
12	1,520	9,180	1,560	7,590	3,130	2,230	19,200	9,740	11,300	1,350	645	1,460
13	1,520	10,300	1,560	19,800	2,680	2,000	16,600	11,900	12,900	1,320	640	4,030
14	1,320	11,300	1,560	21,800	2,500	1,720	14,800	13,600	14,600	1,490	660	4,800
15	1,100	10,300	1,720	16,400	2,410	1,640	13,900	15,100	15,700	2,060	720	4,120
16	980	9,040	1,800	11,700	2,140	1,490	14,300	16,400	16,700	2,100	660	2,860
17	920	7,480	1,800	8,060	1,920	1,350	15,300	17,800	18,000	1,560	630	1,740
18	920	5,720	1,800	8,160	1,800	1,350	15,700	18,900	19,300	1,250	605	1,220
19	860	4,600	1,800	5,300	1,760	1,280	16,200	19,700	20,400	1,220	585	920
20	800	4,120	1,680	3,940	1,720	2,320	12,400	20,400	21,400	1,220	575	730
21	740	3,760	1,560	3,400	1,720	2,230	9,180	20,800	21,900	1,160	675	655
22	782	3,670	2,410	3,130	1,800	3,580	7,700	20,800	22,300	1,100	560	595
23	1,150	3,490	3,220	2,950	1,840	3,400	7,940	19,300	22,500	1,010	520	545
24	6,080	3,220	2,280	2,770	1,720	3,310	8,420	15,700	22,100	920	465	490
25	8,760	2,860	2,100	2,680	1,640	4,670	8,300	10,500	19,500	890	454	446
26	10,200	2,680	2,100	2,680	1,600	8,660	7,150	6,820	12,000	800	458	418
27	11,300	2,770	11,700	3,040	2,230	6,180	5,500	5,200	7,150	735	410	515
28	12,600	3,580	22,300	2,950	3,040	6,490	4,300	5,720	4,120	705	402	625
29	13,500	5,940	18,900	2,680	-	6,270	3,940	7,820	3,040	5,480	394	640
30	13,400	5,500	15,600	2,680	-	8,420	3,670	10,800	2,500	14,300	394	680
31	12,800	-	14,300	2,590	-	10,900	-	12,900	-	13,500	394	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	118,342	13,400	740	3,817	234,700
November	174,770	11,300	2,680	5,825	366,700
December	138,810	22,300	1,560	4,478	275,300
Calendar year 1942	4,640,739	110,000	740	12,710	9,206,000
January	302,260	22,200	2,590	9,760	599,500
February	70,140	4,400	1,600	2,505	138,100
March	109,410	10,900	1,560	3,239	199,200
April	389,300	18,900	3,670	12,980	772,200
May	309,620	20,800	1,760	9,988	614,100
June	427,090	22,500	2,500	14,240	847,100
July	73,170	14,300	705	2,360	145,100
August	29,838	6,440	394	963	59,180
September	33,373	4,800	394	1,112	66,190
Water year 1942-43	2,167,123	22,500	394	5,937	4,298,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

TRINITY RIVER BASIN

Trinity River at Liberty, Tex.

Location.- Wire-weight gage, lat. 30°03'25", long. 94°49'05", at bridge on U. S. Highway 90 in Liberty, Liberty County, 450 feet downstream from Texas & New Orleans Railroad bridge. Datum of gage is 2.22 feet below mean sea level, datum of 1929.

Drainage area.- 17,500 square miles.

Records available.- October 1938 to September 1940 (gage heights, discharge measurements and some records of daily discharge), October 1940 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Extremes.- Maximum discharge during year, 19,600 second-feet June 23-25; maximum gage height, 24.05 feet, June 24, 25; minimum discharge not determined (affected by tides); minimum gage height observed, 3.35 feet Aug. 28.

1938-43: Maximum discharge, 114,000 second-feet May 12, 1942 (gage height, 29.38 feet); minimum discharge not determined (affected by tides); minimum gage height observed, 2.5 feet Nov. 4, 1939.

A stage of 28.6 feet was reached May 8-11, 1922 from observation by U. S. Weather Bureau at chain gage on railroad bridge upstream.

Remarks.- Records fair. Gage read once daily. Discharge not computed below about 4,000 second-feet due to tides affecting stage-discharge relation. Cities of Fort Worth and Dallas divert considerable water for municipal supply. Several small diversions on West Fork above Fort Worth.

Cooperation.- Gage readings furnished by U. S. Weather Bureau.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

10.0	4,120	18.0	12,400
12.0	5,840	20.0	14,800
14.0	7,840	22.0	17,200
16.0	10,000	24.0	19,600

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	10,700	6,300	14,800	-	-	11,400	-	13,100	-	13,100	-
2	-	8,920	4,200	14,500	-	-	12,800	-	13,900	-	9,370	-
3	-	6,220	-	14,300	-	-	14,000	-	14,300	-	6,130	-
4	-	5,120	-	14,800	-	-	14,800	-	14,000	-	-	-
5	-	5,570	-	15,000	-	-	15,400	-	13,600	-	-	-
6	-	5,840	-	15,200	-	-	15,700	-	13,300	-	-	-
7	-	5,840	-	15,500	-	-	16,200	-	13,800	-	-	-
8	-	5,480	-	16,800	-	-	16,400	5,480	13,800	-	-	-
9	-	5,300	-	17,200	-	-	16,800	4,940	13,300	-	-	-
10	-	5,210	-	16,300	4,280	-	17,000	4,450	12,100	-	-	-
11	-	6,030	-	13,600	4,120	-	17,400	4,530	11,200	-	-	-
12	-	7,530	-	12,100	-	-	17,400	7,840	11,200	-	-	-
13	-	9,140	-	14,500	-	-	17,200	11,200	11,900	-	-	-
14	-	10,500	-	18,000	-	-	16,400	12,600	13,100	-	-	-
15	-	11,200	-	18,700	-	-	15,500	13,800	14,200	-	-	4,120
16	-	10,900	-	17,000	-	-	14,900	14,800	15,000	-	-	-
17	-	9,580	-	14,500	-	-	15,200	15,800	15,700	-	-	-
18	-	7,420	-	11,500	-	-	15,700	16,400	16,700	-	-	-
19	-	5,480	-	8,920	-	-	16,600	17,200	17,600	-	-	-
20	-	4,530	-	6,030	-	-	16,000	17,900	18,200	-	-	-
21	-	4,120	-	4,780	-	-	13,800	18,400	18,600	-	-	-
22	-	-	-	4,120	-	-	11,400	18,600	19,100	-	-	-
23	-	-	-	-	-	-	9,580	18,800	19,600	-	-	-
24	-	-	-	-	-	-	9,360	18,200	19,600	-	-	-
25	5,030	-	-	-	-	4,120	9,580	16,400	19,600	-	-	-
26	8,060	-	-	-	-	6,220	9,360	13,300	16,100	-	-	-
27	9,690	-	-	-	-	9,580	9,140	9,800	14,500	-	-	-
28	11,100	-	12,600	-	-	8,920	8,490	7,220	10,700	-	-	-
29	12,100	-	17,400	-	-	7,420	4,780	6,800	6,800	6,560	-	-
30	12,800	5,030	16,400	-	-	7,740	4,120	8,810	4,450	13,100	-	-
31	12,400	-	16,200	-	-	9,580	-	11,400	-	15,600	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 25-31.....	71,160	12,800	5,030	10,170	141,200
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January 1-22.....	298,150	18,700	4,120	13,550	591,400
February.....	-	-	-	-	-
March 25-31.....	53,580	9,580	4,120	7,654	106,300
April.....	402,410	17,400	4,120	13,410	798,200
May 8-31.....	294,670	18,800	4,450	12,280	584,500
June.....	431,050	19,600	4,450	14,370	855,000
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
Water year.....	-	-	-	-	-

Note.- Stage-discharge relation affected by tides on days for which no figures are given.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Big Sandy Creek near Bridgeport, Tex.

Location.- Water-stage recorder, lat. 33°13', long. 97°41', at bridge on State Highway 24, 1.9 miles upstream from Turkey Creek, 4.4 miles upstream from mouth, and 5 miles east of Bridgeport, Wise County. Datum of gage is 727.44 feet above mean sea level, datum of 1929.

Drainage area.- 276 square miles.

Records available.- October 1936 to September 1943.

Extremes.- Maximum discharge during year, 4,780 second-feet May 10 (gage height, 9.90 feet); no flow at times.

1936-43: Maximum discharge, 53,000 second-feet June 10, 1941 (gage height, 15.69 feet, from floodmark), from rating curve extended above 22,000 second-feet by logarithmic plotting; no flow at times.

Remarks.- Records good except those above 2,000 second-feet, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	39	6.6	11	11	6.8	36	11	36	73		
2	0	19	7.0	11	10	6.8	31	10	25	20		
3	0	13	7.4	11	27	5.9	28	10	21	14		
4	0	11	7.5	10	20	6.4	24	9.2	18	11		
5	0	13	7.5	9.4	14	7.2	22	8.5	1,630	8.4		
6	0	12	8.5	9.6	11	7.4	21	7.9	3,680	7.2		
7	0	11	9.0	11	19	6.4	19	20	2,600	6.5		
8	0	11	9.8	11	8.7	7.0	64	195	426	5.9		
9	0	10	9.8	10	9.0	6.3	552	67	152	5.4		
10	0	9.1	9.4	10	9.0	6.6	174	2,620	108	5.4		
11	0	7.9	9.4	10	7.5	7.1	64	1,690	81	5.6		
12	0	7.0	9.1	10	6.8	10	34	286	62	5.3		
13	0	7.2	8.7	10	6.7	17	24	95	50	5.0		
14	0	7.6	8.5	10	6.8	17	20	56	46	4.9		
15	5.1	7.6	8.4	10	6.8	14	20	47	159	9.4		
16	88	7.6	8.6	11	6.7	11	19	38	84	6.5		
17	1,070	7.6	8.0	11	6.7	8.2	308	31	42	9.8		
18	1,150	7.6	8.0	9.2	7.9	7.4	228	26	29	5.4		
19	287	7.6	8.1	8.4	7.4	49	24	7.8	23	4.2		
20	81	7.6	8.4	8.1	8.0	6.6	28	96	19	3.6		
21	27	7.5	14	7.6	8.0	6.0	23	223	16	2.9		
22	20	7.4	26	13	7.6	5.6	21	129	14	2.4		
23	12	7.0	19	12	7.4	5.8	19	130	13	1.9		
24	8.9	7.2	15	11	7.4	475	17	62	12	1.2		
25	8.6	6.6	14	10	6.8	3,020	16	36	10	1.0		
26	7.5	6.2	13	8.5	6.5	2,050	15	26	9.1	.4		
27	7.4	6.3	14	8.5	6.3	431	14	68	8.0	.2		
28	5.4	6.4	12	13	6.4	221	14	279	7.2	.1		
29	6.6	6.5	11	11	-	102	13	167	7.8	0		
30	106	6.3	11	12	-	65	12	102	20	0		
31	102	-	11	11	-	47	-	74	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,992.5	1,150	0	98.5	5,940
November.....	290.7	39	6.2	9.69	577
December.....	327.6	26	8.6	10.6	550
Calendar year 1942.....	34,956.1	9,570	0	233	168,500
January.....	319.5	13	7.5	10.3	634
February.....	256.2	27	6.3	9.15	508
March.....	6,599.9	3,020	5.4	213	13,090
April.....	1,931	52	12	64.4	3,830
May.....	6,643.6	2,620	7.9	214	13,180
June.....	9,408.1	3,680	7.2	314	18,660
July.....	226.6	73	0	7.31	449
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43.....	28,995.7	3,680	0	79.4	57,520

Peak discharge.- Mar. 25 (11:30 p.m.) 3,370 sec.-ft.; May 10 (2:45 p.m.) 4,780 sec.-ft.; June 6 (9:30 a.m.) 4,440 sec.-ft.

Note.- Discharge for period Oct. 1 to Dec. 8 computed on basis of twice-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Clear Fork Trinity River at Fort Worth, Tex.

Location.- Water-stage recorder and concrete control, lat. 32°44', long. 97°21', at bridge on Stove Foundry road, 388 feet downstream from Texas & Pacific Railway bridge at Fort Worth, Tarrant County, and 3 miles upstream from mouth. Datum of gage is 532.91 feet above mean sea level, datum of 1929.

Drainage area.- 522 square miles.

Records available.- March 1924 to September 1943.

Average discharge.- 19 years, 97.5 second-feet.

Extremes.- Maximum discharge during year, 11,000 second-feet Oct. 16 (gage height, 14.64 feet); no flow at times.

1924-43: Maximum discharge, 18,200 second-feet May 19, 1942 (gage height, 20.36 feet); no flow at times.

Maximum discharge known, 74,300 second-feet, Apr. 25, 1922 (gage height, 27.5 feet, present datum), by slope-area method, data furnished by city engineer of Fort Worth.

Remarks.- Records good. Texas & Pacific Railway Co. diverts small amount of water from pool in which gage is located.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	S.4	100	52	61	38	25	107	49	64	23	0	0
2	9.7	83	52	58	40	23	97	46	46	16	0	0
3	11	73	52	58	52	23	93	43	40	13	0	0
4	13	80	52	52	64	25	86	38	38	9.7	0	1,230
5	11	233	64	52	58	25	80	38	35	6.4	0	51
6	14	206	64	55	49	25	76	32	129	7.1	0	11
7	8.4	118	70	64	43	25	73	38	2,020	5.9	.4	3.8
8	8.4	104	61	61	40	23	580	708	572	5.9	0	2.0
9	9.7	97	52	55	38	23	519	1,820	181	5.9	0	.1
10	9.7	86	52	55	35	25	173	2,560	100	5.9	0	0
11	9.7	80	49	52	32	25	132	1,470	80	7.1	0	0
12	9.7	76	46	51	30	330	118	247	64	7.1	0	0
13	9.7	80	46	49	30	292	111	147	55	7.1	0	0
14	8.4	80	46	49	28	109	97	121	52	5.9	0	0
15	29	83	43	46	28	67	93	114	100	5.9	0	0
16	5,590	80	43	49	28	55	93	100	76	4.8	0	3.1
17	5,510	80	46	43	30	46	219	90	49	4.8	0	62
18	1,790	76	46	40	30	43	338	70	35	4.8	0	7.1
19	339	76	46	35	32	43	114	61	35	2.8	0	2.8
20	197	67	49	32	32	40	86	84	28	.7	0	0
21	158	64	103	38	32	40	83	114	25	0	0	0
22	136	64	222	46	32	38	76	1,288	23	0	0	0
23	111	61	129	46	32	40	70	1,286	21	0	0	0
24	97	58	86	46	30	256	67	121	17	0	0	0
25	93	58	76	38	30	1,550	64	76	17	.1	0	0
26	83	55	73	35	28	392	64	58	17	.7	0	0
27	80	52	70	35	23	210	61	55	14	.1	0	0
28	80	49	73	35	25	166	58	49	13	0	0	0
29	80	49	67	40	-	139	58	52	20	0	0	0
30	272	49	64	40	-	125	55	96	52	0	0	0
31	176	-	58	40	-	114	-	122	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,961.8	3,590	8.4	354	21,740
November.....	2,517	233	49	85.9	4,990
December.....	2,052	222	43	66.2	4,070
Calendar year 1942.....	118,954.1	13,100	7.1	328	236,000
January.....	1,459	64	32	47.1	8,680
February.....	989	64	23	35.3	1,960
March.....	4,362	1,550	23	141	8,950
April.....	3,941	550	55	131	7,820
May.....	9,175	2,560	32	296	18,200
June.....	3,988	2,020	13	133	7,910
July.....	152.7	23	0	4.83	305
August.....	4	4	0	.01	.8
September.....	1,402.9	1,230	0	46.8	2,780
Water year 1942-43.....	41,000.8	3,590	0	112	81,510

Peak discharge.- Oct. 16 (7:30 p.m.) 11,000 sec.-ft.; May 10 (9:30 p.m.) 4,490 sec.-ft.; June 7 (8 p.m.) 3,340 sec.-ft.; Sept. 4 (6 p.m.) 5,580 sec.-ft.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake Dallas near Lake Dallas, Tex.

Location.- Water-stage recorder, lat. 33°07', long. 96°59', in gatehouse at Garza Dam on Elm Fork Trinity River, 1.6 miles upstream from Little Elm Creek, 2.0 miles southeast of town of Lake Dallas, Denton County. Datum of gage is 0.08 foot above mean sea level, datum of 1929. Prior to Jan. 9, 1943, inclined and staff gages at same site and datum.

Drainage area.- 1,160 square miles.

Records available.- December 1928 to September 1943.

Extremes.- Maximum contents during year, 173,200 acre-feet May 30 (gage height, 523.06 feet); minimum contents, 80,700 acre-feet Mar. 23, 24 (gage height, 512.62 feet).

1928-43: Maximum contents not determined; maximum gage height, 534.0 feet, from floodmark Apr. 25, 1942; all gages were open during passing of crest through lake; minimum contents observed, 42,500 acre-feet, Apr. 1, 1940 (gage height, 505.8 feet).

Remarks.- Records good. Reservoir is formed by earthen hydraulic-fill dam, consisting of 537 feet of concrete service spillway and two dikes. There are two emergency earthen spillways beyond right end of dam. Dam completed in November 1927 and storage began Feb. 16, 1928. Total capacity, 194,000 acre-feet (gage height, 525.0 feet, top of service spillway). Water can be withdrawn through one 18" outlet gate (gage height of bottom of gate, 474.0 feet), four 48" outlet gates (gage height of bottom of gate, 463.0 feet), and one 6" gate (gage height of bottom of gate, 474.0 feet). Dead storage is negligible. Water is used by city of Dallas for municipal water supply. Figures given herein represent total contents.

Cooperation.- Records of gage heights and capacity table furnished by city of Dallas.

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

500	21,500	520	142,200
505	39,000	525	194,000
510	65,800	530	250,000
515	96,200		

Monthly gage height and contents, 1928-43

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)	Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31.....	-	-	-	Oct. 31, 1931	515.7	104,200	+13,700
Nov. 30.....	-	-	-	Nov. 30.....	515.2	99,900	-4,300
Dec. 31, 1928..	519.9	141,200	-	Dec. 31.....	516.7	112,600	+12,700
Calendar year.....	-	-	-	Calendar year 1931..	-	-	-24,800
Jan. 31, 1929	520.6	150,200	+9,000	Jan. 31, 1932	524.0	183,000	+70,400
Feb. 28.....	520.9	151,200	+1,000	Feb. 29.....	524.2	185,200	+2,200
Mar. 31.....	521.4	153,200	+2,000	Mar. 31.....	518.5	128,200	-37,000
Apr. 30.....	520.1	145,200	-10,000	Apr. 30.....	516.7	112,600	-15,600
May 31.....	525.2	196,200	+53,000	May 31.....	518.9	114,400	+1,800
June 30.....	523.1	173,200	-23,000	June 30.....	518.6	129,100	+14,700
July 31.....	522.7	169,200	-4,000	July 31.....	518.5	128,200	-900
Aug. 31.....	521.6	168,200	-11,000	Aug. 31.....	517.1	116,000	-12,200
Sept. 30.....	522.1	163,200	+5,000	Sept. 30.....	515.8	105,000	-11,000
Water year...	-	-	-	Water year 1931-32...	-	-	+14,600
Oct. 31, 1929..	519.1	133,600	-29,600	Oct. 31, 1932	514.2	92,000	-13,000
Nov. 30.....	518.9	131,600	-1,800	Nov. 30.....	512.0	76,500	-15,500
Dec. 31.....	516.1	107,600	-24,200	Dec. 31.....	514.0	90,500	+14,000
Calendar year 1929...	-	-	-33,600	Calendar year 1932..	-	-	-22,100
Jan. 31, 1930..	514.7	95,800	-11,800	Jan. 31, 1933	517.3	117,800	+27,300
Feb. 28.....	514.6	96,600	+800	Feb. 28.....	516.4	110,100	-7,700
Mar. 31.....	515.4	101,600	+5,000	Mar. 31.....	516.8	115,500	+3,400
Apr. 30.....	515.5	102,400	+800	Apr. 30.....	518.5	128,200	+14,700
May 31.....	520.4	146,200	+43,800	May 31.....	523.0	172,200	+44,000
June 30.....	520.5	147,200	+1,000	June 30.....	518.9	131,500	-40,400
July 31.....	519.4	136,500	-10,700	July 31.....	517.0	115,200	-16,600
Aug. 31.....	518.5	128,200	-8,300	Aug. 31.....	515.7	104,200	-11,000
Sept. 30.....	517.9	122,800	-5,400	Sept. 30.....	512.9	82,800	-21,400
Water year 1929-30.....	-	-	-40,400	Water year 1932-33...	-	-	-22,200
Oct. 31, 1930..	520.7	149,200	+28,400	Oct. 31, 1933	509.9	63,300	-19,500
Nov. 30.....	520.2	144,200	-5,000	Nov. 30.....	507.6	51,300	-12,000
Dec. 31.....	519.5	137,400	-6,800	Dec. 31.....	506.7	46,700	-4,600
Calendar year 1930..	-	-	+29,800	Calendar year 1933..	-	-	-43,800
Jan. 31, 1931..	518.1	124,600	-12,800	Jan. 31, 1934..	506.9	47,700	+1,000
Feb. 28.....	520.5	147,200	+22,600	Feb. 28.....	508.3	55,000	+7,300
Mar. 31.....	517.4	118,600	-28,600	Mar. 31.....	516.3	100,800	+45,800
Apr. 30.....	517.1	116,000	-2,600	Apr. 30.....	517.7	121,200	+20,400
May 31.....	517.5	119,400	+3,400	May 31.....	519.0	135,700	+11,500
June 30.....	516.9	114,400	-5,000	June 30.....	517.4	115,600	-1,100
July 31.....	516.2	108,400	-6,000	July 31.....	515.9	105,800	-12,800
Aug. 31.....	515.5	102,400	-6,000	Aug. 31.....	514.5	94,200	-11,600
Sept. 30.....	514.0	90,500	-11,900	Sept. 30.....	513.6	87,700	-6,500
Water year 1930-31....	-	-	-32,300	Water year 1933-34....	-	-	+4,900

* Gage read Jan. 1, 1929.

† Gage read at 7 a.m. daily prior to Jan. 8, 1943; mean daily gage height from water-stage recorder at same site and datum used thereafter.

TRINITY RIVER BASIN

Monthly gage height and contents of Lake Dallas near Lake Dallas, Tex., 1928-43--Continued

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)	Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31, 1934..	512.4	79,300	-8,400	Oct. 31, 1939..	511.8	75,100	-10,800
Nov. 30.....	512.9	82,800	+3,500	Nov. 30.....	509.7	62,200	-12,900
Dec. 31.....	512.0	76,500	-6,300	Dec. 31.....	508.7	57,000	-5,200
Calendar year 1934....	-	-	+29,800	Calendar year 1939..	-	-	+4,600
Jan. 31, 1935..	512.8	82,100	+5,600	Jan. 31, 1940..	507.7	51,800	-5,200
Feb. 28.....	512.5	80,000	-2,100	Feb. 28.....	507.0	48,200	-3,600
Mar. 31.....	515.6	103,300	+23,300	Mar. 31.....	505.8	42,500	-5,700
Apr. 30.....	516.1	107,600	+4,300	Apr. 30.....	511.9	75,800	+33,300
May 31.....	524.9	192,900	+85,300	May 31.....	518.3	126,400	+50,600
June 30.....	522.4	166,200	-26,700	June 30.....	524.0	185,000	+58,800
July 31.....	521.4	156,200	-10,000	July 31.....	524.0	183,000	0
Aug. 31.....	515.1	124,600	-31,600	Aug. 31.....	525.1	173,200	-9,800
Sept. 30.....	517.4	118,600	-6,000	Sept. 30.....	521.5	157,200	-16,000
Water year 1934-35....	-	-	+30,900	Water year 1939-40....	-	-	+71,600
Oct. 31, 1935..	517.5	119,400	+800	Oct. 31, 1940..	520.4	146,200	-11,000
Nov. 30.....	517.8	122,000	+2,600	Nov. 30.....	523.9	181,900	+35,700
Dec. 31.....	518.9	131,800	+9,800	Dec. 31.....	521.3	155,200	-26,700
Calendar year 1935....	-	-	+55,300	Calendar year 1940..	-	-	+98,200
Jan. 31, 1936..	516.8	113,500	-18,300	Jan. 31, 1941..	518.3	126,400	-28,800
Feb. 28.....	515.7	104,200	-9,300	Feb. 28.....	524.0	183,000	+56,600
Mar. 31.....	515.4	101,600	-2,600	Mar. 31.....	520.6	148,200	-34,800
Apr. 30.....	514.8	96,600	-5,000	Apr. 30.....	524.5	188,500	+40,300
May 31.....	519.3	136,600	+39,000	May 31.....	522.0	162,200	-26,300
June 30.....	518.1	124,600	-11,000	June 30.....	525.0	194,000	+31,800
July 31.....	516.8	113,600	-11,000	July 31.....	523.3	175,400	-18,600
Aug. 31.....	515.3	100,800	-12,700	Aug. 31.....	523.0	172,200	-3,200
Sept. 30.....	526.7	212,700	+111,900	Sept. 30.....	521.5	157,200	-15,000
Water year 1935-36....	-	-	+94,100	Water year 1940-41....	-	-	0
Oct. 31, 1936..	525.3	197,300	-15,400	Oct. 31, 1941..	524.9	192,900	+35,700
Nov. 30.....	519.8	140,300	-57,000	Nov. 30.....	523.1	173,200	-19,700
Dec. 31.....	521.1	153,200	+12,900	Dec. 31.....	523.2	174,300	+1,100
Calendar year 1936....	-	-	+21,400	Calendar year 1941..	-	-	+19,100
Jan. 31, 1937..	521.1	153,200	0	Jan. 31, 1942..	522.4	166,200	-8,100
Feb. 28.....	520.3	145,200	-8,000	Feb. 28.....	521.8	160,200	-6,000
Mar. 31.....	521.3	155,200	+10,000	Mar. 31.....	521.6	158,200	-2,000
Apr. 30.....	521.4	156,200	+1,000	Apr. 30.....	525.8	202,800	+44,600
May 31.....	520.3	145,200	-11,000	May 31.....	523.1	173,200	-29,600
June 30.....	521.3	155,200	+10,000	June 30.....	525.0	178,200	-1,000
July 31.....	521.0	152,200	-3,000	July 31.....	521.0	152,200	-20,000
Aug. 31.....	518.8	130,900	-21,300	Aug. 31.....	518.8	130,900	-21,300
Sept. 30.....	514.4	95,500	-37,400	Sept. 30.....	517.0	115,200	-15,700
Water year 1936-37....	-	-	-119,200	Water year 1941-42....	-	-	-42,000
Oct. 31, 1937..	513.6	87,700	-5,800	Oct. 31, 1942..	516.8	113,500	-1,700
Nov. 30.....	512.9	82,800	-4,900	Nov. 30.....	517.0	115,200	+1,700
Dec. 31.....	515.6	103,300	+20,500	Dec. 31.....	517.1	116,000	+800
Calendar year 1937....	-	-	-49,900	Calendar year 1942..	-	-	-58,300
Jan. 31, 1938..	521.1	153,200	+49,900	Jan. 31, 1943..	515.5	102,400	-13,600
Feb. 28.....	523.9	181,900	+28,700	Feb. 28.....	513.4	86,300	-16,100
Mar. 31.....	529.0	239,500	+56,600	Mar. 31.....	519.3	135,600	+49,300
Apr. 30.....	519.0	152,700	-105,800	Apr. 30.....	518.8	130,900	-4,700
May 31.....	518.5	128,200	-24,500	May 31.....	522.9	171,400	+40,500
June 30.....	518.3	126,400	-1,800	June 30.....	520.2	144,200	-27,000
July 31.....	517.0	115,200	-11,200	July 31.....	518.5	128,200	-16,000
Aug. 31.....	512.8	82,100	-33,100	Aug. 31.....	516.1	107,600	-20,600
Sept. 30.....	510.6	67,200	-14,900	Sept. 30.....	514.6	95,000	-12,600
Water year 1937-38....	-	-	-26,300	Water year 1942-43....	-	-	-20,200
Oct. 31, 1938..	509.3	60,200	-6,000				
Nov. 30.....	508.5	56,000	-4,200				
Dec. 31.....	507.8	52,400	-3,600				
Calendar year 1938....	-	-	-50,900				
Jan. 31, 1939..	507.6	51,300	-1,100				
Feb. 28.....	506.0	53,400	+2,100				
Mar. 31.....	514.0	90,500	+37,100				
Apr. 30.....	518.7	130,000	+39,500				
May 31.....	518.3	126,400	-3,600				
June 30.....	518.6	129,100	+2,700				
July 31.....	518.8	113,500	-15,600				
Aug. 31.....	515.1	99,000	-14,500				
Sept. 30.....	513.3	85,600	-13,400				
Water year 1938-39....	-	-	+18,400				

† Gage read at 7 a.m. daily prior to Jan. 8, 1943; mean daily gage height from water-stage recorder at same site and datum used thereafter.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Elm Fork Trinity River near Carrollton, Tex.

Location.— Water-stage recorder above spillway of California concrete dam, lat. 32°52'25", long. 96°55'50", at bridge on State Highway 114, 100 feet downstream from Hackberry Creek and 5.5 miles southwest of Carrollton, Dallas County. Datum of gage is 410.46 feet above mean sea level, datum of 1929.

Drainage area.— 2,612 square miles.

Records available.— July 1938 to September 1943. January 1907 to December 1928, at site near Dallas, 7 miles downstream (January 1907 to September 1920, monthly records only, published in Water-Supply Paper 850). November 1923 to July 1938, at site 8.5 miles upstream, at Carrollton Dam. Records equivalent except during periods of intense local rains and during low flows at station near Dallas caused by municipal pumping between sites.

Average discharge.— 35 years (1907-22, 1923-43), 821 second-feet.

Extremes.— Maximum discharge during year, 18,600 second-feet Mar. 26 (gage height, 14.13 feet); minimum, 34 second-feet (regulated) Oct. 11, 12.

1907-43: Maximum gage height, about 27.5 feet, present site and datum, May 25, 1908, from floodmarks furnished by State Reclamation Department (discharge not determined but probably maximum for period of record; affected by backwater from West Fork); no flow at times.

Remarks.— Records good except those above 3,000 second-feet and those for periods of no gage-height record, which are fair. Flow regulated by Lake Dallas (see p. 57). No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	447	a101	165	2,460	170	522	232	1,590	266	201	192
2	220	390	a97	154	2,370	170	475	266	1,580	266	196	196
3	225	188	a97	150	696	165	441	251	2,140	256	201	196
4	251	131	a97	135	435	165	413	241	2,300	246	201	203
5	230	1,030	a120	127	330	174	390	236	2,710	241	201	507
6	230	2,330	a138	127	308	170	374	225	4,060	236	201	292
7	230	452	a161	135	261	170	357	233	3,760	236	201	267
8	230	362	a154	138	192	170	2,130	246	2,630	220	201	241
9	206	292	a136	131	170	174	7,110	594	1,820	215	196	188
10	100	157	a131	127	157	174	2,350	2,190	1,170	215	201	178
11	36	127	a124	127	154	178	802	6,370	1,020	215	201	178
12	41	a117	a117	124	150	598	570	10,500	1,580	201	192	178
13	53	a114	a117	120	150	3,000	458	3,870	1,580	206	196	178
14	55	a114	a117	120	150	724	358	551	1,630	210	201	178
15	64	a110	110	117	150	374	357	1,400	1,410	206	196	178
16	500	a110	114	114	150	352	352	1,820	463	206	192	178
17	5,920	a107	114	110	150	324	1,020	1,720	346	206	192	188
18	5,220	a107	117	107	150	282	1,100	1,670	318	206	192	188
19	2,260	a107	117	101	154	225	582	941	308	210	196	188
20	552	a107	124	94	157	192	430	324	303	206	196	188
21	424	a104	168	94	157	183	374	498	292	206	196	188
22	340	a104	324	97	157	178	346	1,230	287	201	196	188
23	150	a104	308	104	161	174	330	1,720	282	201	192	188
24	114	a104	277	114	161	820	324	1,250	271	201	192	188
25	101	a101	215	114	161	9,560	318	658	266	196	192	188
26	89	a101	324	107	161	17,300	313	396	261	196	192	188
27	84	a101	2,830	104	165	10,600	297	413	261	196	192	188
28	84	a101	1,890	104	170	2,910	292	2,260	266	201	192	192
29	104	a101	454	107	-	1,020	282	2,420	261	201	192	192
30	277	a101	340	1,220	-	728	277	1,060	261	201	192	225
31	451	-	254	2,460	-	588	-	1,440	-	201	192	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	19,117	5,920	36	617	37,920
November.....	7,921	2,330	101	264	15,710
December.....	9,769	2,850	97	315	19,580
Calendar year 1942.....	788,733	77,800	36	2,161	1,564,000
January.....	7,148	2,460	94	231	14,180
February.....	10,187	2,460	150	364	20,210
March.....	52,012	17,300	165	1,678	103,200
April.....	25,821	7,110	277	794	47,250
May.....	49,592	10,800	225	1,600	98,360
June.....	34,916	4,060	261	1,164	69,250
July.....	6,679	266	196	215	13,250
August.....	6,074	201	192	196	12,050
September.....	6,225	507	178	208	12,350
Water year 1942-43.....	233,461	17,300	36	640	463,100

Peak discharge.— Oct. 17 (11 a.m.) 6,540 sec.-ft.; Mar. 26 (10 a.m.) 18,600 sec.-ft.; Apr. 9 (10 a.m.) 7,500 sec.-ft.; May 12 (2:30 a.m.) 13,600 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

TRINITY RIVER BASIN

Denton Creek near Roanoke, Tex.

Location.- Water-stage recorder, lat. 33°02', long. 97°12', 340 feet upstream from bridge on U. S. Highway 377, a quarter of a mile downstream from Texas & Pacific Railway bridge, and 2.2 miles northeast of Roanoke, Denton County. Datum of gage is 523.6 feet above mean sea level, datum of 1929.

Drainage area.- 704 square miles.

Records available.- October 1923 to December 1927, March 1939 to September 1943.

Extremes.- Maximum discharge during year, 19,200 second-feet May 10 (gage height, 25.67 feet); no flow at times.

1923-27, 1939-43: Maximum discharge, 49,700 second-feet Apr. 20, 1942 (gage height, 30.20 feet), from rating curve extended above 32,000 second-feet on basis of velocity-area studies; no flow at times.

Maximum stage known, 31 feet in May 1908, from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	95	27	32		19	161	34	145	19	0.3	0
2	6.6	60	27	31		19	139	32	101	16	.1	0
3	8.0	48	27	29	60	19	122	30	79	15	0	0
4	12	50	27	29		19	110	28	68	13	0	20
5	15	1,240	32	28		18	99	26	592	10	0	5.6
6	13	203	32	30	39	19	91	23	832	8.4	0	1.0
7	10	104	36	32	36	19	86	23	1,080	7.0	0	.2
8	8.4	70	34	28	32	20	202	548	944	6.0	0	0
9	7.7	58	32	28	31	19	301	100	397	5.0	0	0
10	7.4	47	31	28	28	20	285	8,670	219	5.0	0	0
11	7.0	38	29	28	27	20	285	1,910	128	4.6	0	0
12	7.0	38	28	28	25	493	179	1,770	53	4.4	0	0
13	6.6	34	28	28	23	238	110	595	66	3.9	0	0
14	6.6	34	28	28	21	82	81	294	57	3.9	0	0
15	14	34	28	28	21	51	68	203	125	3.6	0	0
16	615	34	28	28	21	39	56	150	78	3.6	0	.2
17	927	34	28	28	21	33	368	114	65	3.2	0	.2
18	886	33	28	28	21	31	212	91	46	2.5	0	0
19	413	33	28	21	26	142	75	41	41	2.5	0	0
20	283	32	32	21	26	108	91	37	2.3	0	0	0
21	119	31		23	23	81	268	32	2.0	0	0	0
22	65	30	115	23	22	66	410	27	1.5	0	0	0
23	45	28		23	22	88	410	24	1.2	0	0	0
24	35	28	45	22	1,980	52	275	22	.5	0	0	0
25	30	28	44	22	5,750	47	176	20	.9	0	0	0
26	27	28	45	21	5,580	44	116	18	.9	0	0	0
27	26	28	40	20	1,170	41	170	15	1.8	0	0	0
28	24	28	38	20	510	39	353	16	1.5	0	0	0
29	23	27	37	-	370	36	291	75	1.0	0	0	0
30	238	27	36	-	265	37	424	56	.7	0	12	-
31	250	-	34	-	197	-	240	-	.5	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,011.9	927	6.6	123	7,980
November.....	2,586	1,240	27	84.6	5,150
December.....	1,254	-	27	47.6	2,490
Calendar year 1942.....	191,820.2	20,700	6.0	528	380,500
January.....	805	32	-	23.0	1,600
February.....	961	-	20	33.8	1,710
March.....	14,901	5,750	19	48	29,560
April.....	3,690	368	37	12	7,320
May.....	17,940	8,670	23	57	35,580
June.....	5,458	1,080	15	18	10,830
July.....	151.6	19	.5	4.89	301
August.....	.4	.3	0	.01	.8
September.....	59.2	20	0	1.31	78
Water year 1942-43.....	51,710.1	8,670	0	142	102,600

Peak discharge.- Nov. 5 (8 a.m.) 3,950 sec.-ft.; Mar. 25 (1:30 a.m.) 10,300 sec.-ft.; May 10 (1:30 p.m.) 19,200 sec.-ft.

Note.- Discharge for periods of no gage-height record, Dec. 8-14, Dec. 16 to Jan. 11, Jan. 19 to Feb. 5, Mar. 30 to Apr. 19, computed on basis of recorded range in stage, weather records, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

East Fork Trinity River near Rockwall, Tex.

Location.- Chain gage, lat. 32°55'25", long. 96°30'20", at bridge on U. S. Highway 67, 3 miles southwest of Rockwall, Rockwall County and 8 miles upstream from Muddy Creek. Datum of gage is 404.3 feet above mean sea level, datum of 1929.

Drainage area.- 831 square miles.

Records available.- November 1923 to September 1943.

Average discharge.- 20 years, 452 second-feet.

Extremes.- Maximum discharge during year, 17,500 second-feet Mar. 26 (gage height, 15.03 feet); no flow Aug. 6 to Sept. 30.
1923-43: Maximum discharge not determined; maximum gage height, 24.82 feet Apr. 20, 1942; no flow at times.
Maximum stage known, 25 feet in spring of 1922.

Remarks.- Records good. Gage read twice-daily. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	377	65	290	92	37	400	115	1,150	293	1.1	
2	.2	158	62	270	87	37	380	103	658	118	.8	
3	.2	86	61	251	210	37	360	94	360	73	.5	
4	.4	144	62	222	614	33	320	86	280	60	.2	
5	.5	549	102	194	476	29	280	77	242	49	.1	
6	.7	1,020	208	180	232	34	251	70	7,700	41	0	
7	1.5	1,280	232	251	176	42	232	65	7,280	37	0	
8	4.4	1,170	232	251	149	41	296	64	7,960	33	0	
9	2.4	701	194	227	140	33	1,300	82	3,680	28	0	
10	1.1	400	140	190	136	26	5,530	86	1,050	25	0	
11	.6	218	123	176	123	32	4,630	440	370	25	0	
12	.4	172	107	176	107	146	1,780	1,340	270	22	0	
13	.2	154	97	167	92	1,390	594	2,810	222	21	0	
14	.2	140	89	156	89	4,990	410	974	199	20	0	
15	.1	127	53	154	55	3,650	330	280	180	18	0	
16	3.2	115	76	154	83	833	300	216	213	17	0	
17	84	111	71	144	85	370	290	194	172	15	0	
18	800	103	69	132	62	260	693	167	149	13	0	
19	1,030	100	67	111	56	237	1,980	144	132	12	0	
20	533	96	77	90	90	232	1,320	140	162	9.9	0	
21	167	97	221	75	92	213	330	393	119	8.4	0	
22	100	232	856	93	93	176	280	1,190	95	7.0	0	
23	75	127	850	123	123	158	227	1,990	51	6.5	0	
24	59	107	630	136	87	235	203	2,180	74	5.5	0	
25	50	92	280	115	52	3,230	190	2,350	66	4.8	0	
26	42	85	260	97	46	12,900	176	1,100	295	4.0	0	
27	38	77	708	62	39	7,280	155	398	454	3.6	0	
28	36	73	1,340	73	38	3,290	144	1,230	614	3.2	0	
29	34	66	1,190	70	-	1,240	136	5,320	368	2.7	0	
30	100	62	552	90	-	602	123	5,310	240	1.8	0	
31	403		340	95	-	465	-	2,530	-	1.2	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,577.5	1,030	0.1	115	7,100
November.....	8,237	1,280	62	275	16,340
December.....	9,444	1,340	61	305	18,730
Calendar year 1942.....	304,831.3	46,000	0	835	604,600
January.....	4,837	290	70	156	9,590
February.....	3,802	614	38	136	7,540
March.....	42,281	12,900	26	1,354	83,860
April.....	23,828	5,530	123	794	47,260
May.....	31,573	5,320	64	1,018	62,620
June.....	34,815	7,960	66	1,160	69,050
July.....	976.6	293	1.2	31.5	1,940
August.....	2.7	1.1	0	.09	5.4
September.....	0	0	0	0	0
Water year 1942-43.....	163,373.8	12,900	0	448	324,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cedar Creek near Mabank, Tex.

Location.- Water-stage recorder, lat. $32^{\circ}19'45''$, long. $96^{\circ}10'05''$, at bridge on county highway 2 miles downstream from Lacy's Fork and $5\frac{1}{2}$ miles southwest of Mabank, Kaufman County. Datum of gage is 285.39 feet above mean sea level, unadjusted.

Drainage area.- 741 square miles.

Records available.- December 1933 to September 1943.

Extremes.- Maximum discharge during year, 27,600 second-feet June 7 (gage height, 21.69 feet), from rating curve extended above 3,000 second-feet on basis of slope-area determination at gage height 23.5 feet, at location 12 miles downstream; no flow at times.

1938-43: Maximum discharge, 29,400 second-feet Apr. 9, 1942 (gage height, 22.06 feet), from rating curve extended above 3,000 second-feet on basis of slope-area determination at gage height 23.5 feet, at location 12 miles downstream; no flow at times.

Maximum stage known, about 23.5 feet Sept. 29, 1936, from information by local residents; peak discharge of this flood at site about 12 miles below station (drainage area, 910 square miles), 35,400 second-feet, by slope-area method.

Remarks.- Records good except those for periods of no gage-height record and those above 3,000 second-feet, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2	0.8	396	as.5	110	12	18	63	8.9	138	55	1.2	0
3		154	as.6	79	12	16	50	7.0	820	36	1.1	0
4	3.2	57	as.0	62	161	15	57	6.0	133	19	1.0	0
5	297	70	as.3	49	320	14	35	5.1	68	13	.8	0
6	516	639	20	42	173	13	30	4.4	73	9.2	.7	2.6
7												
8	281	1,100	40	62	62	12	27	6.9	1,900	8.3	.7	8.3
9	37	1,100	44	1,290	39	12	23	578	2,000	5.0	.7	1.7
10	28	982	33	2,140	35	11	756	2,130	21,600	7.5	.7	.8
11	13	677	26	1,670	30	11	3,760	3,000	9,970	6.7	.6	.5
12	8.9	270	24	424	27	11	2,690	3,420	4,360	6.7	.5	.4
13												
14	7.0	102	22	141	24	12	1,130	3,740	689	7.6	.4	.2
15	5.7	59	20	96	22	14	154	3,280	113	19	.2	.1
16	4.4	38	20	71	20	35	78	2,150	70	27	0	0
17	3.8	as.3	18	57	20	170	49	419	51	17	0	0
18	3.6	as.3	16	47	18	130	37	92	72	13	0	0
19												
20	3.4	as.6	12	42	17	83	30	59	162	13	0	0
21	174	as.7	11	37	16	46	542	41	52	8.0	0	0
22	456	as.4	10	33	16	34	2,490	32	123	6.4	0	0
23	568	as.0	11	27	16	28	1,080	24	228	4.8	0	0
24	512	as.7	68	22	223	24	143	20	102	4.1	0	0
25												
26	178	as.4	394	19	1,450	22	71	18	48	3.6	0	0
27	53	545	1,870	17	538	19	45	18	30	3.2	0	0
28	26	1,250	2,540	16	136	16	34	109	20	3.0	0	0
29	15	788	1,880	17	66	21	27	744	15	2.8	0	0
30	9.9	184	589	16	40	2,430	23	1,600	13	2.6	0	0
31												
1	6.7	58	551	15	28	5,220	20	1,440	11	2.2	0	0
2	5.1	as.2	3,140	15	23	6,460	16	184	9.9	2.0	0	0
3	3.8	as.8	4,240	13	15	3,560	14	59	9.2	2.0	0	.1
4	3.4	as.0	3,900	13	-	657	12	40	9.6	1.8	0	269
5	69	as.0	2,130	13	-	144	10	254	8.9	1.6	0	468
6	373	-	312	12	-	89	-	877	-	1.4	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,664.5	568	0.8	118	7,270
November.....	8,591.8	1,250	5.4	286	17,040
December.....	21,963.2	4,240	8.0	708	43,560
Calendar year 1942.....	298,835.9	26,100	0	819	592,700
January.....	6,667	2,140	12	215	13,220
February.....	3,557	1,450	12	127	7,060
March.....	19,347	6,480	11	624	38,370
April.....	13,478	3,760	10	449	28,730
May.....	24,866.3	3,740	4.4	796	48,920
June.....	61,898.6	21,600	8.9	2,063	122,800
July.....	513.3	53	1.4	10.1	621
August.....	8.6	1.2	0	.28	17
September.....	751.7	468	0	25.1	1,490
Water year 1942-43.....	164,905.0	21,600	0	452	327,100

Peak discharge.- Dec. 28 (3 p.m.) 4,420 sec.-ft.; Mar. 27 (5 a.m.) 7,520 sec.-ft.; Apr. 9 (12:30 p.m.) 4,420 sec.-ft.; June 7 (10 p.m.) 27,600 sec.-ft.

a No gage-height record; discharge computed from graph based on estimated gage heights and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Chambers Creek near Corsicana, Tex.

Location.- Water-stage recorder, lat. 32°06'30", long. 96°22'15", at bridge on State Highway 31, 500 feet upstream from St. Louis Southwestern Railway bridge, 6 miles east of Corsicana, Navarro County, and 17 miles upstream from Richland Creek. Datum of gage is 294.26 feet above mean sea level, datum of 1929.

Drainage area.- 956 square miles.

Records available.- March 1939 to September 1943.

Extremes.- Maximum discharge during year, 16,000 second-feet Sept. 6 (gage height, 23.76 feet, from floodmark); no flow Aug. 27 to Sept. 3.

1939-43: Maximum discharge, 37,400 second-feet Apr. 25, 1942 (gage height, 25.36 feet); no flow at times.

Maximum stage known, about 27½ feet in December 1913, from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	690	115	233	98	48	217	98	217	117	2.4	a0
2	46	303	115	217	95	50	193	89	160	46	2.2	a0
3	64	182	112	209	107	48	178	80	a136	34	2.0	a0
4	60	237	104	185	182	46	164	70	a118	28	1.8	a36
5	47	1,410	108	165	146	46	146	60	a129	23	1.5	a8,870
6	44	1,270	106	185	122	47	136	212	3,650	80	1.4	14,100
7	42	2,170	118	870	95	46	126	8,860	5,200	17	1.2	6,620
8	37	2,250	112	534	83	44	1,060	7,800	4,850	15	1.1	2,020
9	34	517	108	278	80	42	2,570	4,500	3,320	13	1.0	228
10	31	327	104	217	79	42	2,340	2,560	1899	13	.9	81
11	30	260	104	193	76	44	756	6,260	251	13	.8	f42
12	28	217	101	182	70	48	317	3,960	193	29	.7	f27
13	26	201	96	171	66	56	233	925	168	33	.6	f20
14	25	193	95	171	66	82	193	233	a160	176	.6	16
15	31	182	92	160	63	79	168	174	476	50	.4	12
16	88	174	89	157	63	72	157	157	f318	27	.4	9.4
17	1,570	171	89	150	63	57	300	140	f132	19	.4	17
18	2,920	160	86	136	64	50	2,040	a122	116	14	.3	141
19	5,730	164	86	108	67	47	2,260	a104	369	11	a.3	160
20	7,310	146	92	112	80	42	568	a98	423	8.3	a.2	52
21	5,600	210	395	98	171	40	278	a89	516	6.8	a.2	24
22	1,800	820	2,960	118	118	36	233	91	124	5.3	a.2	14
23	402	298	2,630	132	78	34	209	1,670	86	4.2	a.2	9.4
24	278	189	922	129	64	67	189	2,660	73	3.4	a.2	6.5
25	233	164	317	118	58	5,360	171	692	63	22	a.2	4.8
26	209	154	393	108	53	6,080	154	269	56	44	a.1	3.7
27	189	140	3,500	95	50	2,570	140	209	50	179	a0	3.6
28	174	126	3,680	89	48	617	129	182	44	111	a0	23
29	174	122	692	95	-	358	118	178	41	24	a0	1,500
30	341	122	307	98	-	287	108	601	125	7.5	a0	743
31	766	-	260	101	-	242	-	531	-	3.1	a0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	28,275	7,310	25	912	56,080
November.....	13,529	2,220	122	461	26,830
December.....	16,092	3,680	86	584	35,860
Calendar year 1942.....	392,833.2	28,900	4.5	1,076	779,200
January.....	5,817	870	89	188	11,540
February.....	2,405	182	48	85.9	4,770
March.....	16,727	6,080	34	540	33,180
April.....	15,866	2,570	103	529	31,470
May.....	43,694	9,860	60	1,409	86,670
June.....	22,274	5,200	41	742	44,180
July.....	1,116.6	179	3.1	36.0	2,210
August.....	21.2	2.4	0	.68	42
September.....	34,783.4	14,100	0	1,159	68,990
Water year 1942-43.....	202,600.2	14,100	0	555	401,800

Peak discharge.- Oct. 20 (4 p.m.) 7,960 sec.-ft.; Mar. 25 (8 p.m.) 9,400 sec.-ft.; May 7 (7 p.m.) 11,400 sec.-ft.; May 11 (4 p.m.) 7,520 sec.-ft.; June 8 (2 a.m.) 5,600 sec.-ft.; Sept. 6 (12:30 a.m.) 16,000 sec.-ft.

a No gage-height record; discharge computed from floodmarks, weather records, engineer's notes, and records for nearby stations.

f Computed from partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

TRINITY RIVER BASIN

Richland Creek near Richland, Tex.

Location.— Water-stage recorder, lat. 31°57', long. 96°25', at bridge on U. S. Highway 75, 750 feet downstream from Texas & New Orleans Railroad bridge, 1 mile north of Richland, Navarro County, and 3½ miles downstream from Pinoak Creek. Datum of gage is 299.0 feet above mean sea level, datum of 1929.

Drainage area.— 760 square miles.

Records available.— December 1924 to February 1925 (discharge measurements only), March 1939 to September 1943.

Extremes.— Maximum discharge during year, 16,600 second-feet May 8 (gage height, 20.90 feet); no flow Aug. 18 to Sept. 5, Sept. 20, 21.

1939-43: Maximum discharge, 43,000 second-feet Nov. 24, 1940; maximum gage height, 22.54 feet June 20, 1939; no flow at times.

Maximum stage known, 25.5 feet in December 1913, from information by engineers of Texas & New Orleans Railroad.

Remarks.— Records good except those for periods of no gage-height record, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	557	36	114	39	23	65	36	1,040	a22	3.8	0
2	21	86	33	98	38	23	63	33	148	a26	2.6	0
3	22	63	34	84	37	23	69	30	95	a16	2.0	0
4	24	71	32	77	37	22	54	28	77	a14	1.7	0
5	21	872	32	68	41	20	50	25	70	a13	1.6	0
6	20	1,160	31	67	37	20	46	26	2,990	a12	2.0	149
7	20	2,740	34	1,040	35	23	44	8,850	4,170	a11	1.7	50
8	13	2,910	38	911	32	22	637	15,700	556	a9.8	1.8	14
9	15	469	33	228	30	20	3,610	10,800	149	a9.1	1.3	7.4
10	14	160	33	122	31	19	3,570	5,800	101	a8.4	1.2	4.2
11	14	104	31	95	31	20	2,050	4,150	84	a7.7	1.0	2.5
12	13	80	31	82	30	22	243	4,880	70	a9.1	1.0	1.9
13	12	70	32	75	27	24	145	2,990	62	19	.8	1.2
14	12	62	30	70	26	25	110	279	56	30	.5	.8
15	12	62	28	66	27	29	92	165	55	21	.3	.7
16	12	58	27	64	27	27	84	138	76	10	.2	.5
17	14	56	26	61	27	24	219	117	60	7.0	.1	.4
18	670	54	27	57	27	23	806	98	44	5.8	0	.2
19	3,100	51	26	48	27	22	480	f84	a48	4.6	0	.1
20	1,830	49	27	44	29	20	97	f77	a53	3.7	0	0
21	135	46	39	33	143	19	77	f72	a42	2.8	0	0
22	70	47	1,180	50	72	19	70	f101	a35	2.3	0	.8
23	56	100	1,750	54	38	18	66	979	a31	1.9	0	.2
24	47	63	463	50	31	22	80	1,430	a28	1.5	0	.9
25	41	50	128	45	27	2,930	55	1,910	a25	.9	0	.7
26	37	45	136	43	26	4,360	50	1,260	a23	.8	0	.5
27	36	41	2,690	40	24	1,910	46	167	a21	.7	0	.5
28	34	38	3,670	36	23	200	43	107	a19	15	0	.8
29	33	36	3,170	39	-	114	40	101	a18	5.2	0	1.3
30	202	36	499	40	-	87	38	944	a17	3.2	0	157
31	1,080	-	153	40	-	75	-	3,380	-	5.6	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,664	3,100	12	247	15,180
November.....	10,241	2,910	35	341	80,310
December.....	14,496	5,870	26	468	26,750
Calendar year 1942	215,573.3	26,900	0	591	427,600
January.....	3,941	1,040	33	127	7,620
February.....	1,019	143	23	36.4	2,020
March.....	10,805	4,360	18	327	20,240
April.....	13,002	5,610	38	433	28,730
May.....	64,757	15,700	25	2,086	128,400
June.....	10,562	4,170	17	552	20,950
July.....	298.1	30	.7	6.62	591
August.....	23.4	3.8	0	.75	46
September.....	395.6	157	0	17.2	785
Water year 1942-43	136,594.1	15,700	0	374	270,900

Peak discharge.— Dec. 28 (6 p.m.) 3,670 sec.-ft.; Mar. 26 (10 a.m.) 4,580 sec.-ft.; Apr. 9 (9 p.m.) 3,670 sec.-ft.; May 8 (2 a.m.) 16,600 sec.-ft.; May 12 (7 p.m.) 5,500 sec.-ft.

a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for nearby stations.

f Computed from partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Fork San Jacinto River near Conroe, Tex.

Location.- Water-stage recorder, lat. 30°15', long. 95°28', at bridge, on U. S. Highway 75, 285 feet upstream from International-Great Northern Railroad bridge, 3 1/4 miles downstream from Lake Creek, and 4 1/4 miles south of Conroe, Montgomery County. Datum of gage is 100.3 feet above mean sea level, datum of 1929.

Drainage area.- 832 square miles.

Records available.- May 1924 to September 1927, July 1939 to September 1943.

Extremes.- Maximum discharge during year, 4,480 second-feet May 31 (gage height, 12.97 feet); minimum, 24 second-feet Sept. 23-26.

1924-27, 1939-43: Maximum discharge, 110,000 second-feet Nov. 25, 1940 (gage height, 25.85 feet), from rating curve extended above 43,000 second-feet on basis of velocity-area studies; minimum, 9.3 second-feet Oct. 1, 2, 1939.

Maximum stage prior to 1940, 25.2 feet, present site and datum, in December 1913, at railroad bridge 285 feet downstream, from information by engineers of International-Great Northern Railroad (discharge, 101,000 second-feet, from rating curve extended above 43,000 second-feet on basis of velocity-area studies).

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	53	303	918	160	105	173	53	3,110	31	1,670	28
2	44	50	188	397	154	104	150	51	2,800	31	1,400	29
3	43	966	137	288	184	103	134	47	2,500	35	570	34
4	43	1,240	123	255	180	103	124	46	1,360	34	201	29
5	42	570	94	200	215	106	113	45	391	31	130	28
6	44	488	86	185	194	113	106	44	187	31	95	27
7	72	488	88	1,580	166	112	99	65	140	30	74	33
8	190	397	84	2,850	156	111	94	110	111	30	62	34
9	139	252	81	2,280	143	109	90	94	92	30	57	37
10	84	157	81	2,000	154	109	89	95	78	37	53	31
11	61	108	86	1,870	123	112	88	97	73	34	49	29
12	49	89	85	1,890	117	122	95	79	71	32	47	27
13	43	76	81	3,500	113	134	98	67	68	35	44	26
14	40	71	80	3,770	110	126	92	65	92	55	43	26
15	38	66	78	3,940	106	118	83	64	69	39	40	26
16	36	62	78	3,670	105	114	78	58	62	84	39	26
17	35	62	73	2,250	104	109	100	52	62	86	37	26
18	35	62	72	817	106	106	187	47	59	58	44	25
19	34	62	72	438	108	106	150	44	57	46	44	25
20	33	64	72	310	112	104	123	42	54	40	39	25
21	34	64	78	262	117	102	102	44	51	36	37	25
22	34	94	915	250	116	99	86	91	47	33	35	25
23	33	133	1,290	222	117	96	80	135	44	31	35	24
24	33	145	900	208	117	95	71	351	38	29	34	24
25	36	141	836	201	115	349	68	614	37	30	33	24
26	42	112	798	208	112	1,180	66	364	36	28	32	24
27	38	95	2,590	215	108	1,300	62	503	36	27	31	27
28	66	85	2,950	215	105	1,270	61	445	34	115	51	30
29	85	242	2,500	201	-	890	59	260	32	2,180	30	29
30	57	514	2,650	187	-	411	57	2,490	31	4,000	30	28
31	54	-	2,110	173	-	222	-	4,140	-	2,540	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,662	190	33	53.6	0.064	0.07	3,300
November	7,008	1,240	50	234	.281	.31	13,900
December	19,657	2,950	72	634	.782	.88	38,990
Calendar year 1942	174,660	15,200	33	479	.576	.7.79	346,400
January	35,870	3,940	173	1,157	1.39	1.60	71,150
February	3,697	215	104	131	.157	.16	7,270
March	8,240	1,300	95	266	.320	.37	16,340
April	2,980	187	57	99.3	.119	.13	5,910
May	10,702	4,140	42	345	.415	.48	21,230
June	11,822	3,110	31	394	.474	.53	23,450
July	9,816	4,000	27	317	.381	.44	19,470
August	6,097	1,670	30	164	.197	.23	10,110
September	631	37	24	27.7	.033	.04	1,650
Water year 1942-43	117,354	4,140	24	322	.387	5.24	232,800

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Fork San Jacinto River near Humble, Tex.

Location.- Water-stage recorder, lat. 30°01'35", long. 95°15'30", at bridge, on U. S. Highway 59, 1,160 feet upstream from Texas & New Orleans Railroad bridge, about half a mile downstream from Spring Creek, and 2½ miles north of Humble, Harris County. Datum of gage is 30.53 feet above mean sea level, datum of 1929.

Drainage area.- 1,811 square miles.

Records available.- October 1928 to September 1943.

Average discharge.- 15 years (1928-43), 1,106 second-feet.

Extremes.- Maximum discharge during year, 14,900 second-feet July 31 (gage height, 13.30 feet); minimum, 61 second-feet Aug. 29, 30.

1928-43: Maximum discharge, 187,000 second-feet May 31, 1929, Nov. 25, 26, 1940; maximum gage height, 32.7 feet, present site and datum, May 31, 1929, Ncv. 26, 1940 (flood of Nov. 26, 1940 affected by backwater from East Fork and it is believed flood of May 31, 1929 occurred under similar conditions); minimum discharge observed, 14 second-feet Sept. 8-10, 1931.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	153	557	2,300	414	182	593	125	5,640	74	9,360	64
2	96	139	370	1,100	386	178	425	120	4,120	70	5,330	89
3	93	1,560	270	742	360	174	350	114	3,460	72	2,960	85
4	89	4,400	212	612	365	171	305	112	2,400	72	1,660	91
5	87	3,200	182	533	425	186	270	102	1,180	70	1,260	86
6	87	1,610	156	503	479	186	240	102	593	67	1,000	76
7	87	1,060	149	1,100	443	186	207	249	370	64	749	78
8	105	968	180	3,980	381	178	203	245	265	64	515	70
9	235	650	1156	4,260	355	174	195	420	203	74	300	76
10	195	455	1156	3,840	305	203	166	527	167	80	220	76
11	139	320	1153	3,040	280	437	182	386	139	174	191	69
12	114	245	1149	3,310	250	280	174	310	136	167	178	64
13	105	199	1146	7,520	250	275	174	550	203	122	164	62
14	96	178	146	7,850	216	275	174	191	515	102	136	62
15	93	167	146	7,520	203	230	167	167	325	112	122	64
16	89	156	142	6,980	195	207	153	156	199	109	107	64
17	89	146	139	5,320	195	191	164	139	153	136	98	64
18	87	146	134	2,800	195	182	471	131	136	149	91	91
19	85	142	134	1,580	195	182	644	125	125	117	178	78
20	83	142	134	1,140	199	186	437	117	120	112	203	74
21	83	142	139	912	203	174	340	114	109	100	128	72
22	83	156	322	709	207	167	270	318	102	89	109	70
23	82	191	1,300	563	203	156	225	972	98	82	95	69
24	80	240	1,340	503	203	153	195	624	91	76	91	67
25	93	280	1,080	467	203	1,190	178	935	89	76	85	70
26	146	235	988	819	195	2,680	160	988	89	72	76	72
27	142	199	5,150	784	186	2,620	149	742	85	100	69	78
28	156	178	7,340	870	182	2,800	139	620	82	5,430	67	82
29	235	167	5,000	8593	-	2,150	136	670	80	12,000	62	82
30	285	408	3,980	8503	-	1,340	131	1,170	80	13,500	64	80
31	212	-	3,460	455	-	861	-	4,120	-	14,000	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,728	265	80	120	0.066	0.08	7,400
November	18,152	4,400	139	606	.334	.37	36,000
December	33,890	7,340	134	1,093	.604	.70	67,220
Calendar year 1942	347,655	21,400	80	952	.526	7.14	689,500
January	73,082	7,880	455	2,357	1.30	1.50	144,900
February	7,853	479	182	273	.151	.16	15,180
March	19,564	2,800	135	599	.331	.38	36,800
April	7,637	644	131	255	.141	.16	15,150
May	15,661	4,120	102	505	.279	.32	31,060
June	21,354	5,640	80	712	.393	.44	42,360
July	47,532	14,000	64	1,533	.847	.98	94,280
August	25,735	9,360	62	830	.458	.53	51,040
September	2,204	91	62	73.5	.041	.05	4,370
Water year 1942-43	275,169	14,000	62	754	.416	5.67	645,800

Peak discharge.- Dec. 28 (2 a.m.) 8,800 sec.-ft.; Jan. 13 (8 p.m.) 8,420 sec.-ft.; July 29 (2 p.m.) 13,700 sec.-ft.; July 31 (3 p.m. to 7 p.m.) 14,900 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

r Computed on basis partly estimated gage-height record.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

San Jacinto River near Huffman, Tex.

Location.- Water-stage recorder, lat. 29°59'40", long. 95°08'00", at Beaumont, Sour Lake & Western Railway bridge, 0.4 mile downstream from confluence of East and West Forks and 3.4 miles southwest of Huffman, Harris County. Datum of gage is 1.93 feet above mean sea level, datum of 1929.

Drainage area.- 2,791 square miles.

Records available.- October 1936 to September 1943.

Extremes.- Maximum discharge during year, 25,100 second-feet July 30 (gage height, 27.43 feet); minimum, 121 second-feet Sept. 15.

1936-43: Maximum discharge observed, 253,000 second-feet Nov. 26, 1940 (gage height, 51.2 feet); minimum observed, 49 second-feet Sept. 1, 1939 and Sept. 13, 14, 1940.

Flood of May 31, 1929, reached a stage of 50.3 feet, from information by Beaumont, Sour Lake & Western Railway Co. (discharge, 237,000 second-feet). Flood of April 1876 reached a stage about 1½ feet lower, from information by local resident.

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	359	1,250	3,930	895	375	1,100	280	5,300	181	17,100	138
2	263	339	1,140	1,860	806	359	835	267	4,680	172	10,100	147
3	254	1,690	608	1,260	772	347	684	254	3,680	174	5,360	176
4	247	4,300	428	1,040	762	339	603	244	3,040	169	2,970	174
5	247	4,920	359	895	835	477	533	229	1,790	164	1,860	202
6	238	3,120	321	835	925	428	482	221	955	160	1,360	179
7	232	1,790	311	1,220	865	415	441	1,950	674	160	1,080	169
8	232	1,290	318	4,540	756	383	407	2,820	523	158	767	165
9	314	1,020	329	6,520	679	347	395	1,930	441	172	543	155
10	339	778	325	6,160	618	359	375	1,720	395	194	432	155
11	283	553	311	5,300	558	955	379	1,520	343	241	387	142
12	251	441	304	4,680	528	767	553	1,140	336	314	351	134
13	238	383	307	10,200	490	756	723	865	477	247	321	127
14	226	343	300	13,800	459	674	486	635	1,260	270	287	123
15	224	314	293	12,500	432	640	355	468	1,100	300	260	125
16	221	304	287	11,700	419	558	314	391	806	270	241	125
17	212	290	280	9,260	403	490	325	359	482	235	221	127
18	209	283	276	5,140	403	454	328	304	356	260	221	630
19	207	280	276	2,900	391	432	1,790	273	329	224	224	375
20	202	280	270	2,000	428	441	1,620	254	283	212	297	311
21	199	280	270	1,650	436	423	1,320	383	229	194	232	232
22	194	280	355	1,320	459	379	1,100	363	212	174	213	204
23	191	332	1,700	1,140	528	351	756	1,290	186	162	204	169
24	189	456	2,580	1,040	563	339	508	925	189	155	191	179
25	196	486	2,000	1,020	508	1,690	423	955	184	155	179	174
26	304	428	1,420	1,560	454	4,930	395	835	209	147	169	172
27	280	367	3,800	1,760	403	5,020	359	835	194	184	162	172
28	332	403	9,660	1,520	383	4,680	336	925	184	4,580	185	204
29	415	375	9,010	1,260	-	4,000	314	806	176	15,600	151	191
30	508	657	9,010	1,100	-	2,670	290	746	159	24,800	147	184
31	490	-	6,600	985	-	1,580	-	3,220	-	23,000	144	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	8,207	508	189	265	0.095	0.11	18,280
November	27,131	4,920	280	904	0.324	0.36	63,610
December	54,618	9,660	270	1,762	0.631	0.73	108,300
Calendar year 1942	686,135	35,500	189	1,880	0.674	9.15	1,361,000
January	120,235	13,800	835	3,879	1.39	1.60	238,500
February	16,158	925	383	577	0.207	0.22	32,050
March	36,058	5,020	359	1,163	0.417	0.48	71,520
April	18,829	1,790	290	628	0.225	0.25	37,350
May	27,387	3,220	221	883	0.316	0.36	54,320
June	29,241	5,300	176	975	0.349	0.39	58,000
July	73,428	24,800	147	2,369	0.849	0.98	145,600
August	46,334	17,100	144	1,495	0.535	0.62	91,900
September	5,770	630	123	192	0.069	0.08	11,440
Water year 1942-43	463,396	24,800	123	1,970	0.455	6.18	919,100

Peak discharge.- Jan. 14 (2 p.m.) 14,000 sec.-ft.; July 30 (2 p.m.) 25,100 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Spring Creek near Spring, Tex.

Location.— Wire-weight gage, lat. 30°06'35", long. 95°26'10", at bridge on U. S. Highway 75, 4,500 feet upstream from International-Great Northern Railroad bridge, 2.4 miles northwest of Spring, Harris County, and 4 miles downstream from Willow Creek. Datum of gage is 78.12 feet above mean sea level, unadjusted.

Drainage area.— 400 square miles.

Records available.—April 1939 to September 1943.

Extremes.— Maximum discharge during year, 8,000 second-feet July 30 (gage height, 20.09 feet, from floodmark); minimum observed, 18 second-feet July 26.
1939-43: Maximum discharge, 42,700 second-feet Nov. 25, 1940 (gage height, 28.6 feet, from graph based on gage readings); minimum observed, 7.7 second-feet Sept. 13, 1940.
Maximum stage known, 29.3 feet May 30, 1929, from floodmarks identified by local resident (discharge, 48,300 second-feet).

Remarks.— Records good. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	40	42	108	71	45	72	29	1,040	24	1,950	26
2	26	33	38	87	65	45	72	29	387	24	691	29
3	26	508	34	75	68	44	69	29	126	24	261	36
4	28	1,580	30	64	71	40	59	29	84	24	154	44
5	29	691	31	56	86	42	54	29	73	24	101	29
6	28	211	32	58	98	43	52	27	56	23	80	27
7	26	150	33	249	88	44	50	42	50	22	68	36
8	28	112	33	758	71	45	48	165	46	22	57	46
9	26	79	32	965	60	42	46	342	41	24	52	30
10	27	60	32	808	56	44	46	140	39	46	50	26
11	26	50	33	283	57	52	44	77	36	56	46	24
12	26	43	32	453	54	54	44	69	35	32	48	23
13	27	33	32	1,990	52	68	42	51	35	30	43	22
14	26	36	31	2,280	451	58	42	40	45	47	41	22
15	27	36	30	2,070	50	50	38	35	40	37	39	23
16	26	34	29	1,050	50	47	39	32	35	31	36	23
17	26	34	30	411	49	44	44	30	34	26	35	24
18	26	35	29	244	50	44	66	30	30	24	41	23
19	26	35	30	176	49	42	93	29	29	40	96	23
20	26	32	30	134	50	42	68	27	29	27	44	24
21	27	32	31	108	51	41	49	35	26	24	38	24
22	27	40	75	104	50	40	42	652	27	22	36	24
23	26	43	122	98	48	40	38	377	26	22	33	23
24	26	74	244	90	48	42	36	134	25	20	32	23
25	26	58	108	84	48	194	34	130	24	21	30	23
26	37	42	135	98	47	512	30	88	24	19	29	23
27	47	38	1,100	101	46	650	32	66	25	60	29	26
28	44	35	989	101	45	595	31	46	26	949	29	27
29	67	27	722	94	-	211	30	68	26	2,670	28	27
30	115	33	374	71	-	115	30	375	26	7,530	27	25
31	51	-	150	54	-	89	-	864	-	5,880	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	1,026	115	25	33.1	0.083	0.10	2,040
November	4,029	1,380	27	134	.335	.37	7,990
December	4,593	1,100	29	148	.370	.43	9,110
Calendar year 1942	69,620	10,900	25	191	.478	5.47	136,100
January	13,323	2,280	54	430	1.08	1.24	26,430
February	1,629	98	45	58.2	.146	.15	3,230
March	3,466	650	40	112	.280	.32	6,870
April	1,440	93	30	48.0	.120	.13	2,860
May	4,117	864	27	133	.332	.38	8,170
June	2,549	1,040	24	85.0	.212	.24	5,060
July	17,804	7,530	19	574	1.44	1.56	35,310
August	4,271	1,950	27	138	.345	.40	8,470
September	807	46	22	26.9	.067	.08	1,600
Water year 1942-43	59,054	7,530	19	162	.405	5.50	117,100

d Doubtful gage height; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

East Fork San Jacinto River near Cleveland, Tex.

Location.- Water-stage recorder, lat. 30°20', long. 95°07', at bridge on State Highway 105, 83 feet downstream from Gulf, Colorado & Santa Fe Railway bridge, 1½ miles west of Cleveland, Liberty County, and 4 miles downstream from Nebblets Creek. Datum of gage is 113.0 feet above mean sea level, datum of 1929.

Drainage area.- 330 square miles.

Records available.- April 1939 to September 1943.

Extremes.- Maximum discharge during year, 7,450 second-feet Dec. 28 (gage height, 12.51 feet); minimum, 18 second-feet Sept. 26.

1939-43: Maximum discharge, 77,500 second-feet Nov. 24, 1940 (gage height, 20.37 feet), from rating curve extended above 14,000 second-feet by logarithmic plotting; minimum, 7.2 second-feet Sept. 6, 1939.

Maximum stage known prior to 1940, 19.9 feet May 5, 1935, from information by local resident (discharge, 69,500 second-feet, from rating curve extended above 14,000 second-feet by logarithmic plotting).

Remarks.- Records fair. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	46	398	200	110	62	106	55	244	27	664	25
2	43	36	116	160	106	60	99	56	120	27	297	26
3	43	137	82	143	103	82	91	61	60	24	108	27
4	43	662	72	126	110	82	82	47	66	24	78	27
5	41	657	61	112	124	84	75	45	66	24	66	26
6	41	128	57	112	147	93	72	43	45	22	55	27
7	41	89	63	558	126	84	65	78	37	22	49	30
8	39	74	74	1,260	103	76	63	103	33	24	43	31
9	36	63	61	2,080	96	72	68	103	31	35	39	26
10	36	57	57	1,560	93	74	139	93	30	27	34	26
11	36	55	59	528	96	208	387	103	28	26	33	24
12	34	51	61	547	80	137	497	103	30	28	32	24
13	33	47	55	1,360	80	141	141	61	53	55	32	23
14	33	47	53	2,480	78	122	91	49	141	66	30	22
15	33	46	51	2,400	74	103	72	43	114	47	29	22
16	34	45	53	1,470	72	97	66	39	57	34	28	22
17	33	45	55	439	72	86	176	37	55	30	27	22
18	31	45	49	236	74	80	618	34	43	29	26	22
19	31	45	47	161	97	82	574	33	31	26	26	23
20	32	45	47	147	95	80	310	31	26	24	27	24
21	31	47	49	137	156	72	139	31	27	23	26	23
22	30	63	266	126	217	70	108	31	26	22	26	23
23	28	80	733	126	215	66	93	34	25	20	25	22
24	26	68	431	122	137	63	64	39	25	20	26	20
25	30	61	162	118	110	427	76	39	26	20	24	20
26	37	55	122	189	97	948	70	55	29	20	23	19
27	55	51	628	188	86	1,110	66	41	27	21	22	20
28	59	47	4,510	145	82	713	63	34	26	35	22	25
29	99	116	3,860	133	-	234	59	37	24	2,010	22	28
30	69	687	1,660	124	-	146	57	220	24	1,710	22	24
31	49	-	449	116	-	118	-	527	-	1,140	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	1,238	99	28	39.9	0.121	0.14	2,460
November	3,692	687	35	123	.373	.42	7,320
December	14,431	4,510	47	466	1.41	1.63	28,620
Calendar year 1942	102,509	6,280	27	281	.851	11.57	203,300
January	17,612	2,480	112	566	1.72	1.96	34,930
February	3,027	217	72	106	.327	.34	6,000
March	5,911	1,110	63	191	.579	.67	11,720
April	4,612	618	57	154	.467	.62	9,160
May	2,294	527	31	74.0	.224	.26	4,550
June	1,679	244	24	52.6	.159	.18	3,130
July	5,665	2,010	20	185	.554	.64	11,240
August	1,982	664	22	63.9	.194	.22	3,930
September	722	51	19	24.1	.073	.08	1,430
Water year 1942-43	62,765	4,610	19	172	.521	7.08	124,500

Peak discharge.- Dec. 28 (5:30 p.m.) 7,460 sec.-ft.; Jan. 9 (10 a.m.) 2,170 sec.-ft.; Jan. 14 (6 p.m.) 2,890 sec.-ft.; July 29 (11 a.m.) 2,440 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Buffalo Bayou at Houston, Tex.

Location.-- Water-stage recorder, lat. 29°45'42", long. 95°23'52", at Waugh Drive Bridge in Houston, Harris County, half a mile upstream from Texas & New Orleans Railroad bridge and $\frac{3}{4}$ miles upstream from Whiteoak Bayou. Datum of gage is 4.08 feet below mean sea level, datum of 1929.

Drainage area.-- 368 square miles.

Records available.-- May 1936 to September 1943.

Extremes.-- Maximum discharge during year, 3,070 second-feet Aug. 1 (gage height, 22.10 feet); minimum, 5.2 second-feet July 24.

1936-43: Maximum discharge, 9,500 second-feet May 27, 1936 (gage height, 32.5 feet, from graph based on gage readings); minimum not determined.

Maximum stage known, 54.4 feet, present site and datum, Dec. 9, 1935 (discharge, 40,000 second-feet, furnished by M. J. McCall, engineer for Harris County). Flood of May 31, 1929 reached a stage of 48.9 feet, present site and datum (discharge, 19,000 second-feet at bridge on Capitol Avenue, 2 miles downstream, from rating curve extended above 15,300 second-feet, stage-discharge relation materially affected by interference of bridge; furnished by W. E. White, assistant engineer, city of Houston).

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	21	61	211	71	16	118	a10	126	6.6	3,070	12
2	44	19	34	137	54	25	84	a9.9	174	10	2,720	15
3	34	2e1	24	97	46	19	66	a9.8	141	39	1,980	40
4	30	51e	19	70	49	16	50	a9.7	70	9.2	1,180	22
5	38	722	19	49	55	15	40	a9.6	31	6.7	614	20
6	22	589	12	49	204	15	35	9.5	19	6.4	306	64
7	22	510	11	165	196	16	28	113	14	5.9	161	45
8	22	547	9.7	408	130	23	24	18	12	5.9	10e	95
9	28	268	9.2	596	94	17	22	9.7	16	6.4	e2	178
10	28	137	9.2	480	59	15	19	16	14	47	e7	137
11	24	88	9.2	345	59	14	18	17	13	41	53	86
12	21	57	8.1	474	35	15	17	15	22	23	78	56
13	20	37	7.9	940	28	26	16	13	103	15	73	37
14	20	29	7.9	1,120	23	22	15	13	247	12	60	33
15	18	22	9.2	1,160	20	19	15	11	45	9.0	45	28
16	17	19	9.7	984	19	17	15	9.7	20	8.1	35	28
17	14	18	7.7	686	21	16	22	9.7	17	6.8	28	25
18	13	16	7.7	464	21	14	16	8.5	13	6.3	23	149
19	13	15	7.9	274	16	14	13	7.7	12	7.9	22	32
20	13	14	7.7	174	19	13	16	9.2	11	6.5	20	16
21	13	14	40	130	19	13	17	11	9.0	5.8	19	17
22	12	13	29	96	23	12	15	51	7.2	5.8	18	22
23	11	12	10	79	22	12	14	40	7.2	5.7	18	19
24	11	14	9.9	68	19	12	13	84	15	5.5	17	22
25	13	14	14	68	17	739	11	159	8.6	21	15	22
26	12	13	23	90	16	1,010	11	40	15	7.0	15	20
27	10	11	925	160	15	1,180	10	24	8.6	288	15	21
28	43	23	1,430	256	14	1,120	10	21	7.0	1,370	14	16
29	26	20	1,380	188	-	740	10	18	8.3	2,650	14	18
30	30	104	902	130	-	400	a10	17	6.6	2,370	14	18
31	22	-	416	94	-	192	-	14	-	2,950	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	701	57	10	22.6	0.061	0.07	1,390
November	4,165	722	11	139	.379	.42	8,260
December	5,470.0	1,430	7.7	176	.478	.55	10,850
Calendar year 1942	89,369.0	6,090	7.7	245	.666	9.02	177,300
January	10,242	1,160	49	330	.897	1.03	20,310
February	1,358	204	14	48.4	.132	.14	2,690
March	5,779	1,180	12	186	.605	.56	11,460
April	770	118	10	25.7	.070	.08	1,530
May	808.0	159	7.7	26.1	.071	.06	1,600
June	1,212.5	247	6.6	40.4	.110	.12	2,400
July	10,458.0	2,850	5.5	337	.916	1.06	20,740
August	10,897	3,070	13	352	.957	1.10	21,610
September	1,333	178	12	44.4	.121	.13	2,640
Water year 1942-43	53,191.5	3,070	5.5	146	.397	5.36	105,500

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Whiteoak Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°46'31", long. 95°23'54", at Yale Street Bridge, in Houston, Harris County, just downstream from Texas & New Orleans Railroad bridge and 2 miles upstream from Little Whiteoak Bayou. Datum of gage is 4.08 feet below mean sea level, datum of 1929.

Drainage area.- 87.0 square miles.

Records available.- May 1936 to September 1943.

Extremes.- Maximum discharge during year, 3,660 second-feet July 29 (gage height, 36.38 feet); minimum, 1.6 second-feet Sept. 16.

1936-43: Maximum discharge, 5,100 second-feet Sept. 24, 1941 (gage height, 40.27 feet); minimum, 0.2 second-foot Aug. 7, 8, 1940.

Maximum stage known, 51.5 feet, present datum, Dec. 9, 1935 (discharge, 14,750 second-feet, furnished by M. J. McCall, engineer for Harris County). Discharge for flood of May 31, 1929, 9,360 second-feet (gage height, 47.0 - 0.5 feet, present site and datum), computed on basis of current-meter measurement at stage 1 foot below crest, made at bridge 1 block downstream from gage; furnished by W. E. White, assistant engineer, city of Houston.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	4.5	2.9	71	28	8.6	25	2.9	6.4	2.4	784	2.8
2	2.8	4.2	2.4	49	22	9.4	19	2.8	4.6	2.8	433	4.0
3	2.8	230	2.2	36	19	8.4	15	2.6	3.7	4.3	191	8.6
4	2.8	352	2.1	25	18	7.8	12	2.6	3.2	5.6	80	6.0
5	3.8	284	2.4	17	32	7.8	9.7	2.4	3.7	4.6	51	5.6
6	4.0	225	2.2	14	71	1133	8.4	2.2	3.4	4.3	34	13
7	3.5	92	2.4	115	46	67	7.3	71	2.6	4.2	22	7.6
8	3.5	70	2.1	235	27	27	6.8	37	3.4	3.5	14	14
9	3.7	55	1.9	144	19	15	6.2	7.1	3.8	3.4	13	9.4
10	3.5	35	1.8	78	16	10	5.8	11	4.5	7.8	11	6.0
11	3.4	23	1.9	51	13	14	5.4	38	5.2	10	10	3.7
12	3.4	15	1.9	212	11	45	5.4	12	5.0	30	9.4	2.8
13	3.2	11	1.8	742	9.7	33	4.8	5.2	16	8.6	9.7	2.4
14	3.1	7.8	1.8	690	8.9	20	4.3	3.5	551	5.2	11	2.4
15	3.5	5.8	1.8	480	8.1	13	4.2	2.8	430	3.5	11	1.9
16	3.7	4.6	2.1	228	7.8	10	4.2	2.5	63	2.8	8.9	2.1
17	3.7	4.2	1.9	123	7.6	8.4	7.7	2.5	21	2.1	ae.8	2.5
18	3.7	3.4	1.9	79	11	7.3	27	2.2	11	1.6	ae.2	88
19	3.5	3.2	1.9	53	9.4	6.8	28	2.2	7.3	1.9	5.2	20
20	3.5	2.8	2.1	36	8.6	6.4	14	20	6.0	3.2	5.4	5.4
21	3.2	2.6	8.5	27	8.4	7.8	7.8	140	5.4	3.1	5.6	4.0
22	2.9	2.5	14	23	10	9.1	5.8	98	5.2	3.1	5.2	3.8
23	2.8	2.2	4.5	21	10	6.8	4.8	42	5.6	3.1	6.4	3.7
24	2.6	2.1	3.5	16	8.6	6.2	4.5	31	10	2.9	5.8	3.7
25	3.2	2.4	3.8	17	8.1	464	3.8	306	7.3	3.1	5.2	3.5
26	4.3	2.6	4.7	41	7.6	765	3.5	100	6.0	3.1	5.0	3.5
27	3.2	2.4	536	158	6.8	574	3.2	20	4.6	53	5.0	4.5
28	49	3.5	956	108	6.8	286	3.1	8.6	3.5	1,280	4.2	3.8
29	32	5.0	655	65	-	104	2.9	5.4	3.4	2,740	3.5	3.8
30	9.4	4.8	291	43	-	57	2.9	5.0	3.1	2,720	3.2	6.0
31	5.2	-	116	34	-	36	-	6.0	-	1,410	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	185.7	49	2.6	5.99	0.069	0.08	368
November	1,462.6	352	2.1	48.8	.561	.62	2,900
December	2,632.5	956	1.8	84.9	.976	1.12	5,220
Calendar year 1942	28,260.0	4,040	1.8	77.4	.889	12.07	56,050
January	4,031	742	14	130	1.49	1.72	8,000
February	459.2	71	6.8	16.4	.188	.20	911
March	2,773.8	765	6.2	89.5	1.03	1.19	5,600
April	262.5	28	2.9	8.75	.101	.11	521
May	994.5	306	2.2	32.1	.369	.42	1,970
June	1,208.9	551	2.6	40.3	.463	.52	2,400
July	8,313.4	2,740	1.8	268	3.08	3.55	16,490
August	1,766.5	784	2.8	57.0	.655	.75	3,500
September	247.9	88	1.9	8.26	.095	.11	492
Water year 1942-43	24,338.5	2,740	1.8	66.7	.766	10.39	48,270

Peak discharge.- Dec. 28 (11 a.m.) 1,010 sec.-ft.; July 29 (11 p.m.) 3,660 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and engineer's notes.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

SAN JACINTO RIVER BASIN

Brays Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°42'06", long. 95°24'06", at Old Main Street Bridge in southwest section of Houston, Harris County, three-quarters of a mile upstream from Harris Gully and about 15 miles upstream from Buffalo Bayou. Datum of gage is 3.90 feet below mean sea level, datum of 1929.

Drainage area.- 98.2 square miles.

Records available.- May 1936 to September 1943.

Extremes.- Maximum discharge during year, 6,280 second-feet July 29 (gage height, 48.22 feet); minimum, 1.2 second-feet July 18, 21, 23.
1936-43: Maximum discharge, 6,800 second-feet July 12, 1939 (gage height, 48.02 feet); minimum, 0.1 second-foot Oct. 10-13, 1937.
Maximum stage known, 50.4 feet, present site and datum, May 31, 1929 (discharge, 11,095 second-feet, from current-meter measurement at Lawndale Avenue Bridge about 12 miles below gage; furnished by W. E. White, assistant engineer, city of Houston).

Remarks.- Records good. No diversion above station.

Rating table, water year 1942-43 (gage height, in feet and discharge, in second-feet)
(Shifting-control method used Feb. 11 to Mar. 25, July 27 to Aug. 7)

27.6	1.0	28.4	15	30.5	179	36.0	1,980
27.7	2.0	28.8	31	31.0	236	40.0	2,760
27.8	3.2	29.2	56	32.0	358	45.0	5,110
27.9	7.7	29.6	88	34.0	718	47.0	6,110
28.0	6.5	30.0	125	36.0	1,260		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	3.6	7.3	52	15	8.4	13	3.0	2.7	2.2	738	3.1
2	6.0	3.6	5.6	55	12	7.5	10	3.0	2.6	7.5	273	6.8
3	5.8	30	4.7	24	11	3.4	9.6	3.4	2.6	16	105	12
4	6.9	65	4.0	17	20	11	6.9	3.2	2.5	5.6	47	4.0
5	16	26	4.7	13	38	9.7	6.7	3.2	2.5	3.0	23	3.2
6												
7	13	13	4.1	14	35	8.2	5.8	3.0	2.4	2.4	16	10
8	6.1	297	4.4	349	20	6.3	5.2	19	3.2	2.1	14	15
9	4.9	154	3.8	286	14	6.8	5.2	6.5	2.7	2.0	56	18
10	4.8	85	3.6	120	11	5.8	5.6	4.9	2.2	58	31	5.2
11	4.2	30	3.9	73	10	5.6	5.1	5.1	2.4	45	19	3.2
12	4.2	16	3.6	48	8.2	5.6	5.1	3.5	2.5	12	98	2.9
13	4.2	10	3.5	612	7.1	5.6	4.9	2.8	11	6.0	370	2.5
14	4.1	7.8	3.5	1,410	6.3	7.1	4.4	2.8	44	3.0	132	2.6
15	4.0	6.5	3.5	808	6.1	5.4	4.4	2.6	42	2.5	47	2.6
16	4.0	6.0	3.5	263	5.6	5.4	3.8	2.8	13	2.2	20	2.6
17	4.2	5.2	4.0	146	5.6	5.2	4.4	2.6	5.2	1.9	11	2.8
18	4.0	4.7	3.4	92	6.5	5.1	62	2.5	3.2	1.8	6.9	3.4
19	3.8	.4	3.2	60	9.0	4.9	86	2.4	2.7	1.8	5.4	27
20	4.0	4.2	3.4	38	8.4	4.9	24	2.6	2.4	1.9	4.7	6.9
21	3.8	4.2	3.2	25	7.3	4.7	9.7	3.2	2.4	2.0	4.0	3.6
22	3.6	4.2	22	19	8.0	4.7	6.1	4.6	2.4	1.7	4.0	2.8
23	3.6	4.0	79	16	9.5	4.6	5.1	5.8	2.2	1.9	3.5	2.6
24	3.5	4.0	30	14	8.0	4.4	4.4	3.6	2.2	1.7	3.5	2.4
25	3.6	4.0	14	12	7.3	4.6	4.1	6.8	2.2	1.8	3.4	2.6
26	4.4	3.8	9.3	15	6.0	1,520	3.5	16	2.1	8.0	3.2	2.6
27	4.2	3.6	16	90	5.4	780	3.5	3.5	2.2	4.0	3.1	2.6
28	3.6	3.5	1,650	76	4.7	222	3.5	3.0	2.2	112	3.0	2.7
29	12	12	800	47	5.2	99	3.4	2.7	2.2	1,860	3.1	2.6
30	4.7	14	517	31	-	54	3.4	3.0	2.5	6,020	3.1	22
31	5.2	11	135	22	-	28	3.0	4.7	2.6	5,890	3.4	9.3
32	4.6	-	79	18	-	18	-	3.6	-	1,840	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff
						Inches Acre-feet
October	167.0	16	3.5	5.39	0.056	0.06
November	297.3	297	3.5	29.3	.298	1.740
December	3,632.1	1,650	3.2	104	1.06	6,410
Calendar year 1942	33,589.3	3,530	2.9	92.0	.937	66,640
January	4,625	1,410	12	149	1.52	9,170
February	310.2	38	4.7	11.1	.113	615
March	2,897.8	1,520	4.4	98.5	.952	5,750
April	320.8	66	3.0	10.7	.108	635
May	135.8	19	2.4	4.47	.046	275
June	177.0	44	2.1	5.90	.060	351
July	13,920.0	6,020	1.7	449	4.57	27,610
August	2,057.3	738	3.0	66.4	.676	4,080
September	189.5	27	2.4	6.32	.064	376
Water year 1942-43	28,914.6	6,020	1.7	79.2	.806	57,340

Peak discharge.- Jan. 13 (6 a.m.) 1,680 sec.-ft.; Mar. 25 (12:30 p.m.) 2,320 sec.-ft.; July 28 (7 p.m.) 2,480 sec.-ft.; July 29 (1 p.m.) 6,280 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Double Mountain Fork Brazos River at Lubbock, Tex.

Location.- Water-stage recorder and masonry control, lat. 33°35'05", long. 101°49'40", in Mackenzie State Park in Lubbock, Lubbock County, 1.9 miles downstream from Yellowhouse Creek. Datum of gage is 3,132.7 feet above mean sea level, datum of 1929.

Records available.- September 1939 to September 1943.

Extremes.- Maximum discharge during year, 39 second-feet Oct. 17 (gage height, 5.01 feet); no flow during most of year.
1939-43: Maximum discharge, 892 second-feet June 6, 1941 (gage height, 6.73 feet), from rating curve extended above 120 second-feet on basis of slope-area determination at gage height 6.72 feet; no flow at times.

Remarks.- Records good. Station is located in small pool (capacity, 29.5 acre-feet). Figures of daily discharge represent inflow into pool computed on basis of outflow and change in contents with no correction for evaporation, transpiration, or seepage. Several dams form small pools above station which affect low flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0									
2	.1		0									
3	1.2		0									
4	.3		0									
5	.3		0									
6	0		0									
7	0		0									
8	0		0									
9	0		0									
10	0		0									
11	0		0									
12	0		0									
13	0		0									
14	0		0									
15	0		0									
16	3.7		0									
17	22		0									
18	11		0									
19	4.1		0									
20	3.5		0									
21	3.8		6.9									
22	3.0		8.0									
23	1.8		1.6									
24	1.0		.4									
25	.5		0									
26	0		0									
27	0		0									
28	0		0									
29	0		0									
30	0		0									
31	0		0									

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	56.3	22	0	1.82	112
November.....	0	0	0	0	0
December.....	16.9	8.0	0	.55	34
Calendar year 1942	1,011.2	230	0	2.77	2,010
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	0	0	0	0	0
June.....	0	0	0	0	0
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43	73.2	22	0	.20	146

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Double Mountain Fork Brazos River near Aspermont, Tex.

Location.- Water-stage recorder, lat. 33°00', long. 100°11', at bridge on U. S. Highway 83, 8 miles downstream from Mountain Creek and 10 miles south of Aspermont, Stonewall County.

Drainage area.- 7,979 square miles, of which about 6,470 square miles is probably non-contributing.

Records available.- December 1923 to September 1934, June 1939 to September 1943.

Average discharge.- 14 years (1924-34, 1939-43), 199 second-feet.

Extremes.- Maximum discharge during year, 17,900 second-feet Oct. 17 (gage height, 9.00 feet); no flow at times.

1924-34, 1939-43: Maximum discharge, 52,000 second-feet Oct. 15, 1926 (gage height, 18.14 feet, from floodmark), by slope-area method; no flow at times.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	a51	1.8	51	a8.0	0.4	0	0.1	78	0.9	0.7	0
2	34	a73	1.0	48	7.5	.3	0	0	31	0	.5	0
3	32	a65	.9	41	5.5	1.0	0	0	10	0	.3	0
4	31	a57	.7	36	4.2	.5	0	0	3.8	0	.1	0
5	29	a50	.6	35	3.8	.3	0	0	7.2	2,130	.2	0
6	25	42	.5	38	1.0	.3	0	0	135	467	.1	0
7	22	42	.7	36	.9	.3	0	0	1,230	309	.1	0
8	15	41	1.4	32	.9	.4	94	0	1,090	140	0	0
9	7.0	39	a11	31	.7	.4	16	.4	420	81	0	0
10	4.6	36	a37	27	.2	.3	31	65	171	96	0	0
11	3.4	34	20	25	.3	.3	507	41	74	194	0	0
12	2.6	31	15	25	.4	.6	292	192	41	51	0	0
13	2.2	29	14	24	.4	.7	115	122	26	62	0	0
14	1.4	25	12	23	.5	.6	41	58	23	110	0	0
15	1.4	24	11	21	.5	.4	22	29	20	53	0	0
16	804	22	8.5	18	.5	.2	14	7.8	18	26	0	0
17	10,700	21	9.5	16	.7	.2	8.0	.5	912	17	0	0
18	2,430	19	10		.7	.2	4.2	0	45	13	0	0
19	733	17	9.5		.7	.2	1.8	0	219	13	0	0
20	352	16	14		.7	.2	.8	0	192	12	0	0
21	195	14	128		.6	.2	.7	9.0	95	11	0	0
22	158	12	133		.7	.2	.5	73	46	9.0	0	0
23	a150	10	468		.4	.3	.5	46	16	7.0	0	0
24	a142	9.0	298	a20	.4	259	.4	41	20	6.0	0	0
25	a135	7.5	206		.6	261	.3	23	16	5.0	0	0
26	a127	6.5	146		.6	102	.2	11	5.5	4.2	0	.6
27	a119	5.0	105		.7	46	.1	3.4	2.2	3.8	0	.3
28	a111	4.6	80		.4	22	.1	855	.5	2.6	0	.2
29	a104	3.8	78		-	9.5	.1	571	.3	1.8	0	.2
30	a96	3.0	65		-	2.6	.1	1,360	.9	1.4	0	.2
31	a88	-	54		-	.2	-	240	-	.9	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	16,490.6	10,700	1.4	532	32,710
November.....	839.4	81	3.0	28.0	1,660
December.....	1,940.1	468	.5	62.6	3,850
Calendar year 1942.....	51,018.1	10,700	0	140	101,200
January.....	807	51	-	25.0	1,600
February.....	42.5	5.0	.2	1.52	64
March.....	710.8	261	.2	22.9	1,410
April.....	1,149.8	507	0	38.3	2,280
May.....	3,748.2	1,360	0	121	7,430
June.....	4,948.4	1,230	.3	165	9,820
July.....	3,827.6	2,130	0	123	7,590
August.....	2.0	.7	0	.06	4.0
September.....	1.5	.6	0	.05	3.0
Water year 1942-43.....	34,507.9	10,700	0	94.5	68,440

a No gage-height record; discharge computed on basis of recorded range in stage, weather records and records for nearby stations.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River at Seymour, Tex.

Location.- Water-stage recorder, lat. 33°34', long. 99°16', at bridge on U. S. Highways 277 and 283, three-quarters of a mile upstream from Wichita Valley Railway bridge, and 1 mile southwest of courthouse in Seymour, Baylor County. Datum of gage is 1,253.7 feet above mean sea level (Texas State Highway bench mark).

Drainage area.- 14,490 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- November 1923 to September 1943.

Average discharge.- 19 years (1924-43), 508 second-feet.

Extremes.- Maximum discharge during year, 18,900 second-feet Oct. 17 (gage height, 6.95 feet); no flow Aug. 2 to Sept. 30.

1923-43: Maximum discharge, 95,400 second-feet Oct. 16, 1926 (gage height, 15.16 feet, from floodmarks), by slope-area method; no flow at times.
Maximum stage known, about 21.0 feet, sometime prior to 1916.

Remarks.- Records fair. No diversion above station.

Discharge, in second-foot, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	377	31	160	31	11	59	4.9	609	529	0.2	
2	117	326	32	147	35	9.4	46	3.6	362	192	0	
3	119	326	32	134	34	12	36	2.8	146	95	0	
4	93	f348	30	119	31	11	27	2.0	78	56	0	
5	82	f313	29	111	30	11	21	1.4	162	64	0	
6	76	f300	29	109	25	13	17	1.0	151	f987	0	
7	78	370	30	104	23	9.0	14	1.0	4,020	f809	0	
8	75	275	33	99	21	10	49	1.4	4,100	f650	0	
9	71	194	62	93	20	11	137	3.6	3,340	f568	0	
10	82	164	97	88	16	9.0	67	53	f1,410	f392	0	
11	90	150	88	86	15	9.0	2,000	262	f846	f289	0	
12	88	140	84	82	15	15	1,950	117	f682	164	0	
13	86	134	82	78	15	18	775	80	f450	147	0	
14	95	122	84	75	14	18	512	82	f326	140	0	
15	f2,990	111	80	71	15	16	281	155	f224	117	0	
16	1,910	104	69	66	14	9.8	140	190	f144	83	0	
17	f2,110	95	71	59	14	8.6	99	119	f190	76	0	
18	10,900	86	67	93	14	7.4	310	f331	f1,140	69	0	
19	4,860	78	67	95	14	5.5	145	f132	733	69	0	
20	2,760	76	67	67	14	5.5	64	f803	356	111	0	
21	1,320	66	173	80	13	5.8	45	f858	166	75	0	
22	934	67	334	69	13	5.8	32	434	95	43	0	
23	858	64	269	59	12	6.4	23	269	90	31	0	
24	809	52	319	52	11	6.4	19	184	78	19	0	
25	271	43	356	39	11	226	14	130	59	11	0	
26	494	39	522	40	11	306	12	111	46	11	0	
27	417	36	434	35	11	370	10	84	35	8.2	0	
28	274	34	341	37	11	313	9.0	67	64	4.6	0	
29	203	33	262	39	-	177	7.4	59	520	8.6	0	
30	657	33	214	37	-	119	5.8	1,840	233	3.8	0	
31	475	-	182	32	-	84	-	1,970	-	1.4	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	39,941	10,900	71	1,288	79,220
November.....	4,554	377	33	152	9,030
December.....	4,570	522	29	147	9,060
Calendar year 1942.....	130,990	10,900	0	359	259,800
January.....	2,455	160	32	75.2	4,870
February.....	503	35	11	18.0	998
March.....	1,881.2	370	5.5	60.0	3,690
April.....	6,924.2	2,300	5.8	231	13,730
May.....	8,381.7	1,970	1.0	270	16,620
June.....	20,855	4,100	35	695	41,370
July.....	5,808.6	987	1.4	187	11,520
August.....	.2	.2	0	0	.4
September.....	0	0	0	0	0
Water year 1942-43.....	95,853.9	10,900	0	263	190,100

Peak discharge.- Oct. 17 (9 p.m.) 18,900 sec.-ft.; Apr. 11 (3 p.m.) 6,000 sec.-ft.; June 8 (6 p.m.) 6,510 sec.-ft.

f Computed on basis of partly estimated gage-height records.

Note.- Discharge Oct. 1-14, 16, Oct. 20 to Nov. 3, Nov. 7 to Dec. 15, computed from graph based on twice-daily wire-weight gage readings.

Time basis.- Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near South Bend, Tex.

Location.— Water-stage recorder, lat. 33°01'30", long. 98°38'50", at bridge on State Highway 67, 0.3 mile upstream from Wichita Falls & Southern Railroad bridge, 1.6 miles downstream from Clear Fork of Brazos River, and 2.0 miles northeast of South Bend, Young County. Datum of gage is 1,003.0 feet above mean sea level, datum of 1929.

Drainage area.— 21,600 square miles, of which 9,240 square miles is probably noncontributing.

Records available.— September 1938 to September 1943.

Extremes.— Maximum discharge during year, 38,400 second-feet Oct. 18 (gage height, 15.45 feet); no flow Aug. 31 to Sept. 3, Sept. 8-30.

1938-43: Maximum discharges, 87,400 second-feet May 4, 1941 (gage height, 27.35 feet); no flow at times.

Maximum stage known, 36.2 feet in 1876, from information by Texas State Highway Department and Corps of Engineers, U. S. Army.

Remarks.— Records good. No large diversion above station. Flow partly regulated by reservoirs in Elm Creek Basin (see p. 93), and Lakes Sweetwater and Trammel in Sweetwater Creek Basin, which have a combined capacity of about 106,000 acre-feet. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	736	1,530	115	310	63	55	285	44	1,680	451	8.0	0
2	652	1,050	115	280	66	49	206	42	1,560	260	6.0	0
3	613	890	111	240	66	51	174	35	665	390	5.0	0
4	592	709	111	220	64	59	142	33	360	170	4.7	.2
5	570	684	111	206	61	59	117	31	1,440	92	3.8	.3
6	543	781	126	190	61	53	103	258	536	65	3.5	.3
7	438	1,020	149	178	59	54	83	462	340	56	3.2	.1
8	360	1,200	155	170	59	55	83	280	4,190	1,110	3.2	0
9	325	613	149	161	59	61	88	133	5,510	652	2.9	0
10	275	450	149	149	52	53	2,260	94	7,640	616	2.6	0
11	270	366	149	146	54	54	1,710	97	4,260	535	2.0	0
12	240	335	152	143	51	80	2,190	60	1,980	320	1.9	0
13	220	300	155	138	51	325	1,920	65	1,480	215	1.8	0
14	188	275	155	131	51	345	970	155	1,060	128	1.7	0
15	2,700	255	152	128	50	202	636	122	727	94	1.6	0
16	5,080	245	152	119	51	124	508	92	515	97	1.5	0
17	20,500	215	152	111	52	101	3,760	82	480	70	1.1	0
18	34,800	210	149	99	55	87	1,890	107	345	58	.9	0
19	30,000	206	138	90	57	71	620	345	220	45	.9	0
20	14,400	190	149	90	55	65	501	310	998	40	.9	0
21	9,820	158	245	92	54	68	408	255	1,220	38	.9	0
22	3,950	152	529	94	57	53	270	350	811	36	.7	0
23	2,210	149	396	86	53	49	178	432	384	40	.6	0
24	1,660	146	462	87	52	309	138	310	210	31	.5	0
25	1,120	135	552	83	52	2,720	113	711	126	28	.5	0
26	870	133	636	77	52	1,780	97	719	99	25	.4	0
27	727	138	915	72	65	652	80	310	65	20	.3	0
28	636	128	830	78	52	676	70	190	85	17	.2	0
29	571	119	529	72	-	599	63	149	192	14	.2	0
30	652	122	414	71	-	522	53	234	142	11	.1	0
31	2,330	-	360	71	-	372	-	672	-	9.5	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	138,346	34,800	186	4,463	274,400
November.....	12,904	1,530	119	430	25,580
December.....	8,762	915	111	283	17,380
Calendar year 1942.....	502,245.5	34,800	5.0	1,376	996,200
January.....	4,184	310	71	135	9,300
February.....	1,363	56	50	55.6	3,100
March.....	9,792	2,720	49	316	19,420
April.....	19,703	3,760	53	657	39,080
May.....	7,179	719	31	232	14,240
June.....	39,354	7,640	86	1,312	78,060
July.....	5,733.5	1,110	9.5	188	11,370
August.....	61.6	8.0	0	1.99	122
September.....	.9	.3	0	1.03	1.8
Water year 1942-43.....	247,583.0	34,800	0	678	491,100

Peak discharge.— Oct. 16 (12:30 a.m.) 8,490 sec.-ft.; Oct. 18 (1:45 p.m.) 38,400 sec.-ft.; Apr. 17 (3:45 a.m.) 7,300 sec.-ft.; June 9 (5 p.m.) 8,150 sec.-ft.; June 10 (5 p.m.) 8,320 sec.-ft.

Note.— Discharge Oct. 1-14 and July 27 to Sept. 30 computed from graph based on once-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Possum Kingdom Reservoir near Graford, Tex.

Location.- Mercury U-tube gage, lat. 32°52', long. 98°26', in powerhouse at dam on Brazos River, 2.6 miles upstream from Loving Creek and 11.3 miles southwest of Graford, Palo Pinto County. Datum of gage is 0.10 foot above mean sea level, datum of 1929 (levels by Brazos River Conservation & Reclamation District).

Drainage area.- 22,550 square miles, of which about 9,240 square miles is probably noncontributing.

Records available.- March 1941 to September 1943.

Extremes.- Maximum contents observed during year, 740,000 acre-feet Oct. 17, 18 (gage height, 1,000.5 feet); minimum observed, 399,500 acre-feet Sept. 28-30 (gage height, 979.3 feet).

1941-43: Maximum contents observed, 750,000 acre-feet Oct. 5, 1941 (gage height, 1,001.0 feet); minimum observed, that of Sept. 28-30, 1943.

Remarks.- Records good. Reservoir is formed by reinforced concrete dam of flat slab deck, massive buttress type, with 9 roof-weir (modified bear-trap) type gates, two bulkhead sections, and earthen dike section. Dam completed and storage began Mar. 21, 1941. Total capacity, 730,000 acre-feet (gage height, 1,000.0 feet, top of closed roof-weir gates). Usable capacity, 705,500 acre-feet between gage height 911.5 feet (sill of powerhouse penstock) and gage height 1,000.0 feet (top of closed roof-weir gates). Water below gage height 911.5 feet can be withdrawn through high pressure outlet down to gage height 874.8 feet. Figures given herein represent total contents. Water used for power development. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970. Water samples are collected immediately below dam.

Cooperation.- Records of daily gage height and capacity table furnished by Brazos River Conservation & Reclamation District.

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31.....	998.9	710,500	-8,900
Nov. 30.....	998.4	701,700	-8,800
Dec. 31.....	998.2	698,100	-3,600
Calendar year 1942.....	-	-	+38,900
Jan. 31.....	996.6	689,800	-28,300
Feb. 28.....	993.2	609,600	-80,200
Mar. 31.....	990.2	556,500	-53,100
Apr. 30.....	988.6	531,700	-24,800
May 31.....	987.2	510,400	-21,300
June 30.....	988.2	525,600	+15,200
July 31.....	984.6	471,500	-54,100
Aug. 31.....	980.6	415,300	-56,200
Sept. 30.....	979.3	399,500	-16,800
Water year 1942-43.....	-	-	-519,900

† Average of twice-daily gage heights at 1 a.m. and 1 p.m.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near Palo Pinto, Tex.

Location.- Water-stage recorder, lat. 32°51'45", long. 98°18'10", at bridge on Palo Pinto-Graford highway, 300 feet downstream from Dark Valley Creek and 6½ miles north of Palo Pinto, Palo Pinto County. Datum of gage is 831.23 feet above mean sea level, datum of 1929.

Drainage area.- 22,760 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- November 1933 to September 1943. January 1924 to November 1933, at site near Mineral Wells.

Extremes.- Maximum discharge during year, 46,600 second-feet (regulated) Oct. 17 (gage height, 17.42 feet, from floodmark); minimum, 26 second-feet (regulated) Sept. 29, 30, 1933-43: Maximum discharge, 64,900 second-feet May 20, 1935, from rating curve extended above 32,000 second-feet; maximum gage height, that of Oct. 17, 1942; no flow at times.

Maximum stage known was reached by flood of 1876, according to data of Corps of Engineers, U. S. Army, and was several feet higher than any subsequent flood. A stage of about 24.0 feet was reached in June 1930, from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair.

Flow regulated by Possum Kingdom Reservoir on Brazos River (see p. 77) and several smaller reservoirs above Nugent in Clear Fork Basin, having a combined capacity of 836,000 acre-feet. No large diversion above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-17, Oct. 24 to Nov. 6, Sept. 8-16, 19-24, 26-30).

0.30	20	1.6	495	4.0	2,320	8.0	12,400
0.50	41	2.0	715	4.5	3,180	10.0	19,600
.70	72	2.5	1,000	5.0	4,180	12.0	26,900
1.00	180	3.0	1,300	6.0	6,440	14.0	34,200
1.2	275	3.5	1,720	7.0	9,150	16.0	41,500

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	231	314	292	1,150	1,180	1,110	1,240		1,280	611	847
2	130	221	251	255	1,130	1,150	1,240	1,240		1,150	675	854
3	142	217	251	255	1,180	1,150	1,270	1,240		953	1,320	878
4	138	217	251	217	1,150	1,150	1,270	1,060		952	1,340	813
5	100	221	270	231	1,060	1,180	1,270		a640	462	1,370	491
6	115	938	265	241	1,090	1,180	1,270			188	1,370	159
7	119	8,620	260	246	1,150	1,150	1,270			722	1,240	83
8	108	739	280	241	1,130	1,150	2,380		471	1,050	666	54
9	108	368	265	231	1,150	1,150	1,340		1,160	1,260	647	90
10	111	352	260	231	1,130	1,180	1,270		1,060	1,010	1,300	54
11	142	341	275	270	1,040	1,180	1,270		1,070	653	1,250	37
12	151	319	314	297	1,150	1,180	1,270		1,060	323	1,190	39
13	159	275	314	302	1,120	1,180	1,240		a200	753	985	1,190
14	138	265	314	297	1,180	1,210	1,240		430	911	584	34
15	284	260	302	297	1,150	1,210	1,240		1,040	957	347	31
16	4,150	280	302	297	1,150	1,180	1,270		1,050	980	78	95
17	f39,300	341	302	618	1,150	1,210	1,210		1,060	980	347	195
18	f37,100	346	314	775	1,150	1,210	1,240		754	529	365	78
19	33,300	336	324	1,090	1,150	1,210	1,240		388	588	336	39
20	18,400	330	324	1,120	1,180	1,210	1,240		246	1,120	391	33
21	10,700	336	346	1,150	1,180	1,210	1,240		252	1,170	385	31
22	10,100	314	390	1,150	1,180	1,210	1,240		663	1,200	228	33
23	9,150	302	363	1,150	1,180	1,240	1,240		718	1,220	70	33
24	2,160	319	352	1,150	1,180	2,110	1,240		904	1,260	473	159
25	346	319	336	1,150	1,150	1,550	1,240		1,210	670	574	218
26	286	308	314	1,120	1,180	1,300	1,240		1,020	721	499	75
27	246	297	336	1,150	1,180	1,270	1,240		655	1,120	540	31
28	241	308	352	1,150	1,150	1,240	1,240		726	1,180	544	28
29	231	324	374	1,150	-	1,240	1,240	al,450	1,510	1,170	375	28
30	330	324	363	1,150	-	1,240	1,240	-	1,540	1,190	273	28
31	275	-	324	1,150	-	1,240	-	-	-	1,220	810	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	168,394	39,300	100	5,432	334,000
November	18,358	8,620	217	612	36,410
December	9,602	390	251	310	19,050
Calendar year 1942	651,536	39,300	100	1,785	1,292,000
January	20,433	1,150	217	659	40,530
February	32,210	1,180	1,040	1,150	63,890
March	38,450	2,110	1,150	1,240	76,260
April	38,235	2,390	915	1,274	75,840
May	17,680	-	-	570	35,070
June	24,220	-	-	807	49,040
July	29,094	1,280	188	939	57,710
August	21,428	1,370	70	691	42,500
September	5,603	878	28	187	11,110
Water year 1942-43	423,707	39,300	28	1,161	840,400

a No gage-height record; discharge computed on basis of weather records, and records of water released from Possum Kingdom Reservoir.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near Glen Rose, Tex.

Location.- Water-stage recorder, lat. 32°15'40", long. 97°41'50", a quarter of a mile upstream from bridge on U. S. Highway 67, 2 miles upstream from Paluxy Creek, and 4 miles northeast of Glen Rose, Somervell County. Datum of gage is 566.66 feet above mean sea level, datum of 1929.

Drainage area.- 24,340 square miles, of which 9,240 square miles is probably non-contributing.

Records available.- October 1923 to September 1943.

Average discharge.- 20 years, 1,795 second-feet.

Extremes.- Maximum discharge during year, 54,100 second-feet Oct. 18 (gage height, 17.47 feet); minimum, 53 second-feet Sept. 23.

1923-43: Maximum discharge, 97,600 second-feet May 18, 1935 (gage height, 23.68 feet), from rating curve extended above 69,000 second-feet; no flow at times.

Maximum stage known, about 30.0 feet, May 8 or 9, 1922, from information by local residents.

Remarks.- Records good except those above 2,000 second-feet, which are fair. Flow regulated by Possum Kingdom Reservoir (see p. 77) and several smaller reservoirs. Many small diversions above station for municipal and oil field uses.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376	1,470	434	494	1,300	1,250	1,470	1,270	1,590	628	1,060	476
2	352	1,390	434	503	1,290	1,250	1,430	1,260	1,410	1,030	1,060	400
3	344	1,420	442	494	1,320	1,220	1,440	1,260	1,380	1,020	1,020	299
4	336	1,320	442	468	1,320	1,210	1,350	1,250	1,370	1,280	1,040	1,340
5	336	1,150	451	426	1,340	1,210	1,180	1,240	1,560	1,050	566	1,360
6	336	1,020	442	408	1,310	1,220	1,090	1,220	1,420	1,000	673	907
7	328	919	451	400	1,290	1,210	1,300	1,250	2,010	967	1,110	862
8	313	851	442	384	1,260	1,220	1,540	1,430	4,800	750	1,160	741
9	285	5,640	434	368	1,160	1,220	2,210	1,080	1,900	550	1,170	539
10	257	5,490	454	360	1,270	1,220	2,520	1,120	931	360	1,170	328
11	250	g1,800	426	360	1,300	1,240	1,800	1,660	605	622	1,100	230
12	250	g1,100	417	360	1,290	1,310	1,740	1,220	900	1,120	585	192
13	244	g895	417	352	1,260	1,800	2,360	655	1,080	1,100	744	151
14	237	g807	408	344	1,170	1,670	1,600	530	1,050	1,040	1,120	125
15	313	g752	406	352	1,260	1,490	1,460	426	1,080	615	1,060	106
16	4,550	686	434	376	1,260	1,310	1,420	344	1,100	434	1,050	102
17	15,100	625	442	384	1,260	1,270	1,430	306	645	807	991	125
18	49,600	575	434	384	1,270	1,240	1,440	306	722	873	566	130
19	44,200	530	442	344	1,270	1,220	1,590	313	1,030	884	434	93
20	34,400	503	494	384	1,270	1,240	1,520	320	1,020	907	292	75
21	20,200	512	615	631	1,270	1,220	1,400	544	1,000	884	224	65
22	10,700	530	862	1,000	1,260	1,210	1,340	530	805	566	326	59
23	10,000	512	873	1,170	1,250	1,210	1,320	675	468	548	352	62
24	9,400	494	796	1,240	1,260	1,310	1,320	796	360	991	360	106
25	7,700	503	697	1,220	1,260	3,270	1,310	595	313	1,060	352	93
26	4,380	488	635	1,220	1,250	6,680	1,300	494	548	1,090	271	78
27	h2,620	460	566	1,220	1,250	3,740	1,290	400	686	1,110	218	75
28	h2,010	451	566	1,220	1,240	2,480	1,290	352	618	1,060	204	68
29	h1,730	460	530	1,220	-	1,940	1,290	360	1,060	615	476	65
30	h1,660	451	485	1,250	-	1,690	1,290	1,350	967	741	468	62
31	1,630	-	476	1,270	-	1,550	-	1,620	-	1,060	434	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	224,837	49,800	237	7,233	446,000
November.....	32,064	5,940	451	1,039	63,640
December.....	15,829	873	408	571	31,400
Calendar year 1942.....	1,157,214	59,200	131	3,170	2,295,000
January.....	20,606	1,270	344	635	40,870
February.....	35,510	1,340	1,160	1,238	70,430
March.....	52,320	6,680	1,210	1,638	103,800
April.....	45,040	2,520	1,090	1,501	89,340
May.....	25,976	1,660	306	838	51,520
June.....	33,713	4,800	313	1,124	66,870
July.....	27,049	1,350	360	873	53,650
August.....	21,718	1,170	204	711	43,000
September.....	9,514	1,360	59	310	18,470
Water year 1942-43.....	543,996	49,800	59	1,430	1,079,000

Peak discharge.- Oct. 16 (11:30 p.m.) 18,400 sec.-ft.; Oct. 18 (9 p.m.) 54,100 sec.-ft.; Nov. 9 (9 a.m.) 7,180 sec.-ft.; Mar. 26 (5 a.m.) 7,700 sec.-ft.; June 8 (4 a.m.) 6,030 sec.-ft.

g Computed from graph based on once-daily gage readings furnished by U. S. Weather Bureau.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

BRAZOS RIVER BASIN

Brazos River near Whitney, Tex.

Location.- Wire-weight gage, lat. $31^{\circ}54'10''$, long. $97^{\circ}23'05''$, on bridge on State Highway 22, 1.8 miles upstream from Towash Creek and 5 miles southwest of Whitney, Hill County. Datum of gage is 432.06 feet above mean sea level, datum of 1929 (Brazos River Conservation and Reclamation District bench mark).

Drainage area.- 26,090 square miles, of which 9,240 square miles is probably non-contributing.

Records available.- October 1938 to September 1943.

Extremes.- Maximum discharge during year, 49,900 second-feet Oct. 18 (gage height, 24.86 feet); minimum observed, 43 second-feet Sept. 25.
1938-43: Maximum discharge, 60,100 second-feet Apr. 25, 1942 (gage height, 27.9 feet); minimum observed, 2.0 second-feet Oct. 31, Nov. 1, 1939.
Maximum stage known, 46 feet May 9, 1922, from information by local residents.

Remarks.- Records good except those above 2,000 second-feet, which are fair. Gage read twice daily, more often during high water. Flow regulated by Possum Kingdom Reservoir (see p. 77) and several smaller reservoirs. Many small diversions above station for municipal and oil field uses.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	550	1,690	582	598	1,340	1,540	1,590	1,290	1,740	1,000	1,020	363
2	502	1,390	538	612	1,340	1,290	1,540	1,240	1,740	702	1,070	437
3	456	1,440	538	612	1,440	1,340	1,540	1,240	1,590	859	1,040	352
4	437	1,490	560	598	1,440	1,340	1,490	1,240	1,800	1,440	1,070	573
5	424	1,390	575	582	1,440	1,340	1,440	1,190	1,270	1,390	1,070	2,960
6	398	1,180	582	568	1,440	1,340	1,340	1,240	1,690	1,120	842	1,740
7	411	1,120	552	558	1,440	1,340	1,100	1,290	1,640	1,080	552	1,080
8	404	1,100	568	522	1,390	1,290	2,500	3,470	2,710	988	1,120	902
9	392	2,120	568	496	1,390	1,340	2,340	2,020	3,980	757	1,190	791
10	374	5,080	545	476	1,290	1,290	2,770	1,800	1,960	605	1,190	560
11	345	2,650	522	463	1,340	1,340	2,650	1,640	1,080	502	1,200	398
12	328	1,640	515	456	1,390	1,340	1,910	1,910	702	470	1,110	293
13	319	1,130	508	460	1,390	1,960	1,680	1,390	728	1,190	635	d220
14	314	988	502	430	1,340	2,180	2,470	782	1,160	1,390	618	d190
15	437	868	496	411	1,290	1,860	1,860	560	1,200	1,090	1,120	162
16	2,570	834	470	392	1,340	1,640	1,540	482	1,170	668	1,060	d140
17	19,200	782	489	404	1,340	1,440	1,740	d440	1,240	482	1,080	154
18	40,500	718	508	398	1,390	1,390	1,540	4400	825	688	1,030	d180
19	45,600	688	496	404	1,390	1,390	1,540	4390	740	864	590	d160
20	37,600	668	508	368	1,390	1,340	1,690	4390	1,120	910	386	d120
21	27,700	672	801	365	1,390	1,390	1,590	4400	1,110	929	288	87
22	12,100	718	1,350	590	1,390	1,390	1,490	1,360	1,060	910	202	74
23	10,500	702	1,390	1,070	1,390	1,340	1,440	2,240	575	620	154	57
24	9,000	688	1,130	1,340	1,390	1,440	1,390	1,340	418	398	277	63
25	8,600	642	976	1,340	1,390	2,430	1,340	1,020	411	1,030	288	52
26	5,120	628	868	1,340	1,340	6,160	1,340	718	346	1,080	304	74
27	2,770	820	757	1,340	1,340	4,110	1,340	568	450	1,130	272	96
28	2,130	598	718	1,340	1,390	3,020	1,340	444	605	1,150	177	107
29	1,800	582	696	1,340	-	2,410	1,340	430	860	1,130	154	91
30	2,020	582	672	1,340	-	1,960	1,290	418	1,120	688	289	85
31	2,080	-	628	1,390	-	1,690	-	1,230	-	635	404	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	235,159	45,500	314	7,586	466,400
November.....	35,358	5,080	582	1,179	70,130
December.....	20,807	1,390	470	666	40,870
Calendar year 1942	1,285,637	53,900	137	3,522	2,550,000
January.....	22,593	1,390	368	729	44,810
February.....	38,570	1,440	1,290	1,378	76,500
March.....	56,870	6,160	1,290	1,828	112,400
April.....	81,350	3,340	1,100	1,712	101,900
May.....	34,552	3,470	380	1,115	65,530
June.....	37,017	3,980	346	1,234	75,420
July.....	27,903	1,440	398	900	55,340
August.....	21,408	1,200	154	691	42,460
September.....	12,631	2,950	52	418	24,850
Water year 1942-43	593,718	45,500	52	1,627	1,178,000

d Doubtful gage-height record; discharge computed on basis of weather records and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River at Waco, Tex.

Location.- Water-stage recorder, lat. 31°33'40", long. 97°07'45", at Washington Avenue Bridge in Waco, McLennan County, 2½ miles downstream from Bosque River. Datum of gage is 357.1 feet above mean sea level, datum of 1929.

Drainage area.- 28,500 square miles, of which 9,240 square miles is probably non-contributing.

Records available.- September 1898 to September 1943. January 1912 to September 1914, (monthly records only) published in Water-Supply Paper 850. U. S. Weather Bureau has collected gage-height records in this vicinity since 1900.

Average discharge.- 45 years, 2,746 second-feet.

Extremes.- Maximum discharge during year, 67,400 second-feet Oct. 18 (gage height, 27.68 feet); minimum, 73 second-feet (regulated) Sept. 28.

1898-1943; Maximum discharge, 246,000 second-feet Sept. 27, 1936 (gage height, 40.90 feet, levee on left bank was overtopped and broken by flood); minimum discharge for periods of daily record, 1898-1911, 1914-43, no flow Aug. 20, 21, 1918, and probably for several days in August 1923.

A stage of 39.7 feet was reached Dec. 3, 1913, when levee on left bank was broken by flood, from information by U. S. Weather Bureau.

Remarks.- Records good. Many small diversions above station do not appreciably affect flow, except during low stages. Flow partly regulated by Possum Kingdom Reservoir on Brazos River (see p. 77) and Lake Waco, on Bosque River near Waco (capacity, 39,000 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	894	2,220	894	865	1,560	1,310	1,860	1,470	1,360	1,060	630	437
2	838	2,860	922	865	1,600	1,350	1,750	1,470	1,670	1,010	998	437
3	810	1,600	864	894	2,250	1,350	1,710	1,350	1,670	776	1,050	481
4	810	2,790	894	894	1,490	1,380	1,680	1,350	1,510	841	1,050	459
5	758	2,480	922	894	1,490	1,350	1,640	1,390	998	1,350	1,060	3,280
6	734	2,940	922	1,100	1,450	1,310	1,600	1,430	1,410	1,270	1,050	2,740
7	710	1,560	1,450	2,280	1,490	1,310	1,450	2,380	1,670	1,120	727	1,630
8	687	2,330	894	894	1,450	1,350	2,000	3,660	1,590	1,030	520	1,160
9	598	1,380	894	838	1,450	1,350	8,390	5,550	3,200	952	1,040	1,020
10	559	4,480	894	810	1,380	1,350	3,700	3,590	2,790	1,050	1,120	902
11	559	3,480	865	784	1,310	1,350	2,740	2,890	1,790	1,290	1,190	776
12	522	2,310	1,580	784	1,380	1,350	2,480	1,830	1,180	561	1,190	555
13	506	1,750	810	784	1,420	1,380	2,090	1,880	846	470	1,120	415
14	505	2,250	784	810	1,380	1,860	2,220	1,550	853	1,040	782	313
15	578	1,240	784	810	1,380	2,140	2,380	1,080	1,230	1,190	573	258
16	924	1,200	784	784	1,350	1,900	1,880	874	1,160	1,060	1,070	221
17	20,100	1,170	784	784	1,330	1,640	1,790	783	1,160	763	1,080	212
18	47,400	1,140	784	810	1,420	1,420	2,300	850	1,160	509	1,080	208
19	47,700	1,110	810	810	1,420	1,380	1,830	543	881	598	1,010	283
20	38,500	1,080	1,560	810	1,450	1,350	1,790	498	846	839	720	208
21	31,600	1,920	2,360	784	1,450	1,310	1,880	492	1,070	867	486	168
22	16,900	1,500	1,940	784	1,450	1,350	1,830	2,260	1,080	881	376	148
23	11,000	1,040	1,820	914	1,420	1,350	1,750	4,060	1,080	874	278	117
24	10,500	1,040	2,300	1,350	1,420	1,940	1,630	2,380	811	706	217	96
25	10,000	1,010	1,350	1,560	1,420	3,000	1,550	2,290	561	470	283	86
26	7,060	982	1,270	1,560	1,380	4,170	1,510	1,190	470	849	324	76
27	4,280	982	2,730	1,560	1,350	7,080	1,470	902	376	1,040	318	96
28	3,920	1,500	1,110	1,560	1,310	3,750	1,470	790	360	1,060	308	194
29	2,480	922	952	1,600	-	2,680	1,550	712	650	1,190	249	844
30	2,060	922	922	1,600	-	2,220	1,510	699	832	1,120	208	190
31	3,720	-	922	1,560	-	1,980	-	706	-	776	166	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	267,961	47,700	505	8,644	531,500
November.....	53,178	4,480	922	1,773	105,500
December.....	36,781	2,730	-	1,186	72,910
Calendar year 1942	1,931,833	104,000	238	8,293	3,832,000
January.....	33,136	2,280	784	1,069	65,720
February.....	40,700	2,250	1,310	1,454	80,730
March.....	59,990	7,080	1,310	1,935	119,000
April.....	63,450	8,390	1,450	2,114	125,800
May.....	52,690	5,550	492	1,700	104,500
June.....	36,194	3,200	360	1,206	71,790
July.....	28,631	1,350	470	924	56,790
August.....	22,535	1,190	186	717	44,100
September.....	17,980	3,260	76	600	35,580
Water year 1942-43	712,894	47,700	76	1,953	1,414,000

Peak discharge.- Oct. 17 (4 p.m.) 54,100 sec.-ft.; Oct. 18 (8 p.m.) 67,400 sec.-ft.; Oct. 25 (5:30 p.m.) 14,000 sec.-ft.

Time basis.- Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near Marlin, Tex.

Location.- Wire-weight gage, lat. $31^{\circ}17'20''$, long. $96^{\circ}58'10''$, on bridge on State Highway 139, 1 mile upstream from Deer Creek and 4.5 miles southwest of Marlin, Falls County. Datum of gage is 512.15 feet above mean sea level, datum of 1928.

Drainage area.- 29,150 square miles, of which 9,240 square miles is probably non-contributing.

Records available.- October 1938 to September 1945.

Extremes.- Maximum discharge during year, 57,500 second-feet Oct. 19 (gage height, 22.2 feet, from graph based on gage readings); minimum observed, 148 second-feet (regulated) Sept. 26.

1938-43: Maximum discharge, 110,000 second-feet Apr. 26, 1942 (gage height, 31.1 feet, from graph based on gage readings); minimum not determined.
Maximum stage known, 35.8 feet Dec. 3 or 4, 1913, from information by local residents. Flood of Sept. 23, 1938, reached a stage of 35.2 feet.

Remarks.- Records fair. Flow partly regulated by Possum Kingdom Reservoir (see p. 77) and Lake Waco, on the Bosque River near Waco (capacity, 39,000 acre-feet). Gage read twice daily, more often during high water. Many small diversions above station which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	3,630	1,050	1,150	1,710	1,520	2,190	1,640	1,270	859	839	254
2	1,190	2,910	1,040	1,100	1,710	1,520	1,950	1,640	1,920	1,060	711	413
3	1,100	2,220	1,040	1,090	2,140	1,520	1,840	1,580	2,400	998	1,020	461
4	1,150	2,020	1,020	1,090	2,380	1,570	1,700	1,410	1,980	786	1,040	424
5	998	3,920	1,020	1,100	1,810	1,570	1,640	1,460	1,980	908	1,040	453
6	955	5,120	1,040	1,130	1,760	1,520	1,580	1,460	1,340	1,220	1,060	3,450
7	906	3,170	1,090	1,990	1,760	1,480	1,450	1,990	2,540	1,360	1,080	3,040
8	838	2,380	1,480	1,950	1,710	1,520	1,940	4,650	2,480	1,150	754	1,840
9	826	2,510	1,050	1,100	1,760	1,570	8,460	6,660	2,060	1,060	568	1,220
10	718	2,530	1,020	955	1,710	1,520	7,580	4,640	4,740	1,000	998	1,030
11	670	5,300	1,010	927	1,660	1,520	3,520	5,540	3,520	1,270	1,040	873
12	635	3,600	1,090	920	1,570	1,520	3,440	4,380	2,190	1,540	1,220	742
13	615	2,580	1,480	892	1,570	1,570	2,960	2,400	1,310	664	1,170	568
14	580	2,510	927	899	1,620	1,660	2,560	2,480	1,060	637	1,100	436
15	585	2,100	678	885	1,620	2,440	2,960	1,640	1,010	1,080	735	3,555
16	700	1,520	899	885	1,570	2,720	2,960	990	1,460	1,220	594	3,303
17	2,190	1,520	857	871	1,570	2,440	2,990	846	1,260	1,040	1,040	3,265
18	29,800	1,480	857	857	1,620	2,080	2,420	1,560	1,560	735	1,040	3,243
19	52,400	1,440	850	857	1,660	1,710	2,560	682	1,220	534	1,010	3,243
20	45,300	1,440	955	850	1,710	1,570	2,120	670	975	670	1,100	3,274
21	34,500	1,390	1,620	857	1,760	1,520	2,050	589	880	819	839	3,232
22	22,800	1,570	3,780	858	1,760	1,480	2,190	832	1,110	832	529	212
23	11,900	1,370	3,140	920	1,710	1,480	2,120	4,330	1,120	866	428	192
24	11,900	1,310	2,720	969	1,710	1,570	1,980	3,460	1,100	839	355	176
25	11,700	1,310	2,440	1,440	1,660	4,490	1,840	4,440	767	694	288	158
26	9,540	1,270	1,620	1,660	1,620	3,680	1,700	2,770	632	519	322	150
27	6,100	1,190	3,430	1,710	1,520	8,150	1,640	1,460	584	854	355	181
28	4,850	1,230	3,660	1,710	1,520	5,140	1,580	1,070	432	1,040	342	220
29	3,520	1,660	1,710	1,710	-	3,760	1,700	1,310	398	1,310	332	310
30	2,380	1,130	1,310	1,710	-	2,980	1,770	1,920	669	1,580	303	863
31	4,030	-	1,230	1,710	-	2,480	-	1,980	-	1,170	262	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	264,786	52,400	580	8,541	525,200
November	87,530	5,300	1,130	2,251	133,900
December	47,313	5,780	850	1,626	93,840
Calendar year 1942	2,132,927	106,000	266	5,844	4,231,000
January	36,632	1,990	520	1,182	72,660
February	47,880	2,380	1,520	1,710	94,970
March	71,250	8,150	1,460	2,298	141,300
April	77,430	9,460	1,460	2,531	165,600
May	71,689	6,660	589	2,313	142,200
June	45,667	4,740	398	1,523	90,620
July	30,314	1,580	519	978	60,130
August	23,514	1,220	262	759	46,640
September	19,581	3,450	150	635	35,840
Water year 1942-43	803,606	52,400	150	2,802	1,564,000

a No gage-height record; discharge computed on basis of weather records and records for station at Waco.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near Bryan, Tex.

Location.- Water-stage recorder, lat. 30°37', long. 96°29', 2.4 miles downstream from Little Brazos River and 9 miles southwest of Bryan, Brazos County. Datum of gage is 192.3 feet above mean sea level, datum of 1929.

Drainage area.- 38,430 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- September 1925 to September 1943. February 1918 to September 1925 at site near College Station, 7½ miles downstream.

Average discharge.- 24 years (1918-25, 1926-43), 6,077 second-feet.

Extremes.- Maximum discharge during year, 55,800 second-feet Oct. 20 (gage height, 28.0 feet); minimum, 420 second-feet Sept. 3.

1925-43: Maximum gage height, 46.1 feet, present site and datum, May 20, 1930 (discharge not determined); minimum discharge, 87 second-feet Aug. 24, 1934. Maximum stage known, about 54.0 feet, present datum, Dec. 5, 1913.

Remarks.- Records fair. Many small diversions above station which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,920	6,800	2,520	4,420	2,660	2,140	4,900	2,330	7,140	766	al,910	465
2	2,520	6,300	2,260	3,470	2,660	2,140	4,900	2,330	4,270	974	al,400	470
3	2,260	5,900	2,200	2,920	2,660	2,080	4,740	2,260	3,330	1,120	al,060	465
4	2,080	5,900	2,140	2,720	2,720	2,020	4,420	2,140	3,260	1,280	a950	495
5	2,080	5,360	2,080	2,520	3,680	2,080	3,820	2,020	3,190	1,230	al,280	609
6	3,880	8,690	2,080	2,460	2,980	2,080	3,400	1,900	3,190	1,020	al,300	787
7	4,120	11,000	2,020	2,520	2,780	2,020	3,190	2,020	3,050	1,200	al,300	2,790
8	2,780	10,600	2,020	3,190	2,720	2,020	3,190	2,520	2,720	1,500	al,280	3,970
9	1,960	7,800	2,660	4,120	2,660	1,960	5,410	7,420	3,540	1,450	al,150	2,780
10	1,720	7,000	2,400	2,980	2,660	1,960	20,100	8,620	3,190	1,400	al,000	2,080
11	1,560	8,000	2,140	2,520	2,590	1,960	11,700	6,300	4,270	1,250	a950	1,500
12	1,400	7,600	2,080	2,850	2,520	7,200	9,260	4,420	1,250	al,100	al,400	
13	1,300	6,260	2,140	3,050	2,400	2,020	6,080	6,580	3,120	1,900	al,300	1,160
14	1,250	5,220	2,780	2,850	2,330	2,020	5,900	4,120	2,330	2,720	al,350	974
15	1,200	4,580	2,260	2,720	2,400	2,080	5,060	3,540	1,900	2,200	al,300	800
16	1,150	4,740	1,960	2,460	2,400	2,400	4,420	2,980	1,560	1,610	al,150	693
17	1,400	3,520	1,900	2,260	2,330	3,120	4,270	2,330	1,780	1,610	al,000	621
18	13,800	5,540	1,840	2,140	2,330	2,980	4,900	1,900	1,960	1,560	a850	555
19	37,100	3,470	1,780	1,960	2,330	2,850	4,270	1,610	1,780	1,350	al,060	506
20	52,600	3,330	1,780	1,900	2,400	2,400	4,270	1,400	1,720	1,070	al,250	470
21	48,400	3,050	1,900	1,840	2,400	2,200	3,470	1,250	1,560	821	al,260	475
22	38,200	3,120	2,850	1,780	2,400	2,140	3,190	1,210	1,300	886	al,150	573
23	26,200	4,270	6,560	1,780	2,590	2,020	3,190	1,180	1,350	1,020	a950	807
24	f18,700	4,120	6,260	1,780	2,520	2,020	3,120	4,160	1,450	1,040	a700	657
25	f16,500	3,120	5,060	1,780	2,400	5,520	2,980	5,490	1,400	1,070	a600	533
26	f17,000	2,780	5,220	2,080	2,330	15,000	2,850	8,100	1,350	1,030	522	470
27	f16,500	2,590	13,500	2,520	2,260	13,600	2,660	5,250	1,150	835	475	490
28	14,200	2,520	13,000	2,660	2,200	13,700	2,520	3,680	966	742	465	500
29	11,500	2,400	9,260	2,660	-	9,040	2,460	3,540	902	1,190	485	609
30	7,600	2,780	6,800	2,660	-	6,620	2,330	3,540	800	2,000	465	742
31	6,080	-	5,550	2,660	-	5,390	-	7,000	-	a2,460	460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	359,980	52,600	1,150	11,610	714,000
November	157,180	11,000	2,400	5,239	311,800
December	119,000	13,600	1,780	3,839	236,000
Calendar year 1942	3,404,364	102,000	603	9,327	6,752,000
January	80,230	4,420	1,780	2,568	159,100
February	71,310	5,580	2,200	2,547	141,400
March	121,690	15,300	1,960	3,922	241,200
April	147,910	20,100	2,330	4,930	293,400
May	118,680	9,260	1,180	3,828	235,400
June	73,948	7,140	800	2,465	146,700
July	41,556	2,720	742	1,341	82,430
August	31,392	1,910	465	1,013	62,270
September	29,446	3,970	465	982	58,410
Water year 1942-43	1,352,202	52,600	465	3,705	2,682,000

a No gage-height record; discharge computed on basis of recorded range in stage and records for other stations on Brazos River.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near Hempstead, Tex.

Location.- Wire-weight gage, lat. 30°07'25", long. 96°11'00", on bridge on U. S. Highway 280, 4,500 feet upstream from Texas & New Orleans Railroad bridge, 6.5 miles northwest of Hempstead, Waller County, and 8 miles upstream from Caney Creek. Datum of gage is 118.07 feet above mean sea level, datum of 1929.

Drainage area.- 42,670 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- October 1938 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity at intermittent periods since 1903.

Extremes.- Maximum discharge during year, 47,100 second-feet Oct. 21 (gage height, 27.40 feet, from floodmark); minimum observed, 750 second-feet Sept. 23.

1938-43: Maximum discharge, 116,000 second-feet Nov. 30, 1940 (gage height, 44.04 feet); minimum, 254 second-feet Nov. 8, 1939.

Maximum stage known, 56.1 feet Dec. 8, 1913, from data furnished by engineers of Texas & New Orleans Railroad, obtained at bridge 4,500 feet downstream.

Remarks.- Records fair. Gage read twice daily, more often during high water. Many small diversions above station which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,200	8,060	3,150	6,780	3,150	2,570	5,880	2,700	10,600	1,160	3,070	790
2	3,570	8,060	3,150	5,880	3,150	2,500	5,320	2,640	10,400	1,050	2,990	790
3	3,150	8,700	2,840	5,080	3,150	2,440	5,200	2,570	7,580	1,000	2,380	850
4	2,840	8,060	2,700	4,500	3,150	2,440	5,080	2,570	6,300	1,180	1,840	790
5	2,700	8,060	2,640	4,200	3,150	2,440	4,960	2,500	6,020	1,280	1,480	770
6	2,570	7,740	2,570	4,200	3,310	2,440	4,500	2,500	5,460	1,360	1,420	790
7	3,180	11,000	2,570	5,080	3,390	2,440	3,840	2,570	4,840	1,510	1,480	1,100
8	4,720	14,400	2,500	5,880	3,150	2,380	3,480	3,070	4,300	1,200	1,480	1,280
9	3,950	12,600	2,500	6,460	3,070	2,380	3,310	3,310	3,930	1,280	1,450	2,940
10	2,840	10,200	2,500	7,100	2,910	2,380	8,310	5,350	4,020	1,390	1,390	3,250
11	a2,440	8,060	2,700	6,300	2,910	2,380	16,400	7,900	3,840	1,600	1,340	2,640
12	2,380	7,100	2,570	6,620	2,840	2,380	10,700	7,100	3,970	1,610	1,200	2,140
13	2,200	8,380	2,440	9,240	2,840	2,380	7,260	7,900	3,930	1,600	1,150	1,900
14	2,080	7,740	2,440	8,380	2,770	2,380	6,020	6,620	3,480	1,840	1,360	1,660
15	2,020	6,620	2,440	7,420	2,700	2,380	6,020	4,500	3,070	2,140	1,450	1,480
16	1,980	5,740	2,570	6,940	2,640	2,380	5,600	3,750	2,640	2,380	1,540	a1,330
17	1,960	5,880	2,440	5,740	2,700	2,440	5,080	3,480	2,380	2,140	1,480	1,180
18	1,960	5,200	2,260	5,200	2,700	2,640	5,080	3,070	2,200	a1,900	1,310	1,000
19	16,900	4,600	a2,230	4,500	2,700	2,990	5,200	2,700	2,140	1,720	1,150	910
20	37,700	4,300	2,200	3,930	2,640	2,910	5,080	2,440	2,020	1,600	1,150	650
21	46,100	3,930	2,260	3,390	2,700	2,700	4,600	2,260	1,900	1,420	1,360	810
22	43,700	3,840	2,500	3,150	2,700	2,440	a4,110	a2,250	1,840	1,230	1,420	750
23	34,800	3,840	2,640	2,840	2,700	2,320	3,660	2,200	1,750	1,020	1,420	750
24	24,700	3,930	4,930	2,700	2,770	2,260	3,480	2,080	1,780	1,080	1,310	830
25	20,600	4,400	6,160	2,700	2,840	3,370	3,390	3,600	1,840	1,150	1,120	1,000
26	18,900	4,020	5,460	2,640	2,770	6,770	3,230	6,160	1,720	1,200	1,000	950
27	18,500	3,570	6,560	2,640	2,700	13,800	3,150	7,740	1,600	1,150	930	870
28	17,400	3,310	14,300	2,840	2,640	13,800	2,990	6,460	1,510	1,180	870	975
29	15,600	3,250	14,400	3,070	-	12,800	2,840	5,080	1,340	5,770	810	1,000
30	12,800	3,070	10,800	3,150	-	9,240	2,770	7,100	1,230	9,280	790	830
31	9,420	-	8,380	3,150	-	7,260	-	7,740	-	3,780	790	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October.....						367,820	46,100	1,960	11,870	729,600		
November.....						197,640	14,400	3,070	6,568	392,000		
December.....						129,800	14,400	2,200	4,187	257,500		
Calendar year 1942						4,025,925	89,100	830	11,030	7,985,000		
January.....						151,700	9,240	2,640	4,884	300,900		
February.....						80,840	3,390	2,640	2,887	160,300		
March.....						126,430	13,800	2,260	4,078	250,800		
April.....						156,540	16,400	2,770	5,218	310,500		
May.....						131,890	7,900	2,080	4,255	261,600		
June.....						109,260	10,600	1,230	3,642	216,700		
July.....						58,920	9,280	1,000	1,901	116,900		
August.....						43,960	3,070	790	1,418	87,190		
September.....						37,185	3,230	750	1,240	73,760		
Water year 1942-43						1,591,985	46,100	750	4,362	3,158,000		

a No gage-height record; discharge computed from estimated gage-height graph.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River near San Felipe, Tex.

Location.- Water-stage recorder, lat. 29°46'20", long. 96°02'10", at bridge on State Highway 73, 200 feet downstream from Missouri-Kansas-Texas Railroad bridge, 1.3 miles downstream from Irons Creek, and 5.0 miles southeast of San Felipe post office, Austin County. Datum of gage is 79.32 feet above mean sea level, datum of 1929.

Drainage area.- 43,690 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- December 1938 to September 1943.

Extremes.- Maximum discharge during year, 46,900 second-feet Oct. 22 (gage height, 24.70 feet); minimum, 760 second-feet Sept. 24.

1938-43: Maximum discharge, 152,000 second-feet Nov. 25, 1940 (gage height, 41.10 feet); minimum, 278 second-feet Oct. 9, 13, 1939.

Maximum stage known, 49.0 feet Dec. 9, 1913, from information by local resident.

Remarks.- Records fair. Many small diversions above station which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,420	8,720	3,200	7,270	3,270	2,640	6,500	2,770	8,500	1,330	4,890	877
2	3,860	7,670	3,200	6,500	3,200	2,640	5,760	2,700	11,300	1,290	3,580	905
3	3,450	8,940	3,270	5,780	3,200	2,500	5,840	2,640	9,390	1,160	3,270	912
4	3,190	12,000	2,980	5,060	3,200	2,500	5,060	2,670	7,470	1,080	2,700	933
5	3,060	9,850	2,840	4,720	3,200	2,500	5,060	2,570	6,500	1,160	2,160	906
6	2,930	8,940	2,770	4,550	3,200	2,500	4,720	2,440	6,320	1,290	1,840	864
7	2,680	8,720	2,770	5,780	3,420	2,440	4,380	2,500	5,600	1,370	1,690	864
8	3,190	11,800	2,700	6,880	3,420	2,440	3,980	2,700	5,060	1,370	1,690	1,120
9	4,140	13,000	2,640	6,690	3,200	2,440	3,580	3,340	4,720	1,290	1,690	1,410
10	3,720	10,500	2,640	6,690	3,120	2,440	3,660	3,580	4,220	1,370	1,640	2,910
11	2,860	8,290	2,700	6,880	2,980	2,440	12,400	5,960	4,220	1,740	1,640	3,200
12	2,440	7,270	2,910	6,690	2,980	2,440	13,400	7,470	4,060	1,890	1,550	2,700
13	2,320	7,070	2,770	10,600	2,910	2,500	8,420	7,070	3,980	1,740	1,420	2,210
14	2,800	7,870	2,640	11,800	2,840	2,440	6,320	7,670	4,220	2,320	1,330	1,940
15	2,080	6,880	2,570	8,500	2,840	2,440	5,600	6,140	3,740	2,440	1,460	1,740
16	1,970	6,140	2,640	7,270	2,770	2,440	5,420	4,550	3,120	2,210	1,600	1,550
17	1,860	5,600	2,840	6,690	2,700	2,440	5,240	3,320	2,770	2,570	1,640	1,370
18	1,810	5,600	2,570	5,780	2,700	2,440	4,890	3,500	2,500	2,260	1,600	1,200
19	3,570	5,060	2,440	5,060	2,770	2,770	4,720	3,120	2,320	1,890	1,550	1,080
20	28,200	4,550	2,380	4,380	2,770	3,050	4,890	2,700	2,260	1,790	1,420	996
21	43,200	4,220	2,380	3,900	2,770	2,980	4,720	2,570	2,160	1,690	1,290	933
22	46,100	4,220	3,820	3,580	2,910	2,770	6,320	2,440	1,940	1,580	1,460	977
23	40,400	4,220	3,660	3,270	2,840	2,500	5,780	2,320	1,890	1,330	1,500	818
24	30,500	4,060	3,270	3,050	2,770	2,440	3,740	2,210	1,790	1,160	1,550	772
25	22,500	4,220	5,600	2,910	2,840	4,220	3,580	2,210	1,840	1,120	1,460	798
26	20,400	4,380	6,500	2,840	2,840	7,870	3,500	3,620	1,990	1,240	1,330	961
27	19,100	4,060	8,500	2,700	2,770	11,800	3,340	5,600	1,790	1,240	1,160	1,050
28	18,200	3,580	10,500	2,700	2,700	14,100	3,200	6,380	1,690	1,900	1,080	932
29	17,000	3,420	14,100	2,910	-	13,000	3,050	5,780	1,600	10,100	996	968
30	14,700	3,340	11,800	3,200	-	10,600	2,910	5,240	1,420	18,500	982	1,120
31	11,500	-	8,720	3,270	-	7,870	-	7,470	-	10,500	891	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	367,660	46,100	1,810	11,860	729,200
November.....	203,990	13,000	3,340	6,800	404,600
December.....	132,420	14,100	2,390	4,272	262,700
Calendar year 1942.....	4,076,594	78,200	932	11,170	8,085,000
January.....	167,900	11,800	2,700	5,416	333,000
February.....	83,130	3,420	2,700	2,969	164,900
March.....	130,590	14,100	2,440	4,213	259,000
April.....	159,400	13,400	2,910	5,313	316,200
May.....	126,150	7,670	2,210	4,069	250,200
June.....	120,380	11,800	1,420	4,013	238,800
July.....	83,890	18,500	1,080	2,774	166,400
August.....	54,069	4,890	891	1,744	107,200
September.....	38,965	3,200	772	1,279	77,290
Water year 1942-43.....	1,668,524	46,100	772	4,571	3,309,000

Note.- Discharge for Oct. 1 to Nov. 29 computed from graph based on gage readings; wire-weight gage read twice daily, more often during high water.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River at Richmond, Tex.

Location.— Water-stage recorder and wire-weight gage, lat. 29°35', long 95°45', at bridge on U. S. Highway 90 in Richmond, Fort Bend County, 1,500 feet downstream from bridge of Texas & New Orleans Railroad (formerly Galveston, Harrisburg & San Antonio Railway). Datum of gage is 40.8 feet above mean sea level, datum of 1929.

Drainage area.— 44,050 square miles, of which 9,240 square miles is probably noncontributing.

Records available.— January 1903 to June 1906, June 1931 to September 1943. October 1922 to September 1931, at site at Rosenberg, 7.6 miles upstream; records equivalent except for diversion by Richmond Irrigation Co.'s canal. U. S. Weather Bureau has collected gage-height records in this vicinity since 1914.

Average discharge.— 23 years (1903-5, 1922-43), 7,942 second-feet.

Extremes.— Maximum discharge during year, 45,500 second-feet Oct. 22 (gage height, 22.17 feet); minimum observed, 500 second-feet Sept. 8. 1903-6, 1931-43: Maximum discharge, 117,000 second-feet Nov. 28, 1940 (gage height, 38.40 feet); minimum, 33 second-feet Aug. 23, 24, 1934. Flood of June 6, 1929, reached a stage of 40.8 feet, present datum, from floodmarks, (discharge, 120,000 second-feet). Flood of Dec. 10, 1913, reached a stage of 45.4 feet, present datum, from floodmarks.

Remarks.— Records fair. Discharge below about 12,000 second-feet computed from graph based on once-daily wire-weight gage readings furnished by U. S. Weather Bureau. Considerable water diverted above station for irrigation and municipal supply. See records of Brazos Valley Irrigation Co.'s canal near Fulshear and Richmond Irrigation Co.'s canal near Richmond.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,180	10,500	3,160	8,400	3,560	2,760	8,020	2,670	7,480	1,160	8,240	580
2	4,420	8,400	3,060	6,940	3,560	2,860	6,760	2,490	8,800	1,030	4,660	550
3	3,980	8,200	3,160	6,080	3,560	2,860	6,080	2,260	10,500	940	3,760	530
4	3,560	10,700	3,060	5,460	3,560	2,760	5,600	2,220	8,200	880	3,260	525
5	3,360	11,600	2,860	4,900	3,560	2,580	5,320	2,180	6,760	614	2,670	555
6	3,160	9,420	2,760	4,540	3,560	2,490	5,180	2,080	6,080	880	2,150	525
7	2,960	7,660	2,670	4,780	3,260	2,490	4,900	2,040	5,760	970	1,720	555
8	2,760	10,100	2,580	6,240	3,160	2,490	4,540	2,080	5,040	1,090	1,820	505
9	3,360	13,200	2,580	6,940	3,560	2,400	4,090	2,400	4,420	1,090	1,440	675
10	4,200	12,300	2,490	6,760	3,260	2,400	3,760	2,760	3,980	1,030	1,440	1,120
11	3,660	9,420	2,490	6,940	3,160	2,490	5,590	3,360	3,660	1,090	1,400	2,360
12	2,660	7,660	2,490	6,760	2,960	2,400	15,400	6,080	3,660	1,360	1,400	2,660
13	2,490	6,940	2,580	8,400	3,060	2,460	11,300	7,300	3,460	1,640	1,260	2,490
14	2,310	7,120	2,490	12,500	2,960	2,490	7,300	6,940	3,660	1,560	1,190	2,080
15	2,180	6,760	2,400	11,200	2,960	2,490	5,760	7,120	3,660	1,840	1,090	1,760
16	2,040	6,240	2,490	8,200	2,860	2,490	5,460	5,180	3,160	2,180	1,160	1,520
17	1,920	5,600	2,400	7,480	2,760	2,400	5,460	3,760	2,760	1,960	1,260	1,440
18	1,840	5,320	2,380	6,760	2,760	2,400	5,040	3,160	2,400	2,180	1,330	1,480
19	1,840	5,160	2,490	5,920	2,760	2,400	4,540	2,860	2,220	2,040	1,350	1,350
20	15,600	4,660	2,400	5,040	2,760	2,760	4,420	2,490	2,040	1,680	1,220	910
21	38,200	4,420	2,260	4,420	2,760	2,960	4,540	2,080	2,000	1,520	1,090	814
22	44,900	4,200	2,260	4,090	2,760	2,960	4,420	2,400	1,920	1,560	1,000	742
23	42,700	4,090	3,660	3,660	2,760	2,670	4,090	2,260	1,760	1,260	1,060	655
24	35,000	4,090	3,260	3,460	2,860	2,490	3,760	2,040	1,840	1,060	1,120	600
25	25,400	3,980	3,160	3,260	2,760	2,960	3,460	2,080	1,660	880	1,160	545
26	21,300	4,200	5,460	3,160	2,860	5,260	3,260	2,080	1,660	850	1,090	550
27	19,200	4,200	6,240	2,960	2,860	10,300	3,160	2,960	1,640	940	970	590
28	18,700	3,760	7,480	2,860	2,760	14,400	3,060	5,320	1,660	1,640	880	685
29	17,700	3,560	13,200	2,860	-	14,900	2,960	6,760	1,440	6,280	772	784
30	15,900	3,560	15,500	3,060	-	15,700	2,760	6,240	1,560	17,500	680	736
31	13,500	-	10,700	3,260	-	10,700	-	6,760	-	16,900	655	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	366,180	44,900	1,840	11,610	726,300
November.....	206,840	13,200	3,360	6,895	410,300
December.....	124,270	13,500	2,260	4,009	246,500
Calendar year 1942.....	4,183,410	79,100	910	11,460	8,297,000
January.....	177,090	12,300	2,860	5,713	351,300
February.....	94,590	3,360	2,760	3,021	167,800
March.....	134,200	14,900	2,400	4,359	266,200
April.....	159,990	15,400	2,760	5,333	317,500
May.....	112,410	7,300	2,040	3,626	225,000
June.....	114,040	10,600	1,360	3,801	226,200
July.....	76,604	17,500	814	2,471	151,900
August.....	55,947	8,240	635	1,740	107,000
September.....	31,011	2,860	505	1,054	61,610
Water year 1942-43.....	1,641,162	44,900	505	4,496	3,255,000

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos River at East Columbia, Tex.

Location.— Wire-weight gage, lat. 29°09', long. 95°37', at bridge, on State Highway 35 at East Columbia, Brazoria County, 1 mile downstream from Yarners Creek. Datum of gage is 2.7 feet (revised) below mean sea level (unadjusted).

Drainage area.— 44,540 square miles (9,240 square miles is probably noncontributing).

Records available.— October 1938 to September 1939 (gage heights only), October 1939 to September 1940 and February 1942 to September 1943 (gage heights, discharge measurements, and daily discharge above 8,000 second-feet), October 1940 to September 1941 (discharge measurements only).

Extremes.— Maximum discharge during year, 42,000 second-feet Oct. 23 (gage height, 23.9 feet, from graph based on gage readings); minimum not determined (affected by tides). 1938-43: Maximum gage height observed, 34.12 feet, Dec. 5, 1940 (discharge not determined); minimum gage height, 1.54 feet Aug. 22, 1939 (affected by tides). Maximum stage known, 35.3 feet Dec. 11 or 12, 1913. Flood of 1899 reached a stage of 35.0 feet. Stages from information by local residents.

Remarks.— Gage-height records fair; discharge records poor. Discharge for periods below 8,000 second-feet not published owing to effect from tides. Gage read twice daily, more often during high water. Considerable water diverted above station for irrigation and municipal supply.

Gage-height, in feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.32	10.23	4.32	9.30	4.40	4.46	8.60	3.82	6.37	4.32	13.15	4.16
2	6.19	8.80	4.68	7.85	4.62	4.24	7.20	3.92	7.02	3.56	10.35	3.38
3	5.91	7.70	4.68	7.05	4.34	3.72	6.62	4.14	8.10	3.62	7.35	4.38
4	5.35	7.85	4.55	6.45	4.35	4.69	6.27	4.08	8.24	3.41	6.18	3.48
5	5.07	9.25	4.88	6.28	4.69	4.81	5.88	4.32	7.34	3.24	5.28	3.32
6	5.15	9.25	4.72	6.29	4.18	4.74	5.85	4.36	6.21	3.20	4.41	3.68
7	5.19	8.75	4.11	5.87	4.28	3.53	5.95	4.97	5.66	2.88	3.99	3.35
8	5.27	8.32	3.69	5.59	4.42	4.30	6.02	4.94	5.26	2.75	3.74	2.86
9	5.06	9.30	3.32	6.68	4.41	4.52	5.52	4.82	4.55	2.55	3.47	3.74
10	4.44	10.32	3.94	6.92	4.35	4.22	5.26	5.26	4.70	2.85	3.42	3.78
11	5.27	9.80	3.90	6.75	3.56	4.22	5.38	4.13	4.63	3.55	3.48	4.26
12	4.91	8.45	3.66	7.58	4.45	4.45	7.97	4.27	4.56	4.14	3.70	4.71
13	4.35	7.60	3.70	8.00	3.65	4.04	10.63	5.72	5.03	4.08	3.89	4.90
14	4.02	6.85	3.95	9.50	3.41	4.10	8.81	6.16	5.10	3.96	4.17	5.57
15	3.55	7.35	3.85	10.75	4.16	4.46	7.12	6.56	4.84	3.80	3.85	5.18
16	3.96	7.62	3.36	9.73	4.04	4.10	6.48	6.38	5.02	4.24	4.00	5.50
17	4.04	6.90	3.86	8.70	4.40	4.52	6.47	5.73	4.98	4.58	4.21	5.40
18	3.88	6.40	3.66	7.45	4.25	4.29	6.76	5.12	4.68	4.38	4.46	5.12
19	4.28	6.48	4.17	6.26	4.48	4.52	6.58	5.25	4.83	3.56	4.01	4.34
20	4.45	6.30	3.92	6.07	4.15	4.41	5.83	4.98	4.75	3.50	3.94	4.33
21	12.54	5.92	4.55	5.61	4.34	4.76	5.92	4.93	4.25	3.00	3.58	4.16
22	22.80	4.80	4.28	5.08	4.92	4.71	6.08	4.83	3.68	2.88	3.68	4.33
23	23.72	4.70	4.05	4.80	4.64	5.26	5.37	4.63	3.40	2.49	3.44	4.37
24	22.32	4.77	4.55	4.56	4.54	5.44	5.06	3.85	3.32	2.64	3.97	4.54
25	19.20	4.95	4.68	4.56	4.28	5.48	4.90	3.70	3.33	3.32	3.80	5.04
26	16.20	4.57	4.94	4.29	3.78	5.60	4.63	3.98	3.85	3.98	4.16	5.24
27	14.74	4.96	5.22	4.19	3.86	7.10	4.36	4.55	3.58	3.58	4.23	5.29
28	14.15	4.96	6.60	4.26	4.40	9.88	4.61	4.56	3.37	4.31	4.40	5.26
29	13.75	5.22	8.40	4.71	-	11.38	4.16	5.69	3.76	5.82	4.21	5.66
30	13.18	4.78	11.30	4.64	-	11.32	4.58	6.35	3.80	11.02	4.56	5.74
31	11.85	-	10.85	4.85	-	10.42	-	6.53	-	15.50	4.18	-

Discharge measurements, water year October 1942 to September 1943

Date	Width (feet)	Area (square feet)	Mean velocity (feet per second)	Gage height (feet)	Discharge (second-feet)
Oct. 28.....	359	6,200	3.22	14.00	20,000
Jan. 22.....	260	3,340	1.46	5.16	4,880
Mar. 30.....	333	4,870	3.06	11.26	14,900

Discharge, in second-feet, water year October 1942 to September 1943

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 22	39,200	Nov. 4	8,880	Dec. 30	14,900
23	41,500	5	11,300	31	14,000
24	37,800	6	11,300	Jan. 1	11,300
25	30,600	7	10,300	2	9,800
26	24,400	8	9,680	12	8,470
27	21,400	9	11,300	13	9,020
28	20,500	10	13,130	14	11,600
29	19,600	11	12,100	15	14,000
30	18,500	12	9,720	16	11,900
31	15,900	13	8,470	17	10,200
Nov. 1	13,000	16	9,080	18	8,340
2	10,300	16	8,470	Mar. 28	11,900
3	6,600	Dec. 29	9,720	29	15,100
				3	8,060

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Salt Fork Brazos River near Aspermont, Tex.

Location.- Water-stage recorder, lat. 33°20', long. 100°14', at bridge, on U. S. Highway 83, 5½ miles downstream from Dove Creek and 13.2 miles northwest of Aspermont, Stonewall County. Datum of gage is 1,588.7 feet above mean sea level, datum of 1929.

Drainage area.- 4,834 square miles, of which 2,770 square miles is probably noncontributing.

Records available.- December 1923 to August 1925, June 1939 to September 1943.

Extremes.- Maximum discharge during year, 11,800 second-feet Oct. 17 (gage height, 7.00 feet); no flow at times.

1923-25, 1939-43: Maximum discharge, 25,600 second-feet Aug. 16, 1940 (gage height, 11.05 feet), from rating curve extended above 20,000 second-feet; no flow at times.

Maximum stage known, 14.4 feet in December 1913. Flood of November 1934 reached a stage of 13.7 feet. Stages from information by local residents.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	a54	8.0	36	5.0	2.4	3.8	0	5.8	21	0.3	0.1
2	26	a51	8.5	32	5.0	2.4	3.0	0	3.8	58	.2	.3
3	24	a46	8.5	31	5.0	2.4	2.8	0	2.8	10	.2	.2
4	20	a41	8.0	28	4.5	2.4	2.6	0	1.6	425	.2	.2
5	16	a38	8.0	26	4.2	2.4	2.6	0	1,450	992	.8	.2
6	12	72	9.0	26	3.8	2.2	2.2	0	2,670	444	.2	.2
7	11	58	18	26	3.6	2.2	1.8	0	2,310	210	.2	.2
8	10	49	41	26	3.4	2.2	2.4	0	5,480	105	.1	.2
9	9.5	38	46	22	2.8	2.0	5.8	.1	705	54	.1	.2
10	8.5	28	36	21	2.8	1.8	31	71	312	35	.2	.1
11	7.0	24	27	21	2.6	1.8	93	22	200	50	.2	.2
12	6.6	19	41	20	2.6	2.6	74	219	117	105	.2	.2
13	6.2	18	44	19	2.5	2.8	24	117	68	75	.2	.2
14	15	17	42	16	2.6	3.0	10	58	41	49	.1	.2
15	197	14	41	17	2.6	2.4	6.6	38	26	28	.1	.2
16	711	14	35	14	2.6	1.8	4.6	26	17	20	.1	.2
17	5,660	12	30	12	2.6	1.8	2.6	18	51	522	.2	.2
18	2,130	11	24	11	2.6	1.4	1.6	12	23	90	0	.2
19	a374	10	21	9.0	2.6	1.2	1.2	20	11	61	.2	.3
20	a152	10	22	10	2.6	1.0	.8	83	7.0	18	.2	.3
21	a136	10	110	8.5	2.6	1.2	.6	88	5.0	8.5	.2	.2
22	a120	10	148	10	2.6	1.0	.6	54	3.0	4.6	.2	.2
23	a111	10	159	9.5	2.6	1.0	.5	36	2.2	2.4	.2	.2
24	a102	9.5	155	7.5	2.6	1.8	.4	24	1.4	1.4	.2	.2
25	a96	9.5	105	5.8	2.6	75	.4	15	.9	.8	.2	.2
26	a88	9.5	105	5.8	2.6	54	.2	11	1.2	1.8	.2	0
27	a82	9.0	58	5.8	2.6	31	0	8.0	.9	2.0	.1	0
28	a75	8.5	52	5.8	2.6	18	0	5.4	.7	.6	.1	.1
29	a70	8.5	49	5.8	-	12	0	7.0	27	.6	.1	.1
30	a63	8.5	46	5.8	-	7.5	0	13	63	.4	.1	.1
31	a58	-	40	5.4	-	5.4	-	15	-	.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,428.8	5,660	6.2	37.6	20,690
November.....	717.0	72	8.5	23.9	1,420
December.....	1,518.0	159	8.0	49.0	3,010
Calendar year 1942.....	34,168.1	5,650	.1	95.6	67,770
January.....	500.7	36	5.4	16.2	993
February.....	877.4	5,0	2.6	3.12	175
March.....	256.5	75	1.0	8.60	529
April.....	279.3	93	0	9.31	554
May.....	962.5	219	0	31.0	1,610
June.....	11,587.3	3,480	.7	37.4	22,980
July.....	3,395.4	992	.4	110	6,730
August.....	5.7	0	0	.18	11
September.....	5.5	.3	0	.18	11
Water year 1942-43.....	29,754.1	5,660	0	81.5	59,010

Peak discharge.- Oct. 17 (3 a.m.) 11,800 sec.-ft.; June 5 (8:30 p.m.) 9,880 sec.-ft.; June 7 (6 p.m.) 9,880 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and engineer's notes.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

White River at Plainview, Tex.

Location.- Water-stage recorder, lat. $34^{\circ}11'$, long. $101^{\circ}41'$, at bridge, on Broadway Street in Plainview, Hale County, 0.7 mile upstream from Atchison, Topeka & Santa Fe Railway bridge. Datum of gage is 3,341.1 feet above mean sea level, datum of 1929.

Records available.- June 1939 to September 1943.

Extremes.- Maximum discharge during year, 40 second-feet Oct. 19 (gage height, 2.65 feet); no flow at times.

1939-43: Maximum discharge, 12,000 second-feet June 6, 1941 (gage height, 8.75 feet), by slope-area method; no flow at times.

Maximum stage known prior to 1941, about 6.50 feet in May 1927 (discharge, about 1,100 second-feet), from information by local resident. Flood of May 24, 1937, reached about the same stage as that of May 1927.

Remarks.- Records poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0				0	0		0		0.1
2	0		0				0	0		.2		0
3	0		0				0	0		2.6		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				.1	0		.6		0
9	0		0				0	0		18		0
10	0		0				0	1.3		.8		.1
11	0		0				0	.1		0		0
12	0		0				0	0		0		0
13	0		0				0	0		0		0
14	2.2		0				0	0		.1		0
15	.9		0				0	0		0		0
16	4.9		0				0	0		0		0
17	4.7		0				0	0		0		0
18	6.6		0				0	0		0		0
19	32		0				0	0		0		0
20	26		0				0	0		0		0
21	3.7		2.5				0	0		0		0
22	.1		.1				0	0		0		0
23	0		0				0	.2		0		0
24	0		0				0	0		0		0
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	0		0		0
29	0		.2				0	0		0		0
30	0		.1				-	0		0		-
31								0		0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	81.1	32	0	2.63	161
November.....	0	0	0	0	0
December.....	2.9	2.5	0	.07	5.8
Calendar year 1942.....	262.9	62	0	.72	522
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	.1	.1	0	.003	.2
May.....	1.6	1.3	0	.05	3.2
June.....	0	0	0	0	0
July.....	22.3	18	0	.72	44
August.....	0	0	0	0	0
September.....	.2	.1	0	.007	.4
Water year 1942-43.....	108.2	32	0	.30	215

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

BRAZOS RIVER BASIN

Clear Fork Brazos River at Nugent, Tex.

Location.- Water-stage recorder, lat. 32°41', long. 99°40', at county highway bridge in Nugent, Jones County, 4 miles upstream from Deadman Creek..

Drainage area.- 2,220 square miles.

Records available.- February 1924 to September 1943.

Average discharge.- 19 years, 170 second-feet.

Extremes.- Maximum discharge during year, 5,350 second-feet Oct. 18 (gage height, 12.05 feet); minimum, 0.4 second-foot Sept. 1-3.

1924-43: Maximum discharge observed, 47,000 second-feet Sept. 8, 1932 (gage height, 27.05 feet, site then in use), from rating curve extended above 25,000 second-feet; no flow at times.

Maximum stage known, about 30.0 feet in 1876, from information by local residents.

Remarks.- Records good. Flow regulated by reservoirs in Elm Creek Basin (see p. 93) and Lakes Sweetwater and Trammel in Sweetwater Creek Basin, which have a combined capacity of about 106,000 acre-feet. Small diversions above station for municipal supply and mining.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	101	16	25	23	22	16	11	34	63	2.2	0.4
2	13	92	18	25	23	22	15	80	32	36	1.8	.4
3	14	44	18	25	22	21	15	610	19	50	1.6	.8
4	13	33	18	23	22	21	15	610	14	62	1.3	3.7
5	13	29	18	23	22	21	15	360	16	56	1.3	54
6	12	32	19	23	22	21	15	9.4	11	19	1.3	17
7	11	32	22	23	22	33	15	8.8	294	12	1.3	6.2
8	11	26	21	23	22	166	15	8.8	1,360	5.8	1.3	4.1
9	11	27	26	22	22	166	42	8.8	468	6.9	1.3	2.9
10	11	25	23	22	22	231	150	11	309	6.2	1.2	2.2
11	11	23	21	22	22	223	60	11	111	7.5	1.1	1.7
12	11	23	20	22	22	65	48	22	33	6.2	.9	1.4
13	12	22	20	22	22	63	84	17	192	4.5	.8	1.3
14	12	22	20	22	22	62	33	13	74	5.5	1.2	1.3
15	12	22	19	22	23	16	23	207	23	6.9	1.2	1.2
16	291	22	19	21	23	14	20	488	16	154	1.1	1.1
17	2,140	21	19	22	23	14	17	45	12	41	.8	1.1
18	5,000	21	19	21	25	14	16	20	269	16	.7	1.0
19	3,000	21	20	21	26	13	16	14	567	8.8	.6	1.0
20	1,400	21	21	20	26	13	16	13	60	6.2	a.6	.8
21	690	21	61	20	26	13	16	42	26	4.8	a.6	1.0
22	356	20	259	21	25	13	16	483	16	4.1	a.6	1.0
23	51	19	188	22	23	13	16	1,030	13	3.3	a.6	1.1
24	42	19	55	22	23	96	16	279	11	16	a.6	1.1
25	36	19	38	22	23	116	13	76	9.4	2.9	a.6	1.1
26	33	19	34	22	22	137	11	55	7.5	1.8	.6	1.3
27	31	19	28	22	22	48	11	26	6.9	1.7	.6	1.6
28	29	19	26	22	22	29	11	18	6.9	1.7	273	1.8
29	29	18	26	22	-	26	11	16	7.5	1.5	64	2.2
30	72	-	26	22	-	19	11	70	7.5	1.8	1.1	2.2
31	206	-	25	23	-	16	-	40	-	1.8	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	13,586	5,000	11	438	26,950
November.....	852	101	18	23.4	1,690
December.....	1,164	259	18	37.5	2,310
Calendar year 1942.....	38,733.5	5,000	1.8	10 ¹	76,830
January.....	689	25	20	22.2	1,370
February.....	642	26	22	23.9	1,270
March.....	1,747	231	13	55.4	3,460
April.....	808	180	11	28.9	1,600
May.....	4,702.8	1,030	8.8	182	9,330
June.....	4,025.7	1,360	6.9	134	7,980
July.....	648.1	194	1.6	20.9	1,290
August.....	366.4	273	.6	11.8	727
September.....	118.0	54	.4	3.93	234
Water year 1942-43.....	29,349.0	5,000	.4	80.4	58,210

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Clear Fork Brazos River at Fort Griffin, Tex.

Location.— Water-stage recorder, lat. 32°56', long. 99°13', at bridge on Fort Griffin-Throckmorton highway, half a mile east of Fort Griffin, Shackelford County, and 1.3 miles upstream from Mill Creek. Datum of gage is 1,174.53 feet above near sea level, datum of 1929.

Drainage area.— 3,974 square miles.

Records available.— December 1923 to September 1943.

Average discharge.— 19 years (1924-43), 310 second-feet.

Extremes.— Maximum discharge during year, 6,410 second-feet Oct. 20 (gage height, 17.11 feet); no flow Aug. 6 to Sept. 30.

1923-43: Maximum discharge, 33,600 second-feet Sept. 10, 1932 (gage height, 35.09 feet); no flow at times.

Maximum stage known, about 38.0 feet in 1900, from information by local residents.

Remarks.— Records good. Flow regulated by reservoirs in Elm Creek Basin (see p. 93) and Lakes Sweetwater and Frammel in Sweetwater Creek Basin, which have a combined capacity of about 106,000 acre-feet. Small diversions above station for irrigation, oil field uses, and municipal supply materially affect low flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	222	a18	41	25	38	54	10	800	8.7	a0.6	
2	5.9	212	a17	38	26	35	*47	7.6	217	6.6	a.5	
3	5.9	127	a17	37	27	31	40	6.6	96	5.4	a.3	
4	5.5	119	a17	35	28	31	34	60	65	4.0	a.2	
5	5.2	94	a17	33	28	34	30	520	50	3.1	a.1	
6	4.5	66	a17	33	28	34	27	494	37	18	0	
7	4.2	74	a22	31	31	33	26	183	34	46	0	
8	3.9	75	a20	30	31	31	25	69	795	40	0	
9	3.9	66	a23	31	31	31	25	38	3,510	30	0	
10	3.9	55	a28	31	33	54	24	30	1,400	20	0	
11	3.9	41	32	30	28	184	514	21	430	16	0	
12	3.6	34	35	30	28	275	223	16	315	9.8	0	
13	3.4	29	38	33	28	162	116	11	177	6.6	0	
14	3.6	28	35	29	31	79	93	8.7	120	4.6	0	
15	17	27	29	29	30	54	75	7.1	150	3.4	0	
16	37	26	28	29	27	48	76	5.8	122	2.4	0	
17	1,070	24	28	28	28	46	69	252	69	1.7	0	
18	5,030	23	28	28	27	40	86	232	48	1.3	0	
19	5,960	25	27	29	30	56	56	88	309	24	0	
20	4,940	23	29	26	34	22	39	52	537	43	0	
21	1,810	20	39	24	38	16	30	37	267	25	0	
22	760	18	51	24	41	12	28	29	116	16	0	
23	530	18	183	24	43	9.2	25	22	68	10	0	
24	184	a18	346	27	44	28	23	910	54	6.6	0	
25	92	a18	187	27	43	66	20	503	38	4.6	0	
26	68	a18	119	26	41	165	20	155	27	3.4	0	
27	58	a18	96	26	39	261	18	82	21	2.7	0	
28	49	a18	74	25	39	206	15	76	16	1.7	0	
29	46	a18	61	25	-	131	14	351	12	1.3	0	
30	51	a18	51	22	-	87	13	175	10	1.1	0	
31	317	-	46	24	-	65	-	465	-	.8	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	21,133.5	5,960	3.4	682	41,920
November.....	1,572	222	18	52.4	3,120
December.....	1,759	346	17	56.7	3,490
Calendar year 1942	65,797.3	5,960	.4	180	130,500
January.....	903	41	22	29.1	1,790
February.....	904	44	25	32.3	1,790
March.....	2,358.2	273	9.2	76.1	4,680
April.....	1,886	514	13	62.9	3,740
May.....	4,916.8	910	6.8	159	9,750
June.....	9,913	3,510	10	330	19,660
July.....	367.8	46	.8	11.9	730
August.....	1.7	.6	0	.05	3.4
September.....	0	0	0	0	0
Water year 1942-43	45,714.0	5,960	0	125	90,870

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Clear Fork Brazos River near Crystal Falls, Tex.

Location.— Water-stage recorder above spillway of concrete dam, lat. 32°54', long. 98°50' at Texas Co.'s pumping plant 2½ miles downstream from Hubbard Creek and 3½ miles northeast of Crystal Falls, Stephens County. Datum of gage is 1,055.25 feet above mean sea level, datum of 1929.

Drainage area.— 5,658 square miles.

Records available.— July 1928 to September 1943.

Average discharge.— 15 years, 542 second-feet.

Extremes.— Maximum discharge during year, 22,200 second-feet Oct. 18 (gage height, 27.75 feet); no flow Aug. 1 to Sept. 5, Sept. 12-30.

1928-43: Maximum discharge, 35,800 second-feet June 11, 1941 (gage height, 33.45 feet), from rating curve extended above 23,000 second-feet; no flow at times.

Maximum stage known, about 34.0 feet, present datum, in 1900 from information by local residents.

Remarks.— Records good except those for periods of no gage-height record, which are poor. Flow regulated by reservoirs in Elm Creek Basin (see p. 93) and Lakes Sweetwater and Trammel in Sweetwater Creek Basin, which have a combined capacity of about 106,000 acre-feet. A large part of low flow diverted above station for oil field uses and municipal supply.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	562	52	79	47	a49	82	14	569	11		0
2	31	342	52	72	47	a47	66	14	702	12		0
3	35	289	52	69	50	a45	61	14	176	11		0
4	270	211	52	64	52	a42	50	12	36	5.5		0
5	165	198	50	64	a52	40	40	57	39	3.1		20
6	72	176	50	64	a52	37	33	476	61	2.3		12
7	44	165	58	64	a52	35	29	406	35	1.5		4.7
8	31	150	61	64	a51	35	37	172	26	3.1		3.1
9	26	142	61	58	a50	35	a58	52	1,290	26		1.5
10	22	113	61	58	a49	35		66	2,910	29		.9
11	20	103	61	58	a47	29		50	1,010	22		.4
12	12	86	61	58	a46	163	al,500	31	386	18		0
13	18	79	61	58	a46	299		18	294	12		0
14	20	69	58	58	a45	172		14	172	11		0
15	586	64	55	61	a45	96		14	124	3.3		0
16	958	61	58	58	a44	61		14	150	4.7		0
17	11,800	61	55	55	a45	50		11	131	2.3		0
18	19,700	61	55	52	a45	44		196	79	1.5		0
19	13,700	61	52	50	a46	40		193	52	.9		0
20	5,770	61	64	50	a46	35		96	310	.6		0
21	4,340	61	232	50	a47	29		61	550	.3		0
22	1,640	61	356	50	a48	20	all5	50	211	16		0
23	875	58	157	50	a50	16		58	110	26		0
24	582	56	285	50	a51	410		112	64	16		0
25	280	55	416	50	a51	1,850		912	47	9.7		0
26	189	55	270	50	a50	521		366	35	5.5		0
27	153	55	202	50	a50	305		183	31	3.9		0
28	135	55	150	50	a50	308	20	86	20	1.5		0
29	120	52	113	50	-	233	18	72	18	.9		0
30	314	52	96	50	-	153	14	316	14	.6		0
31	482	-	86	50	-	113	-	183	-	.3		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	62,428	19,700	18	2,014	123,800
November.....	3,613	562	52	120	7,170
December.....	3,492	416	50	113	6,930
Calendar year 1942.....	213,052.9	19,700	-	584	422,600
January.....	1,764	79	50	56.9	3,500
February.....	1,353	52	44	48.3	2,680
March.....	5,347	1,850	16	172	10,610
April.....	9,503	-	14	317	18,860
May.....	4,289	912	11	138	8,510
June.....	9,782	2,910	14	326	19,340
July.....	266.5	29	3	8.60	529
August.....	0	0	0	0	0
September.....	42.6	20	0	1.42	84
Water year 1942-43.....	101,850.1	19,700	0	277	202,000

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, engineer's notes, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Fort Phantom Hill Reservoir near Nugent, Tex.

Location.- Staff gage, lat. $32^{\circ}37'$, long. $99^{\circ}40'$, on outlet tower at dam on Elm Creek, 4 miles upstream from Clear Fork Brazos River and 5 miles south of Nugent, Jones County. Datum of gage is 1,580.0 feet above mean sea level.

Drainage area.- 478 square miles.

Records available.- July 1940 to September 1943.

Extremes.- Maximum contents observed during year, 71,900 acre-feet Oct. 18 (gage height, 54.5 feet); minimum observed, 52,700 acre-feet Sept. 27-30 (gage height, 49.0 feet). 1940-43: Maximum contents observed, 80,900 acre-feet Oct. 17, 1941 (gage height, 56.8 feet); minimum observed, 20,290 acre-feet Aug. 12, 13, 1940 (gage height, 34.7 feet).

Remarks.- Reservoir is formed by earth-fill dam with rock riprap face; dam completed and storage began in October 1938. Capacity, 69,550 acre-feet between gage heights 1.6 feet (sill of lowest outlet gate) and 54.0 feet (crest of spillway). Dead storage, 450 acre-feet. Records given herein represent total contents. Water is used for municipal supply and flood control. Gage read once daily at 8 a.m. Lake Abilene on Elm Creek, Lake Kirby on Cedar Creek, and Lytle Lake on Lytle Creek (combined capacity, 19,300 acre-feet) are smaller reservoirs above station in Elm Creek Basin.

Cooperation.- Gage-height record and capacity table furnished by city of Abilene.

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	52.0	62,700	-
Oct. 31.....	53.4	67,780	+5,080
Nov. 30.....	53.3	67,410	-370
Dec. 31.....	53.5	68,150	+740
Calendar year 1942...	-	-	-1,110
Jan. 31.....	53.4	67,780	-370
Feb. 28.....	53.3	67,410	-370
Mar. 31.....	53.2	67,040	-370
Apr. 30.....	53.0	66,300	-740
May 31.....	52.2	63,420	-2,880
June 30.....	51.9	62,360	-1,070
July 31.....	51.0	59,200	-3,150
Aug. 31.....	49.8	55,100	-4,100
Sept. 30.....	49.0	52,700	-2,400
Water year 1942-43...	-	-	-10,000

† Gage height at 8 a.m.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Aquilla Creek near Aquilla, Tex.

Location.- Water-stage recorder, lat. 31°51', long. 97°12', at bridge on Abbott-Aquilla county road, three-quarters of a mile upstream from Palis Branch and 1 mile south-east of Aquilla, Hill County.

Drainage area.- 309 square miles.

Records available.- December 1924 to August 1925, December 1938 to September 1943.

Extremes.- Maximum discharge during year, 6,910 second-feet Apr. 8 (gage height, 25.63 feet); no flow Aug. 4 to Sept. 4.
 1924-25, 1938-43: Maximum discharge, 16,000 second-feet Apr. 25, 1942 (gage height, 28.94 feet), from rating curve extended above 6,500 second-feet on basis velocity-area studies and data from flood of Sept. 27, 1936; no flow at times.
 Maximum stage known, 34 feet Aug. 31, 1887, from information by local resident.
 Flood of Sept. 27, 1936, reached a stage of about 33 feet, from floodmark. Peak discharge of this flood as determined about 9 miles below station, 84,500 second-feet, by slope-area method (drainage area, 370 square miles).

Remarks.- Records good except those between 400 and 2,000 second-feet, which are fair.
 No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	107	24	42	23	17	27	10	35	2.9	0.1	0
2	7.6	51	23	41	22	17	26	10	27	2.3	.1	0
3	8.1	42	22	39	32	16	25	9.1	22	1.9	.1	0
4	11	292	22	34	51	13	22	7.6	20	1.6	.1	258
5	8.4	385	23	32	32	16	20	6.6	17	1.2	0	558
6	6.6	213	25	37	26	17	20	158	90	1.0	0	199
7	6.5	91	26	64	22	16	19	2,640	66	.8	0	8.9
8	6.1	77	26	56	20	13	2,070	4,620	36	.7	0	2.9
9	4.5	68	24	43	22	13	1,460	733	21	.6	0	1.7
10	4.2	57	24	40	22	14	125	826	15	.6	0	1.1
11	4.2	45	25	40	20	15	72	638	12	.9	0	.8
12	4.0	42	24	39	18	15	64	75	10	17	0	.6
13	3.9	41	22	37	18	23	43	68	9.4	4.5	0	.5
14	3.6	39	21	36	18	24	36	48	41	2.3	0	.4
15	4.0	38	21	36	18	20	32	43	36	1.5	0	.2
16	6.2	36	20	36	19	18	30	39	14	.9	0	.2
17	290	34	19	34	19	16	415	34	10	.6	0	2.3
18	1,690	34	19	27	20	14	217	28	9.2	.4	0	21.8
19	2,170	32	19	a21	21	14	48	24	e7	.4	0	5.6
20	143	32	53	a20	22	14	36	22	48	.3	0	2.5
21	75	32	304	a24	23	13	30	32	13	.2	0	1.4
22	56	37	775	30	23	12	29	701	7.8	.2	0	.8
23	44	39	121	31	20	12	26	175	5.5	.2	0	.5
24	36	32	72	28	19	19	23	64	4.5	.2	0	.4
25	34	32	61	27	13	653	20	44	4.0	.2	0	.3
26	30	28	58	23	17	164	17	35	4.2	.2	0	.2
27	26	25	134	21	16	63	15	29	2.9	3.1	0	.4
28	37	24	68	22	16	49	14	25	2.5	1.2	0	1.2
29	42	25	48	24	-	40	13	30	59	.5	0	1.9
30	301	24	44	25	-	33	11	89	4.4	.2	0	106
31	484	-	42	25	-	29	-	68	-	.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,562.0	2,170	3.5	176	11,010
November.....	2,064	385	24	68.5	4,070
December.....	2,199	775	19	70.9	4,360
Calendar year 1942.....	87,265.1	11,000	.6	236	173,100
January.....	1,033	64	18	37.3	2,050
February.....	1,177	51	16	27.0	1,220
March.....	1,412	653	12	47.5	2,800
April.....	4,984	2,070	11	166	9,390
May.....	11,322.3	4,620	6.6	365	22,450
June.....	733.4	90	2.5	24.4	1,450
July.....	48.6	17	.1	1.56	96
August.....	4	1	0	.01	.3
September.....	938.8	555	0	31.3	1,860
Water year 1942-43.....	30,894.4	4,620	0	84.6	61,270

Peak discharge.- Apr. 8 (8:30 p.m.) 6,910 sec.-ft.; May 7 (9:30 a.m.) 4,080 sec.-ft.; May 8 (5 p.m.) 6,190 sec.-ft.

No gage-height record; discharge computed on basis of recorded range in stage and weather records.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Bosque River near Clifton, Tex.

Location.— Staff gage above spillway of masonry dam, lat. $31^{\circ}48'$, long. $97^{\circ}33'$, 730 feet (revised) upstream from Gulf, Colorado & Santa Fe Railway bridge and 1.4 miles northwest of Clifton, Bosque County. Datum of gage is 622.7 feet above mean sea level, datum of 1929.

Drainage area.— 974 square miles.

Records available.— November 1923 to September 1943.

Average discharge.— 20 years, 226 second-feet.

Extremes.— Maximum discharge during year, 20,100 second-feet Oct. 17 (gage height, 13.30 feet, from graph based on gage readings); minimum observed, 1.8 second-feet Aug. 17 to Sept. 1.

1923-43: Maximum discharge, 38,500 second-feet Jan. 23, 1938; maximum gage height, observed, 22.10 feet May 5, 1941; no flow at times.

Flood of May 9, 1922, reached a stage of 25 feet, from information by local resident.

Remarks.— Records good. Railway company pumps about 100,000 gallons a day (0.15 second-foot) from pool formed by control dam a third of a mile below gage. Gage read twice daily, more often during high stages.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	420	159	142	99	66	87	46	84	15	5.7	3.7
2	111	343	189	142	102	66	84	41	78	15	4.8	12
3	111	304	189	142	123	64	78	37	72	12	3.7	6.6
4	105	428	159	142	117	64	72	37	66	12	3.7	117
5	102	380	159	142	117	64	72	33	61	12	3.7	734
6	99	372	155	180	111	64	66	29	184	11	3.1	236
7	96	364	155	184	102	64	61	31	142	11	2.6	77
8	93	348	155	166	93	64	654	1,050	99	11	2.6	35
9	90	318	155	182	93	64	1,030	429	78	9.4	2.6	23
10	87	289	152	149	90	64	419	a84	59	9.4	2.6	14
11	84	261	152	146	87	64	159	a76	41	11	2.6	9.4
12	81	249	149	139	84	66	117	a72	29	11	2.6	7.6
13	81	251	146	139	81	87	108	66	27	82	2.6	7.6
14	75	225	146	132	81	176	102	53	37	84	2.6	7.6
15	480	219	142	129	81	117	93	46	27	66	2.6	5.7
16	1,570	213	139	126	81	90	84	43	27	46	2.6	496
17	12,500	202	139	120	81	81	105	41	25	29	2.0	331
18	9,330	198	136	117	81	72	96	39	25	14	1.8	80
19	1,100	194	136	111	75	64	90	37	25	11	1.8	39
20	671	194	139	105	75	59	81	37	25	11	1.8	21
21	536	194	514	126	75	59	72	33	25	9.4	1.8	15
22	462	194	1,270	117	75	53	72	2,920	25	8.6	1.8	13
23	396	194	392	114	75	53	66	1,550	21	7.6	1.8	9.4
24	356	189	243	111	75	59	66	525	20	6.6	1.8	7.8
25	340	184	219	111	72	903	64	171	18	6.6	1.8	7.6
26	318	176	207	105	69	700	61	123	17	5.7	1.8	7.6
27	296	171	198	105	69	171	56	111	15	4.8	1.8	11
28	364	166	189	105	69	132	51	99	15	4.8	1.8	9.4
29	454	162	159	102	-	114	51	87	15	5.7	1.8	8.5
30	730	159	149	102	-	99	46	99	14	4.8	1.8	8.5
31	554	-	142	102	-	90	-	92	-	4.2	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	31,776	12,500	75	1,025	63,030
November.....	7,546	1,428	159	252	14,970
December.....	6,675	1,270	136	215	13,240
Calendar year 1942.....	221,637	16,300	15	607	439,660
January.....	4,005	184	102	129	7,940
February.....	2,439	123	69	87.1	4,840
March.....	3,953	903	53	128	7,840
April.....	4,263	1,030	46	142	8,460
May.....	5,140	2,920	29	263	15,140
June.....	1,396	184	14	46.5	2,780
July.....	547.5	84	4.2	17.7	1,080
August.....	77.9	5.7	1.8	2.51	154
September.....	2,360.8	734	5.7	78.7	4,680
Water year 1942-43.....	73,177.2	12,500	1.8	200	145,200

a No gage-height record; discharge computed from estimated gage-height graph and weather records. Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

BRAZOS RIVER BASIN

Leon River near Hasse, Tex.

Location.— Water-stage recorder and concrete control, lat. $31^{\circ}57'$, long. $98^{\circ}28'$, at bridge on U. S. Highway 67, 1,000 feet upstream from Gulf, Colorado & Santa Fe Railway bridge, 0.4 mile upstream from Walnut Creek, and 2.1 miles northeast of Hasse, Comanche County. Datum of gage is 1,115.1 feet above mean sea level, datum of 1929.

Drainage area.— 1,276 square miles.

Records available.— January 1939 to September 1943.

Extremes.— Maximum discharge for year, 16,400 second-feet Oct. 19 (gage height, 17.72 feet), no flow July 23 to September 3.

1939–43: Maximum discharge, that of Oct. 19, 1942; no flow at times.

Maximum stage known, about 25.0 feet in May 1908, from information by Texas State Highway Department.

Remarks.— Records good. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	459	56	54	43	35	97	25	36	3.8		0
2	33	296	54	54	44	35	85	25	32	3.3		0
3	34	154	56	54	54	33	76	23	30	2.8		0
4	39	130	54	52	58	32	68	21	27	2.5		.2
5	39	119	56	49	56	32	62	19	31	2.1		104
6	34	145	58	58	49	32	60	18	269	1.8		39
7	32	211	70	64	47	30	58	19	230	1.8		11
8	30	151	68	60	46	30	104	20	114	2.0		4.0
9	29	115	62	54	49	30	186	30	64	1.8		2.1
10	27	97	62	54	46	32	123	26	42	2.0		1.4
11	27	85	60	54	42	32	73	24	29	2.1		1.0
12	26	76	58	56	40	45	62	23	24	2.0		.7
13	25	73	58	54	40	190	54	22	21	2.0		.5
14	24	73	56	50	40	64	50	20	19	2.4		.4
15	98	73	54	50	40	46	47	20	19	2.5		.2
16	199	73	54	50	39	37	44	20	16	1.5		.5
17	889	70	52	49	39	34	152	19	15	1.3		2.0
18	6,720	68	52	46	40	32	122	18	13	1.1		2.7
19	14,000	68	52	40	42	30	66	18	37	a.7		1.2
20	5,970	68	66	40	42	28	56	20	39	a.5		.7
21	2,170	68	136	43	43	27	50	57	23	a.3		.5
22	1,040	64	219	46	40	28	47	644	15	a.2		.4
23	531	62	164	47	40	26	47	1,320	12	a0		.3
24	322	60	127	46	39	60	44	562	11	0		.3
25	229	60	91	46	35	797	39	306	8.7	0		.3
26	171	60	76	43	34	1,020	35	194	7.2	0		.6
27	145	58	70	40	34	1,260	34	100	5.8	0		.8
28	123	58	64	42	35	648	33	64	5.1	0		.9
29	108	58	58	43	—	322	30	54	5.1	0		1.0
30	198	58	60	43	—	211	28	52	4.0	0		463
31	245	—	58	43	—	130	—	43	—	0		—

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	33,590	14,000	24	1,030	66,620
November.....	3,210	459	58	107	6,370
December.....	2,279	219	52	73.6	4,520
Calendar year 1942.....	172,401.8	14,000	2.7	472	342,000
January.....	1,524	64	40	49.2	3,020
February.....	1,196	68	34	42.7	2,370
March.....	5,374	1,250	25	173	10,660
April.....	2,032	186	28	67.7	4,080
May.....	3,826	1,320	18	123	7,590
June.....	1,203.9	269	4.0	40.1	2,390
July.....	40.5	3.8	0	1.30	80
August.....	0	0	0	0	0
September.....	539.7	463	0	21.3	1,270
Water year 1942-43.....	54,915.1	14,000	0	150	108,900

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis: Great war time. To convert war time to standard time, subtract 1 hour.

Leon River near Belton, Tex.

Location.- Water-stage recorder above spillway of concrete dam, lat. $31^{\circ}04'15''$, long. $97^{\circ}28'30''$, 1,400 feet upstream from bridge on U. S. Highway 81 and 2 miles east of Belton, Bell County. Datum of gage is 476.9 feet above mean sea level, datum of 1929.

Drainage area.- 3,547 square miles.

Records available.- October 1923 to September 1943.

Average discharge.- 20 years, 705 second-feet.

Extremes.- Maximum discharge during year, 14,000 second-feet Oct. 18 (gage height, 10.15 feet); minimum, 5.7 second-feet Aug. 31, Sept. 1.

1923-43: Maximum discharge, 51,100 second-feet Sept. 23, 1936 (gage height, 20.0 feet), by slope-area method; no flow at times.

Maximum stage known, 25 feet sometime in December 1913. Flood of September 1921 reached a stage of 21.0 feet. Stages from information by local residents.

Remarks.- Records good. Several small pumping plants divert water above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	1,480	438	447	290	240	1,420	172	320	64	53	6.0
2	398	1,390	438	422	290	234	960	172	261	64	38	388
3	382	1,500	430	414	297	220	622	172	234	60	29	207
4	398	1,200	414	398	297	220	512	160	207	53	24	165
5	375	1,140	406	390	297	220	430	143	194	60	24	202
6	351	1,060	398	390	290	220	375	149	177	47	22	105
7	343	1,170	398	406	290	213	343	194	160	44	20	149
8	343	1,050	398	422	282	213	335	220	149	41	18	360
9	343	971	398	430	290	220	532	166	138	41	16	166
10	320	860	390	422	282	220	648	143	134	41	16	84
11	305	831	406	438	275	220	624	382	207	307	16	53
12	297	822	382	438	267	227	1,760	447	305	149	16	41
13	282	755	406	422	254	220	982	240	247	124	14	64
14	282	701	398	406	261	227	588	194	200	80	11	47
15	297	655	398	390	254	220	471	177	160	80	11	35
16	430	640	390	382	254	213	362	166	136	64	9.5	29
17	444	631	359	375	247	207	343	134	124	47	9.5	40
18	6,740	622	351	359	247	227	343	115	115	44	11	288
19	fs, 760	597	351	343	247	320	396	110	105	38	11	258
20	fs, 250	588	351	335	247	261	512	101	96	33	9.6	644
21	fs, 920	580	406	382	240	220	375	172	86	32	9.5	227
22	6,480	580	728	313	240	207	351	134	84	32	9.5	115
23	6,490	580	687	306	240	207	352	80	29	29	9.5	80
24	6,500	546	657	305	240	234	313	261	80	26	8.0	72
25	9,550	554	930	305	247	596	282	625	80	24	7.0	64
26	8,290	529	900	297	240	692	275	1,210	76	26	7.0	60
27	4,200	604	701	297	240	512	247	1,180	84	29	6.0	64
28	1,760	488	588	297	234	479	234	1,250	80	22	7.0	76
29	1,530	471	538	297	-	588	207	768	76	29	6.0	64
30	1,360	463	496	290	-	1,000	177	512	68	32	6.0	80
31	1,510	-	455	282	-	1,280	-	390	-	39	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	74,144	9,550	282	2,593	147,100
November.....	24,768	1,280	463	82	49,130
December.....	14,956	930	351	48	29,660
Calendar year 1942.....	622,256	25,200	101	1,705	1,234,000
January.....	11,346	447	282	36	22,500
February.....	7,379	297	234	26	14,640
March.....	10,577	1,280	207	34	20,930
April.....	18,213	1,760	177	53	31,560
May.....	10,597	1,250	101	34	21,080
June.....	4,467	320	68	14	8,860
July.....	1,792	307	22	57.8	3,550
August.....	460	83	6.0	14.8	912
September.....	4,213	644	6.0	14	8,360
Water year 1942-43.....	180,611	9,550	6.0	49	358,300

Peak discharge.- Oct. 18 (5 p.m.) 14,000 sec.-ft.; Oct. 21 (10 p.m.) 7,690 sec.-ft.; Oct. 25 (11 a.m.) 5,810 sec.-ft.

† Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Little River at Cameron, Tex.

Location.- Water-stage recorder, lat. 30°50', long. 96°57', at site of old McCowan bridge, 2,100 feet upstream from bridge on U. S. Highway 77 and 2 miles southeast of Cameron, Milam County. Datum of gage is 281.9 feet above mean sea level, datum of 1929.

Drainage area.- 7,034 square miles.

Records available.- November 1916 to September 1943.

Average discharge.- 26 years (1917-43), 1,961 second-feet.

Extremes.- Maximum discharge during year, 9,920 second-feet Oct. 20 (gage height, 26.35 feet); minimum, 50 second-feet Sept. 1.

1916-43: Maximum discharge, 647,000 second-feet Sept. 10, 1921 (gage height, 53.2 feet, present datum, from floodmark), by slope-area method; minimum, 2.8 second-feet, Sept. 3, 5, 7, 1918.

Flood of 1852 reached about the same stage as that of Sept. 10, 1921. Flood of December 1913 reached a stage of 49.0 feet. Stages based on information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor.

Many small diversions for irrigation and municipal supply affect very low flows.

Slight regulation caused by pumping above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	694	12,360	942	1,040	744	555	1,470	424	1,400	166	226	60
2	678	12,260	942	1,010	728	549	1,640	414	711	160	177	60
3	662	12,180	942	1,010	728	543	1,540	404	562	156	151	55
4	711	12,140	909	975	728	537	1,240	394	496	153	137	278
5	3,010	2,420	909	909	744	531	1,070	381	513	151	121	361
6	3,550	3,450	876	909	728	525	942	354	496	143	105	562
7	1,690	5,240	876	1,010	711	520	843	606	434	139	96	1,210
8	909	2,920	876	1,170	694	514	1,360	2,540	391	134	91	876
9	810	12,030	876	1,110	678	508	7,760	975	361	129	86	579
10	760	11,780	876	1,040	678	502	3,720	728	332	124	82	496
11	744	11,610	876	1,010	662	496	1,610	2,890	306	121	84	325
12	711	1,470	876	1,040	645	490	1,340	1,440	296	150	87	226
13	678	11,440	876	1,240	620	484	1,860	794	381	1,260	86	181
14	662	11,440	876	1,240	612	478	1,710	620	427	868	82	154
15	694	11,400	843	1,070	612	472	1,210	496	361	480	82	151
16	1,100	11,370	826	1,010	596	466	1,040	447	364	290	76	149
17	1,220	11,340	810	975	596	460	975	417	309	231	72	129
18	2,030	11,300	794	909	596	456	942	391	270	194	69	116
19	5,760	11,270	777	876	596	456	942	355	246	156	67	113
20	9,420	11,270	777	826	596	456	909	328	234	137	64	257
21	6,640	11,240	794	810	596	475	909	318	224	131	63	369
22	6,620	1,670	2,210	810	711	1,210	404	217	119	62	546	60
23	6,900	1,710	2,320	826	645	1,010	399	209	113	61	312	81
24	5,870	11,340	1,780	810	1,596	620	562	205	107	59	209	246
25	5,290	11,170	1,400	810	579	4,170	530	2,150	196	105	57	164
26	7,080	11,140	3,220	794	573	7,880	496	1,810	187	102	56	147
27	6,250	1,070	4,460	760	567	2,640	480	1,340	179	105	56	151
28	6,940	1,040	2,420	744	561	1,680	464	1,340	172	96	55	177
29	3,400	1,010	1,370	744	-	1,340	447	1,440	172	147	54	229
30	12,700	975	1,210	744	-	1,210	437	11,920	172	125	53	321
31	12,500	-	1,110	744	-	1,170	-	13,120	-	141	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	98,283	9,420	662	3,170	194,900
November	52,975	5,240	975	1,775	105,100
December	40,149	4,460	777	1,275	79,630
Calendar year 1942	1,084,060	49,600	249	2,970	2,150,000
January	28,975	1,240	744	935	57,470
February	18,120	744	561	647	35,940
March	31,945	7,880	-	1,070	63,360
April	40,746	7,780	437	1,378	80,820
May	30,457	3,120	318	932	60,410
June	10,845	1,400	172	331	21,510
July	6,631	1,260	96	214	13,160
August	2,669	226	52	86.1	5,230
September	8,935	1,210	55	370	17,820
Water year 1942-43	370,778	9,420	52	1,016	735,400

Peak discharge.- Oct. 20 (10 a.m.) 9,920 sec.-ft.; Oct. 23 (1 p.m.) 7,000 sec.-ft.; Oct. 27 (2 p.m.) 8,300 sec.-ft.; Dec. 26 (7 p.m.) 5,840 sec.-ft.; Mar. 26 (5 a.m.) 9,590 sec.-ft.; Apr. 9 (1:30 p.m.) 5,360 sec.-ft.

† Computed on basis of partly estimated gage-height record.

Note.- No gage-height record Feb. 26 to Mar. 24, Mar. 28-31, Apr. 4-7, 12, Apr. 15 to May 5; discharge computed on basis of floodmarks, weather records, engineer's notes, and records for stations upstream.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lampasas River at Youngsport, Tex.

Location.- Water-stage recorder, lat. 30°57', long. 97°43', 300 feet upstream from bridge on county highway and half a mile southeast of Youngsport, Bell County.

Drainage area.- 1,242 square miles.

Records available.- February 1924 to September 1943.

Average discharge.- 19 years, 297 second-feet.

Extremes.- Maximum discharge during year not determined; minimum, 3.4 second-feet Aug. 25, 1924-43: Maximum discharge, 53,200 second-feet Sept. 28, 1936 (gage height, 33.5 feet, from floodmarks), from rating curve extended above 40,000 second-feet; no flow July 17 to Aug. 18, 1925, July 22, 23, Aug. 9 to Sept. 8, 1934.
Flood of September 1873 reached a stage of 44.2 feet and that of Dec. 2, 1913, reached a stage of 33.6 feet, present datum, from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Small diversions above station for municipal uses.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	243	127	129	96	66	90	51	51	13	16	4.6
2	57	194	127	128	94	69	90	48	48	13	13	5.0
3	91	180	123	127	93	69	83	42	45	13	11	51.0
4	280	172	123	127	92	66	79	40	42	13	9.7	274
5	119	185	119	126	90	66	76	40	42	12	9.0	1,260
6	76	249	119	125	89	66	76	37	40	12	6.4	830
7	66	254	119	124	88	66	72	300	37	11	7.7	278
8	63	238	123	123	87	63	128	146	35	11	7.7	119
9	60	204	123	122	86	63	250	72	32	11	7.2	72
10	57	180	123	122	85	66	259	63	32	10	7.2	48
11	57	168	119	121	84	66	159	76	30	14	6.6	37
12	54	159	119	120	83	66	123	57	28	38	6.6	26
13	51	155	116	119	82	69	104	54	28	63	6.6	25
14	51	155	112	119	81	69	94	48	30	30	5.5	23
15	77	155	108	118	80	66	83	42	26	20	5.0	20
16	112	150	108	117	79	66	79	42	25	16	5.0	21
17	97	146	104	116	78	57	230	40	23	13	4.6	21
18	5,540	146	104	116	77	54	135	37	21	13	4.6	32
19	918	142	104	108	76	54	101	35	21	12	4.2	28
20	430	142	104	107	75	54	90	206	35	9.7	4.2	23
21	302	146	174	106	74	54	83	268	26	9.0	4.2	19
22	248	242	353	105	73	51	79	112	21	9.0	4.2	18
23	214	189	297	104	72	51	76	112	20	8.4	4.2	15
24	194	163	163	103	72	103	72	180	19	7.7	4.2	14
25	180	150	135	102	72	565	69	135	17	7.2	3.8	15
26	172	146	134	101	69	402	66	119	16	7.2	3.8	19
27	163	138	133	100	66	204	60	69	15	24	4.2	32
28	185	131	132	99	66	150	57	60	14	30	4.2	42
29	284	131	131	98	-	123	54	60	14	21	4.6	51
30	228	127	131	97	-	108	51	60	13	26	4.6	48
31	296	-	130	97	-	101	-	57	-	20	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,756	3,540	51	282	17,370
November.....	5,180	254	127	173	10,270
December.....	4,227	353	104	136	8,380
Calendar year 1942	161,143	11,000	26	441	319,600
January.....	3,526	129	97	114	6,990
February.....	2,259	96	66	80.7	4,480
March.....	3,193	565	51	103	6,330
April.....	3,068	259	51	102	6,090
May.....	2,708	300	35	87.4	5,370
June.....	846	51	13	28.2	1,680
July.....	517.2	63	7.2	16.7	1,030
August.....	196.4	16	3.8	6.54	390
September.....	3,927.6	1,260	4.6	131	7,790
Water year 1942-43.....	38,404.2	3,540	3.8	105	76,170

f Computed on basis of partly estimated gage-height record.

Note.- No gage-height record Dec. 23 to Jan. 16, Jan. 20 to Feb. 22, Mar. 13-16; discharge computed on basis of recorded range in stage, weather records, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

San Gabriel River at Georgetown, Tex.

Location.- Water-stage recorder and concrete control, lat. 30°39'10", long. 97°39'20", 100 feet downstream from Missouri-Kansas-Texas Railroad bridge, 1½ miles downstream from confluence of North and South Forks, and 1½ miles northeast of Georgetown, Williamson County. Datum of gage is 643.34 feet above mean sea level, datum of 1929.

Drainage area.- 415 square miles.

Records available.- July 1934 to September 1943. February 1924 to August 1925 at site 1 mile upstream; records equivalent except those for extremely low flow.

Extremes.- Maximum discharge during year, 7,800 second-feet Oct. 14, 18; maximum gage height, 8.32 feet Oct. 18; minimum discharge not determined; minimum daily, 0.4 second-foot (regulated) July 16.

1924-25, 1934-43: Maximum discharge, 34,500 second-feet June 30, 1940 (gage height, 18.46 feet), from rating curve extended above 24,000 second-feet; minimum, 0.2 second-foot (regulated) July 31, Aug. 1, 29, 30, 1942.

Maximum stage known, 39.36 feet, present datum, September 1921 (discharge, 160,000 second-feet, by slope-area method), from information by Missouri-Kansas-Texas Railroad Co.

Remarks.- Records good except those for periods of fragmentary or no gage-height record, which are poor. Several small diversions have some effect on low flow which is also regulated at times by gates in recreation dam 3,000 feet above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	118	68	69	61	40	48	112	24	9.0	14	3.7
2	26	113	67	68	61	40	47	116	23	9.0	6.1	4.1
3	27	113	66	68	63	39	46	19	21	9.0	1.1	4.1
4	2,210	111	65	64	63	38	44	17	120	9.0	1.1	115
5	234	119	65	64	61	39	42	16	19.4	8.6	3.9	31
6	105	121	61	77	59	36	41	17	115	9.0	5.0	13
7	78	120	64	90	57	36	40	545	18	8.6	5.0	9.3
8	67	111	62	84	55	35	56	85	16	8.6	a5.0	6.7
9	60	104	61	76	56	36	104	41	15	8.1	a5.0	5.7
10	57	97	62	73	54	36	68	36	14	8.6	a5.0	2.4
11	54	89	62	72	51	35	54	31	13	8.6	a5.0	.9
12	52	88	60	79	50	36	49	32	12	6.0	a5.0	1.1
13	50	89	68	83	50	36	43	26	14	32	4.9	1.1
14	48	88	57	76	50	35	40	23	30	31	4.5	3.4
15	575	87	57	73	49	35	40	21	17.7	19.6	4.5	4.5
16	220	85	55	72	49	33	40	21	11.8	1.4	4.5	4.9
17	113	84	53	70	49	32	40	20	9.5	7.5	4.5	5.3
18	2,080	82	52	68	50	32	39	8.6	9.5	7.5	4.1	4.9
19	434	80	52	65	50	31	38	24	9.5	6.7	4.1	4.9
20	241	81	52	65	50	30	37	45	9.0	6.3	4.1	4.9
21	188	113	143	55	55	29	36	74	9.5	5.6	4.1	4.9
22	162	98	276	67	49	28	36	39	9.0	5.6	4.1	4.9
23	146	98	108	67	45	27	35	56	9.0	5.4	4.1	4.9
24	135	85	84	66	44	60	33	72	9.0	28	4.1	4.9
25	135	82	75	64	42	248	32	45	9.0	.6	3.7	5.3
26	130	75	85	62	41	109	31	32	8.6	1.1	3.7	7.6
27	122	70	80	61	41	69	30	26	9.0	2.7	3.7	26
28	128	70	74	61	40	59	28	23	8.6	6.7	3.7	11
29	127	70	69	62	-	54	27	25	8.1	7.2	3.7	4.1
30	190	68	69	63	-	50	27	32	9.0	77	3.7	4.9
31	140	-	59	64	-	49	-	26	-	25	3.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9,327	2,210	25	269	16,580
November.....	2,809	121	68	53.6	5,570
December.....	2,330	276	52	75.2	4,620
Calendar year 1942.....	45,745.7	5,920	.2	155	90,736
January.....	2,158	90	61	69.6	4,280
February.....	1,445	63	40	11.6	2,870
March.....	1,512	248	27	48.8	3,000
April.....	1,270	104	27	48.3	2,550
May.....	1,505.6	545	8.6	48.6	2,990
June.....	380.2	30	1.8	12.7	754
July.....	422.1	77	.4	13.6	837
August.....	138.7	14	1.1	4.47	275
September.....	309.4	115	.9	10.3	614
Water year 1942-43.....	22,607.0	2,210	.4	61.9	44,850

Peak discharge.- Oct. 4 (9:30 a.m.) 7,800 sec.-ft.; Oct. 15 (3 p.m.) 1,690 sec.-ft.; Oct. 18 (11:30 a.m.) 7,800 sec.-ft.; May 7 (7 a.m.) 2,530 sec.-ft.

a No gage-height record; discharge computed on basis of construction engineer's notes.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Yegua Creek near Somerville, Tex.

Location.- Water-stage recorder, lat. 30°19', long. 96°30', at bridge on State Highway 36, 760 feet downstream from Gulf, Colorado & Santa Fe Railway bridge, 2 miles south of Somerville, Burleson County, and 5 miles upstream from Davidson Creek. Datum of gage is 199.29 feet above mean sea level, datum of 1929.

Drainage area.- 990 square miles.

Records available.- May 1924 to September 1943.

Average discharge.- 19 years, 321 second-feet.

Extremes.- Maximum discharge during year, 1,050 second-feet May 31 (gage height, 6.64 feet); no flow at times.

1924-43: Maximum discharge, 56,800 second-feet July 1, 1940 (gage height, 19.27 feet); no flow at times.

Maximum stage known, about 22.0 feet, present site and datum, Dec. 5, 1913, from information by chief engineer, Gulf, Colorado & Santa Fe Railway Co.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	0.2	17	249	15	21	147	5.0	835	0	1.3	0
2	1.2	.1	13	156	14	17	79	2.4	430	0	.6	0
3	1.0	.1	10	88	15	14	53	1.7	216	0	.3	0
4	.8	.4	7.7	52	15	12	41	1.4	129	0	.1	0
5	.6	17	6.6	35	15	12	33	1.2	78	0	.1	0
6	.4	204	5.2	35	14	11	28	.9	49	0	0	0
7	.3	375	4.6	247	14	10	24	2.6	33	0	0	0
8	.2	251	3.7	461	13	9.0	22	43	37	0	0	0
9	.1	85	3.1	238	13	8.3	110	101	35	0	0	0
10	.1	45	2.9	86	13	8.6	79	54	26	0	0	.2
11	.1	30	2.7	49	12	9.0	38	83	18	0	0	1.2
12	0	20	2.4	296	10	8.6	22	99	13	0	0	1.5
13	0	15	2.2	907	9.6	8.8	17	62	10	5.6	0	1.4
14	0	12	2.0	968	9.2	8.8	14	45	7.5	2.3	0	.8
15	0	8.4	1.8	546	8.6	8.8	12	33	6.1	.7	0	.4
16	0	6.7	1.6	196	8.3	8.6	11	21	4.7	.3	0	.2
17	0	5.1	1.4	110	7.9	8.6	11	15	3.5	.1	0	.1
18	0	4.0	1.3	77	7.9	8.4	10	11	2.5	.1	0	.1
19	22	3.0	1.4	54	7.9	8.8	8.8	8.1	1.9	0	0	0
20	103	2.6	1.4	40	8.1	9.0	7.9	6.1	1.4	0	0	0
21	58	2.2	2.2	32	8.3	8.6	7.2	4.5	1.1	0	0	0
22	14	7.2	19	27	70	8.1	6.7	44	.8	0	0	0
23	5.6	56	33	24	88	7.9	6.1	274	.6	0	0	0
24	2.8	56	22	21	48	9.0	5.6	348	.4	0	0	0
25	1.6	52	13	20	44	249	6.0	308	.2	0	0	0
26	1.0	39	31	18	35	590	6.4	118	.2	0	0	0
27	.6	49	442	17	31	788	6.1	71	.1	0	0	0
28	.6	46	448	16	26	866	5.2	40	.1	0	0	0
29	.4	33	180	16	-	722	4.3	115	0	19	0	53
30	.3	23	120	16	-	590	3.7	553	0	17	0	298
31	.2	-	194	16	-	356	-	926	-	3.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	216.2	103	0	6.67	429
November.....	1,448.0	375	.1	48.7	2,870
December.....	1,596.2	448	1.3	51.5	3,170
Calendar year 1942.....	36,693.5	6,240	0	101	72,790
January.....	5,013.0	968	16	162	9,940
February.....	580.8	88	7.9	20.7	1,150
March.....	4,394.9	956	7.9	142	8,720
April.....	825.0	147	3.7	27.7	1,640
May.....	3,395.9	926	.9	110	6,740
June.....	1,940.1	835	0	64.7	3,650
July.....	48.3	19	0	1.6	96
August.....	2.4	1.3	0	.08	4.8
September.....	356.9	298	0	11.6	708
Water year 1942-43.....	19,817.7	968	0	54.7	39,320

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

BRAZOS RIVER BASIN

Navasota River near Easterly, Tex.

Location.- Water-stage recorder, lat. 31°10'10", long. 96°17'55", at bridge on U. S. Highway 79, 1 mile upstream from Missouri Pacific Railroad bridge and 6 miles northeast of Easterly, Robertson County. Datum of gage is 276.42 feet above mean sea level, datum of 1929.

Drainage area.- 949 square miles.

Records available.- March 1924 to September 1943.

Average discharge.- 19 years, 416 second-feet.

Extremes.- Maximum discharge during year, 4,900 second-feet Dec. 30 (gage height, 15.24 feet); minimum, 0.1 second-foot Sept. 18, 19.

1924-43: Maximum discharge, 53,200 second-feet Sept. 5, 1932 (gage height, 21.9 feet, from floodmark), from rating curve extended above 35,500 second-feet; no flow at times.

Maximum stage known, about 24.0 feet in 1900, from information by local residents (discharge, about 71,000 second-feet, from rating curve extended above 35,000 second-feet).

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	18	9.5	1,550	30	19	94	12	875	5.8	2.2	0.3
2	4.4	25	9.0	294	29	20	72	10	580	5.8	1.7	.3
3	4.2	55	8.8	147	30	20	64	9.5	750	4.8	1.2	.4
4	4.2	80	8.6	108	31	20	69	8.1	570	5.8	1.0	.4
5	4.8	115	8.1	87	34	20	48	7.4	147	3.2	.9	.4
6	4.6	238	7.5	88	37	19	39	6.6	114	2.8	.9	.3
7	4.6	716	8.3	187	38	18	53	8.8	97	2.5	.8	.3
8	4.2	652	8.6	182	37	18	50	9.5	249	2.2	.8	.3
9	4.1	770	8.6	260	33	18	244	12	544	2.0	a.8	.3
10	3.8	952	12	398	31	17	508	274	750	1.8	a.7	.3
11	3.7	1,020	12	272	27	17	710	303	406	1.8	a.7	.2
12	3.6	382	11	192	24	19	890	202	97	1.8	a.7	.2
13	3.5	114	9.8	212	23	18	643	404	59	49	a.7	.2
14	3.4	68	8.8	197	23	18	152	314	44	47	a.7	.2
15	3.6	49	8.8	172	24	18	98	138	35	24	a.7	.2
16	3.9	38	8.1	123	21	19	67	78	29	15	a.6	.2
17	4.2	32	7.8	94	20	20	51	54	25	10	a.6	.2
18	5.6	27	7.8	73	19	21	42	40	21	7.6	a.5	.2
19	6.4	24	7.8	58	20	24	35	31	17	5.6	a.5	.2
20	5.4	21	8.1	50	21	26	37	25	16	4.4	a.4	.2
21	33	18	12	44	22	29	65	21	13	3.7	a.4	.2
22	306	18	23	43	24	24	45	19	11	3.1	a.4	.2
23	157	17	21	38	22	21	33	19	9.3	2.7	a.4	.2
24	69	16	17	34	22	20	26	18	7.6	2.3	a.3	.2
25	47	14	26	34	21	106	22	24	6.6	2.2	.3	.2
26	35	14	134	34	21	407	20	24	6.0	1.9	.3	.2
27	27	15	1,300	35	21	790	17	22	5.4	1.9	.3	1.0
28	26	14	1,550	33	20	1,060	16	15	5.1	1.9	.3	1.9
29	23	12	3,040	36	-	1,060	15	92	4.6	2.6	.7	1.9
30	22	11	4,000	35	-	273	14	266	4.4	3.1	.8	2.1
31	26	-	2,740	32	-	128	-	765	-	3.0	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	858.0	306	3.4	27.7	1,700
November.....	5,575	1,020	11	186	11,060
December.....	13,022.1	4,000	7.6	420	25,850
Calendar year 1942.....	120,165.2	14,200	1.5	529	258,500
January.....	5,098	1,530	32	164	10,110
February.....	723	38	19	25.8	1,430
March.....	4,307	1,060	17	139	8,540
April.....	4,199	890	14	140	8,330
May.....	3,234.9	765	6.6	104	6,420
June.....	5,478.0	875	4.4	185	10,370
July.....	229.5	49	1.8	7.40	455
August.....	21.7	2.2	.2	.70	43
September.....	13.4	2.1	.2	.45	27
Water year 1942-43.....	42,759.6	4,000	.2	117	84,820

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Brazos Valley Irrigation Co.'s canal near Fulshear, Tex.

Location.- Water-stage recorder, lat. $29^{\circ}39'$, long. $95^{\circ}54'$, 1 mile downstream from point of diversion and 3 miles south of Fulshear, Fort Bend County.

Records available.- October 1931 to September 1943.

Average discharge.- 12 years, 60.1 second-feet.

Extremes.- Maximum daily discharge during year, 345 second-feet June 3; no flow at times. 1931-43: Maximum daily discharge, 363 second-feet May 17, 1942; no flow several months each year.

Remarks.- Records good. Station above all diversions from canal. Flow controlled by pumping plant. Canal diverts water from left bank of Brazos River 18 miles above Richmond for irrigation near Sugarland. Figures of discharge represent water actually pumped from Brazos River into canal.

Monthly discharge, in second-feet, water year
October 1942 to September 1943

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0
November.....	0	0	0	0
December.....	0	0	0	0
Calendar year 1942.	363	0	91.2	66,010
January.....	0	0	0	0
February.....	0	0	0	0
March.....	0	0	0	0
April.....	213	0	93.2	5,550
May.....	305	95	221	13,560
June.....	345	222	291	17,330
July.....	276	0	222	13,640
August.....	285	0	240	14,760
September.....	240	0	175	10,430
Water year 1942-43.	345	0	104	75,270

Richmond Irrigation Co.'s canal near Richmond, Tex.

Location.- Water-stage recorder, lat. $29^{\circ}34'$, long. $95^{\circ}47'$, 600 feet downstream from crossing of U. S. Highway 90, $1\frac{1}{2}$ miles downstream from point of diversion, and $1\frac{1}{2}$ miles west of Richmond, Fort Bend County.

Records available.- October 1931 to September 1943.

Average discharge.- 12 years, 31.8 second-feet.

Extremes.- Maximum daily discharge during year, 120 second-feet May 29, 30, June 2, 3, 13, July 30 to Aug. 1; no flow at times. 1931-43: Maximum daily discharge, 234 second-feet June 5, 6, 1938; no flow at times.

Remarks.- Records good except those above 80 second-feet, which are poor. All diversions from canal are below station. Flow controlled by pumping plant. Canal diverts water from right bank of Brazos River 6 miles upstream from Richmond for irrigation.

Monthly discharge, in second-feet, water year October 1942
to September 1943

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0
November.....	0	0	0	0
December.....	0	0	0	0
Calendar year 1942	140	0	41.6	30,160
January.....	0	0	0	0
February.....	0	0	0	0
March.....	4.3	0	.28	17
April.....	1.7	0	.32	19
May.....	120	1.9	97.6	6,000
June.....	120	47	106	6,290
July.....	116	96	102	6,270
August.....	116	87	98.7	6,070
September.....	106	5.5	75.4	4,490
Water year 1942-43	120	0	40.3	29,160

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River at Robert Lee, Tex.

Location.- Water-stage recorder, lat. $31^{\circ}53'05''$, long. $100^{\circ}28'45''$, at bridge on State Highway 208 in Robert Lee, Coke County, half a mile upstream from Mountain Creek. Datum of gage is 1,771.7 feet above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Drainage area.- 15,770 square miles, of which 11,500 square miles is probably non-contributing.

Records available.- April 1939 to September 1943. September 1915 to September 1920 (October 1918 to October 1920, gage heights only), at site near Bronte, 16 miles downstream; October 1923 to December 1927, at site near Robert Lee, 9 miles downstream. Records equivalent except during periods of local runoff between sites.

Average discharge.- 10 years (1915-18, 1924-27, 1939-43), 208 second-feet.

Extremes.- Maximum discharge during year, 6,400 second-feet Oct. 18 (gage height, 9.65 feet, from floodmark); no flow at times.
1939-43: Maximum discharge, 31,700 second-feet June 22, 1939 (gage height, 21.70 feet, from graph based on gage readings), by slope-area method; no flow at times.

Remarks.- Records good except those for periods of no gage-height record, which are poor. About 2,200 acres irrigated above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a50	130	5.8	32		4.2	28	2.2	40	9.3	0.6	0
2	a46	62	5.8	28		4.5	25	1.5	119	136	0	0
3	a46	41	5.2	24		4.2	22	1.5	77	186	0	0
4	a44	33	5.8	23		4.0	18	1.1	53	92	0	0
5	a42	28	5.8	22		4.2	16	.7	41	207	0	.1
6	a40	25	6.9	22	a5.8	4.0	14	1.8	33	138	0	.4
7	a38	24	9.3	21		3.8	12	1.3	255	141	0	0
8	a36	24	8.6	20		3.8	13	1.5	2,280	64	0	0
9	a34	22	8.6	19		3.8	11	2.4	1,140	41	0	0
10	a32	21	10	19		3.6	10	5.0	618	90	0	0
11	a30	18	15	18		3.8	10	4.0	231	53	0	0
12	a28	17	18	17		3.8	6.9	6.4	125	33	0	0
13	a26	16	16	16	5.2	4.0	4.0	38	77	22	0	0
14	a24	14	16	15	5.2	4.0	2.4	23	a57	31	0	0
15	a22	13	15	14	5.8	4.2	6.3	16	a51	21	0	0
16	a20	13	14	14	5.0	3.6	21	13	a46	118	0	0
17		12	14	13	5.0	3.4	21	12	a43	55	0	0
18	al, 100	11	12	11	5.2	3.6	17	12	a39	27	0	0
19		11	11	11	5.2	2.8	15	51	a36	17	0	0
20		10	14	18	6.3	2.8	13	38	a32	38	0	0
21		11	25	9.3	5.8	3.0	11	32	a28	31	0	0
22		9.3	189	8.0	5.0	2.8	9.3	405	a25	18	0	0
23		8.6	257	7.4	5.0	3.0	6.9	2,040	a22	13	0	0
24	a65	8.6	231	6.9	4.5	84	5.8	862	a19	8.0	0	0
25		8.0	222	6.9	4.5	57	3.8	384	a17	5.2	0	0
26		8.0	152	6.9	4.5	55	2.6	223	a14	4.2	0	.7
27		6.9	108	6.3	4.5	114	8.0	138	a13	3.8	0	.7
28	43	6.9	77		4.5	70	6.9	90	a11	3.0	0	.2
29	39	6.9	58		-	48	5.0	60	8.6	2.4	0	0
30	97	6.3	46	a5.8	-	39	2.6	48	8.6	2.0	0	0
31	116	-	38		-	34	-	39	-	1.3	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,710	130	20	18.4	11,330
November.....	625.5	257	6.3	23.8	1,240
December.....	1,599.8		5.2	5.6	3,170
Calendar year 1942.....	55,018.2	11,900	0	15.7	109,100
January.....	452.9	32	-	14.6	898
February.....	150.8	-	-	5.39	298
March.....	585.9	114	2.8	13.9	1,180
April.....	347.5	28	2.4	11.6	689
May.....	4,551.4	2,040	.7	147	9,030
June.....	5,359.2	2,080	8.6	17.3	10,630
July.....	1,611.2	207	1.3	53.0	3,200
August.....	.6	.6	0	.02	1.2
September.....	2.1	.7	0	.07	4.2
Water year 1942-43.....	20,996.9	-	0	57.5	41,650

Peak discharge.- Oct. 18 (12:30 a.m.) 6,400 sec.-ft.; May 23 (5 a.m.) 2,610 sec.-ft.; June 8 (12:30 a.m.) 5,800 sec.-ft.

a No gage-height record; discharge computed on basis of floodmarks, weather record, recorded range in stage, and engineer's notes.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River at Ballinger, Tex.

Location.- Water-stage recorder, lat. 31°43'50", long. 99°56'25", at bridge on U. S. Highway 83 in Ballinger, Runnels County, 2,000 feet upstream from Elm Creek. Datum of gage is 1,593.7 feet above mean sea level, datum of 1929.

Drainage area.- 16,840 square miles, of which 11,500 square miles is probably noncontributing.

Records available.- June 1907 to September 1943 (June 1907 to November 1915, monthly records only, in Water-Supply Paper 850). U. S. Weather Bureau collected gage-height records in this vicinity from 1903 to 1929.

Average discharge.- 36 years, 420 second-feet.

Extremes.- Maximum discharge during year, 5,550 second-feet Oct. 18; maximum gage height, 7.53 feet Oct. 17 (affected by backwater from Elm Creek); no flow at times.
1907-43: Maximum discharge, 75,400 second-feet Sept. 18, 1936 (gage height, 28.6 feet); no flow at times.

Maximum stage known, about 36.0 feet sometime in 1884, present site and datum, from information by local residents. A stage of about 32.0 feet occurred Aug. 6, 1906, present site and datum, from floodmarks (affected by backwater from Elm Creek).

Remarks.- Records good except those affected by backwater, which are poor. Small diversions above station for irrigation affect low flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	168	28	76	28	18	46	6.8	82	14	1.4	0
2	61	200	28	71	28	18	44	5.4	51	70	1.3	.1
3	87	132	28	68	28	17	37	4.8	81	88	1.0	.2
4	63	108	28	63	28	16	35	3.0	82	188	.7	.3
5	56	90	28	61	28	17	33	2.6	58	108	.6	.3
6	53	90	28	61	28	16	30	2.8	44	164	.5	.8
7	46	76	28	58	28	17	26	2.6	33	146	.4	30
8	41	74	28	56	26	17	30	2.2	1884	143	.3	14
9	37	71	30	53	24	17	26	2.2	1778	88	.2	6.0
10	35	63	30	53	24	16	30	10	798	56	.2	2.6
11	33	74	30	51	22	16	28	4.2	437	71	.2	2.0
12	33	56	30	51	20	17	22	2.2	240	76	.2	1.6
13	33	53	30	49	20	17	22	1.9	143	49	.2	1.5
14	35	51	33	49	20	17	24	2.4	90	935	.2	1.3
15	85	51	35	46	20	18	22	47	68	990	.2	1.3
16	124	51	35	44	19	17	19	103	51	159	.1	33
17	61,550	49	35	41	20	16	19	35	44	95	.1	9.2
18	63,240	49	35	39	20	16	18	103	63	100	0	2.6
19	2,320	44	33	35	20	14	17	17	35	58	0	2.0
20	1,000	41	33	33	22	14	16	240	33	39	.1	1.8
21	580	41	46	33	20	14	16	118	20	30	0	1.5
22	368	41	109	33	20	14	18	830	35	26	0	1.3
23	266	39	125	33	20	13	18	1,550	61	39	0	1.3
24	196	39	288	33	20	30	16	1,270	63	28	0	1.2
25	160	39	257	31	19	574	13	694	46	19	0	1.3
26	132	35	248	30	19	184	12	410	33	14	.1	2.4
27	116	33	174	30	19	96	12	257	26	10	.1	2.4
28	103	31	182	28	18	90	11	163	20	7.6	0	1.9
29	93	31	106	28	-	90	9.2	106	16	4.2	0	1.6
30	129	31	93	28	-	68	8.4	384	14	2.4	0	49
31	311	-	85	28	-	66	-	147	-	1.5	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	11,469	3,240	33	370	22,750
November.....	1,949	200	31	65.0	3,570
December.....	2,336	288	28	75.4	4,530
Calendar year 1942.....	85,079.7	12,500	.6	233	168,800
January.....	1,393	76	28	44.9	2,780
February.....	1,228	228	18	27.4	1,250
March.....	1,560	574	13	50.3	3,090
April.....	677.6	46	8.4	27.6	1,340
May.....	6,449.1	1,550	1.9	208	12,790
June.....	4,419	884	14	147	8,760
July.....	3,818.7	990	1.5	125	7,570
August.....	8.1	1.4	0	.26	16
September.....	174.5	49	0	5.82	346
Water year 1942-43.....	34,892.0	3,240	0	95.6	69,170

c Backwater from Elm Creek; discharge computed from graph based on records for Elm Creek at Ballinger.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

COLORADO RIVER BASIN

Colorado River at Winchell, Tex.

Location.- Water-stage recorder, lat. $31^{\circ}28'05''$, long. $99^{\circ}09'45''$, at bridge on State Highway 23, 0.3 mile south of Winchell, Brown County, and 6.2 miles downstream from Home Creek. Datum of gage is 1,264.86 feet above mean sea level, datum of 1929.

Drainage area.- 24,580 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- January 1939 to September 1943. November 1923 to September 1934 at site near Milburn, 4.2 miles downstream.

Average discharge.- 14 years (1924-34, 1939-43), 822 second-feet.

Extremes.- Maximum discharge during year, 7,670 second-feet Oct. 18 (gage height, 13.97 feet); no flow Aug. 22 to Sept. 4.

1923-34, 1939-43: Maximum discharge, 76,100 second-feet Oct. 15, 1930, at site then in use (gage height, 51.8 feet, present site and datum); no flow Aug. 8-10, Sept. 1-5, 1929, Aug. 15-25, 1934, Aug. 22 to Sept. 4, 1943.

Maximum stage known, 62.2 feet Sept. 19, 1936, present site and datum, from information obtained by engineers of Gulf, Colorado & Santa Fe Railway at railway bridge 1,000 feet above present gage.

Remarks.- Records good. Diversions above station for irrigation and municipal supply. Flow partly regulated by reservoirs on Concho River.

Rating table, water year 1942-43 (gage height, in feet and discharge, in second-feet)

(Shifting-control method used July 27 to Sept. 30)

2.4	0	2.9	18	4.0	212	8.0	2,390
2.5	.1	3.0	30	4.5	332	9.0	3,190
2.6	.3	3.2	58	5.0	525	10.0	4,040
2.7	1.2	3.4	91	6.0	1,080	12.0	5,810
2.8	7.0	3.6	129	7.0	1,700	14.0	7,670

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	250	176	153	294	97	259	64	f380	36	14	0
2	121	462	316	167	291	95	314	60	f281	46	17	0
3	123	314	319	319	294	97	301	55	f190	33	9.0	.1
4	120	311	309	324	294	97	234	46	147	25	6.2	.1
5	134	274	246	324	291	97	147	35	216	20	5.5	5.5
6	354	378	161	322	264	99	110	31	980	18	3.5	13
7	322	415	129	262	239	102	84	23	265	33	2.5	39
8	314	382	116	186	157	100	95	23	155	112	1.5	12
9	309	294	114	145	120	99	91	22	118	130	1.2	5.5
10	291	210	114	125	91	99	77	22	115	137	1.0	2.5
11	227	180	114	116	76	102	66	19	672	135	.9	1.2
12	157	165	106	108	66	102	61	17	795	110	.8	.8
13	129	159	118	102	60	100	55	14	464	82	.5	.5
14	120	163	172	99	58	102	49	13	311	60	.5	.4
15	123	149	319	95	55	100	52	12	225	270	.4	.4
16	1,110	147	301	89	52	100	50	12	163	1,560	.3	f9.0
17	4,070	282	216	85	50	99	46	11	135	554	.3	43
18	6,670	352	183	274	50	99	44	10	99	256	.2	22
19	4,610	352	131	294	49	95	44	9.0	77	151	.2	8.0
20	2,920	329	118	286	49	93	58	8.0	61	131	.1	4.0
21	1,540	250	214	223	50	86	84	79	52	143	.1	28
22	1,170	169	322	149	50	82	82	3,410	52	102	.1	42
23	900	137	301	114	54	81	81	1,660	48	77	0	30
24	724	125	243	95	91	105	79	2,110	59	60	0	22
25	575	125	294	82	99	195	72	2,450	34	46	0	18
26	396	123	360	79	97	138	69	1,300	29	39	0	f23
27	301	118	304	77	100	596	68	930	23	31	0	f30
28	256	119	311	77	99	329	64	585	35	28	0	55
29	232	121	250	77	-	231	63	392	48	29	0	30
30	230	116	208	85	-	171	64	306	49	26	0	547
31	227	-	175	235	-	151	-	f250	-	20	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	28,907	6,670	120	932	57,340
November.....	6,960	462	116	232	13,800
December.....	6,740	360	114	217	13,370
Calendar year 1942.....	251,563.5	17,100	5.9	689	499,000
January.....	5,219	324	77	168	10,350
February.....	3,560	294	49	127	7,060
March.....	4,135	596	81	133	8,200
April.....	2,963	314	44	98.8	5,880
May.....	13,986.0	3,410	8.0	451	27,740
June.....	6,328	372	23	211	12,550
July.....	4,548	1,560	18	147	9,020
August.....	65.8	17	0	2.12	131
September.....	972	547	0	32.4	1,930
Water year 1942-43.....	84,383.8	6,670	0	231	167,400

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River near San Saba, Tex.

Location.- Water-stage recorder, lat. 31°13'05", long. 98°33'50", at bridge on State Highway 190, 5.2 miles downstream from San Saba River and 9.2 miles east of San Saba, San Saba County. Datum of gage is 1,096.22 feet above mean sea level, datum of 1929.

Drainage area.- 30,600 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- August 1930 to September 1943. October 1915 to October 1922 at site near Chadwick, 1.2 miles upstream. October 1923 to December 1934 at site near Tow, 44 miles downstream.

Average discharge.- 18 years (1916-19, 1920-22, 1930-43), 1,932 second-feet.

Extremes.- Maximum discharge during year, 23,200 second-feet Oct. 19 (gage height, 18.55 feet); minimum, 40 second-feet Aug. 21.

1915-22, 1930-43: Maximum discharge, 224,000 second-feet July 23, 1938 (gage height, 63.2 feet, present site, based on floodmarks at site then in use); minimum observed, 1.5 second-feet Aug. 22, 23, 1918.

Maximum stage known prior to 1938, 58.4 feet, Sept. 25, 1900 (discharge, 184,000 second-feet), present site, based on floodmarks at former site.

Remarks.- Records good. Diversions above station for irrigation and municipal use.

Flow partly regulated by reservoirs on Pecan Bayou and Concho River having a combined capacity of 151,000 acre-feet.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	646	1,060	651	430	546	260	357	196	444	145	93	66
2	619	1,000	651	403	748	256	326	182	334	126	86	67
3	593	1,060	732	375	770	243	394	179	506	153	83	71
4	603	1,000	852	366	798	248	472	175	398	154	76	324
5	624	759	852	506	770	248	449	168	4,510	126	69	1,890
6	592	694	657	541	770	252	393	161	10,100	121	63	6,180
7	635	678	432	541	765	252	331	161	2,450	115	60	1,200
8	796	798	412	536	748	252	335	158	1,130	110	58	384
9	759	798	380	477	689	256	2,430	158	705	104	56	216
10	748	711	353	407	496	256	1,000	158	492	110	52	164
11	582	598	340	366	322	260	496	154	801	204	50	142
12	459	673	355	344	280	264	375	164	1,000	256	50	118
13	594	577	314	326	266	268	314	151	1,000	439	50	107
14	331	453	314	322	240	268	280	145	770	228	52	101
15	331	430	314	313	228	268	264	135	577	189	52	91
16	443	531	348	309	224	264	252	129	449	168	50	83
17	3,610	700	506	305	220	260	244	126	371	1,070	50	88
18	10,900	705	487	301	224	243	236	121	331	820	43	216
19	20,400	980	412	293	220	244	228	115	268	468	46	260
20	14,300	910	362	407	216	236	224	115	268	314	42	161
21	3,980	910	375	482	212	226	224	121	236	240	42	135
22	4,310	880	380	472	208	224	220	161	204	193	42	115
23	2,910	770	546	421	216	220	216	4,060	193	193	44	101
24	2,240	705	587	357	216	244	232	2,430	176	186	44	91
25	1,740	673	541	318	216	329	224	2,300	171	158	42	91
26	1,420	657	497	301	216	352	216	2,600	161	135	42	118
27	1,160	651	531	276	248	566	208	1,460	151	118	42	189
28	1,000	646	566	272	256	531	200	1,060	145	107	44	264
29	852	646	511	272	-	700	196	825	333	96	44	314
30	825	640	506	297	-	511	196	651	182	99	46	2,290
31	1,030	-	453	531	-	412	-	536	-	94	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	84,728	20,400	331	2,733	168,100
November	22,193	1,060	430	740	44,020
December	15,227	852	314	491	30,200
Calendar year 1942	600,785	21,300	135	1,646	1,192,000
January	11,872	541	272	383	23,550
February	11,318	798	208	404	22,450
March	9,925	852	220	326	19,690
April	11,587	2,430	196	336	22,930
May	19,304	4,060	115	823	33,200
June	28,978	10,100	145	966	57,480
July	7,044	1,070	94	227	13,970
August	1,661	88	42	52.6	3,290
September	15,662	6,180	66	522	31,070
Water year 1942-43	239,499	20,400	42	656	475,100

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

COLORADO RIVER BASIN

Buchanan Reservoir near Burnet, Tex.

Location.- Selsyn indicator, lat. 30°45'05", long. 98°25'00", at Buchanan Dam on Colorado River, 1 mile upstream from bridge on State Highway 29 and 10 miles west of Burnet, Burnet County. Datum of gage is 0.48 foot above mean sea level, datum of 1929 (levels by Lower Colorado River Authority).

Drainage area.- 31,250 square miles, of which 11,800 square miles is probably non-contributing.

Records available.- May 1937 to September 1943.

Extremes.- Maximum contents observed during year, 992,000 acre-feet Oct. 20 (gage height, 1,020.0 feet); minimum observed, 639,000 acre-feet Sept. 2, 4, 5 (gage height, 1,002.9 feet).

1937-43: Maximum contents, 1,004,000 acre-feet July 27, 1938 (gage height, 1,020.5 feet; several Tainter gates were open); minimum after filling of reservoir in July 1938, 596,000 acre-feet Apr. 5, 1940 (gage height, 1,000.5 feet).

Remarks.- Reservoir is formed by two reinforced concrete multiple-arch sections, three banks of Tainter gates, and a 1,088-foot reinforced concrete spillway section. Dam completed and storage began May 20, 1937. Total capacity, 992,000 acre-feet (gage height, 1,020.0 feet, top of spillway section). Usable capacity, 955,000 acre-feet between gage height 937.0 feet (sill of powerhouse penstock) and gage height 1,020.0 feet (top of spillway section). Water below gage height 937.0 feet can be withdrawn through two 5-foot Bunger gates (emergency) down to gage height of 890.0 feet. Figures of given herein represent total contents. Records of gage height as furnished are from once-daily readings at 8 a.m.; gage read hourly by power plant operator. Water used for power development and irrigation of rice on several districts below Columbus.

Cooperation.- Records of daily gage height and capacity table furnished by Lower Colorado River Authority.

Monthly gage height and contents, water year October 1942 to September 1943

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	1,018.1	948,000	-
Oct. 31.....	1,019.4	978,000	+30,000
Nov. 30.....	1,017.3	931,000	-47,000
Dec. 31.....	1,015.7	895,000	-36,000
Calendar year 1942..	-	-	-25,000
Jan. 31.....	1,015.0	880,000	-15,000
Feb. 28.....	1,012.8	833,000	-47,000
Mar. 31.....	1,009.6	767,000	-66,000
Apr. 30.....	1,007.2	720,000	-47,000
May 31.....	1,006.7	710,000	-10,000
June 30.....	1,006.2	701,000	-9,000
July 31.....	1,004.9	676,000	-25,000
Aug. 31.....	1,003.1	643,000	-33,000
Sept. 30.....	1,004.2	663,000	+20,000
Water year 1942-43..	-	-	-285,000

† Gage height at 8 a.m.

Marshall Ford Reservoir near Austin, Tex.

Location.- Bailey indicator gage, lat. 30°23'20", long. 97°54'35", in powerhouse at dam on Colorado River, 7.3 miles downstream from Sandy Creek and 12 miles northwest of Austin, Travis County. Datum of gage is 0.12 foot above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Drainage area.- 37,900 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- September 1940 to September 1943.

Extremes.- Maximum contents observed during year 1,377,000 acre-feet Oct. 23 (gage height, 691.2 feet); minimum observed, 794,000 acre-feet Sept. 29, 30 (gage height, 657.9 feet). 1940-43: Maximum contents observed, that of Oct. 23, 1942; minimum observed, that of Sept. 29, 30, 1943.

Remarks.- Records good. Reservoir is formed by concrete gravity type dam. Storage began Sept. 9, 1940; dam completed early in 1942. Total capacity, 1,950,000 acre-feet (gage height, 714.0 feet, top of spillway). Usable capacity, 1,922,000 acre-feet between gage height 535.8 feet (bottom of 24 8-ft-diameter Paradox gates) and top of spillway. Bottom of penstocks, gage height, 552.0 feet. Figures herein represent total contents. Water used for power development and for irrigation of rice in several districts below Columbus.

Cooperation.- Records of daily gage heights and capacity curve furnished by Lower Colorado River Authority.

Monthly elevation and contents, water year October 1942 to September 1943

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	683.3	1,218,000	-
Oct. 31.....	690.1	1,354,000	+136,000
Nov. 30.....	686.4	1,280,000	-74,000
Dec. 31.....	683.5	1,222,000	-58,000
Calendar year 1942..	-	-	+635,000
Jan. 31.....	678.3	1,121,000	-101,000
Feb. 28.....	675.4	1,069,000	-52,000
Mar. 31.....	678.1	1,064,000	-5,000
Apr. 30.....	671.6	1,005,000	-59,000
May 31.....	668.5	954,000	-49,000
June 30.....	669.4	968,000	+14,000
July 31.....	665.9	913,000	-55,000
Aug. 31.....	669.9	823,000	-90,000
Sept. 30.....	657.9	794,000	-29,000
Water year 1942-43..	-	-	-424,000

† Gage height is average of 1 a.m. and 1 p.m. observations.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River at Austin, Tex.

Location.— Water-stage recorder, lat. 30°14'40", long. 97°41'20", at southeast edge of Austin, Travis County, at Montopolis Bridge on U. S. Highway 290, 2.5 miles upstream from Walnut Creek, 3.5 miles downstream from Waller Creek, and 5 miles downstream from Barton Creek. Datum of gage is 407.3 feet above mean sea level, datum of 1929.

Drainage area.— 38,160 square miles, of which 11,800 square miles is probably noncontributing.

Records available.— February 1898 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.— 45 years, 2,742 second-feet.

Extremes.— Maximum discharge during year, 11,900 second-feet (regulated) Oct. 22 (gage height, 8.17 feet); minimum, 557 second-feet (regulated) Aug. 30; minimum daily, 684 second-feet Sept. 12, 18, 20, 23, 24.

1898-1943: Maximum discharge, 481,000 second-feet June 15, 1935 (gage height, 45.0 feet, present site and datum, from floodmark); minimum, 13 second-feet Aug. 18, 1918.

Maximum stage known, 46.0 feet, present site and datum, July 7, 1869 (adjusted to present site on basis of records for flood of June 15, 1935), determined from information concerning stage at former site by Prof. T. U. Taylor.

Remarks.— Records fair. Flow partly regulated by Marshall Ford and Buchanan Reservoirs (see preceding page), and other smaller reservoirs, having a combined capacity of 3,130,000 acre-feet. About 36,000 acres irrigated above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,170	4,590	2,190	2,520	3,240	2,190	3,170	2,710	1,860	1,930	1,270	2,090
2	1,310	4,460	2,970	2,120	3,780	2,840	2,520	1,660	2,060	2,190	1,160	2,010
3	1,370	4,590	3,040	2,840	3,510	2,190	2,260	2,260	2,520	2,060	1,580	1,680
4	3,240	4,590	2,710	2,120	2,840	2,260	1,480	2,970	2,710	1,990	1,710	2,060
5	3,040	4,590	2,640	2,640	3,310	2,780	2,260	2,710	2,260	970	1,810	1,240
6		2,520	4,460	1,740	2,710	2,900	2,580	3,170	1,400	2,190	2,160	756
7		2,380	4,460	2,320	2,780	2,710	2,450	2,780	3,040	1,610	2,060	1,640
8		2,380	4,180	2,640	2,780	3,170	2,380	3,510	2,190	2,380	1,950	1,710
9		2,380	4,180	2,360	2,190	2,710	2,900	2,780	690	2,320	1,660	1,630
10		2,380	4,320	3,380	2,260	2,970	3,040	2,060	2,380	2,320	1,630	772
11	2,520	4,320	3,100	2,260	3,040	2,640	2,580	1,930	2,520	1,040	2,090	700
12	1,670	4,320	1,860	2,580	3,100	2,640	2,970	2,120	2,000	1,220	1,790	684
13	2,120	4,320	2,120	2,520	2,060	2,450	2,780	2,380	1,090	2,110	1,640	692
14	1,860	4,320	2,520	2,190	1,950	2,640	3,040	2,380	1,860	1,860	1,350	724
15	2,710	4,180	2,710	2,580	1,670	2,840	3,170	2,260	2,450	2,120	1,580	1,330
16	3,380	4,060	2,900	2,320	2,120	2,260	3,640	1,610	2,380	2,380	2,120	1,140
17	3,380	4,180	2,780	2,260	2,000	2,710	3,510	2,260	2,710	2,640	2,270	788
18	3,780	4,180	2,780	2,450	2,190	2,190	2,580	2,710	3,510	2,190	2,120	684
19	4,320	4,060	2,900	2,580	2,120	1,740	2,520	2,640	2,640	2,260	2,130	692
20	4,590	3,920	2,710	2,710	1,860	1,270	3,100	2,900	1,680	2,580	2,090	684
21	5,690	4,180	2,450	3,780	2,380	940	2,900	2,190	2,320	2,200	1,890	708
22	9,870	3,310	2,710	3,510	2,000	1,080	3,240	2,000	3,040	2,060	1,190	700
23	5,350	2,880	2,900	3,100	2,000	1,460	3,360	1,250	2,970	2,450	1,290	684
24	5,030	3,240	3,100	2,780	2,450	2,780	2,840	1,240	2,970	2,820	1,840	684
25	4,730	3,380	2,640	2,900	2,060	3,100	1,800	1,060	3,100	1,710	2,130	700
26	4,590	2,640	1,800	3,100	2,320	2,060	2,780	1,740	2,900	1,940	1,590	740
27	5,190	3,040	2,320	3,040	1,930	980	2,900	2,120	1,860	3,040	2,150	780
28	5,350	3,780	2,450	3,310	1,800	1,500	2,520	2,320	2,260	1,800	1,630	732
29	4,870	2,900	2,120	3,380	-	1,450	3,040	2,320	2,320	2,380	1,040	700
30	4,870	3,100	2,710	3,240	-	1,560	2,640	1,250	2,520	2,060	1,250	708
31	4,870	-	2,580	3,040	-	3,040	-	1,400	-	991	1,820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	112,850	9,870	1,170	3,640	223,800
November.....	118,410	4,590	2,580	3,947	234,800
December.....	80,240	3,380	1,740	2,586	159,200
Calendar year 1942.....	678,479	9,870	702	1,659	1,546,000
January.....	84,190	3,780	2,180	2,716	167,000
February.....	70,100	3,780	1,670	2,504	139,000
March.....	68,940	3,100	940	2,224	136,700
April.....	82,950	3,640	1,480	2,755	164,500
May.....	67,060	3,170	890	2,153	135,000
June.....	70,280	3,510	1,090	2,343	139,400
July.....	62,111	3,040	970	2,004	123,200
August.....	54,070	2,270	1,040	1,744	107,200
September.....	30,185	2,090	684	1,006	59,870
Water year 1942-43.....	901,386	9,870	684	2,470	1,788,000

Time basis: Central war time. To convert war time to standard time subtract 1 hour.

Colorado River at Smithville, Tex.

Location.- Water-stage recorder, lat. 30°01', long. 97°10', 1,200 feet upstream from bridge on State Highway 71 at Smithville, Bastrop County, and 3.7 miles downstream from Alum Creek. Datum of gage is 270.14 feet above mean sea level, datum of 1929.

Drainage area.- 39,650 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- July 1930 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1920.

Average discharge.- 13 years, 3,604 second-feet.

Extremes.- Maximum discharge during year, 11,900 second-feet Oct. 19 (gage height, 9.03 feet); minimum, 666 second-feet (regulated) Sept. 26.

1930-43: Maximum discharge, 305,000 second-feet June 16, 1935 (gage height, 42.5 feet, from floodmarks), by slope-area method; minimum, 76 second-feet Nov. 2, 1934. Maximum stage known, about 47.4 feet Dec. 4, 1913, 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.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	5,040	2,670	2,670	3,060	1,550	2,140	2,600	1,560	2,330	1,320	1,800
2	1,290	4,720	2,530	2,530	3,020	1,810	3,020	2,600	1,620	2,070	1,310	2,200
3	1,080	4,400	2,460	2,200	3,600	2,140	2,460	2,460	1,810	1,810	1,160	2,200
4	1,290	5,270	3,020	2,740	3,400	2,400	2,400	1,630	2,070	2,000	1,540	1,680
5	2,600	5,770	2,910	2,260	2,910	2,000	2,070	2,740	2,600	1,810	1,680	1,740
6	3,840	4,880	2,670	2,460	2,950	2,140	1,660	2,740	2,670	1,030	1,620	1,810
7	2,810	4,400	2,260	2,680	2,960	2,680	2,400	2,960	1,810	1,360	1,680	1,360
8	2,740	4,400	1,940	2,680	2,330	2,200	2,530	3,600	1,230	1,940	2,070	1,000
9	2,600	4,240	2,670	2,810	2,950	2,000	4,360	2,600	1,880	1,940	1,860	1,740
10	2,600	4,000	2,600	2,630	2,530	2,330	3,400	1,810	2,140	2,000	1,250	1,400
11	2,600	4,080	2,950	2,200	2,810	2,670	2,460	2,410	2,140	1,680	1,940	912
12	2,630	4,240	3,160	2,330	2,960	2,460	2,400	2,600	2,260	1,620	2,070	776
13	2,400	4,080	2,400	2,670	3,020	2,200	2,610	2,070	2,260	1,120	1,940	722
14	1,740	4,240	2,140	2,670	2,530	2,260	2,960	2,260	1,620	1,680	1,740	701
15	2,400	4,240	2,330	2,330	1,940	2,260	2,880	2,260	1,120	2,200	1,560	687
16	4,270	4,080	2,810	2,400	1,680	2,260	3,160	2,260	2,200	1,940	1,350	792
17	3,760	3,840	2,880	2,400	1,740	2,140	3,520	2,070	2,200	2,000	1,740	1,290
18	5,030	4,000	2,810	2,260	2,140	2,140	3,520	1,680	2,200	2,330	2,140	980
19	9,600	4,080	2,810	2,400	2,140	2,200	2,880	3,230	3,020	2,260	2,070	768
20	5,240	4,000	2,950	2,460	2,070	2,140	2,260	2,810	2,600	1,910	2,070	716
21	4,580	3,920	2,880	2,600	2,260	2,000	3,020	2,460	2,070	2,140	2,000	708
22	5,590	4,240	2,670	3,380	2,260	2,920	2,950	2,330	1,620	2,000	2,000	701
23	8,990	4,000	2,740	3,380	2,200	2,960	2,950	2,200	2,740	2,000	1,560	706
24	5,770	2,850	3,020	3,300	1,810	2,120	3,230	1,620	2,740	1,880	1,070	694
25	5,200	3,090	3,020	2,810	2,330	2,090	2,880	1,350	2,740	2,330	1,420	673
26	5,040	3,300	3,020	2,880	1,940	2,500	2,400	1,480	2,810	2,140	1,940	667
27	4,720	2,950	3,020	2,880	1,880	2,580	2,070	1,620	2,810	1,430	1,940	826
28	5,200	2,740	3,380	3,020	2,070	2,510	2,880	1,810	2,260	2,330	2,070	912
29	5,380	3,450	2,810	3,160	-	2,560	2,460	2,260	1,810	2,260	2,000	844
30	5,040	3,160	2,260	3,300	-	1,820	2,810	2,460	2,260	1,880	1,480	950
31	5,040	-	2,670	3,300	-	1,300	-	2,890	-	2,070	950	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	122,460	9,600	1,080	3,930	242,900
November	121,730	5,770	2,740	4,055	241,400
December	84,360	3,580	1,940	2,771	167,300
Calendar year 1942	739,916	18,000	645	2,077	1,468,000
January	84,230	3,380	2,200	2,717	167,100
February	69,450	3,600	1,680	2,490	137,800
March	68,690	5,200	920	2,216	136,200
April	32,950	4,360	1,560	2,771	164,300
May	71,340	3,230	1,350	2,571	141,500
June	65,000	3,020	1,190	2,197	126,900
July	59,450	2,330	1,030	1,918	117,900
August	52,860	2,140	950	1,775	104,800
September	32,956	2,200	673	1,099	65,370
Water year 1942-43	915,356	9,600	673	2,578	1,815,000

g Computed from graph based on once-daily gage readings furnished by U. S. Weather Bureau.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River at La Grange, Tex.

Location.- Wire-weight gage, lat. 29°53'45", long. 96°52'15", on bridge on U. S. Highway 77 in La Grange, Fayette County, 1.2 miles downstream from Buckner Creek. Datum of gage is 211.23 feet above mean sea level, datum of 1929.

Drainage area.- 40,200 square miles, of which 11,800 square miles is probably non-contributing.

Records available.- July and August 1938 (flood, discharge measurements only), November 1938 to September 1943.

Extremes.- Maximum discharge during year, 11,300 second-feet Oct. 20 (gage height, 8.20 feet, from graph based on gage readings); minimum observed, 742 second-foot Sept. 16 (regulated).

1938-43: Maximum discharge observed, 182,000 second-feet June 30, 1940 (gage height, 40.18 feet); minimum observed, 430 second-feet (regulated) Mar. 7, 1940.

Maximum stage known, about 56.7 feet probably July 9, 1869 (from marble high-water marker in La Grange). Data on other floods as follows: Dec. 5, 1913, stage 56.4 feet, from floodmarks; June 17, 1925, stage 50.84 feet, from floodmarks (discharge, 255,000 second-feet from rating curve extended as a straight line above 200,000 second-feet); July 27, 1936, stage 42.95 feet, observed (discharge, 200,000 second-feet).

Remarks.- Records good. Gage read twice daily, more often during periods of rapidly changing stage. Diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,440	5,180	2,880	2,660	3,340	1,960	1,400	2,520	2,730	2,320	2,020	1,120
2	1,240	5,020	2,880	2,560	3,020	1,740	2,460	2,390	1,640	2,260	1,540	1,920
3	1,320	5,020	2,320	2,390	3,500	1,960	2,390	1,800	1,960	1,440	2,320	2,320
4	1,200	5,500	2,730	2,260	3,980	2,730	2,320	1,740	1,910	1,860	1,320	1,960
5	1,360	8,220	2,950	2,660	3,260	2,200	2,200	1,660	2,390	1,910	1,540	1,640
6	3,690	5,820	2,660	2,200	2,800	2,080	1,750	2,660	3,100	1,690	1,690	1,860
7	3,620	4,700	2,520	3,100	3,260	2,520	1,830	2,590	2,390	1,160	1,860	1,890
8	2,800	4,380	1,960	2,950	2,800	2,390	2,800	2,980	1,690	1,690	2,140	1,230
9	2,730	4,390	2,320	2,800	2,800	2,200	3,420	2,950	1,480	1,960	2,020	1,290
10	2,590	4,060	2,730	2,800	2,950	2,200	3,340	2,140	2,140	1,690	1,580	1,580
11	2,520	4,060	2,390	2,320	2,800	2,660	2,880	1,440	2,140	1,960	1,580	1,200
12	2,520	4,220	3,420	4,340	3,020	2,660	2,140	3,020	2,260	1,860	2,080	970
13	2,590	4,060	2,950	4,700	3,180	2,460	2,520	1,960	2,590	1,690	2,140	886
14	1,910	4,220	2,080	2,880	2,660	2,320	2,880	1,960	2,080	1,400	1,860	820
15	1,910	4,220	2,140	2,520	2,260	2,390	3,020	2,080	1,580	2,080	1,740	826
16	2,330	4,220	2,460	2,390	1,860	2,520	3,100	2,200	1,800	2,080	1,540	742
17	4,650	4,060	2,880	2,460	1,560	2,660	3,260	2,080	2,320	2,080	1,540	970
18	3,900	3,980	2,880	2,260	2,080	2,080	3,660	2,520	2,520	2,260	1,960	1,280
19	7,910	4,220	2,730	2,320	2,200	2,390	3,340	1,880	2,460	2,390	2,140	1,000
20	8,220	4,060	2,880	2,390	2,140	2,080	2,460	2,590	3,340	2,020	2,020	839
21	6,020	4,060	2,880	2,520	2,390	1,680	2,460	2,520	2,590	1,960	2,020	794
22	5,020	5,500	2,800	2,730	2,320	1,490	2,950	4,360	1,910	2,200	2,020	820
23	7,170	4,960	2,590	3,660	2,460	1,240	2,880	3,130	2,140	2,020	1,560	794
24	8,040	3,420	2,880	3,580	2,140	1,080	3,100	2,200	2,950	1,800	1,440	787
25	5,340	2,800	2,950	3,020	2,020	1,790	3,100	1,690	2,880	2,140	1,200	774
26	5,340	3,260	3,100	2,800	2,320	5,760	2,660	1,440	2,950	2,580	1,580	800
27	4,700	3,420	3,340	2,950	1,960	4,220	1,800	1,690	3,100	1,910	1,910	787
28	4,680	2,580	3,950	3,180	2,800	2,460	2,660	1,860	2,800	1,800	1,910	935
29	5,500	3,100	2,950	3,100	-	1,580	2,520	2,730	2,020	2,730	2,020	970
30	5,340	2,880	2,460	3,500	-	1,360	2,660	2,950	2,140	2,080	1,800	970
31	5,020	-	2,390	3,500	-	1,440	-	3,020	-	2,020	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	121,700	8,220	1,200	3,926	241,400
November	129,780	8,220	2,800	4,326	257,400
December	85,090	3,980	1,960	2,745	168,800
Calendar year 1942	854,053	30,700	794	2,340	1,694,000
January	89,470	4,700	2,200	2,896	177,500
February	73,580	3,980	1,860	2,628	145,900
March	70,310	5,760	1,080	2,268	139,500
April	81,770	5,340	1,400	2,726	162,200
May	72,500	4,360	1,440	2,339	143,800
June	69,850	3,340	1,490	2,328	138,500
July	62,010	2,730	1,160	2,000	123,000
August	55,020	2,140	1,200	1,775	109,100
September	34,564	2,320	742	1,152	68,560
Water year 1942-43	945,634	8,220	742	2,591	1,876,000

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River at Columbus, Tex.

Location.- Water-stage recorder, lat. 29°42'20", long. 96°32'05", on bridge on U. S. Highway 90 at eastern edge of Columbus, Colorado County, 340 feet downstream from Texas & New Orleans Railroad bridge and 2.6 miles downstream from Cummins Creek. Datum of gage is 155.52 feet above mean sea level, datum of 1929.

Drainage area.- 40,640 square miles, of which 11,800 square miles is probably non-contributing.

Records available.- January 1903 to December 1911, May 1916 to November 1930, May 1939 to September 1943. September 1930 to June 1939 at site near Eagle Lake, 23 miles downstream. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 25 years, (1904-11, 1916-30, 1939-43), 3,348 second-feet.

Extremes.- Maximum discharge during year, 11,100 second-feet Oct. 20 (gage height, 9.89 feet); minimum, 826 second-feet (regulated) Sept. 26.

1903-11, 1916-30, 1939-43: Maximum discharge, 152,000 second-feet July 1, 1940 (gage height, 36.2 feet); minimum observed, about 80 second-feet Sept. 9, 10, 1910.

Maximum stage known, 41.6 feet, 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. Data on other floods as follows: June 18, 1935, observed stage, 38.5 feet, present datum, furnished by U. S. Weather Bureau (discharge, 190,000 second-feet, computed on basis of records for station near Eagle Lake, 23 miles downstream); July 29, 1938, observed stage, 38.4 feet, present datum, furnished by U. S. Weather Bureau (discharge, 175,000 second-feet, computed on basis of records for station near Eagle Lake).

Remarks.- Records good. Diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,380	5,070	3,470	3,690	3,470	2,350	1,620	2,500	3,140	2,200	2,160	1,420
2	1,380	5,070	2,810	2,760	3,360	2,110	1,620	2,600	2,450	2,350	1,930	1,310
3	1,200	7,280	2,980	2,650	3,140	1,980	2,650	2,450	1,800	2,300	1,540	2,060
4	1,330	6,960	2,500	2,450	3,690	2,180	2,550	2,450	1,950	2,020	1,440	2,250
5	1,800	8,490	2,890	2,590	3,810	2,700	2,300	1,940	2,110	2,060	1,340	1,930
6	1,340	7,800	3,030	2,600	3,250	2,350	2,110	2,160	2,480	2,060	1,620	1,700
7	3,360	5,690	2,810	3,470	3,030	2,200	1,660	2,650	3,030	1,660	1,700	1,930
8	3,030	4,790	2,600	3,470	3,250	2,700	2,110	2,700	2,350	1,340	1,800	1,700
9	2,600	4,530	2,110	3,140	2,700	2,550	2,200	3,030	1,750	1,880	2,060	1,460
10	2,500	4,410	2,600	3,030	2,920	2,350	3,220	2,920	1,700	2,400	2,020	1,460
11	2,450	4,170	2,760	2,920	2,920	2,350	4,030	2,200	2,160	2,650	1,620	1,620
12	2,400	4,170	2,650	5,250	2,920	2,760	2,810	1,660	2,200	2,200	1,700	1,310
13	2,400	4,290	3,360	7,220	3,140	2,920	2,200	2,810	2,250	2,340	2,060	1,080
14	2,400	4,170	2,920	4,530	3,140	2,650	2,500	2,110	2,500	1,880	2,060	980
15	2,350	4,290	2,300	3,360	3,030	2,700	2,810	2,110	2,060	1,540	1,880	910
16	2,020	4,290	2,350	2,810	2,350	2,550	2,700	2,160	1,580	2,110	1,750	897
17	2,920	4,170	2,650	2,650	2,110	2,650	3,030	2,200	1,840	2,020	1,540	878
18	4,170	3,930	2,920	2,600	2,020	2,600	3,360	2,160	2,300	2,020	1,620	1,050
19	4,400	4,050	2,920	2,500	2,300	2,350	3,470	1,750	2,250	2,200	1,980	1,270
20	9,880	4,170	2,810	2,450	2,300	2,500	3,140	2,060	2,600	2,400	2,160	1,080
21	6,180	4,050	3,080	2,600	3,660	2,300	2,350	2,650	3,030	2,020	2,060	910
22	4,790	4,530	4,530	2,760	3,030	1,980	2,550	2,920	2,500	2,020	2,060	578
23	5,070	5,250	3,030	3,140	2,600	1,750	2,920	4,170	1,880	2,160	2,020	856
24	6,830	4,530	2,810	3,580	2,600	1,540	2,700	2,700	2,350	2,060	1,840	845
25	6,720	3,360	3,030	3,580	2,300	6,070	3,030	2,350	2,810	1,930	1,500	845
26	5,960	3,140	3,140	3,030	2,350	4,290	2,920	1,930	2,810	2,200	1,340	832
27	5,220	3,360	5,070	2,920	2,350	5,370	2,800	1,650	2,920	2,450	1,700	838
28	4,920	3,360	3,580	3,030	2,160	3,360	1,980	1,540	3,080	1,680	1,930	984
29	5,070	2,810	3,690	3,140	-	2,550	2,600	2,850	2,250	2,230	2,020	980
30	5,520	3,250	3,140	3,140	-	1,750	2,550	3,360	2,020	2,810	2,060	1,020
31	5,370	-	2,500	3,470	-	1,620	-	3,030	-	2,020	1,750	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	118,140	9,880	1,200	3,811	234,300
November.....	139,370	8,490	2,810	4,646	276,400
December.....	92,980	5,070	2,110	2,999	184,400
Calendar year 1942	944,094	37,100	852	2,587	1,873,000
January.....	100,470	7,220	2,450	3,241	199,300
February.....	79,300	3,810	2,020	2,854	158,500
March.....	81,760	6,070	1,540	2,637	162,200
April.....	78,390	4,030	1,620	2,613	155,500
May.....	75,290	4,170	1,660	2,429	149,300
June.....	70,450	3,140	1,580	2,748	139,700
July.....	66,410	3,230	1,340	2,142	131,700
August.....	56,290	2,160	1,340	1,815	111,600
September.....	37,185	2,250	832	1,540	73,760
Water year 1942-43	996,605	9,880	832	2,730	1,977,000

Peak discharges.- Oct. 20 (12:30 p.m.) 11,100 sec.-ft.; Nov. 3 (10 a.m.) 9,960 sec.-ft.; Jan. 12 (11 p.m.) 10,200 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Colorado River at Wharton, Tex.

Location.- Wire-weight gage, lat. 29°18'30", long. 96°06'15", on bridge on U. S. Highway 96 in Wharton, Wharton County, 1,000 feet downstream from Texas & New Orleans Railroad bridge and 12 miles upstream from Jones Creek. Datum of gage is 65.42 feet above mean sea level, datum of 1929.

Drainage area.- 41,150 square miles, of which 11,800 square miles is probably non-contributing.

Records available.- July 1916 to September 1925, July and August 1938 (flood, discharge measurements only), October 1938 to September 1943. U. S. Weather Bureau has collected gage-height records in this vicinity since 1935.

Average discharge.- 10 years (1919-21, 1922-25, 1938-43), 3,692 second-feet.

Extremes.- Maximum discharge during year, 8,330 second-feet Oct. 21 (gage height, 9.30 feet, from graph based on gage readings); minimum discharge not determined.
1919-25, 1938-43: Maximum discharge observed, 100,000 second-feet July 3, 1940 (gage height, 35.99 feet); no flow Aug. 6, 1925, affected by pumping).
Maximum stage known, 38.9 feet, present datum, Dec. 8, 1913, 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 feet, present datum (discharge, 159,000 second-feet, from rating curve extended above 145,000 second-feet), furnished by U. S. Weather Bureau. Flood of July 30, 1938, reached a stage of 37.4 feet, present datum, observed by Geological Survey engineers (discharge, 145,000 second-feet).

Remarks.- Records good except those for period of no gage-height record, which are poor. Gage read twice daily, more often during high water. Diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	5,250	3,540	2,680	3,620	2,600	1,990	2,270	3,120	1,340	2,600	1,450
2	1,450	5,050	3,710	2,850	3,710	2,860	2,030	2,190	2,940	1,050	2,270	1,080
3	1,670	5,820	3,120	3,030	3,620	2,690	1,910	2,440	2,270	1,260	2,110	915
4	1,450	7,260	3,120	2,940	3,540	2,440	2,690	1,910	1,370	1,300	1,600	1,410
5	1,670	6,570	2,780	2,690	3,800	2,520	2,940	1,670	1,500	1,220	1,190	1,710
6	1,520	7,400	3,120	2,690	4,070	2,860	2,600	1,450	1,540	1,080	915	1,710
7	1,520	6,570	3,200	3,200	3,620	2,790	2,440	1,260	1,840	1,120	855	1,410
8	3,120	5,360	3,030	3,980	3,370	2,520	2,110	2,270	1,910	915	1,020	1,790
9	3,200	4,950	2,860	3,710	3,540	2,860	2,190	2,520	1,870	568	948	1,710
10	2,780	4,750	2,440	3,280	3,280	2,940	2,520	2,690	1,160	636	1,080	1,560
11	2,690	4,660	2,780	3,200	3,280	2,690	3,120	2,860	885		1,190	1,160
12	2,520	4,350	2,940	3,120	3,370	2,690	4,070	2,190	1,120		1,080	1,480
13	2,600	4,350	2,860	3,280	3,280	2,940	3,120	1,640	1,540		753	1,260
14	2,520	4,450	3,370	6,090	3,370	3,200	2,520	2,600	1,710		1,160	1,080
15	2,600	4,350	3,120	4,450	3,460	2,940	2,690	2,190	1,530		1,370	777
16	2,190	4,450	2,600	3,710	3,460	2,940	2,940	2,030	1,670		1,260	680
17	2,110	4,450	2,520	3,370	2,940	2,680	3,030	2,110	1,220		1,180	636
18	3,030	4,450	2,780	3,030	2,600	2,860	3,200	1,950	1,050	1,100	1,020	724
19	4,160	4,250	3,030	2,940	2,520	2,940	3,460	1,750	1,600		980	980
20	4,650	4,250	3,030	2,580	2,780	2,520	3,540	1,410	1,560		1,260	1,340
21	7,700	4,450	3,030	2,780	3,030	2,690	3,280	1,260	1,640		1,480	1,120
22	5,470	4,450	3,370	2,860	4,250	2,440	2,780	2,350	2,190		2,480	955
23	4,850	4,650	4,070	3,030	3,710	2,190	2,780	3,280	1,670		1,450	696
24	5,360	5,150	3,280	3,280	3,200	1,990	3,120	3,390	1,260		1,450	658
25	7,260	4,650	3,030	3,710	3,120	2,960	2,940	3,030	1,180		1,480	625
26	5,940	3,710	3,200	3,710	2,680	6,840	3,120	2,600	1,630		1,500	724
27	5,470	3,460	3,370	3,370	2,780	4,650	3,120	2,190	1,670		1,080	735
28	5,150	3,620	4,650	3,200	2,860	4,850	2,860	1,830	1,790		1,640	831
29	4,950	3,800	3,800	3,280	-	3,800	2,190	1,870	1,990	1,300	1,640	885
30	5,050	3,280	3,710	5,460	-	3,030	2,270	2,190	1,670		1,640	915
31	5,560	-	3,370	3,460	-	2,270	-	3,030	-		1,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	111,420	7,700	1,410	3,594	221,000
November.....	144,200	7,400	3,280	4,807	288,000
December.....	99,030	4,650	2,440	3,195	198,400
Calendar year 1942.....	951,354	33,100	596	2,606	1,887,000
January.....	106,050	6,090	2,690	3,421	210,300
February.....	93,040	4,250	2,520	3,323	184,500
March.....	93,360	6,840	1,990	3,012	185,800
April.....	63,670	4,070	1,610	2,738	165,800
May.....	69,210	3,960	1,260	2,233	137,360
June.....	50,135	3,120	885	1,671	99,440
July.....	47,106	-	-	1,520	93,430
August.....	42,061	2,600	753	1,357	83,430
September.....	32,914	1,790	625	1,097	65,280
Water year 1942-43.....	972,096	7,700	-	2,663	1,928,000

a No gage-height record; discharge computed on basis of records for station at Columbus and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Elm Creek at Ballinger, Tex.

Location.- Water-stage recorder upstream from spillway of masonry dam, lat. 31°45'00", long. 99°56'50", in Ballinger, Runnels County, 1½ miles upstream from mouth. Datum of gage is 1,617.72 feet above mean sea level, datum of 1929.

Drainage area.- 458 square miles.

Records available.- April 1932 to September 1943.

Average discharge.- 11 years, 64.6 second-feet.

Extremes.- Maximum discharge during year, 6,060 second-feet Oct. 17 (gage height, 6.70 feet, from floodmark); no flow at times.
1932-43: Maximum discharge, about 26,100 second-feet Sept. 3, 1935 (gage height, 10.30 feet, from floodmarks, probably slightly affected by backwater from Colorado River), from rating curve extended in a straight line above 15,000 second-feet; no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Stage-discharge relation affected below about 50 second-feet by wind action and occasional accumulation of drift on dam. Low flow affected by diversions to Ballinger city pumping plant.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	33		2.5	1.0	1.0	2.5	0		0		
2	0	21		4.5	1.5	.2	4.5	0		0		
3	3.8	16		2.5	1.0	0	4.5	0		0		
4	4.5			4.5	1.5	0	2.5	0		0		
5	4.5			7.0	.8	.1	2.5	0		0		
6	2.5			4.5	0	0	2.5	0		0		
7	2.5			2.5	0	0	2.5	0		0		
8	1.0			2.5	.6	0	1.6	0		0		
9	.6			2.5	.6	.2	.5	0		0		
10	.6			2.5	.1	.2	1.5	0		0		
11	.4			2.5	0	.6	1.3	0		0		
12	.1			1.5	0	1.5	.2	0		0		
13	a0			1.5	0	1.5	.6	0		0		
14	a0			1.5	.2	1.5	.6	0		g231		
15	a12			1.5	.6	.9	1.0	0		g71		
16	a128			1.0	.6	0	.6	0		g2.5		
17	a5,940			2.5	1.0	1.0	.2	0		g.6		
18	a1,060			2.5	1.0	1.0	.1	0		g.6		
19	a272			2.5	.1	1.0	.1	0		0		
20	a236			1.5	2.5	1.0	0	3.8		0		
21	a202		4.5	4.5	1.0	0	.2	11		0		
22	a180		85	1.0	1.0	0	.2	203		0		
23	a147		33	1.5	.4	.1	.1	138		0		
24	a117		21	1.3	0	1.5	0	21		0		
25	a90		16	0	.4	215	0	a.6		0		
26	a74		4.5	.4	.6	54	0	a0		0		
27	a52		.1	1.5	1.0	27	0	a0		0		
28	a27		0	2.5	1.0	16	0	a0		0		
29	a11		1.0	2.5	-	11	0	a0		0		
30	a13		2.5	1.5	-	4.5	0	a0		0		
31	90		2.5	1.5	-	4.5	-	a0		0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,631.5	3,940	0	214	13,160
November.....	178.0	53	-	5.93	353
December.....	241.1	85	0	7.78	478
Calendar year 1942.....	22,190.5	3,940	0	60.8	44,010
January.....	67.8	7.0	0	2.19	134
February.....	17.9	1.5	0	.64	36
March.....	341.5	215	0	11.0	677
April.....	30.1	4.5	0	1.00	60
May.....	377.4	203	0	12.2	749
June.....	0	0	0	0	0
July.....	305.7	231	0	9.86	606
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43.....	6,191.0	3,940	0	22.4	16,240

a No gage-height record; discharge computed on basis of recorded range in stage, weather records and drift marks.

g Computed from graph based on frequent readings of outside staff gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Concho River at Christoval, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°13', long. 100°30', at Panhandle & Santa Fe Railway bridge at Christoval, Tom Green County. Datum of gage is 2,010.22 feet above mean sea level, datum of 1929.

Drainage area.- 434 square miles.

Records available.- February 1930 to September 1943.

Average discharge.- 13 years, 55.6 second-feet.

Extremes.- Maximum discharge during year, 59 second-feet Oct. 16 (gage height, 2.19 feet); minimum, 7.3 second-feet Sept. 15, 18-20.

1930-43: Maximum discharge, 100,000 second-feet July 23, 1938 (gage height, 21.95 feet, from floodmarks), from rating curve extended above 9,000 second-feet on basis of slope-area determination at gage height 20.5 feet; minimum, 2.1 second-feet July 17-19, 28-29, Aug. 28 to Sept. 5, 1934.

Flood of Aug. 6, 1906, reached a stage about 1.1 feet higher than flood of July 23, 1938, at a point 0.5 mile downstream from gage, from information by local residents.

Remarks.- Records excellent. Low flow materially affected by diversion 600 feet above station to South Concho Irrigation Co.'s canal (see p. 120).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	45	38	30	24	22	28	13	18	13	9.7	9.1
2	41	45	38	27	24	22	27	13	18	13	9.7	9.1
3	45	45	36	27	24	22	20	13	18	12	9.7	9.1
4	45	47	38	27	24	21	20	12	20	11	9.1	9.7
5	43	47	36	27	24	22	20	13	20	11	8.5	9.7
6	43	47	34	27	24	22	18	16	20	11	8.5	9.1
7	43	45	33	27	24	21	18	13	18	11	8.5	9.1
8	43	45	33	25	24	21	18	13	18	11	9.1	8.5
9	43	45	30	25	24	21	18	13	14	11	9.1	8.5
10	43	45	28	25	22	21	18	13	14	11	9.7	8.5
11	43	45	28	25	22	21	18	13	14	10	9.1	8.5
12	43	45	28	25	22	22	18	13	14	10	9.1	8.5
13	43	43	27	25	22	24	18	13	14	10	9.1	7.9
14	43	45	27	25	22	24	18	13	14	9.7	9.1	7.9
15	43	45	27	25	22	24	18	13	14	10	9.1	7.9
16	43	45	27	25	22	22	18	13	14	10	8.5	7.9
17	47	43	27	25	24	22	18	13	14	9.7	8.5	7.9
18	45	38	27	25	24	24	18	13	14	9.7	8.5	7.3
19	43	38	27	25	24	25	18	13	13	10	8.5	7.3
20	43	36	27	25	24	25	18	13	13	10	8.5	7.3
21	43	34	28	25	24	25	18	14	13	10	8.5	7.9
22	43	34	28	25	22	25	18	17	13	10	8.5	7.9
23	43	34	30	25	22	27	18	44	13	10	7.9	7.9
24	43	34	31	25	22	30	18	17	13	9.7	7.9	7.9
25	43	34	30	25	22	27	18	16	13	9.1	7.9	8.5
26	43	34	28	24	22	27	18	17	13	9.1	7.9	9.1
27	43	34	28	24	22	27	18	18	13	9.1	8.5	9.1
28	43	34	27	24	22	27	17	20	13	9.7	8.5	8.5
29	43	34	27	24	-	27	13	20	13	9.7	8.5	8.5
30	45	36	28	24	-	27	13	18	16	9.7	8.5	8.5
31	45	-	33	24	-	28	-	18	-	9.7	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,543	47	41	43.3	2,660
November.....	1,221	47	34	40.7	2,420
December.....	934	58	27	30.1	1,850
Calendar year 1942.....	12,524.3	1,940	8.5	34.3	24,840
January.....	786	30	24	25.4	1,560
February.....	644	24	22	23.0	1,280
March.....	745	30	21	24.0	1,480
April.....	564	28	13	18.5	1,100
May.....	481	44	12	15.5	954
June.....	449	20	13	15.0	891
July.....	319.9	13	9.1	10.3	635
August.....	270.7	9.7	7.9	8.73	537
September.....	252.6	9.7	7.3	8.42	501
Water year 1942-43.....	8,000.2	47	7.3	21.9	15,670

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake Nasworthy near San Angelo, Tex.

Location.— Water-stage recorder, lat. 31°23'15", long. 100°28'40", 250 feet upstream from Nasworthy Dam on South Concho River, half a mile downstream from Middle Concho River, and 6 miles southwest of San Angelo, Tom Green County. Datum of gage is 1,840.0 feet above mean sea level, datum of 1929.

Drainage area.— 2,659 square miles.

Records available.— March 1930 to September 1943.

Extremes.— Maximum contents during year, 9,900 acre-feet May 23 (gage height, 29.5 feet); minimum, 5,190 acre-feet Sept. 1-3 (gage height, 25.1 feet).

1930-43: Maximum contents, 26,900 acre-feet Sept. 15, 1936 (gage height, 36.36 feet); minimum contents since lake filled, 594 acre-feet Oct. 14, 1936 (gage height, 12.6 feet).

Remarks.— Lake is formed by 4,900-foot earthen dam (contains 2 emergency spillways, 300 and 800 feet in length) and 435-foot concrete service spillway, with a bank of 15 Taintor gates. Dam completed and storage began Mar. 28, 1930. Total capacity, 10,740 acre-feet (gage height, 30.2 feet, top of Taintor gates). Usable capacity, 10,740 acre-feet between gage heights 3.6 feet (bottom 2-36" gates) and 30.2 feet (top of Taintor gates). Figures of contents shown herein represent total contents of lake, and are unadjusted for siltation. A siltation survey made by U. S. Department of Agriculture. Soil Conservation Service, indicates a 10 percent capacity loss from siltation in 8.2 years (1930-39). Gage height is mean daily level of lake. Water used for San Angelo municipal supply.

Capacity table, (gage height, in feet, and contents, in acre-feet)
(Based on capacity curve prepared by Floyd & Lockridge, consulting engineers, from Geological Survey topographic maps)

0.0	100	12	510	22	3,200	32	13,400
5	135	15	1,000	25	5,100	35	19,500
8	200	18	1,700	27	7,100	37	23,000
10	320	20	2,500	30	10,500	39	28,800

Monthly gage height and contents, 1930-43

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31.....	-	-	-	Oct. 31, 1932	29.8	10,260	+120
Nov. 30.....	-	-	-	Nov. 30.....	29.5	9,900	-360
Dec. 31.....	-	-	-	Dec. 31.....	29.4	9,780	-120
Calendar year.....	-	-	-	Calendar year 1932	-	-	-840
Jan. 31.....	-	-	-	Jan. 31, 1933	29.4	9,780	0
Feb. 28.....	-	-	-	Feb. 28.....	29.5	9,900	+120
Mar. 31, 1930	4.1	125	-	Mar. 31.....	29.7	10,140	+240
Apr. 30.....	15.0	1,000	+874	Apr. 30.....	29.9	10,380	+240
May 31.....	15.1	1,020	+20	May 31.....	29.8	10,260	-120
June 30.....	27.4	7,540	+6,520	June 30.....	28.9	9,190	-1,070
July 31.....	25.0	5,100	-2,440	July 31.....	27.2	7,320	-1,870
Aug. 31.....	23.0	3,700	-1,400	Aug. 31.....	26.5	6,550	-770
Sept. 30.....	21.7	3,050	-650	Sept. 30.....	26.2	6,220	-330
Water year.	-	-	-	Water year 1932-33.	-	-	-3,920
Oct. 31, 1930	29.8	10,260	+7,210	Oct. 31, 1933	28.2	8,220	0
Nov. 30.....	-	-	-	Nov. 30.....	27.6	7,760	+1,540
Dec. 31.....	-	-	-	Dec. 31.....	28.3	8,530	+770
Calendar year.....	-	-	-	Calendar year 1933.	-	-	-1,250
Jan. 31, 1931	30.0	10,500	-	Jan. 31, 1934	29.4	9,780	+1,250
Feb. 28.....	30.0	10,500	0	Feb. 28.....	29.4	9,780	0
Mar. 31.....	29.9	10,380	-120	Mar. 31.....	29.4	9,780	0
Apr. 30.....	30.0	10,500	+120	Apr. 30.....	29.1	9,420	-360
May 31.....	30.0	10,500	0	May 31.....	28.1	8,310	-1,110
June 30.....	-	-	-	June 30.....	26.9	6,990	-1,320
July 31.....	-	-	-	July 31.....	22.6	3,500	-3,490
Aug. 31.....	-	-	-	Aug. 31.....	26.1	6,110	+2,610
Sept. 30.....	-	-	-	Sept. 30.....	24.6	4,940	-1,170
Water year.	-	-	-	Water year 1933-34..	-	-	-1,280
Oct. 31, 1931	28.2	8,420	-	Oct. 31, 1934	23.9	4,240	-700
Nov. 30.....	-	-	-	Nov. 30.....	26.4	6,440	+2,200
Dec. 31.....	30.1	10,620	-	Dec. 31.....	26.0	6,000	-440
Calendar year.....	-	-	-	Calendar year 1934	-	-	-2,530
Jan. 31, 1932	30.2	10,740	+120	Jan. 31, 1935	26.5	6,550	+550
Feb. 29.....	30.2	10,740	0	Feb. 28.....	29.0	9,300	+2,750
Mar. 31.....	29.9	10,380	-360	Mar. 31.....	28.6	8,860	-440
Apr. 30.....	30.4	10,980	+600	Apr. 30.....	29.7	10,140	+1,280
May 31.....	29.9	10,380	-600	May 31.....	29.9	9,190	-950
June 30.....	30.2	10,740	+360	June 30.....	29.4	9,780	+590
July 31.....	29.2	9,540	-1,200	July 31.....	29.2	9,540	-240
Aug. 31.....	29.7	10,140	+600	Aug. 31.....	29.9	10,380	+840
Sept. 30.....	29.7	10,140	0	Sept. 30.....	29.6	10,020	-360
Water year.	-	-	-	Water year 1934-35..	-	-	+5,080

Note.— Records commence Mar. 28, 1930.

Monthly gage height and contents of Lake Nasworthy near San Angelo, Tex., 1930-43--Continued

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31, 1935	29.6	10,020	* 0	Oct. 31, 1935	27.1	7,210	+220
Nov. 30.....	28.9	9,190	-830	Nov. 30.....	27.7	7,870	+660
Dec. 31.....	29.3	9,680	+470	Dec. 31.....	28.6	8,980	+990
Calendar year 1935.	-	-	+3,660	Calendar year 1939.	-	-	+330
Jan. 31, 1936	29.4	9,780	+120	Jan. 31, 1940	29.0	9,300	+440
Feb. 29.....	29.9	10,380	+600	Feb. 29.....	28.3	8,530	-770
Mar. 31.....	29.0	9,300	-1,080	Mar. 31.....	28.0	8,200	-330
Apr. 30.....	27.9	8,090	-1,210	Apr. 30.....	28.5	8,530	+330
May 31.....	29.9	10,380	+2,290	May 31.....	28.1	8,310	-220
June 30.....	29.8	10,280	-100	June 30.....	27.8	7,980	-330
July 31.....	29.2	9,540	-720	July 31.....	27.3	7,430	-550
Aug. 31.....	25.9	5,910	-3,630	Aug. 31.....	28.5	8,760	+1,320
Sept. 30.....	15.8	1,160	-4,750	Sept. 30.....	27.8	7,980	-770
Water year 1935-36...	-	-	-8,860	Water year 1939-40...	-	-	+990
Oct. 31, 1936	25.7	5,730	+4,570	Oct. 31, 1940	28.4	8,640	+660
Nov. 30.....	-	-	-	Nov. 30.....	28.2	8,420	-220
Dec. 31.....	29.0	9,300	-	Dec. 31.....	27.7	7,870	-550
Calendar year 1936.	-	-	-360	Calendar year 1940.	-	-	-990
Jan. 31, 1937	28.9	9,190	-110	Jan. 31, 1941	28.9	9,190	+1,320
Feb. 28.....	28.2	8,420	-770	Feb. 28.....	28.7	8,970	-220
Mar. 31.....	28.6	8,860	+440	Mar. 31.....	27.1	7,210	-1,760
Apr. 30.....	28.6	8,860	0	Apr. 30.....	28.4	8,640	+1,430
May 31.....	28.1	8,310	-550	May 31.....	28.8	9,080	+440
June 30.....	28.5	8,750	+440	June 30.....	28.0	8,200	-880
July 31.....	28.6	8,860	+110	July 31.....	27.8	7,980	-220
Aug. 31.....	27.6	7,750	-1,100	Aug. 31.....	28.7	8,970	+660
Sept. 30.....	27.7	7,870	+110	Sept. 30.....	28.8	9,080	+110
Water year 1936-37...	-	-	+6,710	Water year 1940-41...	-	-	+1,100
Oct. 31, 1937	28.4	8,640	+770	Oct. 31, 1941	29.0	9,300	+220
Nov. 30.....	28.5	8,750	+110	Nov. 30.....	27.6	7,750	-1,540
Dec. 31.....	27.9	8,090	-660	Dec. 31.....	27.7	7,870	+110
Calendar year 1937.	-	-	-1,210	Calendar year 1941.	-	-	0
Jan. 31, 1938	28.4	8,640	+550	Jan. 31, 1942	28.7	8,970	+1,100
Feb. 29.....	28.9	9,080	+440	Feb. 29.....	28.5	8,750	-220
Mar. 31.....	28.6	8,860	-220	Mar. 31.....	28.6	8,860	+110
Apr. 30.....	28.9	9,190	+330	Apr. 30.....	28.7	8,970	+110
May 31.....	28.7	8,970	-220	May 31.....	28.2	8,420	-550
June 30.....	28.3	8,530	-440	June 30.....	28.7	8,970	+550
July 31.....	26.1	6,110	-2,420	July 31.....	27.9	8,090	-880
Aug. 31.....	28.5	8,750	+2,640	Aug. 31.....	28.8	9,080	+990
Sept. 30.....	28.4	8,640	-110	Sept. 30.....	29.2	9,540	+460
Water year 1937-38	-	-	+770	Water year 1941-42...	-	-	+460
Oct. 31, 1938	28.5	8,750	+110	Oct. 31, 1942	28.5	8,750	-790
Nov. 30.....	28.9	9,190	+440	Nov. 30.....	27.0	7,100	-1,650
Dec. 31.....	28.3	8,530	-660	Dec. 31.....	27.8	7,980	+880
Calendar year 1938.	-	-	+440	Calendar year 1942.	-	-	+110
Jan. 31, 1939	29.0	9,300	+770	Jan. 31, 1943	27.7	7,870	-110
Feb. 28.....	28.9	9,190	-110	Feb. 28.....	28.7	8,970	+1,100
Mar. 31.....	28.4	8,640	-550	Mar. 31.....	28.1	8,310	-660
Apr. 30.....	28.6	8,860	+220	Apr. 30.....	28.3	8,530	+220
May 31.....	28.1	8,310	-550	May 31.....	28.4	8,640	+110
June 30.....	28.2	8,420	+110	June 30.....	28.2	8,420	-220
July 31.....	26.8	9,080	+660	July 31.....	27.6	7,760	-660
Aug. 31.....	27.9	8,090	-990	Aug. 31.....	25.2	5,280	-2,480
Sept. 30.....	26.9	6,990	-1,100	Sept. 30.....	26.1	6,110	+830
Water year 1938-39	-	-	-1,650	Water year 1942-43...	-	-	-3,430

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter.
To convert war time to standard time, subtract 1 hour.

South Concho River at San Angelo, Tex.

Location.- Water-stage recorder above spillway of San Angelo waterworks concrete dam, lat. 31°26'45", long. 100°25'30", at bridge on U. S. Highways 87 and 277, half a mile south of San Angelo, Tom Green County, and 1 mile upstream from confluence with North Concho River. Datum of gage is 1,802.94 feet above mean sea level, datum of 1929.

Drainage area.- 2,687 square miles, of which 152 square miles is probably noncontributing.

Records available.- October 1931 to September 1943.

Average discharge.- 12 years, 168 second-feet.

Extremes.- Maximum discharge during year, 5,980 second-feet May 23 (gage height, 4.71 feet); no flow at times.

1931-43: Maximum discharge, 111,000 second-feet Sept. 17, 1936 (gage height, 23.4 feet, of which about 2.4 feet was caused by backwater from North Concho River) by slope-area method; no flow at times.

Maximum stage known, 29.7 feet, Aug. 6, 1906 (not affected by backwater), from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair. Diversions above station for irrigation, municipal supply, and power. Flow partly regulated by reservoirs above station (combined capacity, about 11,200 acre-feet, revised), the largest of which is Lake Nasworthy (capacity, 10,740 acre-feet, revised), 6.5 miles upstream (see p. 116).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	61	236	243	253	69	15	0.8	51	0	0	0.1
2	264	113	36	243	253	69	3.8	1.3	44	0	0	0
3	274	297	36	212	253	78	4.0	1.0	44	0	0	0
4	263	297	38	14	23	72	6.6	.2	49	0	.1	.8
5	263	249	41	6.6	4.8	69	4.8	0	58	0	0	4.0
6	264	51	44	6.6	2.2	69	5.7	.2	58	0	0	1.8
7	201	51	44	4.8	1.2	69	8.6	2.6	54	0	0	.6
8	58	58	44	4.8	1.2	69	11	3.3	51	0	1.1	.1
9	58	58	44	4.0	1.2	72	7.6	9.7	49	0	.3	0
10	61	58	37	4.0	.9	72	8.6	15	8.9	0	0	0
11	61	58	285	3.3	.9	69	15	9.7	.5	0	0	0
12	61	61	285	3.3	1.0	a69	12	5.6	0	0	61	0
13	65	160	187	64	2.6	a69	14	4.0	0	0	152	0
14	72	309	44	253	4.8	a65	58	8.2	0	11	2.8	0
15	72	297	41	253	7.6	a65	65	8.0	0	3.9	0	0
16	72	285	41	253	7.6	a65	65	7.6	0	.4	0	0
17	233	232	128	190	12	a61	58	8.6	1.5	0	0	4.1
18	309	41	264	11	61	a61	58	6.2	4.4	0	0	6.6
19	309	44	243	7.6	61	a61	58	6.8	1.6	0	0	5.7
20	309	44	152	11	61	a61	58	23	1.1	.1	0	4.0
21	309	41	15	9.7	58	a20	61	72	.5	0	0	15
22	292	44	5.7	11	65	a7.6	54	90	.2	0	0	2.9
23	60	49	4.0	12	65	a7.6	54	1,350	0	0	.2	2.1
24	51	51	4.0	15	61	a41	58	285	0	0	0	2.6
25	49	49	4.0	16	65	a31	58	69	.2	0	0	7.6
26	49	51	3.3	83	65	a29	49	51	2.1	0	0	15
27	54	113	3.3	253	65	a29	51	51	.1	0	0	9.7
28	61	297	6.6	253	69	a96	11	51	0	0	0	9.7
29	61	297	84	243	-	a243	2.6	51	0	0	0	9.7
30	65	297	243	243	-	a243	1.2	51	0	0	17	9.7
31	61	-	243	243	-	222	-	51	-	0	6.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,392	309	31	142	8,710
November.....	4,113	309	41	137	8,160
December.....	2,935.9	255	3.3	94.7	5,820
Calendar year 1942	58,684.9	21,900	0	161	116,400
January.....	3,175.7	253	3.3	102	6,300
February.....	1,826.0	253	.9	54.5	3,050
March.....	2,323.2	243	7.6	74.9	4,610
April.....	936.5	65	1.2	31.2	1,860
May.....	2,293.8	1,350	0	74.0	4,560
June.....	479.1	58	0	16.0	950
July.....	15.4	11	0	.50	31
August.....	240.7	162	0	7.76	477
September.....	111.6	15	0	3.73	222
Water year 1942-43	22,543.1	1,350	0	61.8	44,720

a No gage-height record; discharge computed on basis of recorded range in stage and records for Concho River near San Angelo.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

COLORADO RIVER BASIN

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Concho River near San Angelo, Tex.

Location.- Water-stage recorder, lat. 31°27'10", long. 100°24'40", half a mile downstream from confluence of North Concho and South Concho Rivers and 1½ miles southeast of San Angelo, Tom Green County. Datum of gage is 1,776.8 feet above mean sea level, datum of 1929.

Drainage area.- 4,492 square miles, of which 275 square miles is probably noncontributing.

Records available.- September 1915 to September 1943.

Average discharge.- 28 years, 195 second-feet.

Extremes.- Maximum discharge during year, 5,560 second-feet May 23 (gage height, 8.57 feet); minimum, 1.0 second-foot Aug. 3, 4.

1915-43: Maximum discharge, 230,000 second-feet Sept. 17, 1936 (gage height, 46.6 feet, from floodmarks), by slope-area method; no flow, Nov. 29, 1921.

Maximum stage known, 47.5 feet Aug. 6, 1906 (discharge, about 246,000 second-feet), from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Many diversions above station for irrigation and municipal supply. Flow partly regulated by reservoirs above station (combined capacity, about 11,400 acre-feet, revised), largest of which is Lake Nasworthy (capacity, 10,740 acre-feet, revised). (See p. 116).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	72	244	246	246	77	30	a3.7	58	10	1.2	1.9
2	271	106	51	246	250	79	16	2.9	55	2.0	1.2	1.4
3	325	330	44	232	243	79	14	2.9	53	1.7	1.1	2.1
4	280	320	46	37	51	79	16	2.3	55	1.5	1.1	1.9
5	276	279	46	19	17	75	15	1.4	60	1.5	1.2	3.9
6	268	66	50	20	13	75	16	2.4	66	1.5	1.1	4.1
7	217	60	a50	16	12	77	16	2.9	58	1.5	1.1	2.1
8	68	61	49	15	12	75	20	2.9	55	1.4	1.2	1.5
9	66	63	52	14	12	79	16	6.5	52	1.5	1.5	1.4
10	70	61	a70	14	11	75	16	17	19	1.5	1.2	1.4
11	72	63	a276	14	10	77	f24	11	4.5	2.0	1.2	1.3
12	73	65	a284	13	11	77	f19	8.2	5.3	1.9	48	1.4
13	79	143	a239	59	12	75	19	6.1	2.9	1.5	172	1.4
14	110	305	a62	264	15	79	66	8.2	2.5	14	9.0	1.4
15	118	301	a55	264	18	73	75	10	2.4	187	1.9	1.4
16	90	297	a54	260	18	70	75	8.2	2.3	112	1.5	3.6
17	300	260	a107	215	22	72	70	10	6.0	40	1.4	4.6
18	345	54	276	25	70	70	70	7.6	9.8	18	1.3	7.5
19	328	50	240	17	77	66	68	6.5	5.3	9.8	1.4	7.2
20	310	49	180	21	77	66	65	17	4.1	6.5	1.5	5.7
21	297	48	a39	22	77	28	65	75	2.9	5.3	1.3	4.9
22	275	49	a16	24	79	16	58	134	4.2	2.9	1.4	4.9
23	70	50	a16	24	79	18	57	1,500	2.5	2.4	1.3	2.9
24	52	53	a16	30	75	51	58	401	2.1	1.9	1.4	3.7
25	54	54	a16	32	77	36	60	136	2.0	1.7	1.3	8.0
26	55	55	15	81	79	36	54	86	4.1	1.5	1.4	22
27	60	96	15	272	79	37	54	77	2.3	1.4	1.3	14
28	65	297	16	272	77	105	18	70	2.0	1.3	1.2	10
29	68	293	67	260	-	257	a5.7	66	2.1	1.3	1.2	11
30	88	293	246	257	-	250	a4.9	61	6.3	1.3	14	10
31	73	-	250	257	-	240	-	61	-	1.2	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,851	345	31	156	9,620
November.....	4,283	330	48	143	8,500
December.....	3,187	284	15	103	6,320
Calendar year 1942.....	65,212.0	22,000	1.4	179	129,400
January.....	3,542	272	13	114	7,030
February.....	1,819	250	10	65.0	3,610
March.....	2,569	257	16	82.9	5,100
April.....	1,150.6	75	4.9	38.7	2,300
May.....	2,804.7	1,500	1.4	90.5	5,560
June.....	604.6	66	27.0	20.2	1,200
July.....	439.0	187	1.2	14.2	871
August.....	265.9	172	1.1	9.25	569
September.....	148.6	22	1.3	4.93	295
Water year 1942-43.....	25,695.4	1,500	1.1	70.4	50,980

a No gage-height record; discharge computed on basis of recorded range in stage and records for nearby stations.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Concho River near Paint Rock, Tex. -

Location.- Water-stage recorder above spillway of masonry dam, lat. $31^{\circ}31'$, long. $99^{\circ}55'$, at bridge on U. S. Highway 83, a quarter of a mile north of Paint Rock, Concho County. Datum of gage is 1,574.43 feet above mean sea level, datum of 1929.

Drainage area.- 5,538 square miles, of which 275 square miles is probably noncontributing. Records available.- September 1915 to September 1943.

Average discharge.- 28 second-feet, 256 second-feet.

Extremes.- Maximum discharge during year, 4,460 second-feet May 24 (gage height, 15.77 feet); minimum, 0.3 second-foot Aug. 3-17, Aug. 27 to Sept. 5 (leakage through dam). 1915-43: Maximum discharge, 301,000 second-feet Sept. 17, 1936 (gage height, 43.4 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. Many diversions above station for irrigation and municipal supply. Low flow materially affected by diversions and storage above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	96	284	230	257	88	267	23	74	2.4	0.8	0.3
2	34	92	273	246	252	92	158	13	67	5.5	.5	.3
3	128	92	150	246	257	88	63	7.0	60	2.8	.3	.3
4	301	260	77	236	252	96	38	5.3	53	4.6	.3	.3
5	273	301	66	144	163	96	30	4.0	60	3.3	.3	.3
6	262	284	66	66	70	96	24	5.3	60	2.4	.3	3.8
7	257	165	66	41	41	68	23	4.0	60	2.6	.3	3.8
8	246	92	66	37	34	92	23	3.5	63	2.4	.3	1.9
9	139	88	66	32	27	96	24	2.8	56	2.2	.3	1.3
10	88	84	56	27	23	92	24	3.3	50	2.4	.3	1.7
11	84	81	66	26	21	92	28	3.1	45	2.4	.3	1.6
12	84	81	219	26	21	96	26	4.0	32	2.2	.3	1.4
13	84	81	278	26	21	101	26	3.5	23	2.2	.3	1.2
14	84	98	257	24	20	96	26	5.0	12	3.3	.3	.8
15	96	273	122	154	21	101	24	7.0	9.1	15	.3	.6
16	144	295	77	252	21	101	54	5.3	5.5	4.6	.3	56
17	180	295	70	257	23	92	77	4.0	4.0	86	.3	45
18	273	273	75	246	23	77	61	4.6	60	6.7	.3	10
19	329	156	236	128	27	88	77	9.1	4.6	38	10	6.1
20	318	88	241	55	71	84	74	8.0	3.8	28	5.3	4.6
21	318	73	236	39	84	84	74	12	3.1	23	3.1	3.8
22	312	70	117	34	84	84	70	41	2.8	21	2.6	3.3
23	295	70	70	34	84	88	70	172	3.5	16	1.9	3.1
24	190	70	44	34	88	49	63	1,340	4.6	9.1	1.4	2.8
25	96	73	34	37	84	51	60	372	3.1	4.6	.8	3.3
26	84	73	29	37	84	77	60	217	2.8	3.3	.4	4.6
27	81	73	26	39	84	70	67	127	3.3	2.8	.3	4.0
28	84	73	26	191	84	88	60	101	2.8	1.6	.3	7.0
29	84	231	26	262	-	62	56	93	2.4	1.6	.3	23
30	92	284	26	262	-	241	38	81	1.9	1.4	.3	21
31	105	-	146	262	-	273	-	77	-	1.0	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,177	329	32	167	10,270
November.....	4,365	301	70	146	8,660
December.....	3,690	284	26	116	7,120
Calendar year 1942	76,774.8	18,300	.2	27.0	152,300
January.....	3,728	262	24	150	7,390
February.....	2,324	257	20	83.0	4,610
March.....	2,970	273	49	96.8	5,890
April.....	1,781	267	23	59.4	3,630
May.....	2,752.3	1,340	2.8	89.1	5,490
June.....	776.7	74	1.9	75.9	1,540
July.....	357.7	86	1.0	11.5	709
August.....	39.5	10	.3	1.27	78
September.....	215.2	56	.3	7.17	427
Water year 1942-43	26,086.4	1,340	.3	76.9	55,700

Note.- Discharge Aug. 3-17, Aug. 27 to Sept. 5 represents estimated seepage under control. Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Concho Irrigation Co.'s canal at Christoval, Tex.

Location.- Water-stage recorder, lat. $31^{\circ}13'$, long. $100^{\circ}30'$, at Christoval, Tom Green County, 85 feet downstream from point of diversion and 100 feet downstream from bridge on U. S. Highway 277. Datum of gage is 2,017.0 feet above mean sea level, datum of 1929.

Records available.- November 1939 to September 1943. (November 1921, February 1930 to September 1939, miscellaneous discharge measurements only.)

Extremes.- Maximum discharge during year, 26 second-feet May 23 (gage height, 3.23 feet); minimum, 3.8 second-feet Nov. 5. 1939-43: Maximum discharge, 92 second-feet Aug. 23, 1942 (gage height, 5.88 feet), from rating curve extended above 25 second-feet by logarithmic plotting; minimum, 2.3 second-feet Dec. 13, 1941.

Remarks.- Records fair. No diversions above station. Canal diverts water for irrigation from right bank of South Concho River 600 feet above station at Christoval.

Monthly discharge, in second-feet, of South Concho Irrigation Co.'s canal at Christoval, Tex., water year October 1942 to September 1943

Month	Maximum	Minimum	Mean	Runoff 17 acre-feet
October.....	17	4.5	10.4	840
November.....	13	4.1	7.68	457
December.....	16	8.6	13.4	822
Calendar year 1942.....	35	3.8	13.7	9,910
January.....	13	11	12.8	786
February.....	14	12	12.9	716
March.....	14	7.3	10.8	667
April.....	20	7.6	14.5	864
May.....	21	15	18.3	1,150
June.....	16	14	15.3	906
July.....	17	14	15.9	976
August.....	18	16	16.9	1,040
September.....	19	17	17.4	1,030
Water year 1942-43.....	21	4.1	13.9	10,060

Middle Concho River near Tankersly, Tex.

Location.- Water-stage recorder and masonry control, lat. 31°22'35", long. 100°36'50", at Twelvemile Bridge, 3 miles northeast of Tankersly, Tom Green County, and 9½ miles upstream from Spring Creek. Datum of gage is 1,919.5 feet above mean sea level, datum of 1929.

Drainage area.- 1,280 square miles, of which 152 square miles is probably noncontributing. Records available.- February 1930 to September 1943.

Average discharge.- 13 years, 48.1 second-feet.

Extremes.- Maximum discharge during year, 1,450 second-feet May 23 (gage height, 7.17 feet); no flow June 24 to Sept. 30.

1930-43: Maximum discharge, 35,000 second-feet Sept. 26, 1936, (gage height, 24.2 feet), computed on basis of flow over Nasworthy Dam, 12 miles downstream, corrected for inflow and storage; no flow at times.

Maximum stage known, about 27.2 feet in April 1922, from information by State Highway Department.

Remarks.- Records good. Small diversions for irrigation above station affect low flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	10	13	15	14	13	13	4.8	10			
2	6.7	9.8	12	16	14	13	13	4.5	9.0			
3	7.6	9.8	13	15	15	13	13	3.9	7.6			
4	7.6	11	13	15	15	13	13	3.2	7.1			
5	8.0	11	13	16	14	13	12	2.7	24			
6	8.0	11	13	17	13	13	12	2.8	11			
7	7.8	11	13	18	13	13	12	3.9	6.9			
8	7.4	11	13	17	13	13	12	3.2	5.4			
9	6.9	11	14	17	13	13	12	3.1	4.5			
10	6.9	11	14	16	13	13	12	3.8	3.8			
11	6.5	11	14	16	12	13	12	4.2	3.2			
12	6.1	11	14	16	12	13	11	3.6	2.7			
13	6.3	11	14	16	12	13	11	2.8	2.2			
14	8.7	11	14	16	13	13	10	2.4	2.0			
15	11	13	15	16	13	13	10	2.7	1.6			
16	10	12	15	16	12	13	11	2.8	1.2			
17	21	12	14	15	12	12	10	2.6	1.1			
18	19	12	14	15	12	12	10	1.9	1.5			
19	15	12	14	15	12	12	9.8	1.9	1.6			
20	12	12	16	15	13	12	9.5	2.7	1.8			
21	11	12	23	15	13	12	9.2	4.9	1.0			
22	9.5	11	22	15	13	11	8.4	33	.5			
23	9.0	11	21	15	13	11	8.0	599	.2			
24	8.7	11	19	15	13	17	7.8	196	0			
25	9.0	12	18	14	13	21	7.6	78	0			
26	9.0	12	17	14	12	23	6.5	39	0			
27	9.2	12	16	14	12	20	6.5	28	0			
28	9.2	12	15	14	12	19	6.1	22	0			
29	10	12	15	14	-	16	5.8	17	0			
30	12	13	15	14	-	14	5.1	15	0			
31	12	-	15	14	-	14	-	12	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	297.8	21	6.1	9.61	591
November.....	341.6	13	9.8	11.4	678
December.....	471	23	12	15.2	934
Calendar year 1942.....	8,953.2	1,530	0	24.5	17,760
January.....	476	18	14	15.4	944
February.....	364	15	12	13.0	722
March.....	434	23	11	14.0	861
April.....	299.3	13	5.1	9.58	594
May.....	1,107.4	599	1.9	35.7	2,200
June.....	109.9	24	0	3.66	218
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43.....	3,901	599	0	10.7	7,740

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Spring Creek near Tankersly, Tex.

Location.- Water-stage recorder and concrete control, lat. $31^{\circ}21'30''$, long. $100^{\circ}32'05''$, $2\frac{1}{2}$ miles upstream from mouth and $6\frac{1}{2}$ miles east of Tankersly, Tom Green County. Datum of gage is 1,874.6 feet above mean sea level, datum of 1929.

Drainage area.- 734 square miles.

Records available.- February 1930 to September 1943.

Average discharge.- 13 years, 43.9 second-feet.

Extremes.- Maximum discharge during year, 122 second-feet May 22 (gage height, 2.84 feet); minimum, 1.0 second-feet Aug. 2-4, 6, 7.

1930-43: Maximum discharge, 26,900 second-feet Aug. 23, 1942 (gage height, 21.37 feet), from rating curve extended above 18,000 second-feet; no flow at times.

Maximum stage known, about 26.0 feet in 1882, from information by local residents.

Remarks.- Records good. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	62	56	55	39	36	20	15	47	43	2.0	6.0
2	70	62	55	55	39	33	19	10	46	28	1.1	6.0
3	90	62	54	54	39	30	21	4.8	46	16	1.0	6.2
4	74	64	60	53	37	27	24	3.6	45	12	1.1	6.5
5	73	66	60	56	35	25	26	3.1	41	13	1.6	6.6
6	72	68	59	60	35	21	25	3.4	40	11	1.1	6.5
7	70	70	56	56	36	20	24	3.0	33	6.3	1.0	6.5
8	69	69	56	55	36	21	27	2.7	23	7.2	1.1	6.5
9	68	66	55	57	39	20	25	5.6	19	5.0	1.1	6.8
10	66	64	53	60	36	17	24	9.6	16	3.6	1.2	7.9
11	63	64	52	59	36	16	25	10	11	5.1	1.4	7.2
12	59	66	52	56	35	16	23	8.3	11	12	1.5	6.8
13	60	64	52	56	35	16	19	6.8	9.6	9.1	1.5	6.7
14	63	64	53	53	37	16	12	6.0	9.6	6.0	1.4	6.5
15	69	63	53	54	38	18	13	5.7	9.6	5.2	1.5	6.5
18	63	64	52	55	36	16	12	10	6.4	4.8	2.2	7.1
17	87	63	52	52	35	15	16	9.1	6.0	3.5	3.0	15
18	70	57	53	52	35	16	16	6.8	5.6	5.3	7.6	18
19	66	55	56	51	36	14	20	7.2	16	11	7.2	18
20	68	55	60	52	37	13	28	17	13	9.6	6.0	18
21	68	53	75	54	36	15	24	32	16	6.0	5.4	16
22	68	53	66	54	37	18	24	78	11	4.2	5.0	14
23	66	54	61	53	36	18	20	74	7.6	3.0	5.4	11
24	63	54	60	52	34	29	21	64	6.8	2.2	6.2	10
25	67	55	59	51	34	33	18	57	6.0	1.9	5.7	11
26	66	56	59	51	32	34	18	56	4.4	1.8	6.0	39
27	67	57	56	53	33	33	11	54	5.2	1.6	6.0	52
28	69	60	56	55	34	26	16	52	10	1.5	5.7	47
29	67	54	57	51	-	24	14	50	7.9	2.2	6.0	50
30	69	57	57	39	-	21	13	50	6.8	2.2	6.0	57
31	61	-	56	39	-	20	-	47	-	2.2	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,113	.87	59	66.2	4,190
November.....	1,923	70	53	60.8	3,620
December.....	1,761	75	52	56.8	3,490
Calendar year 1942.....	31,337.3	12,500	.7	85.9	62,160
January.....	1,653	60	39	53.3	3,280
February.....	1,006	39	32	35.9	2,000
March.....	677	36	13	21.8	1,340
April.....	597	28	11	16.9	1,180
May.....	761.7	78	2.7	24.6	1,510
June.....	534.5	47	4.4	17.8	1,060
July.....	247.5	43	1.5	7.98	491
August.....	108.7	7.6	1.0	3.61	216
September.....	482.3	57	6.0	16.1	957
Water year 1942-43.....	11,764.7	87	1.0	32.2	23,330

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Concho River at Sterling City, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°50', long. 100°59', at county highway bridge, 0.3 mile south of Sterling City, Sterling County, and 4 miles upstream from Sterling Creek. Datum of gage is 2,242.4 feet above mean sea level, datum of 1929.

Drainage area.- 690 square miles, of which 75 square miles is probably noncontributing.

Records available.- September 1939 to September 1943.

Extremes.- Maximum discharge during year, 726 second-feet July 14 (gage height, 9.90 feet); no flow at times.

1939-43: Maximum discharge, 2,950 second-feet Mar. 26, 1941 (gage height, 16.47 feet), from rating curve extended above 1,000 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, 23.3 feet May 6, 1891, from information by local residents.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.6	2.0	0.9	1.6	1.5	1.7	0.1	a0.7	a0		
2	0	.7	1.0	4.0	1.6	1.3	1.6	.1	a.5	a0		
3	0	.5	.8	1.9	1.7	1.3	.6	.1	a.5	a0		
4	.1	.8	.8	1.5	1.6	1.3	.2	.3	a.4	a0		
5	.4	1.5	.8	.8	1.6	1.2	.2	.2	a.4	a0		
6	.4	.4	.9	.8	1.5	1.0	.7	.2	a.3	a0		
7	.3	.3	1.0	.8	1.4	.9	.8	.2	a.3	a0		
8	.2	.8	1.0	.5	1.5	1.0	.8	.2	a.2	a0		
9	.2	1.6	1.0	.9	1.6	1.0	.8	.2	a.2	a0		
10	.1	.8	1.0	.9	1.1	1.2	.8	.2	a.1	a0		
11	.2	.2	1.2	.9	.8	1.4	.8	.1	a.1	a0		
12	.2	.5	1.9	1.1	.9	1.2	.8	0	a0	a0		
13	.2	.6	1.8	1.3	1.7	1.3	.8	0	a0	a0		
14	.2	.7	1.7	1.3	1.6	1.0	.7	1.6	a0	a74		
15	.3	.7	.8	1.4	1.4	1.4	.7	1.0	a0	a28		
16	.9	3.0	.7	1.5	.5	3.1	.5	.6	a0	a.8		
17	1.4	.5	.8	1.4	.4	2.6	.5	.3	a0	.4		
18	.6	.5	1.8	3.5	1.4	2.2	.6	.1	a0	.2		
19	.6	1.2	1.8	2.8	1.8	2.0	.6	.1	a0	.1		
20	.5	.8	2.3	.7	1.6	1.9	.5	.1	a0	.1		
21	.4	.5	2.6	.4	1.2	1.8	.5	.4	a0	0		
22	.4	.5	1.9	.5	1.0	1.8	.6	8.4	a0	0		
23	.4	.8	1.9	1.4	.5	1.9	.4	35	0	0		
24	.4	.8	1.9	1.5	.8	3.9	.6	4.1	0	0		
25	.3	.8	1.8	1.5	.7	3.8	.7	1.6	a0	0		
26	.3	.8	.6	1.4	1.4	2.9	.7	1.0	a0	0		
27	.4	.8	4.0	1.3	1.4	2.2	1.2	.8	a0	0		
28	.4	.8	2.4	1.4	1.5	1.8	2.2	.8	a0	0		
29	.4	.8	1.5	1.5	-	1.6	.5	.8	a0	0		
30	1.3	.8	1.5	1.5	-	1.5	.1	a.8	a0	0		
31	.8	-	.3	1.6	-	1.6	-	a.8	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12.3	1.4	0	0.40	24
November.....	24.7	3.0	0	.82	49
December.....	44.7	4.0	.3	1.44	89
Calendar year 1942	631.1	.15	0	1.73	1,250
January.....	43.3	4.0	.4	1.40	86
February.....	36.1	1.8	.4	1.29	72
March.....	54.6	3.9	.9	1.76	108
April.....	22.2	2.2	.1	.74	44
May.....	58.2	33	0	1.88	115
June.....	3.7	.7	0	.12	7.3
July.....	103.6	74	0	3.34	205
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43	403.4	74	0	1.11	799

a No gage-height record; discharge computed on basis of available gage heights, recorded range in stage, weather records, and engineer's notes.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Concho River near Carlsbad, Tex.

Location.-- Water-stage recorder above spillway of State Sanatorium Dam, lat. $31^{\circ}36'$, long. $100^{\circ}40'$, 2 miles upstream from Carlsbad, Tom Green County. Datum of gage is 2,000.8 feet above mean sea level, datum of 1929.

Drainage area.-- 1,529 square miles, of which 123 square miles is probably noncontributing.

Records available.-- March 1924 to September 1943.

Average discharge.-- 19 years, 54.4 second-feet.

Extremes.-- Maximum discharge during year, 1,380 second-feet July 15 (gage height, 7.02 feet, from floodmark); minimum, 0.1 second-foot Sept. 20-30 (leakage through control). 1924-43: Maximum discharge, 94,600 second-feet Sept. 26, 1936 (gage height, 16.0 feet, from highest floodmarks known), by slope-area method; no flow at times.

Remarks.-- Records good except those for period of no gage-height record, which are poor. Diversions by pumping above station affect low flow (combined capacity of pumps, 40 second-feet); low flow also partly regulated by small reservoir above station.

• Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	5.0	6.0	7.3	7.3	7.3	7.5	4.9	5.2	0.5	0.2	0.2
2	4.0	5.0	6.0	7.3	7.3	7.3	7.5	4.4	4.6	.5	.2	.2
3	5.2	4.2	6.0	7.3	7.3	6.5	7.5	4.4	4.6	.5	.2	.2
4	5.2	4.2	6.0	7.3	7.3	7.3	7.5	3.4	5.2	.4	.2	.2
5	5.2	4.2	6.0	7.3	7.3	7.3	7.5	2.3	4.6	.4	.2	.2
6	5.2	4.5	6.0	7.3	6.5	7.3	6.5	3.0	4.0	.3	.2	.2
7	5.2	4.5	6.0	7.3	6.5	7.3	6.5	3.0	3.5	.2	.2	.2
8	5.2	4.5	6.7	7.3	6.5	7.3	6.5	2.6	3.5	.2	.2	.2
9	5.2	4.2	6.7	7.3	6.5	7.3	6.0	4.0	3.1	.2	.2	.2
10	4.6	4.2	6.7	7.3	6.5	7.3	6.5	4.6	2.7	.2	.2	.2
11	4.6	4.2	5.9	6.5	6.5	7.3	6.5	4.0	2.4	a.2	.2	.2
12	3.5	4.2	5.2	7.3	5.8	7.3	6.5	3.5	2.7	a.2	.2	.2
13	3.5	4.2	5.2	7.3	6.5	7.3	6.5	3.1	2.4	a.2	.2	.2
14	3.5	4.5	5.2	5.1	6.5	7.3	6.5	3.1	2.4	a.2	.2	.2
15	5.0	4.5	5.2	7.3	6.5	7.3	6.5	4.0	1.9	a355	.2	.2
16	5.0	4.5	5.2	7.3	5.8	7.3	6.5	3.5	1.6	a54	.2	.2
17	7.0	5.4	5.2	7.3	5.8	6.5	6.5	3.1	1.5	13	.2	.2
18	4.7	5.4	5.2	7.3	6.5	7.3	6.5	3.1	2.4	5.2	.2	.2
19	4.7	5.4	5.2	7.3	6.5	7.3	6.1	3.1	1.8	5.2	.2	.2
20	5.4	5.4	5.9	6.5	7.3	7.3	6.1	5.9	1.4	4.5	.2	.1
21	6.2	5.4	7.4	7.3	7.3	7.3	6.1	6.6	1.3	3.5	.2	.1
22	6.5	5.4	5.2	7.3	6.5	7.3	6.1	84	2.3	2.4	.2	.1
23	7.3	5.4	7.4	7.3	6.5	7.3	6.1	136	1.7	1.4	.2	.1
24	5.4	5.4	7.4	6.5	7.3	14	5.5	74	1.5	1.0	.2	.1
25	5.4	5.4	6.6	6.5	7.3	18	5.5	28	1.2	.7	.2	.1
26	5.4	5.4	5.8	6.5	7.3	14	5.5	16	.8	.5	.2	.1
27	5.4	5.4	5.8	6.5	6.5	11	5.5	11	.7	.4	.2	.1
28	6.5	6.0	5.8	6.5	7.3	9.6	5.5	9.0	.5	.3	.2	.1
29	2.9	6.0	5.8	6.5	-	9.5	4.9	7.4	.5	.2	.2	.1
30	3.0	6.0	5.8	6.5	-	7.5	4.9	6.6	.4	.2	.2	.1
31	5.0	-	7.3	7.3	-	8.3	-	5.9	-	.2	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	167.5	8.4	2.9	5.40	332
November.....	149.8	6.0	4.2	4.99	297
December.....	188.8	8.2	5.2	6.09	374
Calendar year 1942	3,478.6	528	.2	9.53	6,900
January.....	219.9	8.1	6.5	7.09	436
February.....	188.7	7.3	5.8	6.74	374
March.....	258.2	18	6.5	8.33	512
April.....	192.9	7.5	4.9	6.43	383
May.....	457.5	136	2.3	14.8	907
June.....	72.4	5.2	.4	2.41	144
July.....	415.0	333	.2	13.3	819
August.....	6.2	.2	.2	.20	12
September.....	4.9	.2	.1	.16	9.7
Water year 1942-43	2,319.8	333	.1	6.36	4,600

a No gage-height record; discharge computed on basis of recorded range in stages, weather records, and engineer's notes.

Note.-- Discharge July 8-14, July 29 to Sept. 30, represents estimated seepage under control.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pecan Bayou at Brownwood, Tex.

Location.- Water-stage recorder above spillway of city dam, lat. $31^{\circ}44'10''$, long. $98^{\circ}58'30''$, at Gulf, Colorado & Santa Fe (Fort Worth & Rio Grande) Railway bridge, 1 mile north of Brownwood, Brown County, 6 miles downstream from Salt Creek, and 10 miles downstream from Brownwood Reservoir. Datum of gage is 1,318.58 feet above mean sea level, datum of 1929.

Drainage area.- 1,614 square miles.

Records available.- May 1917 to June 1918, October 1923 to September 1943.

Average discharge.- 18 years (1924-28, 1929-43), 229 second-feet.

Extremes.- Maximum discharge during year, 12,300 second-feet Oct. 18 (gage height, 12.47 feet); no flow at times.
1917-18, 1923-43: Maximum discharge, 52,700 second-feet Oct. 14, 1920 (gage height, 16.92 feet), from rating curve extended above 33,000 second-feet; no flow at times.
Maximum stage known, 21.7 feet in September 1900, from information by Gulf, Colorado & Santa Fe Railway Co. Flood of July 3, 1932, probably the greatest known, reached a discharge of about 235,000 second-feet as it entered Brownwood Reservoir (computed from rate of change of contents in reservoir; data furnished by engineers of Brown County Water Improvement District No. 1).

Remarks.- Records good except those below 10 second-feet and those for periods of no gage-height record, which are poor. Stage-discharge relation for low flows effected by occasional accumulation of drift on dam. Flow regulated by Brownwood Reservoir (capacity, 140,000 acre-feet). Water is diverted at Brownwood Reservoir, 10 miles upstream, for irrigation of 6,430 acres and for municipal supply of city of Brownwood. Irrigation canal completed Apr. 9, 1939.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	298	403	a267	7.4	305	4.7	4.7	2.8	4.7	1.3	0	0
2	298	337	a267	7.4	311	4.7	6.0	3.7	3.7	.6	0	0
3	305	193	a182	7.4	311	3.7	6.0	3.7	3.7	.4	0	0
4	305	14	a6.0	7.4	311	4.7	4.7	2.8	4.7	.2	0	.2
5	298	16	a6.0	8.9	311	4.7	4.7	1.9	4.4	.8	0	22
6	305	35	a6.0	8.9	311	4.7	4.7	2.8	28	1.3	0	28
7	305	51	a6.0	8.9	311	3.7	f4.7	2.8	6.0	1.3	f1.3	3.7
8	311	48	a6.0	8.9	207	4.7	f11	2.8	3.7	.9	f.9	1.3
9	199	45	a6.0	7.4	8.9	4.7	f7.4	3.7	3.7	.9	f.6	.6
10	21	178	a6.0	7.4	4.7	4.7	6.0	3.7	3.7	1.3	f.4	.4
11	16	153	a6.0	8.9	3.7	4.7	4.7	2.8	3.7	1.9	f.2	.4
12	18	7.4	a6.0	7.4	4.7	4.7	4.7	2.8	3.7	1.3	.2	.4
13	18	6.0	a6.0	8.9	4.7	4.7	3.7	2.8	3.7	1.3	.1	.2
14	21	138	h4.7	8.9	4.7	3.7	2.8	3.7	3.7	.9	.1	.2
15	26	280	h4.7	8.9	4.7	4.7	1.9	2.8	2.8	.1	0	.4
16	21	280	4.7	8.9	4.7	3.7	2.8	2.8	2.8	0	0	2.8
17	319	280	6.0	7.4	4.7	3.7	2.8	2.8	2.8	0	0	11
18	9,530	320	7.4	6.0	4.7	2.8	2.8	2.8	2.8	0	0	1.9
19	6,450	a273	7.4	6.0	4.7	4.7	2.8	2.8	2.8	0	0	.6
20	2,920	a273	7.4	6.0	4.7	3.7	2.8	4.7	2.8	0	0	.6
21	1,770	a273	11	6.0	4.7	4.7	2.8	12	2.8	0	0	.6
22	1,160	a273	11	4.7	4.7	3.7	1.9	494	1.9	0	0	.6
23	740	a273	8.9	3.7	4.7	3.7	1.9	31	2.8	0	0	.6
24	618	a273	8.9	3.7	4.7	28	1.3	6.0	1.9	0	0	.4
25	383	a273	8.9	2.8	3.7	61	1.3	4.7	.6	0	0	.6
26	280	a273	8.9	2.8	3.7	12	1.3	3.7	.9	0	0	2.8
27	202	a273	7.4	2.8	3.7	6.0	1.3	3.7	.6	0	0	3.7
28	162	a273	6.0	89	4.7	6.0	1.9	3.7	1.3	0	0	2.8
29	129	a273	7.4	298	-	6.0	1.9	7.4	1.3	0	0	1.3
30	292	a273	7.4	305	-	4.7	1.9	8.9	.6	0	0	674
31	452	-	7.4	305	-	6.0	-	7.4	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	28,212	9,380	16	910	55,980
November.....	6,020.4	403	6.0	211	11,940
December.....	891.6	287	4.7	78.4	1,760
Calendar year 1942	149,574.2	9,380	2.8	41 ^a	296,700
January.....	1,190.8	305	2.8	78.1	2,340
February.....	2,478.2	311	3.7	88.3	4,900
March.....	224.8	61	3.7	7.25	446
April.....	109.2	11	1.3	3.64	217
May.....	644.0	494	1.9	20.8	1,280
June.....	152.2	44	.6	5.07	302
July.....	14.5	1.9	0	.47	29
August.....	3.8	1.3	0	.12	7.5
September.....	768.1	674	0	25.4	1,510
Water year 1942-43	40,677.5	9,380	0	111	80,680

a No gage-height record; discharge computed on basis of operation of gates at Brownwood Reservoir and weather record.

b Computed on basis of partly estimated gage-height record.

c Computed from staff-gage readings.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

San Saba River at Menard, Tex.

Location.- Water-stage recorder, lat. 30°55', long. 99°47', at bridge on U. S. Highway 88 in Menard, Menard County, 0.7 mile downstream from Las Moras Creek. Datum of gage is 1,863.05 feet above mean sea level, datum of 1929.

Drainage area.- 1,151 square miles.

Records available.- September 1915 to September 1943.

Average discharge.- 28 years, 77.3 second-feet.

Extremes.- Maximum discharge during year, 30,800 second-feet Oct. 17 (gage height, 15.67 feet); minimum, 10 second-feet (regulated) July 17.

1915-43: Maximum discharge, 117,000 second-feet July 23, 1938 (gage height, 22.2 feet, present site and datum, from floodmark), from rating curve extended above 60,000 second-feet and datum, from slope-area determinations at gage heights 21.0 and 22.2 feet; no flow at times caused by diversions to Noyes Canal. Maximum stage known, 23.3 feet, present site and datum, June 5 or 6, 1899, from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair. Low flow during irrigation season regulated by diversions to Noyes Canal 4 miles above Menard. About 4,300 acres above and 7,700 acres below gage have been declared irrigated (see records of Noyes Canal at Menard).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	72	58	38	34	34	a48	21	21	15	14	15
2	35	70	56	38	34	34	a46	21	21	14	14	19
3	44	70	58	38	34	34	a42	20	20	13	14	40
4	53	74	48	40	36	36	a40	19	20	19	14	43
5	43	74	36	42	38	34	a38	18	65	38	14	55
6	38	72	38	44	38	34	34	18	50	36	14	42
7	36	72	40	42	38	33	33	21	27	34	14	38
8	37	70	40	42	38	34	56	21	24	27	15	38
9	37	70	40	42	38	34	56	21	23	13	16	36
10	37	66	40	42	38	34	58	20	21	13	16	37
11	38	66	40	42	38	34	56	19	21	13	16	34
12	38	66	40	42	38	33	54	19	20	13	16	26
13	43	66	40	42	38	33	52	19	19	13	16	25
14	59	66	40	42	38	31	50	19	19	18	16	24
15	72	66	40	42	38	31	48	19	18	16	16	25
16	52	64	40	42	36	27	50	20	19	13	16	25
17	11,700	64	38	40	36	26	50	19	19	12	15	26
18	1,830	62	36	40	38	29	42	21	19	13	15	26
19	248	62	34	38	36	29	26	21	19	13	16	26
20	125	62	36	40	38	26	24	24	19	13	16	28
21	91	62	54	36	38	26	24	26	18	13	16	28
22	78	58	58	38	36	26	23	48	16	12	16	35
23	70	60	52	38	36	26	24	42	15	12	16	36
24	68	60	50	36	34	a48	26	34	15	13	16	38
25	66	60	50	36	33	a66	26	27	14	14	16	49
26	64	60	52	34	33	a64	25	26	13	14	15	91
27	62	60	54	34	34	a82	23	24	13	13	15	135
28	162	60	54	34	34	a60	21	21	13	14	15	80
29	174	60	50	34	-	a56	21	21	13	14	16	49
30	78	60	38	34	-	a54	21	21	13	15	16	107
31	76	-	38	34	-	a52	-	21	-	15	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	15,398	11,700	37	497	30,540
November.....	1,954	74	58	61.1	3,880
December.....	1,392	58	-	44.9	2,760
Calendar year 1942.....	34,609	11,700	12	94.8	68,650
January.....	1,206	44	34	31.9	2,390
February.....	1,020	38	33	36.4	2,020
March.....	1,182	66	26	36.1	2,340
April.....	1,145	66	21	36.2	2,270
May.....	711	48	18	26.9	1,410
June.....	627	56	13	26.9	1,240
July.....	508	38	12	16.4	1,010
August.....	475	16	14	16.3	942
September.....	1,276	155	15	42.5	2,530
Water year 1942-43.....	26,894	11,700	12	75.7	53,330

a No gage-height record; discharge computed on basis of records for Noyes Canal at Menard and San Saba River at San Saba.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

COLORADO RIVER BASIN
San Saba River at San Saba, Tex.

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Location.-- Water-stage recorder, lat. 31°12'10", long. 98°42'15", at bridge on San Saba-Chadwick Mill highway, three-quarters of a mile northeast of San Saba, San Saba County, and 15 miles upstream from mouth. Datum of gage is 1,153.3 feet above mean sea level, datum of 1929.

Drainage area.-- 3,046 square miles.

Records available.-- August 1930 to September 1943. December 1904 to December 1906 and September 1915 to August 1930 at site 4 1/2 miles upstream.

Average discharge.-- 28 years (1915-43), 292 second-feet.

Extremes.-- Maximum discharge during year, 20,400 second-feet June 5 (gage height, 31.59 feet); minimum, 28 second-feet Aug. 20.

1904-6, 1915-43: Maximum discharge, 203,000 second-feet July 23, 1938 (gage height, 45.18 feet, from floodmarks at highest stage known), by elope-area method; no flow Aug. 9, 10, 1918.

Maximum stage known prior to 1938, 42.6 feet June 6, 1899, from information by local resident.

Remarks.-- Records good except those for periods of no gage-height record, which are fair. Diversions above station for irrigation and municipal uses affect low flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	219	a154	144	134	110	116	80	94	74	h49	36
2	147	219	a152	146	135	105	112	78	90	80	a44	43
3	147	212	a149	143	139	103	110	77	86	98	a42	43
4	150	212	a147	139	134	113	110	74	84	77	a41	85
5	155	212	a144	136	135	110	108	71	11,500	66	a35	90
6	147	212	a142	139	131	113	105	71	5,460	61	a34	87
7	143	205	a139	142	127	112	103	77	913	59	a35	90
8	139	212	a137	143	120	114	118	87	400	58	h36	72
9	136	205	a134	143	116	110	302	84	278	52	a37	73
10	135	199	a132	143	114	113	262	87	219	58	a38	70
11	135	191	a129	140	112	114	194	93	181	76	38	65
12	134	197	a127	136	112	118	163	98	157	171	37	65
13	133	188	a124	139	110	120	140	85	143	184	37	64
14	133	197	122	138	110	118	129	78	130	76	37	62
15	138	186	122	140	109	118	122	78	122	69	36	59
16	143	187	121	136	110	116	120	77	112	69	36	58
17	364	186	121	138	112	109	124	74	109	71	36	58
18	6,600	183	121	136	117	402	117	70	105	62	35	55
19	6,650	181	122	136	114	98	113	67	99	62	33	51
20	1,070	180	127	135	112	88	113	72	94	62	29	50
21	685	178	146	138	112	86	113	73	90	60	30	49
22	453	176	159	138	116	87	110	76	84	58	32	49
23	345	a174	157	138	121	90	102	116	82	57	34	48
24	300	a171	155	138	120	99	97	a151	81	57	33	47
25	270	a169	180	136	121	164	93	a164	76	52	33	49
26	262	a166	156	131	112	222	90	a116	69	a50	33	70
27	248	a164	148	127	108	171	86	a104	67	a50	33	122
28	248	a161	143	134	112	150	84	a112	74	a50	33	240
29	240	a159	140	134	-	138	91	104	111	a50	35	107
30	248	a156	140	134	-	127	85	105	105	a50	34	485
31	238	-	142	133	-	184	-	102	-	a50	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	19,565	6,650	133	62.5	38,410
November.....	6,634	219	156	183	11,170
December.....	4,312	160	121	137	8,550
Calendar year 1942.....	84,173	6,650	43	231	167,000
January.....	4,271	146	127	133	8,470
February.....	3,322	139	108	113	6,590
March.....	3,662	222	96	113	7,260
April.....	3,734	302	84	127	7,410
May.....	2,803	164	67	97.4	5,560
June.....	21,215	11,500	87	707	42,080
July.....	2,169	184	50	77.0	4,300
August.....	1,109	49	29	37.8	2,200
September.....	2,593	465	56	87.4	5,140
Water year 1942-43.....	74,189	11,500	29	207.4	147,100

Peak discharge.-- Oct. 18 (11 p.m.) 16,500 sec.-ft.; June 5 (7 p.m.) 20,400 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and engineer's notes.

b Computed from staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Noyes Canal at Menard, Tex.

Location.-- Water-stage recorder, lat. 30°55', long. 99°47', at intersection of Canal and Hay Streets in Menard, Menard County, 4 1/2 miles downstream from head gates. Datum of gage is 1,876.1 feet above mean sea level, datum of 1929.

Records available.-- March 1924 to September 1943.

Average discharge.-- 18 years (1924-37, 1938-43), 15.2 second-feet.

Extremes.-- Maximum gage height during year, 3.83 feet Oct. 17 (discharge not determined); no flow at times.

1924-43: Maximum daily discharge (exclusive of times canal was submerged by waters of San Saba River), 50 second-feet 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 not including local runoff between point of diversion and station. Canal diverts water from right bank of San Saba River 4 miles above Menard for irrigation near Menard; 10 acres irrigated above station.

COLORADO RIVER BASIN

Monthly discharge, in second-feet, of Moyes Canal at Menard, Tex.,
water year October 1942 to September 1945

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	28	0	14.6	900
November.....	0	0	0	0
December.....	22	0	16.3	1,000
Calendar year 1942.....	29	0	18.4	13,500
January.....	22	20	21.7	1,500
February.....	22	21	21.7	1,200
March.....	22	19	20.4	1,200
April.....	22	0	15.9	800
May.....	27	21	24.0	1,400
June.....	25	20	22.1	1,500
July.....	24	0	15.7	900
August.....	16	12	13.8	800
September.....	20	0	6.62	500
Water year 1942-43.....	27	0	15.9	11,500

Note.- Gage-height record affected by local runoff Oct. 14, 17, Mar. 24, May 21, 22, June 4, 5, Sept. 4, 5, 30; discharge computed on basis of record for San Saba River at Menard. No gage-height record Apr. 2-6; discharge computed on basis of recorded range in stage and record for San Saba River at Menard.

Brady Creek at Brady, Tex.

Location.- Water-stage recorder, lat. 31°08'15", long. 99°19'55", just upstream from bridge on North Bridge Street in Brady, McCulloch County, and 0.4 mile downstream from Live Oak Creek. Datum of gage is 1,645.50 feet above mean sea level, datum of 1929.

Drainage area.- 575 square miles.

Records available.- May 1939 to September 1943.

Extremes.- Maximum discharge during year, 2,180 second-feet June 5 (gage height, 10.13 feet); no flow at times.

1939-43: Maximum discharge, 13,900 second-feet Apr. 27, 1941 (gage height, 16.81 feet), from rating curve extended above 8,000 second-feet; no flow at times.

Maximum stage known, 29.1 feet, July 23, 1938, present site and datum (discharge at site 5 miles downstream, 86,000 second-feet by slope-area method).

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.1	0.6	0.1	0.2	0.1	0.2	0.9	0.1	0.1	2.6	0
2		.1	.6	.1	.2	.1	.2	1.0	.1	.1	2.2	0
3		.3	.4	.1	.2	.1	.2	1.2	0	.1	0	0
4		.4	.4	.2	.2	.1	.2	1.1	0	.6	.1	1.8
5		.3	.4	.2	.2	.2	.2	1.1	0	550	.1	1.4
6		.2	.5	.2	.4	.2	.3	1.0	0	147	.1	.1
7		.2	.4	.3	.4	.3	.2	.9	0	26	.1	0
8		.1	.8	.5	.4	.4	.3	36	0	10	.1	0
9		.1	.4	.3	.4	.4	.3	16	0	6.5	.1	0
10		.1	.2	.3	.4	.3	.3	3.1	.1	2.7	.1	0
11		.1	.1	.3	.3	.1	.3	1.6	0	1.2	.1	0
12		.1	.1	.3	.3	.1	.4	1.0	0	.5	.1	0
13		.1	.1	.3	.3	.1	.4	.7	0	.2	.1	0
14		.2	.1	.3	.3	.1	.4	.4	0	.1	.1	0
15		7.2	.1	.2	.3	.1	.4	.3	0	.1	.1	0
16		2.5	.1	.3	.4	.1	.4	.2	0	.1	0	0
17		626	.1	.3	.4	.1	.4	.2	0	.1	0	0
18		98	.1	.3	.4	.1	.4	.2	0	.1	0	0
19		39	.1	.3	.3	.1	.4	.2	0	.1	0	0
20		24	.1	.4	.4	.2	.4	.2	0	.1	0	0
21		14	.1	.7	.2	.2	.4	.2	1.6	.1	0	0
22		8.3	.1	.8	.2	.2	.4	.2	2.0	.1	0	0
23		5.3	.1	.7	.1	.2	.4	.1	8.9	.1	0	0
24		3.9	.1	.4	.1	.2	2.4	.1	45	.1	0	0
25		3.4	.1	.3	.1	.2	2.2	.1	12	.1	0	0
26		2.6	.1	.4	.1	.2	1.2	.1	5.2	.1	0	1.8
27		2.0	.1	.2	.1	.2	1.0	.1	2.6	.1	0	1.5
28		1.9	.1	.2	.1	.2	.9	.1	1.3	.1	0	.2
29		1.6	.1	.2	.1	-	.9	.1	.8	.1	0	.3
30		1.2	.1	.1	.1	-	.8	.1	.4	2.1	0	70
31		.8	-	.2	.1	-	.9	-	.2	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	844.1	626	0.1	27.2	1,670
November.....	6.6	.8	.1	.22	13
December.....	9.5	.8	.1	.31	19
Calendar year 1942.....	2,889.7	626	0	7.92	5,720
January.....	7.7	.4	.1	.25	15
February.....	4.9	.4	.1	.18	9.7
March.....	17.8	2.4	.2	.27	35
April.....	68.5	36	.1	1.23	136
May.....	80.4	45	0	1.59	129
June.....	747.8	550	.1	24.9	1,480
July.....	6.5	.6	0	.20	12
August.....	0	0	0	0	0
September.....	76.5	70	0	1.55	152
Water year 1942-43.....	1,869.7	626	0	1.12	3,700

Peak discharge.- Oct. 17 (9 a.m.) 1,780 sec.-ft.; June 5 (4 p.m.) 2,180 sec.-ft.; Sept. 30 (4:30 a.m.) 205 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Llano River near Junction, Tex.

Location.- Water-stage recorder, lat. 30°30', long. 99°47', about 1,000 feet above remains of old Wilson Dam, 3 miles northwest of Junction, Kimble County, and 4 miles upstream from confluence with South Llano River. Datum of gage is 1,699.9 feet above mean sea level, datum of 1929.

Drainage area.- 914 square miles.

Records available.- September 1915 to September 1943.

Average discharge.- 28 years, 77.8 second-feet.

Extremes.- Maximum discharge during year, 6,120 second-feet Oct. 17 (gage height, 6.55 feet); minimum, 2.4 second-feet Aug. 28 to Sept. 1.
1915-43: Maximum discharge, 94,800 second-feet Sept. 16, 1936 (gage height, 29.2 feet, present site, based on gage-height relation curve), by slope-area method; no flow at times.

Remarks.- Records good except those above 1,000 second-feet, which are fair. Diversions for irrigation materially reduce low flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	66	35	30	27	22	23	15	17	17	7.6	2.8
2	53	66	35	30	27	22	22	14	15	17	7.2	3.1
3	53	62	35	30	27	22	22	13	14	17	6.9	4.7
4	55	66	35	29	26	21	21	13	14	15	6.2	4.2
5	55	66	35	30	26	22	20	12	1,420	14	5.8	3.9
6	49	64	35	34	26	21	20	12	380	13	5.5	3.6
7	48	62	36	32	26	22	20	13	192	13	5.2	3.3
8	44	60	36	32	26	22	52	12	86	12	5.0	3.3
9	42	53	35	32	27	22	42	12	73	11	5.0	3.3
10	41	46	35	32	26	22	35	91	62	11	4.7	3.3
11	40	48	35	30	25	22	32	46	57	15	4.7	3.3
12	40	48	34	30	25	22	34	53	58	14	4.4	3.3
13	40	45	34	30	24	21	27	26	49	15	4.4	3.3
14	42	48	34	30	25	21	26	23	44	17	4.2	3.3
15	48	48	34	30	24	21	25	23	40	86	4.2	3.1
18	48	46	32	30	25	20	25	20	40	44	4.2	3.1
17	1,900	46	36	30	25	19	24	18	38	28	3.9	3.1
18	902	44	30	29	25	19	24	17	36	25	3.6	3.1
19	209	44	30	28	24	19	24	17	35	19	3.6	3.1
20	242	42	30	28	24	18	23	16	38	16	3.6	3.1
21	109	42	36	29	24	18	22	15	34	14	3.3	3.1
22	102	41	38	30	24	18	21	44	30	13	3.1	3.1
23	92	41	38	29	23	18	20	50	28	12	3.1	3.1
24	89	41	35	29	23	17	19	42	26	11	2.8	3.1
25	86	41	34	29	24	51	18	34	24	10	2.8	3.9
26	84	38	32	28	24	38	17	28	23	9.9	2.8	7.2
27	80	38	30	28	23	32	17	25	21	9.0	2.8	10
28	80	38	30	28	23	28	17	23	20	8.6	2.6	12
29	75	36	30	28	-	25	16	20	19	8.3	2.6	12
30	73	-	30	28	-	24	15	18	18	8.3	2.6	81
31	69	-	30	28	-	24	-	19	-	7.6	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,845	1,900	40	156	9,610
November.....	1,465	66	36	48.8	2,910
December.....	1,038	38	30	33.8	2,080
Calendar year 1942	26,559.5	6,470	1.7	73.6	53,280
January.....	920	34	28	29.7	1,820
February.....	698	27	23	24.9	1,380
March.....	753	51	18	25.6	1,450
April.....	717	52	15	23.9	1,420
May.....	765	91	12	24.7	1,520
June.....	2,882	1,420	14	96.1	5,720
July.....	527.7	85	7.6	17.0	1,050
August.....	131.0	7.6	2.6	4.2	260
September.....	205.8	81	2.8	6.8	408
Water year 1942-43	14,927.5	1,900	2.6	40.9	29,610

Peak discharge.- Oct. 17 (2 p.m.) 6,120 sec.-ft.; June 5 (4 p.m.) 5,900 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Llano River at Llano, Tex.

Location.- Water-stage recorder, lat. $30^{\circ}45'$, long. $98^{\circ}40'$, in Llano, Llano County, 0.4 mile downstream from bridge on State Highway 81 and 7 miles upstream from Little Llano River. Datum of gage is 970.0 feet above mean sea level, datum of 1929.

Drainage area.- 4,000 square miles.

Records available.- September 1939 to September 1943.

Extremes.- Maximum discharge during year, 50,600 second-feet June 5 (gage height, 16.92 feet), from rating curve extended above 17,000 second-feet; minimum, 6.4 second-feet (regulated) Aug. 25, 26; minimum daily, 30 second-feet Aug. 31.
1939-43: Maximum discharge, that of June 5, 1943; minimum 3.6 second-feet (regulated) Aug. 5-7, 1942; minimum daily not determined.
Maximum stage known, 41.5 feet June 14, 1935, from information by local resident.

Remarks.- Records fair. Low flow regulated by power plant half a mile above station.
No large diversion.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	286	212	164	152	120	138	87	117	568	94	56
2	176	274	208	162	140	110	123	83	109	270	104	54
3	179	268	208	189	164	110	128	74	104	200	73	76
4	184	268	221	167	152	121	108	68	113	148	70	65
5	192	260	202	170	151	128	104	68	19,400	134	57	1,410
6	199	5,210	194	177	136	119	104	76	9,080	136	80	644
7	179	2,050	195	216	144	107	103	88	3,860	120	60	267
8	170	218	196	199	130	115	202	62	1,410	116	78	144
9	162	548	196	198	128	118	802	74	802	97	120	120
10	158	418	196	176	128	116	336	76	595	118	56	64
11	148	355	186	192	132	120	236	72	497	2,350	73	62
12	146	316	212	176	128	126	198	186	411	1,560	66	70
13	138	298	194	176	127	114	160	236	362	823	35	66
14	144	284	184	166	120	134	150	172	346	411	74	65
15	190	278	194	158	120	116	130	128	330	273	53	64
16	169	272	176	168	134	121	124	120	304	248	46	64
17	514	266	192	167	115	118	126	100	293	299	55	62
18	5,380	254	170	146	134	108	120	104	283	283	67	63
19	5,680	254	180	167	126	114	110	89	263	233	54	86
20	1,590	246	186	146	122	94	116	100	248	171	44	66
21	884	243	216	156	148	107	105	86	230	172	46	68
22	621	247	264	142	122	87	108	121	220	153	51	66
23	495	225	260	158	132	102	100	159	190	118	46	67
24	432	220	230	148	110	137	112	242	212	129	42	62
25	397	214	220	164	114	369	94	242	164	122	45	75
26	376	230	210	150	125	386	98	192	182	90	36	115
27	342	220	197	148	102	272	86	148	178	112	52	225
28	336	193	164	134	122	236	74	132	148	87	42	357
29	330	234	192	149	-	192	93	136	172	103	49	295
30	342	212	169	152	-	157	81	125	146	129	53	240
31	324	-	173	163	-	142	-	117	-	90	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	18,462	5,380	138	596	36,620
November.....	15,263	5,210	193	509	30,270
December.....	6,200	264	164	200	12,300
Calendar year 1942.....	125,660	8,970	12	344	249,200
January.....	5,152	215	134	166	10,280
February.....	3,678	164	102	131	7,300
March.....	4,516	386	87	146	8,960
April.....	4,136	369	74	156	8,200
May.....	3,733	242	68	122	7,500
June.....	40,764	19,400	104	1,359	80,850
July.....	9,853	2,350	87	318	19,540
August.....	1,777	104	30	57.3	3,520
September.....	5,135	1,410	54	171	10,190
Water year 1942-43.....	118,719	19,400	30	385	235,500

Peak discharge.- Oct. 18 (8:30 a.m.) 7,200 sec.-ft.; Nov. 6 (10 a.m.) 13,600 sec.-ft.; June 5 (10:15 a.m.) 50,600 sec.-ft.; July 11 (4 p.m.) 8,660 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pedernales River near Johnson City, Tex.

Location.— Water-stage recorder, lat. 30°18', long. 98°24', on bridge on U. S. Highway 281, 1.5 miles north of Johnson City, Blanco County, and 1.9 miles downstream from Buffalo Creek. Datum of gage is 1,096.6 feet above mean sea level, unadjusted. Drainage area, 947 square miles.

Records available.— May 1939 to September 1943.

Extremes.— Maximum discharge during year, 27,000 second-feet Oct. 18 (gage height, 14.25 feet), from rating curve extended above 12,000 second-feet on basis of slope-area determination at gage height 17.53 feet; minimum, 2.6 second-feet Aug. 28-31.

1939-43: Maximum discharge, 42,900 second-feet Oct. 25, 1939 (gage height, 17.53 feet, from floodmark), by slope-area method; minimum, 1.2 second-feet Oct. 1-3, 1939. Maximum stage known, 33 feet in July 1869, from information by local residents.

Remarks.— Records good. No diversion for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	98	48	46	40	35	54	24	23	15	15	4.4
2	21	90	50	46	40	35	52	22	20	18	11	57
3	21	85	48	45	42	35	48	20	18	20	9.8	200
4	2,190	87	48	42	42	37	46	19	18	18	9.4	54
5	173	92	46	42	42	37	43	18	1,530	14	8.4	24
6	68	90	46	48	42	35	43	16	1,540	12	8.0	16
7	45	92	46	62	40	35	40	17	269	10	7.4	12
8	37	95	46	62	38	35	72	16	130	9.4	7.1	10
9	32	92	46	56	38	37	307	18	90	8.9	6.8	8.9
10	29	90	46	50	35	37	114	17	68	9.4	6.5	7.7
11	26	73	46	48	35	37	82	16	54	914	5.9	7.1
12	25	68	46	50	35	38	64	18	45	1,650	5.6	6.5
13	24	68	45	50	34	40	56	19	42	206	5.0	5.9
14	23	68	43	48	34	40	50	15	38	114	4.8	5.6
15	496	66	43	46	34	42	46	15	56	90	4.6	5.3
16	419	66	42	45	35	40	45	15	45	70	4.2	6.5
17	517	66	42	40	35	37	45	15	32	50	4.0	13
18	13,000	62	42	40	35	35	42	14	28	42	3.8	22
19	1,090	62	42	38	37	35	40	13	28	35	3.8	12
20	434	60	43	38	38	34	40	12	26	29	3.8	11
21	290	64	67	37	38	31	38	12	21	25	3.6	9.8
22	219	60	133	38	38	31	37	21	20	22	3.6	8.0
23	175	64	100	38	38	31	35	306	18	20	3.6	7.4
24	162	60	73	40	38	70	35	180	17	18	3.2	6.8
25	142	60	64	38	38	720	32	73	15	17	3.2	6.2
26	126	58	60	37	38	213	31	45	15	16	2.8	8.9
27	114	54	58	37	37	117	29	35	13	18	2.8	21
28	114	54	50	37	35	85	28	25	12	17	2.7	28
29	114	52	46	37	-	73	28	25	15	16	2.7	41
30	126	52	46	37	-	62	25	26	30	38	2.7	97
31	112	-	46	40	-	56	-	26	-	34	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	20,374	13,000	20	657	40,410
November.....	2,158	98	52	71.9	4,280
December.....	1,647	133	42	53.1	3,270
Calendar year 1942.....	49,407.9	13,000	5.0	133	97,990
January.....	1,358	62	37	43.8	2,690
February.....	1,051	42	34	37.5	2,080
March.....	2,225	720	31	71.8	4,410
April.....	1,645	307	25	54.8	3,260
May.....	1,081	306	12	34.9	2,140
June.....	4,276	1,540	12	143	8,480
July.....	3,575.7	1,650	8.9	118	7,090
August.....	168.6	15	2.7	5.44	334
September.....	713	200	4.4	23.8	1,410
Water year 1942-43.....	40,272.3	13,000	2.7	110	79,850

Peak discharge.— Oct. 4 (7:30 a.m.) 7,770 sec.-ft.; Oct. 18 (7 a.m.) 27,000 sec.-ft. July 11 (11:30 p.m.) 8,590 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Barton Springs at Austin, Tex.

Location.— Lat. 30°16', long. 97°48'. Springs issue from channel and along banks of Barton Creek for a distance of 1,000 feet in Zilker Park at Austin, Travis County. The main spring is near right bank of creek 500 feet upstream from concrete dam forming swimming pool, 1,800 feet upstream from bridge on Austin-Bee Cave highway and 0.6 mile upstream from mouth of Barton Creek.

Records available.— October 1918 to September 1926 and October 1940 to September 1943.

November 1894 to September 1918, October 1926 to September 1940, discharge published as miscellaneous measurements. Daily discharge record of Barton Creek at Austin published for period April 1917 to September 1918 closely represents flow of Barton Springs. Summary of all discharge measurements prior to October 1937 is contained in Water-Supply Paper 850.

Extremes.— Maximum discharge measured during year, 65.1 second-feet Nov. 13; minimum measured, 27.8 second-feet Sept. 2.

1894-1943: Maximum discharge measured, 166 second-feet May 10, 1941; minimum measured, 12.1 second-feet Feb. 26, 1918.

Remarks.— Discharge measurements represent total flow of springs including Old Mill Spring which is on right bank and about 1,000 feet downstream from main spring. Flow of springs emerges from Edwards limestone outcrop in Balcones fault zone and responds to local rainfall on Edwards Plateau. Water used for recreational purposes.

Discharge measurements, in second-feet, of Barton Creek and determination of discharge of Barton Springs, water year October 1942 to September 1943

Date	Barton Creek below springs	Barton Creek above springs	Barton Springs	Date	Barton Creek below springs	Barton Creek above springs	Barton Springs
Nov. 13	73.4	8.31	65.1	Apr. 30	49.5	0	49.5
Dec. 1	59.6	.50	59.1	May 20	41.0	0	41.0
24	60.5	3.6	56.9	June 28	41.3	0	41.3
Jan. 14	48.6	0	48.6	July 18	43.0	0	43.0
Feb. 6	42.5	0	42.5	Aug. 7	36.6	0	36.6
Mar. 8	37.7	0	37.7	Sept. 2	27.8	0	27.8
31	42.0	60.1	41.9	23	29.1	0	29.1

° Estimated.

Dry Creek at Buescher Lake near Smithville, Tex.

Location.— Water-stage recorder above concrete spillway of dam, lat. 30°03', long. 97°09', in Bastrop-Buescher State Park, 1.9 miles upstream from mouth and 2.2 miles north of Smithville, Bastrop County. Datum of gage is 327.9 feet above mean sea level, datum of 1929.

Drainage area.— 1.48 square miles (area above dam).

Records available.— October 1939 to September 1943.

Extremes.— Maximum discharge during year, 35 second-feet Nov. 4 (no flow passed over spillway); maximum gage height not determined; no flow at times.

1939-43: Maximum discharge, 1,870 second-feet June 30, 1940 (gage height, 24.82 feet); maximum gage height, 24.96 feet June 30, 1940; no flow at times.

Remarks.— Records fair. Records given herein represent flow into Buescher Lake. No runoff except during and immediately following precipitation. Discharge below gage height, 22.27 feet (spillway crest) determined from change in contents in lake; that above gage height 22.27 feet determined by algebraic summation of flow over spillway (computed from spillway curve) and change in contents in lake (computed from capacity curve and reduced to equivalent second-feet). There was no flow over spillway during year. No adjustments made for evaporation or seepage losses. Capacity of lake, 255 acre-feet. No diversion above station or from lake.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0	0	0	0	0	0	0			
2	0	0	0	0	0	0	0	0	0			
3	0	0	0	0	0	0	0	0	0			
4	0	2.0	0	0	0	0	0	0	0			
5	0	0	0	0	0	0	0	0	.2			
6	0	0	0	.5	0	0	0	0	0			
7	0	0	0	0	0	0	0	0	0			
8	0	0	0	0	0	0	0	0	0			
9	0	0	0	0	0	0	0	0	0			
10	0	0	0	0	0	0	0	0	0			
11	0	0	0	0	0	0	0	0	0			
12	0	0	0	.4	0	0	0	0	0			
13	0	0	0	0	0	0	0	0	0			
14	0	0	0	0	0	0	0	0	0			
15	0	0	0	0	0	0	0	0	0			
16	0	0	0	0	0	0	0	0	0			
17	0	0	0	0	0	0	0	0	0			
18	0	0	0	0	0	0	0	0	0			
19	0	0	0	0	0	0	0	0	0			
20	0	0	0	0	0	0	0	0	0			
21	0	.5	.2	0	.9	0	0	.7	0			
22	0	0	0	0	0	0	0	.3	0			
23	0	0	0	0	0	0	0	0	0			
24	0	0	0	0	0	.8	0	0	0			
25	0	0	0	0	0	.1	0	0	0			
26	0	0	.5	0	0	0	0	0	0			
27	0	0	0	0	0	0	0	0	0			
28	0	0	0	0	0	0	0	0	0			
29	0	0	0	0	0	0	0	.5	0			
30	.2	0	0	0	0	0	0	0	0			
31	0	0	0	0	0	0	0	0	0			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0.2	0.2	0	0.01	0.4
November.....	2.5	2.0	0	.02	5.0
December.....	.7	.5	0	.02	1.4
Calendar year 1942	41.6	9.6	0	.11	83
January.....	.7	.4	0	.02	1.4
February.....	.8	.9	0	.03	1.8
March.....	.9	0	0	.03	1.8
April.....	0	0	0	0	0
May.....	1.5	.7	0	.05	3.0
June.....	.2	.2	0	.01	.4
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43	7.6	2.0	0	.02	15

Note.— No gage-height record Oct. 1-9, Nov. 10-13, Dec. 3-13, Feb. 1-26, Aug. 1 to Sept. 30; discharge computed on basis of recorded range in stage, weather records and engineer's notes.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Lavaca River near Edna, Tex.

Location.— Wire-weight gage, lat. 28°58', long. 96°42', at bridge on U. S. Highway 59 (renumbered), 550 feet upstream from Texas & New Orleans Railroad bridge and 2.8 miles southwest of Edna, Jackson County. Datum of gage is 13.88 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 887 square miles.

Records available.— August 1938 to September 1943.

Extremes.— Maximum discharge during year, 3,200 second-feet Mar. 26 (gage height, 15.90 feet, from graph based on gage readings); minimum observed, 18 second-feet Sept. 25-27, 1938-43: Maximum discharge, 73,000 second-feet July 1, 1940 (gage height, 32.51 feet); minimum observed, 5.2 second-feet July 10, 1939.
Maximum stage known, 33.8 feet May 25, 1936, from information by local resident (discharge, 83,400 second-feet).

Remarks.— Records good. Gage read twice daily, more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	57	55	65	67	52	91	43	377	33	377	22
2	56	54	54	54	66	58	84	42	167	33	232	86
3	56	51	54	62	67	113	78	42	90	34	126	111
4	56	58	52	61	68	99	75	40	68	35	82	99
5	72	144	52	59	70	65	71	40	109	36	65	80
6	651	579	52	65	70	61	63	39	367	34	57	40
7	167	175	52	134	65	58	66	39	260	30	51	47
8	103	106	52	274	62	55	64	38	140	29	46	28
9	82	81	53	164	60	52	62	38	119	30	44	26
10	72	72	53	102	60	62	64	38	82	29	40	35
11	68	65	53	84	59	54	63	39	61	52	40	64
12	63	61	52	103	58	55	62	39	53	248	39	35
13	61	58	52	131	57	55	59	44	70	407	35	28
14	58	57	52	265	55	80	57	38	547	176	35	23
15	58	58	52	162	56	61	54	36	659	102	33	22
16	56	58	52	112	55	55	52	35	170	65	31	27
17	55	57	51	96	55	52	50	35	98	49	29	24
18	55	57	50	84	58	52	54	33	76	41	23	25
19	54	56	52	76	57	52	54	33	65	38	27	26
20	54	55	52	73	58	50	53	32	58	35	26	23
21	59	57	57	70	58	50	50	32	54	35	26	22
22	58	82	70	70	68	49	50	144	49	31	26	21
23	54	77	118	74	63	47	50	475	46	29	24	21
24	51	90	141	74	60	46	49	172	44	28	24	20
25	50	73	83	73	57	1,170	49	91	42	26	23	19
26	50	62	70	70	55	2,670	48	656	43	29	22	18
27	48	58	75	68	54	590	46	242	40	59	22	18
28	51	58	168	68	53	226	46	97	38	50	21	21
29	51	57	172	67	-	152	45	87	36	214	21	26
30	67	54	86	67	-	121	44	161	34	1,410	21	24
31	66	-	72	67	-	102	-	545	-	642	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,556	651	48	82.5	5,070
November.....	2,627	579	51	87.6	5,210
December.....	2,159	172	50	69.6	4,280
Calendar year 1942	89,601	11,200	26	2.5	177,700
January.....	3,007	274	59	97.0	5,960
February.....	1,690	70	53	60.4	3,350
March.....	6,454	2,670	46	209	12,900
April.....	1,768	91	44	58.9	3,510
May.....	3,465	656	32	112	6,870
June.....	4,062	659	34	135	8,060
July.....	4,089	1,410	26	132	8,110
August.....	1,696	377	21	54.7	3,360
September.....	1,079	111	18	36.0	2,140
Water year 1942-43	34,652	2,670	18	94.9	68,720

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Navidad River near Ganado, Tex.

Location.- Wire-weight gage, lat. 29°02', long. 96°33', at bridge on U. S. Highway 59 (renumbered), 100 feet upstream from Texas & New Orleans Railroad bridge, a quarter of a mile downstream from Sandy Creek and 24 miles southwest of Ganado, Jackson County. Datum of gage is 13.62 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,116 square miles.

Records available.- May 1939 to September 1943.

Extremes.- Maximum discharge during year, 6,510 second-feet Mar. 26 (gage height, 24.00 feet, from graph based on gage readings); minimum observed, 26 second-feet May 8, 9, 1939-43; Maximum discharge, 64,500 second-feet July 2, Nov. 26, 1940; maximum gage height, 36.54 feet July 2, 1940, from floodmark; minimum observed, 4.0 second-feet Nov. 1, 1939.

Maximum stage known, 39.8 feet May 27, 1936, from information by engineers of Texas & New Orleans Railroad (discharge, 94,000 second-feet, from rating curve extended above 60,000 second-feet).

Remarks.- Records good. Gage read twice daily, more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	80	105	92	69	57	158	31	625	57	382	36
2	54	77	83	78	65	128	131	39	304	50	211	39
3	49	65	65	72	64	164	111	34	186	53	123	68
4	46	546	59	67	67	144	103	23	163	56	74	73
5	110	840	55	61	65	82	87	29	90	78	48	76
6	713	940	52	71	71	64	78	28	73	51	40	94
7	403	599	49	510	67	58	72	28	100	58	39	122
8	219	132	49	1,660	62	55	65	26	79	70	32	222
9	158	129	48	717	58	50	58	26	74	64	32	347
10	140	96	48	296	57	49	53	40	65	56	41	226
11	98	77	48	197	55	48	58	56	51	148	68	130
12	63	65	48	212	57	55	54	74	45	328	99	100
13	57	58	48	694	54	63	50	80	87	296	124	61
14	52	54	46	1,520	52	72	52	57	185	208	123	41
15	49	54	46	550	54	57	50	64	361	170	109	32
16	48	53	46	296	52	50	50	50	146	144	92	34
17	42	50	44	214	52	47	51	35	86	111	80	31
18	44	50	44	163	54	48	44	30	67	101	89	36
19	42	50	45	115	54	47	42	42	71	83	92	51
20	51	48	45	105	54	45	101	34	62	74	169	57
21	68	50	57	97	65	44	54	33	68	95	158	42
22	57	858	91	89	87	44	44	120	57	73	207	34
23	48	586	361	89	235	42	42	1,040	50	73	124	42
24	42	370	248	87	208	40	40	1,140	46	70	109	44
25	42	180	135	83	121	2,090	40	622	57	66	97	46
26	39	123	95	79	83	6,280	37	1,380	48	61	83	36
27	39	90	296	76	68	5,120	34	581	40	61	99	32
28	40	76	738	73	62	1,640	33	303	46	71	75	30
29	54	306	364	71	-	524	33	192	42	160	59	58
30	109	167	164	70	-	289	31	489	50	1,140	44	87
31	103	-	114	70	-	208	-	880	-	800	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,131	713	39	101	6,210
November.....	6,922	940	48	211	13,730
December.....	3,739	738	44	111	7,420
Calendar year 1942.....	138,275	11,800	38	579	274,300
January.....	8,569	1,660	61	276	17,000
February.....	2,115	235	52	75.5	4,200
March.....	17,704	6,280	40	571	35,120
April.....	1,859	158	31	12.0	3,690
May.....	7,911	1,380	26	215	15,690
June.....	3,427	928	40	114	6,900
July.....	4,926	1,140	50	119	9,770
August.....	3,161	352	32	112	6,270
September.....	2,327	347	30	77.6	4,620
Water year 1942-43.....	65,791	6,280	26	100	130,500

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Guadalupe River at Hunt, Tex.

Location.— Water-stage recorder and concrete control, lat. 30°03', long. 99°19', at bridge on State Highway 39, half a mile downstream from confluence of North and South Forks, 0.6 mile east of Hunt, Kerr County. Datum of gage is 1,722.7 feet above mean sea level, datum of 1929.

Drainage area.— About 370 square miles.

Records available.— October 1941 to September 1943.

Extremes.— Maximum gage height, 4.43 feet Oct. 17 (discharge not determined); minimum discharge, 18 second-feet Aug. 29.

1941-43: Maximum gage height, 9.00 feet from floodmark, May 7, 1942 (discharge not determined); minimum, that of Aug. 29, 1943.

Maximum stage known, 36.6 feet July 2, 1932, from information by local resident.

Remarks.— Records excellent. Discharge not computed above 600 second-feet. About 60 acres above station are irrigated.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	55	44	40	40	36	40	32	35	34	25	24
2	36	55	44	42	40	36	40	30	34	33	24	28
3	37	54	44	40	42	36	38	29	34	30	24	31
4	40	58	42	40	40	37	37	28	33	28	24	27
5	49	60	42	40	40	37	36	28	304	28	24	26
6	42	58	42	45	38	37	36	29	185	27	23	27
7	38	54	42	45	38	36	37	29	114	27	22	30
8	38	54	42	42	38	36	56	30	88	27	23	32
9	38	52	42	42	38	37	49	30	74	26	23	28
10	38	50	44	42	38	38	42	32	73	27	23	26
11	38	49	42	42	38	37	42	32	60	33	23	25
12	38	49	42	42	37	38	38	30	55	38	24	25
13	38	49	42	42	35	38	37	29	55	40	22	24
14	38	49	42	40	37	37	36	29	51	46	22	24
15	86	48	42	40	37	37	36	38	48	42	22	24
16	66	48	42	40	37	35	37	40	44	34	22	27
17	209	48	40	40	38	35	38	34	42	32	22	31
18	282	48	40	40	38	35	37	32	40	31	22	32
19	150	48	42	38	38	35	35	31	40	30	22	28
20	110	48	42	38	38	35	34	30	38	28	22	27
21	92	48	58	38	38	34	34	30	37	28	22	26
22	81	49	54	38	38	34	34	47	35	27	22	26
23	74	46	46	38	37	34	34	64	34	27	22	26
24	72	45	44	38	38	57	34	50	34	26	23	27
25	71	45	44	38	36	90	33	44	34	26	24	27
26	66	45	44	38	36	59	32	40	33	26	22	28
27	64	44	42	38	36	49	32	36	32	26	22	35
28	65	45	40	38	36	46	32	34	32	26	20	34
29	64	45	40	38	-	44	32	34	31	26	-18	32
30	60	45	40	38	-	42	32	38	30	26	21	34
31	55	-	40	40	-	40	-	37	-	26	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,213	282	36	71.4	4,390
November.....	1,491	60	44	46.7	2,980
December.....	1,356	58	40	45.1	2,650
Calendar year 1942.....	-	-	-	-	-
January.....	1,240	45	38	46.0	2,460
February.....	1,063	42	36	38.0	2,110
March.....	1,257	90	34	46.5	2,490
April.....	1,110	56	32	37.0	2,200
May.....	1,075	64	28	34.7	2,130
June.....	1,777	304	30	55.2	3,520
July.....	931	46	26	36.0	1,850
August.....	696	25	18	26.5	1,380
September.....	841	35	24	26.0	1,870
Water year 1942-43.....	15,030	304	18	41.2	29,810

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

GUADALUPE RIVER BASIN

Guadalupe River at Comfort, Tex.

Location.- Water-stage recorder, lat. 29°58', long. 98°54', at bridge on U. S. Highway 87, a quarter of a mile downstream from Cypress Creek and half a mile east of Comfort, Kendall County. Datum of gage is 1,372.0 feet above mean sea level, datum of 1929.

Drainage area.- About 990 square miles.

Records available.- May 1939 to September 1943. December 1917 to August 1921, at site 5 miles upstream and August 1924 to September 1932, at site 4 miles upstream. Records published as Guadalupe River near Comfort (records equivalent during flood runoff originating above upper site and during extremely low flow, at which time Cypress Creek contributes no appreciable flow).

Extremes.- Maximum discharge during year, 3,870 second-feet Oct. 15 (gage height, 12.10 feet); minimum, 22 second-feet Aug. 19-21. 1917-32, 1939-43: Maximum discharge, 182,000 second-feet July 1, 1932 (gage height, 38.4 feet, present site and datum, from floodmarks, from data furnished by Texas Highway Department), by slope-area method (flood originated above Cypress Creek drainage); minimum observed, 0.4 second-feet Aug. 2, 1918, at site then in use. Flood of July 16, 1900 reached about same stage as that of July 1, 1937.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Several small diversions above station for irrigation. Slight regulation at low flow by power plants above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	157	126	114	100	93	100	a72	68	74	43	26
2	67	149	124	114	102	91	100	a71	67	72	42	46
3	68	149	122	111	102	93	98	a70	63	68	40	35
4	328	149	122	109	102	93	91	a69	63	68	38	45.
5	148	157	122	109	102	93	86	a67	1,450	63	35	86
6	105	170	122	116	98	93	89	a66	1,200	58	35	43
7	98	168	122	124	96	89	87	a65	585	51	35	73
8	87	159	122	119	95	91	402	a64	287	50	34	74
9	82	153	120	114	95	91	238	a62	232	50	32	50
10	82	147	122	111	93	93	163	a61	206	48	30	45
11	94	141	120	109	89	95	141	a60	187	67	27	42
12	79	141	120	107	89	96	124	a59	168	93	29	38
13	86	141	116	109	89	98	118	a57	161	84	29	37
14	86	141	116	105	91	95	107	56	155	89	27	35
15	693	139	116	105	89	95	100	53	139	84	26	34
16	208	137	114	105	89	93	100	70	126	79	26	35
17	328	137	113	104	89	87	100	67	120	72	24	48
18	1,960	135	113	104	91	87	96	55	120	65	24	40
19	644	133	113	100	93	87	91	60	111	60	24	45
20	360	131	116	98	95	82	96	51	104	53	22	43
21	287	157	190	98	95	80	a85	48	96	50	22	43
22	248	143	196	100	93	79	a84	76	91	46	24	40
23	230	139	157	100	93	79	a83	284	89	43	24	38
24	208	135	141	102	96	87	a81	249	89	43	26	37
25	199	151	151	102	93	206	a80	190	84	42	24	32
26	187	129	129	100	95	185	a79	87	82	42	24	37
27	188	126	122	98	95	145	a78	75	80	42	26	53
28	185	129	116	100	93	122	a76	70	79	40	26	62
29	180	129	114	98	-	114	a75	70	70	42	26	68
30	176	126	114	100	-	104	a74	72	67	45	26	77
31	163	-	113	100	-	98	-	72	-	43	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,901	1,960	67	285	15,670
November.....	4,278	170	128	143	8,490
December.....	3,904	196	113	176	7,740
Calendar year 1942.....	72,812	2,890	54	179	144,400
January.....	3,254	124	98	108	6,510
February.....	2,642	106	89	74.4	5,240
March.....	3,144	206	79	101	6,840
April.....	3,312	402	74	110	6,570
May.....	2,556	284	48	86.5	5,070
June.....	6,239	1,450	63	208	12,370
July.....	1,826	93	40	58.9	3,620
August.....	894	43	22	28.6	1,770
September.....	1,401	86	26	46.7	2,780
Water year 1942-43.....	41,383	1,960	22	113	82,070

Peak discharge.- Oct. 15 (2:30 p.m.) 3,870 sec.-ft.; Oct. 18 (1 a.m.) 2,680 sec.-ft.; June 6 (12:15 a.m.) 2,970 sec.-ft.

a No gage-height record; discharge computed on basis engineer's notes, weather records, and records for stations upstream.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Guadalupe River near Spring Branch, Tex.

Location.- Water-stage recorder, lat. 29°51'40", long. 98°23'00", at bridge on State Highway 46, 4 miles southeast of Spring Branch, Comal County, and 6 miles downstream from Curry Creek. Datum of gage is 948.13 feet above mean sea level, datum of 1929.

Drainage area.- 1,432 square miles.

Records available.- June 1922 to September 1943.

Average discharge.- 21 years, 263 second-feet.

Extremes.- Maximum discharge during year, 3,330 second-feet June 5 (gage height, 7.71 feet); minimum, 31 second-feet Aug. 29.
1922-43: Maximum discharge, 121,000 second-feet July 3, 1932 (gage height, 42.10 feet), from rating curve extended above 70,000 second-feet; minimum, 2.2 second-feet July 11, 1939, from rating curve extended below 15 second-feet.
Maximum stage known, between 45 and 50 feet in 1900, from information by local residents.

Remarks.- Records good. Small diversions above station for irrigation. Slight regulation at low flow by power plants above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	304	236	229	180	149	166	117	122	94	90	94
2	136	293	229	226	180	149	163	113	117	90	75	87
3	134	286	229	226	183	144	180	111	115	94	69	108
4	722	279	226	225	183	144	180	106	115	92	64	94
5	867	275	219	219	180	146	182	106	876	88	61	84
6	382	279	219	219	177	146	146	96	2,350	86	58	64
7	275	283	212	223	177	142	142	96	1,040	82	55	90
8	247	286	219	229	174	139	213	92	530	75	54	68
9	233	279	219	226	174	139	587	94	386	73	52	86
10	219	268	219	219	171	144	351	120	315	71	50	94
11	209	257	219	216	166	144	268	102	265	75	49	73
12	206	250	219	226	160	144	233	102	240	325	48	66
13	199	250	219	223	160	144	209	106	219	634	46	62
14	193	250	216	219	160	144	190	100	216	271	43	60
15	8307	250	212	212	160	144	177	90	209	182	43	56
16	81,470	250	212	212	157	144	171	90	187	134	43	204
17	436	250	206	209	157	142	177	92	171	117	41	413
18	1,190	247	206	206	157	139	174	102	160	109	39	109
19	1,940	247	206	199	157	139	163	100	165	100	41	80
20	930	247	206	193	157	136	157	98	149	92	39	71
21	628	612	219	193	160	134	155	92	142	86	38	69
22	525	462	279	196	157	129	149	100	136	80	38	69
23	465	319	315	196	157	129	146	109	129	77	36	89
24	414	279	290	196	157	158	139	353	124	71	36	64
25	391	268	293	196	152	243	139	304	117	68	35	61
26	364	261	265	193	149	286	136	270	115	64	35	61
27	343	243	254	183	149	261	132	152	109	64	35	66
28	335	243	250	180	149	226	124	132	106	64	34	68
29	335	240	243	180	-	199	122	129	102	64	31	78
30	331	236	236	180	-	183	120	129	100	688	35	86
31	315	-	229	180	-	174	-	126	-	160	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,865	1,940	134	493	29,480
November.....	8,493	612	236	283	16,850
December.....	7,221	315	206	233	14,380
Calendar year 1942.....	114,849	3,940	65	315	227,800
January.....	6,427	229	180	207	12,750
February.....	4,600	183	149	184	9,120
March.....	4,984	236	129	183	9,890
April.....	5,526	587	120	181	10,960
May.....	3,929	353	90	127	7,790
June.....	8,517	2,350	100	293	17,490
July.....	4,340	688	64	147	8,610
August.....	1,478	90	31	47.7	2,930
September.....	2,732	412	56	93.1	5,420
Water year 1942-43.....	73,412	2,350	31	203	145,600

Peak discharge.- Oct. 18 (9 p.m.) 2,550 sec.-ft.; June 5 (12 p.m.) 3,330 sec.-ft.

f Computed on basis of partly estimated gage-height record.

g Computed from graph based on once-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

GUADALUPE RIVER BASIN

Guadalupe River above Comal River, at New Braunfels, Tex.

Location.- Water-stage recorder and concrete control, lat. 29°42'55", long. 98°06'40", at New Braunfels, Comal County, 1.1 miles upstream from Comal River. Datum of gage is 586.6 feet above mean sea level, datum of 1929.

Drainage area.- 1,666 square miles.

Records available.- December 1927 to September 1943. March 1898 to December 1899. January 1915 to December 1927, at site 1 mile downstream from Comal River.

Average discharge.- 15 years (1928-43), 402 second-feet.

Extremes.- Maximum discharge during year, 5,170 second-feet Oct. 15 (gage height, 5.92 feet); minimum, 53 second-feet Aug. 30. 1927-43: Maximum discharge, 101,000 second-feet June 15, 1935 (gage height, 32.95 feet); minimum, 9.6 second-feet July 9-11, 1939. Maximum stage known, 38 feet sometime in 1869 and in December 1913, from information by local residents.

Remarks.- Records excellent. Small diversions above station for irrigation. Some regulation at low flow by small power plants above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	546	393	330	244	190	228	160	170	138	280	126
2	318	529	386	330	244	194	220	156	160	133	186	262
3	357	504	386	330	249	186	215	153	148	124	153	128
4	586	495	379	318	249	183	207	146	199	119	133	188
5	1,450	479	372	305	244	186	203	138	228	121	121	130
6	1,020	471	365	305	244	186	199	140	1,360	115	110	121
7	673	463	372	312	233	183	190	140	1,880	110	102	114
8	563	463	372	305	233	179	282	130	912	107	101	153
9	512	455	365	305	233	179	324	124	617	101	96	119
10	479	447	372	305	228	179	626	281	504	112	91	108
11	455	423	365	299	224	183	423	309	423	108	88	123
12	439	415	365	305	220	183	343	179	386	123	85	115
13	423	408	367	305	215	183	299	153	350	720	81	98
14	408	408	350	299	211	183	270	153	365	1,170	80	91
15	1,500	408	350	299	211	183	254	148	312	463	78	88
16												
17	1,390	408	343	293	207	183	244	140	293	330	76	90
18	1,300	408	337	293	207	179	254	130	270	286	74	174
19	1,070	401	330	286	207	183	244	126	254	259	72	344
20	2,340	401	330	270	203	179	244	133	228	249	70	176
21	1,810	401	330	269	203	173	228	133	220	228	68	130
22												
23	1,230	415	330	269	199	170	224	133	211	211	66	108
24	995	757	357	259	194	166	220	140	203	203	66	102
25	880	599	463	259	194	163	215	150	194	190	65	101
26	794	487	455	264	190	176	207	160	183	179	64	98
27	733	447	415	264	190	286	199	322	173	173	63	95
28												
29	683	431	393	254	186	337	194	317	166	163	62	94
30	654	415	379	254	183	343	186	312	160	160	60	107
31	626	408	365	249	183	318	179	203	148	153	57	107
32	617	401	350	249	-	280	176	186	143	150	57	102
33	608	393	343	249	-	254	170	183	143	143	56	187
34	580	-	337	249	-	233	-	179	-	592	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	25,798	2,340	305	832	51,170
November.....	13,686	757	393	456	27,150
December.....	11,406	463	330	368	22,620
Calendar year 1942.....	160,309	6,320	81	439	318,000
January.....	8,862	330	249	285	17,580
February.....	6,028	249	183	215	11,960
March.....	6,383	343	163	205	12,560
April.....	7,467	626	170	249	14,810
May.....	5,457	322	124	173	10,820
June.....	11,003	1,880	143	367	21,820
July.....	7,433	1,170	101	240	14,740
August.....	2,844	280	56	91.7	5,640
September.....	3,979	344	88	135	7,890
Water year 1942-43.....	110,346	2,340	56	302	218,900

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Guadalupe River at Victoria, Tex.

Location.- Water-stage recorder, lat. 28°47', long. 97°01', at bridge on U. S. Highway 59 (Renumbered) in Victoria, Victoria County, 1,300 feet upstream from Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad bridge and 10 miles upstream from Coletto Creek. Datum of gage is 29.23 feet above mean sea level, datum of 1929.

Drainage area.- 5,676 square miles.

Records available.- November 1934 to September 1943. Gage-height records collected in this vicinity since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 7,710 second-feet Oct. 21 (gage height, 18.80 feet); minimum not determined; minimum daily, 519 second-feet Aug. 25, 30.
1934-43: Maximum discharge, 179,000 second-feet July 3, 1935 (gage height, 31.22 feet); minimum, 277 second-feet (regulated) Sept. 5, 1939; minimum daily, 308 second-feet Sept. 5, 1939.

Remarks.- Records good except those for periods of fragmentary or no recorder record, which are poor. Many small diversions above station do not materially affect flow. Low flow partly regulated by power plants above station.

Rating table, water year 1942-43 (gage height, in feet, and discharge, in second-feet)

3.8	506	7.0	1,480	15.0	5,900
4.0	558	9.0	1,820	16.0	7,150
4.5	698	10.0	2,600	20.0	8,550
5.0	846	12.0	3,500		
6.0	1,160	14.0	4,580		

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,590	1,860	1,480	1,450	1,160	1,060	1,220	906	3,020	756	1,290	545
2	1,550	1,900	1,480	1,420	1,160	1,030	1,100	676	3,020	816	936	586
3	1,480	1,930	1,450	1,380	1,190	1,060	1,100	816	2,420	698	936	586
4	1,550	1,930	1,450	1,350	1,160	1,130	1,060	846	1,320	726	968	936
5	1,660	2,050	1,420	1,350	1,190	1,000	968	936	1,450	726	741	1,080
6	2,240	2,480	1,450	1,320	1,220	1,060	1,030	816	1,130	726	786	1,480
7	25,050	2,940	1,420	1,290	1,160	968	1,000	786	1,130	684	741	1,000
8	25,560	2,470	1,420	1,320	1,130	1,060	906	786	2,090	712	712	876
9	3,240	1,820	1,420	1,320	1,160	1,030	1,000	786	2,160	670	586	1,030
10	2,470	1,650	1,380	1,350	1,130	1,000	968	786	1,860	698	698	936
11	2,160	1,550	1,380	1,350	1,030	936	1,000	786	1,820	786	698	786
12	1,950	1,550	1,380	1,350	1,130	1,100	1,100	846	1,620	836	800	786
13	1,820	1,650	1,380	1,350	1,060	1,100	1,260	846	1,550	1,060	614	756
14	1,750	1,750	1,380	2,130	1,100	1,060	1,290	936	1,580	968	628	726
15	1,680	1,480	1,350	2,680	1,060	968	1,160	1,000	1,350	1,000	642	656
16	1,680	1,620	1,350	2,350	1,060	1,060	1,100	316	1,350	1,420	614	642
17	1,680	1,480	1,320	1,650	1,060	1,100	1,060	846	1,220	1,900	600	628
18	2,760	1,510	1,420	1,420	1,130	1,100	1,000	741	1,100	1,530	628	628
19	3,600	1,510	1,350	1,420	1,130	1,060	968	816	1,060	1,220	572	642
20	4,450	1,480	1,320	1,290	1,130	1,030	1,130	616	906	968	545	628
21	7,240	1,510	1,320	1,260	1,030	968	1,130	786	1,000	616	572	712
22	6,920	1,480	1,320	1,220	1,160	1,000	936	846	906	936	586	816
23	4,000	1,510	1,320	1,220	1,100	1,000	1,030	1,190	676	786	628	712
24	2,850	1,510	1,350	1,220	1,000	968	936	936	646	786	586	670
25	2,600	1,860	1,380	1,190	1,100	1,420	936	846	876	756	519	642
26	2,390	2,050	1,420	1,220	1,130	1,590	906	816	876	726	600	586
27	2,120	1,790	1,480	1,220	1,000	1,550	936	968	712	876	572	614
28	2,090	1,620	1,620	1,190	1,000	1,550	936	1,000	786	756	586	600
29	1,930	1,550	2,090	1,160	-	1,650	906	968	906	786	686	696
30	1,970	1,510	2,200	1,190	-	1,350	906	1,000	670	1,490	519	684
31	1,970	-	1,650	1,160	-	1,260	-	1,930	-	1,350	532	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	85,950	7,240	1,480	2,773	170,500
November.....	53,030	2,940	1,480	1,763	105,200
December.....	45,150	2,200	1,320	1,456	89,650
Calendar year 1942.....	768,921	45,600	618	2,107	1,525,000
January.....	43,750	2,680	1,160	1,411	86,780
February.....	31,040	1,220	1,000	1,109	61,570
March.....	35,054	1,650	906	1,131	69,530
April.....	30,978	1,290	906	1,033	61,440
May.....	28,076	1,950	741	906	55,690
June.....	41,610	3,020	670	1,387	82,530
July.....	29,114	1,900	670	939	57,750
August.....	20,765	1,290	519	670	41,190
September.....	22,667	1,480	545	756	44,960
Water year 1942-43.....	467,183	7,240	519	1,290	926,700

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Note.- Fragmentary gage-height record Apr. 7, 8, May 3-6, 11, 12, June 27, 30, July 5, 7, Aug. 9-30, Sept. 26-28; discharge computed from partly estimated gage heights.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Comal River at New Braunfels, Tex.

Location.- Water-stage recorder, lat. 29°42'05", long. 98°07'10", 200 feet upstream from San Antonio Street viaduct in New Braunfels, Comal County, and 1.1 miles upstream from mouth. Datum of gage is 582.80 feet above mean sea level, datum of 1929.

Drainage area.- 94 square miles. Ordinary flow of river comes from springs; drainage area of stream not applicable.

Records available.- December 1927 to September 1943. 1882 to November 1927 (discharge measurements only).

Average discharge.- 11 years (1932-43), 337 second-feet.

Extremes.- Maximum gage height during year, 9.85 feet Oct. 4 (discharge not determined); minimum discharge, 230 second-feet (regulated) Aug. 29; minimum daily, 305 second-feet Aug. 26, 28-30.

1927-43: Maximum gage height, 30.71 feet June 15, 1935, from floodmarks (affected by backwater from Guadalupe River; discharge not determined); minimum discharge, about 142 second-feet (regulated) Dec. 11, 1928 (gage height, 2.12 feet); minimum daily, 245 second-feet July 17, 20, 1939.

Maximum stage known, 35.4 feet December 1913, from floodmarks (probably some backwater from Guadalupe River).

Remarks.- Records good except those for periods of no gage-height record or backwater effect, which are fair. Flow partly regulated by steam power plant half a mile above station. Entire flow of river from Comal Springs, about 1 mile above station, except during periods of local rain. Springs emerge from Edwards limestone in the Balcones fault zone.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	375	402	418	414	390	382	351	344	328	328	324	367
2	371	398	418	418	386	382	359	351	324	328	320	390
3	371	398	414	414	382	390	355	351	328	316	320	332
4	1,270	398	414	414	386	379	355	344	402	324	320	332
5	511	398	414	414	390	379	359	344	425	324	320	332
6	382	398	418	418	394	382	359	340	390	324	324	328
7	371	398	414	414	386	382	359	355	359	320	324	324
8	375	398	410	414	390	379	359	332	328	328	324	332
9	375	398	414	410	382	375	359	332	324	324	328	324
10	375	398	418	406	394	382	359	352	324	324	324	324
11	571	402	414	406	402	382	359	328	324		320	324
12	375	398	414	410	394	379	353	332	316		320	324
13	371	398		410	394	382	359	328	324		324	324
14	375	406		406	394	375	371	328	336		324	324
15	6733	406		406	398	375	359	328	328		324	328
16	516	406		402	402	382	355	324	328		320	390
17	398	406		410	386	386	351	328	324		320	324
18	756	406		410	386	371	355	328	352		316	320
19	508	406		414	386	379	359	328	324		316	320
20	422	410		414	386	382	355	328	324	a330	316	320
21	402	410	a416	406	390	379	355	328	328		313	316
22	406	410		406	398	379	356	328	328		309	320
23	402	410		402	390	367	355	328	328		309	324
24	402	414		398	386	367	355	328	328		313	320
25	402	414		406	394	355	351	336	328		309	316
26	398	414		402	390	359	351	336	328		305	316
27	402	a414		402	386	363	351	332	328		313	316
28	402	a415		402	379	355	351	332	328		305	316
29	402	a416		398	-	355	347	328	328	336	305	316
30	414	a417	418	394	-	359	347	328	324		324	305
31	402	-	418	394	-	363	-	328	-	328	324	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,035	1,270	371	453	27,840
November.....	12,162	417	368	405	24,120
December.....	12,888	-	-	416	25,560
Calendar year 1942	135,685	2,230	304	366	265,100
January.....	12,634	418	394	408	25,060
February.....	10,921	402	379	390	21,660
March.....	11,606	390	355	374	23,020
April.....	10,678	371	347	356	21,160
May.....	10,318	351	324	333	20,470
June.....	10,068	425	316	336	19,970
July.....	10,168	-	-	328	20,170
August.....	9,868	354	305	318	19,870
September.....	9,786	390	313	326	19,410
Water year 1942-43	135,132	1,270	-	370	268,000

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

c Stage-discharge relation affected by backwater from Guadalupe River.

f Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

San Marcos River at Luling, Tex.

Location.- Water-stage recorder, lat. 29°39'55", long. 97°39'05", 390 feet downstream from bridge on State Highway 80, 1 mile south of Luling, Caldwell County, and 8 miles upstream from Plum Creek. Datum of gage is 322.0 feet above mean sea level, datum of 1929.

Drainage area.- 833 square miles.

Records available.- April 1939 to September 1943.

Extremes.- Maximum discharge during year, 5,190 second-feet Oct. 18 (gage height, 22.83 feet); minimum, 7.7 second-feet (regulated) May 21; minimum daily, 114 second-feet Aug. 29.

1939-43: Maximum discharge, 29,500 second-feet July 5, 1942 (gage height, 32.93 feet); minimum, that of May 21, 1943; minimum daily, 55 second-feet Oct. 15, 1939.

Maximum stage known, 40.4 feet in 1869 and 1870, from information by engineers of State Highway Department.

Remarks.- Records good. Flow regulated by power plant 800 feet above station. Discharge is mostly from large springs near San Marcos. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	470	512	386	295	267	226	246	194	260	154	174	162
2	470	494	372	295	267	226	240	200	214	165	169	205
3	470	470	372	288	274	220	246	188	200	160	164	1,120
4	652	526	372	281	274	220	240	188	188	153	156	278
5	3,280	464	358	288	274	226	240	194	242	148	153	260
6	953	512	358	295	267	220	246	177	372	145	133	200
7	647	470	351	315	280	220	260	200	302	150	145	181
8	570	456	351	302	260	220	240	188	267	149	161	167
9	526	442	344	295	260	226	438	185	246	151	149	212
10	498	428	351	288	260	226	470	188	235	137	147	235
11	464	414	351	288	260	226	344	253	226	149	150	164
12	470	414	344	456	260	226	295	309	220	230	148	144
13	456	400	337	358	253	233	274	240	220	358	145	137
14	442	400	323	316	253	226	253	214	214	743	151	133
15	523	400	323	302	253	233	246	200	207	428	157	132
16	2,180	400	316	302	253	226	240	194	207	274	135	138
17	711	400	309	288	246	226	368	181	200	233	141	131
18	4,090	386	309	281	267	220	226	173	200	207	142	164
19	2,660	386	309	274	253	226	207	166	194	200	133	240
20	877	386	309	267	253	214	200	176	188	194	133	188
21	711	386	316	274	246	220	194	172	181	181	153	166
22	647	454	323	274	246	214	194	176	177	177	121	140
23	600	517	386	274	240	214	194	181	180	181	126	144
24	570	512	386	281	240	220	194	188	188	187	130	130
25	555	456	351	274	240	477	194	194	163	176	132	127
26	555	428	380	260	233	500	194	188	189	172	133	130
27	526	414	474	274	226	400	174	200	169	178	126	144
28	512	400	309	267	226	502	214	188	169	194	121	154
29	512	386	302	267	-	274	194	188	161	214	114	162
30	512	386	302	267	-	260	188	372	160	194	121	154
31	570	-	295	267	-	253	-	1,120	-	160	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	27,689	4,090	442	693	54,920
November.....	13,409	817	386	447	26,600
December.....	10,669	474	295	344	21,180
Calendar year 1942.....	165,444	17,200	114	453	328,200
January.....	9,084	456	280	592	17,960
February.....	7,111	274	226	254	14,100
March.....	7,820	500	214	252	15,510
April.....	7,453	470	174	248	14,780
May.....	7,158	1,120	166	231	14,200
June.....	6,307	372	160	210	12,610
July.....	6,520	743	137	210	12,930
August.....	4,502	174	114	139	8,530
September.....	6,031	1,120	127	201	11,960
Water year 1942-43.....	113,523	4,090	114	311	225,200

Peak discharge.- Oct. 5 (9:30 a.m.) 4,530 sec.-ft.; Oct. 16 (9:30 a.m.) 3,210 sec.-ft.; Oct. 18 (4 p.m.) 5,190 sec.-ft.; May 31 (4 a.m.) 2,060 sec.-ft.; Sept. 3 (12 m.) 2,120 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

GUADALUPE RIVER BASIN

San Marcos River at Ottine, Tex.

Location.- Water-stage recorder, lat. 29°36', long. 97°35', at highway bridge a quarter of a mile southwest of Ottine, Gonzales County, and 4 miles downstream from Plum Creek. Datum of gage is 285.2 feet above mean sea level, datum of 1929.

Drainage area.- 1,249 square miles.

Records available.- June 1915 to February 1943 (discontinued).

Average discharge.- 27 years (1915-1942), 456 second-feet.

Extremes.- Maximum discharge during period October to February, 5,210 second-feet Oct. 19 (gage height, 22.65 feet); minimum, 277 second-feet (regulated) Feb. 17; minimum daily, 292 second-feet Feb. 15.

1915-43: Maximum discharge, about 202,000 second-feet May 29, 1929 (gage height, 43.32 feet), from rating curve extended above 12,000 second-feet on basis of slope-area determination at gage height 40.6 feet; no flow (result of regulation) July 29, 1923, Mar. 31, 1925, June 24, 1926; minimum daily discharge, 40 second-feet Sept. 16, 1917.

Maximum stage known, about 44.0 feet in December 1913, from information by local residents.

Remarks.- Records good. Low flow regulated by several small power plants above station. Most of basic flow comes from large springs near San Marcos.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	479	659	431	367	307							
2	479	527	415	360	307							
3	479	511	415	a358	314							
4	576	710	407	a355	322							
5	3,240	062	407	352	322							
6	1,930	655	399	360	314							
7	862	575	391	415	307							
8	722	511	391	447	300							
9	655	495	383	399	300							
10	625	479	391	367	307							
11	607	447	391	360	300							
12	575	447	383	695	300							
13	559	431	383	640	300							
14	543	431	375	463	300							
15	543	431	367	391	292							
16	2,200	415	367	367	300							
17	1,160	416	360	352	300							
18	2,870	415	360	337	300							
19	4,630	407	352	322	307							
20	2,500	407	352	314	300							
21	952	407	375	314	-							
22	773	447	399	314	-							
23	688	937	463	314	-							
24	639	639	447	322	-							
25	591	527	407	322	-							
26	607	479	407	314	-							
27	559	463	866	307	-							
28	559	447	813	314	-							
29	543	447	407	307	-							
30	543	431	383	307	-							
31	625	-	376	307	-							
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October.....						33,309	4,630	479	1,674	66,070		
November.....						15,442	937	407	615	30,630		
December.....						13,062	866	352	421	25,910		
Calendar year 1942						223,971	36,200	122	614	444,300		
January.....						11,463	695	307	370	22,740		
February 1-20.....						6,099	322	292	305	12,100		
March.....						-	-	-	-	-		
April.....						-	-	-	-	-		
May.....						-	-	-	-	-		
June.....						-	-	-	-	-		
July.....						-	-	-	-	-		
August.....						-	-	-	-	-		
September.....						-	-	-	-	-		
The period.....						-	-	-	-	157,400		

Peak discharge.- Oct. 5 (4 p.m.) 4,010 sec.-ft.; Oct. 16 (4:30 p.m.) 2,990 sec.-ft.; Oct. 19 (8:30 a.m.) 5,210 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Blanco River at Wimberley, Tex.

Location.- Water-stage recorder, lat. 29°59', long. 98°04', 800 feet downstream from Cypress Creek and a quarter of a mile south of Wimberley, Hays County. Datum of gage is 802.2 feet above mean sea level, datum of 1929.

Drainage area.- 378 square miles.

Records available.- August 1924 to September 1926, June 1928 to September 1943.

Average discharge.- 17 years, 108 second-feet.

Extremes.- Maximum discharge during year, 2,980 second-feet July 12 (gage height, 4.32 feet); minimum, 19 second-feet Aug. 28-31.
1924-26, 1928-43: Maximum discharge, 113,000 second-feet May 28, 1929 (gage height, 31.10 feet, from floodmarks), by slope-area method; minimum, 2.9 second-feet Oct. 5, 6, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	178	123	95	73	57	69	62	44	35	29	28
2	130	172	120	95	72	57	69	57	42	33	27	44
3	126	165	120	92	72	55	69	55	41	31	27	57
4	766	162	117	89	71	53	66	53	144	29	27	81
5	472	162	114	84	70	55	64	51	55	29	26	41
6		290	159	109	92	70	55	64	51	51	27	37
7		239	149	108	98	69	55	64	51	50	27	35
8		216	146	108	95	68	55	336	51	50	27	35
9		199	142	107	89	68	53	225	49	49	26	33
10		188	139	106	89	67	53	136	184	48	26	35
11		176	130	103	87	67	53	120	109	47	42	25
12		172	126	100	89	66	53	109	71	47	476	25
13		162	126	98	95	65	51	100	57	47	366	25
14		155	126	95	92	65	51	95	55	46	123	24
15		223	123	92	87	64	51	92	53	46	69	24
16		302	123	92	89	63	51	95	51	45	53	24
17		224	117	88	84	63	51	95	49	44	49	24
18		634	114	88	82	62	49	92	47	43	44	24
19		398	112	89	81	62	49	87	47	42	43	23
20		307	112	87	81	62	49	64	47	42	41	23
21		282	316	92	80	60	49	82	47	41	39	23
22		268	576	212	79	60	47	82	55	41	37	23
23		243	196	126	79	60	47	79	55	39	35	22
24		228	168	112	78	60	51	76	55	39	35	22
25		228	159	106	77	57	468	74	54	37	35	22
26		216	136	109	77	55	142	71	52	37	33	22
27		202	133	103	76	55	74	69	51	37	33	21
28		206	136	103	76	57	74	66	49	35	31	21
29		199	133	98	75	-	74	64	49	35	35	19
30		196	123	98	74	-	71	62	47	35	31	21
31		199	-	98	74	-	69	-	45	-	29	26

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,952	766	114	257	15,770
November.....	4,858	575	112	162	9,640
December.....	3,323	212	87	107	6,590
Calendar year 1942	43,189	4,980	16	118	85,670
January.....	2,630	98	74	84.8	5,220
February.....	1,803	73	55	64.4	3,560
March.....	2,222	468	47	71.7	4,410
April.....	2,856	336	62	95.2	5,660
May.....	1,808	184	45	58.3	3,590
June.....	1,397	144	33	46.6	2,770
July.....	1,961	476	26	63.3	3,890
August.....	748	29	19	24.1	1,480
September.....	1,458	258	24	48.6	2,590
Water year 1942-43	33,016	766	19	90.5	65,490

Note.- No gage-height record Dec. 7-9, Jan. 19 to Feb. 17, Mar. 6-30, May 24 to June 20, Aug. 7-27; discharge computed on basis of recorded range in stage, weather records, and engineer's notes.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

GUADALUPE RIVER BASIN

Plum Creek near Luling, Tex.

Location.- Water-stage recorder, lat. 29°42', long. 97°37', at county highway bridge 1 mile downstream from West Fork Plum Creek, 2 miles upstream from Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad bridge, 3 miles northeast of Luling, Caldwell County. Datum of gage is 326.6 feet above mean sea level, datum of 1929.

Drainage area.- 356 square miles.

Records available.- March 1930 to September 1943.

Average discharge.- 13 years, 97.4 second-feet.

Extremes.- Maximum discharge during year, 2,310 second-feet Oct. 19 (gage height, 14.57 feet); minimum, 1.5 second-feet Sept. 1, 26.
1930-43: Maximum discharge, 78,500 second-feet July 1, 1936 (gage height, 25.7 feet, from floodmarks), from rating curve extended above 54,000 second-feet; minimum, 0.7 second-foot Oct. 24, 1939.
Flood in December 1913 reached about same stage as that of July 1, 1933, from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station. Slight regulation at low flow by oil field operations above station.

Discharge, in second-feet, water year October 1942 to September 1947

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	133	20	26	16	7.8	13.0	7.8	86	4.7	3.1	1.9
2	9.0	58	19	25	16	7.2	13	7.8	15	4.7	2.6	6.0
3	9.4	58	19	24	16	5.9	12	6.9	12	4.3	2.5	5.0
4	62	202	19	23	19	5.5	12	6.6	9.8	4.4	a2.5	3.8
5	1,070	450	20	22	24	6.3	12	6.3	14	4.2	a2.5	2.6
6	387	166	20	25	16	6.6	11	6.3	20	4.1	a2.4	2.1
7	57	72	22	20	14	5.7	11	6.3	9.4	4.1	a2.4	2.4
8	34	44	22	128	12	5.5	11	6.0	9.4	3.8	a2.4	2.2
9	28	23	22	42	12	5.4	11	5.7	8.7	4.2	a2.4	9.6
10	26	26	23	26	13	5.7	11	6.3	7.5	4.1	a2.3	2.2
11	25	22	26	23	12	5.8	12	9.0	6.6	4.7	a2.3	2.0
12	23	20	29	182	12	6.0	11	7.8	6.9	112	a2.5	2.0
13	23	19	31	295	12	6.3	11	6.0	7.5	400	a2.2	1.8
14	22	19	30	120	12	6.6	9.8	6.7	6.9	343	a2.2	1.7
15	44	19	31	57	22	6.0	9.4	5.5	6.3	177	a2.2	1.8
16	572	20	32	34	12	6.3	9.8	5.8	5.8	7.8	a2.1	1.9
17	146	20	32	27	13	5.5	113	5.4	5.7	4.7	a2.1	2.6
18	915	20	34	22	13	5.5	20	5.2	5.4	5.6	a2.1	2.0
19	1,950	20	35	16	14	5.7	12	5.0	5.2	3.1	a2.0	2.1
20	797	20	36	14	15	5.0	11	5.0	5.4	2.9	a2.0	1.8
21	125	23	53	14	15	4.7	11	4.9	5.0	2.6	a2.0	1.7
22	72	63	83	14	14	4.3	11	11	5.0	2.4	a1.9	1.7
23	47	152	147	16	14	4.2	11	20	4.7	2.3	a1.9	1.7
24	33	43	50	16	13	11	10	9.8	4.4	2.2	a1.9	1.8
25	35	28	37	17	11	160	9.8	12	4.4	2.5	a1.9	1.6
26	27	24	38	16	9.4	282	9.4	6.6	4.6	2.6	a1.8	1.8
27	26	22	641	16	5.1	43	9.0	5.8	4.9	3.0	a1.8	2.0
28	38	21	407	15	7.8	25	8.7	5.7	4.3	3.0	a1.8	3.4
29	31	20	48	14	-	19	8.7	7.8	4.2	9.6	a1.7	50
30	36	19	32	16	-	15	8.4	148	4.7	4.4	a1.7	130
31	213	-	28	16	-	14	-	714	-	3.3	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,890.1	1,950	8.7	222	13,670
November.....	1,847	450	19	61.6	3,660
December.....	2,086	641	19	67.3	4,140
Calendar year 1942.....	48,194.5	13,600	3.0	132	95,600
January.....	1,561	285	14	43.9	2,700
February.....	377.3	24	7.8	13.5	748
March.....	722.4	282	4.2	23.3	1,430
April.....	433.0	113	8.4	14.4	859
May.....	1,072.0	714	4.9	34.6	2,150
June.....	302.7	86	4.2	10.1	600
July.....	1,139.3	400	2.2	36.8	2,280
August.....	66.7	3.1	1.7	2.15	132
September.....	253.0	130	1.6	6.43	502
Water year 1942-43.....	16,550.5	1,950	1.6	45.3	32,830

Peak discharge.- Oct. 5 (9:30 p.m.) 1,240 sec.-ft.; Oct. 19 (11 p.m.) 2,310 sec.-ft.; May 31 (3 a.m.) 1,130 sec.-ft.
a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Coleta Creek near Victoria, Tex.

Location.- Water-stage recorder, lat. 28°43', long. 97°08', at bridge on U. S. Highway 59 (renumbered), 100 feet upstream from Texas & New Orleans Railroad bridge, 1.1 miles downstream from Perdido Creek, and 9.4 miles southwest of Victoria, Victoria County. Datum of gage is 49.2 feet above mean sea level, datum of 1929.

Drainage area.- 514 square miles.

Records available.- June 1939 to September 1943.

Extremes.- Maximum discharge during year, 2,530 second-feet May 31 (gage height, 6.76 feet); minimum, 0.7 second-foot Aug. 29.

1939-43: Maximum discharge, 48,200 second-feet Nov. 25, 1940 (gage height, 24.25 feet); minimum, 0.5 second-foot July 9, 1939.

Maximum stage known, 27.2 feet July 1, 1938, at railroad bridge 100 feet below gage, from information by railroad company.

Remarks.- Records good except those for periods of no gage-height record, which are fair. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	12	11	11	a10	14	27	a6.8	262	10	9.2	1.1
2	8.8	11	9.2	11	a10	16	23	a5.9	92	9.2	6.4	1.6
3	8.8	11	9.7	10	a10	17	21	a6.0	60	11	6.4	3.9
4	17	19	9.2	9.2	a9.7	18	19	a4.6	49	8.3	5.0	3.2
5	36	44	9.2	7.6	a9.7	18	18	a4.3	845	7.3	4.3	2.3
6	a31	26	9.7	15	a9.2	17	17	a4.3	226	6.4	3.9	1.6
7	a26	19	10	26	a9.2	14	15	a3.9	25	5.9	3.5	19
8	a23	17	10	24	a8.8	13	15	a3.5	59	6.4	3.2	11
9	a19	16	10	20	a8.8	13	15	a3.2	65	5.4	2.9	17
10	14	15	10	18	a8.8	15	15	a8.8	51	9.6	2.6	30
11	11	12	11	18	a8.3	16	15	a17	36	185	2.6	39
12	9.7	12	10	26	a8.3	17	15	a18	32	95	4.3	18
13	9.2	12	9.7	31	a7.6	15	14	15	52	116	3.9	11
14	8.8	12	9.7	24	a7.6	14	12	9.2	78	52	2.6	9.7
15	8.6	12	10	19	a7.6	13	10	7.3	101	31	1.8	6.4
16	8.3	13	9.7	17	a7.3	14	12	6.4	43	22	1.5	9.2
17	8.3	13	9.2	16	a7.3	12	16	5.4	31	18	1.1	5.4
18	8.3	13	9.2	14	a36	13	18	5.0	25	15	1.1	4.3
19	8.6	12	10	12	a52	14	17	4.6	22	13	1.1	3.5
20	12	12	10	11	a36	12	13	4.6	20	12	1.1	3.2
21	12	15	12	11	a27	12	12	6.4	18	10	1.5	2.9
22	12	16	15	12	19	11	12	36	17	8.8	1.3	2.6
23	9.7	14	12	12	18	10	11	11.5	15	7.8	1.1	2.3
24	9.2	13	11	12	17	12	11	6.4	14	7.3	1.1	2.0
25	9.2	12	11	12	17	1,180	9.2	32	12	6.8	1.1	1.6
26	8.8	11	11	11	15	415	8.8	19	12	6.8	1.0	1.5
27	8.3	9.7	10	12	109	7.8	14	16	11	1.0	8.3	3.6
28	12	11	20	10	14	66	7.3	18	13	7.3	1.0	3.6
29	19	11	15	11	-	49	7.3	37	9.7	13	1.0	19
30	16	10	13	11	-	37	a6.8	78	9.7	12	1.0	38
31	14	-	12	11	-	30	-	1,380	-	10	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	413.3	36	8.3	13.3	820
November.....	432.7	44	9.7	14.4	858
December.....	360.6	22	9.2	11.3	695
Calendar year 1942.....	38,492.2	15,300	5.7	105	76,340
January.....	461.0	31	7.8	14.9	914
February.....	410.8	52	7.3	14.7	816
March.....	2,225	1,180	10	71.8	4,410
April.....	420.2	27	8.8	14.0	833
May.....	1,945.2	1,380	3.2	62.7	3,980
June.....	2,390.4	845	9.7	79.7	4,740
July.....	738.3	185	5.4	23.8	1,460
August.....	79.6	9.2	1.0	2.67	158
September.....	276.5	39	1.1	9.22	548
Water year 1942-43.....	10,143.5	1,380	1.0	27.8	20,110

Peak discharge.- Mar. 25 (3 p.m.) 2,130 sec.-ft.; May 31 (11:45 a.m.) 2,530 sec.-ft.; June 5 (7:45 a.m.) 1,500 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records. Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

San Antonio River at San Antonio, Tex.

Location.- Water-stage recorder, lat. 29°24'35", long. 98°29'40", at South Alamo Street Bridge in San Antonio, Bexar County, 2.1 miles upstream from San Pedro Creek. Datum of gage is 612.3 feet above mean sea level, datum of 1929.

Drainage area.- 38 square miles.

Records available.- January 1915 to November 1929, February 1939 to September 1943. Estimated monthly ground-water discharge contained in Water-Supply Paper 773-B.

Average discharge.- 18 years (1915-29, 1939-43), 72.9 second-feet.

Extremes.- Maximum discharge during year, 2,350 second-feet Oct. 4 (gage height, 8.16 feet, from rating curve extended above 700 second-feet); minimum, 2.6 second-feet June 12; minimum daily, 20 second-feet Aug. 26.

1915-29, 1939-43: Maximum discharge, 15,300 second-feet Sept. 10, 1921 (gage height, 20.14 feet, from floodmark), by slope-area method; no flow at times because of regulation.

Flood of July 5, 1819, equalled or exceeded that of Sept. 10, 1921.

Remarks.- Records fair except those above 500 second-feet, which are poor. Normal flow of river comes from springs located about 8 miles above station. Springs emerge from Edwards limestone formation in Balcones fault zone. Diurnal fluctuation caused by industrial pumping from wells (depleting the underground reservoir) above station. Diversions above station for irrigation and industrial uses.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	186	146	125	113	104	97	66	43	36	47	30
2	88	186	146	123	113	104	88	65	40	34	51	93
3	89	184	146	121	115	93	86	68	35	35	46	24
4	696	192	141	120	113	97	86	65	41	36	42	24
5	606	182	141	118	110	96	97	65	77	36	36	23
6	167	180	140	140	109	96	86	65	42	36	36	41
7	141	178	141	120	107	97	86	66	47	35	33	32
8	129	176	140	128	107	101	107	65	51	39	35	30
9	151	176	140	128	105	96	83	65	54	33	38	30
10	151	173	141	128	105	97	89	83	55	35	31	29
11	153	169	140	128	101	97	91	69	54	146	34	28
12	136	167	136	133	96	96	97	66	51	43	26	29
13	136	167	138	126	97	96	86	63	72	155	31	33
14	136	165	138	126	104	97	78	60	56	59	28	31
15	176	165	138	125	106	104	78	60	56	59	28	38
16	150	167	136	126	99	94	71	56	57	64	31	54
17	153	165	136	128	99	101	94	56	62	65	29	31
18	693	163	134	123	94	91	74	51	46	65	28	31
19	470	163	136	120	99	93	74	46	50	67	28	37
20	180	163	134	118	97	93	74	42	51	63	29	39
21	180	171	141	117	99	94	76	40	51	89	30	33
22	178	155	133	118	96	97	74	33	51	57	29	30
23	180	156	131	118	96	93	72	45	57	56	30	30
24	182	156	131	118	96	122	70	47	47	53	28	26
25	184	158	133	118	99	97	70	45	42	52	35	26
26	182	153	133	117	93	91	71	44	38	59	20	34
27	162	153	128	117	93	96	68	42	40	50	29	46
28	164	155	128	118	96	99	70	40	50	52	30	31
29	186	150	126	117	-	102	64	66	39	50	52	32
30	189	150	126	115	-	99	65	46	30	42	36	29
31	186	-	125	117	-	101	-	52	-	45	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,640	696	86	214	13,170
November.....	5,014	186	150	167	9,950
December.....	4,225	146	125	136	8,380
Calendar year 1942.....	37,553	696	27	103	74,490
January.....	3,792	140	115	122	7,520
February.....	2,856	115	93	102	5,660
March.....	3,034	122	91	97.9	6,020
April.....	2,422	107	64	80.7	4,800
May.....	1,793	83	40	57.8	3,560
June.....	1,485	77	30	49.5	2,950
July.....	1,718	155	33	55.4	3,410
August.....	1,073	65	20	34.6	2,130
September.....	1,023	93	25	34.1	2,030
Water year 1942-43.....	35,075	696	20	96.1	69,580

Peak discharge.- Oct. 4 (9:30 a.m.) 2,350 sec.-ft.; Oct. 18 (9 a.m.) 1,380 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

San Antonio River near Falls City, Tex.

Location.— Water-stage recorder, lat. 28°57'05", long. 98°03'55", at highway bridge half a mile upstream from Scared Dog Creek and 3.4 miles southwest of Falls City, Karnes County. Datum of gage is 285.5 feet above mean sea level, datum of 1929.

Drainage area.— 2,067 square miles.

Records available.— April 1925 to September 1943.

Average discharge.— 18 years, 310 second-feet.

Extremes.— Maximum discharge during year, 7,880 second-feet Oct. 20 (gage height, 10.37 feet); minimum, 155 second-feet Aug. 14, 20, 21.

1925-43: Maximum discharge, 18,500 second-feet July 6, 1942; maximum gage height, 22.3 feet June 13, 1935, affected by backwater; minimum discharge, 36 second-feet May 11, 12, 1928 (gage height, 0.97 foot).

Maximum stage known, 28.36 feet in October 1913, from information by local residents.

Remarks.— Records good except those for periods of no gage-height record, which are fair. Flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Medina Canal diverts water above gage.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	390	534	540	291	285	255	278	295	335	209	209	225
2	373	603	519	290	289	275	278	285	293	189	204	256
3	368	497	519	289	288	263	263	255	268	189	209	647
4	368	491	519	288	283	273	253	221	263	200	204	470
5	1,850	472	518		283	263	243	221	268	192	204	442
6	6,350	466	517	430	278	263	253	221	324	192	200	273
7	5,320	454	516		278	263	258	217	424	192	192	225
8	1,460	436	515		278	249	268	217	351	192	181	263
9	658	450	514	330	273	249	258	213	351	185	174	390
10	712	419	513	328	273	253	296	213	288	181	178	230
11	615	419	512	326	268	253	268	213	253	192	181	273
12	571	602	511	324	373	248	258	209	248	243	170	258
13	552	491	510	321	484	253	258	209	248	726	163	204
14	521	384	509	318	413	263	253	209	253	460	183	204
15	497	378	508	316	298	249	253	204	330	1,080	166	217
16	872	378	507	314	263	248	253	204	283	1,190	170	204
17	1,660	378	506	309	263	249	248	204	258	457	174	209
18	1,510	378	505	304	258	253	248	209	243	309	178	288
19	2,210	378	504	298	258	253	248	209	258	273	170	413
20	6,260	373	503	314	253	243	243	204	273	268	163	268
21	5,610	373	502	448	258	243	243	204	238	263	159	217
22	1,490	413	501	448	263	236	238	314	246	248	174	213
23	888	583	500	368	253	248	238	263	248	225	165	200
24	761	571	299	304	263	263	238	368	238	213	170	196
25	712	454	298	293	258	253	234	314	225	209	181	189
26	679	366	297	288	253	356	234	273	213	204	178	185
27	653	356	296	288	248	390	234	253	213	204	181	178
28	621	351	295	283	258	309	230	238	192	213	170	192
29	583	346	294	278	-	263	230	225	204	209	166	230
30	571	346	293	283	-	278	230	230	213	209	166	217
31	552	-	292	283	-	283	-	346	-	209	185	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	46,637	6,350	366	1,504	92,500
November.....	13,022	602	346	434	25,830
December.....	9,532	340	292	307	18,910
Calendar year 1942	224,517	15,300	152	615	445,400
January.....	10,244	-	278	530	20,320
February.....	6,000	484	248	286	15,870
March.....	8,831	835	238	285	17,520
April.....	7,519	298	230	251	14,910
May.....	7,320	368	204	236	14,520
June.....	8,044	424	192	269	15,960
July.....	9,525	1,190	181	307	18,890
August.....	5,549	209	159	179	11,010
September.....	7,976	647	178	266	15,820
Water year 1942-43	142,199	6,350	159	390	282,100

Peak discharge.— Oct. 6 (9 p.m.) 7,600 sec.-ft.; Oct. 20 (10 p.m.) 7,880 sec.-ft.

Note.— No gage-height record Dec. 4 to Jan. 15, Apr. 8 to May 16; discharge computed on basis of recorded range in stage, engineer's notes, weather records, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

San Antonio River at Goliad, Tex.

Location.— Water-stage recorder, lat. 28°39', long. 97°23', at bridge on State Highway 29, 1.3 miles southeast of courthouse in Goliad, Goliad County, and 10 miles upstream from Manahuilla Creek. Datum of gage is 90.6 feet above mean sea level, unadjusted.

Drainage area.— 3,914 square miles.

Records available.— June 1924 to March 1929, February 1939 to September 1943.

Extremes.— Maximum discharge during year, 7,330 second-feet Oct. 8 (gage height, 25.51 feet); minimum, 222 second-feet Sept. 2.
1924-29, 1939-43: Maximum discharge, 33,800 second-feet July 9, 1942 (gage height, 44.9 feet); minimum observed, 44 second-feet several periods in 1927.
Floods of October 1913 and June 15, 1935 reached about same stage as that of July 9, 1942.

Remarks.— Records good except those above 1,000 second-feet and those during rapidly changing stage, which are poor. Low flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Water diverted at Medina Reservoir for irrigation and in city of San Antonio for industrial use and municipal supply.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	801	g839	542	488	407	362	416	308	4,260	272	299	225
2	801	g801	542	470	416	371	425	308	1,210	281	299	238
3	782	g801	542	470	416	380	425	308	614	272	290	353
4	782	g782	524	452	416	407	425	290	578	254	281	497
5	801	g839	524	452	416	380	407	281	3,950	254	281	679
6	1,360	g839	524	452	407	389	398	281	4,030	254	281	560
7	5,030	g792	524	524	407	389	380	290	1,140	254	281	542
8	7,130	g725	506	632	398	371	389	281	944	243	272	359
9	6,420	g706	506	614	398	371	389	281	782	252	263	335
10	2,650	g668	524	560	398	362	371	280	578	250	254	362
11	1,300	g650	524	506	398	362	371	328	506	263	250	506
12	1,030	g650	506	488	398	371	416	470	452	1,110	250	335
13	902	g632	506	488	389	371	416	299	735	637	263	335
14	839	g632	506	488	416	362	407	308	614	650	249	335
15	820	g614	506	488	560	362	389	308	560	820	236	272
16	763	g596	488	506	524	362	380	299	488	820	232	272
17	1,060	g596	506	506	445	353	380	281	452	1,590	234	299
18	1,550	g578	506	470	398	353	470	272	407	1,350	238	281
19	2,400	578	488	452	398	353	489	283	371	706	245	263
20	2,840	578	488	445	398	353	371	263	344	606	245	344
21	4,940	578	488	445	389	353	407	263	344	434	241	434
22	6,190	560	488	452	389	353	407	272	362	398	232	353
23	6,060	560	488	560	380	335	398	399	326	389	227	272
24	2,560	614	488	560	380	335	380	567	326	352	240	263
25	1,350	744	506	624	380	706	371	542	326	365	240	245
26	g1,160	744	506	445	380	1,590	353	524	517	326	232	236
27	g1,010	632	524	426	371	1,350	353	416	299	308	243	234
28	g986	578	524	416	362	614	344	362	281	308	241	229
29	g923	560	506	416	-	524	344	398	281	308	241	236
30	g960	560	506	407	-	452	335	516	263	308	254	250
31	g960	-	506	407	-	416	-	3,750	-	308	226	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	66,980	7,130	763	2,111	132,900
November.....	19,980	899	560	616	39,630
December.....	15,812	542	489	610	31,360
Calendar year 1942.....	455,489	32,000	196	1,648	903,500
January.....	15,008	632	407	484	29,770
February.....	11,425	560	362	406	22,660
March.....	14,394	1,590	335	464	28,560
April.....	11,805	488	355	394	23,410
May.....	14,029	3,760	263	453	27,330
June.....	26,143	4,260	263	671	51,880
July.....	14,872	1,590	243	480	29,500
August.....	7,837	299	225	355	15,540
September.....	10,174	679	225	339	20,180
Water year 1942-43.....	228,459	7,130	225	628	453,200

Peak discharge.— Oct. 8 (10 p.m.) 7,330 sec.-ft.; Oct. 23 (5 a.m.) 6,680 sec.-ft.; June 1 (3 a.m.) 5,260 sec.-ft.; June 6 (12:01 a.m.) 5,720 sec.-ft.

g Computed from graph based on once-daily staff gage readings furnished by U. S. Department of Agriculture.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cibolo Creek near Falls City, Tex.

Location.— Water-stage recorder, lat. 29°01', long. 97°56', at bridge on State Highway 123, 5.5 miles northeast of Falls City, Karnes County, and 9 miles upstream from mouth. Datum of gage is 264.0 feet above mean sea level, unadjusted.

Drainage area.— 831 square miles.

Records available.— November 1930 to September 1943.

Average discharge.— 12 years (1931-43), 135 second-feet.

Extremes.— Maximum discharge during year, 8,090 second-foot Oct. 5 (gage height, 20.06 feet); minimum, 14 second-foot Aug. 25-27, 30, 31.

1930-43: Maximum discharge, 33,600 second-foot July 6, 1942 (gage height, 34.45 feet); minimum, 4.9 second-foot Aug. 27, 28, Oct. 23, 1940.

Flood in October 1913 reached a stage about half a foot higher than that of July 6, 1942.

Remarks.— Records good. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	91	57	47	47	36	34	26	195	20	23	19
2	80	91	57	47	46	41	34	25	61	22	22	194
3	77	159	56	47	46	37	35	24	38	22	20	71
4	92	113	56	46	46	36	32	25	90	20	20	38
5	4,820	105	55	45	45	37	31	24	97	19	20	57
6	2,380	88	55	46	45	38	30	24	587	20	19	48
7	320	86	55	52	44	36	29	24	231	20	18	42
8	190	81	53	52	44	36	29	24	102	20	18	28
9	147	78	53	51	44	36	30	24	57	20	18	85
10	126	73	52	51	43	36	30	26	43	20	18	41
11	113	69	53	50	43	37	30	25	36	69	18	44
12	105	67	53	57	42	36	30	24	44	180	18	38
13	97	66	52	65	42	36	30	24	75	96	16	25
14	92	66	52	56	42	36	29	23	90	185	18	22
15	320	67	52	54	41	36	27	22	38	522	17	22
16	469	67	52	53	41	36	27	22	31	352	17	30
17	634	67	52	53	41	36	44	22	27	148	17	28
18	668	66	51	52	40	35	35	22	26	82	17	24
19	3,550	66	50	52	40	36	30	22	25	54	17	24
20	1,450	55	51	51	39	36	30	21	24	40	16	22
21	428	65	52	51	39	35	35	20	24	33	16	22
22	274	113	52	51	39	34	32	209	24	29	15	22
23	209	85	52	50	38	33	30	38	24	27	15	22
24	167	67	52	50	38	118	29	26	24	25	15	21
25	141	66	52	49	37	282	27	34	23	24	14	20
26	123	65	53	49	37	71	27	24	22	24	14	20
27	103	59	57	49	36	56	27	23	22	24	14	21
28	103	68	52	48	36	52	26	24	22	24	15	24
29	99	58	48	48	-	42	26	42	22	24	15	23
30	94	58	48	48	-	37	26	951	21	28	14	73
31	93	-	48	47	-	36	-	405	-	24	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,471	4,820	77	564	34,650
November.....	2,350	189	58	78.3	4,660
December.....	1,633	57	48	52.7	3,240
Calendar year 1942.....	116,338	20,900	11	319	230,700
January.....	1,570	68	45	50.6	3,110
February.....	1,151	47	36	41.5	2,300
March.....	1,525	252	33	49.2	3,020
April.....	907	44	26	30.2	1,800
May.....	2,299	981	20	74.2	4,560
June.....	2,145	587	21	71.5	4,250
July.....	2,217	522	19	71.5	4,400
August.....	630	23	14	17.1	1,050
September.....	1,170	194	19	30.0	2,320
Water year 1942-43.....	34,978	4,820	14	55.8	69,360

Peak discharge.— Oct. 5 (8 p.m.) 8,090 sec.-ft.; Oct. 19 (7 p.m.) 4,660 sec.-ft.; May 30 (5 p.m.) 3,110 sec.-ft.

Note.— No gage-height record Jan. 17 to Feb. 25; discharge computed on basis of recorded range in stage, weather records, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MISSION RIVER BASIN

Mission River at Refugio, Tex.

Location.- Wire-weight gage, lat. 28°17', long. 97°17', at bridge on U. S. Highway 77, 500 feet upstream from Missouri Pacific Railroad bridge and a quarter of a mile southwest of Refugio, Refugio County. Datum of gage is 1.7 feet above mean sea level, datum of 1929.

Drainage area.- 643 square miles.

Records available.- July 1939 to September 1943.

Extremes.- Maximum discharge during year, 4,910 second-feet June 5 (gage height, 22.4 feet, from graph based on gage readings); minimum observed, 1.9 second-foot Sept. 15, 1939-43: Maximum discharge, 41,700 second-feet July 7, 1942 (gage height, 33.3 feet); minimum observed, 0.7 second-foot Oct. 7, 9, 1940.
Maximum stage known, prior to 1942, 32.3 feet in August 1914 and May 17, 1938, from information by local residents.

Remarks.- Records fair. Gage read twice daily, more often during floods. No large diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	32	24	20	17	13	17	8.9	558	14	5.9	9.2
2	57	32	24	19	18	13	15	8.9	143	11	5.7	5.7
3	56	32	24	19	18	13	14	8.6	56	12	5.7	3.2
4	55	36	23	19	18	13	15	8.6	33	13	5.0	2.4
5	75	44	24	19	a18	13	13	8.4	2,510	12	5.2	2.2
6	75	38	24	23	a18	13	12	8.1	2,640	11	5.0	2.2
7	60	35	24	24	a18	12	12	7.5	319	10	4.2	2.5
8	55	32	23	26	a18	13	12	8.1	131	11	4.7	3.2
9	50	31	23	25	a18	13	12	8.1	80	10	4.7	3.4
10	49	29	23	23	a18	14	12	8.6	56	10	4.5	4.5
11	46	28	23	22	a18	13	9.8	8.1	44	18	5.0	3.4
12	44	28	23	34	a18	14	12	7.5	56	13	4.7	2.8
13	42	28	23	38	a18	14	11	7.5	444	a13	4.7	2.8
14	40	28	23	47	a18	15	11	7.5	2,740	13	4.5	2.2
15	38	28	23	28	a18	14	10	7.5	578	13	4.2	5.0
16	35	27	22	25	a18	14	11	7.2	170	12	3.8	5.7
17	32	27	22	22	a18	13	15	6.4	80	11	3.8	3.8
18	32	27	22	22	a18	13	12	6.4	53	10	3.8	3.2
19	32	26	21	21	a18	13	12	6.4	42	9.2	a3.8	3.6
20	40	26	22	18	a18	13	11	6.4	35	8.1	a3.8	3.2
21	42	30	23	18	a18	12	12	7.0	32	7.2	a3.8	2.8
22	40	29	21	18	a18	12	12	9.8	28	7.0	3.8	2.8
23	36	28	22	20	18	12	12	9.8	26	6.4	3.6	3.0
24	34	26	22	19	18	14	11	7.8	23	6.2	3.6	2.8
25	31	26	21	20	15	14	11	9.8	21	5.9	3.6	2.8
26	29	24	21	18	14	230	11	7.5	21	7.2	3.4	3.2
27	33	24	21	18	13	106	10	6.4	19	7.2	3.4	4.0
28	38	24	21	18	14	46	9.5	5.6	a18	6.4	3.6	4.7
29	37	24	21	18	-	34	9.5	21	16	7.8	3.6	5.7
30	56	23	21	18	-	23	9.5	22	15	6.2	3.4	8.9
31	34	-	20	16	-	18	-	493	-	6.7	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,360	75	29	43.9	2,700
November	872	44	23	29.1	1,730
December	684	24	20	22.4	1,330
Calendar year 1942	102,597.2	30,300	3.2	281	203,500
January	695	47	16	22.4	1,330
February	497	18	13	17.4	966
March	517	230	12	28.4	1,620
April	357.3	17	9.5	11.9	709
May	757.4	493	6.4	21.4	1,500
June	10,967	2,740	15	36.4	21,750
July	308.5	18	5.9	9.95	612
August	132.5	5.9	3.4	4.27	263
September	115.0	9.2	2.2	3.83	288
Water year 1942-43	17,562.7	2,740	2.2	43.1	34,940

a No gage-height record; discharge computed on basis of engineer's notes and weather records.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River at Laguna, Tex.

Location.- Water-stage recorder, lat. 29°25'45", long. 99°59'50", half a mile downstream from Sycamore Creek and 1 mile northeast of Laguna, Uvalde County. Datum of gage is 1,119.72 feet above mean sea level, datum of 1929.

Drainage area.- 764 square miles.

Records available.- October 1923 to September 1943.

Average discharge.- 20 years, 155 second-feet.

Extremes.- Maximum discharge during year, 7,100 second-feet Oct. 15 (gage height, 8.74 feet); minimum, 28 second-feet several days in August and September.

1923-43: Maximum discharge, 222,000 second-feet July 13, 1939 (gage height, 26.40 feet), from rating curve extended above 40,000 second-feet on basis of float measurement (110,000 second-feet) and slope-area determination (213,000 second-feet); minimum, 7.8 second-feet Nov. 3-15, 1934.

Flood of Sept. 21, 1923 reached a stage of 26.5 feet (discharge, 226,000 second-feet, based on rating curve mentioned above). Flood of June 1913 reached a stage of 2 or 3 feet higher than that of Sept. 21, 1923, from information by local resident.

Remarks.- Records fair. Part of flow of Nueces River and its tributaries enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde and downstream from station. No diversions above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	210	146	93	73	68	63	63	99	68	42	28
2	129	206	142	93	70	68	68	63	93	66	40	56
3	126	202	138	93	70	68	68	63	88	63	40	44
4	136	202	135	91	70	68	66	59	86	61	39	33
5	126	202	135	91	70	68	63	57	115	57	38	30
6	116	202	135	88	70	68	63	57	626	57	38	29
7	106	198	131	88	70	68	63	56	346	55	39	29
8	103	198	127	88	70	68	171	55	225	55	38	29
9	97	194	124	86	70	66	118	52	165	55	36	29
10	103	190	124	83	70	66	99	75	151	55	36	29
11	100	186	121	83	68	66	93	61	105	52	36	29
12	100	182	121	80	68	63	88	57	61	52	34	29
13	97	182	118	80	68	63	86	57	78	52	34	28
14	106	178	115	80	68	63	80	55	70	57	33	29
15	2,030	174	112	80	68	63	80	55	63	57	33	29
16	964	174	112	78	68	63	78	55	55	57	32	31
17	496	174	108	78	68	63	78	52	50	55	33	32
18	2,030	173	109	75	68	63	75	52	46	55	34	30
19	930	169	105	75	68	63	75	50	66	50	34	29
20	640	165	105	73	68	61	73	50	102	49	33	29
21	540	157	112	73	68	61	73	52	93	46	32	29
22	476	154	115	73	68	61	73	79	99	45	31	28
23	416	154	112	70	68	61	70	88	99	45	30	28
24	376	146	105	70	68	63	70	86	93	45	29	28
25	344	146	105	68	68	66	68	83	91	45	28	28
26	311	146	102	68	68	68	68	99	86	45	28	32
27	298	142	102	68	68	68	66	102	80	46	28	40
28	274	146	99	68	68	68	66	99	78	45	28	33
29	252	146	99	68	-	66	66	99	75	45	29	30
30	235	146	99	70	-	63	63	99	73	44	28	29
31	218	-	96	73	-	63	-	99	-	42	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,387	2,030	97	400	24,570
November.....	5,244	210	142	175	10,400
December.....	3,608	146	86	116	7,160
Calendar year 1942	48,415	2,030	23	133	96,020
January.....	2,445	93	68	78.9	4,850
February.....	1,927	73	68	68.8	3,820
March.....	2,015	68	61	65.0	4,000
April.....	2,331	171	63	77.7	4,620
May.....	2,126	102	50	68.6	4,220
June.....	3,567	626	46	119	7,080
July.....	1,620	68	42	52.3	3,210
August.....	1,041	42	28	33.6	2,060
September.....	936	56	28	31.2	1,860
Water year 1942-43	39,247	2,030	28	108	77,850

Peak discharge.- Oct. 15 (11:30 a.m.) 7,100 sec.-ft.; Oct. 18 (6 a.m.) 3,370 sec.-ft.; June 6

(7 a.m.) 1,180 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River below Uvalde, Tex.

Location.— Water-stage recorder, lat. 29°08', long. 99°54', on Smyth Ranch, 4 miles upstream from bridge on U. S. Highway 83, 9 miles southwest of Uvalde, Uvalde County, and 15 miles downstream from West Nueces River. Datum of gage is 796.1 feet above mean sea level, datum of 1929.

Drainage area.— 1,947 square miles.

Records available.— April 1939 to September 1943.

Extremes.— Maximum discharge during year, 2,380 second-feet Oct. 18 (gage height, 5.86 feet); minimum, 6.5 second-feet Sept. 14.

1939-43: Maximum gage height, 19.25 feet July 13, 1939 (discharge not determined); minimum, that of Sept. 14, 1943.

Maximum stage known, 40.4 feet, from floodmarks, June 14, 1935 (discharge at former station, 5 miles upstream, 616,000 second-feet, by slope-area method).

Remarks.— Records good. Part of flow of Nueces River enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde. At low stages most of headwater flow enters this formation. No diversion.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	126	52	38	24	22	18	17	16	15	15	8.9
2	56	118	51	38	24	22	18	17	17	14	15	9.7
3	52	110	51	38	23	22	18	17	15	14	15	9.7
4	52	105	49	37	23	22	18	17	15	14	15	9.7
5	52	102	49	37	22	22	18	17	50	14	14	8.9
6												
8	51	100	48	37	21	21	18	17	23	14	14	9.7
7	51	95	46	37	21	20	18	17	22	14	14	8.9
8	49	91	43	37	21	20	40	17	20	14	14	7.3
9	49	84	41	37	21	21	23	18	19	14	13	7.3
10	49	80	40	35	21	20	20	24	18	14	13	7.3
11												
11	49	77	40	35	21	20	18	18	17	17	13	7.3
12	49	73	40	35	21	19	17	18	16	21	13	7.3
13	48	71	40	35	21	19	16	18	15	17	13	7.3
14	48	69	40	34	21	20	16	18	16	17	12	6.5
15	48	67	38	33	21	19	16	19	15	17	11	8.9
16	1,340	67	38	33	21	18	17	18	14	16	12	28
17	526	67	38	33	21	18	32	19	14	16	11	28
18	1,030	65	38	32	22	18	23	18	14	16	11	16
19	1,320	64	38	30	22	18	19	17	14	16	11	16
20	700	62	40	a29	22	17	19	17	14	16	11	16
21	477	62	41	a29	22	16	19	17	14	16	11	14
22	380	58	40	a28	22	17	19	26	14	16	11	14
23	315	58	40	a27	22	18	19	19	14	16	11	13
24	274	56	40	a27	22	20	19	19	14	16	11	12
25	245	54	40	a26	22	19	19	18	14	15	11	11
26												
26	213	54	40	a26	22	17	18	18	14	15	11	15
27	193	54	37	a25	22	17	18	18	14	17	9.7	17
28	178	54	38	a25	22	17	18	17	13	16	8.9	14
29	184	51	38	a25	-	18	17	17	13	16	8.9	14
30	147	51	38	25	-	18	17	18	15	17	8.9	14
31	132	-	38	24	-	18	-	18	-	17	8.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,392	1,340	48	271	16,650
November.....	2,245	126	51	74.8	4,480
December.....	1,290	52	37	41.6	2,580
Calendar year 1942.....	20,897.9	1,340	8.9	57.3	41,450
January.....	987	38	24	31.8	1,960
February.....	610	24	21	21.8	1,210
March.....	593	22	15	19.1	1,190
April.....	585	40	16	19.5	1,180
May.....	561	26	16	18.1	1,110
June.....	506	50	13	16.9	1,000
July.....	488	21	13	15.7	968
August.....	371.3	15	8.9	12.0	736
September.....	566.7	28	6.5	12.2	727
Water year 1942-43.....	16,995.0	1,340	6.5	46.6	33,710

Peak discharge.— Oct. 16 (2:30 a.m.) 2,120 sec.-ft.; Oct. 18 (7 p.m.) 2,380 sec.-ft.

a Bc gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River near Asherton, Tex.

Location.- Water-stage recorder, lat. 28°30', long. 99°42', at bridge on county road between Asherton and Brundage, 1.2 miles downstream from El Moro Creek and 5.5 miles northeast of Asherton, Dimmit County. Datum of gage is 470.9 feet above mean sea level, datum of 1929.

Drainage area.- 4,082 square miles.

Records available.- October 1939 to September 1943.

Extremes.- Maximum discharge during year, 3,530 second-feet June 6 (gage height, 20.17 feet); no flow at times.

1939-43: Maximum discharge, 5,200 second-feet Apr. 7, 1940 (gage height, 24.65 feet); no flow at times.

Maximum stage known, 32 feet June 17, 1935, from information by local residents.

Remarks.- Records good above 100 second-feet, fair below and poor for period of no gage-height record. Part of flow of Nueces River and its tributaries enters Edwards limestone, in Balcones fault zone which crosses basin just north of Uvalde in an east-west course. At low stages most of headwater flow enters this formation. Flow partly regulated by several small reservoirs above station. About 12,000 acres irrigated from river or jointly from wells and river above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	100						0	274	0		22
2	16	100						0	268	0		1.5
3	14	88						0	155	0		.3
4	14	71						0	88	0		.1
5	55	80						0	1,380	0		0
6	19	49						0	3,390	0		0
7	13	39						0	3,280	0		5.9
8	10	28						0	2,590	0		1.7
9	8.4	31						0	1,340	0		.8
10	5.7	32						.1	510	0		47
11	4.2	22						.2	261	28		2.0
12	3.2	13						0	152	23		.3
13	2.5	8.7						0	96	6.0		0
14	1.6	6.1						0	66	3.6		0
15	1.1	4.0						0	43	.8		0
16	.7	3.1						0	28	.2		.4
17	.5	3.2						0	18	.1		7.1
18	109	2.5						0	19	0		1.8
19	452	1.8						0	31	0		.4
20	559	1.0						0	14	0		.2
21	881	.6						0	6.1	0		.1
22	625	.3						.2	3.1	0		.1
23	452	.2						15	1.6	0		0
24	358	.1						6.2	.8	0		0
25	297	.1						2.1	.5	0		0
26	258	.1						.5	.3	0		0
27	210	0						.2	.1	0		0
28	170	0						.1	.1	0		.5
29	148	0						0	0	0		.4
30	153	0						89	0	0		.6
31	114	-						201	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,959.0	881	0.5	160	9,840
November.....	664.8	100	0	22.2	1,350
December.....		0	0		0
Calendar year 1942.....	50,088.0	4,610	0	137	99,350
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	314.6	201	0	10.1	624
June.....	14,015.6	3,390	0	467	27,800
July.....	61.7	28	0	1.99	122
August.....	0	0	0	0	0
September.....	93.2	47	0	3.11	185
Water year 1942-43.....	20,108.9	3,390	0	55.1	39,890

Note.- No gage-height record Apr. 19 to May 25; discharge computed on basis of recorded range in stage and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

NUECES RIVER BASIN

Nueces River at Cotulla, Tex.

Location.- Wire-weight gage, lat. 28°26', long. 99°16', at bridge on U. S. Highway 81 at Cotulla, La Salle County, a third of a mile upstream from International-Great Northern Railroad bridge. Datum of gage is 368.08 feet above mean sea level, datum of 1929.

Drainage area.- 5,260 square miles.

Records available.- October 1923 to September 1943. July 1915 to June 1918 at site 4 miles upstream. 1914-17 and since 1922 (gage heights only) in reports of U. S. Weather Bureau.

Average discharge.- 20 years, 316 second-feet.

Extremes.- Maximum discharge during year, 3,940 second-feet June 9 (gage height, 13.69 feet); no flow at times.

1923-43: Maximum discharge, 62,600 second-feet June 18, 1935 (gage height, 32.4 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. Gage read once daily. Part of flow of Nueces River and its tributaries enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde. At low stages most of headwater flow enters this formation. Low-water flow partly regulated by small storage reservoirs above station; most of it is diverted above station by pumping.

Cooperation.- Gage-height record furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	118	0.3	1.0	2.6	0.1	0	0	405	3.2	4.4	0
2	16	104	.3	1.2	2.6	.1	0	0	534	2.4	3.8	0
3	20	83	.3	1.2	2.4	.1	0	0	866	.7	3.2	0
4	185	69	.2	1.2	1.8	.2	0	0	866	0	7.3	0
5	720	69	.4	1.2	1.2	.1	0	0	918	0	6.7	0
6	110	63	.4	1.8	.4	.1	0	0	996	0	3.2	0
7	145	49	.4	1.8	.4	0	0	0	1,240	0	1.8	0
8	238	49	.4	2.1	1.2	0	0	0	2,610	.1	.3	0
9	156	23	.4	1.8	.4	0	0	0	3,940	.1	0	0
10	94	6.7	.4	1.8	.7	0	0	.8	3,300	.2	0	0
11	127	17	.4	1.8	.4	0	0	0	3,300	.1	.1	0
12	105	16	.4	1.8	.3	0	0	0	1,360	.1	.1	0
13	68	17	.3	1.8	.3	0	0	0	428	14	.1	0
14	14	17	.4	1.8	.4	0	0	0	260	215	0	0
15	9.0	16	.4	1.8	.3	0	0	0	114	420	0	0
16	9.0	2.6	.3	1.8	.3	0	0	0	82	316	0	0
17	9.0	18	.3	2.9	.3	0	2.5	0	62	462	0	0
18	3.2	4.9	.3	2.9	.2	0	.3	0	47	480	0	0
19	1.8	2.6	.3	2.4	.2	0	.2	0	54	308	0	.1
20	11	2.6	.3	2.4	.2	0	.3	0	114	130	0	11.5
21	308	1.5	.7	2.1	.2	0	.3	0	80	73	0	147
22	516	1.2	1.5	2.1	.2	0	.1	0	59	40	0	74
23	646	.4	.3	2.6	.2	0	0	0	24	21	0	35
24	952	.4	.3	.4	.2	0	0	0	19	16	0	16
25	666	.3	.3	2.6	.2	.2	0	0	13	12	0	10
26	480	.2	1.5	2.6	.2	0	0	0	11	7.8	0	3.5
27	340	.2	.3	2.6	.2	0	0	0	9.0	5.5	0	0
28	300	.1	.4	2.4	.1	0	0	0	5.5	4.4	0	.7
29	253	.1	1.0	2.4	-	0	0	0	4.4	3.8	0	.5
30	175	.1	1.0	2.4	-	0	0	0	3.8	3.2	0	.4
31	150	-	1.0	2.6	-	0	-	0	-	3.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,837.0	952	1.8	221	13,560
November.....	751.9	118	.1	25.1	1,490
December.....	15.2	1.5	.2	.49	30
Calendar year 1942.....	78,871.0	9,800	0	215	156,400
January.....	61.3	2.9	.4	1.98	122
February.....	18.1	2.6	.1	.68	36
March.....	9	.2	0	.03	1.8
April.....	3.7	2.5	0	.12	7.3
May.....	.8	.8	0	.03	1.6
June.....	21,724.7	3,940	3.5	724	43,090
July.....	2,541.8	480	0	82.0	5,040
August.....	31.0	7.3	0	1.00	61
September.....	405.2	147	0	13.5	804
Water year 1942-43.....	32,391.6	3,940	0	68.7	64,240

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River near Tilden, Tex.

Location.- Water-stage recorder, lat. 28°18', long. 98°54', at bridge on State Highway 173, 2 miles upstream from Cow Creek and 10.5 miles south of Tilden, McAllen County. Datum of gage is 183.3 feet above mean sea level, datum of 1929 (levels by State Highway Department).

Drainage area.- 8,192 square miles.

Records available.- November 1942 to September 1943.

Extremes.- Maximum discharge during period, 4,060 second-feet June 10 (gage height, 17.66 feet); no flow at times.

Maximum stage known, about 23.7 feet June 1935, according to information by State Highway Department.

Remarks.- Records good. Part of flow of the Nueces River and its tributaries enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde. At low stages most of headwater flow enters this formation. About 12,000 acres irrigated from river or jointly from wells and river above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	5.2	a0.9	0.6	0.4	0.2	a0	48	5.7	2.6	0
2		-	a4.1	a.9	.6	.4	.2	a0	3.2	4.0	1.7	0
3		-	a5.0	a.9	.7	.4	.2	a0	.6	2.7	1.1	159
4		-	a1.9	a.9	.8	.4	.1	a0	.2	1.8	.8	505
5		-	.8	a.9	.8	.5	.1	a0	306	1.1	.6	749
6		-	.6	a.e	.7	.5	.1	a0	1,190	.7	.5	1,130
7		-	.6	a.e	.6	.4	.1	a0	1,620	.5	.4	1,760
8		-	.6	a.8	.7	.4	.1	a0	1,990	.4	.4	1,690
9		-	.6	a.8	.7	.5	.1	a0	3,240	.4	.4	352
10		-	.6	a.8	.6	.5	.1	a0	3,620	.7	.3	186
11		-	.6	a.8	.5	.5	.1	a0	3,040	.6	.2	348
12		-	.5	a.8	.5	.5	.1	a0	2,020	.3	.2	305
13		44	.5	.8	.5	.4	.1	a0	1,400	314	.2	146
14		36	.5	.8	.5	.4	.1	a0	2,220	676	.1	60
15		29	.5	.7	.4	.4	.1	a0	3,820	304	.1	31
16		26	.5	.6	.4	.5	5.8	0	3,340	424	.1	25
17		24	.5	.6	.4	.4	1.8	0	2,750	608	.1	22
18		24	a.5	.6	.5	.4	2.0	0	2,230	495	.1	14
19		23	a.5	.5	.5	.4	a.1	0	1,220	285	0	10
20		20	a.5	.4	.5	.3	a.1	0	260	285	0	7.7
21		16	a.5	.4	.5	.3	a.1	0	134	315	0	5.4
22		14	a.5	.5	.4	.2	a.1	0	249	268	0	5.8
23		11	a.5	.5	.4	.3	a.1	0	214	149	0	2.4
24		9.4	a.5	.5	.5	.4	a.1	0	118	72	0	87
25		7.4	a.5	.5	.5	40	a.1	0	91	36	0	93
26		6.5	a.5	.5	.4	87	a.1	0	58	20	0	62
27		5.6	a.5	.5	.4	9.8	a.1	0	35	13	0	46
28		5.4	a.5	.5	.4	2.3	a.1	0	21	8.8	0	24
29		5.4	a.6	.5	-	.8	a0	0	13	6.8	0	116
30		5.2	a.8	.6	-	.4	a0	.3	8.6	5.2	0	75
31		-	a1.0	.6	-	.3	-	171	-	3.6	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	-	-	-	-	-
November 13-30.....	311.9	44	5.2	17.3	619
December.....	29.5	5.2	.5	.95	59
Calendar year.....	-	-	-	-	-
January.....	20.7	.9	.4	.67	41
February.....	15.0	.8	.4	.54	30
March.....	150.4	87	.2	4.85	298
April.....	12.4	5.6	0	.41	25
May.....	171.3	171	0	5.53	340
June.....	35,659.6	3,820	.2	1.169	70,730
July.....	4,307.5	676	.3	139	8,540
August.....	9.9	2.6	0	.32	20
September.....	8,014.3	1,760	0	267	15,900
The period.....	-	-	-	-	96,600

Peak discharge.- June 10 (6 a.m.) 4,060 sec.-ft.; June 15 (9 a.m.) 3,820 sec.-ft.; Sept. 8 (3 a.m.) 2,050 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River near Three Rivers, Tex.

Location.- Water-stage recorder, lat. 28°26'10", long. 98°11'10", 100 feet downstream from San Antonio, Uvalde & Gulf (Missouri Pacific) Railroad bridge, half a mile downstream from Frio River, and 2 miles southeast of Three Rivers, Live Oak County. Datum of gage is 101.16 feet above mean sea level, datum of 1929.

Drainage area.- 15,600 square miles.

Records available.- July 1915 to September 1943.

Average discharge.- 26 years (1915-18, 1920-43), 831 second-feet.

Extremes.- Maximum discharge during year, 5,090 second-feet June 12 (gage height, 21.38 feet); minimum, 1.0 second-foot Aug. 29 to Sept. 1. 1915-43; Maximum discharge observed, 85,000 second-feet Sept. 18, 1919 (gage height, 46.0 feet), from rating curve extended above 55,000 second-feet; no flow at times.

Remarks.- Records good. Part of flow of the Nueces River and its tributaries enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde in an east-west course. At low stages most of headwater flow enters this formation. About 5,000 acres irrigated from river above station, and about 12,000 acres jointly from river and wells.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	460	64	59	63	51	57	30	1,640	43	31	1.0
2	172	391	61	58	63	53	53	28	696	43	28	762
3	149	337	60	57	63	51	49	27	182	38	25	706
4	129	286	59	55	63	72	48	26	182	33	18	733
5	159	254	59	55	63	63	47	24	296	28	16	682
6	366	240	59	57	61	58	47	22	2,640	25	14	949
7	2,540	225	59	60	59	54	44	21	3,610	21	11	2,120
8	2,340	212	59	60	59	53	42	20	3,710	18	9.7	2,080
9	1,690	192	59	64	58	54	42	18	3,100	16	8.3	1,990
10	2,020	182	59	64	59	54	41	18	2,920	17	7.0	653
11	1,710	166	59	66	58	54	43	559	3,970	23	6.2	278
12	754	149	60	73	57	54	42	377	4,930	70	5.8	373
13	460	137	60	72	55	53	39	152	4,170	315	5.3	304
14	337	128	60	71	53	53	41	57	2,320	602	4.6	162
15	262	119	60	71	52	52	39	38	2,200	3,820	3.8	89
16	205	112	60	69	52	51	38	33	3,190	2,890	3.5	248
17	179	104	61	68	51	49	43	28	3,490	3,550	3.1	730
18	175	99	61	64	52	48	72	21	3,370	3,610	2.8	382
19	247	93	60	61	52	48	73	29	3,160	2,040	2.6	140
20	400	92	61	60	52	47	73	27	2,300	706	2.3	106
21	1,250	89	61	60	53	44	55	21	511	511	2.2	101
22	1,550	101	61	61	53	42	50	24	430	430	2.1	66
23	922	92	61	61	52	42	53	20	262	400	1.8	65
24	1,270	89	64	61	52	43	51	55	232	247	1.6	51
25	1,660	84	66	61	51	129	52	90	144	160	1.3	83
26	1,270	75	68	60	50	355	48	49	116	104	1.2	126
27	874	71	66	59	51	365	44	35	81	75	1.2	97
28	946	69	61	58	51	192	39	31	61	64	1.1	84
29	898	69	60	59	-	128	37	59	50	52	1.0	71
30	706	66	60	60	-	82	33	149	47	43	1.0	212
31	533	-	60	63	-	66	-	655	-	36	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	26,355	2,540	129	850	52,290
November.....	4,782	450	66	159	9,480
December.....	1,888	68	59	60.9	3,740
Calendar year 1942.....	574,571.2	51,000	7.4	1,574	1,140,000
January.....	1,927	73	55	62.2	3,820
February.....	1,556	63	50	55.6	3,090
March.....	2,560	365	42	82.6	5,080
April.....	1,435	73	33	47.8	2,860
May.....	2,767	655	16	89.3	5,490
June.....	53,720	4,930	47	1,791	106,600
July.....	20,080	3,820	16	648	39,830
August.....	225.5	31	1.0	7.21	445
September.....	13,994	2,120	1.0	466	27,760
Water year 1942-43.....	131,299.5	4,930	1.0	360	260,500

Peak discharge.- Oct. 7 (11:30 p.m.) 3,280 sec.-ft.; June 8 (10:30 a.m.) 3,770 sec.-ft.; June 12 (6 p.m.) 5,090 sec.-ft.; June 17 (8:30 p.m.) 3,520 sec.-ft.; July 15 (6:30 p.m.) 4,700 sec.-ft.; July 17 (11:30 p.m.) 4,030 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River near Mathis, Tex.

Location.— Water-stage recorder, lat. 28°02', long. 97°52', at bridge on U. S. Highway 59 (renumbered), 200 feet downstream from Texas & New Orleans Railroad bridge, 0.8 mile downstream from Lake Corpus Christi Dam, and 4 miles southwest of Mathis, San Patricio County. Datum of gage is 27.53 feet above mean sea level, datum of 1929.

Drainage area.— 16,660 square miles.

Records available.— August 1939 to September 1943.

Extremes.— Maximum discharge during year, 5,070 second-feet June 13 (gage height, 19.57 feet); minimum, 25 second-feet (regulated) Jan. 10, 11, 12; minimum daily, 25 second-feet (regulated) Jan. 11.

1939-43: Maximum discharge, 49,400 second-feet July 12, 1942 (gage height, 37.38 feet); minimum, 3.7 second-feet (regulated) Aug. 15, 1940; minimum daily, 6.8 second-feet (regulated) Aug. 15, 1940.

Maximum stage known, 39.9 feet September 1919, at railroad bridge 200 feet upstream, from floodmark identified by Texas & New Orleans Railroad engineers.

Remarks.— Records good. Flow regulated by Lake Corpus Christi Reservoir. (Original capacity at spillway crest, about 64,000 acre-feet, as determined by Texas State Board of Water Engineers, computed from Geological Survey advance topographic sheets, scale 1:48,000, contour interval, 10 feet; the U. S. Soil Conservation Service in connection with a siltation survey, determined capacity in 1942 to 43,400 acre-feet, which survey also determined original capacity to be 54,000 acre-feet, indicating a loss of 10,600 acre-feet by siltation.) Part of flow of Nueces River and its tributaries enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde in an east-west course. At low stages most of headwater flow enters this formation. About 5,000 acres irrigated from river above station and about 12,000 acres jointly from river and wells above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	754	440	94	29	31	36	35	42	88	125	46	42
2	762	400	83	29	31	31	36	41	482	125	40	56
3	790	472	114	29	32	69	34	40	576	124	40	62
4	706	346	115	29	33	34	34	38	400	123	40	36
5	639	328	115	27	35	35	34	39	1,670	124	40	36
6	614	288	115	28	32	67	34	40	3,850	112	40	35
7	494	265	113	34	30	38	35	38	3,220	59	38	61
8	1,280	251	111	29	31	36	33	39	3,350	58	38	704
9	1,900	244	109	26	31	36	34	40	3,470	60	38	1,570
10	1,700	272	109	26	75	35	34	57	3,060	56	39	1,770
11	1,770	258	109	25	35	34	35	43	2,800	56	39	1,040
12	1,600	216	109	52	31	33	36	44	3,470	56	38	549
13	1,060	185	104	88	32	34	36	111	4,580	56	39	410
14	658	148	45	86	32	33	34	121	4,470	56	42	336
15	376	146	43	70	35	33	34	121	2,880	96	42	304
16	328	144	40	29	35	36	36	110	2,290	1,610	39	288
17	381	144	40	32	35	34	52	65	2,940	2,460	38	272
18	345	143	40	29	36	34	84	81	3,220	2,980	39	346
19	345	142	40	67	34	40	48	81	3,260	3,160	39	320
20	354	142	40	30	34	34	40	82	3,050	2,000	39	258
21	400	168	40	29	87	40	39	81	2,290	907	38	181
22	598	188	38	29	35	34	40	81	1,130	453	38	144
23	993	133	40	29	35	34	40	81	527	320	38	127
24	819	108	38	29	35	34	40	78	336	265	38	109
25	877	127	39	49	36	58	40	55	280	202	36	76
26	1,110	133	40	81	39	53	40	53	258	146	36	60
27	906	125	107	32	35	36	40	54	195	131	40	100
28	762	124	64	29	36	36	42	56	159	89	60	111
29	652	126	31	30	-	35	41	57	142	68	58	60
30	754	123	32	31	-	36	42	60	135	62	58	99
31	601	-	30	31	-	36	-	55	-	54	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	25,278	1,900	328	815	50,140
November.....	6,298	472	108	210	12,490
December.....	2,192	118	30	77.7	4,350
Calendar year 1942.....	643,341	49,000	25	1,763	1,276,000
January.....	1,195	88	11	33.5	2,370
February.....	988	75	30	33.3	1,960
March.....	1,232	70	33	39.7	2,440
April.....	1,185	84	33	33.4	2,350
May.....	1,984	121	38	61.0	3,940
June.....	55,448	4,550	88	1,943	115,900
July.....	16,193	3,160	54	522	32,120
August.....	1,291	60	36	41.6	2,560
September.....	9,591	1,770	35	320	19,020
Water year 1942-43.....	125,873	4,550	25	345	249,600

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Nueces River at Calallen, Tex.

Location.- Staff gage, lat. 27°52'40", long. 97°37'35", at old pump house of city of Corpus Christi, half a mile northwest of Calallen, Nueces County, and half a mile upstream from tidewater and breakwater dam. Datum of gage is 1.12 feet above mean sea level, datum of 1929.

Drainage area.- 16,920 square miles.

Records available.- August 1915 to September 1943. (1918-43, gage heights only.)

Extremes.- Maximum gage height observed during year, 7.56 feet June 15; minimum observed, 2.98 feet May 6, 13.
1915-43: Maximum gage height observed, 13.58 feet July 13, 1942; no flow Aug. 23-29, 1918 (only period of no flow known).

Remarks.- Discharge not computed. Gage read twice daily.

Cooperation.- Gage readings furnished by city of Corpus Christi.

Gage height, in feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.31	4.71	3.82	3.48	3.52	3.44	3.44	3.29	3.47	3.83	3.65	3.46
2	4.25	4.47	3.74	3.44	3.45	3.45	3.47	3.37	3.49	3.82	3.54	3.47
3	4.21	4.47	3.65	3.49	3.51	3.54	3.47	3.34	4.40	3.82	3.44	3.49
4	4.25	4.51	3.81	3.44	3.49	3.61	3.46	3.25	4.44	3.83	3.45	3.46
5	4.41	4.36	3.84	3.43	3.52	4.51	3.46	3.15	4.28	3.82	3.43	3.50
6	4.48	4.31	3.85	3.42	3.52	3.38	3.40	3.10	5.56	3.82	3.37	3.46
7	4.34	4.23	3.86	3.51	3.53	3.57	3.41	3.17	6.28	3.77	3.32	3.35
8	4.37	4.20	3.87	3.53	3.48	3.51	3.39	3.23	6.56	3.54	3.42	3.42
9	5.15	4.17	3.84	3.57	3.45	3.39	3.45	3.31	6.72	3.45	3.38	4.94
10	5.57	4.13	3.82	3.59	3.43	3.35	3.45	3.39	6.84	3.48	3.35	5.48
11	5.59	4.24	3.84	3.50	3.57	3.36	3.48	3.24	6.77	3.63	3.29	5.56
12	5.64	4.17	3.84	3.57	3.62	3.38	3.43	3.27	6.66	3.58	3.32	4.85
13	5.57	4.05	3.85	3.55	3.52	3.34	3.35	3.05	6.91	3.53	3.29	4.50
14	5.11	3.91	3.81	3.85	3.48	3.41	3.37	3.31	7.29	3.49	3.24	4.25
15	4.63	3.90	3.58	3.82	3.44	3.36	3.32	3.69	7.56	3.51	3.38	4.22
16	4.30	3.90	3.51	3.83	3.39	3.33	3.36	3.76	7.23	3.54	3.37	4.18
17	4.26	3.89	3.48	3.51	3.42	3.28	3.43	3.69	6.50	5.54	3.33	4.07
18	4.33	3.87	3.38	3.49	3.49	3.31	3.51	3.48	6.46	5.97	3.36	4.06
19	4.34	3.88	3.47	3.50	3.50	3.28	3.67	3.46	6.72	6.39	3.34	4.22
20	4.34	3.87	3.55	3.70	3.50	3.26	3.54	3.45	6.85	6.62	3.28	4.13
21	4.39	3.87	3.55	3.59	3.50	3.44	3.44	3.46	6.79	6.20	3.34	4.01
22	4.42	3.95	3.54	3.50	3.48	3.35	3.44	3.34	6.34	5.12	3.33	3.86
23	4.81	4.06	3.49	3.50	3.47	3.30	3.35	3.59	5.21	4.57	3.24	3.77
24	5.04	3.87	3.48	3.51	3.48	3.28	3.40	3.50	4.50	4.37	3.25	3.78
25	4.95	3.85	3.55	3.53	3.47	3.54	3.44	3.46	4.30	4.26	3.24	3.73
26	5.04	3.88	3.55	3.53	3.38	3.72	3.39	3.32	4.17	4.11	3.20	3.62
27	5.22	3.86	3.51	3.79	3.32	3.62	3.54	3.16	4.11	4.01	3.22	3.62
28	5.06	3.86	3.82	3.56	3.42	3.57	3.28	3.22	3.96	3.97	3.30	3.61
29	4.90	3.85	3.77	3.41	-	3.49	3.28	3.52	3.89	3.79	3.45	3.74
30	4.76	3.82	3.62	3.44	-	3.44	3.31	3.55	3.84	3.68	3.46	3.62
31	4.85	-	3.46	3.53	-	3.46	-	3.55	-	3.65	3.49	-

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

West Nueces River near Brackettville, Tex.

Location.- Water-stage recorder, lat. 29°28'55", long. 100°14'20", at Bruce Ranch, 11 miles upstream from Liveoak Creek and 15.8 miles northeast of Brackettville, Kinney County. Datum of gage is 1,326.8 feet above mean sea level, datum of 1939.

Drainage area.- 700 square miles.

Records available.- October 1939 to September 1943.

Extremes.- Maximum discharge during year, 1,540 second-feet Oct. 18 (gage height, 6.55 feet); no flow at times.

1939-43: Maximum gage height, 11.56 feet, from floodmark, Oct. 27, 1939 (discharge not determined); no flow at times.

Maximum stage known, 48.0 feet June 14, 1935, from floodmark, at site 0.6 mile above gage (discharge at a point 33 miles above gage and 2½ miles downstream from Kickapoo Creek, 580,000 second-feet by slope-area method; a second determination 24 miles below gage and 8 miles north of Cline, 536,000 second-feet, by slope-area method).

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.2						0	1.5			
2	0	2.0						0	1.3			
3	0	1.9						0	1.0			
4	0	1.8						0	.7			
5	0	1.7						0	.9			
6	0	1.5						0	1.0			
7	0	1.5						0	1.8			
8	0	1.3						0	1.8			
9	0	1.2						0	1.7			
10	0	1.1						0	1.5			
11	0	1.1						0	1.3			
12	0	1.0						0	1.1			
13	0	.9						0	.8			
14	0	.8						0	0			
15	174	.7						0	0			
16	372	.5						0	0			
17	94	.4						0	0			
18	636	.2						0	0			
19	359	.1						0	0			
20	198	0						0	0			
21	65	0						0	0			
22	45	0						0	0			
23	26	0						0	0			
24	13	0						1.4	0			
25	7.2	0						2.2	0			
26	4.7	0						3.6	0			
27	3.7	0						3.6	0			
28	3.3	0						2.7	0			
29	2.9	0						1.9	0			
30	2.4	0						1.9	0			
31	2.3	-						1.6	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,898.5	656	0	61.2	3,770
November.....	21.9	2.2	0	.73	45
December.....	0	0	0	0	0
Calendar year 1942.....	1,965.5	656	0	5.38	3,900
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	18.9	3.6	0	.61	37
June.....	16.4	1.8	0	.55	33
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-45.....	1,955.7	656	0	5.36	3,880

Peak discharge.- Oct. 15 (9 p.m.) 1,260 sec.-ft.; Oct. 18 (12 m.) 1,540 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Frio River at Concan, Tex.

Location.— Water-stage recorder, lat. 29°29', long. 99°42', half a mile southeast of Concan post office, Uvalde County, and 15 miles upstream from Dry Frio River. Datum of gage is 1,203.71 feet above mean sea level, datum of 1929.

Drainage area.— 485 square miles.

Records available.— October 1923 to September 1943.

Average discharge.— 18 years (1924-29, 1930-43), 115 second-feet.

Extremes.— Maximum discharge during year, 1,200 second-feet Oct. 15 (gage height, 3.45 feet); minimum, 14 second-feet Aug. 29.

1923-43: Maximum discharge, 162,000 second-feet July 1, 1932 (gage height, 34.44 feet, from floodmarks), by slope-area method; minimum observed, 8.1 second-feet Aug. 2, 3, 1928.

Remarks.— Records excellent except those above 300 second-feet, which are good. Part of flow of the Frio River enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde and below station. Most of low flow enters this formation. No diversion above gage.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	134	86	75	60	55	52	52	50	47	33	19
2	114	134	86	75	60	55	55	50	50	44	32	33
3	111	131	84	75	62	53	55	48	48	42	30	42
4	120	131	84	73	62	53	52	47	48	42	30	38
5	120	131	84	73	60	53	52	45	84	40	28	28
6	111	128	81	73	60	53	52	45	75	40	28	24
7	106	125	81	73	58	53	52	45	71	39	28	23
8	103	122	81	73	58	55	172	45	71	39	27	21
9	100	120	81	73	58	55	77	45	69	40	27	21
10	100	117	81	71	56	56	67	67	67	42	26	20
11	98	114	81	71	55	56	62	52	63	42	26	20
12	95	111	81	71	55	56	60	45	62	42	24	20
13	95	111	81	69	55	53	58	44	62	45	23	20
14	95	111	81	69	55	52	56	44	60	52	23	20
15	428	111	81	69	55	50	56	42	60	50	21	20
16	214	106	79	67	55	50	56	42	58	45	20	32
17	178	106	79	67	55	48	58	42	56	44	20	34
18	170	106	79	67	55	48	56	42	56	42	20	28
19	166	100	79	65	55	48	55	40	56	40	20	26
20	178	100	79	63	55	48	55	39	55	39	20	24
21	178	98	86	63	55	47	55	42	55	38	19	24
22	170	95	84	63	55	47	55	73	55	36	19	23
23	166	95	81	63	55	48	55	60	53	36	17	23
24	162	95	81	63	55	58	55	67	52	34	17	23
25	162	95	79	63	55	65	53	55	50	34	17	24
26	155	93	79	63	55	62	53	50	50	36	16	28
27	155	90	77	63	55	58	52	48	48	36	16	39
28	155	90	75	63	55	56	52	47	47	36	16	34
29	151	90	75	62	-	56	52	60	47	34	14	32
30	148	88	75	62	-	55	52	55	45	34	17	30
31	141	-	75	62	-	53	-	52	-	34	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,559	428	95	147	9,040
November.....	3,280	134	88	107	6,510
December.....	2,496	86	75	80.5	4,950
Calendar year 1942.....	34,035	515	32	97.2	67,510
January.....	2,102	75	62	67.8	4,170
February.....	1,588	62	55	51.7	3,150
March.....	1,655	65	47	57.4	3,280
April.....	1,792	172	52	57.7	3,550
May.....	1,520	73	39	47.0	3,010
June.....	1,723	84	45	57.4	3,420
July.....	1,252	52	34	47.4	2,480
August.....	690	33	14	22.3	1,370
September.....	793	42	19	27.4	1,570
Water year 1942-43.....	23,450	428	14	67.2	46,500

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Frio River near Derby, Tex.

Location.— Water-stage recorder and concrete control, lat. 28°44'10", long. 96°06'45", at bridge on U. S. Highway 81, 150 feet upstream from International-Great Northern Railroad bridge, 750 feet downstream from Leona River, and 2.4 miles south of Derby, Frio County. Datum of gage is 449.3 feet above mean sea level, datum of 1929.

Drainage area.— 3,493 square miles.

Records available.— August 1915 to September 1943.

Average discharge.— 28 years, 168 second-feet.

Extremes.— Maximum discharge during year, 4,900 second-feet June 7 (gage height, 9.00 feet); no flow July 29 to Sept. 19.

1915-43: Maximum discharge, 230,000 second-feet July 4, 1932 (gage height, 29.60 feet, present site, from floodmarks at former site), by slope-area method; no flow at times.

Remarks.— Records good. Part of flow of Frio River and its tributaries enters Edwards Limestone in Balcones fault zone which crosses basin just north of Uvalde in an east-west course. At low stages all of headwater flow, with few exceptions, enters this formation. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2	9.4	30	11	18	23	17	22	15	7.8	2.6		0
3	10	26	12	17	23	17	23	17	9.4	2.6		0
4	11	22	12	18	23	18	21	18	10	2.6		0
5	23	18	12	18	23	18	20	15	11	1.4		0
6	235	17	13	18	23	17	20	11	24	.3		0
7	983	16	12	20	22	17	18	8.6	2,190	.2		0
8	187	15	12	20	23	16	17	8.6	4,070	.3		0
9	52	14	13	18	25	17	17	9.4	1,950	.2		0
10	29	14	13	18	22	16	18	9.4	280	.2		0
11	21	13	13	18	21	18	14	10	116	.2		0
12	15	12	13	18	18	18	32	15	62	.3		0
13	12	11	12	18	18	18	26	44	40	.5		0
14	12	11	12	18	20	18	20	24	30	98		0
15	13	9.4	11	18	20	18	14	20	94	33		0
16	13	9.4	11	20	20	18	15	18	50	25		0
17	12	9.4	11	20	20	18	15	14	27	44		0
18	11	7.0	11	18	20	18	16	11	21	14		0
19	26	7.8	12	20	20	18	16	11	18	6.2		0
20	486	9.4	12	20	21	20	41	13	16	3.2		18
21	2,910	9.4	12	20	21	20	29	10	14	2.2		92
22	961	9.4	13	21	21	21	27	8.6	12	1.8		36
23	303	8.6	14	21	20	22	20	11	12	1.8		12
24	195	8.6	13	21	20	22	16	9.4	12	1.8		5.4
25	141	9.4	14	22	20	21	15	10	11	1.4		2.2
26	109	9.4	15	22	20	22	15	16	9.4	1.0		1.4
27	80	9.4	15	21	20	22	15	22	7.0	.5		1.0
28	66	9.4	15	20	18	23	13	15	7.0	.4		1.4
29	52	11	13	22	18	24	13	9.4	6.2	.2		1.8
30	44	11	13	22	-	25	12	7.8	4.6	0		2.8
31	37	10	15	21	-	23	13	7.8	3.2	0		4.6
32	-	-	15	23	-	22	-	10.0	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,070.4	2,910	9.4	228	14,080
November	377.0	30	7.0	12.6	748
December	393	15	11	12.7	780
Calendar year 1942	36,389.6	4,900	1.8	97.6	70,210
January	607	23	16	19.6	1,200
February	581	23	18	20.8	1,150
March	602	25	16	19.4	1,190
April	571	41	12	19.0	1,130
May	429.0	44	7.8	13.8	881
June	8,124.6	4,070	3.2	271	18,110
July	245.9	98	0	7.9	468
August	0	0	0	0	0
September	178.4	92	0	5.9	354
Water year 1942-43	19,179.3	4,070	0	58.8	38,080

Peak discharge.— Oct. 20 (3 p.m.) 3,590 sec.-ft.; June 7 (5 p.m.) 4,900 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Frio River at Calliham, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°29'30", long. 98°20'45", at bridge on Calliham-Whitsett highway, 1 mile north of Calliham, McMullen County, and 9.7 miles downstream from San Miguel Creek. Datum of gage is 153.47 feet above mean sea level.

Drainage area.- 5,491 square miles.

Records available.- October 1924 to April 1926, April 1932 to September 1943.

Average discharge.- 12 years (1924-25, 1932-43), 314 second-feet.

Extremes.- Maximum discharge during year, 5,670 second-feet July 15 (gage height, 20.65 feet); no flow Aug. 26 to Sept. 2.
1924-26, 1932-43: Maximum discharge, 109,000 second-feet July 6, 1932 (gage height, 39.20 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good except those prior to Apr. 1 above 200 second-feet, which are fair, and those for periods of no gage-height record, which are poor. Part of flow of Frio River and its tributaries enters Edwards limestone in Balcones fault zone which crosses basin just north of Uvalde in an east-west course. At low stages all of headwater flow, with few exceptions, enters this formation. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a44	86	20	24	31	27	26	13	699	12	12	0
2	a43	75	23	22	30	26	22	12	224	12	12	72
3	a42	66	20	22	29	25	21	12	79	9.8	8.7	78
4	a40	61	20	23	29	25	21	12	60	7.1	7.5	42
5	a40	60	20	22	29	26	21	11	567	6.8	6.5	32
6		57	20	24	29	26	20	9.7	2,140	5.5	5.8	50
7		50	21	25	27	26	20	9.2	2,230	4.8	5.2	166
8		46	21	27	27	25	19	8.7	1,680	4.3	4.8	33
9		42	20	27	27	26	18	7.8	746	3.8	3.8	100
10	a830	40	20	30	29	28	18	76	868	3.6	3.1	26
11		37	23	32	28	30	17	177	1,750	3.4	2.9	11
12		34	24	34	26	31	16	118	1,550	3.4	2.4	7.1
13		33	24	34	25	31	22	46	503	292	2.1	5.2
14	80	33	25	32	24	30	20	24	178	1,610	1.8	3.1
15	71	33	26	32	23	28	17	20	436	5,290	a1.3	2.7
16	61	31	29	32	22	27	21	17	321	2,350	a1.2	67
17	58	30	26	30	22	26	31	12	80	5,420	a1.0	209
18	94	29	27	29	22	26	34	19	33	42	a.4	16
19	164	28	27	27	22	26	34	19	511	1,434	a.7	29
20	51.2	27	26	27	23	24	29	14	186	144	a.7	57
21	1,250	29	26	27	25	21	24	12	69	86	a.6	32
22	578	29	27	27	24	20	24	11	44	58	a.5	20
23	885	31	29	24	20	24	19	33	24	33	a.4	16
24	1,360	30	31	27	23	21	31	75	27	32	a.3	12
25	1,360	23	32	27	22	66	32	48	22	26	a.1	8.3
26	446	21	31	27	25	90	29	21	19	22	.1	5.8
27	226	22	28	26	25	58	25	19	17	20	0	8.1
28	176	22	25	27	24	82	20	18	14	17	0	17
29	145	22	27	26	-	54	17	22	12	15	0	12
30	118	21	26	29	-	37	15	22	13	14	0	8.7
31	103	-	25	29	-	29	-	1,120	-	13	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,534	-	-	469	28,830
November.....	1,148	86	21	38.3	2,280
December.....	771	32	20	24.9	1,530
Calendar year 1942.....	175,293.5	21,900	3.8	490	347,800
January.....	856	34	22	27.6	1,700
February.....	715	31	22	25.6	1,420
March.....	1,046	30	20	33.7	2,070
April.....	680	34	15	22.7	1,350
May.....	2,026.4	1,120	7.8	65.4	4,020
June.....	15,623	2,230	12	521	30,990
July.....	13,840.3	3,420	3.4	446	27,450
August.....	86.3	12	0	2.78	171
September.....	1,188.0	209	0	39.6	2,360
Water year 1942-43.....	52,515.0	3,420	0	144	104,200

Peak discharge.- June 6 (11 p.m.) 2,260 sec.-ft.; June 12 (3 a.m.) 2,110 sec.-ft.; July 15 (4:30 a.m.) 5,870 sec.-ft.; July 17 (4:30 a.m.) 3,510 sec.-ft.
a No gage-height record; discharge computed on basis of floodmarks, engineers' notes, weather records, and records for nearby stations.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Leona River spring flow near Uvalde, Tex.

Location.- Water-stage recorder, lat. 29°09', long. 99°44', at old road crossing on White's ranch, 3½ miles downstream from Cooks Slough and 5.6 miles southeast of Uvalde, Uvalde County.

Records available.- January 1939 to September 1943. Occasional discharge measurements since 1925 in connection with seepage investigations.

Extremes.- Maximum daily spring discharge during year, 30 second-feet Apr. 2, 3, 8; maximum gage height (flood runoff), 3.14 feet June 5; minimum daily spring discharge, 15 second-feet Aug. 26 to Sept. 1.
1939-43: Maximum daily spring discharge, 33 second-feet Feb. 15-18, 1942; maximum gage height (flood runoff) 12.87 feet July 13, 1939; minimum daily spring discharge, 12 second-feet several days in February, March, and April 1941.

Remarks.- Records good. Discharge represents flow from several springs that enter river above station and below Uvalde. Surface runoff from precipitation is excluded. Many small diversions by pumping from river channel above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	25	27	27	27	27	29	23	23	20	19	15
2	25	25	27	27	27	27	30	23	23	20	18	16
3	25	25	27	27	27	27	30	23	23	20	18	17
4	25	25	27	27	27	27	29	23	23	20	17	16
5	25	25	27	27	27	27	29	23	23	20	17	16
6	25	25	27	27	27	27	29	23	22	20	17	16
7	25	25	27	27	27	27	29	23	22	20	17	16
8	25	26	27	27	27	27	30	23	22	20	17	17
9	25	26	27	27	27	27	29	23	21	20	17	17
10	25	26	27	27	27	26	29	22	21	20	17	17
11	25	25	27	27	27	26	29	21	21	20	17	17
12	25	26	27	27	27	26	29	21	21	20	17	17
13	24	26	27	27	27	26	29	21	21	20	17	17
14	25	26	27	27	27	26	29	21	21	20	17	17
15	25	26	27	27	27	26	29	21	21	20	17	17
16	25	26	27	27	27	26	28	21	21	20	17	17
17	25	26	27	27	27	26	28	21	21	20	16	18
18	25	27	27	27	27	27	29	21	21	20	16	18
19	25	27	27	27	27	27	28	21	21	20	16	18
20	25	27	27	27	27	27	27	21	21	20	16	17
21	25	27	27	27	27	28	27	21	21	20	16	17
22	25	27	27	27	27	28	26	21	21	20	16	17
23	25	27	27	27	27	28	26	21	20	19	16	17
24	25	27	27	27	27	29	26	21	20	19	16	17
25	25	27	27	27	27	29	26	21	20	20	16	17
26	25	27	27	27	27	29	25	21	20	19	15	17
27	25	27	27	27	27	29	25	21	20	19	15	18
28	25	27	27	27	27	29	25	22	20	19	15	18
29	25	27	27	27	-	29	25	22	20	18	15	18
30	25	27	27	27	-	29	24	23	20	18	15	17
31	25	-	27	27	-	29	-	23	-	18	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	774	25	24	25.0	1,540
November.....	783	27	25	26.1	1,550
December.....	837	27	27	27.0	1,660
Calendar year 1942.....	9,681	35	18	26.5	19,190
January.....	837	27	27	27.0	1,660
February.....	756	27	27	27.0	1,500
March.....	848	29	26	27.4	1,660
April.....	852	30	24	27.7	1,650
May.....	876	23	21	21.8	1,340
June.....	636	23	20	21.2	1,260
July.....	609	20	18	19.6	1,210
August.....	506	18	15	16.4	1,010
September.....	509	18	15	17.0	1,010
Water year 1942-43.....	8,606	30	15	23.6	17,070

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

NUECES RIVER BASIN

Atascosa River at Whitsett, Tex.

Location.- Water-stage recorder and wooden control, lat. 28°39', long. 98°18', 0.9 mile west of Whitsett, Live Oak County, and 4 miles downstream from La Parita Creek. Datum of gage is 159.0 feet above mean sea level, datum of 1929.

Drainage area.- 1,171 square miles.

Records available.- September 1924 to May 1926, May 1932 to September 1947.

Average discharge.- 12 years (1924-25, 1932-43), 160 second-feet.

Extremes.- Maximum discharge during year, 1,530 second-feet Sept. 7 (gage height, 13.77 feet); minimum, 0.2 second-foot, Aug. 30.
1924-26, 1932-43: Maximum discharge, 39,300 second-feet July 7, 1942 (gage height, 38.3 feet, from floodmark), from rating curve extended above 12,000 second-feet on basis of slope-area measurement at gage height 38.0 feet; no flow at times.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	41	24	23	25	19	22	9.4	137	6.4	7.4	19
2	52	39	24	23	25	20	21	9.0	60	6.1	7.0	669
3	51	37	24	23	25	42	20	8.6	29	6.1	5.8	304
4	50	37	24	22	25	35	19	8.6	21	6.1	5.2	152
5	49	36	23	21	26	25	18	8.2	98	5.8	4.6	50
6	239	35	23	22	26	22	18	7.8	389	5.5	4.3	43
7	664	34	22	23	25	21	18	7.4	205	5.2	4.0	954
8	176	33	22	24	25	20	17	7.4	61	4.9	3.4	88
9	114	32	22	25	24	19	16	7.4	33	4.9	3.4	62
10	92	33	22	25	25	20	19	186	23	9.4	3.2	65
11	77	31	22	26	23	21	21	334	18	9.8	3.0	69
12	69	30	23	26	23	20	18	86	15	28	3.2	24
13	62	30	23	27	22	19	16	29	15	210	2.9	13
14	58	29	22	28	22	19	15	16	155	43	2.5	9.8
15	54	29	22	28	22	19	15	13	242	234	2.3	10
16	52	29	22	27	23	19	13	11	60	190	2.3	424
17	50	29	22	26	23	19	29	9.8	33	44	2.1	501
18	77	28	22	25	23	19	41	9.0	22	25	2.0	111
19	73	28	22	24	23	19	32	9.4	20	21	1.9	44
20	227	28	22	24	23	18	21	9.0	18	16	1.9	40
21	572	29	22	24	24	18		8.6	16	14	1.6	24
22	163	31	22	25	24	17	17	39	13	11	1.4	18
23	108	29	22	25	24	17	19	40	12	9.8	1.4	16
24	83	28	23	25	22	20	17	29	11	9.0	1.2	14
25	66	29	23	26	21	72	15	18	9.8	8.2	.9	12
26	57	29	23	26	21	274	12	12	9.0	7.4	1.0	9.8
27	52	28	24	26	19	100	11	11	8.6	7.4	1.0	9.8
28	50	26	23	25	19	47	11	10	7.8	12	.9	11
29	47	25	23	25	-	33	10	31	7.4	10	.7	15
30	45	24	23	25	-	27	9.8	87	7.0	8.2	.4	26
31	45	-	23	26	-	24	-	200	-	6.7	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,665	664	43	118	7,270
November.....	927	41	24	30.9	1,840
December.....	703	24	22	22.7	1,390
Calendar year 1942.....	166,162.2	37,200	2.9	4.5	329,500
January.....	769	28	21	24.8	1,530
February.....	552	26	19	23.3	1,290
March.....	1,084	274	17	35.0	2,150
April.....	548.8	41	9.8	18.3	1,090
May.....	1,253.6	334	7.4	40.4	2,490
June.....	1,756.6	389	7.0	56.6	3,480
July.....	987.9	234	4.9	31.9	1,960
August.....	83.4	7.4	4.4	2.69	755
September.....	3,806.4	954	9.8	127	7,550
Water year 1942-43.....	16,236.7	954	4.4	44.5	32,800

Peak discharge.- Oct. 7 (10:30 a.m.) 876 sec.-ft.; Sept. 2 (6 a.m.) 859 sec.-ft.; Sept. 7 (8 a.m.) 1,530 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Thirtymile Bridge, near Creede, Colo.

Location.- Water-stage recorder, lat. 37°44', long. 107°16', in sec. 13, T. 40 N., R. 4 W., 500 feet upstream from Squaw Creek, three-quarters of a mile downstream from Rio Grande Reservoir, and 20 miles southwest of Creede.

Drainage area.- 163 square miles.

Records available.- June 1909 to September 1913 and October 1933 to September 1943 in reports of Geological Survey. June 1909 to September 1943 in reports of State engineer.

Average discharge.- 30 years (1910-23, 1928-43), 229 second-feet.

Extremes.- Maximum discharge during year, 1,410 second-feet May 31 (gage height, 3.98 feet); minimum daily, 1.0 second-foot Oct. 11.
1909-43: Maximum discharge, 7,500 second-feet June 28, 1927 (gage height, 7.03 feet); minimum daily, 0.6 second-foot at times when reservoir was about empty and gates were closed.

Remarks.- Records excellent except those for period of no gage-height record and those for July 1-31, which are fair. Flow regulated by Rio Grande Reservoir (capacity, 51,110 acre-feet), just above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	39	3	3	3	3	38	1,200	1,360	530	317	308
2	31	39	3	3	3	3	76	1,150	1,310	463	268	252
3	31	39	3	3	3	3	88	996	1,080	438	227	222
4	31	40	3	3	3	3	109	1,130	697	375	201	201
5	31	41	3	3	3	3	138	1,280	465	324	185	187
6	31	44	3	3	3	3	165	1,050	479	320	185	176
7	31	48	3	3	3	3	173	627	523	392	198	165
8	31	58	3	3	3	3	173	479	634	271	189	154
9	7.0	63	3	3	3	3	156	495	726	258	187	150
10	2.0	63	3	3	3	3	125	347	740	255	189	144
11	1.0	65	3	5	3	3	101	268	770	236	235	154
12	18	41	3	3	3	3	90	255	740	214	236	125
13	67	3	3	3	3	3	101	271	661	211	230	133
14	79	3	3	3	3	3	106	302	542	203	222	136
15	79	3	3	3	3	3	129	302	517	264	196	124
16	79	3	3	3	3	3	173	275	548	198	198	120
17	79	3	3	3	3	3	194	236	548	173	203	118
18	79	3	3	3	3	3	288	233	600	162	255	117
19	79	3	3	3	3	3	276	252	607	168	320	112
20	79	3	3	3	3	3	351	327	661	180	474	101
21	79	3	3	3	3	3	495	392	704	178	392	96
22	104	3	3	3	3	3	580	400	711	182	309	98
23	132	3	3	3	3	3	654	394	697	180	225	86
24	141	3	3	3	3	3	647	548	668	196	211	88
25	149	3	3	3	3	3	682	748	690	194	230	90
26	153	3	3	3	3	3	690	926	668	169	206	93
27	141	3	3	3	3	3	690	748	614	187	230	99
28	138	3	3	3	3	3	726	786	600	189	203	107
29	115	3	3	3	-	3	801	934	627	171	261	99
30	77	3	3	3	-	3	969	1,070	600	201	320	88
31	65	-	3	3	-	13	-	1,270	-	275	392	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,185.0	153	1.0	70.5	4,330
November.....	632	63	3	21.1	1,260
December.....	93	3	-	5	194
Calendar year 1942	114,558.0	1,920	1.0	314	227,200
January.....	93	3	3	3	184
February.....	84	3	3	3	167
March.....	103	13	3	5.32	204
April.....	9,983	969	38	33	19,800
May.....	19,681	1,280	233	63	39,040
June.....	20,785	1,360	463	693	41,230
July.....	7,647	530	158	247	15,170
August.....	7,692	474	185	248	15,260
September.....	4,107	302	86	137	8,160
Water year 1942-43	73,085.0	1,360	1.0	200	145,000

Note.- No gage-height record Oct. 10, 11, Nov. 13 to Mar. 30, Sept. 24, 25; discharge computed on basis of gate openings at Rio Grande Reservoir.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Wason, below Creede, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}49'$, long. $106^{\circ}53'$, in NE $\frac{1}{4}$ sec. 8, T. 41 N., R. 1 E., at Wason, $\frac{1}{4}$ miles downstream from Willow Creek and 3 miles southeast of Creede.

Drainage area.- 705 square miles.

Records available.- April 1907 to September 1913, and October 1933 to September 1943 in reports of Geological Survey. April 1907 to September 1943 in reports of State engineer.

Average discharge.- 36 years, 637 second-feet.

Extremes.- Maximum discharge during year, 2,400 second-feet June 2 (gage height, 5.32 feet); minimum daily, 74 second-feet Jan. 18.
1907-43: Maximum discharge, 9,750 second-feet June 28, 1927 (gage height, 7.65 feet); minimum not determined.

Remarks.- Records excellent except those for period of ice effect or no gage-height record, which are fair. Diversions above station for irrigation. Flow regulated by three reservoirs (total capacity, 122,900 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	191	214	120	105	115	103	238	2,030	2,040	1,200	660	748
2	182	211	154	109	120	101	316	2,100	2,260	954	652	620
3	176	207	142	104	115	97	421	2,040	1,820	879	587	554
4	172	204	134	98	100	93	457	2,120	1,390	800	548	511
5	166	218	126	*95	114	83	499	2,140	1,090	695	548	475
6	166	201	118	97	108	95	568	1,930	1,040	652	505	433
7	166	194	103	105	109	99	517	1,460	1,100	646	523	395
8	166	201	93	108	112	101	453	1,140	1,220	620	498	370
9	163	*201	107	109	118	86	410	1,080	1,350	658	487	365
10	145	198	119	110	105	88	334	954	1,470	646	535	347
11	139	201	117	112	108	90	286	839	1,620	620	554	329
12	146	201	114	114	117	86	250	815	1,520	606	548	316
13	218	191	113	116	114	85	266	600	1,420	580	594	320
14	235	151	*110	119	113	88	295	792	1,240	561	580	347
15	231	154	114	120	114	92	334	762	1,130	658	574	334
16	228	154	120	117	115	81	410	725	1,130	626	574	320
17	228	120	120	89	117	85	415	658	1,130	548	587	316
18	224	126	114	74	116	95	493	652	1,220	493	688	316
19	214	126	108	75	*112	66	672	665	1,220	469	792	295
20	214	139	105	84	131	86	718	748	1,260	580	808	274
21	214	93	103	104	128	88	855	831	1,300	587	887	262
22	214	99	108	115	103	99	1,020	855	1,280	613	725	246
23	266	166	112	112	101	*105	1,240	823	1,280	587	620	231
24	303	154	112	103	103	103	1,290	969	1,260	574	542	231
25	307	134	111	96	99	99	1,280	1,360	1,220	561	529	231
26	329	116	103	83	113	107	1,330	1,590	1,250	499	542	236
27	324	157	92	87	111	134	1,300	1,490	1,210	487	554	254
28	307	148	93	96	105	163	1,340	1,440	1,170	523	505	266
29	329	123	95	108	-	186	1,460	1,790	1,250	487	561	274
30	250	157	98	113	-	214	1,670	1,770	1,340	417	646	274
31	228	-	97	110	-	214	-	1,930	-	613	808	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,845	329	139	221	13,580
November.....	4,961	218	93	165	9,840
December.....	3,475	154	92	112	6,990
Calendar year 1942	285,036	4,430	73	781	566,300
January.....	3,187	120	74	103	6,320
February.....	3,138	131	99	112	6,220
March.....	3,334	214	83	108	6,610
April.....	21,117	1,670	258	704	41,680
May.....	39,338	2,140	652	1,269	78,030
June.....	40,230	2,280	1,040	1,341	79,800
July.....	19,439	1,200	417	627	38,560
August.....	18,776	887	467	606	37,240
September.....	10,512	748	231	350	20,860
Water year 1942-43	174,352	2,260	74	478	345,800

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 8 to Feb. 3. No gage-height record Feb. 4-19 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande near Del Norte, Colo.

Location.- Water-stage recorder, lat. 37°41', long. 106°28', in NW¼ sec. 29 (revised), T. 40 N., R. 5 E., 5 miles upstream from Pinos Creek and 6 miles west of Del Norte. Datum of gage is 7,982.21 feet above mean sea level, datum of 1929.

Drainage area.- 1,320 square miles.

Records available.- July 1889 to November 1906 (at site 4 miles downstream), April 1908 to September 1913 and October 1933 to September 1943 in reports of Geological Survey. July 1889 to September 1906 and April 1908 to September 1943 in reports of State engineer. May to September 1907 (at site 4 miles downstream), unpublished, in files of State engineer.

Average discharge.- 54 years (1889-1943), 962 second-feet.

Extremes.- Maximum discharge during year, 3,380 second-feet June 1 (gage height, 3.58 feet); minimum daily, 150 second-feet Jan. 19.
1889-1943: Maximum discharge, 18,000 second-feet Oct. 5, 1911 (gage height, 6.80 feet), from rating curve extended above 6,000 second-feet; minimum daily, 90 second-feet Dec. 3, 1934.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Small diversions above station for irrigation. Flow regulated by three main reservoirs (total capacity, 122,900 acre-feet) and several smaller ones.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	275	344	215	205	228	200	398	2,820	2,820	1,760	754	905
2	275	332	*215	205	245	*170	458	3,000	3,250	1,390	746	754
3	270	326	240	209	230	190	603	2,990	2,810	1,220	666	682
4	260	320	225	210	*227	195	722	2,990	2,240	1,140	626	626
5	265	296	210	*210	238	180	738	2,910	1,800	993	634	575
6	250	296	195	208	230	160	894	2,720	1,660	927	596	533
7	250	302	172	211	230	190	850	2,340	1,710	916	589	498
8	245	285	168	217	238	215	714	1,810	1,830	872	568	464
9	235	308	200	221	240	200	682	1,620	2,000	894	554	458
10	245	285	230	239	222	194	596	1,520	2,110	842	626	452
11	326	280	210	249	230	193	498	1,320	2,370	802	610	428
12	368	290	230	251	238	200	452	1,290	2,240	754	642	410
13	256	296	240	256	248	210	446	1,270	2,060	682	650	398
14	362	296	*246	261	257	203	519	1,240	1,860	666	674	434
15	368	296	255	260	265	*190	603	1,190	1,700	722	642	428
16	368	290	275	260	269	180	714	1,140	1,670	754	690	410
17	368	250	272	245	272	192	674	1,070	1,660	642	666	398
18	362	245	264	180	274	190	714	1,060	1,730	589	754	410
19	344	240	262	150	*275	175	938	1,050	1,770	554	927	392
20	332	250	250	190	272	185	1,090	1,120	1,800	589	927	362
21	326	215	237	220	280	189	1,210	1,250	1,840	642	1,020	344
22	326	250	235	235	285	189	1,450	1,260	1,850	674	842	366
23	326	285	270	230	315	186	1,780	1,260	1,800	674	738	302
24	374	255	265	215	310	186	1,980	1,410	1,760	658	642	296
25	366	255	260	185	310	186	1,960	1,920	1,690	634	626	296
26	392	205	240	170	295	195	2,050	2,240	1,700	582	642	302
27	404	210	199	180	280	235	1,970	2,160	1,640	540	642	320
28	398	260	208	205	250	290	1,970	2,160	1,660	554	642	350
29	422	205	222	212	-	350	2,180	2,610	1,640	540	674	356
30	398	230	229	228	-	404	2,410	2,640	1,970	568	762	362
31	320	-	210	222	-	398	-	2,720	-	698	960	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,198	422	235	329	20,230
November.....	8,172	344	205	272	16,210
December.....	7,164	275	168	231	14,210
Calendar year 1942	427,960	6,670	99	1,172	848,800
January.....	6,742	261	150	217	13,870
February.....	7,253	315	222	259	14,390
March.....	6,619	404	160	214	13,130
April.....	32,233	2,410	398	1,074	63,930
May.....	58,100	3,000	1,050	1,874	115,200
June.....	58,520	3,250	1,560	1,551	116,100
July.....	24,472	1,760	540	789	48,540
August.....	21,731	1,020	554	701	43,100
September.....	13,271	995	296	442	26,320
Water year 1942-43	254,475	3,250	150	697	504,700

* Winter discharge measurement made on this day.

Note.- No gage-height record Dec. 5 to Mar. 1, Mar. 3-12, 14, 16-22 (stage-discharge relation affected by ice during most of these periods); discharge computed on basis of three d'charge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande near Monte Vista, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}37'$, long. $106^{\circ}09'$, at west line of sec. 19, T. 39 N., R. 8 E., 2 miles north of Monte Vista. Datum of gage is 7,654.54 feet above mean sea level, datum of 1929.

Drainage area.- 1,590 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey (no winter records in earlier years). May 1926 to September 1943 in reports of State engineer.

Average discharge.- 10 years (1933-43), 344 second-feet.

Extremes.- Maximum discharge during year, 1,300 second-feet June 2 (gage height, 3.23 feet); minimum daily, 8.2 second-feet Oct. 24, Nov. 3.
1926-43: Maximum discharge, 18,500 second-feet June 30, 1927 (gage height, 7.85 feet); minimum daily, 4 second-feet Apr. 18, 1926.

Remarks.- Records excellent except those for period of ice effect, which are fair. Diversions above station for irrigation. Flow regulated by three main reservoirs (total capacity, 122,900 acre-feet) and several smaller ones.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	11	230			230	23	883	1,050	646	170	308
2	19	9.6	*209			218	15	1,040	1,160	578	95	203
3	35	8.2	253			209	23	1,020	960	484	89	121
4	41	16	243			209	112	904	606	443	105	89
5	44	15	224			230	167	988	596	327	121	64
6	33	9.6	197			206	243	796	624	194	109	35
7	36	9.6	167			203	301	680	738	154	89	23
8	39	10	148			200	221	565	749	126	89	28
9	41	9.6				218	129	667	744	143	97	50
10	43	12				203	91	488	736	129	97	51
11	41	18			269	126	36	447	904	93	87	48
12	33	48				107	20	502	841	80	50	44
13	39	129				97	19	493	716	61	55	43
14	72	167				95	15	455	632	44	74	48
15	82	156				*95	28	451	619	93	80	55
16	64	175		222		89	29	391	660	175	89	48
17	35	219				141	30	355	655	117	82	44
18	32	200				119	22	321	656	80	87	39
19	22	206				93	21	298	675	57	173	39
20	14	209	244			154	151	327	675	59	230	38
21	10	206				72	29.4	431	716	95	237	38
22	9.6	167				61	419	480	700	114	240	38
23	8.9	156				59	592	480	665	114	131	38
24	8.2	200				70	716	520	632	80	72	36
25	46	243				240	53	619	790	596	61	36
26	48	218				21	628	827	610	89	64	44
27	48	200				227	18	552	582	80	91	64
28	39	249				230	16	538	796	565	100	51
29	25	227				-	15	674	946	601	117	53
30	50	218				-	20	749	869	744	114	74
31	35	-				-	32	-	876	153	224	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,100.3	82	8.2	35.5	2,180
November	3,720.6	249	6.2	17.4	7,380
December	7,283	-	-	27.6	14,450
Calendar year 1942	232,923.7	5,150	8.2	67.8	462,000
January	6,882	-	-	27.2	13,650
February	7,545	-	-	27.5	14,570
March	3,679	830	15	11.9	7,500
April	7,486	749	15	27.0	14,850
May	19,748	1,040	298	67.7	39,170
June	21,414	1,160	565	71.4	42,470
July	5,196	646	44	17.8	10,310
August	3,806	240	33	17.7	6,660
September	1,873	308	23	62.4	3,720
Water year 1942-43	89,034.9	1,160	8.2	24.4	176,600

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 9 to Feb. 28 (no gage-height record Dec. 9 to Feb. 23; discharge computed on basis of one discharge measurement and weather records).

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Alamosa, Colo.

Location.- Water-stage recorder, lat. 37°29', long. 105°53', in SE $\frac{1}{4}$ sec. 4, T. 37 N., R. 10 E., a quarter of a mile northwest of Alamosa and 7 miles upstream from Alamosa Creek. Datum of gage is 7,532.66 feet above mean sea level, datum of 1929.

Drainage area.- 1,710 square miles.

Records available.- May 1912 to September 1913 and October 1933 to September 1943 in reports of Geological Survey. May 1912 to September 1943 in reports of State engineer.

Average discharge.- 31 years, 332 second-feet.

Extremes.- Maximum discharge during year not determined; minimum daily, 14 second-feet Oct. 6-10, Sept. 21-25.

1912-43: Maximum discharge, 14,000 second-feet July 1, 1927 (gage height, 9.37 feet); minimum daily, 2 second-feet Oct. 24-29, 1933.

Remarks.- Records fair. Discharges below 50 second-feet prior to June 29 computed on basis of once daily gage readings. Many diversions above station for irrigation. During irrigation season low-water flow is water returned from irrigated lands above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	a20	220			238	a41	30	58	96	37	35
2	16	a18	a236			232	a40	44	77	85	47	51
3	16	a17	241			230	a39	60	65	85	42	42
4	16	16	255			234	a38	80	68	69	35	36
5	16	a18	238			234	37	59	49	48	30	a32
6	14	a20				232	a60	88	38	44	29	29
7	14	a22	230			224	68	64	37	39	31	26
8	14	a26				220	74	39	36	30	29	23
9	14	a28				222	62	35	51	28	27	22
10	14	30				230	49	29	65	28	28	21
11	16	a32				184	44	26	68	29	28	21
12	17	a34				119	39	21	107	29	38	a20
13	19	36				86	38	19	118	26	38	19
14	19	86			275	66	37	20	118	28	26	18
15	19	113		245		a60	36	29	63	30	a34	17
16	19	68				99	35	48	43	32	33	16
17	19	59				62	33	55	49	36	31	16
18	19	74				70	29	49	47	36	36	16
19	42	75	265			63	27	43	44	38	35	a16
20	49	78				60	26	44	49	37	35	16
21	48	78				72	26	37	41	33	36	14
22	41	94				61	37	36	48	33	a35	14
23	41	74			(*)	a58	48	43	53	31	33	14
24	34	86				a56	37	41	56	33	a31	14
25	26	78				a53	60	37	56	35	29	14
26	26	121				a50	39	59	48	32	a28	a15
27	26	127			243	a48	42	45	45	31	28	a15
28	23	129			247	a46	41	39	45	29	28	16
29	23	146			-	44	32	39	43	28	a30	19
30	23	180			-	a43	30	62	67	26	33	21
31	23	-			-	a42	-	60	-	29	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	722	49	14	23.3	1,430
November.....	1,981	180	16	65.0	3,950
December.....	8,045	-	260	-	15,960
Calendar year 1942	167,220	-	13	458	331,600
January.....	7,595	-	-	245	15,080
February.....	7,640	-	-	277	15,150
March.....	3,738	238	42	121	7,410
April.....	1,834	74	26	41.1	2,450
May.....	1,556	68	19	43.7	2,690
June.....	1,751	118	36	58.4	3,470
July.....	1,217	98	28	39.3	2,410
August.....	1,021	47	27	32.9	2,030
September.....	648	51	14	21.6	1,290
Water year 1942-43	36,948	-	14	107	73,280

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for stations near Mts Vista and near La Sauces.

Note.- No gage-height record Dec. 7 to Feb. 28 (stage-discharge relation affected by ice during most of period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hr.

RIO GRANDE BASIN

Rio Grande above mouth of Trinchera Creek, near La Sauces, Colo.

Location.— Water-stage recorder, lat. 39°19', long. 105°45', in sec. 35, T. 36 N., R. 11 E., a quarter of a mile upstream from Trinchera Creek and 5 miles north of La Sauces.

Drainage area.— 5,740 square miles (includes 2,940 square miles in closed basin).

Records available.— May 1936 to September 1943.

Extremes.— Maximum discharge during year not determined; minimum daily, 11 second-feet July 19.

1936-43: Maximum discharge, 4,740 second-feet June 28, 1941 (gage height, 8.77 feet), from rating curve extended above 4,000 second-feet; minimum daily, 0.4 second-feet July 4, 1940.

Remarks.— Records good except those for period of ice effect of no gage-height record, which are fair. Storage and several diversions above station for irrigation. During irrigation season, low flow is water returned from irrigated lands above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	70	(*)			370	102	101	133	59	23	43
2	50	70				b360	100	118	130	64	23	45
3	49	71				b340	95	156	152	75	22	55
4	47	70		(*)		335	95	198	130	77	40	56
5	45	70			(*)	342	91	196	122	71	36	60
6	42	72				340	98	190	104	70	65	64
7	40	70				352	114	222	95	59	33	59
8	43	77				325	161	161	107	49	28	34
9	41	84				322	169	137	98	42	32	52
10	41	86				335	154	137	79	34	30	52
11	48	87				338	123	118	80	26	30	47
12	53	100				270	110	111	87	22	33	44
13	52	*122				213	102	102	85	19	42	43
14	53	114				200	94	79	95	18	43	43
15	53	135				198	91	77	94	19	39	41
16	53	161	280	270	295	200	86	75	93	18	36	41
17	53	145				*b205	87	a75	79	18	36	37
18	55	140				207	84	a74	70	16	37	37
19	71	154				211	86	a73	70	11	34	37
20	70	165				202	84	a72	71	22	34	36
21	70	161				192	77	72	90	26	34	35
22	68	b165				200	79	70	79	21	36	35
23	63	b170				194	101	63	64	21	44	34
24	63	173				163	112	68	53	19	46	34
25	60	179				147	130	70	42	20	42	35
26	60	235				140	150	76	37	19	36	35
27	60	238				138	147	81	33	20	43	34
28	72	222				130	138	100	31	18	51	34
29	75	260			-	130	116	100	40	16	52	35
30	71	268			-	123	104	111	48	14	66	36
31	68	-			-	111	-	120	-	18	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,739	75	40	56.1	3,450
November.....	4,124	268	70	137	8,180
December.....	8,680	-	-	280	17,220
Calendar year 1942	217,277	3,770	40	59.5	431,000
January.....	8,370	-	-	270	16,600
February.....	6,260	-	-	29.5	16,380
March.....	7,513	370	111	23.6	14,510
April.....	3,280	169	77	10.7	6,510
May.....	3,402	222	53	11.0	6,750
June.....	2,495	152	31	83.2	4,950
July.....	1,001	77	11	32.3	1,990
August.....	1,213	66	22	39.1	2,410
September.....	1,298	64	34	45.3	2,570
Water year 1942-43	51,175	-	11	140	101,500

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for station near Lobatos.

b Stage-discharge relation affected by ice.

Note.— No gage-height record Dec. 1 to Mar. 1 (stage-discharge relation affected by ice during most of period); discharge computed on basis of three discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande near Lobatos, Colo.

Location.- Water-stage recorder, lat. 37°05', long. 105°45', in sec. 22, T. 33 N., R. 11 E., 6 miles north of Colorado-New Mexico State line, 7 miles downstream from Culebra Creek, and 10 miles east of Lobatos. Datum of gage is 7,426.79 feet above mean sea level, datum of 1929.

Drainage area.- 7,700 square miles (includes 2,940 square miles in closed basin).

Records available.- June 1899 to September 1913 and October 1933 to September 1943 in reports of Geological Survey. June 1899 to September 1943 in reports of State engineer.

Average discharge.- 44 years (1899-1943), 750 second-feet.

Extremes.- Maximum discharge during year, 1,400 second-feet May 4 (gage height, 2.94 feet); minimum daily, 36 second-feet July 20.

1899-1943: Maximum daily discharge, 13,100 second-feet June 8, 1905, from rating curve extended above 8,000 second-feet; minimum daily, 5.0 second-feet Avg. 4, 1940.

Remarks.- Records good except those for period of ice effect, which are fair. Diversions above station for irrigation. Flow regulated by many reservoirs on headwaters.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	96	*297	320	350	*454	186	848	814	143	44	110
2	66	99	302	340	360	440	181	919	730	395	49	82
3	71	106	347	330	330	414	172	1,170	955	335	46	82
4	71	110	302	*320	290	408	159	1,280	531	276	49	96
5	71	106	302	310	*300	440	147	1,280	580	218	85	93
6	68	113	287	320	310	434	139	1,010	414	177	88	93
7	68	110	195	308	340	414	164	866	335	147	99	93
8	68	110	308	295	335	414	232	814	292	113	66	88
9	68	113	292	310	315	408	276	650	266	93	66	82
10	68	113	308	324	300	408	266	673	242	79	76	82
11	71	110	292	330	310	421	228	494	292	66	71	92
12	79	113	276	340	325	382	190	414	447	54	71	79
13	90	134	287	340	330	330	164	364	530	44	71	71
14	86	130	287	340	350	292	138	308	508	39	82	71
15	82	156	*347	340	360	318	123	261	427	49	76	71
16	82	223	402	345	380	292	120	232	330	51	71	66
17	79	209	408	320	390	302	123	218	282	39	68	66
18	79	190	376	270	*400	313	151	200	242	39	74	63
19	85	209	376	230	400	302	159	200	209	38	71	66
20	99	209	380	240	400	297	195	181	190	36	58	66
21	99	209	355	300	408	276	335	186	190	44	71	66
22	103	204	340	340	454	276	544	209	172	54	76	66
23	103	204	360	330	467	292	642	223	147	46	76	66
24	99	223	370	300	454	266	840	209	127	42	82	66
25	88	232	335	280	474	237	973	228	106	42	79	63
26	85	228	320	270	481	223	1,010	324	82	44	71	66
27	96	276	305	280	467	218	1,040	467	74	42	74	66
28	96	287	310	300	447	209	901	573	56	44	82	66
29	110	276	330	310	-	209	780	797	56	46	86	71
30	113	324	330	325	-	209	805	592	74	44	99	74
31	96	-	320	340	-	200	-	892	-	38	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,599	113	61	83.8	5,160
November	5,221	324	96	174	11,360
December	10,046	409	195	324	19,930
Calendar year 1942	343,731	5,410	-	942	681,800
January	9,647	345	230	311	19,130
February	10,527	481	290	376	20,890
March	10,098	454	200	328	20,030
April	11,382	1,040	120	379	22,580
May	17,262	1,280	181	557	34,240
June	9,990	955	56	333	19,810
July	2,917	395	36	94.1	5,790
August	2,306	130	44	74.4	4,570
September	2,272	110	63	75.7	4,510
Water year 1942-43	94,267	1,280	36	238	187,000

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 2 to Feb. 20.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande below Taos Junction Bridge, near Taos, N. Mex.

Location.- Water-stage recorder, lat. 36°19'00", long. 105°45'30", in $\frac{1}{4}$ sec. 15, T. 24 N., R. 11 E., 2 miles downstream from Taos Creek and from bridge on Taos-Taos Junction highway and 12 miles southwest of Taos.

Drainage area.- 9,730 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1943 in reports of Geological Survey. July 1925 to December 1931 in reports of State engineer.

Average discharge.- 18 years (1925-43), 874 second-feet.

Extremes.- Maximum discharge during year, 2,040 second-feet May 5 (gage height, 5.53 feet); minimum daily, 242 second-feet July 20, 21, 30, Aug. 3.
1930-43: Maximum discharge, 9,630 second-feet May 17, 1941 (gage height, 9.41 feet); minimum daily, 140 second-feet (estimated) Aug. 21, 1931.

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321	365	518	567	581	761	518	1,330	1,120	338	256	332
2	316	360	511	553	588	745	518	1,450	1,070	321	251	343
3	321	360	553	560	581	713	539	1,590	1,000	504	242	321
4	321	365	630	539	539	705	560	1,840	1,230	532	246	305
5	321	365	690	532	539	705	546	1,940	1,090	477	270	300
6	316	365	652	525	525	721	563	1,940	888	419	260	305
7	310	365	623	504	553	713	553	1,490	729	377	235	305
8	310	371	484	477	567	705	539	1,340	638	360	300	300
9	310	365	377	*477	574	705	553	1,320	588	338	290	305
10	310	365	504	490	567	705	623	1,130	560	310	265	310
11	310	365	553	497	525	729	602	1,000	560	295	270	308
12	310	365	546	497	525	721	560	896	553	275	280	300
13	328	365	560	490	574	698	604	794	668	265	280	300
14	332	365	574	511	588	616	470	737	753	251	275	295
15	348	371	595	518	595	560	451	690	753	265	270	295
16	554	383	609	525	616	539	458	638	690	260	310	295
17	348	407	616	539	616	539	458	595	602	251	305	290
18	348	451	630	553	660	525	438	567	546	251	281	295
19	343	451	623	490	682	546	451	539	497	246	371	295
20	338	444	616	470	698	546	477	525	464	242	316	280
21	343	*458	638	518	713	539	511	518	432	242	300	280
22	354	458	638	553	721	532	630	518	407	295	290	280
23	354	451	616	551	753	518	697	518	401	265	295	280
24	348	458	638	595	777	625	1,060	532	371	270	300	280
25	348	477	668	567	777	611	1,300	532	364	265	300	280
26	343	477	668	546	777	490	1,470	518	338	256	305	280
27	343	484	616	560	785	470	1,520	574	316	256	310	285
28	343	458	490	574	785	470	1,510	721	321	256	310	300
29	348	560	500	560	-	a480	1,390	844	358	246	316	295
30	360	546	539	546	-	a560	1,200	1,080	342	338	300	295
31	365	-	574	560	-	a530	-	1,140	-	256	326	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,562	365	310	534	20,560
November.....	12,140	560	360	415	24,670
December.....	18,049	690	377	582	35,800
Calendar year 1942.....	583,080	8,380	250	1,597	1,157,000
January.....	15,474	595	470	631	32,680
February.....	17,731	735	525	635	35,270
March.....	18,322	761	470	607	37,530
April.....	21,839	1,520	438	731	43,520
May.....	29,668	1,940	518	957	58,860
June.....	18,603	1,230	316	620	36,900
July.....	9,426	532	242	304	18,700
August.....	9,515	581	242	300	18,470
September.....	8,211	343	280	297	17,670
Water year 1942-43.....	191,788	1,940	242	625	380,400

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Babudo.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Embudo, N. Mex.

Location.- Water-stage recorder, lat. $36^{\circ}12'20''$, long. $105^{\circ}57'40''$, in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 25 N., R. 9 E., a quarter of a mile downstream from bridge at Embudo and $2\frac{1}{2}$ miles downstream from Embudo Creek.

Drainage area.- 10,400 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- January 1889 to December 1903, September 1912 to September 1916, and October 1930 to September 1943 in reports of Geological Survey. January 1889 to December 1903 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 43 years (1889-93, 1894-1903, 1912-16, 1917-43), 1,064 second-feet.

Extremes.- Maximum discharge during year, 2,220 second-feet May 5 (gauge height, 6.06 feet); minimum daily, 245 second-feet July 30, Aug. 3.

1889-1903, 1912-43: Maximum discharge, 15,900 second-feet June 19, 1903 (gauge height, 15.8 feet); minimum daily, 35 second-feet Dec. 31, 1903.

Remarks.- Records good except those for periods of ice effect, or no gauge-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	389	541	596	696	785	600	1,460	1,180	434	325	370
2	345	378	534	580	638	771	619	1,400	1,130	375	263	380
3	345	379	560	574	638	729	645	1,800	1,060	484	245	360
4	345	384	632	560	593	729	701	a2,090	1,200	592	250	340
5	345	384	722	*560	b580	736	694	a2,100	1,160	524	290	325
6	345	389	673	560	574	729	715	a2,000	956	447	281	330
7	340	399	645	534	612	786	729	a1,750	795	412	276	350
8	335	400	534	509	626	729	729	a1,600	677	326	290	329
9	330	394	444	491	645	729	690	a1,450	625	365	295	325
10	325	384	491	509	619	757	743	a1,300	599	340	300	330
11	330	389	580	522	585	792	722	a1,200	612	325	300	335
12	336	384	574	528	586	778	666	a1,100	612	305	300	325
13	350	384	580	528	612	745	612	a1,000	670	296	295	315
14	367	384	593	541	645	659	593	a900	802	276	295	315
15	372	400	619	554	645	600	600	616	788	296	290	330
16	394	411	632	560	*552	560	600	767	718	295	320	325
17	394	422	645	580	552	560	606	704	625	276	300	315
18	384	479	659	600	708	567	800	668	584	281	786	310
19	384	467	659	541	722	574	612	652	524	421	499	310
20	378	473	638	b520	736	574	659	606	454	320	350	306
21	378	485	659	541	764	574	715	606	456	340	345	300
22	394	479	659	593	778	567	822	599	423	335	335	300
23	394	479	638	626	808	560	1,120	592	415	370	340	300
24	384	479	659	652	830	567	1,320	592	396	330	355	300
25	378	497	687	612	815	560	1,510	592	380	300	315	300
26	372	503	715	586	800	534	1,680	596	355	290	310	305
27	367	515	626	600	808	515	1,660	612	345	276	315	325
28	362	473	564	*632	815	522	1,710	767	518	268	335	355
29	372	574	541	619	-	554	1,560	916	440	254	365	345
30	389	574	564	612	-	612	1,460	1,100	445	245	365	335
31	389	-	593	612	-	606	-	1,200	-	293	365	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	11,282	394	325	364	22,380
November.....	13,120	574	378	437	26,020
December.....	18,840	722	444	608	37,370
Calendar year 1942.....	664,603	10,500	263	1,621	1,318,000
January.....	17,622	652	491	568	34,950
February.....	19,113	830	574	683	37,910
March.....	20,008	792	515	646	39,690
April.....	26,620	1,710	593	887	52,800
May.....	35,635	2,100	586	1,084	66,650
June.....	19,963	1,200	345	665	39,600
July.....	10,760	592	245	347	21,320
August.....	10,295	786	245	352	20,420
September.....	9,760	300	300	325	19,360
Water year 1942-43.....	210,978	2,100	245	578	418,500

* Winter discharge measurement made on this day.

a No gauge-height record; discharge computed on basis of recorded range in stage, weather records, and records for stations below Taos Junction Bridge and at Otowi Bridge.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex.

Location.- Water-stage recorder, lat. 35°52'25", long. 106°08'55", in San Ildefonso Pueblo Grant, 100 feet downstream from highway bridge, 1½ miles southwest of San Ildefonso Pueblo, 2½ miles downstream from Pio Pojoaque, and 7 miles west of Pojoaque. Datum of gage is 5,488.48 feet above mean sea level, datum of 1929.

Drainage area.- 14,500 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.

Records available.- February 1895 to December 1905, June 1909 to December 1914, and October 1930 to September 1943 in reports of Geological Survey. February 1895 to December 1905 and June 1909 to December 1931 in reports of State engineer. January 1941 to December 1943 in reports of Rio Grande Compact Commission.

Average discharge.- 16 years (1927-43), 1,624 second-feet.

Extremes.- Maximum discharge during year, 7,100 second-feet Aug. 18 (gage height, 7.04 feet); minimum daily, 492 second-feet Nov. 10-14.
1930-43: Maximum discharge, 22,500 second-feet May 16, 1941; maximum gage height, 13.70 feet May 14, 1941; minimum daily discharge, 128 second-feet June 21, 1934.

Remarks.- Records good. Flow partially regulated by El Vado Reservoir on upper Rio Gama which stores water for irrigation. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	945	592	655	705	680	915	975	2,020	1,710	1,180	1,070	880
2	945	538	632	705	705	860	1,040	2,120	1,620	975	1,280	315
3	945	508	632	680	705	860	1,360	2,180	1,580	915	1,400	785
4	915	508	705	680	680	860	1,490	2,360	1,620	1,400	1,450	725
5	915	512	532	680	632	888	1,620	2,680	1,760	1,560	1,490	725
6	915	516	805	680	632	888	1,710	2,550	1,580	1,290	1,450	695
7	888	512	780	680	632	915	1,810	2,360	1,560	1,210	1,320	725
8	805	512	680	610	655	915	1,760	2,180	1,210	1,180	632	725
9	780	508	592	680	888	888	1,660	2,360	1,180	1,180	755	972
10	780	492	524	606	680	888	1,710	1,860	1,140	1,140	730	1,280
11	780	492	655	632	680	1,010	1,660	1,530	1,210	1,100	860	1,200
12	805	492	680	632	680	1,010	1,580	1,360	1,180	1,070	780	1,160
13	805	492	705	632	705	915	1,490	1,250	1,140	1,040	730	1,120
14	832	492	705	655	755	805	1,490	1,100	1,250	1,040	705	1,200
15	905	496	730	655	755	730	1,620	1,040	1,250	1,180	730	1,120
16	755	512	730	610	780	680	1,660	1,010	1,210	1,100	730	1,120
17	805	520	730	680	805	655	1,250	945	1,140	1,140	805	1,050
18	805	552	730	705	832	655	1,140	805	1,400	1,360	3,040	945
19	780	570	755	610	832	680	1,210	805	1,560	1,580	1,360	725
20	730	565	730	583	860	655	1,360	755	1,560	1,660	1,050	695
21	632	570	730	655	860	655	1,530	780	1,320	1,490	945	684
22	596	578	730	730	888	655	1,530	1,100	1,290	1,190	945	695
23	583	588	705	755	888	632	1,610	1,130	1,510	1,010	912	690
24	592	588	705	755	915	632	2,180	1,100	1,960	888	880	540
25	601	592	780	780	915	632	2,300	1,100	1,910	832	848	570
26	592	610	805	755	915	610	2,480	1,070	1,660	780	785	678
27	588	601	755	705	915	601	2,360	1,070	1,860	730	815	690
28	574	601	705	730	915	606	2,300	1,180	1,760	680	880	947
29	578	610	610	705	-	680	2,240	1,360	1,900	680	1,080	848
30	592	680	680	705	-	915	2,070	1,580	1,530	655	912	755
31	596	-	705	680	-	975	-	1,660	-	787	1,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	23,259	945	574	750	46,130
November.....	16,399	680	492	547	32,530
December.....	21,897	832	524	708	43,439
Calendar year 1942	1,078,896	15,600	492	2,955	2,140,000
January.....	20,967	780	535	673	41,590
February.....	21,601	915	632	777	42,840
March.....	24,265	1,010	601	783	48,130
April.....	50,395	2,480	975	1,657	99,960
May.....	46,480	2,680	755	1,497	92,190
June.....	44,160	1,960	1,140	1,472	87,590
July.....	33,622	1,660	655	1,091	67,080
August.....	32,659	3,040	705	1,051	64,780
September.....	25,759	1,280	540	859	51,090
Water year 1942-43	361,663	3,040	492	998	717,300

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Cochiti, N. Mex.

Location (revised).- Water-stage recorder, lat. 35°37'10", long. 106°19'10", in NE $\frac{1}{4}$ sec. 17, T. 18 N., R. 6 E., at highway bridge $\frac{1}{2}$ miles northeast of Cochiti, 4 miles north of Pena Blanca and 8 miles upstream from Galisteo Creek.

Drainage area.- 14,600 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1943 in reports of Geological Survey. January 1925 to December 1931 in reports of State engineer.

Average discharge.- 18 years (1925-43), 1,622 second-feet.

Extremes.- Maximum discharge during year, 5,100 second-feet Aug. 18 (gauge height, 6.29 feet); minimum daily, 391 second-feet Nov. 17.

1930-43: Maximum discharge, 23,400 second-feet May 15, 1941 (gauge height, 10.93 feet); minimum daily, 1 second-foot Aug. 10-12, 1934.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	847	651	708	745	752	832	680	2,180	1,760	1,220	1,390	864
2	847	630	672	738	775	847	923	2,330	1,670	1,000	1,440	722
3	923	578	617	730	799	815	1,310	2,330	1,650	976	1,430	708
4	940	559	610	730	775	823	1,580	2,410	1,620	1,370	1,460	693
5	855	559	738	708	730	855	1,690	2,830	1,820	1,420	1,610	775
6	839	559	815	715	730	847	1,820	2,740	1,620	1,270	1,520	624
7	847	553	760	708	715	823	2,020	2,490	1,350	1,170	1,550	572
8	791	541	700	672	760	807	1,960	2,330	1,110	1,080	1,430	584
9	738	553	610	630	791	760	1,820	2,330	1,000	1,100	1,300	658
10	831	555	500	630	775	768	1,890	2,030	1,000	1,120	598	1,080
11	791	511	610	644	745	855	1,960	1,620	1,100	1,070	745	1,060
12	760	483	715	658	730	949	1,760	1,280	1,160	949	700	1,020
13	752	440	738	685	715	880	1,620	1,150	1,140	932	658	1,020
14	760	440	745	685	760	785	1,550	1,080	1,100	940	672	1,100
15	768	435	752	686	775	824	1,640	1,690	1,070	1,070	722	1,130
16	686	410	768	708	783	547	1,820	1,900	1,100	1,050	651	1,070
17	791	391	791	700	815	529	1,440	823	1,030	1,140	665	1,040
18	752	396	791	745	831	535	1,200	722	1,210	1,420	2,190	1,040
19	679	450	815	700	872	541	1,140	665	1,280	1,690	1,280	722
20	665	440	823	630	880	591	1,300	651	1,320	1,760	880	617
21	604	461	815	679	898	591	1,450	644	1,190	1,690	831	578
22	523	517	823	752	906	541	1,430	1,900	1,170	1,250	823	591
23	511	523	799	783	914	541	1,580	1,100	1,200	847	722	584
24	559	517	768	799	923	535	2,180	1,090	1,760	831	651	541
25	598	553	831	807	923	617	2,330	1,080	1,820	760	591	490
26	523	617	872	815	923	505	2,410	1,080	1,690	630	610	630
27	505	624	855	775	923	541	2,410	1,070	2,030	804	610	565
28	500	651	799	768	923	541	2,410	1,120	1,760	553	730	743
29	488	617	715	775	-	505	2,410	1,370	1,930	541	1,020	762
30	511	700	738	760	-	745	2,330	1,680	1,630	553	864	630
31	553	-	715	752	-	855	-	1,760	-	709	940	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October.....						21,737	940	488	701	43,110		
November.....						15,894	700	391	530	31,530		
December.....						23,008	872	500	742	45,640		
Calendar year 1942						1,050,261	14,900	391	2,877	2,083,000		
January.....						22,272	815	630	718	44,180		
February.....						22,841	923	715	816	45,300		
March.....						21,528	949	505	694	42,700		
April.....						52,273	2,410	880	1,742	103,700		
May.....						46,635	2,830	844	1,504	92,500		
June.....						42,470	2,030	1,000	1,418	84,240		
July.....						32,725	1,760	541	1,056	64,910		
August.....						30,154	2,190	591	973	59,810		
September.....						23,207	1,130	490	774	46,030		
Water year 1942-43						354,744	2,830	391	972	705,600		

a No gage-height record; discharge computed on basis of weather records and records for stations at Otowi Bridge and at San Felipe.

d-Doubtful gage-height record; discharge computed on basis of gage heights, weather records, and records for stations at Otowi Bridge and at San Felipe.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at San Felipe, N. Mex.

Location.- Water-stage recorder, lat. 35°26'30", long. 106°26'30", in NW¼SW¼ sec. 17, T. 14 N., R. 5 E., at highway bridge in San Felipe Grant, 2,000 feet downstream from Tonque Arroyo, half a mile upstream from San Felipe Pueblo, and 12 miles northeast of Bernalillo. Datum of gage is 5,110.38 feet above mean sea level, datum of 1929.

Drainage area.- 16,100 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1943 in reports of Geological Survey. March 1925 to December 1931 in reports of State engineer.

Average discharge.- 17 years (1926-43), 1,746 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet Aug. 17 (gage height, 7.55 feet); minimum daily, 398 second-feet July 31.

1930-43: Maximum discharge, 42,100 second-feet Aug. 21, 1935, from rating curve extended above 15,000 second-feet by logarithmic plotting; maximum gage height, 11.13 feet June 26, 1937; minimum daily discharge, 34 second-feet July 7, 1934.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a950	797	753	830	731	1,060	1,110	2,030	1,950	1,490	1,220	1,240
2	a950	753	753	854	819	998	1,100	2,250	1,720	1,080	1,430	962
3	a1,000	710	764	866	830	902	1,390	2,290	1,770	974	1,440	890
4	a1,050	710	854	797	731	902	1,580	2,450	1,930	1,320	1,580	854
5	a1,100	720	902	775	720	938	1,760	2,920	1,930	1,410	1,660	950
6	1,030	696	938	720	890	926	1,780	2,920	1,650	1,250	1,540	808
7	962	660	962	830	700	974	1,860	2,720	1,240	1,280	1,540	710
8	1,100	670	878	842	742	902	2,070	2,450	1,170	1,100	1,230	720
9	902	640	764	731	608	866	2,000	2,630	1,160	1,110	764	731
10	1,050	620	742	650	764	878	2,000	2,450	1,140	1,170	690	1,290
11	962	610	830	670	710	974	2,000	1,790	1,190	1,160	660	1,240
12	966	520	678	753	720	1,120	1,600	1,580	1,250	1,080	630	1,260
13	998	540	830	764	764	1,120	1,500	1,450	1,250	1,030	590	1,140
14	1,170	570	842	764	700	1,070	1,340	1,370	1,240	1,020	580	1,160
15	1,140	600	890	830	720	914	1,390	1,280	1,260	1,300	742	1,260
16	1,110	580	842	854	819	764	1,770	1,110	1,240	1,140	680	1,120
17	1,060	570	819	890	854	731	1,460	950	1,250	1,580	1,540	1,080
18	830	600	819	926	819	753	1,260	952	1,440	1,650	2,110	1,000
19	878	650	830	742	731	731	1,160	914	1,470	1,850	1,770	808
20	914	630	866	610	1,010	742	1,280	797	1,470	1,630	1,360	a720
21	a840	630	842	753	962	808	1,470	753	1,290	1,850	1,060	a690
22	a760	650	819	819	1,030	700	1,590	914	1,120	1,590	1,020	a690
23	710	630	878	854	1,010	670	1,300	1,020	1,060	1,030	878	a700
24	819	650	808	950	1,100	640	2,220	1,100	1,910	1,010	914	a650
25	797	690	902	842	1,100	620	2,450	1,120	2,070	974	926	a600
26	660	742	890	878	1,100	610	2,630	1,100	2,080	742	902	a750
27	660	742	842	731	1,050	610	2,590	1,030	2,240	670	938	a710
28	660	753	720	775	1,050	660	2,720	1,110	2,150	570	1,030	a800
29	620	680	710	878	-	570	2,520	1,290	1,980	484	1,340	854
30	600	720	808	866	-	830	2,200	1,680	1,980	422	1,120	a750
31	640	-	819	775	-	1,100	-	1,720	-	398	1,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	27,908	1,170	600	500	55,350
November.....	19,717	797	520	447	39,110
December.....	25,794	962	710	592	51,160
Calendar year 1942.....	1,072,239	17,200	580	2,596	2,127,000
January.....	24,819	950	610	501	49,230
February.....	23,957	1,100	690	546	47,520
March.....	26,083	1,130	570	541	51,730
April.....	33,840	2,720	1,100	1,735	106,800
May.....	50,160	2,920	753	1,518	99,490
June.....	46,630	2,240	1,060	1,554	92,490
July.....	35,334	1,850	398	1,140	70,080
August.....	34,844	2,110	580	1,124	69,110
September.....	27,227	1,290	600	708	54,000
Water year 1942-43.....	396,013	2,920	398	1,065	785,500

a No gage-height record; discharge computed on basis of recorded range in stage, two discharge measurements, and records for stations at Cochiti and near Bernalillo.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande near Bernalillo, N. Mex.

Location.— Water-stage recorder, lat. 35°17'05", long. 106°35'45", in Alameda Grant, 2 miles northwest of Sandia Pueblo, 3 miles southwest of Bernalillo, Sandoval County, 3.5 miles downstream from State Highway 44, and 8.5 miles downstream from Jemez Creek.

Records available.— May 1941 to September 1943.

Extremes.— Maximum discharge during year, 5,180 second-feet Aug. 18 (gage height, 4.40 feet); minimum daily, 180 second-feet, July 31.

1941-43: Maximum discharge, 25,400 second-feet May 16, 1941; maximum gage height 6.83 feet Sept. 20, 1941; minimum daily discharge, that of July 31, 1943.

Remarks.— Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	662	756	608	832	840	852	768	1,680	1,510	a1,000	623	669
2	662	463	476	808	876	768	808	2,010	1,170	a760	903	494
3	624	421	469	776	694	712	920	1,940	1,120	a700	885	410
4	966	416	494	800	867	712	1,400	2,010	1,070	a1,150	939	371
5	568	404	617	808	800	800	1,260	2,080	1,070	a1,000	1,120	688
6	696	392	939	784	720	728	1,310	1,880	1,380	912	1,030	360
7	610	376	728	736	784	921	1,510	1,880	1,070	824	984	320
8	631	534	728	704	752	712	1,570	1,810	903	946	1,180	326
9	568	340	682	696	808	712	1,510	1,940	776	744	520	330
10	840	330	645	662	800	682	1,490	1,740	720	696	360	569
11	840	295	514	688	704	792	1,670	1,490	720	1,000	515	720
12	508	276	662	696	752	667	1,300	1,280	760	631	396	976
13	575	266	808	720	768	832	1,160	1,120	1,090	624	360	673
14	610	246	792	736	768	966	1,080	957	688	610	340	712
15	638	494	824	752	736	682	1,100	798	824	736	624	808
16	673	276	824	792	728	614	1,210	966	720	688	300	728
17	720	246	849	832	720	476	1,150	680	688	586	510	776
18	1,000	316	840	876	800	482	1,300	610	638	1,270	1,560	696
19	803	266	956	894	792	508	894	614	868	1,190	1,040	858
20	676	310	840	a700	800	808	966	446	1,210	1,320	894	326
21	534	260	832	a750	768	728	1,200	463	792	1,150	669	305
22	439	547	792	a800	800	445	1,380	451	712	1,040	939	316
23	382	330	792	a850	649	356	1,460	993	688	846	576	330
24	362	340	768	a900	667	366	1,680	720	976	876	433	320
25	720	534	640	a850	876	366	2,080	646	1,300	800	382	242
26	404	371	912	876	816	360	2,150	639	1,300	427	345	468
27	415	410	912	930	792	371	2,160	610	1,740	360	350	310
28	410	416	903	886	939	720	2,010	760	1,310	276	421	366
29	393	673	840	903	-	469	2,010	903	1,300	204	1,020	568
30	439	461	800	849	-	520	1,880	1,360	1,260	194	669	469
31	415	-	867	849	-	744	-	1,280	-	180	768	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	18,082	1,000	382	583	35,670
November.....	11,709	756	246	390	23,220
December.....	23,314	939	469	762	46,240
Calendar year 1942.....	1,068,461	20,700	246	2,927	2,119,000
January.....	24,724	930	662	798	49,040
February.....	22,416	939	704	801	44,460
March.....	19,427	966	366	627	58,530
April.....	42,666	2,160	768	1,419	84,410
May.....	36,647	2,080	446	1,132	72,890
June.....	30,182	1,740	638	1,006	59,930
July.....	23,337	1,320	180	753	46,290
August.....	21,246	1,580	300	686	42,140
September.....	15,619	976	242	517	30,780
Water year 1942-43.....	289,139	2,160	180	792	573,800

a No gage-height record; discharge computed on basis of weather records and records for station at San Felipe.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at Albuquerque, N. Mex.

Location.- Water-stage recorder, lat. 35°05'20", long. 106°40'45", in SE¼ sec. 13, T. 10 N., R. 2 E., (projected), on left bank at bridge on U. S. Highway 66, at Albuquerque, in Albuquerque Grant. Datum of gage is 4,948.10 feet above mean sea level, datum of 1929.

Records available.- January 1942 to September 1943.

Extremes.- Maximum discharge during year, 4,490 second-feet Aug. 18 (gage height, 3.20 feet); minimum daily, 137 second-feet Nov. 14.

1942-43: Maximum discharge, 25,000 second-feet Apr. 24, 1942 (gage height, 4.07 feet), from rating curve extended above 13,900 second-feet by logarithmic plotting; minimum daily, that of Nov. 14, 1942.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	460	711	476	800	850	730	675	1,960	1,140	1,540	195	612
2	446	484	524	780	870	740	760	2,330	1,140	953	567	621
3	453	514	476	760	890	675	780	2,080	997	584	750	439
4	603	272	506	750	850	702	1,450	2,000	1,050	666	580	369
5	567	266	684	850	850	760	1,430	1,950	986	740	1,060	492
6	484	266	840	830	820	750	1,470	1,980	1,200	693	1,190	390
7	508	249	760	820	810	790	1,480	2,060	850	666	1,040	272
8	516	266	800	810	810	639	1,590	2,060	612	666	1,210	266
9	492	296	760	800	830	532	1,690	2,170	476	657	608	260
10	446	180	666	720	870	524	1,370	1,890	446	666	238	296
11	684	200	648	770	830	603	1,460	1,370	453	868	238	740
12	468	210	720	800	810	730	1,210	1,310	476	630	216	870
13	404	190	860	740	780	760	1,120	1,070	773	453	216	702
14	439	137	820	770	770	942	1,140	1,060	621	418	210	630
15	446	292	750	780	800	693	1,130	900	468	397	468	720
16	629	308	830	810	770	621	1,190	997	524	594	425	684
17	860	195	840	820	693	484	1,260	771	500	500	238	630
18	1,020	190	850	800	760	439	1,160	446	425	901	1,270	603
19	820	205	850	780	870	460	840	302	558	1,110	1,560	800
20	530	200	966	684	880	446	800	254	912	1,330	840	460
21	524	216	300	603	830	603	890	413	732	1,360	666	302
22	532	436	900	730	840	594	1,220	468	492	1,310	720	355
23	476	383	931	800	780	476	1,460	730	492	953	532	362
24	355	296	820	953	760	376	1,780	750	439	524	383	397
25	648	355	770	964	810	334	1,940	549	1,030	556	341	314
26	425	284	790	953	850	308	1,910	567	1,360	453	314	348
27	320	238	800	890	860	296	1,940	540	1,610	227	334	390
28	341	278	800	830	910	496	2,030	532	1,470	200	383	334
29	334	496	800	880	-	476	1,910	657	1,540	165	1,020	500
30	387	439	730	840	-	362	1,800	1,100	1,800	155	524	630
31	341	-	740	840	-	524	-	1,100	-	165	630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	15,998	1,020	320	516	31,730
November.....	8,854	711	137	295	17,560
December.....	23,619	966	476	762	46,650
Calendar year 1942.....	1,065,875	20,600	137	2,920	2,114,000
January.....	24,987	964	603	806	49,560
February.....	23,063	910	693	824	45,740
March.....	17,865	942	296	576	35,430
April.....	40,785	2,030	675	1,360	80,900
May.....	36,421	2,330	254	1,175	72,240
June.....	25,572	1,800	425	852	50,720
July.....	21,130	1,540	155	682	41,910
August.....	19,246	1,560	195	621	38,170
September.....	14,788	870	260	493	29,300
Water year 1942-43.....	272,328	2,330	137	746	540,100

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande near Belen, N. Mex.

Location.- Water-stage recorder, lat. 34°39'10", long. 106°44'10", in Tome Claim, at bridge on State Highway 52, 2 miles east of Belen, Valencia County.

Records available.- January 1942 to September 1943.

Extremes.- Maximum discharge during year, 3,960 second-feet Aug. 30; maximum gage height, 3.24 feet May 9; minimum daily discharge, 126 second-feet Aug. 1.
1942-43: Maximum discharge, 23,100 second-feet Apr. 24, 1942 (gage height, 5.05 feet), from rating curve extended above 12,500 second-feet by logarithmic plotting; minimum daily, that of Aug. 1, 1943.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	577	400	449	810	1,010	950	216	1,590	494	1,480	126	542
2	510	456	407	861	1,020	830	317	1,590	518	1,210	133	421
3	502	478	456	862	1,010	840	293	1,780	559	986	156	400
4	502	435	494	884	998	851	293	1,140	534	851	194	421
5	577	387	510	939	895	840	1,050	1,330	494	586	348	342
6	596	361	740	862	840	790	895	1,900	518	526	690	335
7	494	317	917	851	790	810	1,070	1,950	928	502	810	255
8	502	293	830	820	810	840	1,210	1,840	568	466	690	202
9	494	287	810	820	830	760	1,460	2,160	394	463	800	180
10	494	293	820	800	851	740	1,200	2,410	435	435	400	152
11	494	260	750	740	905	700	1,260	1,810	478	428	240	136
12	550	230	760	780	862	660	1,440	1,240	442	534	245	270
13	534	230	820	810	894	640	1,080	962	470	470	220	394
14	542	220	884	800	884	760	830	790	631	287	260	317
15	510	212	917	850	862	906	720	586	550	374	299	305
16	568	216	974	862	840	690	613	494	494	329	267	374
17	962	250	974	873	820	559	790	486	463	361	250	387
18	1,070	216	974	906	790	534	1,100	348	407	299	461	400
19	974	212	1,010	851	840	421	1,050	235	368	550	2,000	421
20	770	212	1,050	850	840	622	690	225	442	840	916	542
21	680	225	1,110	740	840	604	577	354	820	1,190	394	428
22	595	260	1,070	650	873	604	680	542	502	1,160	368	270
23	568	231	974	790	864	368	998	400	407	998	435	317
24	494	325	850	550	928	216	1,150	586	329	760	374	260
25	449	260	939	884	986	180	1,960	534	260	449	311	329
26	478	245	950	962	974	168	1,960	421	478	463	305	414
27	486	265	1,010	998	962	164	1,810	394	604	368	255	428
28	421	250	1,050	1,070	917	172	1,790	329	998	212	250	421
29	407	250	974	998	-	194	1,790	342	862	184	311	463
30	407	317	917	1,030	-	207	1,550	400	1,280	160	1,450	559
31	394	-	810	1,020	-	189	-	640	-	133	407	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17,591	1,070	394	567	34,890
November	8,641	478	212	288	17,140
December	26,510	1,110	407	849	52,190
Calendar year 1942	1,023,144	18,500	212	2,803	2,029,000
January	26,753	1,070	650	863	53,060
February	24,946	1,020	790	891	49,480
March	17,799	950	164	574	35,300
April	31,842	1,960	216	1,061	63,160
May	22,818	2,410	225	962	59,140
June	16,727	1,280	260	568	33,180
July	18,074	1,480	133	583	35,850
August	14,385	2,000	126	464	28,530
September	10,685	559	136	356	21,190
Water year 1942-43	243,571	2,410	126	667	493,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande near Bernardo, N. Mex.

Location.- Water-stage recorder, lat. $34^{\circ}25'00''$, long. $106^{\circ}47'50''$, in W $\frac{1}{2}$ sec. 12, T. 2 N., R. 1 E. (projected), at bridge on U. S. Highway 60, $2\frac{1}{2}$ miles east of Bernardo and $\frac{3}{4}$ miles upstream from Rio Puerco. Datum of gage is 4,723.95 feet above mean sea level, datum of 1929.

Drainage area.- 19,230 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- June 1936 to January 1939, October 1941 to September 1947.

Extremes.- Maximum discharge and gage height during year not determined; minimum daily discharge, 60 second-feet Aug. 3.
1936-39, 1941-43: Maximum discharge not determined, probably occurred Apr. 25, 1942; maximum daily discharge, 19,600 second-feet Apr. 25, 1942; maximum gage-height, 6.90 feet Apr. 25, 1942; minimum daily discharge, 36 second-feet July 26, 1936.

Remarks.- Records poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	†580	-	-	†782	-	-	†151	-	-	1,300	83	476
2	-	-	-	-	-	-	-	-	-	1,190	85	490
3	-	-	-	-	-	-	-	-	-	993	60	436
4	-	-	-	-	-	-	-	-	†573	773	184	392
5	-	-	†628	-	-	-	-	-	-	642	268	357
6	-	-	-	-	-	-	-	†1,440	-	530	449	317
7	-	-	-	-	-	-	-	-	-	503	768	309
8	-	-	-	-	-	-	-	-	-	462	698	265
9	†596	-	-	-	-	-	†1,190	-	-	436	726	200
10	-	-	-	-	-	-	-	-	-	408	726	168
11	-	-	-	-	-	-	-	-	-	408	330	184
12	-	-	-	-	†760	†644	-	-	-	408	214	249
13	-	†300	-	-	-	-	-	-	-	462	176	368
14	-	-	-	-	-	-	-	†1,040	-	352	171	449
15	-	-	-	†727	-	-	-	-	-	341	174	390
16	†638	-	-	-	-	-	†645	-	-	360	182	422
17	-	-	-	-	-	-	-	-	-	344	174	462
18	-	-	†622	-	-	-	-	-	349	365	233	449
19	-	-	-	-	†792	†496	-	-	322	408	1,100	490
20	-	†232	-	-	-	-	-	†273	300	759	1,000	516
21	-	-	-	-	-	-	-	-	436	995	453	800
22	-	-	-	-	†665	-	-	-	490	1,230	338	379
23	†588	-	-	-	-	-	†665	-	306	1,020	349	336
24	-	-	-	-	-	-	-	-	390	876	346	325
25	-	-	-	-	-	-	-	-	249	635	265	341
26	-	-	†690	-	†657	†203	-	-	249	490	238	379
27	-	-	-	-	-	-	-	-	462	449	179	379
28	-	-	-	-	-	-	-	†440	614	303	214	387
29	-	-	-	-	-	-	-	-	904	203	279	371
30	†479	-	-	-	-	-	†1,770	-	962	155	1,230	392
31	-	-	-	-	-	-	-	-	-	125	479	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....					
November.....					
December.....					
Calendar year.....					
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June 18-30.....	6,033	962	249	45†	11,970
July.....	17,921	1,300	125	579	35,550
August.....	12,147	1,230	60	36*	24,090
September.....	11,278	600	168	376	22,370
The period.....	-	-	-	-	93,980

† Result of discharge measurement.

* No gage-height record; discharge computed on basis of records for station near Belen.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande at San Acacia, N. Mex.

Location.— Water-stage recorder, lat. 34°15'20", long. 106°53'30", in NE¼ sec. 1, T. 1 S., R. 1 W., 0.2 mile downstream from San Acacia diversion dam, half a mile east of San Acacia, and 2 miles downstream from Rio Salado. Datum of gage (left bank) is 4,660.16 feet above mean sea level, datum of 1929.

Drainage area.— 26,770 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.— April 1936 to September 1943 in reports of Geological Survey. February to December 1925, January 1926 to September 1927 (gage heights and discharge measurements only) in reports of State engineer. January 1941 to December 1943 in reports of Rio Grande Compact Commission.

Extremes.— Maximum discharge during year, 9,660 second-feet June 29 (gage height, 6.10 feet); minimum daily, 14 second-feet Aug. 2.
1936-43: Maximum discharge, 27,400 second-feet Aug. 5, 1936 (gage height, 8.35 feet, datum of gage, 4,662.56 feet), from rating curve extended above 18,000 second-feet by logarithmic plotting; minimum daily, 1 second-foot June 23, 1939.

Remarks.— Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	566.9	312	354	837	775	700	52	1,170	392	1,780	20	730
2	540	328	518	922	790	790	67	1,180	290	1,500	14	430
3	486	402	529	973	780	745	260	1,520	305	1,120	22	320
4	787	485	807	854	775	687	218	1,270	344	685	41	254
5	518	420	605	837	871	715	316	1,030	354	605	160	190
6	565	373	657	956	854	685	715	1,190	354	335	481	155
7	496	335	854	888	730	760	618	1,590	373	312	830	122
8	430	254	1,060	922	657	730	922	1,610	668	328	644	103
9	496	268	837	820	760	687	922	2,020	354	290	507	490
10	441	236	854	775	715	605	1,350	2,580	290	242	566	299
11												
12	504	298	775	775	745	644	1,190	2,200	592	250	298	272
13	515	242	715	790	790	700	1,330	1,250	354	250	115	224
14	730	190	790	715	750	745	1,270	1,060	305	260	114	224
15	553	206	871	700	745	745	888	888	312	254	122	290
16	507	224	837	790	685	805	685	685	354	158	66	242
17	605	206	820	820	687	905	566	618	306	150	146	190
18	801	165	837	760	670	644	679	463	195	130	86	230
19	972	224	888	670	715	507	618	373	185	160	667	335
20	805	195	905	670	715	474	905	275	155	175	1,680	354
21	888	212	1,030	690	730	344	760	206	122	545	1,930	554
22												
23	730	290	973	1,010	775	420	507	785	203	637	4,400	392
24	592	290	990	805	775	411	453	401	398	1,190	354	224
25	553	236	959	670	775	474	566	452	162	1,030	402	170
26	566	430	980	805	837	275	568	320	106	990	411	136
27	496	373	1,130	820	760	96	1,100	411	110	605	605	206
28												
29	402	290	1,010	805	730	75	1,780	430	48	373	354	256
30	411	282	1,010	905	790	58	1,500	312	256	392	452	268
31	463	282	1,010	973	760	58	1,540	242	373	218	1,450	335
	411	254	1,080	905	-	72	1,390	195	3,840	68	1,250	328
	344	320	956	837	-	55	1,370	254	3,460	27	1,770	276
	298	-	775	837	-	100	-	260	-	24	1,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,412	972	296	532	34,540
November.....	8,622	465	165	277	17,100
December.....	26,105	1,130	354	812	51,780
Calendar year 1942	1,004,718	19,500	165	2,755	1,993,000
January.....	25,016	1,010	670	879	51,800
February.....	21,071	871	657	733	41,790
March.....	15,661	905	55	616	31,040
April.....	25,354	1,780	52	814	50,220
May.....	27,210	2,580	195	878	53,970
June.....	15,590	3,640	48	570	30,920
July.....	15,224	1,780	24	491	30,200
August.....	17,210	1,930	14	575	34,140
September.....	8,380	730	103	279	15,620
Water year 1942-43	223,826	3,840	14	673	444,000

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for station at San Marcial.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Rio Grande at San Marcial, N. Mex.

Location (revised).- Water-stage recorder, lat. 33°40'50", long. 106°59'15", in Pedro Armendaris Grant 33, at Atchison, Topeka & Santa Fe Railway bridge, 1.1 miles downstream from San Marcial, Socorro County.

Drainage area.- 27,700 square miles (including 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- January 1895 to September 1943 in reports of Geological Survey. January 1895 to December 1931 in reports of State engineer. Prior to January 1922 at site 0.3 mile upstream; January 1922 to February 1932 at highway bridge half a mile northeast of San Marcial and 1.8 miles above present site.

Average discharge.- 47 years (1896-1943), 1,567 second-feet.

Extremes.- Maximum discharge during year, 4,500 second-feet June 30 (gage height, 11.30 feet); minimum daily, 17 second-feet Aug. 5.

1895-1943: Maximum discharge, about 50,000 second-feet Oct. 11, 1904; no flow at times.

Remarks.- Records good. Diversions above station for irrigation.

Cooperation.- Records furnished by International Boundary Commission, United States and Mexico, U. S. Section.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	580	422	304	973	935	612	124	1,240	220	2,680	27	752
2	515	376	298	879	856	558	134	1,200	192	1,920	31	669
3	506	352	455	890	826	764	102	1,140	269	1,460	36	528
4	485	411	473	838	572	820	122	1,360	164	1,080	36	341
5	497	543	497	874	563	816	197	1,060	199	731	17	284
6	377	480	447	845	914	819	192	1,050	231	590	59	211
7	494	412	645	922	939	841	550	1,200	247	374	492	147
8	616	366	785	955	943	804	509	1,450	273	266	734	117
9	499	318	846	933	543	742	828	1,360	540	310	509	98
10	464	265	904	912	572	680	964	1,670	367	302	444	203
11	485	309	852	969	660	672	1,160	2,900	363	258	733	205
12	606	331	849	856	834	619	1,060	2,060	441	221	346	182
13	630	331	750	817	849	576	1,340	1,270	425	224	158	182
14	825	237	707	801	778	532	1,290	1,140	256	193	108	219
15	681	226	725	796	718	629	1,060	913	232	285	120	254
16	558	243	828	761	661	746	778	709	211	240	127	201
17	624	236	841	698	678	816	677	624	291	148	141	155
18	727	231	874	712	736	1,040	633	438	144	150	162	184
19	621	246	944	462	725	667	744	364	101	173	366	282
20	796	259	924	502	712	722	968	209	142	174	1,650	273
21	814	232	990	a936	761	651	799	386	144	453	1,330	255
22	666	237	1,020	a1,110	817	628	577	553	83	1,260	618	329
23	569	251	969	a1,020	870	587	492	440	59	1,310	417	279
24	573	250	968	a913	859	566	591	490	206	931	316	240
25	522	319	968	799	892	441	760	303	93	806	384	209
26	486	428	1,020	793	835	236	1,170	320	a54	570	671	226
27	384	402	1,060	860	842	189	1,890	397	44	303	313	262
28	390	348	1,110	999	701	164	1,400	261	41	246	520	335
29	468	315	1,150	966	-	141	1,500	247	756	228	1,460	317
30	407	262	1,010	951	-	135	1,410	214	3,850	122	756	276
31	418	-	1,030	969	-	129	-	178	-	56	1,490	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,521	825	377	565	34,760
November.....	9,658	543	226	322	19,160
December.....	25,263	1,150	299	615	50,110
Calendar year 1942	977,874	17,800	221	2,679	1,940,000
January.....	26,593	1,110	462	858	52,750
February.....	29,071	939	543	758	43,780
March.....	18,642	1,040	129	601	36,980
April.....	24,039	1,890	102	601	47,680
May.....	27,376	2,900	178	883	54,300
June.....	10,638	3,830	41	365	21,100
July.....	18,064	2,680	56	583	35,830
August.....	14,570	1,650	17	470	28,900
September.....	8,215	752	98	274	16,290
Water year 1942-43	222,650	3,830	17	610	441,600

a No gage-height record; discharge estimated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande below Elephant Butte Dam, N. Mex.

Location.- Water-stage recorder, lat. 33°09'05", long. 107°12'10", in N½ sec. 25, T. 13 S., R. 4 W. (projected), 3,800 feet downstream from Elephant Butte Dam in Pedro Armendaris Grant.

Records available.- October 1916 to September 1943.

Average discharge.- 27 years, 1,208 second-feet.

Extremes.- Maximum daily discharge during year, 1,670 second-feet Dec. 9; minimum daily, 432 second-feet Oct. 12.
1916-43: Maximum daily discharge, 8,220 second-feet May 22, 1942; no flow at times.

Remarks.- Records good. Many diversions above station for irrigation. Flow regulated by Elephant Butte Reservoir (see p. 185).

Cooperation.- Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	1,050	1,120	1,010	1,260	1,040	1,080	1,140	1,230	1,070	1,130	1,260
2	1,230	1,090	1,200	1,020	1,270	1,040	1,040	959	1,140	1,130	1,200	1,200
3	1,210	1,100	1,150	958	1,170	958	1,040	1,100	1,170	1,180	1,270	1,240
4	1,080	1,090	1,120	1,020	1,200	1,020	1,010	1,120	1,120	1,090	1,300	1,230
5	1,190	1,100	1,160	990	1,070	955	1,080	1,140	1,180	1,130	1,350	1,100
6	1,250	1,100	1,050	1,050	918	966	1,170	1,240	934	1,200	1,310	1,180
7	1,230	1,120	1,140	1,300	835	903	1,160	1,160	1,090	1,240	1,280	1,220
8	1,190	1,040	1,550	1,480	887	995	1,170	1,150	1,130	1,340	1,120	1,250
9	1,160	1,090	1,670	953	911	1,020	1,150	1,030	1,140	1,280	1,210	1,250
10	1,240	1,140	1,410	951	893	1,040	1,190	1,120	1,130	1,280	1,220	1,240
11	957	1,110	1,090	959	891	1,020	1,050	1,180	1,100	1,170	1,200	1,230
12	432	1,150	1,040	990	896	1,010	1,170	1,180	1,100	1,170	1,210	1,110
13	1,280	1,130	955	1,010	977	1,040	1,240	1,120	939	1,250	1,220	1,160
14	1,280	1,080	963	990	922	898	1,180	1,210	1,040	1,260	1,190	1,170
15	1,250	971	958	1,030	1,010	980	1,210	1,130	1,110	1,170	1,140	1,210
16	1,160	1,100	1,080	1,000	1,000	998	1,200	1,020	1,120	1,240	1,130	1,220
17	1,240	1,140	1,100	953	980	991	1,150	1,120	1,110	1,300	1,190	1,230
18	1,190	1,160	1,080	968	1,010	1,050	1,050	1,130	1,070	1,160	1,200	1,190
19	1,190	1,110	1,100	987	1,020	1,060	1,140	1,120	1,040	1,150	1,220	1,130
20	1,190	1,120	1,090	955	1,020	1,080	1,200	1,080	891	1,210	1,250	1,120
21	1,190	1,110	1,090	921	1,020	984	1,160	1,090	999	1,160	1,220	1,180
22	1,240	1,010	1,050	947	1,030	1,080	1,130	1,090	1,110	1,160	1,110	1,210
23	1,240	1,120	1,070	934	1,070	1,150	1,110	978	1,110	1,160	1,160	1,170
24	1,140	1,160	1,110	842	1,070	1,150	1,090	1,130	1,120	1,170	1,190	1,160
25	1,110	1,100	911	922	1,070	1,130	979	1,130	1,110	1,040	1,260	1,130
26	1,190	1,070	1,010	1,050	1,070	1,150	1,060	1,100	1,100	1,190	1,290	914
27	1,220	1,130	1,020	1,040	1,070	1,180	1,060	1,150	997	1,150	1,270	1,160
28	1,190	1,170	1,110	1,050	987	1,090	1,060	1,120	1,020	1,300	1,300	1,130
29	1,220	1,060	1,110	1,050	-	1,060	1,070	1,100	1,090	1,290	1,170	1,170
30	1,170	1,100	1,330	1,040	-	1,100	1,090	989	1,110	1,330	1,190	1,240
31	1,190	-	1,200	958	-	1,060	-	1,050	-	1,280	1,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	35,329	1,280	432	1,172	72,060
November	33,021	1,170	971	1,101	65,500
December	35,037	1,670	911	1,130	69,490
Calendar year 1942	916,944	8,220	432	1,512	1,819,000
January	31,328	1,480	842	1,011	52,140
February	28,527	1,270	835	1,019	56,590
March	32,203	1,180	898	1,039	63,860
April	35,449	1,240	979	1,115	66,350
May	34,176	1,210	959	1,102	67,790
June	32,450	1,230	891	1,083	64,420
July	37,250	1,340	1,040	1,202	73,880
August	37,640	1,350	1,110	1,214	74,860
September	35,404	1,280	914	1,180	70,220
Water year 1942-43	406,849	1,670	432	1,115	807,000

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Grande below Caballo Dam, N. Mex.

Location.— Water-stage recorder, lat. 32°53'05", long. 107°17'30", in NE¼ sec. 30, T. 18 S., R. 4 W., 600 feet upstream from Bojorquez bridge, 4,200 feet downstream from Caballo Dam, 1 1/3 miles upstream from Percha diversion dam, 5 miles northeast of Arrey, and 5 miles south of Caballo. Datum of gage is 4,145.9 feet above mean sea level.

Records available.— January 1938 to September 1943.

Extremes.— Maximum daily discharge during year, 2,920 second-feet Aug. 6; minimum daily, 7.7 second-feet Oct. 20.

1938-43: Maximum daily discharge, 7,650 second-feet May 20, 1942; minimum daily, 1.3 second-feet Nov. 18-21, Dec. 12-27, 1940.

Remarks.— Records good. Considerable diversion above station for irrigation. Flow regulated by Caballo Reservoir (capacity, 345,900 acre-feet) and Elephant Butte Reservoir (capacity, 2,219,000 acre-feet).

Cooperation.— Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,690	463	76	293	113	967	2,530	2,140	2,150	1,360	2,690	2,020
2	1,160	478	16	49	114	967	2,520	2,290	1,950	1,280	2,700	1,880
3	1,130	495	20	48	113	1,050	2,710	2,290	1,880	1,660	2,700	1,800
4	1,100	345	20	43	112	1,060	2,680	2,290	1,870	1,780	2,690	1,760
5	1,100	215	20	48	270	1,040	2,590	2,080	1,950	1,780	2,730	1,740
6	1,100	145	19	54	701	989	2,710	1,530	2,000	1,680	2,920	1,710
7	1,100	87	20	58	651	961	2,710	1,110	1,990	1,650	2,610	1,710
8	1,100	14	20	60	665	965	2,670	2,000	2,020	1,620	2,730	1,660
9	1,000	14	287	59	483	982	2,580	2,300	2,130	1,900	2,710	1,470
10	954	14	640	56	133	1,030	2,430	2,300	2,160	2,200	2,610	1,470
11	949	14	497	56	96	1,070	2,430	2,290	2,140	2,250	2,560	1,580
12	944	14	497	65	99	1,070	2,340	2,210	2,250	2,240	2,550	1,690
13	939	14	798	67	231	1,210	2,280	1,970	2,250	2,280	2,460	1,560
14	934	12	970	67	836	1,360	2,300	1,970	2,230	2,610	2,560	1,570
15	813	13	970	71	836	1,380	2,210	1,970	2,230	2,430	2,620	1,470
16	339	13	970	73	834	1,400	2,250	1,960	2,200	2,330	2,570	1,380
17	20	13	721	74	828	1,510	2,340	1,940	2,030	2,180	2,510	1,360
18	13	13	400	72	830	1,610	2,400	1,930	2,030	2,150	2,470	1,320
19	8.9	468	276	69	884	1,680	2,400	2,010	2,200	2,110	2,390	1,380
20	7.7	731	151	73	817	1,680	2,340	2,150	2,250	2,020	2,340	1,320
21	8.0	543	88	73	816	1,870	2,210	2,050	2,250	1,930	2,380	1,270
22	8.6	543	27	73	785	1,880	2,030	1,960	2,240	1,930	2,530	1,040
23	8.9	543	26	77	780	1,920	1,990	1,960	2,290	1,930	2,420	517
24	9.2	543	26	77	785	1,960	1,990	1,960	2,400	2,080	2,290	138
25	10	543	30	78	790	2,050	1,980	1,980	2,730	2,160	2,280	110
26	16	364	35	91	838	2,130	2,000	1,900	2,280	2,170	2,170	109
27	18	241	36	94	923	2,310	2,120	1,870	2,670	2,150	2,130	105
28	21	167	39	95	959	2,320	2,170	1,860	2,650	2,140	2,180	137
29	340	113	40	107	-	2,320	2,080	2,030	2,460	2,160	2,230	188
30	542	112	41	112	-	2,470	2,070	2,090	1,800	2,460	2,240	200
31	437	-	293	113	-	2,580	-	2,090	-	2,640	2,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,820.3	1,690	7.7	575	35,350
November.....	7,285	731	12	273	14,450
December.....	8,069	970	16	270	16,000
Calendar year 1942.....	905,447.3	7,650	3.0	2,431	1,796,000
January.....	2,445	293	43	73.9	4,850
February.....	16,252	959	89	570	32,240
March.....	47,951	2,580	91	1,577	95,110
April.....	69,940	2,710	1,980	2,331	138,700
May.....	62,260	2,300	1,110	2,078	123,500
June.....	66,220	2,820	1,800	2,277	131,300
July.....	63,170	2,640	1,280	2,078	125,300
August.....	77,380	2,920	2,130	2,476	153,500
September.....	55,504	2,020	105	1,183	70,420
Water year 1942-43.....	474,296.3	2,920	7.7	1,279	940,700

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Reservoirs in the Rio Grande Basin

Elephant Butte Reservoir.— Water-stage recorder, lat. 33°09'15", long. 107°11'30", at dam on Rio Grande in NW¼ sec. 30, T. 13 S., R. 3 W. (surveys by Bureau of Reclamation), 1 mile west of Elephant Butte, N. Mex., post office and 4 miles northeast of Hot Springs. Datum of gage is 43.3 feet above mean sea level. Records available, January 1940 to September 1943. Maximum daily contents during year, 1,929,200 acre-feet Oct. 1 (gage height, 4,598.96 feet); minimum daily, 1,894,300 acre-feet Sept. 30 (gage height, 4,350.82 feet). Maximum daily contents during period 1940-43, 2,303,000 acre-feet June 18-19, 1942 (gage height, 4,409.19 feet); minimum daily, 418,500 acre-feet Sept. 21-23, 1940 (gage height, 4,323.20 feet).

Reservoir is formed by concrete dam; storage began Jan. 6, 1915; dam completed May 13, 1916. Capacity, 2,219,000 acre-feet between gage heights 4,231.5 feet (sill of lower outlet gate) and 4,407.0 feet (spillway crest), survey of 1940. No dead storage. Figures given herein represent usable contents. Water is used for power development and irrigation on Rio Grande project of Bureau of Reclamation. Contents as here given are computed from mean daily gage heights.

Gage-height record and capacity table furnished by Bureau of Reclamation.

Caballo Reservoir.— Water-stage recorder, lat. 32°53'45", long. 107°17'30", at dam on Rio Grande, in SE¼ sec. 19, T. 16 S., R. 4 W., 0.5 mile downstream from mouth of Apache Canyon, 0.9 mile upstream from Bojarsquez Bridge, 2 miles upstream from Percha diversion dam, 3.5 miles northeast of Arrey, and 4.5 miles south of Caballo, N. Mex. Datum of gage is 43.3 feet above mean sea level. Records available, February 1938 to September 1943. Maximum daily contents during year, 335,600 acre-feet Feb. 28 (gage height, 4,181.10 feet); minimum daily, 3,770 acre-feet Sept. 21 (gage height, 4,119.20 feet). Maximum daily contents during period 1938-43, 347,000 acre-feet Mar. 4, 1942 (gage height, 4,182.06 feet); minimum daily, 118 acre-feet Oct. 14, 1938 (gage height, 4,108.1 feet).

Reservoir is formed by earth-fill dam; storage began Feb. 8, 1938; dam completed Sept. 19, 1938. Capacity, 345,870 acre-feet between gage heights 4,104 feet (bottom of tunnel entrance to gates) and 4,182 feet (maximum gage height at which spillway gates operate automatically). No dead storage. Figures given herein represent usable contents. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project of Bureau of Reclamation. Contents as here given are computed from mean daily gage heights.

Gage-height record and capacity table furnished by Bureau of Reclamation.

Correction.— The figure of contents for Dec. 31, 1941, has been corrected to 277,100 acre-feet, superseding erroneous figure published in Water-Supply Paper 958.

Carson Reservoir.— Water-stage recorder, lat. 36°25', long. 106°50', in NW¼ sec. 12, T. 25 N., R. 10 E., on Aguaje de la Petaca, 4½ miles northeast of Stong and 4½ miles northwest of Carson, Taos County, N. Mex. Records available, January 1940 to September 1943. Maximum daily contents during year, 6 acre-feet Aug. 17 (gage height, 8.6 feet); no storage most of year. Maximum contents during period 1940-43, 3,620 acre-feet May 6, 1941 (gage height, 35.5 feet); no storage for extended periods.

Reservoir is formed by earth dam, stone-faced, completed in 1935. Capacity, 5,684 acre-feet between gage heights 8.0 feet (sill of outlet gate) and 45 feet (crest of spillway). Dead storage negligible. Water used for irrigation in Carson Irrigation District near Carson, N. Mex.

Contents, 6 acre-feet, Aug. 17, and 5 acre-feet, Sept. 28; reservoir was empty the rest of year. Gage heights and contents at midnight.

El Vado Reservoir.— Water-stage recorder (records stages above spillway floor only) and slope gage, lat. 36°35'45", long. 106°43'55", on Rio Chama, in SE¼ sec. 4, T. 27 N., R. 2 E., (projected), at left end of dam, 2 miles downstream from old town of El Vado, and 13 miles southwest of Tierra Amarilla, N. Mex. Datum of gage is 9.565 feet above mean sea level, datum of 1929. Records available, January 1935 to September 1943. Maximum daily contents during year, 171,300 acre-feet May 20-23, May 30 to June 4 (gage height, 6,892.8 feet); minimum daily, 36,170 acre-feet, Oct. 30, 31 (gage height, 6,821.0 feet). Maximum daily contents during period 1935-43, 197,700 acre-feet July 4, 13-24, 1941 (gage height, 6,901.2 feet); minimum daily, 56 acre-feet Jan. 1, 1935.

Reservoir is formed by rock-fill dam, steel-faced; storage began in January 1935. Capacity, 200,300 acre-feet between gage heights 6,740.0 feet (bottom of trash rack) and 6,902.0 feet (top of spillway gate). Dead storage unknown. Figures given herein represent usable contents. Water is used for irrigation by Middle Rio Grande Conservancy District. Gage read daily about 7:30 a.m. Continuous recorder registers gage height above 6,879.3 feet (floor of spillway). Contents given herein are those at 7:30 a.m. Staff gage readings and capacity table furnished by Middle Rio Grande Conservancy District.

Nichols Reservoir.— Water-stage recorder, lat. 35°41'20", long. 105°52'40", at dam on Santa Fe Creek, in ENE¼ sec. 21, T. 17 N., R. 10 E., three-quarters of a mile upstream from lower storage reservoir, 2½ miles downstream from upper storage reservoir of New Mexico Power Co. and 3½ miles east of Santa Fe, N. Mex. Datum of gage is 7,313.2 feet above mean sea level, datum of 1929. Records available, December 1942 to September 1943. Maximum daily contents during period, 421 acre-feet Aug. 20 (gage height, 157.0 feet); no contents prior to Mar. 16.

Reservoir is formed by rock-fill dam; storage began Mar. 16, 1943. Capacity, 796 acre-feet between gage heights 121.2 feet (bottom of lower operational gate) and 171.0 feet (top of flashboards in spillway). Dead storage, 14 acre-feet. Figures given here represent total contents. Water is used for municipal consumption of city of Santa Fe. Contents given herein are those for midnight. Capacity table computed from survey furnished by New Mexico Power Co.

San Mateo Reservoir.— Tape gage, lat. 35°19'35", long. 107°38'04", on San Mateo Creek, in SWNE¼ sec. 25, T. 13 N., R. 8 W., over concrete outlet tower in upstream face of dam, three-quarters of a mile southeast of San Mateo, N. Mex. Prior to June 27, water-stage recorder at same site. Records available, December 1939 to September 1943. Maximum daily contents recorded, 64 acre-feet Feb. 18, 19 (gage height, 36.0 feet); minimum observed, 1 acre-foot July 31 (gage height, 17.1 feet). Maximum daily contents recorded during period 1939-43, that of Feb. 18, 19, 1943; no storage Sept. 4-12, 1940.

Reservoirs in the Rio Grande Basin--Continued

Reservoir is formed by earth dam, rock-faced, completed in 1937. Capacity, 60 acre-feet (revised) between gage height 16.9 feet (bottom of reservoir, September 1943) and 36.0 feet (approximate floor level in earth channel spillway). No dead storage. Water is diverted below reservoir for irrigation.

Alamogordo Reservoir.-- Mercury gage, lat. $34^{\circ}36'30''$, long. $104^{\circ}23'10''$, in SW $\frac{1}{4}$ sec. 34, T. 5 N., R. 24 E., at Alamogordo Dam on Pecos River, 5 miles northeast of Guadalupe, N. Mex. Datum of gage is at mean sea level, Bureau of Reclamation datum. Drainage area, 4,390 square miles (contributing area). Records available, January 1939 to September 1943. Maximum daily contents during year, 141,400 acre-feet Oct. 20, 21 (elevation, 4,273.55 feet); minimum daily, 21,400 acre-feet Sept. 17 (elevation, 4,227.80 feet). Maximum daily contents during period 1939-43, 149,400 acre-feet Apr. 19, 20, 1942 (elevation, 4,275.30 feet); minimum daily, 3,000 acre-feet Aug. 5, 1940 (elevation, 4,205.9 feet).

Reservoir is formed by Alamogordo Dam; completed and storage began in 1938. Capacity, 148,000 acre-feet between elevations 4,200.0 (sill of outlet gates) and 4,275.0 feet (top of spillway gates) above mean sea level. Dead storage, 9,000 acre-feet. Figures given herein represent usable contents. Contents computed from once-daily gage readings at 8 a.m. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Lake McMillan.-- Staff gage, lat. $32^{\circ}35'45''$, long. $104^{\circ}20'55''$, in SE $\frac{1}{4}$ sec. 2, T. 20 S., R. 26 E., at McMillan Dam on Pecos River, 3 miles southeast of Lakewood, N. Mex. Datum of gage is 3,241.6 feet above mean sea level, Bureau of Reclamation datum. Drainage area, 16,990 square miles (contributing area). Records available, January 1939 to September 1943. Maximum daily contents during year, 39,100 acre-feet Dec. 24 (gage height, 26.2 feet); minimum daily, 4,460 acre-feet Aug. 21, 22 (gage height, 17.2 feet). Maximum daily contents during period 1939-43, 68,500 acre-feet Sept. 26, 1941 (gage height, 29.95 feet); minimum daily, 1,500 acre-feet Oct. 6-11, Feb. 12, 1941; minimum gage height, 15.2 feet Nov. 11, 1940 (affected by wind).

Lake is formed by McMillan Dam; completed and storage began in 1906. Capacity, 38,500 acre-feet between gage heights 0.0 foot (sill of outlet gates) and 26.1 feet (crest of spillway 1). No dead storage. Figures given herein represent usable contents. Water is used for irrigation on Carlsbad project of Bureau of Reclamation. Contents computed from once-daily gage readings at 6 a.m. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Lake Avalon.-- Staff gage, lat. $32^{\circ}29'25''$, long. $104^{\circ}15'00''$, in SW $\frac{1}{4}$ sec. 12, T. 21 S., R. 26 E., at Avalon Dam on Pecos River, 5 miles north of Carlsbad, N. Mex. Datum of gage is 3,157.0 feet above mean sea level, Bureau of Reclamation datum. Drainage area, 18,070 square miles (contributing area). Records available, January 1939 to September 1943. Maximum daily contents during year, 6,500 acre-feet Jan. 5-8 (gage height, 20.9 feet); minimum daily, 400 acre-feet Dec. 20 (gage height, 11.6 feet). Maximum daily contents during period 1939-43, 11,000 acre-feet May 22, 1941 (gage height, 25.0 feet); no storage, Sept. 7, Oct. 2-11, 1940, when natural flow was passing through reservoir.

Lake is formed by Avalon Dam; storage began in 1906. Capacity, 6,600 acre-feet between gage heights 0.0 foot (sill of outlet gates) and 21.0 feet (crest of spillway 1). No dead storage. Figures given herein represent usable contents. Water is used for irrigation on Carlsbad project of Bureau of Reclamation. Contents computed from once-daily gage readings at 6 a.m. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Red Bluff Reservoir.-- Staff gage, lat. $31^{\circ}54'05''$, long. $103^{\circ}54'40''$, at Red Bluff dam on Pecos River, 3 miles upstream from Salt (Screwbean) Draw, 4.5 miles north of Orla, Reeves County, Tex. Datum of gage is 0.30 foot below mean sea level, datum of 1929. Subtract 0.30 feet from elevations given herein to obtain elevation above mean sea level, datum of 1929. Contributing drainage area, 20,720 square miles. Records available, February 1937 to September 1943. Maximum contents observed during year, 208,000 acre-feet Nov. 10 (elevation, 2,841.8 feet, from staff gage readings at service spillway); minimum observed, 174,000 acre-feet Sept. 9-14, 16-20; minimum elevation observed, 2,827.9 feet Sept. 16. Maximum contents observed during period 1937-43, 352,000 acre-feet Sept. 27, 28, 1941 (elevation, 2,846.2 feet, observed on gage mentioned above affected by variable drawdown due to flow through Taintor gates); minimum, 28,000 acre-feet Sept. 17, 23-28, 1940 (elevation, 2,794.8 feet).

Reservoir is formed by earth-fill dam, rip-rap faced; storage began in 1936; dam completed early in 1937. Capacity, 307,000 acre-feet between elevations 2,764.0 feet (penstock intake sill) and 2,842.0 feet (top of Taintor gates). Dead storage, 3,000 acre-feet. Figures given herein represent total contents. Water is used for power development and for irrigation from Mentone to Grandfalls, Tex. Contents computed from daily readings at 9 a.m. Elevation obtained by measuring down to water surface from reference mark on top of surge tower, Sept. 8-30. Elevation record and capacity curve furnished by Red Bluff Water Power Control District.

Monthly gage-height and contents of reservoirs in the Rio Grande Basin,
water year October 1942 to September 1943

Date	Elephant Butte Reservoir			Caballo Reservoir		
	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)
Sept. 30.....	4,399.00	1,930,900	-	4,158.80	137,800	-
Oct. 31.....	4,397.47	1,878,400	-52,500	4,163.48	171,800	+34,600
Nov. 30.....	4,395.48	1,814,200	-64,200	4,169.03	214,800	+43,100
Dec. 31.....	4,394.43	1,760,500	-33,700	4,174.32	264,800	+49,600
Calendar year 1942.....	-	-	-157,500	-	-	+37,400
Jan. 31.....	4,393.65	1,755,200	-25,300	4,179.19	314,800	+49,700
Feb. 28.....	4,392.89	1,731,900	-23,300	4,181.10	335,800	+21,400
Mar. 31.....	4,391.65	1,693,500	-38,400	4,178.34	304,800	-30,800
Apr. 30.....	4,390.32	1,653,100	-40,400	4,171.75	239,800	-65,000
May 31.....	4,389.32	1,623,900	-29,200	4,165.89	187,800	-51,900
June 30.....	4,387.28	1,585,400	-38,500	4,157.30	127,800	-60,700
July 31.....	4,385.76	1,523,600	-61,800	4,149.49	83,010	-44,190
Aug. 31.....	4,383.15	1,454,400	-69,400	4,127.72	15,870	-67,440
Sept. 30.....	4,380.82	1,394,300	-60,100	4,130.03	20,210	+4,640
Water year 1942-43.....	-	-	-536,600	-	-	-116,990

Date	El Vado Reservoir			Nichols Reservoir		
	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)
Sept. 30.....	6,834.1	51,760	-	-	-	-
Oct. 31.....	6,821.0	36,170	-15,590	-	-	-
Nov. 30.....	6,824.0	39,450	+3,280	-	-	-
Dec. 31.....	-	42,430	+2,980	-	-	-
Calendar year 1942.....	-	-	-69,070	-	-	-
Jan. 31.....	6,829.2	45,540	+3,110	-	-	-
Feb. 28.....	6,832.6	49,800	+4,260	-	-	-
Mar. 31.....	6,839.6	59,260	+9,460	131.6	63	+63
Apr. 30.....	6,837.5	125,000	+65,740	147.5	240	+177
May 31.....	6,892.8	171,300	+46,300	150.2	283	+43
June 30.....	6,882.7	142,700	-28,600	153.0	336	+53
July 31.....	6,865.3	102,600	-40,100	154.3	362	+26
Aug. 31.....	6,845.4	67,780	-34,820	155.3	382	+20
Sept. 30.....	6,822.3	37,570	-30,210	147.0	233	-149
Water year 1942-43.....	-	-	-14,190	-	-	+233

Date	San Mateo Reservoir			Alamogordo Reservoir		
	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)
Sept. 30.....	-	29	-	72.95	138,700	-
Oct. 31.....	-	21	-	73.50	141,600	+2,500
Nov. 30.....	-	27	-	61.10	91,480	-49,360
Dec. 31.....	-	37	-	61.70	95,680	+2,040
Calendar year 1942.....	-	-	-	-	-	-52,520
Jan. 31.....	-	51	-	61.65	95,710	-170
Feb. 28.....	-	83	-	63.70	101,100	+7,390
Mar. 31.....	-	60	-	62.60	97,680	-4,040
Apr. 30.....	-	58	-	60.95	91,240	-5,720
May 31.....	-	35	-	62.40	96,240	+5,000
June 30.....	-	7	-	52.80	67,820	-29,120
July 31.....	-	1	-	55.90	75,820	+8,600
Aug. 31.....	-	53	-	39.60	38,800	-37,520
Sept. 30.....	-	60	-	29.05	22,660	-15,440
Water year 1942-43.....	-	-	-	-	-	-115,840

Date	Lake McMillan			Lake Avalon		
	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)	Elevation or gage height (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)
Sept. 30.....	24.0	28,000	-	20.95	6,550	-
Oct. 31.....	24.85	32,040	+4,040	20.60	6,200	-350
Nov. 30.....	25.55	35,600	+3,560	13.5	935	-5,265
Dec. 31.....	25.7	36,390	+790	17.1	3,140	+2,205
Calendar year 1942.....	-	-	+4,600	-	-	-3,110
Jan. 31.....	25.85	37,190	+800	20.8	6,400	+3,260
Feb. 28.....	24.9	32,280	-4,910	20.7	6,300	-100
Mar. 31.....	23.2	24,470	-7,810	17.8	3,690	-2,610
Apr. 30.....	22.5	20,750	-3,740	13.6	975	-2,715
May 31.....	19.0	9,180	-11,550	15.6	2,080	+1,105
June 30.....	21.6	17,380	+8,800	17.55	3,490	+1,410
July 31.....	22.7	22,360	+4,380	18.1	3,930	+440
Aug. 31.....	20.0	12,300	-10,060	14.3	1,370	-2,630
Sept. 30.....	19.2	9,780	-2,520	15.9	2,280	+980
Water year 1942-43.....	-	-	-18,220	-	-	-4,270

a No gage-height record; contents interpolated.

RIO GRANDE BASIN

Monthly gage-height and contents of reservoirs in the Rio Grande Basin,
water year October 1942 to September 1943--Continued

Red Bluff Reservoir							
Date	Elevation (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)	Date	Elevation (feet)	Contents (acre- feet)	Change in contents during month (acre- feet)
Sept. 30	2,841.2	302,000	-	Mar. 31	2,840.6	296,000	-4,000
Oct. 31	2,840.4	294,000	-8,000	Apr. 30	2,838.2	272,000	-24,000
Nov. 30	2,841.1	301,000	+7,000	May 31	2,836.5	255,000	-17,000
Dec. 31	2,841.1	301,000	-	June 30	2,835.3	243,000	-12,000
				July 31	2,835.7	227,000	-16,000
				Aug. 31	2,829.0	183,000	-44,000
Calendar year 1942	-	-	-11,000	Sept. 30	2,828.3	177,000	-6,000
Jan. 31	2,840.7	297,000	-4,000				
Feb. 28	2,841.0	300,000	+3,000	Water year 1942-43	-	-	-125,000

e Elevation based on observations near end of month.

Time basis: Mountain war time except Red Bluff Reservoir which is Central war time. To convert war time to standard time, subtract 1 hour.

Clear Creek below Continental Reservoir, Colo.

Location.- Water-stage recorder and Parshall flume, lat. 37°53', long. 107°11', in sec. 22, T. 42 N., R. 3 W., 1,000 feet downstream from Continental Reservoir and 15 miles west of Creede.

Drainage area.- 49 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. May 1929 to September 1943 in reports of State engineer.

Average discharge.- 14 years, 30.1 second-feet.

Extremes.- Maximum discharge during year, 194 second-feet May 2 (gage height, 2.57 feet); minimum daily, 3.5 second-feet Oct. 1-10.

1929-43: Maximum discharge, 313 second-feet May 4, 1937 (gage height, 3.41 feet); no flow June 22, 23, 1935.

Remarks.- Records fair. Flow regulated by Continental Reservoir (capacity, 26,700 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	11	11	11	11	11	11	150	113	74	77	42
2	3.5	11	11	11	11	11	11	185	119	69	75	34
3	3.5	11	11	11	11	11	11	193	92	69	76	30
4	3.5	11	11	11	11	11	11	192	82	64	76	30
5	3.5	11	11	11	11	11	11	192	84	60	76	30
6	3.5	11	11	11	11	11	11	171	94	60	76	23
7	3.5	11	11	11	11	11	11	152	98	64	79	20
8	3.5	11	11	11	11	11	11	138	96	74	78	20
9	3.5	11	11	11	11	11	11	106	92	77	77	16
10	3.5	11	11	11	11	11	11	86	79	77	74	14
11	4.6	11	11	11	11	11	11	85	82	77	67	14
12	5.6	11	11	11	11	11	11	69	87	73	65	16
13	7.0	11	11	11	11	11	11	65	87	69	68	18
14	7.8	11	11	11	11	11	11	63	87	63	70	18
15	7.4	11	11	11	11	11	11	58	81	70	68	18
16	8.6	11	11	11	11	11	11	57	77	73	65	18
17	9.8	11	11	11	11	11	11	57	75	87	67	17
18	9.0	11	11	11	11	11	11	56	74	82	67	16
19	8.2	11	11	11	11	11	11	57	76	75	65	15
20	8.2	11	11	11	11	11	11	57	69	70	66	16
21	8.2	11	11	11	11	11	11	58	63	70	64	11
22	8.2	11	11	11	11	11	11	58	68	68	53	9.0
23	8.2	11	11	11	11	11	11	57	67	60	42	8.6
24	9.8	11	11	11	11	11	11	125	63	64	72	34
25	11	11	11	11	11	11	11	151	67	64	77	32
26												9.8
28	11	11	11	11	11	11	11	165	84	81	31	11
27	11	11	11	11	11	11	11	164	95	83	37	12
28	11	11	11	11	11	11	11	145	94	82	44	12
29	11	11	11	11	11	11	11	130	96	87	45	12
30	11	11	11	11	11	11	11	130	113	87	44	11
31	11	11	11	11	11	11	11	113	87	87	44	11

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	222.5	11	3.5	7.18	441
November	330	11	11	11.0	655
December	341	11	11	11.0	876
Calendar year 1942	12,690.7	249	3.5	34.8	25,170
January	341	11	11	11.0	876
February	308	11	11	11.0	811
March	341	11	11	11.0	876
April	1,430	165	11	47.7	2,840
May	3,087	193	56	99.6	6,120
June	2,490	119	63	83.0	4,940
July	2,280	92	60	73.5	4,520
August	1,902	79	31	51.4	3,770
September	550.4	42	8.6	17.7	1,050
Water year 1942-43	13,602.9	193	3.5	37.3	26,980

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 1-7, Oct. 26 to Apr. 18; discharge computed on basis of one discharge measurement and records of flow from Continental Reservoir.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Goose Creek near Wagon Wheel Gap, Colo.

Location.— Water-stage recorder, lat. 37°41', long. 106°50', in NW¼ sec. 28, T. 40 N., R. 1 E., 1½ miles downstream from Roaring Fork and 6 miles south of Wagon Wheel Gap.

Drainage area.— 51 square miles.

Records available.— October 1939 to September 1943 (no winter records after October 1941). October 1924 to July 1926 at site 1 mile upstream.

Extremes.— Maximum discharge during year, 208 second-feet June 1 (gage height, 1.72 feet); minimum daily recorded, 9.2 second-feet Oct. 1.
1924-26, 1939-43: Maximum discharge, 780 second-feet June 23, 1941 (gage height, 2.99 feet), from rating curve extended above 500 second-feet; minimum, 8 second-feet (regulated) Nov. 29 to Dec. 16, 1924 (gage height, 0.08 foot, site and datum then in use).

Remarks.— Records good except those for periods of no gage-height record, which are fair. Lake Humphreys, above station (capacity, 842 acre-feet) has slight effect on flow.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	19					a35	130	157	81	36	a55
2	11	20					a34	130	181	70	31	a48
3	13	19					a36	140	132	65	32	41
4	12	19					a39	157	111	60	a35	40
5	11	15					a38	122	96	53	a36	36
6	10	19					a41	103	88	53	31	34
7	10	15					a37	102	90	50	31	32
8	10	19					a30	90	117	49	28	30
9	10	22					a23	83	140	46	a34	29
10	10	a16					a21	76	143	45	a55	28
11	13	16					a18	76	149	43	a52	27
12	15	15					a19	78	130	41	a45	25
13	21	17					20	78	115	40	40	27
14	18	19	(*)				30	76	94	38	42	26
15	a20	22					40	70	94	46	41	25
16	a21	19	14				41	70	95	42	a64	23
17	23	14					34	65	102	37	a56	22
18	24	17					38	67	109	37	a74	24
19	22	17					42	69	107	37	a80	23
20	21	18					52	74	113	22	61	22
21	20	12					50	76	117	34	53	20
22	19	12					61	70	109	41	46	20
23	21	13					74	70	a106	40	43	20
24	21	13					72	87	103	36	37	20
25	20	13					72	109	100	36	36	20
26	18	12					70	122	98	30	38	20
27	19	12					74	111	85	28	37	20
28	19	12					81	146	79	28	43	23
29	19	12					98	169	76	29	56	22
30	14	13					117	152	111	37	56	23
31	17	-					-	152	-	43	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	511.2	24	9.2	16.5	1,010
November.....	481	22	12	16.0	954
December.....	434	-	-	14	861
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	1,437	117	18	47.9	2,850
May.....	3,120	169	65	101	6,139
June.....	3,348	181	76	112	6,540
July.....	1,336	81	22	43.1	2,650
August.....	1,409	80	28	45.5	2,790
September.....	825	55	20	27.5	1,640
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for South Fork Rio Grande near South Fork.

Note.— No gage-height record Nov. 23 to Dec. 31 (stage-discharge relation affected by ice most of period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

South Fork Rio Grande at South Fork, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}40'$, long. $106^{\circ}39'$, in sec. 4, T. 38° N., R. 3 E., $\frac{1}{4}$ miles upstream from mouth and $\frac{1}{4}$ miles southwest of village of South Fork. Datum of gage is 8,221.79 feet above mean sea level, datum of 1929.

Drainage area.- 216 square miles.

Records available.- August 1910 to September 1913 and May 1936 to September 1943 in reports of Geological Survey. August 1910 to September 1922, and May 1936 to September 1943 in reports of State engineer. Records for 1910-22 at site 1 mile downstream.

Average discharge.- 19 years (1910-22, 1936-43), 241 second-feet.

Extremes.- Maximum discharge during year, 975 second-feet June 2 (gage height, 4.18 feet); minimum daily recorded, 28 second-feet Nov. 21, but may have been less during period of ice effect.

1910-22, 1936-43: Maximum discharge, 8,000 second-feet Oct. 5, 1911 (gage height, 9.7 feet, from floodmarks, site and datum now in use), from rating curve extended above 1,500 second-feet; minimum daily, 20 second-feet Jan. 1, 2, 8, 17, 23-25, 1915, Dec. 10 1937.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. A few small diversions above station for irrigation, and several small storage reservoirs.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	46	29				105	686	686	314	62	98
2	33	51	33				122	744	854	262	55	95
3	33	50	51				149	755	700	230	53	91
4	33	47	35				166	744	562	196	57	65
5	34	39		(*)		51	187	614	499	173	63	73
6	34	47					216	525	482	183	72	73
7	35	39					202	503	508	198	61	66
8	36	42					171	406	552	205	59	60
9	38	43					164	397	562	206	66	55
10	38	*32					137	380	571	185	93	51
11	41	33					119	355	618	162	69	49
12	48	34					109	300	567	113	62	49
13	66	36					117	300	503	93	65	51
14	56	37	(*)				153	320	458	88	66	47
15	57	41		35	52		192	325	446	95	66	43
16	56	38				52	206	300	434	88	89	42
17	56	33	41				177	270	426	75	65	40
18	53	41					177	250	442	71	102	41
19	51	37			(*)		222	255	446	71	108	41
20	48	38					270	290	454	79	84	39
21	49	26					281	317	450	64	71	36
22	49	49					330	306	426	89	68	36
23	45	49				*49	387	330	410	83	64	36
24	44	46				49	434	434	372	73	63	37
25	42	38				50	462	508	339	71	62	38
26	39	30				51	474	525	327	64	61	44
27	40	31				57	458	525	302	60	66	45
28	41	31				67	474	647	287	65	62	50
29	45	34				78	508	719	281	68	61	46
30	37	33				82	585	676	458	64	107	55
31	40	-				87	-	642	-	74	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,348	66	32	43.5	2,670
November.....	1,173	51	28	38.1	2,330
December.....	1,235	-	-	39.8	2,450
Calendar year 1942	79,970	1,440	-	216	156,600
January.....	1,065	-	-	31	2,160
February.....	1,456	-	-	52	2,690
March.....	1,704	-	-	55.0	3,380
April.....	7,758	585	105	259	15,390
May.....	14,347	755	250	463	28,460
June.....	14,402	854	261	480	28,570
July.....	3,872	314	58	125	7,680
August.....	2,201	108	53	71.0	4,370
September.....	1,617	98	36	52.9	3,210
Water year 1942-43	52,198	854	-	143	103,600

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 4 to Apr. 3 (no gage-height record Dec. 7 to Mar. 22; discharge computed on basis of three discharge measurements and weather records). No gage-height record May 9-20, Aug. 25 to Sept. 16; discharge computed on basis of two discharge measurements and records for Rio Grande near Del Norte, Colo.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pinos Creek near Del Norte, Colo.

Location.- Water-stage recorder and Parshall flume, lat. $37^{\circ}27'$, long. $10^{\circ}35'$, in sec. 29, T. 39 N., R. 5 E., just downstream from Bennett Creek and 8 miles southwest of Del Norte.

Drainage area.- 53 square miles.

Records available.- May 1936 to September 1943 in reports of Geological Survey. May 1919 to September 1924 and May 1936 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 107 second-feet Aug. 17 (gage height, 1.43 feet); minimum daily recorded, 6.0 second-feet Sept. 25.
1919-24, 1936-43: Maximum daily discharge, 2,400 second-feet June 3, 1922; minimum not determined.

Remarks.- Records good except those for period of no gage-height record, which are fair.. One small diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	13					a17	63	50	25	13	14
2	9.9	10					17	68	63	21	9.2	13
3	9.9	9.9					18	64	54	20	8.4	11
4	9.9	a9.2					19	63	48	18	10	11
5	9.9						20	45	42	16	12	9.9
6	10						23	42	40	15	14	8.8
7	10						20	50	40	15	13	8.1
8	10						15	41	40	15	10	7.7
9	10						16	38	40	14	16	7.7
10	10						13	39	44	14	18	7.4
11	10						9.9	40	46	13	13	7.0
12	9.9						10	37	42	11	13	7.0
13	10						14	34	37	10	12	7.4
14	9.5		†9.2				17	34	34	11	12	8.8
15	8.8						22	32	32	14	20	7.7
16	9.9						24	30	30	12	19	7.7
17	10	a9.2					17	30	29	11	22	7.4
18	11						17	30	28	9.9	25	7.0
19	10						20	29	30	9.9	20	6.7
20	9.9						26	30	29	9.9	17	6.4
21	9.9						29	32	29	11	15	6.4
22	10						35	30	28	20	15	6.4
23	9.9						44	30	28	12	14	6.4
24	9.5						52	38	26	9.9	13	6.4
25	9.2						53	42	26	9.9	12	5.0
26	8.8						50	42	25	8.4	15	6.7
27	8.8						46	41	29	8.1	15	7.4
28	9.2						47	46	23	8.1	16	7.4
29	8.8						53	49	23	8.1	15	7.0
30	9.9						59	50	32	15	17	8.4
31	14	-					-	50	-	15	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	306.1	14	8.8	9.87	607
November.....	281.5	-	-	9.38	568
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	821.9	59	9.9	27.4	1,630
May.....	1,288	68	29	41.5	2,550
June.....	1,064	63	23	35.5	2,110
July.....	410.2	25	8.1	13.2	814
August.....	464.6	25	8.4	15.0	922
September.....	240.2	14	6.0	8.01	476
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

a No gage-height record (stage-discharge relation affected by ice during most of period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rock Creek near Monte Vista, Colo.

Location.- Water-stage recorder and 8-foot Parshall flume, lat. 37°29', long. 106°16', in ~~SE~~ sec. 36, T. 38 N., R. 6 E., 3 miles downstream from North Fork and 9 miles southwest of Monte Vista.

Drainage area.- 33.6 square miles.

Records available.- May 1935 to September 1943 in reports of Geological Survey. April 1919 to September 1924 and May 1935 to September 1943 in reports of State engineer. (No winter records.)

Extremes.- Maximum discharge during year, 39 second-feet July 31 (gage height, 1.10 feet); minimum daily recorded, 2.6 second-feet Oct. 30, July 28, 1935-43: Maximum discharge, 161 second-feet May 13, 1941 (gage height, 2.63 feet); minimum not determined.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	4.0				-	7.4	25	12	11	12	10
2	3.4	4.0				-	6.4	24	16	7.7	4.9	9.5
3	3.4	4.3				-	9.8	22	15	7.1	4.9	8.1
4	3.4	3.6				-	9.5	21	14	6.8	5.4	8.8
5	3.4	3.4				-	11	18	12	6.4	6.4	8.4
6	3.4	3.8				-	11	17	11	7.1	9.8	8.4
7	3.4	3.8				-	8.8	19	11	7.1	6.4	8.1
8	3.4	3.8				-	7.7	16	11	6.8	6.1	7.7
9	3.4	4.0				-	8.1	14	10	6.1	9.1	7.7
10	3.4	4.0				-	7.1	13	11	5.8	12	7.4
11	3.4	4.0				-	6.1	13	12	5.8	8.4	7.1
12	3.6	4.9				-	5.8	13	11	5.8	8.1	6.8
13	4.0	5.4				-	6.6	12	11	4.9	8.1	7.1
14	3.8	4.5				-	8.1	12	9.8	6.1	8.1	7.7
15	3.8	4.0				-	9.5	11	9.5	5.8	8.1	6.8
16	3.8	4.0				-	9.8	11	9.1	4.0	8.1	6.4
17	3.8	4.7				-	8.4	11	9.1	3.4	13	6.1
18	3.8	4.7				-	9.1	9.8	8.8	3.2	16	6.1
19	3.6	4.9				-	11	9.8	8.8	3.2	11	6.1
20	3.4	4.0				-	12	9.1	6.1	3.2	11	5.8
21	3.6	4.0				-	13	10	7.7	3.4	11	6.8
22	3.6	4.3				-	15	9.6	7.7	4.7	10	5.4
23	3.4	4.3				-	18	9.1	7.4	4.0	9.8	6.4
24	3.4	4.0				3.6	20	9.5	7.1	3.2	8.8	5.4
25	3.2	4.3				4.3	21	10	7.1	3.2	8.4	5.1
26	3.2	4.4				4.0	21	10	7.1	2.8	11	5.4
27	3.2	4.6				4.5	19	9.6	7.7	2.8	16	6.1
28	3.2	4.8				4.9	20	10	10	2.6	11	6.1
29	3.4	4.4				6.8	23	11	11	2.8	11	6.4
30	2.6	4.3				7.4	24	11	14	6.1	12	7.7
31	3.4	-				7.1	-	11	-	7.7	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	107.2	4.0	2.6	3.46	213
November.....	119.4	5.4	3.0	3.98	237
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 24-31.....	42.6	7.4	3.6	5.32	84
April.....	369.4	24	6.8	12.3	733
May.....	411.3	25	9.1	13.3	816
June.....	307.0	15	7.1	10.2	609
July.....	159.6	11	2.6	5.15	317
August.....	297.9	18	4.9	9.61	591
September.....	209.9	10	5.1	7.00	416
Water year.....	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record (stage-discharge relation probably affected by ice during part of period); discharge computed on basis of weather records.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

193

Closed basin in San Luis Valley, Colo.

Kerber Creek at Ashley Ranch, near Villa Grove, Colo.

Location.- Water-stage recorder, lat. $38^{\circ}15'$, long. $106^{\circ}08'$, in sec. 7, T. 43 N., R. 8 E., at Ashley Ranch, 10 miles west of Villa Grove.

Drainage area.- 38 square miles.

Records available.- May 1936 to September 1943 in reports of Geological Survey. June 1923 to September 1926 and May 1936 to September 1943 in reports of State engineer. (No winter records some years.)

Extremes.- Maximum discharge during year, 86 second-feet May 1 (gage height, 2.49 feet); minimum daily recorded, 1.3 second-feet Nov. 27-30.
1923-26, 1936-43: Maximum discharge, 407 second-feet May 14, 1941 (gage height, 3.88 feet), from rating curve extended above 150 second-feet; minimum daily recorded, 1.2 second-feet Aug. 14, 16, 17, 1940.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	4.7					4.5	80	37	18	4.5	5.6
2	3.0	4.7					4.8	80	41	15	4.9	5.4
3	3.0	4.7					5.2	77	36	13	4.7	5.2
4	3.0	4.9					5.3	76	28	11	4.7	4.5
5	3.1	4.1					5.4	58	24	10	4.7	4.3
6	2.8	6.2					5.2	46	21	9.2	4.5	3.8
7	3.1	4.5					4.8	38	22	13	4.3	3.6
8	3.1	5.2					4.5	31	24	10	4.5	3.2
9	3.0	b4.0	tl.3				4.5	25	25	9.2	4.5	3.1
10	3.0	b3.5					4.1	24	31	8.2	5.2	3.2
11	3.2	b2.5					4.9	25	33	7.5	5.6	3.0
12	3.4	b3.0					4.7	27	26	7.2	5.6	3.0
13	4.7	b1.9					5.2	26	24	6.2	4.7	2.8
14	4.5	b1.8					6.6	26	21	6.9	6.2	3.0
15	4.9	b2.4					9.2	27	19	5.6	5.2	2.8
16	4.7	b2.2						24	19	6.6	5.4	2.8
17	4.3	*2.0					13	20	19	5.6	5.9	3.2
18	3.8	2.0					14	20	19	5.2	8.2	3.8
19	3.6	2.0					20	17	17	4.9	6.2	3.6
20	3.6	2.0					26	19	18	4.9	6.2	3.2
21	3.8	1.6					29	19	18	4.9	6.2	3.2
22	3.8	1.7					32	19	18	6.2	8.5	3.1
23	3.8	1.7					41	19	17	6.2	7.2	3.0
24	3.6	1.6					48	21	16	5.6	7.2	3.1
25	3.8	1.5				tl.5	47	24	16	5.2	6.9	3.1
26	4.3	1.4					48	28	17	4.5	7.8	3.0
27	3.8	1.3					47	31	17	4.5	6.9	3.1
28	*4.9	1.3					48	38	16	4.5	6.6	3.2
29	4.7	1.3					56	43	20	4.7	6.6	3.6
30	3.0	1.3					76	39	24	4.9	7.5	3.6
31	3.4	-						36	-	4.7	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	113.7	4.9	2.8	3.67	226
November.....	82.0	6.2	1.3	2.73	163
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	635.9	76	4.1	21.2	1,260
May.....	1,083	80	17	34.9	2,150
June.....	683	41	16	22.8	1,350
July.....	233.1	18	4.5	7.52	462
August.....	184.6	8.5	4.3	5.95	366
September.....	105.1	5.6	2.8	3.50	208
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

‡ Stage-discharge relation affected by ice.

Note.- No gage-height record Nov. 17-30, Apr. 1-7 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

Saguache Creek near Saguache, Colo.

Location.— Water-stage recorder, lat. $38^{\circ}09'$, long. $106^{\circ}19'$, in sec. 11, T. 45 N., R. 6 E., 10 miles northwest of Saguache.

Drainage area.— 595 square miles.

Records available.— August 1910 to September 1912 and October 1933 to September 1943 in reports of Geological Survey. August 1910 to September 1912 and June 1914 to September 1943 in reports of State engineer. (No winter records some years.)

Extremes.— Maximum discharge during year, 165 second-feet Aug. 19 (gage height, 1.25 feet); minimum daily recorded, 20 second-feet Nov. 27, 28.
1910-12, 1914-43: Maximum discharge, 745 second-feet June 15, 1921 (gage height, 3.45 feet, datum then in use); minimum daily recorded, 14 second-feet Oct. 1, 2, 1933, July 15, Sept. 12, 1940.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	35				-	53	101	84	88	59	84
2	32	37				-	57	101	93	68	55	74
3	33	36				-	63	105	111	56	57	69
4	32	36				-	74	122	88	40	59	65
5	31	32				-	69	126	69	49	65	59
6	31	34				-	76	101	62	45	62	a54
7	32	36				-	74	113	60	45	62	49
8	31	34				-	66	103	62	52	63	45
9	31	37	†20			-	50	92	62	52	62	45
10	31	32				-	52	61	66	48	76	49
11	32	27				-	41	76	97	44	92	47
12	36	33				-	43	69	93	47	103	44
13	41	33				-	a46	66	88	44	77	42
14	38	35				-	50	62	69	42	77	49
15	41	38				-	52	60	52	60	84	45
16	38	*45				-	57	66	50	60	90	42
17	42	b38				-	60	59	50	53	122	43
18	41	b32				-	55	56	50	47	148	42
19	41	b29				-	60	56	57	41	138	38
20	39	27				-	69	56	57	38	109	38
21	38	23				-	68	65	62	38	103	36
22	37	24				-	71	65	60	41	109	34
23	37	24				32	90	63	62	50	105	34
24	36	26				29	92	59	52	57	97	35
25	36	24				32	38	59	56	57	92	35
26	36	23				37	96	73	52	50	90	34
27	34	20				49	79	76	57	38	97	36
28	39	20				55	77	73	50	38	84	45
29	36	21				68	64	101	66	41	77	43
30	34	21				66	97	115	111	45	92	42
31	28	-				65	-	93	-	58	115	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,096	42	28	35.4	2,170
November.....	909	45	20	30.3	1,800
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 23-31.....	431	68	29	47.9	855
April.....	1,999	97	41	66.6	3,960
May.....	2,523	126	56	81.4	5,000
June.....	2,040	111	50	68.0	4,050
July.....	1,561	88	36	50.4	3,100
August.....	2,721	148	55	87.8	5,400
September.....	1,397	84	34	46.6	2,770
Water year.....	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

Note.— No gage-height record Nov. 13-15, 20-30 (stage-discharge relation probably affected by ice during entire period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

North Crestone Creek near Crestone, Colo.

Location.- Water-stage recorder, lat. $38^{\circ}01'$, long. $105^{\circ}41'$, in sec. 5, T. 43 N., R. 12 E., $1\frac{1}{2}$ miles upstream from Crestone and 3 miles upstream from South Crestone Creek.

Drainage area.- 10.7 square miles.

Records available.- May 1936 to September 1943 (no winter records).

Extremes.- Maximum discharge during year, 265 second-feet June 30 (gage height, 2.63 feet); minimum daily recorded 2.4 second-feet Sept. 22.
1936-43: Maximum discharge, 735 second-feet Aug. 6, 1936 (gage height, 4.33 feet), by slope-area method; minimum daily recorded, 2.1 second-feet Aug. 19, 24, 1939.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	a5.5				-	7.6	38	38	41	6.6	5.6
2	6.3	5.6				-	9.2	37	38	32	6.3	5.0
3	6.3	5.6				-	12	41	24	25	6.5	4.8
4	6.3	5.8				-	12	39	18	21	6.3	4.6
5	6.0	5.3				-	12	29	17	18	6.3	4.2
6	a5.8	5.6				-	12	24	19	16	6.3	4.2
7	a5.5	5.6				-	11	21	21	16	5.6	3.8
8	5.3	5.6				-	9.7	18	25	15	5.3	3.8
9	5.3	5.3				-	9.2	17	25	14	5.0	4.0
10	a5.3	4.6				-	7.8	18	24	13	5.3	3.8
11	5.3	4.6				-	7.0	21	25	12	5.3	3.5
12	5.3	5.3				-	7.3	21	25	11	5.0	3.3
13	5.8	5.3				-	7.6	19	22	11	5.0	3.3
14	5.6	5.0				-	8.6	18	18	11	6.0	3.8
15	5.8	4.8				-	10	16	17	11	7.8	3.5
16	5.8	4.4				-	11	14	16	10	14	4.0
17	5.3	4.4				-	11	14	17	9.5	11	3.1
18	5.8	4.4				-	11	13	19	9.2	12	3.3
19	5.8	4.2				-	12	13	18	8.6	11	3.1
20	5.6	4.2				-	14	13	20	8.4	9.7	2.7
21	5.3	a4.1				-	14	14	20	9.5	9.2	2.6
22	5.3	a4.1				-	15	14	20	11	8.4	2.4
23	5.3	a4.1				-	20	15	19	9.7	7.8	2.7
24	a5.6	a4.1				-	25	22	18	9.2	7.3	3.1
25	a5.8	a4.1				3.8	24	23	18	8.9	6.8	2.7
26	6.0	a4.0				5.8	22	28	16	8.1	6.8	3.5
27	6.0	a4.0				4.2	21	29	15	8.1	6.8	5.0
28	6.0	a4.0				5.8	22	40	15	7.8	6.6	4.0
29	6.0	a4.0				9.5	28	44	15	7.3	6.3	4.4
30	a5.8	a4.0				6.9	35	40	68	7.0	6.3	4.4
31	a5.6	-				7.6	-	34	-	6.6	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	177.6	6.8	5.3	5.75	352
November.....	141.6	5.8	4.0	4.72	281
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 25-31.....	45.6	9.5	3.8	6.25	86
April.....	425.0	35	7.0	14.3	849
May.....	752	44	13	24.3	1,490
June.....	670	68	15	22.3	1,330
July.....	406.2	41	6.6	13.1	806
August.....	225.0	14	5.0	7.26	446
September.....	112.4	5.6	2.4	3.75	223
Water year ^a	-	-	-	-	-

a No gage-height record; discharge computed on basis of weather records and records for other stations in closed basin.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Closed basin in San Luis Valley, Colo.

Carnero Creek near La Garita, Colo.

Location.- Water-stage recorder, lat. 37°52', long. 106°20', in sec. 26, T. 42 N., R. 6 E., 3 miles northwest of La Garita.

Drainage area.- 117 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey.

April 1919 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 520 second-feet Aug. 12 (gage height, 2.55 feet), from Rating curve extended above 180 second-feet; minimum daily recorded, 0.8 second-foot July 19.

1919-43: Maximum discharge recorded, that of Aug. 12, 1943, probably more on Apr. 14, 1924; minimum daily, 0.5 second-foot July 9, 1940.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	5.6				-	16	6.9	5.0	4.4	5.9	20
2	2.6	6.0				-	16	6.5	4.7	3.0	4.7	19
3	2.4	5.6				-	18	6.1	8.1	2.4	5.6	18
4	2.4	5.8				-	18	9.9	7.6	1.8	6.0	16
5	2.4	5.4				-	13	10	5.9	1.5	6.2	12
6	2.4	5.6				-	13	6.9	5.0	1.4	13	11
7	2.4	5.8				-	9.7	11	4.1	1.5	9.7	10
8	2.4	5.6				-	8.1	13	3.4	1.5	6.5	10
9	2.6	6.2				-	7.6	11	3.4	1.6	11	9.5
10	2.8	5.9	†2.2			-	9.3	8.9	3.4	1.2	19	9.7
11	2.8	6.2				-	6.5	7.6	5.6	1.0	18	9.3
12	3.2	6.5				-	9.3	6.2	5.0	1.2	84	7.6
13	6.3	6.2				-	9.7	6.2	4.1	1.4	42	7.6
14	6.3	7.6				-	12	5.9	3.0	.9	32	10
15	4.7	6.8				-	13	6.2	3.0	1.6	27	6.5
16	4.7	*6.2				-	12	6.2	2.6	2.6	31	6.8
17	4.7	6.2				-	11	6.2	2.6	1.6	30	6.5
18	4.6	6.0				-	12	5.6	2.6	1.2	47	6.8
19	4.6	6.0				-	12	5.3	2.4	.8	53	6.5
20	4.2	6.0				-	13	5.0	2.6	.9	51	6.3
21	4.2	4.5				-	12	5.0	2.4	1.4	40	5.0
22	4.0	4.0				-	12	4.7	2.0	1.2	41	4.4
23	4.0	4.0				-	13	4.4	1.6	3.2	36	4.1
24	3.8	4.0				-	12	4.4	1.4	2.6	31	4.1
25	3.8	4.0				b6.5	11	3.8	1.4	2.8	29	4.1
26	3.8	4.0				b4.7	9.7	3.8	1.2	3.2	29	4.1
27	3.8	4.0				b6.0	8.1	3.8	1.0	2.0	38	5.3
28	5.0	4.0				b6.1	7.6	3.8	1.4	1.6	25	7.2
29	5.3	4.0				9.7	8.1	4.4	2.2	1.8	25	6.8
30	5.0	4.0				14	8.1	5.3	5.0	2.0	25	7.2
31	5.0	-				18	-	5.6	-	6.2	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	117.2	5.3	2.4	3.78	232
November.....	161.7	7.6	4.0	5.39	321
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 25-31.....	65.0	16	4.7	9.29	129
April.....	342.8	16	7.6	11.4	680
May.....	205.6	13	3.8	6.66	410
June.....	103.7	8.1	1.0	3.46	208
July.....	61.7	6.2	.8	1.99	122
August.....	845.6	84	4.7	27.3	1,680
September.....	262.2	20	4.1	8.74	520
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Oct. 1-2, 18-24, Nov. 2-9, 18-30; discharge computed on basis of weather records and records for Saguache Creek near Saguache.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

La Garita Creek near La Garita, Colo.

Location.-- Water-stage recorder, lat. 37°49', long. 106°18', in sec. 10, T. 41 N., R. 6 E., 4 miles southwest of La Garita.

Drainage area.-- 61 square miles.

Records available.-- October 1933 to September 1943 in reports of Geological Survey.
April 1919 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.-- Maximum discharge during year, 418 second-feet Aug. 16--(gage height, 3.00 feet), from rating curve extended above 120 second-feet; minimum daily recorded, 2.6 second-feet July 20, 21.
1919-43: Maximum discharge, 457 second-feet May 16, 1941 (gage height, 5.11 feet), from rating curve extended above 220 second-feet; minimum daily, 0.7 second-foot Aug. 29, 1940.

Remarks.-- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	6.8					8.9	12	11	5.0	4.4	12
2	4.8	7.3					8.6	12	20	4.4	4.4	12
3	4.8	6.9					11	11	18	4.2	5.0	11
4	4.8	7.1					12	10	12	4.0	6.5	10
5	4.8	6.8					13	10	11	3.8	5.6	10
6	4.8	7.1					19	10	7.1	3.8	8.4	9.7
7	4.8	7.3					14	12	6.5	3.8	6.2	9.4
8	4.8	7.1					7.8	13	6.0	5.0	5.3	8.7
9	5.2	7.9	13.6				6.2	11	6.0	4.6	8.7	8.4
10	5.2	7.6					5.6	9.8	6.0	3.8	7.4	8.1
11	5.2	7.9					3.8	9.5	9.5	3.5	7.8	7.8
12	5.5	8.2					5.2	8.0	8.6	4.8	12	7.8
13	7.0	7.9					4.8	7.3	7.6	3.5	18	8.1
14	7.0	9.3					7.1	6.9	6.7	3.3	16	9.7
15	6.5	8.5					12	7.6	6.0	6.2	12	8.7
16	6.8	7.9					11	7.3	5.8	5.0	30	8.1
17	6.5	-					7.1	7.3	5.6	3.6	27	7.4
18	6.4	-					9.2	7.8	5.6	3.0	19	7.1
19	6.2	-					9.2	7.3	5.6	2.8	19	6.2
20	5.8	-					14	8.9	5.2	2.6	20	5.3
21	5.8	-					9.8	11	5.0	2.6	14	5.0
22	5.6	-					11	11	4.2	13	17	5.0
23	5.6	-					15	9.2	4.0	7.1	14	5.0
24	5.4	-					16	8.9	4.0	5.9	14	5.0
25	5.4	-				16.8	15	8.9	4.0	5.9	16	4.7
26	5.4	-					13	8.6	3.8	5.6	19	4.4
27	5.4	-					10	8.6	5.0	5.3	19	6.2
28	6.6	-					9.8	9.2	4.6	4.7	16	6.2
29	6.4	-					9.8	11	5.6	4.7	16	6.5
30	6.1	-					13	15	8.6	5.6	14	5.9
31	6.1	-					-	13	-	5.3	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	175.7	7.0	4.8	5.67	348
November 1-16.....	121.6	9.3	6.8	7.60	241
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	311.9	19	3.8	10.4	619
May.....	303.1	15	6.9	9.78	601
June.....	216.6	20	3.8	7.29	434
July.....	146.4	13	2.6	4.72	290
August.....	414.7	30	4.4	13.4	823
September.....	229.4	12	4.4	7.65	455
Water year.....	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

Notes.-- No gage-height record Oct. 5, 6, 11-24, Nov. 2-16; discharge computed on basis of one discharge measurement, weather records, and records for Camero Creek near La Garita.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Alamosa Creek above Terrace Reservoir, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 106°21', in sec. 8, T. 36 N., R. 6 E., 3 miles upstream from Terrace Reservoir Dam and 15 miles northwest of Capulin.

Drainage area.- 107 square miles.

Records available.- September 1911 to June 1912 and October 1934 to September 1943 in reports of Geological Survey. April 1915 to October 1919, October 1923 to September 1927, and October 1934 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 718 second-feet May 1 (gage height, 2.96 feet); minimum daily recorded, 14 second-feet Oct. 31, Nov. 1, 5, 8, 10, Mar. 15, 16.
1911-12, 1915-19, 1923-27, 1934-43: Maximum discharge 5,200 second-feet Oct. 5, 1911 (gage height, 11.0 feet, datum then in use, from floodmark), computed by weir formula; minimum not determined.

Remarks.- Records excellent above 50 second-feet and good below.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	14				-	53	536	403	191	63	50
2	18	16				-	62	554	476	162	46	40
3	18	16				-	79	536	336	138	44	36
4	18	16				-	86	482	279	122	46	34
5	17	14				-	88	336	258	109	50	33
6	17	17				-	105	283	242	101	58	30
7	17	15				-	101	283	262	97	47	28
8	17	14				-	84	230	301	101	43	26
9	18	15				-	85	197	323	95	47	27
10	18	14				-	68	179	346	92	77	27
11	18	15				-	57	194	341	83	55	26
12	18	17				-	55	210	292	76	44	23
13	21	18				-	53	197	254	71	40	23
14	22	17				-	71	197	227	69	46	23
15	21	17				14	95	173	254	76	56	23
16	22	-				14	117	173	234	65	61	22
17	22	-				16	95	188	230	57	50	23
18	22	-				16	86	204	246	53	97	23
19	21	-				17	97	210	246	49	68	21
20	20	-				18	148	238	242	49	61	21
21	19	-				18	173	230	230	50	49	19
22	19	-				20	214	204	223	55	46	19
23	20	-				20	283	214	210	68	43	18
24	20	-				17	341	314	197	55	37	17
25	20	-				16	369	369	182	52	36	17
26	19	-				18	364	379	173	46	38	20
27	18	-				21	341	354	170	41	46	19
28	17	-				26	379	430	182	40	39	a22
29	17	-				35	430	430	173	40	46	a21
30	18	-				44	482	398	254	61	53	a22
31	15	-				47	-	384	-	61	66	-
	14											

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	582	22	14	18.8	1,150
November 1-15.....	235	18	14	15.7	466
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 15-31.....	376	47	14	22.1	746
April.....	5,059	482	53	169	10,030
May.....	9,306	554	173	300	18,460
June.....	7,766	476	170	259	15,400
July.....	2,423	191	40	78.2	4,510
August.....	1,608	97	36	51.9	3,190
September.....	752	50	17	25.1	1,490
Water year.....	-	-	-	-	-

a No gage-height record; discharge computed on basis of record for Goose Creek near Wagon Wheel Gap.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

Alamosa Creek below Terrace Reservoir, Colo.

Location.- Water-stage recorder, lat. 37°21', long. 106°17', in sec. 23, T. 36 N., R. 6 E., half a mile downstream from Terrace Reservoir and 11 miles northwest of Capulin.

Drainage area.- 116 square miles.

Records available.- April 1909 to June 1912, October 1933 to September 1943 in reports of Geological Survey. April 1909 to November 1912, April to October 1915, February 1917 to October 1920, and April 1922 to September 1943 in reports of State engineer.

Average discharge.- 25 years (1909-10, 1915-18, 1922-43), 122 second-feet.

Extremes.- Maximum discharge during year, 557 second-feet May 3 (gage height, 3.73 feet); minimum daily, 0.2 second-foot Nov. 13.

1909-12, 1915, 1917-20, 1922-43: Maximum daily discharge, 1,450 second-feet June 16-18, 1917; minimum daily, that of Nov. 13, 1942.

Remarks.- Records excellent above 100 second-feet and good below except those for period of no gage-height record, which are fair. No diversion above station. Flow regulated by Terrace Reservoir (capacity, 17,700 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	11	2.0	2.0	2.0	2.0	76	477	405	240	64	50
2	19	10	2.0	2.0	2.0	2.0	99	485	417	237	81	50
3	19	10	2.0	2.0	2.0	2.0	101	549	409	189	72	49
4	19	11	2.0	2.0	2.0	2.0	103	549	303	159	71	54
5	18	11	2.0	2.0	2.0	2.0	134	449	278	126	67	60
6												
7	18	10	2.0	2.0	2.0	2.0	134	300	278	117	71	61
8	18	11	2.0	2.0	2.0	2.0	144	300	250	109	71	62
9	18	9.8	2.0	2.0	2.0	2.0	150	300	275	111	69	61
10	19	9.8	2.0	2.0	2.0	2.0	150	264	314	115	67	60
11	19	11	2.0	2.0	2.0	2.0	139	201	328	115	67	54
12	19	11	2.0	2.0	2.0	2.0	115	207	334	111	67	32
13	19	2.5	2.0	2.0	2.0	2.0	115	207	334	89	67	30
14	22	.2	2.0	2.0	2.0	2.0	113	204	306	87	67	30
15	23	1.7	2.0	2.0	2.0	2.0	111	192	250	81	69	32
16	22	1.0	2.0	2.0	2.0	5.1	117	189	224	81	71	32
17												
18	23	2.1	2.0	2.0	2.0	5.1	137	186	247	61	71	32
19	23	2.0	2.0	2.0	2.0	6.2	139	183	258	76	71	29
20	23	2.0	2.0	2.0	2.0	15	124	186	258	64	71	28
21	22	2.0	2.0	2.0	2.0	17	113	192	261	52	91	26
22	21	2.0	2.0	2.0	2.0	18	113	217	261	52	95	26
23												
24	21	2.0	2.0	2.0	2.0	18	144	237	258	61	97	26
25	21	2.0	2.0	2.0	2.0	18	177	244	250	53	97	26
26	21	2.0	2.0	2.0	2.0	19	227	237	227	62	87	22
27	21	2.0	2.0	2.0	2.0	19	349	253	224	67	74	18
28	21	2.0	2.0	2.0	2.0	19	373	314	224	54	62	16
29												
30	21	2.0	2.0	2.0	2.0	21	373	373	201	46	43	13
31	20	2.0	2.0	2.0	2.0	21	358	377	192	30	44	13
	20	2.0	2.0	2.0	2.0	21	354	377	195	3.0	43	14
	19	2.0	2.0	2.0	-	50	358	413	217	20	44	15
	16	2.0	2.0	2.0	-	72	429	417	230	61	49	22
	11	-	2.0	2.0	-	74	-	409	-	61	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	615	23	11	19.8	1,220
November.....	150.9	11	.2	5.03	299
December.....	62.0	2.0	2.0	2.00	123
Calendar year 1942	52,400.9	1,040	.2	144	103,900
January.....	62.0	2.0	2.0	2.00	123
February.....	56.0	2.0	2.0	2.00	111
March.....	447.8	74	2.0	14.4	888
April.....	5,509	429	76	184	10,930
May.....	9,468	549	183	306	18,780
June.....	8,208	417	192	274	16,290
July.....	2,800.0	240	5.0	90.3	5,559
August.....	2,132	97	43	68.8	4,230
September.....	1,043	62	13	34.8	2,070
Water year 1942-43	30,553.7	549	.2	83.7	60,800

Note.- No gage-height record Oct. 1-21, July 20 to Aug. 1, Nov. 17 to Mar. 13; discharge computed on basis of records for Terrace Reservoir and station above Terrace Reservoir.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

La Jara Creek at Gallegos Ranch, near Capulin, Colo.

Location.- Water-stage recorder, lat. 37°09', long. 106°13', in NE¼ sec. 32, T. 34 N., R. 7 E., 2 miles upstream from former station (published as La Jara Creek near Capulin, Colo.), 2½ miles upstream from Canyon del Rancho, 11 miles southwest of Capulin, and 1½ miles downstream from La Jara Reservoir.

Drainage area.- 79 square miles.

Records available.- May 1936 to September 1943 (no winter records).

Extremes.- Maximum discharge during year, 594 second-feet Aug. 10 (gage height, 5.61 feet), from rating curve extended above 150 second-feet; minimum daily recorded, 5.0 second-feet Nov. 26-30.

1936-43: Maximum discharge, 653 second-feet Apr. 15, 1937 (gage height, 5.94 feet), from rating curve extended above 220 second-feet; minimum daily recorded, 3.5 second-feet Nov. 28, 1936.

Remarks.- Records fair. Small diversions above station for irrigation. Flow regulated by La Jara Reservoir (capacity, 14,040 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	9.0					16	70	17	13	26	17
2	8.5	9.0					20	68	17	8.5	25	14
3	9.0	9.0					34	58	17	7.5	27	13
4	9.0	7.5					43	49	17	7.0	29	11
5	9.0	7.0					46	44	17	6.5	32	10
6	9.0	9.0					52	38	17	6.0	24	9.0
7	9.0	8.5					41	40	16	6.5	23	7.0
8	9.5	9.0					34	37	11	6.5	22	7.0
9	9.0	42				8.5	37	31	11	8.0	31	7.0
10	9.5	41					37	30	12	9.0	72	7.0
11	9.5	44					26	28	16	7.5	59	7.5
12	10	430					26	26	14	7.5	23	7.5
13	11	30					30	26	12	7.0	26	8.0
14	12	14					46	26	10	7.0	22	8.0
15	10	7.5					55	25	10	11	26	8.0
16	12	7.0					60	24	9.0	6.5	24	8.0
17	13	7.0				10	61	23	9.0	7.5	23	8.0
18	14	7.0				9.5	58	22	9.0	7.0	30	7.5
19	12	7.0				8.5	58	35	9.5	7.0	26	7.5
20	11	7.0				14	79	36	8.5	9.0	23	7.5
21	11	6.5				12	91	38	8.5	9.0	21	7.0
22	9.5	6.0				9.0	96	39	7.5	18	13	7.0
23	9.5	6.0				7.5	109	36	7.0	11	11	7.0
24	9.0	6.0				48.0	100	36	7.0	8.0	8.0	7.0
25	8.5	6.0				8.0	a90	23	7.5	8.0	6.0	7.5
26	8.5	5.0				8.5	a80	16	7.5	6.5	11	7.5
27	8.5	5.0				9.5	a75	16	8.0	6.5	14	8.0
28	8.5	5.0				9.5	74	16	12	6.0	11	8.5
29	9.0	5.0				13	69	16	14	23	14	9.0
30	9.0	5.0				14	71	16	16	26	27	9.5
31	9.0	-				14	-	17	-	28	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	304.5	14	8.5	9.82	604
November.....	367.0	44	5.0	12.2	728
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	9.35	575
April.....	290.0	109	16	57.2	3,400
May.....	1,004	70	16	32.4	1,990
June.....	354.0	17	7.0	11.8	702
July.....	307.5	28	6.0	9.92	610
August.....	755.0	72	6.0	24.4	1,500
September.....	256.5	17	7.0	8.55	509
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for nearby stations.

Note.- No gage-height record Nov. 17-30, Mar. 1-17 (stage-discharge relation affected by ice during most of period); discharge computed on basis of weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Trinchera Creek above Turners Ranch, near Fort Garland, Colo.

Location.- Water-stage recorder, lat. 37°22', long. 105°19', in sec. 2, T. 31 S., R. 71 W., just upstream from Turners Ranch and 7 miles southeast of Fort Garland.

Drainage area.- 45 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. April 1923 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 47 second-feet May 10 (gage height, 2.49 feet); minimum daily, 3.0 second-feet Oct. 3.
1923-43: Maximum discharge, 689 second-feet May 27, 1942, from rating curve extended above 220 second-feet; maximum gage height, 3.44 feet June 5, 1942; minimum daily discharge, that of Oct. 3, 1942.

Remarks.- Records good above 15 second-feet and fair below. No diversion or regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	10					15	35	35	17	8.5	12
2	4.5	10					17	36	36	17	8.0	11
3	2.0	10					20	38	36	17	9.0	11
4	4.0	10					20	42	38	16	12	10
5	6.0						20	42	36	15	16	9.5
6	8.0						20	41	35	15	11	9.5
7	7.0						20	43	33	14	8.5	9.0
8	6.0						17	41	32	14	8.0	9.0
9	7.0						16	42	32	13	9.5	9.0
10	7.0						16	41	32	13	11	9.0
11	8.0					a7.2	16	43	30	12	11	8.5
12	9.0						14	42	30	12	9.5	8.0
13	10						14	42	28	11	10	8.0
14	11						15	41	28	11	11	9.0
15	12						17	40	28	11	14	10
16	12						15	38	26	10	15	12
17	14	a10					15	36	25	11	15	11
18	14						17	36	24	11	17	11
19	15						17	36	24	11	13	10
20	15						18	35	23	12	12	9.5
21	16					a7.4	19	36	21	12	12	9.0
22	17					a7.6	20	36	21	14	14	8.5
23	14	(a)				b7.8	22	34	20	15	11	9.0
24	12					b8.0	26	33	19	12	9.5	9.0
25	12					b9.0	27	32	18	11	9.0	9.0
26	11					10	28	32	18	12	11	9.0
27	11					13	30	32	17	11	14	9.5
28	11					15	30	33	17	11	12	11
29	11					18	30	34	17	9.5	14	10
30	9.5					18	32	35	17	9.5	12	10
31	9.5	-				15	-	35	-	9.5	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	319.5	17	3.0	10.3	634
November.....	300	-	-	10.0	595
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	272.8	-	-	8.80	541
April.....	603	32	14	20.1	1,200
May.....	1,162	43	32	37.5	2,300
June.....	794	36	17	28.5	1,570
July.....	369.5	17	9.5	12.6	775
August.....	362.5	17	8.0	11.7	719
September.....	290.0	12	8.0	9.67	575
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record (stage-discharge relation affected by ice during most of period); discharge computed on basis of two discharge measurements and weather records.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°24', long. 105°32', in sec. 31, T. 30 S., R. 71 W., 1½ miles upstream from Mountain Home Reservoir Dam and 4 miles southeast of Fort Garland.

Drainage area.- 61 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. May 1923 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 36 second-feet May 1 (gage height, 1.17 feet); minimum daily recorded, 5.4 second-feet Sept. 28.
1923-43: Maximum discharge, 391 second-feet May 27, 1942 (gage height, 3.83 feet), from rating curve extended above 220 second-feet; minimum not determined.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10			-	7.4	8.8	23	16	13	7.7	8.5
2	10	11			-	7.5	9.6	24	15	12	7.4	8.0
3	10	11			-	7.6	10	24	16	12	7.2	8.2
4	11	11			-	7.8	12	21	16	11	7.4	8.2
5	10	11			-	7.9	12	21	18	10	9.3	7.7
6	9.3	11			-	7.5	12	20	19	9.6	8.8	7.4
7	9.6	11			-	7.4	11	24	18	9.3	8.8	7.2
8	10	10	76.3		-	8.0	10	26	18	9.9	7.7	7.0
9	10	9.9			-	8.0	8.8	26	17	9.0	8.0	7.2
10	10	9.6			-	7.9	7.9	25	17	9.0	8.2	7.0
11	11	9.0			-	7.9	7.2	26	17	8.8	8.0	6.2
12	12	8.8			-	7.7	7.4	24	16	8.2	7.5	6.0
13	12				-	7.5	7.4	21	15	7.9	7.4	5.9
14	13				-	7.5	7.7	20	14	8.0	7.7	6.2
15	13				-	7.7	7.5	18	14	11	7.7	6.5
16	13				-	9.0	7.7	16	13	9.0	9.3	7.2
17	14				-	9.0	7.0	18	14	7.9	8.8	7.0
18	13				-	8.2	7.2	20	12	7.9	11	6.8
19	13				-	7.5	7.4	20	13	7.7	9.0	6.5
20	12				-	8.2	9.0	19	12	7.9	8.2	6.4
21	*13	as 8.0			-	7.9	12	19	11	7.5	7.7	6.0
22	13				-	*7.5	11	18	10	8.2	8.8	5.6
23	13	(*)			-	7.5	12	17	12	9.9	7.9	5.8
24	13				-	7.4	13	16	12	9.9	7.4	5.8
25	13				-	7.5	15	15	13	9.6	7.5	5.6
26	13				7.4	8.0	16	12	12	9.9	7.5	5.4
27	13				7.4	8.8	17	12	10	9.3	9.3	5.6
28	12				7.4	10	16	13	12	8.8	8.8	6.0
29	11				-	12	17	16	15	8.2	9.5	6.0
30	10				-	14	18	17	17	8.0	8.8	5.6
31	9.9	-			-	11	-	17	-	8.0	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	359.8	14	9.3	11.6	714
November.....	267.3	-	-	8.91	530
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	258.8	14	7.4	8.35	513
April.....	324.6	18	7.0	10.8	644
May.....	608	26	12	19.6	1,210
June.....	454	19	10	14.5	861
July.....	286.4	13	7.5	9.24	563
August.....	288.1	11	7.2	8.33	512
September.....	198.5	8.5	5.4	6.62	394
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

a No gage-height record (stage-discharge relation affected by ice during most of period); discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Trinchera Creek below Smith Reservoir, near Blanca, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 105°35', in sec. 5, T. 3. S., R. 73 W., 1 mile downstream from Smith Reservoir and 5 miles southwest of Blanca.

Drainage area.- 396 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. October 1929 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum daily discharge during year, 52 second-feet Mar. 30 (gage height, 0.63 foot); minimum daily, 0.6 second-foot Aug. 23, 24, Sept. 29, 30.
1929-43: Maximum daily discharge, 1,340 second-feet May 11, 1942; minimum daily recorded, 0.1 second-foot Nov. 3, 1937, to Feb. 28, 1938.

Remarks.- Records poor. Diversions above station for irrigation. Flow regulated by Smith Reservoir (capacity, 5,335 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	20			-	36	40	0.7	3.5	3.0	1.3	0.8
2	1.2	20			-	34	36	.7	3.5	3.0	1.3	.8
3	1.1	21			-	35	36	4.0	3.5	2.5	1.4	.8
4	1.1	22			-	36	35	6.9	3.5	2.5	1.9	.8
5	1.1	22			-	36	34	6.9	3.5	2.5	2.0	.8
6	1.0	21			-	38	34	6.9	3.5	2.5	1.5	.8
7	1.0	22			-	35	34	6.9	3.5	2.5	1.0	.8
8	1.0	22	†26		-	33	28	6.9	3.6	2.5	.8	.8
9	1.0	22			-	33	23	6.9	3.5	2.6	.8	.8
10	1.0	21			-	34	24	6.9	3.5	2.6	.8	.8
11	1.0	22			-	34	25	6.7	3.5	2.5	.8	.8
12	1.0	22			-	33	23	6.5	3.5	2.5	.8	.8
13	1.0	23			-	34	23	6.5	3.0	2.5	.8	.8
14	1.0	23			-	33	24	6.5	3.0	2.0	.8	.8
15	1.0	24			-	32	23	6.5	3.0	2.0	.8	.8
16	1.0	24			-	33	23	6.5	3.0	2.0	.7	.8
17	1.0	25			-	33	22	6.5	3.0	2.0	.7	.8
18	1.0	25			-	32	19	6.5	3.0	1.5	.7	.8
19	1.0	26			-	32	12	6.5	3.0	1.5	.8	.8
20	1.0	26			-	32	8.0	6.5	3.0	.8	.8	.8
21	1.0	27			-	29	4.0	6.5	3.0	.8	.8	.8
22	1.0	27			-	25	.7	6.5	3.0	.8	.7	.8
23	1.5	28			-	28	.7	6.5	3.0	.8	.6	1.0
24	19	28			-	28	.7	6.5	3.0	1.2	.6	1.1
25	19	28			-	28	.7	6.5	3.0	1.4	.7	1.0
26	18	28			-	28	.7	6.5	3.0	1.2	.7	.9
27	18	28			35	30	.7	6.5	3.0	.7	.7	.8
28	18	27			38	32	.7	6.5	3.0	.7	.8	.7
29	20	27			-	36	.7	6.5	3.0	.8	.7	.6
30	20	27			-	42	.7	6.5	3.0	1.0	.7	.6
31	22	-			-	47	-	5.0	-	1.0	.7	-
Month				Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet				
October.....				178.2	22	1.0	5.75	353				
November.....				728	28	20	24.3	1,440				
December.....				-	-	-	-	-				
Calendar year				-	-	-	-	-				
January.....				-	-	-	-	-				
February.....				-	-	-	-	-				
March.....				1,031	47	25	33.3	2,040				
April.....				534.3	40	.7	17.8	1,060				
May.....				198.9	6.9	.7	6.09	375				
June.....				96.1	3.5	3.0	3.20	191				
July.....				55.7	3.0	.7	1.80	110				
August.....				23.2	2.0	.6	.91	56				
September.....				24.3	1.1	.6	.81	48				
Water year				-	-	-	-	-				

† Result of discharge measurement.

Note.- No gage-height record Oct. 1-23, Nov. 10-30, Apr. 19 to July 21, Aug. 6-8, 17-20, 26, 27, Sept. 1-30; discharge computed on basis of seven discharge measurements and records of flow from Smith Reservoir.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Sangre de Cristo Creek near Fort Garland, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}26'$, long. $105^{\circ}24'$, in sec. 23, T. 30 S., R. 72 W., 14 miles east of Fort Garland and 4 miles upstream from Ute Creek.

Drainage area.- 187 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. March to October 1918 and May 1923 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 91 second-feet Mar. 30 (gage height, 4.74 feet); no flow July 31, Aug. 1-4, 25-27, Sept. 5-29.

1916, 1923-43: Maximum discharge, 1,520 second-feet Aug. 31, 1936, by slope-area method; maximum gage height, 7.65 feet May 10, 1942, from floodmarks; no flow at times during 1934-36, 1939-40, 1943.

Remarks.- Records good except those for Nov. 12-30, Mar. 1 to Apr. 15, which are fair. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	21				17	51	36	16	17	0	2.6
2	12	21				17	52	36	15	11	0	.5
3	13	21				17	55	34	15	9.9	0	.1
4	13	21				18	56	34	15	8.9	0	.1
5	12	20				18	51	35	14	8.0	3.4	0
6	13	20				17	53	33	13	6.7	5.8	0
7	13	19				17	51	37	12	5.8	3.7	0
8	13	19	†17			18	51	40	10	5.4	1.5	0
9	13	19				18	43	39	10	4.5	2.6	0
10	13	17				18	41	37	9.9	4.1	3.0	0
11	13	19				18	35	34	12	3.7	2.2	0
12	13	17				17	37	30	12	3.4	.6	0
13	16	16				17	33	27	11	3.0	.2	0
14	16	15				18	33	25	10	2.6	.6	0
15	19	15				19	36	24	8.9	2.2	1.1	0
16	22	15				20	38	24	8.0	1.5	1.5	0
17	26	15				21	33	25	6.7	1.6	3.0	0
18	26	16				20	37	26	5.8	1.8	11	0
19	23	17				20	37	26	4.9	2.6	11	0
20	21	18				20	37	26	4.5	3.0	6.7	0
21	*22	19				19	38	31	3.7	3.0	4.5	0
22	24	21				*19	40	29	3.0	3.0	2.6	0
23	25	*24				20	42	28	2.6	5.4	1.8	0
24	24	22				19	43	24	1.8	1.8	.4	0
25	24	21				19	45	24	1.5	1.8	0	0
26	23	20				26	44	21	1.1	3.7	0	0
27	23	19				33	44	21	.6	1.5	0	0
28	23	19				46	44	19	.6	.6	.6	0
29	23	18				64	42	18	6.5	.3	.6	0
30	22	18				73	39	18	18	.1	2.6	3.7
31	20	-				56	-	18	-	0	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	577	26	12	13.6	1,140
November.....	561	24	15	13.7	1,110
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	759	73	17	21.5	1,510
April.....	1,279	56	33	42.6	2,640
May.....	877	40	18	23.3	1,740
June.....	255.1	18	.6	8.50	506
July.....	126.1	17	0	4.07	250
August.....	75.5	11	0	2.44	150
September.....	7.0	3.7	0	.25	14
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

Note.- No gage-height record Nov. 11-30, Mar. 1-22 (stage-discharge relation affected by ice during most of period); discharge computed on basis of two discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Ute Creek near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°28', lon. 105°24', in sec. 2, T. 30 S., R. 72 W., 2½ miles north of Fort Garland and 6 miles upstream from mouth.

Drainage area.- 32 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. March to October 1916 and May 1923 to September 1943 in reports of State engineer. (No winter records some years).

Extremes.- Maximum discharge during year, 178 second-feet June 30 (gage height, 2.34 feet); minimum daily recorded, 4.8 second-feet Oct. 6, 8-10. 1916, 1923-43: Maximum daily discharge, 630 second-feet May 15, 1941; minimum daily recorded, 1.6 second-feet July 6, 1936.

Remarks.- Records good above 12 second-feet and fair below. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	7.0					18	39	23	55	9.7	34
2	7.6	6.5					20	40	28	35	8.6	28
3	7.6	6.5					23	45	22	27	8.1	24
4	7.0	7.0					24	45	17	23		22
5	5.8	6.5					24	34	16	19	11	19
6	4.8	7.6					25	28	17	18	17	17
7	5.1	7.0				10	24	31	17	17	12	15
8	4.8	7.0	†5.1				17	28	17	17	14	13
9	4.8	7.0					16	27	20	16	14	13
10	4.8	5.4					14	24	22	17	12	11
11	6.2	5.4					11	23	34	16	12	10
12	6.2	5.4					12	24	28	15	12	9.2
13	6.5	5.4					12	21	24	14	12	8.6
14	7.6	5.4					14	20	19	12	13	8.6
15	11	5.6					17	17	17	14	46	9.2
16	11	5.7					14	17	16	14	28	9.2
17	12	5.8					14	16	16	11	39	8.6
18	11	5.8					16	16	18	11	38	12
19	10	6.2					17	16	20	11	29	12
20	9.7	6.5					19	16	20	9.7	26	10
21	*9.7	8.0					23	16	20	9.2	22	9.2
22	9.2	9.0					22	16	20	9.7	20	7.6
23	9.2	*10				(*)	25	16	19	10	17	7.0
24	9.2	9.8					31	18	17	13	16	7.6
25	8.6	9.4					30	24	17	21	14	7.0
26	8.6	7.8					28	24	15	17	15	7.6
27	8.1	7.2					11	35	24	16	14	9.2
28	8.1	6.7					14	28	31	17	14	22
29	8.1	6.9					20	29	35	36	11	39
30	6.2	6.8					21	31	30	108	11	35
31	5.1	-					17	-	24	-	11	51

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	241.2	12	4.8	7.78	478
November.....	206.3	10	5.4	6.88	409
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	354	-	-	11.4	702
April.....	635	35	11	21.2	1,260
May.....	786	45	16	25.4	1,560
June.....	694	106	15	23.1	1,390
July.....	512.6	55	9.2	16.5	1,020
August.....	646.4	51	8.1	26.9	1,280
September.....	379.6	34	7.0	15.7	753
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

† Result of discharge measurement.

Note.- No gage-height record Nov. 12-30, Mar. 1-26 (stage-discharge relation affected by ice during most of period); discharge computed on basis of two discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Conejos River at Platoro, Colo.

Location.- Water-stage recorder, lat. 37°21'00", long. 106°31'30", in sec. 22, T. 36 N., R. 4 E., half a mile east of Platoro and 5 miles downstream from Adams Fork.

Drainage area.- 44.4 square miles.

Records available.- April 1937 to September 1943 (no winter records).

Extremes.- Maximum discharge during year, 861 second-feet June 1 (gage height, 2.59 feet); minimum daily recorded, 4.9 second-feet Sept. 23-25.
1937-43: Maximum discharge, 1,310 second-feet June 25, 1941 (gage height, 3.15 feet), from rating curve extended above 850 second-feet; minimum daily recorded, that of Sept. 23-25, 1943.

Remarks.- Records excellent except those for period of no gage-height record and those below 20 second-feet, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	11						a320	590	354	46	48
2	6.6	14						a350	655	296	43	39
3	6.6	16						a380	443	283	39	33
4	6.6	13						a388	322	228	42	28
5	6.6	11						344	283	198	52	25
6	6.6	16						267	275	180	46	21
7	7.2	14						247	376	173	39	19
8	7.8	15						188	468	166	32	16
9	7.8	17						156	523	163	39	15
10	6.4	14						137	528	150	56	14
11	9.0	14						160	513	134	40	13
12	11	10						173	443	120	33	13
13	13	-						160	376	112	30	12
14	13	-						150	372	109	33	13
15	13	-						128	414	120	36	13
16	13	-						137	419	85	33	14
17	13	-						160	429	78	33	14
18	13	-						188	448	64	114	14
19	13	-						213	443	57	70	13
20	13	-						255	458	55	57	12
21	13	-						243	453	52	48	9.7
22	13	-						213	439	76	43	6.6
23	13	-						255	414	90	36	4.9
24	13	-						395	386	85	32	4.9
25	12	-						483	362	76	32	4.9
26	11	-						483	354	60	28	7.0
27	11	-						518	340	58	32	11
28	11	-						595	344	52	28	14
29	11	-						553	351	46	35	13
30	11	-						528	523	60	60	20
31	9.0	-						543	-	55	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	322.8	13	6.6	10.4	640
November 1-12.....	165	17	10	13.8	327
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	9,320	595	128	30.7	18,490
June.....	12,723	655	275	424	25,240
July.....	3,815	354	46	12.7	7,570
August.....	1,559	114	28	43.8	2,700
September.....	484.0	48	4.9	16.1	960
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of weather records.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

Conejos River near Mogote, Colo.

Location.— Water-stage recorder, lat. 37°03', long. 106°11', in SE¼ sec. 34, T. 23 N., R. 7 E., three-quarters of a mile downstream from Fox Creek and 5¼ miles west of Mogote.

Drainage area.— 282 square miles.

Records available.— September 1899 to March 1900, April 1903 to September 1913, and October 1933 to September 1943 in reports of Geological Survey. September 1899 to March 1900 and April 1903 to September 1943 in reports of State engineer.

Average discharge.— 41 years (1902-43), 376 second-feet.

Extremes.— Maximum discharge during year, 1,830 second-feet June 3 (gage height, 4.13 feet); minimum daily, 28 second-feet Dec. 27.

1899-1900, 1903-43: Maximum discharge, 9,000 second-feet Oct. 5, 1911 (gage height, 8.50 feet, site and datum then in use), from rating curve extended above 3,500 second-feet; minimum, 18 second-feet (discharge measurement) Dec. 19, 1939.

Remarks.— Records good except those for period of ice effect, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	58	*37	43	51	*54	163	1,480	1,320	810	139	145
2	49	61	39	44	48	53	*197	1,670	1,710	649	121	120
3	50	64	52	45	45	54	240	1,720	1,240	555	120	111
4	49	61	46	*41	43	59	294	1,740	900	477	137	100
5	49	53	39	40	*45	58	334	1,340	760	412	163	92
6	49	59	34	39	41	45	401	1,030	760	372	137	84
7	49	59	34	38	44	51	395	966	850	350	133	78
8	45	57	36	38	46	52	339	810	944	350	114	74
9	45	59	36	38	49	61	344	666	1,110	339	114	69
10	46	53	36	39	42	52	273	585	1,190	350	129	68
11	46	51	36	39	42	50	280	592	1,280	313	127	64
12	49	50	35	39	49	51	200	640	1,130	294	107	59
13	55	49	36	41	50	54	203	608	965	281	102	57
14	63	52	37	42	52	57	252	585	830	273	112	57
15	61	54	*37	43	53	50	344	512	970	298	149	55
16	65	55	36	44	55	*39	412	494	870	266	149	55
17	66	43	35	43	55	53	366	512	850	224	118	55
18	68	55	35	40	*54	52	328	570	890	203	214	52
19	61	55	36	38	53	44	378	600	690	186	211	49
20	57	55	31	39	57	52	562	692	690	184	167	46
21	57	39	36	44	55	53	683	730	900	169	145	44
22	57	37	33	51	59	55	780	649	940	179	133	44
23	55	49	34	51	60	55	922	632	800	214	123	44
24	54	*67	38	50	57	52	1,030	890	750	194	112	46
25	53	55	37	48	57	52	1,080	1,190	692	191	111	45
26	52	43	35	45	52	60	1,100	1,280	693	172	112	46
27	51	42	28	45	53	51	1,030	1,220	649	152	118	52
28	51	51	32	46	61	94	1,060	1,490	750	152	118	58
29	55	40	40	48	-	131	1,200	1,450	700	139	133	68
30	52	38	40	49	-	187	1,350	1,310	955	141	127	73
31	53	-	40	50	-	154	-	1,320	-	156	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,663	68	45	55.6	3,300
November.....	1,554	64	37	51.8	3,080
December.....	1,136	52	28	46.6	2,250
Calendar year 1942	130,488	2,370	24	358	256,800
January.....	1,340	51	38	43.2	2,660
February.....	1,428	61	41	51.0	2,830
March.....	1,998	167	39	64.4	3,960
April.....	16,480	1,350	158	549	32,690
May.....	29,963	1,740	494	967	59,430
June.....	27,958	1,710	649	922	55,450
July.....	9,047	810	139	282	17,940
August.....	4,158	214	102	124	8,250
September.....	2,010	145	44	67.0	3,990
Water year 1942-43	98,732	1,740	28	270	195,800

* Winter discharge measurement made on this day.

Note.— Stage-discharge relation affected by ice Nov. 26 to Mar. 29 (no gage-height record Dec. 7-14, Jan. 5 to Feb. 4; discharge computed on basis of weather records).

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Conejos River near La Sauces, Colo.

Location.- Two water-stage recorders (two channels), lat. 37°23', long. 105°15', in sec. 2, T. 35 N., R. 11 E., half a mile upstream from mouth and 2 miles north of La Sauces. Datum of gage (north channel) is 7,495.02 feet above mean sea level (Colorado State Highway Department bench mark).

Drainage area.- 887 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. March 1921 to September 1943 in reports of State engineer.

Average discharge.- 22 years, 247 second-feet.

Extremes.- Maximum discharge during year, 1,270 second-feet May 3; minimum daily, 6.8 second-feet July 13.

1921-43: Maximum discharge, 3,890 second-feet May 15, 1941; no flow July 21 to Sept. 8, 1934.

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	29	45	48	56	80	35	721	498	234	12	26
2	31	29	46	46	56	78	35	874	504	224	12	27
3	31	29	46	46	56	76	31	1,080	702	122	13	27
4	31	29	45	*b48	60	73	23	1,080	461	53	14	26
5	30	29	45	b45	*56	73	20	1,000	285	35	14	26
6	30	29	45	b43	55	70	20	691	196	23	13	24
7	30	28	44	b42	55	64	28	586	170	15	14	23
8	29	28	46	b43	59	61	40	525	128	12	14	22
9	28	28	47	b42	60	59	32	412	110	9.6	14	21
10	29	28	47	44	59	60	27	357	114	9.1	15	21
11	28	29	47	43	63	58	24	297	211	7.8	16	21
12	28	29	47	43	64	55	20	261	322	7.6	15	20
13	29	32	47	43	63	54	15	232	323	6.8	15	20
14	28	35	50	43	63	54	15	201	285	7.2	14	20
15	28	35	*52	43	69	54	14	169	199	11	13	21
16	28	33	51	43	76	54	15	135	150	11	14	21
17	28	33	51	b42	80	54	31	116	119	12	14	21
18	28	34	51	b40	80	54	35	104	79	12	16	21
19	29	33	51	b38	79	52	43	95	51	14	16	21
20	29	33	51	b43	77	50	127	84	39	16	20	21
21	30	32	51	b47	77	49	325	92	34	15	22	23
22	31	31	52	53	77	48	443	121	33	15	22	22
23	31	31	51	53	78	47	551	117	31	15	21	24
24	30	31	51	54	78	46	728	118	26	15	21	24
25	30	31	52	54	79	44	769	165	25	15	20	24
26	30	31	53	55	79	43	811	301	22	15	22	24
27	28	36	b51	55	79	43	755	367	17	15	23	23
28	28	44	b53	55	78	43	641	451	18	15	23	23
29	28	43	50	55	-	40	628	593	18	15	23	23
30	28	43	49	54	-	37	669	617	22	14	23	24
31	28	-	48	55	-	35	-	566	-	13	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	904	31	28	29.2	1,790
November.....	965	44	28	32.2	1,910
December.....	1,517	53	44	48.9	3,010
Calendar year 1942.....	100,280.3	2,270	3.4	276	198,900
January.....	1,458	55	38	47.0	2,890
February.....	1,512	60	55	66.5	3,790
March.....	1,709	80	35	56.1	3,390
April.....	6,950	811	14	237	13,790
May.....	12,528	1,080	84	404	24,850
June.....	5,192	702	17	173	10,300
July.....	1,004.1	234	6.8	37.4	1,990
August.....	533	25	12	17.2	1,060
September.....	684	27	20	22.8	1,360
Water year 1942-43.....	35,355.1	1,080	6.8	96.9	70,130

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record for south channel Jan. 4-9, 17-21; discharge computed on basis of one discharge measurement and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

San Antonio River at Ortiz, Colo.

Location.— Water-stage recorder, lat. 37°00', long. 106°02', in New Mexico, in sec. 19, T. 32 N., R. 9 E., a quarter of a mile south of Colorado-New Mexico State line, half a mile south of Ortiz, and half a mile upstream from Los Pinos Creek.

Drainage area.— 110 square miles.

Records available.— October 1933 to September 1943 in reports of Geological Survey. January to October 1915, May 1919 to October 1920, and October 1924 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.— Maximum discharge during year, 399 second-feet Apr. 24 (gage height, 2.87 feet); minimum daily recorded, 0.1 second-foot July 7-9, 20, but probably no flow at times during period of no gage-height record.
1915, 1919-20, 1924-43: Maximum discharge, 1,750 second-feet Apr. 15, 1937 (gage height, 5.38 feet), from rating curve extended above 1,100 second-feet; no flow at times in most years.

Remarks.— Records good above 10 second-feet and poor below. A few small diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	5.1					52	178	9.7	6.9	17	6.9
2	.5	*3.4					*56	171	7.4	4.2	5.9	3.8
3	.5	3.8					59	150	10	1.6	1.9	2.6
4	.5	3.4					65	130	9.2	.6	1.1	1.7
5	.5	3.0					69	120	6.9	.4	19	1.1
6	.5	2.0					91	95	5.5	.2	28	.8
7	.6	1.7					91	96	4.2	.1	14	.4
8	.6	1.9					70	80	3.0	.1	3.8	.4
9	.6	1.9					67	65	2.0	.1	3.8	.3
10	.8	b2.0					51	59	1.9	.2	8.0	.4
11	.8	b2.0					40	49	5.1	.5	5.5	.6
12	.9	b2.0					35	42	6.9	.9	3.0	.4
13	1.2	b2.3					35	38	4.2	.4	2.6	.4
14	1.7	*2.7					59	36	3.8	.2	22	.6
15	3.8	2.7					100	33	3.0	.4	24	4.2
16	4.2	2.7	*2.5	3.5	4.0	7.5	139	29	2.2	.5	10	2.6
17	4.7	2.9					107	26	2.2	.5	32	2.2
18	6.0	3.0					120	22	1.9	.4	31	2.0
19	9.2	3.0					152	22	1.9	.2	14	2.0
20	6.9	3.0					212	21	1.6	.1	5.5	1.9
21	5.9	3.2					205	25	1.6	2.0	2.2	1.7
22	4.7	3.4					215	25	1.2	2.2	1.4	1.4
23	4.2	3.8					254	23	1.1	1.4	1.1	1.2
24	3.4	*3.9					256	22	.6	1.6	.8	1.4
25	2.6	3.9					235	17	.4	1.1	.6	1.6
26	2.6	3.7					233	15	.4	.6	.9	1.6
27	2.6	3.4					195	16	.4	.4	25	1.6
28	2.6	3.2					190	13	.4	.2	14	2.0
29	3.0	3.3					193	13	6.9	.2	8.6	4.7
30	3.4	3.2					188	13	6.3	3.0	6.3	3.0
31	5.9	-					-	12	-	6.3	5.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	87.9	9.2	0.5	2.84	174
November.....	89.3	5.1	1.7	2.98	177
December.....	77.5	-	-	2.5	154
Calendar year 1942.....	14,954.8	472	0	41.0	29,660
January.....	108.5	-	-	3.5	215
February.....	112.0	-	-	4.0	222
March.....	232.5	-	-	7.5	461
April.....	3,834	256	35	12.1	7,600
May.....	1,656	178	12	5.4	3,280
June.....	111.9	10	.4	3.73	222
July.....	37.5	6.9	.1	1.21	74
August.....	316.9	32	.6	10.2	629
September.....	55.5	6.9	.3	1.85	110
Water year 1942-43.....	6,719.5	256	-	18.4	13,320

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.— No gage-height record Nov. 14 to Apr. 2 (stage-discharge relation affected by ice during most of period); discharge computed on basis of four discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

San Antonio River at mouth, near Manassa, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}11'$, long. $105^{\circ}53'$, in sec. 21, T. 34 N., R. 10 E., 1 mile upstream from mouth and $2\frac{1}{2}$ miles east of Manassa.

Drainage area.- 348 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey.
April 1923 to September 1943 in reports of State engineer.

Average discharge.- 20 years, 102 second-feet.

Extremes.- Maximum discharge during year, 941 second-feet Apr. 26 (gage height, 5.03 feet); no flow Oct. 1-22, Sept. 14-30.

1923-43: Maximum discharge, 2,620 second-feet May 14, 1941 (gage height, 6.26 feet), from rating curve extended above 2,200 second-feet; no flow at times in most years.

Remarks.- Records good above 300 second-feet and fair below except those for period of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.1	(*)				5.4	680	155	94	1.4	1.7
2	0	.1					7.2	712	168	60	1.1	1.5
3	0	.2					5.0	694	182	30	1.0	1.2
4	0	.2					9.2	628	142	18	1.1	1.0
5	0	.2					28	568	113	15	1.4	.8
6	0	.3					56	443	107	9.9	1.3	.5
7	0	.3					101	447	102	7.2	1.1	.4
8	0	.3					82	401	83	6.4	.9	.3
9	0	.3				a5.5	71	338	82	5.4	.9	.2
10	0	.4					43	293	84	3.6	1.9	.2
11	0	.4					24	252	125	1.4	1.9	.1
12	0	.6					16	232	142	1.3	1.4	.1
13	0	a2.7					11	202	142	.9	1.1	.1
14	0						9.2	185	122	.8	1.5	0
15	0						26	165	94	1.1	1.7	0
16	0		a0.5	a0.7	a1.8		101	145	82	4.2	1.5	0
17	0					a9.0	125	137	55	3.2	1.4	0
18	0					6.6	130	128	53	1.7	3.3	0
19	0					6.4	192	124	47	2.1	5.8	0
20	0					6.2	323	126	40	1.8	5.8	0
21	0					6.2	450	148	39	1.5	3.8	0
22	0	a.6				6.0	505	162	30	1.8	3.2	0
23	.1					4.7	748	152	18	3.2	2.4	0
24	.1					3.8	768	160	10	2.6	1.7	0
25	.1					3.8	750	162	7.2	2.5	1.2	0
26	.1					3.6	782	182	4.8	2.5	1.2	0
27	.1					3.8	680	182	4.7	2.3	1.7	0
28	.1					3.8	640	185	6.2	1.9	1.2	0
29	.1					3.6	694	188	13	1.5	.9	0
30	.1					3.6	680	200	45	1.5	1.2	0
31	.1					4.0		185		1.5	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0.9	0.1	0	0.03	1.8
November.....	14.3	-	-	.48	28
December.....	15.5	-	-	.5	31
Calendar year 1942	48,724.4	1,330	0	133	96,640
January.....	21.7	-	-	.7	43
February.....	50.4	-	-	1.8	100
March.....	163.1	-	-	5.2 ^a	324
April.....	7,962	782	5.0	265	15,790
May.....	8,806	712	124	284	17,470
June.....	2,297.9	182	4.7	76.6	4,560
July.....	290.8	94	.8	9.38	577
August.....	57.8	5.8	.9	1.86	115
September.....	8.1	1.7	0	.27	16
Water year 1942-43	19,688.5	782	0	53.9	39,060

* Winter discharge measurement made on this day.

^a No gage-height record (stage-discharge relation affected by ice during most of period); discharge computed on basis of three discharge measurements and records for Conejos River near La Sauses.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Los Pinos River near Ortiz, Colo.

Location.- Water-stage recorder, lat. $36^{\circ}58'$, long. $106^{\circ}03'$, in New Mexico, in N $\frac{1}{2}$ sec. 34, T. 32 N., R. 8 E., 1 mile south of Colorado-New Mexico State line, 2 miles southwest of Ortiz, and 2 $\frac{1}{2}$ miles upstream from mouth.

Drainage area.- 167 square miles.

Records available.- October 1933 to September 1943 in reports of Geological Survey. January 1914 to November 1920 and October 1924 to September 1943 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 1,370 second-feet May 2 (gage height, 4.28 feet); minimum daily recorded, 12 second-feet Oct. 1, 2, Sept. 13, 21-23, 1914-20, 1924-43: Maximum discharge, 3,160 second-feet May 12, 1941 (gage height, 5.77 feet), from rating curve extended above 1,610 second-feet; minimum daily, 5 second-feet Aug. 11, Sept. 19, 1934.

Remarks.- Records good except those for period of no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	17				22	81	932	329	144	28	29
2	12	*21				22	98	938	387	111	22	22
3	13	23				23	125	890	325	92	22	20
4	13	21				24	170	842	264	75	32	18
5	15	17				24	227	652	240	65	44	17
6	15	19				22	336	576	240	60	28	16
7	14	20				20	339	580	237	54	24	15
8	14	19				22	305	453	234	55	21	14
9	13	17				24	288	383	237	54	20	14
10	13	16				25	223	339	244	65	23	15
11	13	16				24	170	370	305	48	22	14
12	14	15				24	147	376	257	43	20	13
13	14	14				25	152	332	244	39	18	12
14	18	*14				27	207	322	204	38	20	15
15	17	14				27	302	281	185	43	32	15
16	17	15				*27	359	271	176	37	52	15
17	18	14				25	339	254	161	32	45	15
18	19	13				20	319	a280	161	30	68	15
19	18	14				28	424	a280	155	28	43	14
20	16	14				21	587	a290	147	28	32	13
21	15	14				22	643	a320	136	26	27	12
22	15	18				20	705	a285	128	28	25	12
23	15	20				19	814	a294	123	32	24	12
24	15	*23				20	866	306	113	29	22	16
25	15	21				21	978	342	113	27	23	15
26	15	21				24	878	353	102	25	32	14
27	15	19				23	786	356	116	23	47	15
28	16	17				32	836	376	167	22	32	24
29	17	19				40	890	366	152	21	41	20
30	14	18				54	914	349	220	25	28	25
31	18	-				73	-	336	-	33	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	469	19	12	15.1	928
November.....	523	23	13	17.4	1,040
December.....	496	-	-	16	984
Calendar year 1942.....	56,323	1,390	-	154	111,700
January.....	434	-	-	14	861
February.....	476	-	-	17	944
March.....	832	73	19	26.8	1,650
April.....	13,358	914	31	445	26,550
May.....	13,306	938	254	429	26,380
June.....	6,102	387	102	203	12,100
July.....	1,432	144	21	46.2	2,840
August.....	957	68	19	30.9	1,900
September.....	466	29	12	16.2	964
Water year 1942-43.....	38,900	938	-	107	77,150

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Conejos River near Mogote.

Note.- No gage-height record Nov. 9 to Mar. 16 (stage-discharge relation affected by ice during most of period); discharge computed on basis of four discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Culebra Creek at San Luis, Colo.

Location.- Water-stage recorder and 12-foot Parshall flume, lat. 37°11', long. 105°26', in sec. 35, T. 3 N., R. 72 W., Beaubien Grant survey, 1 mile southeast of San Luis and 1½ miles upstream from Rito Seco.

Drainage area.- 220 square miles.

Records available.- January 1910 to December 1911 and October 1933 to September 1943 in reports of Geological Survey. May 1909 to December 1910 and April 1927 to September 1943 in reports of State engineer. 1911-19 (unpublished) in files of State engineer.

Average discharge.- 26 years (1909-19, 1927-43), 66.2 second-feet.

Extremes.- Maximum discharge during year, 290 second-feet July 22 (gage height, 3.34 feet), from rating curve extended above 200 second-feet; minimum daily, 15 second-feet Sept. 20.

1909-19, 1927-43: Maximum discharge, 595 second-feet May 30, 1942 (gage height, 4.84 feet), from rating curve extended above 300 second-feet; minimum daily, 5 second-feet Sept. 14-16, 1934.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Diversions above station for irrigation. Flow regulated by Sanchez Reservoir on Ventero Creek (capacity, 103,000 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	28	31	26	27	28	37	77	147	70	142	28
2	38	29	31	26	28	28	36	76	180	55	196	31
3	38	29	32	26	28	27	37	126	46	235	34	
4	37	30	33	26	28	28	39	107	132	24	221	52
5	37	27	33	a26	25	28	38	105	130	26	221	34
6	37	27	32	a26	25	27	37	103	124	98	195	59
7	37	27	31	a26	26	27	36	87	146	150	170	62
8	35	27	31	a26	28	27	35	54	180	169	178	61
9	32	26	31	a25	28	28	33	49	152	170	202	61
10	29	26	31	a25	26	28	32	30	182	176	215	61
11	29	26	30	25	26	28	32	45	139	143	181	45
12	29	26	30	a25	26	28	30	103	79	182	137	35
13	31	26	30	a26	28	27	30	116	66	182	115	29
14	31	26	31	a26	28	27	30	144	64	196	107	32
15	32	26	31	26	28	27	30	137	71	154	97	29
16	31	26	31	26	29	26	33	113	110	91	95	33
17	31	25	31	26	28	27	33	140	162	54	117	30
18	31	26	31	26	28	26	32	192	155	55	105	29
19	31	26	31	26	28	26	31	195	147	121	78	17
20	31	28	31	26	28	26	32	187	125	141	63	15
21	31	28	30	26	28	a27	30	186	167	191	77	25
22	29	28	27	26	29	a28	55	161	189	149	61	30
23	29	28	27	26	29	a28	57	137	222	24	62	37
24	29	29	27	26	28	a29	55	129	222	a23	58	26
25	29	29	28	26	28	a30	56	117	236	a23	90	23
26	28	30	27	24	28	a30	68	117	211	94	96	16
27	28	30	26	25	28	a32	66	114	172	192	80	25
28	28	30	26	26	28	a34	68	103	196	231	49	27
29	31	30	26	24	-	a37	65	104	170	264	40	26
30	29	30	26	25	-	47	66	88	143	244	40	26
31	28	-	26	26	-	37	-	110	-	206	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	953	38	28	31.7	1,950
November.....	828	30	25	27.6	1,640
December.....	919	35	26	29.6	1,820
Calendar year 1942.....	33,195	479	25	90.9	65,840
January.....	796	26	24	25.7	1,580
February.....	772	29	25	27.6	1,530
March.....	903	47	26	29.1	1,790
April.....	1,259	68	30	42.0	2,500
May.....	3,512	195	30	115	6,970
June.....	4,475	236	30	149	8,850
July.....	3,944	264	23	127	7,820
August.....	3,745	236	40	121	7,430
September.....	1,026	62	15	34.2	2,040
Water year 1942-43.....	23,162	264	15	65.5	45,950

a No gage-height record; discharge computed on basis of one discharge measurement and records for station below San Luis.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Culebra Creek below San Luis, Colo.

Location.- Water-stage recorder, lat. 37°12', long. 105°26', in sec. 27, T. 3 N., R. 72 W., Beaubien Grant survey, 500 feet downstream from bridge on State Highway 160, 600 feet downstream from Rito Seco, and a quarter of a mile southwest of San Luis.

Drainage area.- 255 square miles.

Records available.- August 1938 to September 1943 (no winter records most years).

Extremes.- Maximum discharge during year, 410 second-feet July 29 (gage height, 3.05 feet); minimum daily, 15 second-feet Sept. 20.

1938-43: Maximum discharge, 866 second-feet May 30, 1942 (gage height, 4.54 feet), from rating curve extended above 400 second-feet; minimum daily, that of Sept. 20, 1943.

Remarks.- Records excellent above and good below 100 second-feet except those for period of no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	50	39	45	43	46	37	74	147	72	138	36
2	42	49	38	45	46	45	36	74	162	63	159	33
3	42	50	39	45	46	44	36	66	124	49	232	33
4	42	51	40	45	46	42	37	109	133	31	220	50
5	42	49	41	45	41	43	36	111	129	29	225	35
6	43	49	38	45	41	41	34	109	180	90	194	54
7	44	52	40	45	42	41	34	100	145	146	164	60
8	45	51	*44	45	44	41	34	59	164	164	172	60
9	45	47	44	44	47	41	32	55	154	164	194	60
10	43	47	44	43	45	41	32	38	154	170	212	54
11	44	47	46	45	45	41	31	44	142	158	176	54
12	44	47	46	45	45	40	31	102	91	172	142	43
13	49	47	46	45	47	39	31	114	78	180	122	38
14	49	47	47	45	47	38	31	147	77	197	111	39
15	52	47	44	*45	47	38	31	140	82	157	96	32
16	50	47	49	45	47	37	32	111	113	95	102	34
17	50	47	49	45	*47	38	33	129	167	56	129	34
18	52	50	49	44	46	37	32	183	154	59	111	33
19	52	50	49	44	46	37	32	186	145	114	66	18
20	49	50	46	44	46	37	32	178	120	142	71	15
21	49	53	b45	44	46	38	31	175	167	189	90	27
22	49	53	b43	44	47	*38	47	154	189	150	64	36
23	47	*53	b43	44	47	38	54	136	228	28	69	41
24	47	55	b44	44	46	39	53	131	229	26	66	36
25	49	54	47	44	46	39	54	118	244	26	98	37
26	50	54	47	42	46	39	60	118	214	100	93	31
27	49	54	46	42	46	38	59	118	164	206	98	36
28	47	54	45	43	46	38	60	113	194	238	60	37
29	51	54	45	40	-	38	59	114	164	276	49	39
30	50	54	45	41	-	37	59	100	154	251	44	37
31	49	-	45	42	-	37	-	114	-	212	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,458	52	42	47.0	2,890
November.....	1,510	54	47	50.3	3,000
December.....	1,975	49	38	44.5	2,720
Calendar year 1942.....	40,659	682	-	111	80,650
January.....	1,360	45	40	43.9	2,700
February.....	1,274	47	41	45.5	2,530
March.....	1,226	46	37	39.5	2,430
April.....	1,200	60	31	40.0	2,380
May.....	3,543	186	38	114	7,030
June.....	4,543	244	77	151	9,010
July.....	3,989	276	26	159	7,910
August.....	3,854	232	44	124	7,640
September.....	1,172	60	15	79.1	2,320
Water year 1942-43.....	26,502	276	15	72.6	56,560

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Oct. 1-5, Nov. 11-16, 21-30, Dec. 29 to Mar. 22, 25-28, Apr. 2-5, 9-11, 14-26, July 21-26, Sept. 15-20 (stage-discharge relation probably affected by ice at times during period Jan. 1 to Mar. 10); discharge computed on basis of four discharge measurements and records for station at San Luis.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Costilla Creek above reservoir, near Costilla, N. Mex.

Location.— Water-stage recorder and concrete control, lat. $36^{\circ}54'25''$, long. $105^{\circ}15'00''$, in Sangre de Cristo Grant, $2\frac{1}{2}$ miles by road upstream from Costilla Dam and 17 miles southeast of Costilla, Tacos County.

Records available.— April 1937 to September 1943 (irrigation seasons only).

Extremes.— Maximum discharge during year not determined; minimum daily recorded, 1.6 second-feet July 5, 6, 13.

1937-43: Maximum discharge recorded, 175 second-feet May 15, 1938 (gage height, 1.90 feet); minimum daily recorded, that of July 5, 6, 13, 1943.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	35.5					-	11	as 0	2.8	3.4	7.5
2	4.2	35.5					-	11	as 0	2.2	1.8	6.6
3	4.2	35.5					-	12	as 7.5	2.0	3.4	6.2
4	3.8	35.5					-	13	as 6.5	1.8	1.6	5.0
5	3.8	1.8					-	12	as 6.5	1.6	9.5	4.2
6	3.8	-					-	9.5	as 6.0	1.6	6.6	4.2
7	3.8	-					-	12	as 0	1.8	4.2	4.2
8	3.8	-					-	11	as 5.5	2.0	3.8	4.2
9	3.8	-					-	13	as 5.5	1.8	5.0	5.0
10	4.2	-					-	14	as 5.5	1.8	14	4.2
11	4.5	-					-	12	as 6.5	1.8	6.6	3.4
12	4.6	-					6.2	9.5	as 5.5	1.8	5.4	3.4
13	6.2	-					5.8	7.5	as 5.0	1.6	5.4	3.4
14	5.4	-					8.5	7.0	as 4.5	2.4	7.5	4.2
15	5.8	-					9.0	6.6	as 4.0	4.6	7.0	3.4
16	6.6	-					7.0	5.8	as 3.5	2.4	6.2	3.4
17	7.0	-					7.0	5.8	as 3.0	2.2	12	3.4
18	7.0	-					9.0	6.2	as 3.0	2.2	18	3.4
19	6.6	-					9.5	5.8	as 2.5	2.6	8.0	3.4
20	6.2	-					11	6.6	2.0	2.2	6.2	3.4
21	6.2	-					11	8.0	2.0	2.0	6.6	2.8
22	5.4	-					10	8.5	2.0	2.2	6.2	2.6
23	5.4	-					12	7.5	1.8	2.6	5.4	2.8
24	5.0	-					12	as 0	2.0	2.6	5.0	2.8
25	4.6	-					12	as 0	2.4	3.0	4.6	2.8
26	4.6	-					10	as 5.5	2.4	4.2	20	3.0
27	4.2	-					9.5	as 0	3.0	3.0	15	4.2
28	4.2	-					9.5	as 5.5	3.4	2.0	9.0	6.6
29	4.6	-					10	as 0	3.8	1.8	8.5	5.0
30	4.2	-					10	as 5.5	3.8	2.2	6.6	4.6
31	3.8	-					-	as 0	-	5.0	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	151.4	7.0	3.8	4.88	300
November 1-5	14.8	3.5	1.8	2.96	29
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April 12-30.....	179.0	12	5.8	9.42	355
May.....	281.8	14	5.8	9.09	559
June.....	131.1	9.0	1.8	4.37	260
July.....	73.8	5.0	1.6	2.38	146
August.....	243.4	20	1.8	7.85	483
September.....	123.3	7.5	2.6	4.11	245
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of weather records and records for stations on Rio Colorado near Red River, Rio Hondo at Arroyo Hondo, and Latir Creek near Cerro.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time.

Costilla Creek below reservoir, near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. $36^{\circ}52'25''$, long. $106^{\circ}18'55''$, in Sangre de Cristo Grant, 125 feet downstream from outlet of reservoir at Costilla Dam and 18 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1943 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 196 second-feet June 28 (gage height, 1.95 feet); no flow at times.
1937-43: Maximum discharge recorded, 286 second-feet May 9, 10, 1942; (gage height, 2.65 feet); no flow at times.

Remarks.- Records good. No diversion above station. Flow regulated by Costilla Reservoir (capacity, 15,700 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	2.5							-	0.2	47	9.9
2	29	2.5							-	0	30	9.9
3	29	2.1							-	0	11	28
4	29	2.1							-	0	11	58
5	29	2.1							-	38	11	568
6	29	2.5							-	126	11	31
7	29	2.5							-	126	11	37
8	24	2.5							-	124	11	63
9	18	2.5							-	42	11	63
10	18	2.5							-	0	11	62
11	18	2.5							-	0	11	41
12	18	2.5							-	0	11	28
13	10	2.5							-	0	11	28
14	6.2	2.5							-	0	11	19
15	6.2	2.5							-	0	3.4	12
16	6.2	2.5							-	0	99	12
17	5.7	2.1							-	0	117	10
18	6.2	2.1							-	0	102	10
19	6.2	2.1							0.2	.2	94	10
20	4.9	2.1							3.0	.2	26	10
21	2.8	2.1							0	.2	.2	10
22	3.2	1.8							0	.4	.2	13
23	3.2	1.8							0	.4	5.1	21
24	2.8	-							0	.2	10	21
25	2.8	-							0	13	10	21
26	2.8	-							.2	.4	10	21
27	2.8	-							35	6.3	10	28
28	2.8	-							109	12	10	31
29	2.8	-							52	12	10	30
30	2.8	-							66	11	10	24
31	2.8	-							-	10	9.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	382.2	29	2.8	12.3	758
November 1-23.....	52.9	2.5	1.8	2.3	105
December.....	-	-	-	-	-
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June 18-30.....	265.4	109	0	22.1	526
July.....	522.5	126	0	16.8	1,040
August.....	785.8	117	.2	25.3	1,560
September.....	819.8	63	9.9	27.3	1,630
Water year.....	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for station near Costilla and knowledge of gate operation.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Costilla Creek near Costilla, N. Mex.

Location (revised).- Water-stage recorder, lat. 36°56'30", long. 105°30'10", in Sangre de Cristo Grant, half a mile upstream from diversion dam and 2 miles southeast of Costilla, Taos County.

Records available.- March 1936 to September 1943 (irrigation seasons only, except water year 1942).

Extremes.- Maximum discharge recorded during year, 296 second-feet June 28 (gage height, 5.82 feet); minimum daily recorded, 9.8 second-feet July 22.
1936-43: Maximum discharge, 1,150 second-feet May 11, 1942 (gage height, 5.37 feet); minimum daily recorded, that of July 22, 1943.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	20	14			-	40	52	99	35	22	28
2	40	21	18			-	44	51	102	19	89	28
3	41	20	19			-	48	94	104	14	28	28
4	41	19	19			-	48	108	79	17	38	57
5	40	18	17			-	40	109	34	15	50	63
6	40	20	b15			-	48	97	26	102	40	60
7	40	19	b14			-	42	90	69	118	35	38
8	40	18	b15			-	35	50	97	118	27	64
9	35	19	b15			-	31	56	120	96	26	71
10	31	15	b15			*19	31	51	125	25	29	74
11	32	14	b15			18	24	49	66	15	31	69
12	32	b14	-			19	25	40	32	12	28	49
13	35	b14	-			17	24	46	24	9.8	25	48
14	28	b15	-			20	27	50	60	11	28	46
15	25	b16	-			20	30	38	85	27	36	32
16	25	19	-			b11	30	34	109	18	94	30
17	27	15	-			b13	28	66	114	12	142	28
18	*30	20	-			b17	34	96	96	11	186	28
19	27	*19	-			b12	34	99	29	10	140	25
20	25	19	-			b13	33	104	21	10	102	24
21	23	b15	-			b13	37	62	18	10	44	22
22	21	b13	-			b14	38	45	13	9.6	34	21
23	20	b14	-			b14	42	40	10	23	29	30
24	18	b15	-			15	47	56	10	14	31	34
25	18	20	-			15	50	86	10	11	29	33
26	18	16	-			16	62	102	10	20	32	35
27	17	16	-			22	86	112	10	a10	40	40
28	18	19	-			34	88	91	112	a15	35	57
29	22	b13	-			44	85	42	77	a20	34	64
30	21	16	-			*55	79	36	168	a25	34	52
31	19	-	-			39	-	80	-	20	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	886	41	17	28.6	1,760
November.....	511	21	13	17.0	1,010
December 1-11.....	176	19	14	16.0	349
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 10-31.....	460	55	11	20.9	912
April.....	1,310	88	24	43.7	2,600
May.....	2,134	112	34	68.8	4,230
June.....	1,889	128	10	63.0	3,750
July.....	872.4	118	9.6	28.1	1,750
August.....	1,571	138	22	50.7	3,120
September.....	1,268	74	21	42.3	2,580
Water year.....	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and record for station below reservoir.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Casias Creek near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°54'05", long. 105°15'30", in Sangre de Cristo Grant, 200 feet downstream from road crossing, 2.5 miles by road upstream from Costilla Dam, and 17 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1943 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 121 second-feet Aug. 10 (gage height, 1.60 feet); minimum daily recorded, 3.5 second-feet Nov. 1, 2.
1937-43: Maximum discharge recorded, that of Aug. 10, 1943; maximum gage height recorded, 1.90 feet June 14, 1938 (backwater from Costilla Reservoir); minimum daily recorded, 3.0 second-feet Aug. 14, 1939.

Remarks.- Records good except those for period of ice effect, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.7	b3.5							-	13	8.1	15
2	6.2	b3.5							-	10	6.7	15
3	6.2	b4.0							-	9.5	8.1	13
4	5.7	b4.0							-	9.1	18	12
5	5.7	b4.0							-	8.6	14	11
6	5.7	-							-	8.6	12	10
7	5.7	-							-	9.1	9.1	10
8	5.7	-							-	8.1	9.5	10
9	5.7	-							-	7.6	12	10
10	5.7	-							-	7.6	24	9.5
11	6.2	-							-	7.6	14	9.1
12	6.2	-							-	7.1	13	9.1
13	7.6	-							-	6.7	15	9.5
14	6.7	-							-	8.1	15	9.1
15	7.1	-							-	12	15	7.6
16	7.6	-							-	6.1	14	7.6
17	8.1	-							-	7.6	22	8.1
18	8.6	-							-	8.1	29	8.1
19	8.1	-							-	8.1	21	7.6
20	7.1	-							9.5	7.6	19	7.6
21	6.7	-							9.5	7.1	20	6.7
22	6.2	-							9.5	8.1	18	6.7
23	6.2	-							9.1	10	17	7.1
24	6.2	-							9.1	8.1	16	6.7
25	6.7	-							9.1	7.6	16	6.2
26	5.7	-							9.5	8.1	20	6.7
27	5.7	-							10	7.1	21	8.1
28	5.4	-							13	7.1	17	9.1
29	5.7	-							13	6.2	17	8.1
30	b4.5	-							13	7.6	16	7.6
31	b4.0	-							-	12	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	193.3	8.6	4.0	6.24	383
November 1-5	19.0	4.0	3.5	3.80	38
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June 20-30	114.3	13	9.1	10.4	227
July.....	261.2	13	6.2	8.45	518
August.....	489.5	29	6.7	15.8	971
September.....	271.9	15	6.2	9.06	539
Water year	-	-	-	-	-

Peak discharge.- July 31 (5 p.m.) 34 sec.-ft.; Aug. 4 (6 p.m.) 46 sec.-ft.; Aug. 10 (4 p.m.) 121 sec.-ft.; Aug. 17 (12 p.m.) 50 sec.-ft.; Aug. 26 (5 p.m.) 35 sec.-ft.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Santistevan Creek near Costilla, N. Mex.

Location.- Water-stage recorder and metal Parshall flume, lat. 36°53'05", long. 105°16'50", in Sangre de Cristo Grant, 200 feet upstream from road crossing, 0.9 mile upstream from Costilla Dam, and 16 miles southeast of Costilla, Tacos County.

Records available.- April 1937 to September 1943 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 6.6 second-feet June 28 (gage height, 0.91 foot); minimum daily recorded, 0.5 second-foot Apr. 13, 16.

1937-43: Maximum discharge recorded, 18 second-feet Aug. 11, 1941 (gage height, 1.73 feet); minimum daily recorded, 0.5 second-foot Oct. 23, 1938 and Apr. 13, 16, 1943.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	0.8					-	1.2	2.1	1.1	1.1	1.3
2	1.2	.8					-	1.2	2.1	1.0	1.0	1.2
3	1.1	.9					-	1.1	1.9	1.0	1.2	1.2
4	1.0	.9					-	1.3	1.8	.9	1.8	1.2
5	1.0	.8					-	1.2	1.8	.9	1.2	1.2
6	1.0	-					-	1.2	1.7	.9	1.2	1.2
7	1.0	-					-	1.3	1.6	1.0	1.0	1.1
8	1.0	-					-	1.3	1.7	.9	1.0	1.2
9	1.0	-					-	1.4	1.7	.8	1.1	1.2
10	1.0	-					-	1.5	1.9	.9	1.2	1.1
11	1.0	-					-	1.6	2.2	.9	1.1	1.0
12	1.0	-					0.6	1.5	2.0	.8	1.0	1.0
13	1.0	-					.6	1.4	1.8	.8	1.0	1.0
14	1.0	-					.6	1.3	1.7	1.0	1.1	1.0
15	1.0	-					.6	1.2	1.6	1.2	1.1	1.0
16	1.0	-					.5	1.2	1.5	.9	1.0	1.0
17	1.0	-					.7	1.1	1.5	.9	1.6	1.0
18	1.0	-					.6	1.1	1.4	1.0	1.8	1.0
19	1.0	-					.6	1.2	1.4	.9	1.2	1.0
20	1.0	-					.6	1.2	1.4	.9	1.2	.9
21	1.0	-					.6	1.4	1.4	.8	1.2	.9
22	1.0	-					.7	1.5	1.3	1.2	1.2	.9
23	1.0	-					.7	1.4	1.2	1.2	1.2	.9
24	.9	-					.8	1.5	1.2	1.2	1.1	.9
25	.9	-					.9	1.5	1.2	1.2	1.0	.9
26	.8	-					.9	1.6	1.3	1.2	2.5	.9
27	.8	-					1.0	1.7	1.4	1.1	1.5	1.0
28	.8	-					1.0	1.8	2.0	1.0	1.4	1.0
29	.8	-					1.1	2.0	1.4	1.0	1.4	1.0
30	.9	-					1.2	2.0	1.3	1.0	1.4	1.0
31	.9	-					-	1.9	-	1.3	1.3	-
Month				Second-foot-days		Maximum	Minimum	Mean	Runoff in acre-feet			
October.....				30.3		1.2	0.8	0.98	60			
November 1-5.....				4.2		.9	.8	.84	8.3			
December.....				-		-	-	-	-			
Calendar year.....				-		-	-	-	-			
January.....				-		-	-	-	-			
February.....				-		-	-	-	-			
March.....				-		-	-	-	-			
April 12-30.....				14.2		1.2	.5	.76	28			
May.....				45.8		2.0	1.1	1.41	87			
June.....				45.5		2.2	1.2	1.62	95			
July.....				31.0		1.3	.8	1.00	61			
August.....				39.0		2.5	1.0	1.26	77			
September.....				31.2		1.3	.9	1.04	62			
Water year.....				-		-	-	-	-			

Notes.- No gage-height record Oct. 25 to Nov. 3, May 10 to June 19, July 19, 20, Aug. 25-27; discharge computed on basis of weather records and records for Latir Creek near Cerro.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Latir Creek near Cerro, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. $36^{\circ}49'45''$, long. $105^{\circ}32'45''$, in S4S4 sec. 15, T. 30 N., R. 13 E., at mouth of canyon, 100 feet upstream from heading of Cerro community ditch and 6 miles northeast of Cerro.

Records available.- April 1937 to September 1943 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 36 second-feet Aug. 17 (gage height, 1.40 feet); minimum daily recorded, 2.5 second-feet Nov. 11.
1937-43: Maximum discharge recorded, 121 second-feet June 3, 1942 (gage height, 2.70 feet), from rating curve extended above 56 second-feet by logarithmic plotting; minimum daily recorded, 0.6 second-foot May 9, 1937.

Remarks.- Records good except those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	3.6				-	4.3	9.0	8.4	12	4.5	a6.0
2	4.5	3.8				-	4.7	9.2	9.0	8.7	4.3	a6.0
3	4.5	3.8				-	5.3	9.2	8.4	7.3	4.3	a5.6
4	4.3	3.6				-	4.7	9.2	7.7	6.4	4.9	a5.0
5	4.3	3.4				-	5.1	8.2	7.3	5.5	4.7	a4.5
6		4.3	3.6			-	5.1	7.3	6.8	5.1	6.1	a4.5
7		4.1	3.4			-	4.3	6.6	6.8	4.9	4.5	a4.5
8		4.3	3.6			-	a3.8	5.7	6.6	4.7	4.9	a4.5
9		4.5	3.3			-	3.4	5.5	6.8	4.5	4.5	a5.0
10		4.3	3.0			-	3.1	6.6	7.3	4.5	4.3	a4.5
11		4.5	2.5			-	3.1	8.2	9.7	4.5	4.5	a4.5
12		4.5	3.1			-	3.1	6.4	8.0	4.5	5.1	a4.5
13		4.7	3.1			-	3.3	5.7	7.3	4.3	5.3	a4.5
14		4.5	3.8			-	4.0	5.3	6.8	4.3	5.3	a4.5
15		4.3	3.6			-	4.1	4.9	6.4	8.2	5.9	a4.0
16		4.3	3.4			-	3.4	4.7	5.9	5.5	6.1	a4.0
17		4.3	3.4			-	3.3	4.7	5.9	4.9	8.0	a4.0
18		4.3	3.6			-	3.6	5.1	5.5	4.7	18	a4.0
19		4.3	3.6			-	4.1	4.9	5.5	4.7	9.5	a4.0
20		3.8	-			-	5.1	5.3	5.3	4.7	7.3	a4.0
21		4.0	-			-	5.3	6.4	4.9	4.9	6.1	a4.0
22		4.1	-			-	5.7	6.4	4.9	5.1	5.7	4.0
23		4.3	-			-	6.8	5.7	4.7	5.1	5.1	4.1
24		4.3	-			-	6.8	6.4	5.1	4.5	4.7	4.1
25		4.5	-			-	6.6	6.6	5.1	4.5	4.5	4.1
26		4.1	-			-	6.4	6.6	4.9	4.1	4.7	4.1
27		3.6	-			-	6.1	6.8	4.7	4.1	5.6	4.5
28		3.4	-			-	6.6	7.7	9.4	4.0	5.9	4.5
29		3.4	-			-	7.0	9.0	11	4.0	6.4	4.3
30		4.0	-			3.3	8.0	8.4	14	4.7	7.5	4.1
31		4.0	-			3.8	-	8.2	-	5.3	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	131.0	4.7	3.4	4.23	260
November 1-19	65.2	3.8	2.5	3.43	129
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	146.2	8.0	3.1	4.87	290
May	209.8	9.2	4.7	6.77	416
June	209.9	14	4.7	7.00	416
July	164.2	12	4.0	5.30	326
August	187.4	18	4.3	6.05	372
September	135.8	6.0	4.0	4.46	265
Water year	-	-	-	-	-

Peak discharge.- June 30 (10 p.m.) 23 sec.-ft.; Aug. 17 (10 p.m.) 36 sec.-ft.; Aug. 18 (3 a.m.) 27 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for stations on Costilla Creek above reservoir, Casias Creek, and Santistevan Creek near Costilla, Rio Colorado near Red River, and Rio Hondo at Arroyo Hondo.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Colorado near Red River, N. Mex.

Location.- Water-stage recorder, lat. 36°37'20", long. 105°23'30", in NE¼ sec. 36, T. 28 N., R. 14 E., 100 feet downstream from confluence of Middle and East Forks and 6 miles south of town of Red River.

Records available.- July 1940 to September 1943 (no winter records).

Extremes.- Maximum discharge recorded during year, 80 second-feet May 3 (gage height, 2.26 feet); minimum daily, 6.0 second-feet Dec. 1.

1940-43: Maximum discharge recorded, 218 second-feet June 19, 1941 (gage height, 2.92 feet), from rating curve extended above 160 second-feet by logarithmic plotting; minimum daily, 5 second-feet Dec. 16, 1940.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.7	8.1	b6.0					-	57	51	28	11
2	9.7	8.6	6.4					-	66	52	26	11
3	9.7	8.6	6.7					-	70	47	23	12
4	9.7	8.4	b6.5					-	72	45	22	13
5	9.3	8.1	b7.0					-	64	43	21	14
6	9.3	8.1	6.9					-	53	43	19	12
7	9.3	7.9	-					-	49	46	19	12
8	9.0	7.9	-					-	43	46	18	16
9	9.0	7.9	-					-	41	47	17	15
10	9.3	7.4	-					-	38	48	17	14
11	9.3	6.7	-					-	34	57	16	12
12	9.3	6.9	-					-	33	49	15	11
13	10	6.9	-					-	35	46	15	12
14	10	7.2	-					-	37	42	16	13
15	9.7	7.4	-					-	37	41	18	13
16	10	7.6	-					-	36	38	15	12
17	9.7	7.4	-					-	36	37	14	17
18	10	7.4	-					-	37	36	14	42
19	11	7.4	-					-	37	34	17	25
20	10	7.4	-					-	37	33	17	21
21	10	6.9	-					-	41	32	15	20
22	9.7	b6.5	-					-	40	30	16	18
23	9.3	6.9	-					-	39	29	16	18
24	9.0	7.2	-					-	43	29	15	16
25	9.0	7.2	-					-	48	27	15	15
26	8.6	6.9	-					-	52	27	15	14
27	8.4	6.8	-					-	53	26	14	14
28	8.4	6.9	-					-	45	59	29	13
29	8.1	6.4	-					-	45	66	28	12
30	8.1	6.4	-					-	47	60	29	11
31	7.9	-	-					-	52	-	11	15

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	289.5	11	7.9	9.34	574
November.....	221.4	8.6	6.4	7.38	439
December 1-6.....	39.5	7.0	6.0	6.58	78
Calendar year.....	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	1,465	72	33	47.3	2,910
June.....	1,167	57	26	39.9	2,310
July.....	519	28	11	16.7	1,030
August.....	483	42	11	15.6	958
September.....	319.5	14	9.3	10.6	634
Water year.....	-	-	-	-	-

Peak discharge.- May 3 (7 p.m. to 10 p.m.) 80 sec.-ft.; Aug. 8 (4 p.m.) 27 sec.-ft.; Aug. 18 (2 a.m.) 75 sec.-ft.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Colorado near Questa, N. Mex.

Location (revised).— Water-stage recorder and concrete control, lat. $36^{\circ}42'10''$, long. $105^{\circ}34'00''$, in SW $\frac{1}{4}$ sec. 33, T. 29 N., R. 13 E. (projected), $1\frac{1}{2}$ miles upstream from Cabresto Creek and 2 miles east of Questa. Datum of gage is 7,449.88 feet above mean sea level.

Drainage area.— 112 square miles.

Records available.— October 1912 to August 1915 (fragmentary) and October 1930 to September 1943 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.— 27 years (1915-25, 1926-43), 66.6 second-feet.

Extremes.— Maximum discharge during year, 143 second-feet May 8 (gage height, 1.25 feet); minimum daily, 15 second-feet Jan. 19.

1930-43: Maximum discharge, 886 second-feet May 25, 1942 (gage height, 2.32 feet), from rating curve extended above 450 second-feet by logarithmic plotting; minimum daily, 6.3 second-feet Nov. 24, 25, 1931.

Remarks.— Records good except those for periods of no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	27	21	a21	18	24	31	100	89	59	27	35
2	31	27	21	a21	18	24	32	113	89	51	a27	32
3	31	27	22	a21	18	23	35	119	87	50	a27	32
4	30	27	22	a20	16	23	45	116	87	50	a27	31
5	30	27	23	a21	16	23	45	110	87	47	a29	29
6	31	27	22	a21	16	22	51	116	82	44	a28	29
7	30	27	21	22	16	23	51	110	82	42	a27	29
8	30	26	a22	a22	19	23	47	110	82	45	a31	29
9	29	26	a24	a22	18	23	48	122	82	42	a30	30
10	29	25	a23	a22	17	23	47	105	84	41	a27	32
11	29	24	a22	a22	a16	21	42	102	91	41	a27	30
12	30	23	a22	a21	a17	20	40	87	87	41	a25	27
13	32	23	a22	a20	20	20	38	82	84	40	a27	27
14	33	23	a22	a21	23	20	40	84	76	38	a30	27
15	33	25	a22	a21	22	19	47	84	72	45	a28	28
16	32	24	a22	21	22	19	53	84	69	40	a27	27
17	33	22	a22	21	22	20	50	82	67	38	27	26
18	33	22	21	21	22	20	53	80	67	35	63	26
19	35	24	22	a15	22	20	48	78	65	32	35	25
20	35	24	22	a20	21	20	48	76	61	38	32	24
21	32	22	22	22	21	21	58	84	59	37	36	23
22	32	22	22	20	21	22	69	84	58	36	38	22
23	31	22	21	20	23	23	78	82	56	41	38	22
24	30	22	22	20	23	23	93	84	53	37	36	22
25	30	22	22	19	23	23	98	87	51	36	37	21
26	29	22	22	17	22	23	102	89	55	35	37	21
27	28	22	a21	19	22	22	100	91	51	36	37	22
28	28	22	a20	19	23	23	100	93	55	35	38	25
29	29	22	a21	19	-	24	102	95	67	31	48	23
30	29	22	a22	18	-	25	95	91	63	27	40	24
31	28	-	a22	18	-	26	-	89	-	27	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	951	35	28	30.7	1,890
November.....	720	27	22	29.0	1,430
December.....	677	24	20	29.8	1,340
Calendar year 1942.....	37,542	750	-	103	74,470
January.....	627	22	15	20.2	1,240
February.....	557	23	16	19.9	1,100
March.....	685	26	19	22.1	1,360
April.....	1,786	102	31	59.5	3,540
May.....	2,927	122	76	94.4	5,810
June.....	2,160	91	51	72.0	4,280
July.....	1,237	59	27	39.9	2,450
August.....	1,028	63	25	33.2	2,040
September.....	800	35	21	26.7	1,690
Water year 1942-43.....	14,155	122	15	38.8	28,070

a No gage-height record; discharge computed on basis of weather records and records for Rio Colorado near Red River, Rio Hondo near Valdez, and Rio Hondo at Arroyo Hondo.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Hondo near Valdez, N. Mex.

Location.- Water-stage recorder and concrete control, lat. $36^{\circ}32'20''$, long. $105^{\circ}33'30''$ in S $\frac{1}{2}$ sec. 28, T. 27 N., R. 13 E. (projected), a quarter of a mile upstream from Forest Service gate, $1\frac{1}{2}$ miles east of Valdez, and 9 miles upstream from mouth.

Records available.- August 1934 to September 1943. October 1930 to September 1934 at site half a mile downstream, below two diversions.

Extremes.- Maximum discharge during year, 141 second-feet May 1 (gage height, 1.48 feet); minimum daily, 12 second-feet measured Jan. 6 and Mar. 9, but may have been less during winter period of no record.

1934-43: Maximum discharge, 541 second-feet May 13, 1941, from rating curve extended above 300 second-feet by logarithmic plotting; maximum gage-height, 5.59 feet, datum then in use, Dec. 15, 1936 (ice jam); minimum daily discharge, 3.0 second-feet Jan. 21, 1935.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversion above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22						a28	122	81	33	26	24
2	21	a18			a14	a13	a31	132	85	35	26	22
3	21						a37	115	79	33	26	23
4	22			a12	a12		42	117	74	34	25	22
5	21						41	110	72	34	26	22
6	20		a15	a12		a12	45	89	71	34	25	22
7	21				a13		45	76	a61	33	24	21
8	20			a12			41	71	a68	32	24	21
9	19	a17				a12	38	67	a68	30	23	22
10	19					a13	36	61	a68	28	22	21
11	18				a12	a13	33	57	74	28	21	20
12	a18				a14		31	55	72	27	21	20
13	a16					a12	32	56	72	27	22	20
14	a17					a12	35	57	67	27	23	20
15	17					a12	42	58	67	32	22	20
16	18	a16	a14	a13	a14		48	57	70	27	19	20
17	18					a12	46	58	62	27	20	20
18	a18	a16				a12	48	58	55	25	42	19
19	17	16				a12	48	60	55	23	28	19
20	a17	16				a12	54	58	56	23	a28	18
21	a17	16				a13	58	62	53	25	a27	18
22	a18	15				a13	62	62	55	27	a27	18
23	a18	16		a14		a13	68	63	51	30	a26	18
24	a19	16			a13	a13	74	67	47	27	a26	18
25	a20			a14		a14	82	72	47	23	a25	18
26	a19		a13			a14	88	76	46	25	25	18
27	a19	a16				a15	92	75	47	23	26	20
28	a19					a19	94	82	47	25	25	20
29	a19			a14		a24	95	85	44	24	26	20
30	a19					a30	100	81	47	24	25	20
31	a16					a28	-	78	-	24	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	587	22	17	18.9	1,160
November.....	496	-	-	16.5	954
December.....	433	-	-	14.0	859
Calendar year 1942.....	23,874	338	-	65.4	47,350
January.....	404	-	-	13.0	801
February.....	372	-	-	13.3	738
March.....	440	30	-	14.2	873
April.....	1,614	100	23	53.8	3,200
May.....	2,337	132	55	75.4	4,640
June.....	1,857	85	44	61.9	3,650
July.....	590	38	24	28.7	1,770
August.....	776	42	19	25.0	1,540
September.....	604	24	18	20.1	1,200
Water year 1942-43.....	10,810	132	-	29.6	21,440

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records, records for station at Arroyo Hondo, engineers' notes, and interpolation.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Hondo at Arroyo Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°31'55", long. 105°41'05", in sec. 32, T. 27 N., R. 12 E., 1 mile downstream from Arroyo Hondo and 1½ miles upstream from mouth.

Records available.- April 1910 to August 1915 (at site 200 yards above mouth, published as Rio Hondo near Arroyo Hondo) and January 1932 to September 1943 in reports of Geological Survey. April 1910 to December 1928 in reports of State engineer.

Average discharge.- 11 years (1932-43), 33.0 second-feet.

Extremes.- Maximum discharge during year, 61 second-feet May 8 (gage height, 1.69 feet); minimum daily, 7.2 second-feet Aug. 12, 13.

1932-43: Maximum discharge, 2,510 second-feet Aug. 23, 1935 (gage height, 5.45 feet, datum then in use), from rating curve extended above 170 second-feet by logarithmic plotting; minimum daily, 4.0 second-feet July 13-16, 1934.

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17	15	20	19	18	18	50	27	25	8.3	7.9
2	10	17	15	20	19	18	20	54	28	18	8.1	7.9
3	10	17	16	20	19	16	25	52	27	16	8.5	7.9
4	11	17	18	18	14	18	29	56	26	13	9.0	7.9
5	11	17	17	20	19	18	29	55	25	11	9.0	7.6
6	11	17	18	*20	16	15	34	39	24	11	8.7	7.6
7	11	17	18	19	19	15	36	34	22	11	8.1	7.4
8	12	17	20	15	20	14	31	39	20	11	7.9	7.4
9	13	16	22	17	19	14	23	50	18	10	7.6	8.1
10	11	16	21	20	17	17	22	43	23	11	7.4	8.3
11	11	16	21	20	14	17	20	31	26	11	7.4	8.3
12	11	16	21	20	19	16	19	29	24	10	7.2	8.1
13	12	16	20	19	17	16	18	29	23	9.7	7.2	8.3
14	11	16	20	21	16	14	19	29	19	9.2	7.9	8.7
15	11	16	20	21	19	10	21	29	17	11	7.4	8.7
16	12	16	20	19	18	11	22	26	13	10	7.6	9.0
17	13	16	20	19	19	11	15	25	12	10	8.1	9.2
18	13	16	20	18	19	12	13	23	11	11	13	9.7
19	13	16	20	b15	19	12	11	22	10	10	10	10
20	14	16	19	b20	19	12	11	24	12	11	8.3	10
21	14	15	20	24	19	11	11	26	11	11	8.3	10
22	14	16	20	23	19	12	12	25	9.2	14	8.3	11
23	16	17	19	22	19	11	17	24	8.7	11	8.5	10
24	17	17	20	*20	19	11	34	26	8.7	11	8.5	10
25	19	17	22	19	16	11	45	27	9.2	11	8.5	11
26	18	17	21	16	16	11	45	25	9.2	10	8.1	10
27	18	17	17	20	18	12	47	22	9.7	9.7	8.3	12
28	18	17	17	19	18	13	49	25	12	9.0	8.1	17
29	18	17	21	19	-	16	51	25	18	9.2	8.7	15
30	18	17	21	20	-	21	54	25	25	8.5	8.5	14
31	17	-	20	20	-	18	-	26	-	8.5	9.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	418	19	10	13.5	829
November.....	495	17	15	16.5	982
December.....	599	22	15	19.3	1,190
Calendar year 1942	20,503	325	10	56.2	40,670
January.....	603	24	15	19.5	1,200
February.....	508	20	14	18.1	1,010
March.....	441	21	10	14.2	875
April.....	799	54	11	26.6	1,590
May.....	1,015	56	22	32.7	2,010
June.....	527.7	28	8.7	17.6	1,050
July.....	352.8	25	8.5	11.4	700
August.....	259.5	13	7.2	8.37	515
September.....	288.0	17	7.4	9.67	571
Water year 1942-43	6,306.0	56	7.2	17.3	12,510

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Rio Taos at Los Cordovas, N. Mex.

Location (revised).— Water-stage recorder, lat. 36°23'20", long. 105°38'00", in N $\frac{1}{2}$ sec. 23, T. 25 N., R. 12 E. (projected), in Martinez Grant, 50 feet downstream from Rio Ranchos de Taos and Arroyo Seco, half a mile northeast of Los Cordovas, and 3 $\frac{1}{2}$ miles west of Taos.

Drainage area.— 359 square miles.

Records available.— April 1910 to August 1915 and October 1930 to September 1943 in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer.

Average discharge.— 32 years (1910–25, 1926–43), 65.3 second-feet.

Extremes.— Maximum discharge during year, 207 second-feet Apr. 26 (gauge height, 2.29 feet); minimum daily, 5.6 second-feet Aug. 12, 13.
1930–43: Maximum discharge, 1,630 second-feet May 14, 1941 (gauge height, 5.81 feet), from rating curve extended above 1,250 second-feet by logarithmic plotting; minimum daily, 1.4 second-feet Aug. 5, 10, 1934.

Remarks.— Records good except those for periods of ice effect, or no gauge-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	41	a38	a40	46	46	101	138	36	a19	8.4	a13
2	33	41	a40	a38	47	47	106	161	33	a18	7.0	a12
3	35	42	a42	a38	48	41	119	170	34	a16	6.0	a12
4	34	41	a40	a36	42	49	138	182	31	a15	6.7	a11
5	32	41	a40	a37	47	51	127	193	27	a12	7.0	a10
6	31	43	a40	a37	43	43	146	161	25	a12	7.0	a9.5
7	31	42	a38	a38	47	46	140	123	21	a11	6.7	a9.5
8	31	42	a39	*35	51	44	123	110	19	a11	6.3	a9.5
9	30	42	a40	40	46	46	106	125	18	a11	6.7	a10
10	30	41	a42	41	43	61	94	108	17	a10	7.0	a10
11	31	39	a42	42	42	79	85	90	20	a9	7.0	a10
12	33	40	a42	42	46	63	76	78	19	a8.5	5.6	a9.5
13	35	40	a40	41	47	55	67	71	19	7.9	5.6	a9
14	37	41	a42	43	47	53	68	72	19	6.3	7.4	a9.5
15	39	41	a40	43	47	52	76	64	19	9.4	7.9	a10
16	47	40	a40	43	47	46	96	61	18	9.4	7.4	a10
17	43	37	a40	43	48	46	101	58	16	8.9	13	a10
18	43	38	a40	38	48	53	96	55	16	7.9	45	a11
19	41	41	a40	b30	48	47	90	51	a15	7.9	22	a11
20	39	40	a40	b40	48	46	94	46	a14	9.4	20	11
21	37	40	a40	50	48	44	112	46	a13	9.4	19	12
22	37	a40	a40	50	47	47	129	50	a13	14	18	11
23	37	a40	a40	61	49	49	148	46	12	13	18	11
24	37	a41	a40	*66	48	44	172	42	9.8	10	17	11
25	37	a41	a42	50	45	44	175	49	11	9.8	16	11
26	36	a39	a40	43	46	47	186	40	11	9.4	15	12
27	35	a40	a37	46	46	50	168	39	12	8.9	16	12
28	34	a40	a36	50	50	56	142	38	a13	7.4	14	12
29	37	a40	a38	47	-	73	133	47	a15	7.0	13	12
30	42	a39	a40	48	-	103	123	51	a20	6.7	12	12
31	41	-	a40	47	-	96	-	46	-	7.0	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,120	47	30	36.1	2,220
November.....	1,213	43	37	40.4	2,410
December.....	1,238	42	36	39.9	2,460
Calendar year 1942.....	71,976	1,600	13	197	142,800
January.....	1,343	66	30	43.3	2,660
February.....	1,316	61	42	47.0	2,610
March.....	1,667	103	41	53.8	3,310
April.....	3,537	186	67	118	7,020
May.....	2,611	193	38	84.2	5,180
June.....	564.8	36	9.8	16.8	1,120
July.....	320.7	19	6.3	10.3	636
August.....	383.7	45	5.6	12.4	761
September.....	323.5	13	9	10.8	642
Water year 1942-43.....	15,636.7	193	5.6	42.8	31,030

* Winter discharge measurement made on this day.

a No gauge-height record; discharge computed on basis of weather records and records for stations on Rio Hondo near Valdez and at Arroyo Hondo.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Embudo Creek at Dixon, N. Mex.

Location.- Water-stage recorder, lat. 36°12'35", long. 105°54'35", in NW¼ sec. 20, T. 23 N., R. 10 E., at bridge on U. S. Highway 64, 0.5 mile upstream from mouth, three-quarters of a mile east of Embudo and 1¼ miles northwest of Dixon.

Drainage area.- 305 square miles.

Records available.- October 1930 to September 1943 in reports of Geological Survey.
October 1923 to December 1931 in reports of State engineer.

Average discharge.- 20 years (1923-43), 95.4 second-feet.

Extremes.- Maximum discharge during year, 1,910 second-feet June 28 (gage height, 6.8 feet, from high-water marks), from rating curve extended above 1,060 second-feet by logarithmic plotting; minimum daily, 6 second-feet July 14, 30.
1930-43: Maximum gage height, 6.95 feet, site and datum then in use, July 8, 1936 (discharge not determined); minimum daily discharge, 1 second-foot July 23, 24, 1932.

Remarks.- Records fair except those for periods of ice effect, doubtful or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	47	31	31	29	35	93	232	90	d50	61	38
2	44	47	34	31	31	36	101	273	86	d40	22	34
3	42	46	44	25	31	31	116	232	88	d30	16	27
4	42	46	46	24	22	46	136	310	76	d25	16	22
5	42	47	48	*34	33	48	128	329	64	d20	35	17
6	46	46	41	34	31	34	145	279	62	d17	30	17
7	47	46	22	30	34	41	148	287	52	d15	18	15
8	47	46	21	29	40	41	123	228	41	a13	14	14
9	46	46	29	28	38	47	113	244	28	a11	13	14
10	46	46	31	30	34	64	106	214	21	a10	38	16
11	44	46	33	36	40	69	95	199	79	a9	41	17
12	44	44	31	35	36	62	96	172	93	a8	28	17
13	44	a43	34	34	34	53	88	166	80	a7	a20	17
14	46	a44	35	36	35	55	108	145	67	6	a15	21
15	47	a45	36	35	36	50	130	142	48	10	a10	34
16	52	a43	36	40	33	33	130	139	36	8	9	34
17	53	a41	36	38	35	35	123	123	29	8	10	30
18	55	a40	36	41	40	50	139	108	29	7	156	26
19	55	a41	44	b15	40	35	145	108	23	115	90	24
20	52	a40	38	19	40	35	169	101	19	48	66	22
21	52	36	46	27	40	34	195	108	17	86	49	20
22	48	30	33	40	46	36	202	108	12	a50	52	19
23	46	36	34	42	44	42	240	97	10	a35	56	18
24	46	42	44	40	41	41	261	84	10	a30	49	17
25	46	44	48	31	41	36	269	80	23	a25	42	17
26	46	40	44	20	40	41	291	73	13	18	40	17
27	44	35	22	33	38	46	273	78	a18	17	42	40
28	44	41	28	*39	44	55	261	75	a60	12	44	46
29	46	34	35	33	-	76	261	113	a60	10	39	38
30	52	35	34	34	-	101	252	120	a70	6	35	34
31	47	-	30	29	-	90	-	106	-	69	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,453	55	42	46.9	2,880
November.....	1,263	47	30	47.1	2,510
December.....	1,104	48	21	35.6	2,190
Calendar year 1942.....	71,408	1,300	10	196	141,600
January.....	998	42	15	32.2	1,980
February.....	1,031	46	22	36.8	2,040
March.....	1,496	101	31	48.3	2,970
April.....	4,927	291	86	164	9,770
May.....	5,082	329	73	164	10,080
June.....	1,393	93	10	46.4	2,760
July.....	515	115	6	26.3	1,620
August.....	1,199	156	9	38.7	2,390
September.....	721	46	14	24.0	1,450
Water year 1942-43.....	21,482	329	6	58.9	42,610

Peak discharge.- June 28 (from high-water mark) 1,910 sec.-ft.; July 19 (7 p.m.) 1,590 sec.-ft.; July 21 (9:30 p.m.) 657 sec.-ft.; July 31 (9:30 p.m.) 641 sec.-ft.; Aug. 18 (1:30 a.m.) 440 sec.-ft.; Sept. 27 (6:30 p.m.) 287 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations on Rio Santa Cruz at Cundiyo and Rio Taos at Los Cordovas.

b Stage-discharge relation affected by ice.

c Doubtful gage-height record; discharge computed on basis of weather records and records for stations on Rio Santa Cruz at Cundiyo and Rio Taos at Los Cordovas.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Chama at Park View, N. Mex.

Location.- Water-stage recorder, lat. $36^{\circ}44'15''$, long. $106^{\circ}34'40''$, in Tierra Amarilla Grant, at bridge on State Highway 51, just below present mouth of Rio Brazos and half a mile northwest of Park View, Rio Arriba County.

Drainage area.- 405 square miles.

Records available.- November 1912 to September 1916 and October 1930 to September 1943 in reports of Geological Survey. November 1912 to September 1916 and August 1924 to December 1931 in reports of State engineer.

Average discharge.- 20 years (1913-15, 1925-43), 396 second-feet.

Extremes.- Maximum discharge during year, 3,330 second-feet Apr. 28 (gage height, 5.43 feet); minimum daily, 25 second-feet Aug. 13.

1930-43: Maximum discharge, 8,530 second-feet Apr. 16, 1937; maximum gage height, 8.12 feet May 26, 1941, site and datum then in use; minimum daily discharge, 3 second-feet July 6, 7, 1934.

Remarks.- Records fair except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	40	36	50	52	60	355	2,510	652	a260	32	83
2	32	46	43	48	49	*58	452	2,430	744	179	30	62
3	34	47	*45	45	*47	51	552	2,330	698	148	33	53
4	35	50	49	*44	43	65	639	2,240	576	127	34	46
5	34	46	43	43	42	60	684	1,810	510	110	36	40
6	34	47	42	43	44	38	828	1,690	486	90	33	39
7	34	48	28	43	44	52	858	1,670	480	83	33	37
8	34	46	30	43	45	53	772	1,290	469	86	29	35
9	34	46	32	44	50	62	698	1,070	464	85	28.0	36
10	34	42	33	45	45	67	570	894	486	85	31	39
11	34	38	35	45	41	72	486	926	464	76	30	35
12	36	36	37	45	41	76	468	910	528	70	27	34
13	46	34	38	46	44	76	466	793	486	63	25	33
14	50	35	40	47	46	80	665	724	420	62	30	40
15	48	38	42	47	48	80	849	632	398	76	45	40
16	50	44	43	48	53	54	998	598	311	65	50	36
17	49	36	*45	48	52	62	974	564	267	53	50	35
18	48	43	45	45	52	76	966	540	255	48	136	35
19	46	44	45	30	55	53	1,280	498	255	44	104	34
20	44	46	45	*35	55	56	1,530	522	251	44	64	31
21	43	34	45	40	55	65	1,610	594	239	45	54	30
22	43	30	43	45	56	77	1,780	534	224	47	53	29
23	42	36	44	50	52	92	2,020	522	214	45	50	28
24	40	42	46	45	50	106	2,190	576	200	51	54	28
25	39	43	45	45	56	122	2,230	626	188	52	70	26
26	38	38	42	40	52	156	2,300	639	179	43	51	33
27	39	34	40	42	55	188	2,160	646	170	40	126	40
28	38	46	41	45	65	197	2,260	710	170	38	65	50
29	46	36	42	46	-	267	2,490	765	176	34	90	41
30	44	36	45	47	-	345	2,530	737	440	33	78	39
31	43	-	48	48	-	320	-	678	-	32	141	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,242	50	31	40.1	2,460
November.....	1,228	50	30	40.9	2,440
December.....	1,276	48	28	41.2	2,530
Calendar year 1942.....	175,527	3,600	28	46.7	348,200
January.....	1,377	50	30	44.4	2,730
February.....	1,326	65	41	49.6	2,780
March.....	3,196	348	38	103	6,380
April.....	36,658	2,530	355	1,222	72,710
May.....	31,458	2,510	496	1,015	62,400
June.....	11,400	744	170	380	22,810
July.....	2,314	260	32	74.6	4,590
August.....	1,752	186	25	56.5	3,450
September.....	1,171	85	29	59.0	2,320
Water year 1942-43.....	94,450	2,530	25	260	187,300

* Winter discharge measurement made on this day.
 a No gage-height record; discharge computed on basis of weather records and records for Rio Ojo Caliente near La Madera.

Note.- Stage-discharge relation affected by ice Dec. 8-20, Dec. 23 to Feb. 28.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Chama near Tierra Amarilla, N. Mex.

Location.- Water-stage recorder, lat. 36°34'50", long. 106°43'30", in NW 1/4 sec. 15, T. 27 N., R. 2 E. (projected), 1.5 miles downstream from El Vado Dam, 2.7 miles upstream from Rio Nutrias, and 13 miles southwest of Tierra Amarilla.

Records available.- October 1935 to September 1943 in reports of Geological Survey. October 1913 to November 1916, at site 1.5 miles upstream, records of unregulated flow, published as Rio Chama near El Vado and near Tierra Amarilla in reports of Geological Survey. October 1913 to September 1916 and February 1920 to December 1924 in reports of State engineer.

Extremes (regulated).- Maximum discharge during year, 1,530 second-feet June 22 (gauge height, 4.11 feet); minimum daily, 8.4 second-feet Dec. 12, 13, Jan. 9-18.

1935-43: Maximum discharge, 6,010 second-feet May 17, 1941 (gauge height, 6.89 feet); maximum gauge height, 9.63 feet May 30, 1937, site and datum then in use; minimum daily discharge, 1.2 second-feet Dec. 3, 1939.

Remarks.- Records good. Diversions above station for irrigation. Flow regulated by storage in El Vado Reservoir (see p. 185).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	557	14	11	10	10	10	442	64	580	457	1,200	467
2	557	14	11	9.3	10	10	647	67	580	486	1,210	467
3	557	14	11	9.3	10	10	641	73	580	564	1,200	467
4	551	14	11	9.3	10	11	641	113	580	564	1,200	462
5	551	13	9.3	9.3	9.3	11	647	186	580	557	1,190	462
6	511	14	10	9.3	9.3	11	641	390	560	557	1,060	462
7	425	14	10	9.3	9.3	11	647	425	580	557	500	467
8	420	14	9.3	9.3	10	11	641	336	580	557	494	629
9	415	13	9.3	8.4	10	11	654	57	580	545	489	842
10	410	12	9.3	8.4	10	11	654	52	580	545	489	842
11	410	12	9.3	8.4	10	11	647	78	580	849	489	835
12	400	13	8.4	8.4	10	10	647	75	580	845	484	828
13	400	13	8.4	8.4	10	10	647	75	580	849	484	821
14	517	12	9.3	8.4	10	10	647	122	580	849	484	814
15	265	12	9.3	8.4	12	10	392	154	580	349	478	814
16	281	12	9.3	8.4	12	9.3	49	154	624	872	478	814
17	257	12	10	8.4	12	9.3	51	157	856	1,230	478	642
18	253	12	10	8.4	11	10	53	157	856	1,220	478	431
19	169	12	10	9.3	12	9.3	53	157	886	1,220	478	431
20	115	12	10	9.3	11	9.3	53	338	856	1,040	472	425
21	110	12	10	9.3	11	9.3	55	586	978	462	472	425
22	110	12	10	9.3	11	9.3	56	586	1,120	462	472	356
23	107	12	10	12	11	9.3	56	580	1,520	462	472	182
24	107	12	10	12	11	9.3	58	586	1,520	462	472	376
25	107	12	11	10	11	9.3	58	586	1,520	462	472	371
26	107	12	11	10	11	10	58	586	1,520	457	472	371
27	104	12	11	9.3	11	122	60	580	1,440	451	472	371
28	104	12	11	9.3	11	294	62	586	860	451	478	371
29	104	12	11	9.3	-	294	62	586	764	451	472	371
30	64	11	10	10	-	294	62	580	462	545	484	371
31	13	-	10	10	-	294	-	586	-	1,210	472	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,838	557	13	285	17,530
November.....	877	14	11	12.6	748
December.....	310.2	11	8.4	10.0	615
Calendar year 1942.....	271,500.2	3,720	8.4	745	558,200
January.....	285.2	12	8.4	9.30	572
February.....	295.9	12	9.3	10.6	587
March.....	1,559.7	294	9.3	50.3	3,090
April.....	10,081	654	49	333	20,000
May.....	9,718	566	64	313	19,280
June.....	24,472	1,520	462	316	48,540
July.....	23,510	1,230	451	753	46,830
August.....	19,045	1,210	472	614	37,780
September.....	15,987	842	182	533	31,710
Water year 1942-43.....	114,482.0	1,520	8.4	314	227,100

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Chama near Abiquiu, N. Mex.

Location.- Water-stage recorder, lat. 36°13'00", long. 106°15'00", at bridge on State Highway 96 in Juan Jose Lobato Grant, 1½ miles upstream from El Rito Creek, 5 miles downstream from Abiquiu, Rio Arriba County, and 13.5 miles downstream from Abiquiu dam site.

Records available.- January 1942 to September 1943.

Extremes.- Maximum discharge during year, 5,060 second-feet July 21 (gage height, 5.51 feet), from rating curve extended above 3,210 second-feet by logarithmic plotting; minimum daily, 27 second-feet Dec. 1.
1942-43: Maximum discharge, 6,330 second-feet Apr. 23, 1942 (gage height, 5.80 feet), from rating curve extended above 3,210 second-feet by logarithmic plotting; minimum daily, that of Dec. 1, 1942.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above and below station for irrigation. Flow regulated by El Vado Reservoir (see p. 185).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	85	27	39	47	43	402	262	612	552	1,290	553
2	620	55	30	39	50	40	576	287	604	504	1,250	546
3	620	47	30	39	61	33	767	254	604	636	1,240	539
4	612	47	40	*32	43	37	830	223	595	902	1,260	532
5	604	45	69	42	40	59	875	a210	604	911	1,250	532
6	596	43	63	40	43	73	950	a200	604	911	1,290	525
7	524	43	47	39	47	63	950	a300	595	911	960	532
8	468	45	42	29	53	53	875	a400	595	911	a520	539
9	462	42	36	33	51	61	821	a500	595	911	a490	810
10	462	39	36	42	b60	95	812	202	604	902	662	985
11	462	37	36	47	b60	267	794	157	620	902	a700	976
12	456	37	34	42	65	164	785	133	604	884	a500	976
13	468	36	33	40	67	92	776	120	595	893	a490	988
14	456	36	33	45	59	61	794	114	595	902	a490	1,080
15	568	36	37	43	*75	53	821	117	595	902	a490	1,000
16	320	36	36	39	112	46	549	183	588	893	a490	952
17	325	36	34	42	117	42	254	179	709	1,030	588	929
18	325	36	36	b42	103	42	232	175	893	1,190	1,540	595
19	310	36	40	b50	92	42	232	171	893	1,180	616	a460
20	240	36	40	40	85	45	236	168	893	1,190	560	455
21	146	36	40	42	85	45	254	365	893	1,140	594	448
22	136	34	36	48	73	45	244	580	-884	609	616	448
23	129	33	33	51	73	47	249	595	1,260	545	592	373
24	126	34	36	61	65	47	285	595	1,390	476	592	178
25	126	34	47	114	59	47	295	595	1,360	445	560	378
26	126	33	59	69	53	47	290	604	1,380	445	546	384
27	126	33	48	*51	48	47	285	612	1,410	462	608	481
28	126	33	45	51	45	48	272	612	1,300	469	715	462
29	129	33	47	b50	-	348	262	644	1,110	469	810	434
30	146	34	43	45	-	374	267	620	794	497	640	396
31	133	-	39	45	-	396	-	612	-	938	800	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,767	620	126	347	21,360
November.....	1,130	85	33	39.7	2,360
December.....	1,252	69	27	40.4	2,480
Calendar year 1942.....	354,514	5,330	27	97.	703,200
January.....	1,411	114	29	45.5	2,800
February.....	1,831	117	40	63.4	3,630
March.....	2,902	396	33	95.6	5,760
April.....	16,044	960	232	535	31,820
May.....	10,772	644	114	347	21,370
June.....	24,764	1,410	588	826	49,160
July.....	24,518	1,190	445	791	48,630
August.....	23,739	1,540	490	766	47,090
September.....	18,489	1,080	178	616	36,670
Water year 1942-43.....	137,699	1,540	27	377	273,100

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations near Tierra Amarilla and near Chamita.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Chama near Chamita, N. Mex.

Location.— Water-stage recorder, lat. 36°04'20", long. 106°06'40", in NE¼ sec. 8, T. 21 N., R. 8 E., 200 feet downstream from Espanola-Ojo Caliente highway bridge, 2½ miles upstream from mouth, and 2½ miles northwest of Chamita.

Records available.— October 1912 to June 1915 and October 1930 to September 1943 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.— 29 years (1913-17, 1918-43), 710 second-feet.

Extremes.— Maximum discharge during year, 8,100 second-feet Aug. 18 (gauge height, 5.73 feet); minimum daily, 32 second-feet Jan. 19, 1930-43; Maximum discharge, 9,910 second-feet May 14, 1941; maximum gauge height, 8.11 feet May 16, 1941; no flow at times.

Remarks.— Records fair. Diversions above station for irrigation. Flow regulated by El Vado Reservoir (see p. 185).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	546	126	52	54	66	66	394	620	524	572	1,280	620
2	548	82	52	54	75	60	500	620	493	486	1,240	620
3	572	68	52	50	80	60	768	556	500	493	1,220	612
4	572	64	60	50	71	60	920	472	479	795	1,320	596
5	548	68	78	50	60	83	962	444	479	777	1,350	596
6	548	66	74	56	64	83	1,070	394	532	777	1,320	580
7	516	66	54	52	64	83	1,160	500	508*	766	1,030	588
8	412	64	48	46	68	66	1,100	572	486	795	548	580
9	412	64	46	b50	68	66	1,040	660	508	813	500	796
10	418	62	44	56	75	88	1,010	364	508	822	532	920
11	418	58	48	64	78	198	930	255	548	813	538	870
12	424	58	44	b60	80	186	860	186	516	786	493	822
13	437	56	44	56	78	145	831	174	556	804	472	786
14	437	54	46	58	78	108	831	178	548	795	465	890
15	382	54	44	58	75	78	920	182	540	831	479	804
16	316	54	46	56	97	75	880	190	516	813	472	813
17	328	52	52	58	118	86	532	174	588	880	472	777
18	334	52	52	*62	118	86	548	156	870	1,120	2,020	580
19	316	52	58	32	112	78	612	159	890	1,160	795	394
20	285	52	62	52	106	64	678	145	930	1,180	636	394
21	160	52	62	*88	102	73	732	227	910	1,050	612	376
22	152	52	58	152	102	58	705	526	930	792	626	352
23	142	54	54	83	97	62	831	820	1,230	620	540	346
24	132	58	56	83	97	68	900	588	1,430	493	508	202
25	126	56	68	124	86	68	870	556	1,460	493	479	310
26	123	56	80	108	86	64	840	556	1,450	444	451	358
27	126	56	70	88	73	80	732	564	1,460	424	493	394
28	123	58	62	78	71	57	705	564	1,360	406	572	458
29	129	56	62	66	-	204	669	596	1,150	412	806	400
30	149	56	58	80	-	346	628	612	866	418	580	346
31	146	-	a56	68	-	364	-	572	-	753	822	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,279	572	123	332	20,390
November.....	1,828	126	52	60.9	3,630
December.....	1,742	80	44	56.2	3,460
Calendar year 1942.....	389,197	6,780	44	1,066	771,900
January.....	2,092	152	32	87.5	4,150
February.....	2,347	118	60	83.8	4,560
March.....	3,240	364	55	105	6,430
April.....	24,158	1,160	394	805	47,920
May.....	13,052	660	145	421	25,890
June.....	23,765	1,460	479	792	47,140
July.....	22,585	1,180	406	729	44,800
August.....	23,726	2,020	451	765	47,060
September.....	17,180	920	202	573	34,080
Water year 1942-43.....	145,993	2,020	32	400	289,600

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for station near Abiquiu.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Willow Creek near Park View, N. Mex.

Location.- Water-stage recorder, lat. 36°40'20", long. 106°42'10", in Tierra Amarilla Grant, 400 feet upstream from Willow Creek dam site, 0.3 mile downstream from Horse Lake Creek, and 7 miles southwest of Park View, Rio Arriba County.

Records available.- May 1936 to September 1943.

Extremes.- Maximum discharge during year, 652 second-feet Aug. 17 (gage height, 5.10 feet); minimum daily, 0.1 second-foot Sept. 12-27.

1936-43: Maximum discharge, 4,500 second-feet Apr. 23, 1942 (gage height, 10.49 feet), by slope-area method; no flow at times.

Remarks.- Records fair except those for period of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	2.2	1.3	0.8	1.2	7	91	4.3	3.1	14	1.0	8.1
2	.2	1.9	1.3	.8	1.2	9	88	4.6	2.5	4.9	1.3	3.5
3	.2	1.7	*1.1	.8	1.1	*11	83	4.3	4.1	2.4	1.4	1.7
4	.2	1.6	.9	.7	1.0	15	81	4.0	3.4	1.1	1.3	.9
5	.2	1.5	.8	†.7	1.1	23	69	6.6	1.8	.7	1.3	.5
6	.2	1.5	.8	.7	1.2	16	79	7.0	1.6	.7	1.6	.4
7	.2	1.3	.7	.7	1.3	10	64	5.8	2.8	.6	2.5	.3
8	.3	1.4	.7	.7	1.5	9.1	49	5.4	3.1	2.1	2.0	.2
9	.3	1.5	.8	.8	1.5	19	41	5.3	2.5	.8	1.8	.2
10	.3	1.4	.8	.8	1.5	55	36	4.9	7.8	.8	1.6	.2
11	.3	1.2	.9	.8	1.5	51	36	4.6	10	.7	5.4	.2
12	.4	1.1	.9	.8	1.5	47	22	4.6	5.4	.7	2.2	.2
13	1.0	1.0	.9	.8	1.6	44	20	4.1	3.5	.6	1.9	.2
14	1.6	1.0	.9	.8	1.7	43	28	3.5	2.9	.5	1.3	.3
15	1.0	1.1	.9	.8	1.8	45	32	2.7	1.7	.4	2.1	.3
16	1.3	1.3	1.0	.8	2.0	25	31	2.1	1.3	.3	17	.2
17	2.0	1.4	†1.0	.7	2.2	19	26	2.5	1.9	.2	49	.2
18	2.5	1.3	.9	.7	†2.5	32	25	2.2	2.1	.2	118	.1
19	2.0	1.3	.8	.5	2.9	26	22	2.0	2.4	.2	20	.1
20	1.8	1.3	1.0	†.6	3.0	24	20	2.1	2.4	1.8	6.5	.1
21	1.4	1.2	.9	.8	3.1	22	18	2.9	2.2	1.8	3.4	.1
22	1.2	1.2	.8	.9	3.2	30	15	3.1	1.9	4.9	1.9	.1
23	1.0	1.1	.9	1.0	3.3	46	13	3.4	2.2	3.4	1.2	.1
24	1.0	1.1	1.0	1.1	3.4	70	12	3.2	2.7	25	.8	.1
25	.9	1.3	1.1	1.0	3.6	84	10	2.9	2.2	14	.6	.1
26	1.0	1.5	.9	1.0	3.8	108	8.3	2.5	1.6	4.9	1.4	.1
27	.9	1.3	.8	1.0	4.4	119	7.2	2.9	1.5	2.8	1.8	.1
28	.9	1.5	.8	1.0	5.0	124	6.1	2.8	3.1	1.6	1.0	15
29	1.9	1.7	.8	1.1	-	181	5.4	4.6	16	1.0	1.4	5.4
30	2.5	1.3	.8	1.1	-	171	4.8	3.8	56	1.0	12	6.6
31	2.7	-	.8	1.2	-	116	-	3.5	-	1.0	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	31.6	2.7	0.2	1.02	63
November	41.2	2.2	1.0	1.37	82
December	28.1	1.3	.7	.91	56
Calendar year	-	-	-	-	-
January	26.0	1.2	.5	.84	52
February	63.1	5.0	1.0	2.25	125
March	1,601.1	181	7	51.6	3,180
April	1,042.8	91	4.8	34.8	2,070
May	113.2	7.0	2.0	3.51	254
June	155.7	56	1.3	5.19	309
July	95.1	25	.2	3.07	189
August	307.7	118	.6	9.93	610
September	45.6	15	.1	1.52	90
Water year 1942-43	3,556.2	181	.1	9.74	7,080

Peak discharge.- June 30 (9 a.m.) 133 sec.-ft.; July 24 (3 p.m.) 154 sec.-ft.; Aug. 16 (3 a.m.) 60 sec.-ft.; Aug. 17 (9 p.m.) 652 sec.-ft.; Aug. 31 (1 a.m.) 150 sec.-ft.;

* Winter discharge measurement made on this day.

† Field estimate made on this day.

Note.- Stage-discharge relation affected by ice Dec. 4 to Mar. 5.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

El Rito Creek near El Rito, N. Mex.

Location (revised).— Water-stage recorder, lat. 36°23'30", long. 106°14'20", in NW¼ sec. 19, T. 25 N., R. 7 E., three-quarters of a mile upstream from boundary of Carson National Forest and 3 miles northwest of El Rito.

Records available.— May 1931 to September 1943.

Extremes.— Maximum discharge during year, 233 second-feet Apr. 23 (gage height, 2.90 feet); minimum daily, 0.6 second-foot Aug. 2.

1931-43: Maximum discharge not determined; minimum daily recorded, 0.3 second-foot June 21-23, 1934.

Remarks.— Records fair except those for periods of ice effect, doubtful or no gage-height record, which are poor. One diversion above station for irrigation.

Discharge, in second-foot, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.4	2.1	2.4	3.0	2.7	20	113	6.3	3.5	1.0	2.0
2	2.3	2.8	3.0	2.4	2.8	2.7	d31	100	5.9	2.7	.6	1.4
3	2.7	3.0	2.7	2.5	2.7	2.9	d41	73	6.1	2.2	.7	1.2
4	2.4	2.7	2.8	*2.5	2.5	3.1	d47	76	5.6	2.0	1.5	1.0
5	2.5	2.7	2.5	2.4	2.5	2.8	d52	56	4.8	1.6	1.3	.9
6	2.5	2.8	2.4	2.3	2.4	2.9	a57	44	4.3	2.1	1.0	.8
7	2.5	2.7	2.1	2.2	2.6	3.0	62	43	4.1	1.8	.6	.8
8	2.7	2.7	2.2	2.3	2.6	3.2	56	33	3.8	1.7	.8	1.0
9	2.7	2.7	2.3	2.4	2.6	3.1	45	31	3.8	1.4	1.7	1.2
10	2.5	2.4	2.4	2.4	2.6	3.0	37	30	3.9	1.3	1.4	1.3
11	2.7	2.3	2.4	2.4	2.4	3.2	30	26	5.9	1.0	1.0	1.0
12	2.8	2.3	2.4	2.4	2.5	*3.6	31	23	4.1	1.0	.8	.8
13	3.3	2.4	2.6	2.4	2.6	3.1	d41	20	3.6	.8	.8	.8
14	3.6	2.7	2.7	2.4	2.6	3.5	d67	18	3.3	.9	1.4	1.3
15	3.0	2.7	2.7	2.4	*2.6	3.3	90	16	3.0	1.4	2.8	1.2
16	3.0	3.3	2.7	2.4	2.6	2.0	96	14	2.8	1.2	1.5	1.3
17	3.3	2.4	2.8	2.4	2.7	3.5	86	13	2.8	.9	1.5	1.2
18	3.1	2.7	2.8	2.4	2.7	3.1	100	13	2.8	.9	7.4	1.2
19	2.8	2.7	2.8	2.0	2.8	2.7	136	12	2.4	1.0	2.4	1.1
20	2.7	2.7	2.8	2.3	2.8	2.7	146	11	2.3	1.0	1.4	1.0
21	2.5	2.1	2.7	2.7	2.7	2.4	127	14	2.2	1.1	1.1	1.0
22	2.5	1.6	2.5	2.7	2.7	2.5	123	15	2.1	2.1	1.0	.9
23	2.4	3.0	2.8	2.7	2.7	2.5	159	12	2.0	1.5	1.1	.9
24	2.5	3.3	2.9	2.6	2.7	2.5	160	12	1.8	1.4	1.0	1.0
25	2.7	*2.4	3.0	2.6	2.7	3.1	153	11	1.8	1.3	.9	1.0
26	2.7	2.2	2.6	2.3	2.8	4.1	146	9.5	2.0	1.4	1.0	1.2
27	2.7	1.5	2.2	*2.6	2.9	6.1	127	9.5	2.8	1.3	1.8	1.7
28	2.7	2.0	2.3	2.7	2.9	9.1	133	9.1	9.4	1.3	1.4	2.4
29	3.5	2.0	2.4	2.8	-	16	137	9.1	8.3	1.3	1.7	1.8
30	3.5	2.1	2.4	2.9	-	19	129	8.5	4.3	1.0	2.6	1.5
31	2.4	-	2.4	3.0	-	16	-	7.4	-	1.0	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	85.6	3.6	2.3	2.71	170
November.....	75.3	3.3	1.5	2.51	149
December.....	79.4	3.0	2.1	2.56	157
Calendar year 1942.....	14,723.7	590	1.5	40.3	29,210
January.....	76.5	3.0	2.0	2.47	152
February.....	74.5	3.0	2.3	2.66	148
March.....	143.4	19	2.0	4.63	284
April.....	2,664	160	20	88.2	5,280
May.....	881.4	113	7.4	28.4	1,750
June.....	118.3	9.4	1.8	3.94	235
July.....	45.1	3.5	.8	1.45	89
August.....	50.7	7.4	.6	1.64	101
September.....	35.9	2.4	.8	1.20	71
Water year 1942-43.....	4,330.1	160	.6	11.6	8,590

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

d Doubtful gage-height record; discharge computed on basis of weather records and records for Rio Chama at Parkview and Rio Ojo Caliente near La Madera.

Note.— Stage-discharge relation affected by ice Dec. 6 to Mar. 11.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Ojo Caliente at La Madera, N. Mex.

Location.- Water-stage recorder, lat. $36^{\circ}20'45''$, long. $106^{\circ}02'50''$, in NE $\frac{1}{4}$ sec. 1, T. 24 N., R. 8 E., 2.5 miles south of La Madera, 3 miles downstream from confluence of Rio Vallecitos and Rio Tulas, and 4 miles north of Ojo Caliente.

Records available.- April 1932 to September 1943.

Average discharge.- 11 years (1932-43), 88.4 second-feet.

Extremes.- Maximum discharge during year, 826 second-feet Apr. 24 (gage height, 3.01 feet); minimum daily, 4 second-feet June 9, 10, 25-27, July 23-30, Aug. 1, 2, 5, 8-14, 16.

1932-43: Maximum discharge, 2,980 second-feet Apr. 23, 1942, from rating curve extended above 1,300 second-feet by logarithmic plotting; maximum gage height, 7.60 feet (site and datum then in use) July 15, 1933; minimum daily discharge, 1 second-foot at times.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	S	13	11	16	21	19	70	368	28	25	4	13
2	S	13	13	15	23	20	81	332	27	18	4	12
3	9	14	18	15	23	16	101	292	31	13	5	10
4	9	15	23	15	17	21	137	262	26	10	5	8
5	9	15	23	a16	18	26	162	262	20	8	4	8
6	9	14	18	a16	19	17	207	200	15	7	7	7
7	10	15	11	a15	20	15	234	199	11	6	5	6
8	11	15	12	a15	23	17	204	155	6	5	4	6
9	11	14	15	a16	25	20	185	137	4	10	4	7
10	11	13	17	a17	17	30	146	131	4	14	4	7
11	13	13	17	a17	17	31	112	112	6	10	4	7
12	13	11	15	a17	20	27	96	96	15	10	4	7
13	14	12	15	a17	21	25	101	85	14	9	4	7
14	15	12	15	a17	23	25	172	78	18	8	4	9
15	15	13	15	a17	24	25	284	70	14	8	6	8
16	17	13	15	a17	26	18	332	63	9	7	4	8
17	16	15	15	a18	25	18	275	50	11	6	8	8
18	15	14	15	a18	25	27	318	44	13	6	73	8
19	16	15	17	a10	25	19	400	36	13	6	24	8
20	16	17	15	a12	26	20	522	30	9	5	a5	7
21	15	15	18	a16	25	19	534	41	8	5	a5	7
22	14	13	14	a20	27	21	528	53	7	6	a5	8
23	13	13	13	a22	26	21	594	39	6	4	a5	8
24	13	15	18	a22	26	20	600	35	5	4	a5	7
25	13	17	25	a21	26	20	550	44	4	4	a5	8
26	13	16	19	a20	22	25	517	41	4	4	6	8
27	13	13	13	25	21	31	440	38	4	4	5	12
28	13	15	14	23	24	39	415	39	38	4	11	11
29	13	15	17	18	-	45	400	45	22	4	18	13
30	15	13	18	24	-	55	382	45	38	4	20	14
31	14	-	15	21	-	55	-	41	-	5	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	394	17	8	12.7	781
November.....	421	17	11	14.0	835
December.....	499	25	11	16.1	990
Calendar year 1942.....	47,828	2,180	4	131	94,850
January.....	549	25	10	17.7	1,090
February.....	635	27	17	22.7	1,260
March.....	785	55	15	25.3	1,580
April.....	9,099	600	70	303	18,050
May.....	3,453	368	30	111	6,850
June.....	430	38	4	14.3	853
July.....	250	25	4	8.1	496
August.....	290	73	4	9.4	575
September.....	257	14	6	8.6	510
Water year 1942-43.....	17,062	600	4	46.7	33,850

Peak discharge.- Apr. 24 (12:30 a.m.) 826 sec.-ft.; June 28 (7 p.m.) 284 sec.-ft.; June 30 (5 p.m.) 292 sec.-ft.; July 9 (3 p.m.) 234 sec.-ft.; Aug. 17 (12 p.m.) 279 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Rio Chama at Park View and El Rito Creek near El Rito.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Santa Cruz at Cundiyo, N. Mex.

Location.- Water-stage recorder, lat. 35°57'40", long. 105°54'10" (revised), in SW¼NW¼ sec. 17, T. 20 N., R. 10 E., 135 feet downstream from highway bridge at confluence of Rio Medio and Rio Frijoles, and a quarter of a mile northwest of Cundiyo.

Records available.- September 1931 to September 1943 in reports of Geological Survey. September 1915 to December 1931 (published as Rio Medio at Cundiyo and Rio Santa Cruz above Chimaloy) in reports of State engineer.

Average discharge.- 26 years (1916-29, 1930-43), 35.1 second-feet.

Extremes.- Maximum discharge during year, 142 second-feet Aug. 18 (gage height, 2.45 feet); minimum daily, 5.7 second-feet Dec. 7.

1931-43: Maximum discharge, 2,610 second-feet Sept. 24, 1931 (gage height, 8.20 feet, datum then in use), from rating curve extended above 170 second-feet by logarithmic plotting; minimum daily, 3 second-feet Feb. 3, 1932 and Jan. 21, 1935.

Remarks.- Records good except those for periods of ice effect, or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	16	b8	b11	11	14	47	102	41	20	17	23
2	17	16	b9	*b11	12	14	50	112	40	17	13	20
3	17	15	11	b11	11	13	57	113	39	15	12	18
4	17	15	11	b11	S.9	17	61	124	37	14	13	18
5	16	14	10	b10	b11	15	60	112	36	13	18	16
6	16	14	9.8	b10	b10	12	70	97	34	12	13	14
7	16	14	5.7	b10	b11	13	65	91	31	12	11	14
8	16	14	b6	b10	14	13	53	84	31	12	11	13
9	15	13	b7	b10	13	13	48	85	30	12	13	14
10	15	11	b7	b11	b11	15	43	78	29	11	11	15
11	15	b10	b8	a11	a10	16	38	69	44	10	11	13
12	15	b9	b8	a11	a11	16	37	65	30	9.6	9.4	11
13	20	b9	b9	a11	12	16	39	59	27	5.9	8.9	11
14	19	b10	b9	a11	15	18	43	57	26	9.4	14	12
15	15	b11	b9	a11	16	17	52	55	24	23	15	12
16	20	b11	b9	a11	16	13	56	53	23	15	10	12
17	20	11	b10	a11	*18	16	55	51	22	14	13	11
18	19	13	b10	a11	18	17	58	49	22	14	44	12
19	18	12	a11	a8	17	13	59	49	20	13	30	12
20	17	12	b11	a11	18	14	64	45	20	15	20	12
21	15	6.7	10	a11	18	14	65	50	15	15	17	11
22	17	6.7	11	a11	17	16	74	46	15	16	18	11
23	17	9.2	12	a12	17	16	54	45	17	14	28	11
24	*16	14	11	a12	17	16	94	43	16	14	15	11
25	16	13	11	a11	16	16	95	43	15	13	15	11
26	15	11	11	a9	16	19	102	41	15	13	16	12
27	15	*11	b9	a10	16	26	91	43	16	14	25	12
28	15	12	b9	a12	16	34	90	43	25	17	22	13
29	15	8.1	b10	*12	-	46	90	48	30	12	22	17
30	15	9.5	b11	11	-	52	94	46	24	17	20	13
31	13	-	b11	11	-	46	-	43	-	23	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	516	20	13	14.6	1,020
November.....	351.5	16	6.7	11.7	697
December.....	294.5	12	5.7	9.50	584
Calendar year 1942.....	24,216.0	570	5.7	66.3	48,020
January.....	334	12	8	10.8	662
February.....	396.9	18	8.9	14.2	787
March.....	596	52	12	19.2	1,180
April.....	1,943	102	37	64.8	3,850
May.....	2,046	124	41	66.0	4,060
June.....	800	44	15	28.7	1,690
July.....	435.9	23	8.9	14.1	865
August.....	540.3	44	6.9	17.4	1,070
September.....	405	23	11	13.5	803
Water year 1942-43.....	8,659.1	124	5.7	23.7	17,170

Peak discharge.- June 11 (7 a.m.) 67 sec.-ft.; June 28 (9 p.m.) 80 sec.-ft.; Aug. 18 (2:30 a.m.) 142 sec.-ft.; Aug. 18 (9 a.m.) 75 sec.-ft.; Aug. 23 (4 a.m.) 50 sec.-ft.; Aug. 31 (4:30 a.m.) 51 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Embudo Creek at Dixon and Rio Tacos at Los Cordovas.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Rio Santa Cruz at Riverside, N. Mex.

Location.- Water-stage recorder, lat. 35°59'15", long. 106°04'05", in SW¹/₄ sec. 2, T. 20 N., R. 8 E., at bridge on U. S. Highway 285, at south edge of Riverside, half a mile upstream from mouth and three-quarters of a mile east of Espanola.

Records available.- January 1942 to September 1943.

Extremes.- Maximum discharge during year, 166 second-feet July 18; maximum gage height, 4.66 feet Feb. 11 (ice jam); no flow on many days during year.

1942-43: Maximum discharge, 643 second-feet Apr. 24, 1942; maximum gage height, 4.85 feet June 7, 1942; no flow on many days.

Remarks.- Records poor. Diversions above station for irrigation. Flow partially regulated by Santa Cruz Reservoir (capacity, 4,614 acre-feet, original survey).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	13	0	*b6	b0	*b1	0	0	1	s	a0	4
2	5	13	0	b7	*b0	*0	0	0	2	1	a0	2
3	5	10	0	b7	*b0	0	0	0	0	0	1	0
4	a1	10	0	b9	b0	0	0	9	0	0	1	0
5	0	12	0	*b9	b1	0	1	26	0	1	0	0
6	0	10	0	a9	b1	0	2	18	0	0	0	0
7	0	9	*0	a8	b1	1	0	7	0	1	0	0
8	0	10	0	a8	2	6	0	10	0	1	0	0
9	0	10	0	*b8	1	2	0	53	0	0	3	9
10	0	5	0	b6	b1	1	0	39	2	0	7	2
11	0	5	0	*b4	b1	1	0	33	1	0	a0	0
12	0	4	1	b4	b5	0	0	25	0	0	a0	0
13	0	5	7	b4	b5	0	0	13	0	0	a0	0
14	0	4	10	b4	6	0	0	s	1	2	a0	0
15	0	4	15	b4	*5	0	0	1	3	3	a0	0
16	2	5	14	b4	*7	1	0	3	2	0	a0	0
17	3	4	17	b4	a5	1	0	1	2	0	a0	0
18	6	4	17	*b4	*3	0	0	1	2	8	a9	0
19	s	3	16	*b1	4	0	0	0	1	10	a0	0
20	6	3	s	*b5	4	0	0	4	0	a0	a0	0
21	6	3	5	b6	5	1	0	1	0	a0	0	0
22	6	3	4	4	*4	0	0	1	0	0	0	0
23	6	2	3	4	3	0	0	0	0	s	0	0
24	20	3	3	4	2	0	0	0	0	a0	0	0
25	38	2	3	*4	2	0	0	0	0	a0	0	0
26	27	1	2	b4	b1	0	0	0	1	a0	0	0
27	27	2	2	3	b1	0	0	2	1	a0	0	0
28	27	1	2	*2	b1	0	0	2	3	a0	0	5
29	22	0	4	*2	-	2	3	1	22	a0	0	a1
30	2	0	b5	1	-	1	2	0	13	a0	s	a0
31	s	-	b6	0	-	0	-	0	-	a0	5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	231	38	0	7.5	458
November.....	160	13	0	5.3	317
December.....	144	17	0	4.6	286
Calendar year 1942	21,126.7	594	0	57.9	41,910
January.....	149	9	0	4.8	296
February.....	69	7	0	2.5	137
March.....	18	6	0	.6	36
April.....	6	3	0	.3	16
May.....	287	53	0	8.3	510
June.....	63	22	0	2.1	125
July.....	43	10	0	1.4	85
August.....	34	9	0	1.1	67
September.....	23	9	0	.8	46
Water year 1942-43	1,199	53	0	3.3	2,380

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and observations by engineers.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Santa Fe Creek near Santa Fe, N. Mex.

Location.- Water-stage recorder and sharp-crested concrete control, lat. 35°41'15", long. 105°50'10", in NW1/4 sec. 24, T. 17 N., R. 10 E., 300 feet downstream from upper storage reservoir of New Mexico Power Co., and 6 miles east of Santa Fe.

Records available.- May to June 1910 (at site 3 miles downstream), April 1913 to December 1914 (at site 2 miles downstream), and October 1930 to September 1943 in reports of Geological Survey. January 1913 to November 1930 (at site 2 miles downstream), and November 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 55 second-feet Apr. 8 (gage height, 1.35 feet); minimum daily, 0.7 second-foot Mar. 13-15.

1930-43: Maximum discharge, 418 second-feet Apr. 23, 1942 (gage height, 3.51 feet); minimum daily, 0.6 second-foot Nov. 13, 1933.

Remarks.- Records good. Flow regulated by Granite Point Reservoir (capacity, 648 acre-feet). No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	3.0	2.0	5.8	2.2	0.9	12	23	8.6	7.4	4.5	2.7
2	3.6	3.0	2.0	3.4	1.7	.9	12	27	8.6	7.4	4.5	2.7
3	3.6	3.0	2.0	.8	1.0	.9	12	31	8.3	7.1	4.3	2.7
4	3.4	3.0	1.7	.8	1.0	.9	12	32	8.3	6.8	4.3	2.7
5	3.2	3.0	1.4	2.9	.9	.8	14	33	8.6	6.8	5.5	2.7
6	3.2	2.4	1.4	6.6	.9	.8	21	32	8.6	6.8	5.8	2.7
7	3.0	2.0	1.4	6.3	.9	.8	21	32	8.6	6.6	5.0	2.7
8	3.0	2.0	1.4	6.3	.9	1.7	36	31	8.6	6.3	4.5	2.7
9	3.0	2.0	1.4	6.3	.9	2.7	41	24	8.9	6.0	5.3	2.7
10	3.0	2.0	1.4	6.3	.9	2.7	24	19	8.9	5.8	5.3	2.7
11	3.0	2.0	1.4	6.0	.9	2.5	24	12	8.9	5.5	7.5	2.7
12	3.0	2.0	2.2	6.0	.9	1.4	20	7.7	8.9	5.5	13	2.7
13	3.0	2.0	3.2	6.0	.9	.7	16	7.7	8.9	5.5	12	2.7
14	3.0	2.0	2.2	6.0	.9	.7	11	9.5	8.9	5.3	12	2.7
15	3.0	2.0	2.7	6.0	.9	.7	8.0	12	8.9	5.5	12	2.7
16	3.0	2.0	.8	6.0	.9	.9	9.5	12	8.9	5.3	11	2.7
17	2.7	2.0	.8	3.6	.9	1.2	12	12	8.6	5.5	11	2.7
18	2.7	2.0	.8	2.2	.9	1.0	12	12	8.6	5.5	10	2.7
19	2.7	2.0	.8	2.2	.9	1.0	12	12	8.6	5.3	9.5	2.7
20	2.7	2.0	.8	2.2	.9	1.0	12	12	8.3	5.3	7.2	2.7
21	2.7	2.0	.8	2.2	.9	1.0	12	12	8.3	5.0	1.7	2.7
22	2.7	2.0	.8	2.2	.9	7.4	12	12	8.3	4.8	1.7	2.7
23	2.7	2.0	.8	2.2	.9	13	12	12	8.0	4.8	2.0	2.7
24	2.7	2.0	.8	2.2	.9	12	13	12	8.0	4.8	2.5	2.7
25	2.7	2.0	.8	2.2	.9	12	13	8.9	8.0	5.0	2.5	2.7
26	2.7	2.0	.8	2.2	.9	12	17	8.0	8.0	5.0	2.5	2.7
27	2.7	2.0	.8	2.2	.9	12	20	8.9	7.7	5.0	2.5	2.7
28	2.7	2.0	.8	2.2	.9	12	21	8.9	7.7	4.8	2.5	2.7
29	2.7	2.0	.8	2.2	-	11	23	8.9	7.4	4.8	2.5	2.7
30	2.7	2.0	.8	2.2	-	11	23	8.6	7.4	4.8	2.7	2.7
31	2.7	-	2.8	2.2	-	11	-	8.6	-	4.8	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	92.0	4.5	2.7	2.97	182
November.....	65.4	3.0	2.0	2.18	130
December.....	42.6	3.2	.8	1.37	84
Calendar year 1942	5,249.9	341	.8	14.4	10,420
January.....	115.9	6.6	.8	3.74	230
February.....	27.5	2.2	.9	.98	55
March.....	138.6	13	.7	4.47	275
April.....	507.5	41	8.0	16.9	1,010
May.....	501.7	33	7.7	16.2	995
June.....	252.3	8.9	7.4	8.41	500
July.....	174.8	7.4	4.8	5.64	347
August.....	180.0	13	1.7	5.81	357
September.....	81.0	2.7	2.7	2.70	161
Water year 1942-43	2,179.3	41	.7	5.97	4,330

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Galisteo Creek at Domingo, N. Mex.

Location.- Water-stage recorder, lat. 35°30'45", long. 106°18'55", in SW $\frac{1}{4}$ sec. 21, T. 15 N., R. 6 E., in Santo Domingo Pueblo Grant, at highway bridge, 0.3 mile north-east of Domingo, $2\frac{1}{2}$ miles east of Santo Domingo Pueblo, and 4 miles upstream from mouth.

Records available.- October 1941 to September 1943.

Extremes.- Maximum discharge during year, 7,240 second-feet July 17 (gage height, 5.90 feet), from rating curve extended above 740 second-feet by logarithmic plotting; no flow for long periods.

1941-43: Maximum discharge, 10,400 second-feet July 27, 1942 (gage height, 6.10 feet), from rating curve extended above 740 second-feet by logarithmic plotting; no flow on many days.

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

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1	0	3	1	0		0		0	d0	0
2	0	1	0	4	2	0		0		0	a0	1
3	0	1	1	2	2	0		0		0	0	1
4	0	1	4	3	0	0		0		0	15	1
5	0	1	16	3	0	1		0		0	8	0
6	0	1	6	5	0	0		0		0	1	0
7	0	1	3	2	0	0		0		0	0	0
8	0	1	2	2	0	0		0		0	0	0
9	0	1	1	2	1	2		0		0	0	1
10	0	1	1	2	1	2		0		0	1	2
11	0	1	1	3	1	3		0		0	1	2
12	0	1	1	2	0	0		0		0	0	2
13	1	1	1	1	0	0		0		0	0	1
14	1	1	1	2	0	1		0		0	1	1
15	1	1	1	2	0	1		0		44	0	1
16	2	1	1	0	0	0		0		2	0	2
17	21	1	1	0	0	0		0		46	0	2
18	13	1	1	5	0	0		0		a1	1	1
19	6	1	4	2	0	0		0		0	a0	1
20	4	1	3	d2	0	0		0		4	a0	0
21	3	1	6	5	0	0		1		1	a0	1
22	2	1	1	7	0	0		0		2	a0	1
23	2	1	0	4	0	0		0		5	1	1
24	1	0	1	3	0	0		0		2	1	1
25	1	0	6	0	0	0		0		13	1	1
26	2	0	7	0	0	0		0		2	0	1
27	1	0	3	1	0	0		0		1	17	1
28	1	0	2	2	0	0		0		d0	49	9
29	2	0	2	1	-	0		0		d0	a3	7
30	2	0	3	2	-	0		0		d0	2	4
31	1	-	3	1	-	0		0		1	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	67	21	0	2.2	133
November.....	23	1	0	.8	46
December.....	83	16	0	2.7	165
Calendar year 1942.....	9,955	1,210	0	27.3	19,750
January.....	75	7	0	2.4	149
February.....	8	2	0	.3	16
March.....	8	3	0	.3	16
April.....	0	0	0	0	0
May.....	1	1	0	0	2.0
June.....	0	0	0	0	0
July.....	124	46	0	4.0	246
August.....	108	49	0	3.5	214
September.....	46	9	0	1.5	91
Water year 1942-43.....	543	49	0	1.5	1,080

Peak discharge.- July 15 (5 a.m.) 848 sec.-ft.; July 17 (7:30 p.m.) 7,240 sec.-ft.; Aug. 4 (7 p.m.) 270 sec.-ft.; Aug. 27 (6:30 a.m.) 208 sec.-ft.; Aug. 28 (4 a.m.) 345 sec.-ft.; Sept. 28 (11 p.m.) 155 sec.-ft.

a No gage-height record; discharge estimated.

d Doubtful gage-height record; discharge estimated.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

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Jemez Creek near Bernalillo, N. Mex.

Location.- Water-stage recorders on right and left banks, lat. 35°23'40", long. 106°32'25", in S4 sec. 32, T. 14 N., R. 4 E., about 2 miles upstream from mouth and 6.2 miles north of Bernalillo. Datum of gage is 5,120.11 feet above mean sea level, datum of 1929.

Records available.- March 1936 to January 1938, and March to September 1943 in reports of Geological Survey. March 1936 to January 1938 report of Rio Grande Joint Investigation.

Extremes.- Maximum discharge during period, 11,000 second-feet Aug. 29 (gage height, 5.62 feet), computed on basis of records for Rio Grande at San Felipe and near Bernalillo; no flow on many days.

1936-38, 1943: Maximum discharge, that of Aug. 29, 1943; no flow on many days.

Remarks.- Records poor. Diversions for irrigation above station.

Discharge, in second-feet, 1942-43

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	170	186	0	25	0	a0	16	4	100	14	0	0	0	0
2	-	212	122	0	16	1	a0	17	62	114	9	0	0	0	0
3	-	237	130	0	5	0	a0	18	49	125	5	0	0	20	0
4	-	272	107	0	0	0	a0	19	68	122	5	0	2	0	0
5	-	272	110	0	0	30	a0	20	52	130	2	0	127	0	0
6	-	224	96	0	0	8	0	21	45	161	6	0	a5	0	0
7	-	237	99	0	0	7	0	22	52	166	5	0	118	0	0
8	-	170	80	0	0	0	0	23	43	224	3	0	71	0	0
9	-	111	93	0	0	0	0	24	41	286	0	0	35	0	0
10	-	104	104	0	0	0	11	25	65	300	0	0	13	0	0
11	-	118	73	0	0	0	0	26	82	258	0	0	12	0	0
12	-	79	62	0	0	0	0	27	94	258	0	0	15	0	0
13	-	73	57	0	0	0	0	28	118	188	0	0	0	0	6
14	-	73	34	0	0	0	0	29	148	90	0	18	0	e220	4
15	-	97	20	0	0	0	0	30	200	170	0	26	0	a0	5
								31	200	-	0	0	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
March 17-31.....	1,319	200	41	87.9	2,620
April.....	5,141	300	73	171	10,200
May.....	1,424	188	0	45.9	2,620
June.....	44	26	0	1.5	87
July.....	450	127	0	14.5	893
August.....	286	220	0	9.2	567
September.....	26	11	0	.9	52
The period.....	-	-	-	-	17,240

Peak discharge.- July 20 (1 a.m.) 760 sec.-ft.; Aug. 5 (7:30 a.m.) 392 sec.-ft.; Aug. 18 (7 p.m.) 1,020 sec.-ft.; Aug. 29 (8 a.m.) 11,000 sec.-ft.

a No gage-height record; discharge estimated.

e Stage-discharge relation indefinite; discharge computed on basis of records for Rio Grande at San Felipe and near Bernalillo.

Tijeras Creek near Albuquerque, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°03'40", long. 106°29'40", in S4 sec. 26, T. 10 N., R. 4 E., at Mann diversion dam and 9 miles east of Albuquerque.

Records available.- April to September 1943 in reports of Geological Survey. January 1921 to January 1922 in reports of State engineer.

Extremes.- Maximum discharge during period, 1,100 second-feet July 17 (gage height, 4.18 feet), by computation of flow over dam; minimum daily, 0.5 second-foot June 23, Aug. 24.

Remarks.- Records poor. Several diversions above station for irrigation.

Cooperation.- One discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, 1942-43

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	1.1	1.5	1.1	1.4	1.2	16	1.3	1.6	.9	1.1	1.2	.9
2	-	.9	1.5	.9	1.8	1.0	17	1.2	1.2	.7	33	1.0	.9
3	-	1.3	1.6	.7	1.4	.7	18	1.4	1.2	3.5	20	a2	.9
4	-	1.2	1.3	.7	1.4	.7	19	1.3	1.5	1.1	a3	a1	.9
5	-	1.5	1.0	.9	1.4	.7	20	1.2	3.1	1.0	1.5	a.9	.7
6	-	1.8	1.1	.9	1.3	.7	21	1.2	9.8	.9	3.2	a.8	.7
7	-	1.7	1.1	.9	1.2	.9	22	1.3	3.5	.7	2.1	a1.5	1.0
8	-	1.3	1.0	.9	1.3	1.0	23	1.6	3.0	.5	.9	.7	1.2
9	-	1.8	1.1	.8	1.8	1.0	24	1.4	2.6	.6	7.7	.5	1.2
10	-	1.6	1.2	.7	20	.9	25	1.4	2.1	.7	6.1	.6	1.2
11	-	1.5	1.4	.9	2.9	.9	26	1.6	2.1	.7	3.3	.7	1.2
12	1.4	1.2	1.1	.9	1.4	.9	27	1.7	1.9	.8	1.2	1.4	1.2
13	1.1	1.1	.9	.9	1.2	.9	28	1.5	6.0	.9	1.1	2.7	2.1
14	.9	1.3	.9	1.1	1.1	1.2	29	1.3	2.3	1.3	.7	1.1	3.1
15	1.0	1.7	.9	.9	1.3	.9	30	1.1	1.6	1.4	.6	1.2	a9
							31	-	1.5	-	42	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
April 12-30.....	64.9	1.7	0.9	1.31	49
May.....	26.2	9.8	.9	2.14	131
June.....	33.4	3.5	.5	1.11	66
July.....	140.7	42	.5	4.54	279
August.....	83.6	20	.5	2.77	166
September.....	31.7	3.1	-	1.06	63
The period.....	-	-	-	-	754

Peak discharge.- July 17 (10 p.m.) 1,100 sec.-ft.; July 31 (8:30 p.m.) 1,040 sec.-ft.; Aug. 8 (6 p.m.) 213 sec.-ft.; Aug. 10 (5:30 p.m.) 257 sec.-ft.

a No gage-height record; discharge computed on basis of weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Puerco near Cabezon, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 35°42'10", long. 107°00'40", in SE 1/4 sec. 14, T. 17 N., R. 2 W., 1 1/2 miles downstream from San Luis diversion dam, 2 1/2 miles northeast of San Luis, 7 miles northeast of Cabezon, and 15 miles upstream from Chico Arroyo.

Drainage area.- 360 square miles.

Records available.- February to September 1943.

Extremes.- Maximum discharge during period, 4,400 second-feet June 28 (gage height, 10.6 feet), by slope-area method; no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1					-	0.8	0.2	34	0.1	a.5	a0.5
2					-	.2	.2	38	0	a.1	a.3
3					-	.2	1.8	26	0	0	a.2
4					-	3.4	2.9	16	0	0	.2
5					-	11	2.4	23	.1	0	.2
6					-	29	2.4	3.0	0	0	.3
7					-	8.0	4.9	a.3	0	0	.3
8					-	8.8	7.4	a.2	0	.8	.2
9					-	9.9	2.5	2.9	.1	2.3	12
10					-	45	5.3	1.7	.1	a.2	2.8
11					-	138	4.1	a.2	.1	a.1	.2
12					-	30	a1.5	.1	0	a.1	.1
13					-	10	a.6	.1	0	a.1	.1
14					-	6.6	a.2	.1	.1	.6	.1
15					-	5.7	.3	.1	0	.1	.1
16					-	2.2	7.6	.1	0	.1	.1
17					-	2.1	13	.1	0	.1	.1
18					-	7.4	8.0	.1	0	.2	.1
19					-	8.6	9.5	.1	0	.4	.1
20					-	5.2	11.	.1	0	12	.1
21					-	1.8	33	.1	0	5.8	.1
22					2.9	a1.3	34	.1	0	21	.1
23					2.2	a.9	49	.1	0	.3	.1
24					2.3	.4	70	.1	0	.2	.1
25					2.4	.3	59	.1	.1	.2	.1
26					1.1	.2	64	.1	3.4	5.8	.2
27					1.0	.2	63	.1	a.3	.2	6.9
28					1.0	.2	56	.1	250	.1	10
29					-	.2	52	.1	343	.1	3.3
30					-	.2	37	.1	34	.1	a.2
31					-	.3	-	.1	-	.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	
October.....						-	-	-	-	-	
November.....						-	-	-	-	-	
December.....						-	-	-	-	-	
Calendar year.....						-	-	-	-	-	
January.....						-	-	-	-	-	
February 22-28.....						12.9	2.9	1.0	1.84	28	
March.....						338.1	138	.2	10.9	671	
April.....						602.9	70	.2	20.1	1,200	
May.....						147.3	38	.1	4.75	292	
June.....						521.4	343	0	21.0	1,250	
July.....						55.2	21	0	1.81	111	
August.....						619.2	269	.1	20.0	1,230	
September.....						39.2	12	.1	1.31	78	
Water year.....						-	-	-	-	4,860	

Peak discharge.- June 28 (11:30 p.m.) 4,400 sec.-ft.; Aug. 14 (9:30 p.m.) 572 sec.-ft.; Aug. 28 (1 a.m.) 2,500 sec.-ft.; Aug. 29 (4 a.m.) 4 sec.-ft.; Aug. 29 (8 p.m.) 572 sec.-ft.; Aug. 30 (9:30 p.m.) 520 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records from stations at Cabezon and at Rio Puerco.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Puerco near Guadalupe, N. Mex.

Location.- Water-stage recorder, lat. 35°33'40", long. 107°09'40", near center of sec. 4, T. 15 N., R. 3 W. (projected), 1½ miles northwest of Guadalupe, 3 miles downstream from Chico Arroyo, and 5½ miles southwest of Cabezón.

Drainage area.- 1,860 square miles.

Records available.- March to November 1943 (discontinued).

Extremes.- Maximum discharge during period not determined; maximum gage height, 15.3 feet June 29; no flow on many days.

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

Discharge, in second-feet, March to November 1943

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.			
1	-	0	44	0	30	0	85	2	10			
2	-	0	59	0	11	8	51	2	5			
3	-	0	46	0	7	450	18	79	3			
4	-	0	47	0	5	0	3	33	1			
5	-	0	47	0	a1	251	1	8	0			
6	-	0	33	0	0	59	0	27	0			
7	-	3	15	0	0	a0	0	9	1			
8	-	7	15	0	0	a0	0	41	1			
9	-	6	14	0	4	a0	202	28	1			
10	-	8	23	0	2	a0	488	16	0			
11	-	14	9	1	0	108	12	7	0			
12	13	15	0	13	0	169	3	5	0			
13	12	12	0	7	0	184	a0	1	0			
14	8	3	0	3	0	209	7	0	0			
15	8	6	0	0	13	183	20	0	0			
16	13	10	0	0	11	145	12	0	0			
17	1	20	0	0	a0	221	10	0	0			
18	2	13	0	0	28	477	2	0	0			
19	29	19	0	0	15	278	0	0	0			
20	2	23	0	0	8	a0	0	0	0			
21	2	34	0	0	45	a0	0	0	0			
22	2	34	0	0	101	113	0	0	0			
23	2	41	0	0	59	349	0	0	0			
24	1	45	0	0	27	111	0	0	10			
25	0	43	0	0	26	84	0	0	-			
26	0	45	0	12	3	36	0	0	-			
27	a0	54	0	23	1	13	5	8	-			
28	a0	59	0	24	0	424	14	0	-			
29	a0	49	0	991	0	78	9	0	-			
30	a0	49	0	740	0	138	4	0	-			
31	0	-	0	-	0	237	-	1	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 12-31, 1943.....	95	29	0	4.8	188
April.....	612	59	0	20.4	1,210
May.....	355	59	0	11.5	704
June.....	1,814	991	0	60.5	3,600
July.....	397	101	0	12.8	787
August.....	4,325	477	0	140.	8,580
September.....	946	488	0	31.5	1,880
The period.....	-	-	-	-	16,960
October 1943.....	259	79	0	8.4	514
November 1-24.....	32	10	0	1.3	83
December.....	-	-	-	-	-

a No gage-height record; discharge computed on basis of engineers' notes.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Puerco at Rio Puerco, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°47'35", long. 106°59'15", in W¹/₂ Sec. 31, T. 7 N., R. 1 W (projected), in hamlet of Rio Puerco in San Clemente Grant, at Atchison, Topeka & Santa Fe Railway bridge, 7 miles downstream from San Jose River.

Drainage area.- 5,160 square miles.

Records available.- September 1910 to October 1911, August 1912 to December 1914 (records fragmentary, gage heights only prior to March 1913), and March 1934 to September 1943 in reports of Geological Survey. January 1913 to December 1925 and September 1926 to December 1927 in reports of State engineer.

Average discharge.- 18 years (1913-17, 1919-20, 1921-24, 1926-27, 1934-43), 105 second-feet.

Extremes.- Maximum discharge during year, 7,870 second-feet June 29 (gage height, 3.55 feet), from rating curve extended above 2,500 second-feet by logarithmic plotting on basis of computation of flow over dam at gage height 7.24 feet; no flow at times. 1934-43: Maximum discharge, 28,000 second-feet Aug. 21, 1935 (gage height, 7.24 feet), by computation of flow over dam; no flow at times.

Remarks.- Records poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a0	0	1	0	0	0	0	24	a0	554	0	240
2	a0	0	1	0	0	0	0	26	a0	80	0	34
3	a0	0	1	0	1	0	0	24	a0	18	44	12
4	a0	0	1	0	0	0	0	28	a0	8	269	3
5	a1	0	3	1	0	0	0	20	a0	2	202	0
6	a1	0	1	0	0	0	0	12	a0	0	194	0
7	a1	0	1	1	0	0	0	11	a0	0	104	0
8	1	0	0	0	0	0	0	11	a0	16	15	0
9	0	0	1	0	0	0	0	6	a0	17	3	0
10	1	0	0	0	0	0	0	12	a0	0	0	351
11	1	0	0	0	0	0	0	8	a5	0	0	208
12	340	0	0	0	0	47	0	6	a1	0	49	28
13	36	0	0	0	0	58	0	a2	a0	0	145	6
14	12	1	0	0	0	26	0	a1	a0	0	66	1
15	3	1	0	1	0	16	1	a1	a0	0	223	0
16	1	1	0	0	0	12	1	a1	a0	0	a100	0
17	1	1	0	0	0	6	0	a1	a2	0	a45	0
18	6	1	0	0	1	2	0	a1	a1	0	a20	2
19	3	1	1	0	1	1	0	a1	0	10	1,400	0
20	3	1	0	0	0	0	0	a1	0	0	216	0
21	9	0	1	0	2	0	4	S2	0	1	a80	0
22	4	0	0	1	10	0	4	28	0	154	a20	0
23	1	1	0	0	7	0	6	a12	0	91	73	0
24	1	1	1	0	2	0	14	a4	0	36	537	0
25	0	1	1	0	2	0	22	a1	0	24	a100	0
26	0	1	1	0	1	0	42	a1	0	18	361	0
27	0	0	1	0	0	0	42	a1	1	3	a100	0
28	0	1	0	1	0	0	42	a2	1	0	1,590	0
29	0	1	0	0	-	0	39	a1	1,330	0	764	0
30	0	0	0	0	-	0	34	a0	904	0	a250	0
31	0	-	0	0	-	0	0	a0	-	0	412	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	428	340	0	13.7	845
November.....	13	1	0	.4	26
December.....	16	3	0	.5	32
Calendar year 1942.....	10,733	773	0	29.4	21,300
January.....	5	1	0	.2	9.9
February.....	27	10	0	1.0	54
March.....	168	58	0	5.4	333
April.....	251	42	0	8.4	498
May.....	329	82	0	10.6	653
June.....	2,245	1,330	0	74.8	4,450
July.....	1,032	554	0	33.3	2,050
August.....	7,675	1,590	0	248	15,230
September.....	885	351	0	29.5	1,760
Water year 1942-43.....	13,075	1,590	0	35.8	25,940

Peak discharge.- Oct. 12 (10 a.m.) 2,890 sec.-ft.; June 29 (8 p.m.) 7,870 sec.-ft.; Aug. 19 (6 a.m.) 4,800 sec.-ft.; Aug. 28 (2:30 a.m.) 5,040 sec.-ft.; Aug. 31 (11:30 a.m.) 1,890 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Rio Puerco near Cabezón and near Bernardo, and San Jose River at Correo.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Puerco near Bernardo, N. Mex.

Location.- Water-stage recorder, lat. 34°24'30", long. 106°51'10", in Sevilleta Grant, at bridge on U. S. Highway 85, 1.2 miles southwest of Bernardo, 3 miles upstream from mouth, and 16 miles south of Belen.

Records available.- November 1939 to September 1943. September 1910 to August 1914 (fragmentary gage heights only) at site at Atchison, Topeka & Santa Fe Railway bridge, 1 1/2 miles downstream, published as Rio Puerco near La Joya, N. Mex.

Extremes.- Maximum discharge during year, 11,100 second-feet June 30 (gage height, 9.11 feet), from rating curve extended above 7,800 second-feet by logarithmic plotting; no flow for extended periods.
1939-43: Maximum discharge, 18,800 second-feet Sept. 23, 1941 (gage height, 9.80 feet), from rating curve extended above 7,800 second-feet by logarithmic plotting; no flow for extended periods.

Remarks.- Records poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0					0	0	18	0	377	0	a550
2	0					0	0	12	0	276	0	a150
3	0					0	0	14	0	43	0	30
4	0					0	0	12	0	13	266	8
5	0					0	0	14	0	2	205	2
6	0					0	0	8	0	0	159	0
7	0					0	0	a6	0	0	512	0
8	0					0	0	a5	0	0	66	0
9	0					0	0	12	0	0	20	0
10	0					0	0	9	45	1	a6	2
11	0					0	0	13	8	0	a2	319
12	0					0	0	5	0	0	a4	70
13	380					7	0	2	0	0	43	20
14	26					66	0	1	0	0	95	3
15	5					20	0	0	0	0	62	0
16	4					14	0	0	0	0	72	0
17	a2					6	0	0	0	0	a30	0
18	a3					3	0	0	0	0	a10	0
19	a2					1	0	0	0	8	954	0
20	1					0	0	372	0	5	399	0
21	2					0	0	22	0	14	a110	0
22	0					0	0	37	0	68	a40	0
23	1					0	0	4	0	26	a20	0
24	1					0	0	0	0	76	a50	0
25	0					0	0	0	0	32	340	0
26	0					0	1	0	0	12	143	0
27	0					0	19	0	20	15	278	0
28	0					0	21	0	39	2	1,590	0
29	0					0	24	0	2,510	0	783	0
30	0					0	22	0	2,370	0	530	0
31	0					0	-	0	-	0	509	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	427	380	0	13.8	847
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1942	5,656	593	0	15.4	11,190
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	117	66	0	3.8	232
April.....	86	34	0	2.9	171
May.....	566	372	0	18.3	1,120
June.....	4,994	2,510	0	165	9,910
July.....	970	377	0	31.3	1,920
August.....	7,298	1,590	0	233	14,480
September.....	1,154	850	0	33.5	2,290
Water year 1942-43	15,612	2,510	0	42.8	30,970

Peak discharge.- May 20 (7:30 p.m.) 3,170 sec.-ft.; June 29 (5 a.m.) 6,580 sec. ft.; June 30 (3:30 a.m.) 11,100 sec.-ft.; Aug. 7 (1 a.m.) 3,570 sec.-ft.; Aug. 19 (4 p.m.) 5,780 sec.-ft.; Aug. 28 (10 a.m.) 5,040 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station at Rio Puerco.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Bluewater Creek near Bluewater, N. Mex.

Location (revised).— Water-stage recorder, lat. $35^{\circ}17'50''$, long. $108^{\circ}01'40''$, in W&SW $\frac{1}{4}$ sec. 5, T. 12 N., R. 11 W., $2\frac{1}{2}$ miles northwest of Bluewater and 8 miles downstream from storage reservoir of Bluewater-Toltec Irrigation District.

Drainage area.— 235 square miles.

Records available.— May 1912 to December 1914 and October 1930 to September 1943 in reports of Geological Survey. May 1912 to June 1919 and April 1921 to December 1931 in reports of State engineer.

Extremes.— Maximum discharge during year, 173 second-feet Aug. 23 (gage height, 4.15 feet); minimum daily, 4.0 second-feet Jan. 19.
1930-43: Maximum discharge, 1,010 second-feet Sept. 1, 1936 (gage height, 6.15 feet, site and datum then in use), from rating curve extended above 65 second-feet by logarithmic plotting; no flow Mar. 9, 1931, Feb. 3, 1935.

Remarks.— Records good except those for periods of ice effect, which are fair. Flow regulated by Bluewater-Toltec Reservoir (capacity, 46,000 acre-feet).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	8.5	6.9	6.7	5.6	6.3	8.3	50	68	4.6	68	24
2	37	8.5	6.7	6.7	6.0	6.3	8.3	50	68	19	68	24
3	41	8.5	6.7	b6.6	5.6	6.5	7.3	51	68	35	70	24
4	43	8.8	7.6	b6.8	b5.5	6.9	7.1	63	67	37	68	24
5	43	8.8	7.6	6.9	*5.8	*7.8	7.1	63	67	39	68	24
6	43	*8.8	6.7	*6.9	b5.5	6.9	7.3	63	67	43	68	24
7	30	8.5	b6.5	6.9	b5.5	6.5	7.1	62	67	47	68	24
8	27	8.3	6.9	b6.5	5.8	6.5	7.1	61	67	51	70	24
9	19	8.3	6.9	b6.3	b5.5	6.5	7.3	62	67	53	67	24
10	19	8.3	6.7	b6.5	b6.0	6.5	7.3	62	68	53	61	24
11	18	8.3	*6.3	b6.5	b6.0	6.7	7.1	61	71	52	60	24
12	18	8.1	b6.0	b6.5	b6.0	6.9	7.3	62	71	52	61	23
13	18	8.1	6.2	b6.5	b6.0	7.1	11	70	70	53	60	23
14	18	8.1	b6.0	6.7	5.8	7.1	18	70	70	54	59	23
15	9.5	8.1	6.3	6.3	5.8	7.3	18	74	70	52	50	23
16	9.3	8.1	6.3	6.3	5.8	7.3	18	75	70	52	49	23
17	9.2	7.8	6.3	6.3	6.0	7.3	19	76	71	53	49	23
18	9.5	7.8	6.3	b6.0	6.2	7.6	19	64	55	53	49	23
19	9.0	7.8	6.7	b4.0	6.0	7.6	19	62	41	53	49	28
20	8.8	7.8	6.5	b5.0	6.0	7.6	24	63	40	70	48	29
21	8.5	7.6	6.5	b5.5	6.0	7.8	32	62	40	79	49	29
22	8.5	7.3	6.5	b5.5	6.2	7.8	37	62	48	77	49	29
23	8.5	7.3	6.5	*b5.5	6.2	7.8	37	61	50	77	43	29
24	8.5	7.3	6.5	b5.5	6.2	7.8	43	61	54	79	36	29
25	8.5	7.3	8.1	b5.5	6.2	7.8	44	61	58	79	36	29
26	8.5	7.1	6.9	b6.0	6.2	7.8	44	62	56	79	35	29
27	8.5	7.1	6.5	b6.0	6.3	8.1	45	68	56	77	34	26
28	8.5	7.1	b6.6	6.0	6.3	8.3	44	71	59	79	42	11
29	9.5	6.9	6.3	5.8	-	8.3	48	70	50	76	26	11
30	9.0	6.9	6.3	5.8	-	8.3	50	70	6.0	68	26	11
31	8.5	-	b6.5	5.6	-	8.3	-	68	-	68	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	561.9	43	8.5	18.1	1,110
November.....	237.2	8.8	6.9	7.91	470
December.....	205.3	8.1	6.0	6.62	407
Calendar year 1942.....	10,370.6	86	6.0	23.4	20,560
January.....	189.6	6.9	4.0	6.12	376
February.....	166.0	6.3	5.5	5.93	329
March.....	227.5	8.3	6.3	7.34	451
April.....	658.6	50	7.1	22.0	1,310
May.....	1,979	75	50	63.8	3,930
June.....	1,780.0	71	6.0	59.3	3,530
July.....	1,763.6	79	4.6	55.9	3,500
August.....	1,609	70	24	51.9	3,190
September.....	715	29	11	23.8	1,480
Water year 1942-43.....	10,092.7	79	4.0	27.7	20,080

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

San Jose River at Correo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°58'00", long. 107°10'10", in NE 1/4 sec. 32, T. 9 N., R. 3 W., 0.6 mile upstream from U. S. Highway 66, 0.7 mile north-east of Correo, and 13 miles upstream from mouth.

Records available.- April to September 1943.

Extremes.- Maximum discharge during period, 1,210 second-feet Aug. 5 (gage height, 4.17 feet), from rating curve extended above 270 second-feet by logarithmic plotting; no flow on many days.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, 1942-43											
Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	0	0	69	a0	7.3	16	0	0	2.6	11	0
2	0	0	15	0	1.9	17	0	0	.7	a1	0
3	0	0	7.1	0	a.5	18	0	0	a.1	3.3	0
4	0	0	a3	4.8	a0	19	0	0	3.6	88	0
5	0	0	a0	132	a0	20	.3	0	2.4	2.0	0
6	0	0	a0	243	a0	21	1.5	0	1.8	3.1	0
7	0	0	0	39	a0	22	0	0	4.5	10	0
8	0	0	0	16	a0	23	0	0	14	74	0
9	0	0	.1	5.9	0	24	0	0	2.5	135	0
10	0	0	.7	a.6	0	25	0	0	35	15	0
11	0	0	0	a0	0	26	0	0	3.5	273	0
12	0	0	0	3.3	0	27	0	0	1.6	93	0
13	0	0	0	a1.5	0	28	0	0	a.5	613	0
14	0	0	0	a0	0	29	0	323	a0	155	0
15	0	0	6.1	4.4	0	30	0	116	a0	109	0
						31	0	-	a0	115	-
Month			Second-foot-days		Maximum	Minimum		Mean	Runoff in acre-feet		
April.....			0		0	0		0	0		
May.....			1.8		1.5	0		.06	3.6		
June.....			439		323	0		14.6	871		
July.....			173.6		69	0		5.60	344		
August.....			2,141.9		613	0		69.1	4,250		
September.....			9.7		7.3	0		.52	19		
The period.....			-		-	-		-	5,490		

Peak discharge.- June 29 (10 a.m.) 824 sec.-ft.; Aug. 5 (3:30 a.m.) 1,210 sec.-ft.; Aug. 6 (9 a.m.) 866 sec.-ft.; Aug. 19 (1 a.m.) 748 sec.-ft.; Aug. 26 (1:30 a.m.) 1,100 sec.-ft.; Aug. 28 (10 a.m.) 1,150 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Rio Puerco at Rio Puerco.

Socorro main canal north at San Acacia, N. Mex.

Location.- Water-stage recorder, lat. 34°15'15", long. 106°53'50", in SE 1/4 sec. 1, T. 1 S., R. 1 W., at San Acacia, half a mile downstream from point of diversion from Rio Grande. Datum of gage is 4,659.74 feet above mean sea level, datum of 1929.

Records available.- April 1936 to September 1943.

Extremes.- Maximum discharge during year, 231 second-feet May 15 (gage height, 5.60 feet); no flow at times.

1937-43: Maximum discharge, 315 second-feet sometime during July 22-24, 1940 (gage height, 5.67 feet, from recorded range in stage); no flow at times.

Remarks.- Records fair. Canal diverts water from right bank of Rio Grande for irrigation. Three acequias, together irrigating about 300 acres, divert water from canal above station.

Monthly discharge, in second-feet, water year October 1942 to September 1943

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	172	50	140	8,600
November.....	157	46	128	7,590
December.....	0	0	0	0
Calendar year 1942	194	0	113	81,690
January.....	111	0	16.4	1,010
February.....	145	70	101	5,620
March.....	152	106	138	8,500
April.....	203	87	168	10,020
May.....	208	98	179	11,030
June.....	208	30	180	10,700
July.....	194	90	165	10,120
August.....	182	57	144	8,650
September.....	184	93	156	9,290
Water year 1942-43	208	0	126	91,330

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Pecos, N. Mex.

Location.- Water-stage recorder, lat. 35°42'25", long. 105°41'00", in NE¼NE¼ sec. 17, T. 17 N., R. 12 E., at bridge on private road, 600 feet upstream from Indian Creek, 2 miles downstream from Holy Ghost Creek, and 11 miles north of Pecos.

Drainage area.- 189 square miles (contributing area).

Records available.- March 1910 to December 1914 (published as Pecos River near Cowles) and October 1930 to September 1943 in reports of Geological Survey. March 1910 to December 1931 (published as Pecos River near Cowles prior to 1926) in reports of State engineer.

Average discharge.- 13 years (1930-43), 115 second-feet.

Extremes.- Maximum discharge during year, 484 second-feet May 2 (gage height, 3.20 feet); minimum daily, 20 second-feet Jan. 19.
1930-43: Maximum discharge, 1,960 second-feet May 14, 1941 (gage height, 4.57 feet); minimum daily, 6.1 second-feet Jan. 16, 1934.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	52	28	b28	a28	31	132	390	159	66	38	62
2	62	52	32	b28	a28	31	153	432	159	57	32	59
3	60	50	33	b29	a29	29	179	432	148	52	33	53
4	59	49	35	b28	*b27	35	201	432	140	49	41	49
5	57	47	33	b27	b27	31	139	390	154	46	50	46
6	54	47	b30	b26	b27	29	218	350	124	46	40	45
7	53	*47	*b23	b25	b28	32	218	324	120	46	40	42
8	52	46	b24	b25	b29	30	176	298	110	46	46	a40
9	50	46	b26	b26	b29	32	156	306	104	44	39	a38
10	49	40	b27	b26	b29	38	137	282	102	41	35	a36
11	50	36	b27	b27	b28	38	122	286	153	39	34	a34
12	53	35	b28	b26	b28	40	120	266	120	38	31	a33
13	70	39	b28	b26	b27	40	122	252	106	35	39	a33
14	62	38	b28	*b26	b27	47	142	241	97	40	46	a38
15	57	41	b29	b30	b28	45	162	235	91	70	49	42
16	70	39	b29	33	b28	38	170	224	86	46	45	40
17	71	35	b29	b28	b28	40	164	214	84	44	60	35
18	65	39	b29	b23	b28	42	176	208	86	44	213	34
19	62	36	b30	b20	b28	33	170	201	76	50	120	32
20	59	35	b30	a24	b29	35	198	198	74	45	89	32
21	62	26	28	a28	b30	34	221	224	70	45	78	30
22	62	22	33	a32	b34	36	224	208	66	40	76	30
23	60	b25	34	a35	35	38	253	189	62	47	73	30
24	60	27	32	a32	*34	36	306	179	60	47	60	30
25	57	b32	29	a29	34	38	324	179	59	47	56	30
26	54	30	28	a28	33	46	355	176	68	41	57	33
27	53	b25	b27	a28	33	60	346	173	66	36	78	32
28	53	32	b27	a28	34	76	332	176	62	38	94	39
29	53	27	b27	a28	-	108	342	201	68	39	84	49
30	49	b29	b27	a29	-	134	350	182	78	40	66	39
31	49	-	b28	a29	-	120	-	167	-	41	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,790	71	49	57.7	3,550
November.....	1,127	52	22	37.6	2,240
December.....	898	35	23	29.0	1,780
Calendar year 1942.....	63,206	1,260	22	173	125,400
January.....	857	35	20	27.6	1,700
February.....	827	35	27	29.5	1,640
March.....	1,442	134	29	65.5	2,860
April.....	6,368	355	120	212	12,630
May.....	8,018	432	167	249	15,900
June.....	2,932	159	59	57.7	5,820
July.....	1,405	70	35	45.3	2,780
August.....	1,906	213	31	51.5	3,760
September.....	1,165	62	30	38.8	2,310
Water year 1942-43.....	28,737	432	20	78.7	57,000

Peak discharge.- May 2 (10 p.m. to 11 p.m.) 484 sec.-ft.; June 11 (8 a.m.) 204 sec.-ft.; Aug. 18 (9 a.m.) 395 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Pecos River near Anton Chico and Gallinas River near Montezuma.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Anton Chico, N. Mex.

Location.- Water-stage recorder, lat. 35°10'50", long. 105°06'20", in Anton Chico Grant, 2 miles upstream from Canyon Blanco, 2½ miles southeast of Anton Chico, and 10 miles downstream from Tecolote Creek.

Drainage area.- 1,050 square miles (contributing area).

Records available.- April 1910 to December 1914 and October 1930 to September 1943, in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer. Prior to July 2, 1937, station was, during successive periods, at five different sites, ranging from a sixth of a mile to 5 miles upstream from present site.

Average discharge.- 13 years (1930-43), 168 second-feet.

Extremes.- Maximum discharge during year, 1,670 second-feet Sept. 30 (gage height, 4.32 feet); minimum daily, 5.6 second-feet Aug. 11.

1930-43: Maximum discharge, 40,300 second-feet June 1, 1937 (gage height, 20.34 feet, present site and datum), by slope-area method; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	66	44	42	33	48	188	340	130	78	7.2	31
2	83	63	43	42	29	b42	199	365	112	55	a7	33
3	83	66	42	42	28	b56	220	396	102	43	a6	46
4	80	63	43	41	b24	b47	252	396	106	36	a10	23
5	72	61	55	36	*20	46	291	396	97	32	a100	17
6	70	61	b51	39	b15	51	275	350	89	19	a150	14
7	68	60	b49	43	24	49	300	331	89	14	33	10
8	69	*56	*b49	b39	27	42	297	313	76	15	18	7.5
9	66	55	b50	b31	29	40	244	300	62	23	15	11
10	64	54	b49	b29	28	42	224	304	55	37	9.2	13
11	62	54	52	b32	b23	53	213	271	54	87	5.6	13
12	61	53	53	b35	b26	65	182	275	63	62	6.2	13
13	76	51	53	b36	b33	59	148	271	78	37	6.8	13
14	85	49	54	33	36	66	140	248	59	99	36	13
15	85	50	49	*36	36	73	138	227	44	160	216	15
16	117	48	52	35	33	79	161	230	34	137	53	18
17	226	50	49	31	31	73	185	220	34	75	26	15
18	168	50	46	b26	*33	62	206	176	66	51	56	12
19	132	52	46	b22	35	66	224	176	39	139	100	11
20	111	52	45	b25	35	67	213	158	34	55	106	11
21	96	52	52	b35	39	*55	227	196	27	96	63	14
22	87	52	47	38	45	57	252	244	21	29	47	19
23	87	46	44	51	49	58	255	230	16	58	38	19
24	89	42	41	42	51	58	283	198	8.2	20	32	12
25	83	44	42	38	*52	57	313	167	7.5	58	25	11
26	78	49	44	37	51	55	326	158	7.8	37	19	12
27	74	60	b42	b30	51	55	340	155	12	23	38	12
28	68	47	b40	b29	51	65	331	152	31	13	206	13
29	72	45	38	31	-	91	326	179	30	8.0	168	15
30	74	46	39	29	-	132	331	176	48	8.0	62	221
31	72	-	b40	35	-	192	-	158	-	6.5	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,728	226	61	88.0	5,410
November.....	1,587	66	42	52.9	3,150
December.....	1,443	55	38	46.5	2,860
Calendar year 1942	111,533	5,550	38	506	221,200
January.....	1,090	51	22	35.2	2,160
February.....	957	52	15	34.5	1,920
March.....	1,980	192	35	63.9	3,930
April.....	7,274	340	138	242	14,430
May.....	7,745	396	152	250	15,360
June.....	1,634.5	130	7.5	54.4	3,240
July.....	1,613.5	160	6.5	52.0	3,200
August.....	1,709.0	216	5.6	55.1	3,390
September.....	687.5	221	7.5	22.9	1,360
Water year 1942-43	30,456.5	396	5.6	83.4	60,410

Peak discharge.- Oct. 16 (11 p.m.) 333 sec.-ft.; July 15 (6 p.m.) 331 sec.-ft.; Aug. 14 (12 p.m.) 748 sec.-ft.; Aug. 28 (9 a.m.) 375 sec.-ft.; Aug. 29 (3 a.m.) 385 sec.-ft.; Sept. 30 (8:30 p.m.) 1,670 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of discharge measurement, weather records, and records for stations near Pecos and at Santa Rosa.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Pecos River at Santa Rosa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°56'05", long. 104°41'25", in S45W4 sec. 2, T. 8 N., R. 21 E., at bridge on U. S. Highway 66, at Santa Rosa, 1 mile upstream from Rio Agua Negra Chiquita.

Drainage area.- 2,650 square miles (contributing area).

Records available.- May 1903 to December 1906 (gage heights only), February 1910 to July 1911, September 1912 to December 1914 and October 1930 to September 1943 in reports of Geological Survey. February 1910 to July 1911 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 24 years (1912-14, 1916-23, 1928-43), 187 second-feet.

Extremes.- Maximum discharge during year, 1,270 second-feet July 2 (gage height, 3.72 feet); minimum daily, 33 second-feet Sept. 6.
1930-43: Maximum discharge, 55,200 second-feet June 2, 1937 (gage height, 25.7 feet), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum daily, 2.7 second-feet June 25, 1937.

Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	67	51	58	55	50	45	175	56	80	43	64
2	83	65	50	58	55	48	80	179	56	406	43	284
3	76	67	50	58	*50	b45	83	213	55	128	38	83
4	69	67	55	60	48	51	87	240	53	85	41	43
5	67	69	65	58	53	48	109	245	53	76	260	35
6	71	74	64	62	50	45	152	226	51	53	194	33
7	69	69	62	60	51	45	131	200	51	51	191	35
8	69	67	62	60	53	44	155	183	56	50	85	34
9	69	65	64	60	51	41	146	167	50	47	48	45
10	69	64	60	58	*51	43	118	167	51	50	48	45
11	71	65	62	58	53	47	105	183	51	50	47	38
12	90	67	62	58	50	47	101	141	50	124	45	37
13	95	64	62	56	51	47	87	155	50	56	50	38
14	80	60	62	*56	51	47	64	145	50	51	53	41
15	78	58	62	58	51	45	53	112	47	78	53	43
16	85	58	60	55	51	43	50	87	47	175	154	43
17	167	58	62	53	*51	43	50	85	45	145	254	41
18	275	60	62	b50	51	41	87	83	48	173	90	40
19	250	64	60	b48	53	41	85	71	48	177	141	38
20	191	62	60	b60	53	43	101	56	43	128	69	38
21	135	60	64	*69	51	*43	98	64	43	74	112	38
22	104	62	58	51	50	44	90	64	41	64	87	38
23	85	65	58	51	48	45	112	92	41	58	67	38
24	74	65	56	51	48	43	115	106	41	44	62	38
25	71	65	55	51	*50	44	131	78	41	43	56	38
26	71	65	56	53	50	43	171	64	44	43	53	40
27	71	67	58	55	50	40	179	62	48	44	55	40
28	69	65	60	*55	50	40	204	60	45	45	65	40
29	69	62	60	55	-	40	195	62	50	45	114	40
30	69	60	58	53	-	43	179	56	87	45	175	41
31	69	-	60	53	-	44	-	58	-	45	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,991	275	67	96.5	5,930
November.....	1,926	74	58	64.2	3,820
December.....	1,840	65	50	59.4	3,650
Calendar year 1942.....	142,185	24,700	37	390	282,000
January.....	1,741	69	48	56.2	3,450
February.....	1,429	55	48	51.0	2,830
March.....	1,373	51	40	44.3	2,730
April.....	3,346	204	45	112	6,640
May.....	3,879	245	56	125	7,690
June.....	1,492	87	41	49.7	2,960
July.....	2,733	406	43	88.2	5,420
August.....	2,878	260	38	92.8	5,710
September.....	1,489	254	33	49.6	2,950
Water year 1942-43.....	27,117	406	33	74.3	53,770

Peak discharge.- July 2 (4 a.m.) 1,270 sec.-ft.; July 19 (1 p.m.) 426 sec.-ft.; Aug. 5 (12:30 p.m.) 755 sec.-ft.; Aug. 17 (8:30 a.m.) 512 sec.-ft.; Sept. 2 (9 a.m.) 737 sec.-ft.; Sept. 2 (1 p.m.) 737 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Puerto de Luna, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°43', long. 104°32', in sec. 29, T. 6 N., R. 23 E., 10 miles southeast of Puerto de Luna and 14 miles upstream from Alamogordo Dam.

Drainage area.- 3,970 square miles (contributing area).

Records available.- April 1938 to September 1943.

Extremes.- Maximum discharge during year, 3,780 second-feet July 1 (gage height, 3.25 feet); minimum daily, 108 second-feet Sept. 7, 12.
1938-43: Maximum discharge, 48,600 second-feet Sept. 1, 1942 (gage height, 17.00 feet), from rating curve extended above 7,400 second-feet by logarithmic plotting on basis of flow at Santa Rosa; minimum daily, 59 second-feet Aug. 23, 1938.

Remarks.- Records fair. Many diversions above station for irrigation. Discharge represents inflow to Alamogordo Reservoir (capacity, 157,000 acre-feet).

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	188	152	142	138	138	135	237	123	660	126	156
2	160	184	152	146	149	146	132	242	120	620	120	519
3	156	184	156	146	146	146	142	163	248	117	232	114
4	149	197	156	138	142	146	166	277	117	160	114	149
5	142	202	182	136	136	149	179	305	114	142	156	123
6	142	188	152	132	140	146	206	277	114	132	326	111
7	138	188	146	132	145	149	215	277	111	126	237	108
8	135	192	152	132	145	146	210	254	114	117	210	111
9	135	188	156	138	145	149	237	242	120	120	146	135
10	138	170	146	142	140	146	220	232	117	156	120	135
11	166	142	146	145	145	152	202	226	132	126	117	123
12	160	184	142	152	145	160	192	220	120	138	132	108
13	232	179	146	152	140	160	179	202	117	152	126	111
14	166	170	142	160	140	160	166	206	114	129	120	114
15	166	174	142	163	140	152	152	188	111	123	117	117
16	170	170	138	160	140	149	146	166	111	155	129	123
17	333	163	138	152	145	149	142	162	114	319	344	132
18	270	163	146	149	149	138	149	152	114	588	197	135
19	248	163	138	146	149	135	166	149	117	192	197	132
20	259	179	146	142	149	146	179	142	117	248	149	135
21	248	163	160	160	146	142	184	146	120	210	166	138
22	220	156	156	160	142	129	174	160	120	160	170	135
23	259	156	152	149	146	142	174	149	117	184	132	135
24	202	156	149	149	142	142	188	163	111	156	114	135
25	197	156	142	152	142	138	192	163	111	149	114	142
26	197	160	142	149	146	135	210	138	120	138	114	149
27	197	160	146	152	146	135	237	129	117	132	114	146
28	202	156	146	152	142	138	237	135	126	135	120	142
29	202	163	149	149	-	138	242	135	162	126	129	138
30	192	152	149	142	-	138	237	132	500	120	174	138
31	184	-	142	142	-	132	-	129	-	120	192	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,942	333	135	192	11,790
November.....	5,170	202	162	172	10,250
December.....	4,573	160	138	148	9,070
Calendar year 1942.....	185,200	29,900	102	507	367,300
January.....	4,561	163	132	147	9,050
February.....	4,019	149	135	144	7,970
March.....	4,467	160	129	144	8,860
April.....	5,611	242	132	187	11,130
May.....	5,973	305	129	193	11,850
June.....	3,538	500	111	131	7,810
July.....	6,245	660	117	201	12,590
August.....	4,536	344	114	156	9,590
September.....	4,223	319	108	141	8,380
Water year 1942-43.....	59,558	660	108	163	118,100

Note.- No gage-height record Feb. 5-17; discharge computed on basis of discharge measurement, weather records, and records for station at Santa Rosa.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Guadalupe, N. Mex.

Location.- Water-stage recorder, lat. $34^{\circ}36'20''$, long. $104^{\circ}23'10''$, in lot 1, sec. 2, T. 4 N., R. 24 E., 1,200 feet downstream from Alamogordo Dam, $\frac{1}{2}$ miles downstream from Alamogordo Creek, and $\frac{1}{2}$ miles northeast of Guadalupe. Datum of gage is 4,142.67 feet above mean sea level (Bureau of Reclamation datum).

Drainage area.- 4,390 square miles (contributing area).

Records available.- October 1912 to December 1914, October 1930 to September 1936 (at site $\frac{1}{2}$ miles upstream), and September 1936 to September 1943 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.- 21 years (1913-16, 1918-25, 1926-37), 264 second-feet (prior to completion of Alamogordo Dam).

Extremes (regulated).- Maximum discharge during year, 6,060 second-feet Nov. 1 (gage height, 4.23 feet); minimum daily, 0.2 second-foot Nov. 9. 1930-43: Maximum discharge, 42,800 second-feet Sept. 1, 1942; maximum gage height, 13.58 feet Sept. 22, 1941, from floodmark; no flow at times.

Remarks.- Records good except those for period of indefinite stage-discharge relation, which are poor. Diversions above station for irrigation. Flow regulated by Alamogordo Reservoir (see p. 185). Record of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	4,120	3.2	176	5.0	3.5	1,320	91	89	49	103	133
2	41	5,570	3.0	180	5.0	3.2	128	89	75	e2	102	139
3	113	5,110	3.0	176	4.2	3.2	125	88	266	e2	105	139
4	162	4,060	3.0	176	3.9	3.5	128	85	1,240	e2	103	139
5	162	2,790	3.5	173	4.2	3.5	128	81	1,890	e2	103	125
6	170	840	3.9	170	3.9	3.2	123	114	1,740	e2	109	123
7	173	691	3.9	170	8.0	3.2	128	114	1,510	e2	107	125
8	173	.4	3.9	166	4.2	3.2	128	109	1,510	88	102	125
9	173	.2	3.9	166	3.7	3.5	937	109	1,860	S3	109	125
10	173	491	4.2	166	3.7	3.5	735	116	1,800	93	116	128
11	176	945	4.2	162	4.4	3.5	133	130	1,890	107	114	849
12	180	903	3.9	159	4.4	3.7	130	125	1,860	105	114	1,420
13	176	365	4.7	96	4.2	3.9	125	112	1,830	91	116	1,420
14	170	88	97	173	3.9	3.7	121	114	1,240	82	787	1,400
15	262	88	180	170	3.7	3.7	121	116	84	82	1,240	1,400
16	349	88	180	170	3.0	3.5	121	118	86	82	1,010	1,370
17	341	88	176	166	3.0	3.5	123	123	116	93	1,170	684
18	332	88	176	166	3.2	3.7	121	116	142	125	1,620	105
19	332	89	176	166	3.2	3.7	98	107	136	123	1,620	105
20	332	91	173	162	3.2	3.9	100	105	142	121	1,620	109
21	323	89	176	162	3.0	4.2	86	105	142	130	1,620	109
22	314	88	173	162	2.8	3.5	83	136	136	128	1,590	109
23	314	91	173	162	3.7	150	94	138	102	125	1,590	109
24	248	91	176	162	3.0	166	96	136	79	128	1,590	109
25	292	91	176	162	2.8	332	94	136	81	130	1,590	109
26	124	89	166	79	3.2	332	91	136	93	125	1,590	109
27	20	89	184	5.0	3.5	452	89	128	91	107	674	109
28	19	91	180	5.0	3.5	1,170	86	118	76	125	128	107
29	16	68	176	5.0	-	1,510	91	105	66	121	130	107
30	20	2 3	173	4.7	-	1,530	91	102	70	116	128	107
31	200	-	176	4.7	-	1,770	-	93	-	103	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,956	349	16	192	11,810
November.....	27,294.9	5,570	.2	910	54,140
December.....	3,135.3	184	3.0	101	6,220
Calendar year 1942	192,901.1	26,400	.2	528	383,600
January.....	4,222.4	180	4.7	136	9,380
February.....	1,07.5	8.0	2.8	3.84	213
March.....	7,519.5	1,770	3.2	243	14,910
April.....	6,026	1,320	83	201	11,950
May.....	3,495	138	81	113	6,930
June.....	20,442	1,830	66	681	40,550
July.....	2,872	130	2	86.2	5,300
August.....	21,250	1,620	102	685	42,110
September.....	11,247	1,420	105	375	22,310
Water year 1942-43	113,346.7	5,570	.2	311	224,800

e Stage-discharge relation indefinite; discharge computed on basis of leakage from Alamogordo Dam and engineer's notes.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Acme, N. Mex.

Location.- Water-stage recorder, lat. 33°32'10", long. 104°22'40", in NW¼ s.c. 14, T. 9 S., R. 25 E., 1 mile southeast of Melena railroad station, 3½ miles downstream from Salt Creek, 5 miles southwest of Acme, and 13 miles northeast of Roswell.

Drainage area.- 11,380 square miles (contributing area).

Records available.- July 1937 to September 1943 in reports of Geological Survey. August 1921 to July 1923 in reports of State engineer.

Extremes.- Maximum discharge during year, 4,920 second-feet Nov. 3; maximum gage height, 5.29 feet Nov. 2; no flow July 14-17, Aug. 2-15.

1937-43: Maximum discharge, 45,000 second-feet Sept. 23, 1941 (gage height, 13.71 feet); from rating curve extended above 15,000 second-feet by logarithmic plotting; no flow at times.

Maximum discharge during flood of May 28, 1937, 53,300 second-feet (gage height, 14.82 feet, from floodmarks, site and datum then in use), by slope-area method.

Remarks.- Records fair except those for periods of ice effect, no gage-height record, or indefinite stage-discharge relation, which are poor. Diversions above station for irrigation. Flow regulated by Alamogordo Reservoir (see p. 185). Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Cooperation.- Gage-height record collected and one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	208	97	126	188	a65	17	1,460	11	18	327	1	61
2	232	2,360	126	180	63	14	1,330	10	14	462	0	54
3	265	4,680	119	188	50	15	553	10	41	245	0	72
4	228	4,200	86	173	41	19	a150	9	20	156	0	176
5	159	3,540	70	176	38	17	108	9	7	94	0	108
6	116	2,670	77	180	35	14	79	6	1,110	55	0	77
7	126	1,220	66	192	36	13	61	6	1,350	a35	0	35
8	139	891	72	196	36	17	96	6	1,280	e25	0	27
9	145	616	63	196	30	16	52	8	1,220	e15	0	25
10	152	216	55	188	25	14	40	14	1,360	e10	0	44
11	142	204	48	184	26	12	631	15	1,490	a5	0	25
12	129	636	48	180	27	13	426	11	1,460	a1	0	56
13	200	920	55	190	22	12	260	9	1,340	a1	0	728
14	162	855	52	184	21	12	176	8	1,350	0	0	1,190
15	192	335	52	162	24	11	105	7	1,440	0	0	1,190
16	180	196	50	*166	22	8	61	8	a700	0	158	1,180
17	166	184	42	135	22	8	65	7	a300	0	600	1,160
18	162	180	53	b110	20	6	52	8	126	134	672	1,180
19	275	176	156	*a90	21	6	91	8	81	248	1,070	a600
20	290	148	208	74	20	6	81	9	61	156	1,210	a200
21	256	148	244	132	26	5	59	11	48	86	1,280	84
22	244	145	228	325	25	5	35	22	44	46	1,320	74
23	236	152	244	*255	25	6	52	38	30	34	1,320	79
24	232	156	212	176	19	7	27	61	19	26	1,320	44
25	240	148	192	162	18	7	27	70	11	26	1,260	42
26	248	145	196	148	19	7	22	48	8	17	1,200	a90
27	236	139	192	166	18	8	17	32	a7	14	1,230	a70
28	300	129	188	173	17	110	17	21	a7	10	1,240	61
29	260	132	204	166	-	671	14	22	6	13	a500	57
30	135	123	204	119	-	1,120	13	119	68	6	a200	a62
31	180	-	192	72	-	1,300	-	52	-	6	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,155	300	100	199	12,210
November.....	28,741	4,680	97	868	51,060
December.....	3,940	244	42	127	7,810
Calendar year 1942	205,144	27,600	5	562	406,800
January.....	5,226	325	72	169	10,370
February.....	811	65	17	29.0	1,610
March.....	3,498	1,300	5	113	6,940
April.....	6,130	1,460	13	204	12,160
May.....	675	119	6	21.8	1,340
June.....	15,016	1,490	6	501	29,780
July.....	2,266	462	0	73.1	4,490
August.....	14,670	1,320	0	473	29,100
September.....	8,821	1,190	25	294	17,600
Water year 1942-43	92,849	4,680	0	255	184,400

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations near Guadalupe and near Lake Arthur.

b Stage-discharge relation affected by ice.

c Stage-discharge relation indefinite; discharge computed on basis of gage heights, weather records, and records for stations near Guadalupe and near Lake Arthur.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Lake Arthur, N. Mex.

Location.— Water-stage recorder, lat. 32°59'25", long. 104°19'10", on line between secs. 26 and 27, T. 15 S., R. 26 E., 1,100 feet upstream from highway bridge, 3 miles east of Lake Arthur, 10 miles upstream from Cottonwood Creek, and 11 miles northeast of Artesia.

Drainage area.— 14,760 square miles (contributing area).

Records available.— August 1938 to September 1943.

Extremes.— Maximum discharge during year, 4,590 second-feet Nov. 5 (gage height, 7.78 feet); minimum daily, 12 second-feet Aug. 17.

1938-43: Maximum discharge, 49,600 second-feet Sept. 24, 1941 (gage height, 21.90 feet), from rating curve extended above 16,100 second-feet on basis of logarithmic plotting and slope-area determination at gage height 21.77 feet; minimum daily, 2 second-feet Aug. 29, 30, 1940.

Flood of May 30, 1937, reached a stage of 21.77 feet (discharge, 51,500 second-feet, by slope-area method); may have been exceeded by floods of 1904 and 1919.

Remarks.— Records good except those for periods of no gage-height record, which are fair. Diversions above station for irrigation. Flow partly regulated by Alamogordo Reservoir 150 miles above station (see p.185).

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	345	259	252	340	241	108	1,260	61	112	959	52	167
2	365	238	a260	331	214	106	1,490	66	92	576	50	125
3	360	3,600	a270	351	208	106	1,350	72	71	612	38	112
4	400	4,450	a250	319	205	103	642	59	55	420	26	114
5	390	4,320	a230	319	195	106	355	60	51	299	23	154
6	340	3,290	a210	315	181	104	227	55	65	a240	24	178
7	307	2,370	a220	335	169	106	178	59	984	a170	30	125
8	291	1,260	220	331	161	106	154	53	1,300	a130	36	108
9	299	1,170	217	351	127	103	136	66	1,220	a140	35	95
10	303	612	220	331	132	103	134	82	1,130	a110	18	85
11	291	415	224	327	121	103	118	85	1,480	a100	18	81
12	291	350	220	327	123	99	506	76	1,480	108	15	67
13	319	790	214	315	121	95	356	72	1,440	95	15	82
14	365	938	214	311	118	93	230	69	1,350	104	21	540
15	370	895	205	307	118	90	198	66	1,400	95	18	1,050
16	331	450	201	303	112	84	154	72	1,300	85	15	1,090
17	360	370	201	295	114	81	125	71	601	76	12	1,090
18	350	327	195	279	114	75	118	61	299	79	373	1,090
19	335	307	183	255	110	75	127	65	214	126	496	930
20	345	291	224	267	110	72	110	64	178	393	1,220	365
21	430	283	524	224	108	71	127	76	127	279	1,260	255
22	420	271	512	214	106	73	129	84	93	198	1,280	178
23	385	271	460	395	108	72	110	89	75	151	1,220	138
24	375	271	435	385	108	76	101	89	66	118	1,220	121
25	370	271	380	315	110	78	104	85	54	103	1,220	116
26	360	271	355	287	110	69	103	97	51	95	1,170	116
27	360	a270	327	275	108	69	84	116	55	101	1,170	114
28	365	a270	327	297	110	68	76	104	51	93	1,170	108
29	355	a260	345	307	-	65	71	90	125	69	1,050	108
30	405	255	355	311	-	511	66	82	970	64	377	108
31	323	-	540	283	-	1,130	-	79	-	54	217	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,895	430	291	351	21,610
November.....	29,395	4,450	238	930	58,300
December.....	8,790	524	183	234	17,430
Calendar year 1942.....	247,401	17,500	60	678	490,700
January.....	9,552	395	214	308	18,950
February.....	3,862	241	106	138	7,660
March.....	4,205	1,130	65	136	8,340
April.....	8,909	1,490	66	297	17,670
May.....	2,330	118	53	75.2	4,620
June.....	16,492	1,490	51	650	32,710
July.....	8,242	959	54	201	12,350
August.....	13,871	1,260	12	447	27,510
September.....	9,030	1,090	51	301	17,910
Water year 1942-43.....	123,573	4,450	12	339	245,100

a No gage-height record; discharge computed on basis of weather records and record for station near Artesia.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Artesia, N. Mex.

Location.— Water-stage recorder, lat. 32°50'10", long. 104°19'30", in W¹/₄ sec. 18, T. 17 S., R. 27 E., at Artesia-Lovington highway bridge, 4.2 miles east of Artesia, 6.5 miles north of mouth of Rio Penasco, and 16.5 miles north of McMillan Dam.

Drainage area.— 15,300 square miles (contributing area).

Records available.— March 1905 to September 1925 and October 1931 to February 1936 (published as Pecos River near Dayton), and February 1936 to September 1943 in reports of Geological Survey. March 1905 to December 1931 in reports of State engineer.

Extremes.— Maximum discharge during year, 4,620 second-feet Nov. 5 (gage height, 11.26 feet); minimum daily, 23 second-feet Aug. 17.

1905-43: Maximum gage height, 15.9 feet Sept. 18, 1919, site and datum then in use (discharge not determined). Flood of May 30, 1937, reached a gage height of 14.7 feet (discharge, 51,500 second-feet, by slope-area method); no flow Aug. 17-24, 1934.

Remarks.— Records fair. Diversions above station for irrigation. Flow partly regulated by Alamogordo Reservoir (see p.185). Discharge represents inflow to Lake McMillan, which stores water for irrigation of about 25,000 acres of Carlsbad project. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Cooperation.— Gage-height record collected and one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	390	325	266	378	296	136	1,240	73	87	1,670	a65	188
2	390	296	305	365	267	129	1,440	69	116	671	a63	145
3	402	2,400	305	365	249	134	1,420	82	84	636	51	120
4	415	4,380	296	355	249	138	853	72	62	536	40	107
5	415	4,540	286	355	240	138	392	65	49	375	34	116
6	390	3,620	276	365	224	131	272	67	51	294	28	179
7	345	2,630	267	378	216	134	203	64	483	239	d43	140
8	325	1,680	258	365	208	136	174	60	1,280	188	d48	107
9	315	1,430	258	378	194	134	154	66	1,230	157	d47	98
10	335	955	258	378	168	127	149	92	1,130	161	d30	84
11	325	595	267	378	171	131	145	91	1,540	135	d30	80
12	325	495	258	378	156	130	275	92	1,480	122	d26	77
13	355	701	258	365	161	125	513	82	1,460	137	d26	83
14	365	d900	249	355	157	124	270	82	1,360	117	d32	192
15	415	d960	249	355	154	124	235	77	1,260	162	d30	886
16	390	632	240	355	148	118	202	77	1,380	120	d26	1,080
17	390	452	240	355	145	118	164	89	770	110	d23	1,100
18	402	232	232	335	148	111	143	89	348	109	174	1,130
19	390	365	224	305	144	106	153	69	239	122	454	1,110
20	378	355	232	325	138	104	138	64	198	314	894	472
21	428	335	460	305	135	104	126	71	159	322	1,130	292
22	465	325	600	267	138	106	154	99	117	252	1,220	221
23	428	325	525	335	134	108	138	102	91	182	1,280	167
24	415	325	495	452	135	107	122	106	71	149	1,280	138
25	402	325	462	378	132	114	116	91	64	123	1,260	126
26	402	315	402	335	136	106	119	93	52	119	1,200	126
27	402	305	378	325	134	101	107	128	58	116	1,220	123
28	402	305	365	325	134	102	89	123	62	113	1,220	116
29	390	305	378	335	-	106	82	106	113	103	1,200	113
30	415	296	390	345	-	174	74	91	729	a80	559	113
31	402	-	378	355	-	974	-	87	-	a70	258	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,008	465	315	387	23,820
November.....	31,364	4,540	296	1,045	62,210
December.....	10,097	600	224	325	20,010
Calendar year 1942.....	257,994	15,600	70	707	511,700
January.....	10,925	452	267	355	21,670
February.....	4,913	296	132	175	9,740
March.....	4,628	974	101	145	9,180
April.....	9,670	1,440	74	322	19,130
May.....	2,599	128	60	85.8	5,160
June.....	16,073	1,480	49	535	31,890
July.....	8,003	1,670	70	258	15,870
August.....	14,021	1,280	23	455	27,810
September.....	9,027	1,130	77	301	17,900
Water year 1942-43.....	133,318	4,540	23	365	264,400

a No gage-height record; discharge computed on basis of weather records and records for stations near Acme and near Lake Arthur.

d Doubtful gage-height record; discharge computed on same basis as those for days of no gage-height record.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River at Carlsbad, N. Mex.

Location.- Water-stage recorder, lat. 32°24'50", long. 104°13'20", in W4SE1 sec. 6, T. 22 S., R. 27 E., at Green Street Bridge in Carlsbad and half a mile upstream from Dark Canyon. Datum of gage is 3,080.38 feet above mean sea level, datum of 1929.

Drainage area.- 18,100 square miles (contributing area).

Records available.- May 1903 to March 1908, May 1914 to September 1925, October 1928 to September 1930 and October 1931 to September 1943 in reports of Geological Survey. June 1903 to December 1906, May 1914 to December 1928, and January 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 5,940 second-feet Nov. 3 (gage height, 6.60 feet); minimum daily, 87 second-feet May 31 to June 3, June 8, 9, 14-17. 1903-08, 1914-43: Maximum discharge, 85,700 second-feet Aug. 7, 1916 (gage height about 21.0 feet), from rating curve extended above 34,000 second-feet by logarithmic plotting; no flow May 9, 1904.

Remarks.- Records good. Flow regulated by Alamogordo Reservoir, Lake McMillan, and Lake Avila, and by several small diversion dams that divert for power and irrigation. Many diversions above station for irrigation. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Cooperation.- Gage-height record obtained in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	368	309	97	263	256	100	97	87	92	94	97
2	179	2,280	314	97	400	256	100	100	87	92	94	97
3	328	5,520	332	97	365	258	100	100	87	92	94	97
4	490	126	314	94	362	289	100	100	89	187	92	97
5	452	312	344	267	356	269	97	97	69	274	92	97
6	445	2,010	350	588	286	247	97	97	89	252	94	97
7	452	4,380	326	559	283	247	100	97	89	126	94	97
8	432	3,940	292	559	297	258	97	97	87	92	94	97
9	527	2,280	253	497	292	263	100	97	87	100	94	97
10	170	193	308	438	242	253	100	94	88	247	94	94
11	126	286	357	426	193	211	97	94	89	267	97	97
12	145	1,180	309	419	174	165	100	94	89	211	94	97
13	161	908	274	412	161	149	100	94	89	165	94	97
14	149	917	211	406	149	145	100	97	87	116	94	97
15	161	926	221	412	141	149	97	94	87	94	94	97
16	183	958	221	412	122	119	100	92	87	92	94	97
17	188	944	237	400	100	103	97	92	87	92	94	97
18	188	890	247	406	92	100	100	92	89	94	94	97
19	183	453	211	344	94	97	97	94	89	92	97	97
20	183	100	174	250	94	97	100	94	89	92	97	97
21	183	584	165	165	94	97	100	94	89	137	97	97
22	183	755	263	227	94	97	100	97	89	106	97	97
23	179	715	314	242	97	100	100	94	89	97	97	94
24	209	412	400	253	94	100	100	92	89	97	97	94
25	165	326	1,210	247	94	103	97	89	89	94	97	94
26	237	320	1,020	247	94	103	97	92	89	92	94	94
27	432	344	818	247	153	103	97	92	89	92	97	92
28	330	350	469	253	237	100	97	92	89	94	97	92
29	362	314	100	253	-	100	97	92	189	92	97	92
30	332	309	97	253	-	100	97	89	110	92	97	92
31	326	-	97	253	-	100	-	87	-	94	97	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,214	490	125	265	16,290
November	31,339	4,380	100	1,045	62,160
December	10,587	1,210	97	342	21,000
Calendar year 1942	196,423	4,500	9	538	389,600
January	9,620	588	94	317	19,490
February	5,406	400	92	193	10,720
March	5,018	269	97	162	9,950
April	2,961	100	97	98.7	5,870
May	2,920	100	87	94.2	5,790
June	2,778	159	87	92.6	5,510
July	3,905	274	92	126	7,750
August	2,949	97	92	95.1	5,550
September	2,375	97	92	95.8	5,700
Water year 1942-43	88,772	4,380	87	243	176,100

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Malaga, N. Mex.

Location.— Water-stage recorder, lat. 32°12'30", long. 104°01'30", in NW 1/4 sec. 19, T. 24 S., R. 29 E., 3 miles southeast of Malaga and 3 miles downstream from Black River. Datum of gage is 2,898.68 feet above mean sea level, datum of 1929.

Drainage area.— 19,190 square miles (contributing area).

Records available.— May 1920 to September 1925 and October 1931 to September 1943 in reports of Geological Survey. January 1921 to December 1931 in reports of State engineer.

Extremes.— Maximum discharge during year, 5,440 second-feet Nov. 7 (gage height, 7.63 feet); minimum daily, 67 second-feet Aug. 9.
1920-43: Maximum discharge, 63,700 second-feet Sept. 21, 1941, from rating curve extended above 22,500 second-feet by logarithmic plotting; maximum gage height, 32.1 feet May 22, 1941, from floodmark; no flow Aug. 20-22, 1934.

Remarks.— Records good. Flow regulated by Alamogordo Reservoir, Lake McMillan, and Lake Avalon and by several small dams that divert for power and irrigation. Many diversions above station for irrigation. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Cooperation.— Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	690	510	440	188	328	304	116	144	106	319	120	138
2	388	1,170	456	220	394	328	124	128	128	208	140	148
3	377	3,800	419	180	464	316	136	176	108	192	156	166
4	610	1,270	483	192	433	330	118	166	92	238	122	190
5	630	266	430	218	444	343	138	188	132	280	118	202
6	590	938	489	535	412	334	122	188	162	355	108	185
7	610	4,100	458	650	343	313	146	172	152	295	99	238
8	590	4,310	440	670	349	322	138	198	200	245	87	185
9	560	3,690	384	630	358	322	132	186	148	225	67	178
10	388	478	322	550	328	322	144	206	144	240	84	140
11	504	322	560	530	298	304	130	170	245	370	140	168
12	262	1,010	408	530	295	304	126	195	222	361	110	150
13	361	1,050	447	506	277	282	124	205	170	268	116	106
14	319	1,050	370	503	271	238	148	185	185	242	106	118
15	283	1,050	398	506	260	220	140	185	168	275	112	160
16	313	1,050	398	496	218	182	124	148	148	182	72	130
17	310	1,060	374	496	212	185	160	175	124	198	184	128
18	304	1,050	419	492	198	178	108	142	134	388	106	185
19	313	900	412	464	178	162	142	175	180	323	120	150
20	313	306	426	419	168	175	126	155	192	195	116	138
21	504	312	364	289	170	128	144	146	182	180	134	170
22	313	850	331	268	212	126	140	218	158	205	132	160
23	310	900	419	319	200	134	146	195	178	172	126	160
24	310	670	464	334	175	132	146	170	175	170	120	188
25	343	496	874	334	165	128	122	126	158	140	124	160
26	313	447	1,300	328	160	116	144	144	178	150	112	188
27	478	440	975	325	162	124	124	130	162	112	118	182
28	550	489	875	328	248	99	138	180	152	120	122	190
29	496	447	330	337	-	128	140	155	396	114	122	168
30	482	433	232	331	-	97	128	92	352	112	122	168
31	472	-	225	331	-	188	-	134	-	116	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,776	630	262	412	25,340
November.....	34,753	4,310	265	1,158	68,930
December.....	14,852	1,300	225	479	29,460
Calendar year 1942.....	233,174	4,530	60	639	462,600
January.....	12,489	670	180	403	24,790
February.....	7,700	454	120	275	15,270
March.....	6,764	343	97	218	13,420
April.....	4,004	150	108	133	7,940
May.....	5,103	218	92	165	10,120
June.....	5,219	396	92	174	10,360
July.....	6,991	388	112	226	13,870
August.....	3,582	165	67	116	7,100
September.....	4,928	238	108	164	9,770
Water year 1942-43.....	119,171	4,310	67	326	236,400

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Pecos River at Red Bluff, N. Mex.

Location.- Water-stage recorder, lat. 32°04'40", long. 104°02'20", at Red Bluff, Eddy County, just downstream from Red Bluff Creek and 5½ miles upstream from Delaware River. Datum of gage is 2,850.0 feet above mean sea level, datum of 1929.

Drainage area.- 19,540 square miles (contributing area).

Records available.- October 1937 to September 1943. May 1914 to September 1937 at site 6 miles downstream near Angeles, Tex.; records comparable to combined flow of Pecos River at Red Bluff and Delaware River near Red Bluff.

Extremes.- Maximum discharge during year, 4,830 second-feet Nov. 8 (gage height, 9.02 feet); minimum, 53 second-feet Aug. 10.

1937-43: Maximum discharge, 52,600 second-feet May 24, 1941 (gage height, 28.3 feet), by slope-area method; minimum, 34 second-feet Aug. 13, 1938.

Maximum stage known prior to 1941, 28.0 feet in October 1904, from information by chief engineer of Panhandle & Santa Fe Railway Co.

Remarks.- Records excellent except those for periods of no gage-height record, which are poor. Flow regulated to large extent by reservoirs above Carlsbad. Many diversions above station for irrigation. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	612	512	a460	182	314	257	124	133	133	370	104	129
2	502	549	a460	190	321	294	127	122	129	381	116	135
3	362	3,130	a440	171	484	306	140	144	131	256	140	147
4	498	2,450	a450	166	468	296	127	142	108	252	124	174
5	676	391	a450	199	444	317	142	159	112	220	110	180
6	612	441	a490	263	440	321	127	166	154	385	102	189
7	616	2,910	a490	676	397	284	147	164	164	345	95	166
8	621	4,440	a450	676	329	294	142	166	142	298	89	202
9	578	3,920	a410	676	366	306	127	171	217	240	79	165
10	484	1,360	a360	592	541	306	147	196	133	390	58	152
11	321	378	a520	549	314	302	133	177	177	285	95	161
12	223	a600	a500	540	279	279	127	169	287	370	108	164
13	290	a1,080	a450	530	294	298	122	193	185	342	100	131
14	333	a1,080	a450	526	264	223	140	171	182	247	104	127
15	299	a1,080	a400	526	261	230	140	190	161	306	96	149
16	264	a1,080	a410	526	240	196	140	152	161	222	100	142
17	302	a1,080	a400	512	211	186	149	164	131	185	72	135
18	297	a1,080	a430	502	199	156	138	142	127	260	106	161
19	302	a1,080	a430	498	171	161	138	161	142	436	98	162
20	306	a540	a440	444	180	171	133	161	182	222	110	159
21	298	268	a370	391	169	147	140	138	199	195	114	149
22	294	616	a330	230	174	140	140	212	156	171	124	156
23	294	a900	a360	298	214	142	131	185	166	190	127	166
24	294	a800	448	310	182	135	154	199	169	185	108	164
25	321	a600	572	353	169	144	129	149	147	161	116	186
26	298	a480	1,310	310	154	122	135	147	166	133	110	171
27	345	a480	1,010	321	154	127	118	142	156	140	108	196
28	588	a510	905	317	166	110	129	133	154	106	114	171
29	540	a480	587	321	-	122	131	147	179	110	116	196
30	498	a460	268	333	-	114	124	133	534	106	124	178
31	494	-	202	317	-	122	-	129	-	100	108	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12,810	676	264	413	25,410
November.....	34,776	4,440	268	1,159	68,980
December.....	16,242	1,310	202	482	30,230
Calendar year 1942.....	235,551	4,610	-	645	467,200
January.....	12,412	676	156	400	24,620
February.....	7,669	484	154	274	15,210
March.....	6,619	321	110	214	13,130
April.....	4,041	154	116	135	8,020
May.....	4,947	212	122	160	9,810
June.....	5,184	534	108	173	10,280
July.....	7,588	439	100	245	15,050
August.....	3,275	140	58	106	6,500
September.....	4,912	202	127	164	9,740
Water year 1942-43.....	119,474	4,440	58	327	237,000

Peak discharge.- Nov. 4 (6:30 a.m.) 3,790 sec.-ft.; Nov. 8 (6 a.m.) 4,830 sec.-ft. No gage-height record; discharge computed on basis of weather records and records for station near Malaga.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Orla, Tex.

Location.- Water-stage recorder, lat. 31°49', long. 103°48', in E½ sec. 28, Blk. 56, Texas & Pacific Railway Co. survey, Loving County, 600 feet upstream from Pasotex pipe line crossing, 6 miles southeast of Orla, Reeves County, 11 miles (revised) downstream from Salt (Screwbean) Draw and 14 miles (revised) downstream from Red Bluff Dam. Datum of gage is 2,715.0 feet above mean sea level, datum of 1929.

Drainage area.- 21,300 square miles (contributing area).

Records available.- May 1937 to September 1943.

Extremes.- Maximum discharge during year, 2,060 second-feet Nov. 10, 11 (gage height, 4.75 feet (regulated)); minimum daily, 49 second-feet (regulated) Sept. 29.
1937-43: Maximum discharge, 23,700 second-feet Sept. 29, 1941 (gage height, 20.74 feet); minimum daily, 2.0 second-feet (regulated) June 3, 1937, Dec. 27, 1940.

Remarks.- Records excellent except those for periods of no gage-height record which are fair. Flow regulated by Red Bluff Reservoir (see p. 185). Occasional runoff from draws between dam and station. Many diversions above station for irrigation. Records of water analyses for the water year 1943 are given in Water-Supply Paper 970.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	429	283	456	577	239	168	353	429	217	a274	621	583
2	530	283	456	571	239	167	362	429	217	a274	621	583
3	554	283	456	571	162	163	434	415	213	233	621	541
4	554	370	456	571	166	166	470	424	213	237	616	464
5	548	1,900	462	577	167	168	470	434	281	233	584	441
6	548	1,520	490	577	166	152	505	424	293	179	621	348
7	554	1,540	494	571	170	153	551	405	339	172	616	344
8	554	1,930	484	456	169	154	551	400	362	241	610	159
9	554	1,930	484	297	163	153	546	362	424	265	610	124
10	554	2,060	484	559	165	147	546	367	424	398	504	127
11	554	1,530	484	577	172	149	546	362	439	362	599	147
12	536	615	484	577	173	146	562	353	353	362	599	97
13	462	1,350	462	478	171	145	942	353	339	386	661	97
14	462	1,350	418	333	170	146	755	353	339	424	807	99
15	456	1,350	473	333	170	149	562	361	355	392	731	97
16	462	1,240	467	338	169	231	551	390	335	362	700	87
17	462	807	451	329	170	227	546	390	331	386	724	89
18	462	807	381	329	168	231	546	390	326	459	718	97
19	462	800	467	329	168	223	546	367	273	470	712	99
20	462	589	501	329	167	235	546	362	237	480	700	99
21	462	554	496	329	168	263	459	331	191	536	700	97
22	462	554	484	324	168	263	367	293	241	599	700	97
23	462	554	484	324	243	275	367	249	a255	588	700	97
24	462	559	478	324	170	324	367	229	a278	612	762	99
25	413	559	478	324	170	279	367	221	a278	854	755	89
26	279	554	478	324	169	275	372	217	a278	768	743	80
27	279	554	478	324	170	275	429	217	a278	762	889	80
28	279	484	478	324	170	279	429	217	a278	768	578	53
29	279	445	484	315	-	295	429	217	a368	768	594	49
30	275	462	554	303	-	347	429	217	a335	768	588	50
31	279	-	577	243	-	352	-	213	-	734	588	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,090	554	275	455	27,950
November.....	28,316	2,060	283	944	56,160
December.....	14,769	577	381	476	29,290
Calendar year 1942.....	216,534	2,060	30	594	430,100
January.....	12,727	577	243	411	25,240
February.....	4,932	243	162	176	9,780
March.....	6,679	352	145	215	13,250
April.....	14,906	942	353	497	29,560
May.....	10,411	434	213	336	20,650
June.....	9,088	439	191	303	18,030
July.....	14,334	854	172	462	28,430
August.....	20,472	807	578	660	40,610
September.....	6,493	583	49	153	10,900
Water year 1942-43.....	156,216	2,060	49	458	309,800

a No gage-height record; discharge computed on basis of recorded range in stage and records of release at Red Bluff Dam.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pecos River at Pecos, Tex.

Location.— Water-stage recorder, lat. 31°26', long. 103°28', 70 feet upstream from Texas & Pacific Railway bridge, 1.7 miles east of Pecos, Reeves County, and 11 miles upstream from Toyah Creek. Datum of gage is 2,554.0 feet above mean sea level, datum of 1929.

Drainage area.— 22,100 square miles (contributing area).

Records available.— August 1939 to September 1943. January 1898 to June 1907, at flume of Barstow Irrigation Company (old Margueretta Canal Co.), 6.4 miles upstream, published as Pecos River near Pecos. April 1914 to August 1915, at site 7 miles downstream, published as Pecos River near Barstow. March 1922 to July 1926, at site about 10 miles upstream, published as Pecos River above Barstow.

Extremes.— Maximum discharge during year, 1,590 second-feet (regulated) Nov. 12 (gage height, 11.40 feet); minimum daily, 31 second-feet (regulated) Mar. 16. 1898-1907, 1914-15, 1922-26, 1939-43: Maximum gage height, about 18 feet, present site and datum, Oct. 5, 1904 (discharge not determined); minimum daily not determined, affected by diversions.

Flood of August 1893 reached approximately the same stage as that of Oct. 5, 1904, from information by local residents.

Remarks.— Records good except those for periods of no gage-height record, which are fair. Flow regulated to large extent by reservoirs above Orla. Several diversions between Orla and this station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	343	231	375	494	287	a71	224	230	140	316	386	290
2	367	231	359	511	271	a70	196	238	119	325	342	325
3	400	224	375	511	263	70	183	264	89	281	316	385
4	443	224	375	511	216	69	183	255	84	272	280	316
5	443	363	384	511	143	66	201	246	76	238	298	264
6	443	1,230	400	511	134	61	172	264	84	238	281	255
7	426	1,270	494	511	128	59	168	272	102	238	308	214
8	443	1,230	494	511	130	60	186	272	107	198	308	198
9	460	1,420	494	494	103	49	188	298	111	184	316	152
10	443	1,500	494	335	95	51	189	272	144	165	298	102
11	460	1,520	494	426	90	50	192	255	169	238	281	80
12	460	1,520	494	494	93	47	192	255	189	255	272	49
13	460	831	443	511	93	46	201	246	186	246	264	44
14	409	1,010	443	477	92	45	395	230	159	230	278	32
15	384	1,150	418	367	91	41	482	214	149	238	402	54
16	384	1,150	426	343	91	31	366	222	148	222	395	64
17	400	1,120	443	335	f83	53	351	246	151	183	389	60
18	400	817	426	327	66	189	351	246	156	186	342	40
19	400	732	384	359	75	201	369	255	166	214	342	40
20	400	698	418	359	a75	198	386	255	169	199	342	43
21	400	545	477	359	a74	201	412	255	147	190	334	35
22	400	494	460	359	a74	201	412	308	142	206	334	37
23	392	494	460	359	a73	192	325	298	145	230	325	35
24	392	494	443	351	a100	201	308	290	158	222	316	59
25	392	477	443	351	a72	231	298	238	177	222	347	79
26	384	477	443	351	a72	239	281	214	198	325	369	99
27	287	477	443	351	a72	231	246	198	206	325	369	89
28	255	477	443	351	a71	239	264	190	214	325	334	75
29	239	443	443	351	-	231	264	168	214	308	296	64
30	231	384	443	343	-	224	238	161	162	342	255	53
31	224	-	477	343	-	239	-	147	-	351	290	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		11,954	460	224	386	23,730
November		23,233	1,520	224	774	46,080
December		13,608	494	359	439	26,990
Calendar year 1942		170,342	1,590	24	467	337,900
January		12,767	511	327	412	25,320
February		3,220	287	66	115	6,390
March		3,956	239	31	128	7,850
April		8,248	452	168	275	16,360
May		7,492	308	147	242	14,890
June		4,451	214	76	149	8,850
July		7,711	351	165	249	15,290
August		9,990	402	255	322	19,810
September		3,552	325	32	118	7,050
Water year 1942-43		110,202	1,520	31	302	218,800

a No gage-height record; discharge computed on basis of recorded range in stage, engineer's notes, and records for station near Orla.

r Computed on basis of partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pecos River below Grandfalls, Tex.

Location.— Water-stage recorder, lat. 31°18', long. 102°46', at bridge on county road between Grandfalls and Imperial, 7.1 miles southeast of Grandfalls, Ward County, and 10 miles downstream from Chacatori Draw. Datum of gage is 2,373.0 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 27,820 square miles (contributing area).

Records available.— August 1939 to September 1943. December 1921 to July 1926 at site about 12 miles downstream, published as Pecos River near Buena Vista.

Extremes.— Maximum discharge during year, 1,380 second-feet Nov. 14 (gage height, 8.40 feet); minimum daily, 34 second-feet (regulated) Sept. 15.
1921-26, 1939-43: Maximum discharge, 22,000 second-feet Oct. 2, 1941 (gage height, 20.98 feet); minimum daily, 8.0 second-feet (regulated) July 27, 1925.
Flood of 1915 was the largest known, and that of September or October 1932 reached a stage of 18 feet, from information by local residents.

Remarks.— Records good. Flow regulated to large extent by reservoirs above Orla. Many diversions between Orla and this station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	311	322	438	521	322	62	50	88	47	56	50	42
2	332	322	438	563	290	64	46	85	44	54	56	46
3	399	332	452	578	260	84	48	75	42	58	59	44
4	412	322	438	578	248	94	50	55	42	59	54	44
5	466	322	438	578	238	97	71	47	41	59	53	44
6	479	332	452	578	196	93	46	48	40	54	51	48
7	493	652	466	578	177	90	39	41	39	60	49	52
8	452	1,110	549	578	152	89	40	42	72	46	49	47
9	466	1,170	563	578	149	93	41	43	55	48	49	66
10	479	1,170	549	578	133	88	40	56	46	54	50	65
11	466	1,260	549	493	111	63	41	60	50	60	52	53
12	466	1,320	535	438	102	52	42	54	46	53	58	44
13	479	1,350	535	535	95	48	39	73	44	61	41	41
14	479	1,300	521	549	89	42	40	79	43	70	43	39
15	452	940	407	563	92	68	41	59	43	84	46	34
16	425	1,060	493	493	95	148	79	43	54	78	49	37
17	438	1,110	493	425	84	73	71	40	62	86	50	77
18	425	1,080	507	412	107	48	49	42	69	64	43	59
19	425	998	507	412	79	45	39	40	42	53	41	92
20	438	984	493	425	70	42	76	48	68	61	42	86
21	438	766	493	412	81	44	54	74	86	62	42	84
22	425	879	578	412	71	44	43	115	73	50	42	84
23	425	806	563	412	71	48	62	158	58	47	42	86
24	438	806	549	412	71	46	73	121	61	49	48	94
25	438	592	535	412	70	64	58	98	48	50	48	99
26	438	563	535	399	56	49	51	98	45	53	42	99
27	438	535	521	399	60	51	56	90	46	48	44	102
28	438	521	521	399	81	68	71	73	45	50	55	112
29	364	521	521	375	-	62	69	56	46	52	53	118
30	322	507	521	367	-	55	81	51	81	51	44	118
31	311	-	521	352	-	53	-	49	-	49	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	13,257	493	311	428	26,290
November.....	23,192	1,350	322	773	46,000
December.....	15,781	578	438	509	31,300
Calendar year 1942	151,341	1,350	46	415	300,200
January.....	14,804	578	332	478	29,560
February.....	3,650	322	56	130	7,240
March.....	2,067	148	42	66.7	4,100
April.....	1,606	91	39	53.5	3,190
May.....	2,101	158	40	67.8	4,170
June.....	1,808	86	39	53.6	3,180
July.....	1,779	86	46	57.4	3,530
August.....	1,489	59	41	48.0	2,980
September.....	2,038	118	34	69.6	4,140
Water year 1942-43	83,423	1,350	34	229	165,500

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Girvin, Tex.

Location.- Water-stage recorder, lat. $31^{\circ}05'$, long. $102^{\circ}22'$, at bridge on U. S. Highway 87, about half a mile downstream from Panhandle & Santa Fe Railway bridge, 2.1 miles east of Girvin, Pecos County, and $6\frac{1}{2}$ miles downstream from Comanche Creek. Datum of gage is 2,269.7 feet above mean sea level, unadjusted.

Drainage area.- 29,560 square miles (contributing area).

Records available.- August 1939 to September 1943.

Extremes.- Maximum discharge during year, 1,290 second-feet (regulated) Nov. 15 (gage height, 7.02 feet); minimum daily, 58 second-feet (regulated) Sept. 17.
1939-43: Maximum discharge, 20,000 second-feet Oct. 5, 1941 (gage height, 20.49 feet); minimum daily, 30 second-feet (regulated) July 31, 1940.

Remarks.- Records good. Flow regulated to large extent by reservoirs above Orla. Many diversions above station for irrigation. Some water from drain and two wasteways returns to river between station below Grandfalls and this station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	410	370	560	580	430	110	91	106	91	93	73	69
2	390	370	520	580	410	122	86	114	88	122	72	72
3	390	370	500	600	400	106	86	120	85	99	74	66
4	450	380	500	620	360	114	85	117	92	96	79	67
5	470	380	500	620	330	130	85	109	79	96	80	65
6	500	370	500	620	320	137	91	96	77	93	77	63
7	520	380	500	620	300	135	104	83	76	90	77	65
8	540	520	520	620	270	137	88	83	74	85	74	67
9	500	580	560	620	254	136	79	74	73	85	73	72
10	500	1,060	600	620	228	132	79	76	98	74	73	67
11	520	1,080	580	620	210	135	77	79	86	77	73	85
12	520	1,130	580	590	199	126	77	91	79	82	74	83
13	500	1,220	580	500	180	106	79	91	82	85	76	73
14	520	1,270	580	580	171	99	80	88	79	82	79	66
15	520	1,290	590	600	164	93	77	110	76	93	69	62
16	520	1,040	560	600	159	86	77	110	74	112	70	60
17	500	991	540	580	155	132	79	93	74	115	73	58
18	490	1,060	540	500	155	150	104	80	85	112	73	61
19	500	1,080	540	470	155	107	102	76	93	110	76	96
20	480	1,040	560	470	155	90	86	79	99	94	72	107
21	490	879	560	480	148	83	79	98	110	90	69	110
22	490	791	540	480	133	82	107	182	109	91	67	107
23	480	747	600	480	126	83	91	310	112	86	67	107
24	480	663	620	480	117	88	82	280	101	74	67	114
25	480	662	600	480	114	91	96	230	90	70	67	123
26	490	641	580	470	117	86	106	171	88	72	73	133
27	490	620	580	470	112	99	93	142	79	73	73	130
28	490	600	580	470	107	85	86	197	76	74	67	123
29	490	580	580	460	-	88	94	126	79	73	69	132
30	450	580	560	460	-	101	106	114	91	73	79	142
31	400	-	560	460	-	96	-	99	-	74	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	14,980	540	390	483	29,870
November.....	23,074	1,290	370	769	45,770
December.....	17,240	620	500	556	34,200
Calendar year 1942	170,367	1,290	85	467	337,900
January.....	16,770	620	460	541	33,280
February.....	5,979	430	107	214	11,860
March.....	3,364	150	82	109	6,670
April.....	2,664	107	77	88.5	5,260
May.....	3,620	310	74	123	7,560
June.....	2,585	112	78	86.2	5,150
July.....	2,750	122	70	88.7	5,460
August.....	2,261	80	67	72.9	4,480
September.....	2,650	142	58	88.3	5,260
Water year 1942-43	98,107	1,290	58	269	194,600

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pecos River near Sheffield, Tex.

Location.- Water-stage recorder, lat. 30°39', long. 101°45', at bridge on U. S. Highway 290, 3½ miles southeast of Sheffield, Pecos County, and 4 miles upstream from Liveoak Creek. Datum of gage is 2,026.3 feet above mean sea level, datum of 1929.

Drainage area.- 31,660 square miles (contributing area).

Records available.- October 1921 to April 1925, October 1939 to September 1943.

Extremes.- Maximum discharge during year, 3,820 second-feet Oct. 17 (gage height, 8.41 feet); minimum, 83 second-feet Aug. 24-26.
1921-25, 1939-43: Maximum discharge, 13,800 second-feet Oct. 8, 1941 (gage height, 16.75 feet); minimum, 15 second-feet Aug. 15, 1923.
Maximum stage known, about 23.5 feet in September 1916, at site and datum used prior to May 1, 1925, from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair. Flow regulated to large extent by reservoirs above Orla. Many diversions between Orla and this station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	458	419	607	590	475	169	145	128	128	109	98	88
2	439	374	607	607	442	168	144	131	119	131	97	97
3	475	365	574	590	419	169	141	131	116	121	97	90
4	412	371	541	607	399	171	138	137	116	124	98	89
5	458	377	541	640	371	162	136	137	113	115	98	89
6	492	377	524	640	342	168	134	174	108	113	98	89
7	508	374	524	640	329	175	134	144	106	112	98	87
8	541	374	524	640	316	178	135	126	104	110	96	86
9	558	466	541	640	293	178	139	120	102	108	95	86
10	541	810	574	640	273	178	132	118	101	106	94	86
11	524	1,000	624	640	254	176	132	115	102	108	91	88
12	524	1,050	624	640	246	176	125	114	129	104	90	88
13	541	1,100	624	607	240	175	125	116	116	104	90	92
14	590	1,150	624	541	228	169	124	121	108	106	88	96
15	541	1,200	624	558	216	157	124	123	107	107	89	93
16	583	1,230	607	607	209	151	124	121	103	109	90	90
17	1,250	1,080	590	624	a204	147	121	131	102	112	87	87
18	570	990	590	607	a200	144	121	130	103	122	86	88
19	508	1,050	574	524	a198	162	128	122	103	121	87	87
20	524	1,050	574	492	a195	169	140	116	106	121	87	87
21	492	1,050	607	492	a193	151	136	129	112	120	87	101
22	508	913	590	475	a190	144	128	240	116	114	85	103
23	492	829	590	492	a187	140	128	198	118	110	84	111
24	492	790	624	492	184	162	138	242	117	109	83	113
25	492	752	658	492	151	166	130	236	117	107	83	122
26	492	694	624	475	178	148	123	219	113	106	83	139
27	492	694	607	475	175	145	131	177	108	100	84	134
28	492	658	607	475	175	144	134	154	107	99	85	130
29	508	640	607	475	-	147	129	150	103	99	86	130
30	508	624	590	475	-	141	123	176	103	99	85	129
31	458	-	590	475	-	141	-	143	-	98	84	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	16,433	1,250	412	530	32,590
November.....	22,811	1,220	365	760	45,240
December.....	18,506	658	524	591	36,310
Calendar year 1942	192,175	2,170	126	527	381,200
January.....	17,557	640	475	580	34,450
February.....	7,310	475	175	26	14,500
March.....	5,031	195	140	162	9,990
April.....	3,942	145	121	13	7,820
May.....	4,607	242	114	149	9,140
June.....	5,305	129	101	110	6,160
July.....	3,424	131	98	110	6,790
August.....	2,783	98	83	87.8	5,520
September.....	3,000	139	86	107	5,950
Water year 1942-43	108,319	1,250	83	297	214,800

a No gage-height record; discharge computed on basis of available gage-height record, weather records and engineer's field notes.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Gallinas River near Montezuma, N. Mex.

Location.- Water-stage recorder, lat. 25°39'00", long. 105°19'10", in Las Vegas Grant, 2 miles west of Montezuma and 6 miles northwest of Las Vegas, San Miguel County.

Drainage area.- 84 square miles.

Records available.- October 1930 to September 1943 in reports of Geological Survey.

March 1915 to December 1931 (1915-26, no winter records) in reports of State engineer.

Average discharge.- 17 years (1926-42), 23.1 second-feet.

Extremes.- Maximum discharge during year, 378 second-feet July 14 (gage height, 3.05 feet); minimum daily, 1.7 second-feet Sept. 19.

1930-43: Maximum discharge, 3,310 second-feet Sept. 23, 1941 (gage height, 7.78 feet), from rating curve extended above 350 second-feet by logarithmic plotting; minimum daily, 0.8 second-foot Aug. 15-18, 21, 25, 26, 30, 1934, Jan. 20, 1938.

Remarks.- Records good except those for periods of ice effect or no gage-height record, WHICH are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a23	24	11	9.3	7.1	8.5	25	34	8.5	8.5	2.9	4.3
2	a21	22	12	9.9	7.4	8.5	26	36	7.9	6.9	2.9	4.3
3	a22	21	12	8.8	7.1	7.4	28	34	7.9	6.2	3.0	3.9
4	a21	21	13	9.3	7.1	9.1	33	36	7.4	5.3	4.1	3.5
5	a20	20	15	9.6	*7.4	8.5	30	33	6.9	4.3	4.4	3.2
6												
7	a19	20	13	8.5	7.1	7.4	34	28	6.0	2.5	4.4	3.0
8	a18	19	8.8	8.8	7.7	7.9	34	26	6.2	2.4	4.3	2.8
9	14	18	a9	11	7.7	8.5	30	23	6.2	2.5	3.9	2.9
10	14	17	a10	9.6	7.9	8.8	27	26	5.7	2.6	2.9	2.7
11	14	17	a10	9.3	7.7	10	24	25	5.5	2.7	3.2	2.6
12	14	16	a11	9.9	7.9	9.9	22	24	6.2	3.0	3.5	2.4
13	15	16	11	9.3	7.7	11	21	19	6.4	3.2	3.9	2.2
14	17	16	11	9.1	7.7	11	20	16	5.7	3.4	4.3	2.2
15	17	16	11	8.2	7.7	13	20	16	4.8	2.6	5.3	2.4
16	21	15	11	7.9	7.9	11	22	14	3.9	8.2	4.1	2.4
17	70	15	10	*7.9	7.7	11	22	13	3.9	7.1	4.8	2.1
18	71	15	10	b7	7.9	12	22	13	4.3	6.6	5.3	2.0
19	54	15	a11	b6	8.2	9.6	23	12	4.4	7.9	4.6	1.7
20	45	14	11	b7	8.5	10	23	12	4.1	6.4	3.9	2.0
21	41	13	11	b8	8.5	13	24	14	3.9	5.3	3.5	2.0
22	41	11	9.9	9.3	9.1	13	24	15	3.0	5.0	3.5	1.8
23	41	13	10	9.9	8.5	13	25	14	3.0	4.6	3.7	1.8
24	39	14	10	9.6	8.5	13	30	12	3.0	2.9	3.4	2.0
25	36	14	11	7.9	8.8	13	33	11	2.7	3.0	3.0	2.1
26	34	13	11	7.4	9.1	14	38	9.1	2.9	5.7	3.2	2.5
27	31	13	8.5	8.5	8.5	16	39	8.5	3.2	3.7	17	2.4
28	29	13	11	7.9	9.6	19	36	8.5	3.4	2.9	10	2.4
29	28	12	11	7.4	-	23	34	9.9	3.7	3.0	7.9	2.9
30	26	12	9.9	7.7	-	28	36	9.6	5.7	3.0	5.0	2.9
31	24	-	9.3	7.1	-	25	-	9.1	-	3.0	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	897	71	14	28.9	1,780
November.....	481	25	11	16.0	984
December.....	334.4	15	8.5	10.8	663
Calendar year 1942.....	17,777.6	1,000	5	48.7	35,260
January.....	265.9	11	6	8.58	527
February.....	223.7	9.6	7.1	7.99	444
March.....	386.4	28	7.4	12.5	766
April.....	826	39	20	27.5	1,640
May.....	574.7	36	8.5	18.5	1,140
June.....	151.0	8.5	2.7	5.03	300
July.....	172.8	26	2.4	5.57	343
August.....	149.0	17	2.9	4.91	296
September.....	77.7	4.3	1.7	2.69	154
Water year 1942-43.....	4,539.6	71	1.7	12.4	9,010

Peak discharge.- Oct. 17 (8 p.m.) 122 sec.-ft.; July 14 (8:30 p.m.) 378 sec.-ft.; Aug. 27 (5 p.m.) 212 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Montezuma.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Gallinas River at Montezuma, N. Mex.

Location.- Water-stage recorder, lat. 35°39'15", long. 105°16'30", in Las Vegas Grant, at highway bridge half a mile downstream from Montezuma, San Miguel County, and 5 miles northwest of Las Vegas.

Drainage area.- 87 square miles.

Records available.- August 1903 to December 1914 (prior to October 1904, gage heights only) and October 1930 to September 1943 in reports of Geological Survey. October 1904 to December 1931 in reports of State engineer (prior to 1930 published as Gallinas River near Las Vegas).

Average discharge.- 36 years (1905-11, 1913-43), 22.7 second-feet.

Extremes.- Maximum discharge during year, 187 second-feet Oct. 17 (gage height, 3.74 feet); minimum daily, 0.3 second-foot Aug. 8.

1930-43: Maximum discharge, 2,590 second-feet Sept. 23, 1941 (gage height, 6.23 feet), from rating curve extended above 1,000 second-feet by logarithmic plotting; no flow (result of regulation) Oct. 4-7, 1934.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Flow regulated by reservoirs owned by New Mexico Power Co. Several diversions above station for irrigation and municipal supply.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	25	11	6.6	6.2	2.0	22	28	4.6	a4	0.4	1.0
2	19	25	8.2	7.0	6.6	1.8	24	31	4.2	a3.5	.4	1.2
3	20	21	3.8	7.6	6.2	2.0	23	30	2.2	3.0	.5	2.6
4	19	20	2.4	6.2	5.0	3.8	21	29	2.4	2.4	.4	2.4
5	18	20	2.2	8.2	5.8	3.8	21	28	4.6	.8	.4	2.0
6	18	19	1.8	7.0	5.0	2.2	27	23	2.6	a.8	.4	.9
7	18	16	3.4	6.2	5.8	2.0	34	24	2.2	a.8	.4	.9
8	15	15	7.6	5.0	6.2	2.0	29	19	2.2	a.9	.3	.8
9	12	15	9.4	5.4	6.6	3.0	26	21	2.4	a.9	.9	.8
10	11	15	9.4	7.6	6.0	6.6	19	23	2.2	1.0	1.6	.8
11	11	13	9.4	6.6	5.4	9.4	12	21	2.4	1.0	1.6	.7
12	15	12	9.8	7.0	6.2	10	11	15	1.8	1.0	1.6	.7
13	17	11	8.8	5.8	5.0	9.4	13	13	1.6	1.0	1.8	.8
14	17	10	8.6	7.6	4.2	11	15	12	1.4	2.0	1.6	.8
15	17	10	5.4	7.0	1.6	12	17	10	1.2	27	1.6	.8
16	21	10	4.6	6.6	1.4	8.8	17	8.2	1.0	8.8	1.8	.9
17	81	10	5.0	6.6	1.2	8.2	17	6.2	1.0	2.2	3.4	.6
18	96	10	3.8	8.2	1.2	11	17	6.6	1.6	.6	2.0	.7
19	63	10	6.2	a8.0	3.8	7.6	16	9.4	1.0	2.0	1.2	.7
20	52	10	8.2	8.8	6.2	7.6	17	8.2	.8	1.2	.8	.6
21	50	8.8	8.8	9.4	6.6	7.6	19	9.4	.6	.9	.8	.5
22	47	7.6	7.6	4.2	7.0	6.6	19	12	.6	.9	1.4	.4
23	47	10	8.8	2.8	7.6	7.6	20	12	.6	.6	1.4	.5
24	44	13	8.8	2.6	8.8	6.2	22	11	a.6	.6	1.2	.5
25	37	7.1	9.4	2.2	8.8	1.2	26	11	a.6	.6	2.8	.6
26	34	9.4	8.2	2.6	8.8	1.0	30	5.8	a.8	.7	1.8	.6
27	30	5.8	2.4	6.2	7.6	2.0	30	4.6	a.7	1.5	7.1	.6
28	28	3.4	2.2	6.6	2.2	14	29	5.0	a.7	1.8	11	.6
29	27	9.4	2.8	5.4	-	19	26	5.8	a1.5	.8	11	.6
30	26	11	2.6	2.4	-	24	29	6.2	a2.0	.5	5.4	.7
31	24	-	2.2	3.4	-	22	-	5.0	-	.4	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	951	96	11	30.7	1,890
November.....	360.5	25	3.4	12.7	755
December.....	192.0	11	1.8	6.19	361
Calendar year 1942	15,149.9	684	1.8	41.5	30,060
January.....	186.8	9.4	2.2	5.03	371
February.....	152.0	8.8	1.2	5.43	301
March.....	235.4	24	1.0	7.59	467
April.....	652	34	11	21.7	1,290
May.....	453.4	31	4.6	14.6	899
June.....	52.1	4.6	.6	1.74	103
July.....	74.5	27	.4	2.40	148
August.....	65.4	11	.8	2.21	136
September.....	26.3	2.6	.4	.98	52
Water year 1942-43	3,424.4	96	.3	9.38	6,790

a No gage-height record; discharge computed on basis of weather records and records for station near Montezuma.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Ruidoso at Hondo, N. Mex.

Location (revised).- Water-stage recorder, lat. 33°23'00", long. 105°16'30", in NE¼SW¼ sec. 4, T. 11 S., R. 17 E., a quarter of a mile upstream from confluence with Rio Bonito and half a mile southwest of Hondo.

Drainage area.- 307 square miles.

Records available.- October 1930 to September 1943 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Average discharge.- 13 years (1930-43), 28.3 second-feet.

Extremes.- Maximum discharge during year, 445 second-feet July 9 (gage height, 3.06 feet), from rating curve extended above 121 second-feet by logarithmic plotting; minimum daily, 0.1 second-foot June 25, 26.

1930-43: Maximum discharge, 12,400 second-feet Sept. 29, 1941 (gage height, 21.13 feet), from rating curve extended above 130 second-feet on basis of velocity-area studies; no flow Aug. 15, 16, 1935.

Remarks.- Records good. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	25	22	26	23	17	34	25	12	15	7.0	2.0
2	32	25	20	26	24	17	32	23	8.1	20	4.8	2.2
3	37	25	16	26	25	19	34	19	8.6	19	4.5	2.0
4	32	24	18	26	24	19	37	17	8.1	17	2.5	2.5
5	32	24	20	26	25	19	36	15	6.2	17	2.5	3.5
6	32	24	24	26	23	22	35	14	6.2	17	4.2	2.0
7	31	23	23	26	23	22	38	12	5.6	14	3.3	2.0
8	29	23	22	25	25	21	38	12	3.3	15	5.2	2.0
9	28	23	22	22	25	18	34	13	2.5	33	3.8	2.0
10	28	23	22	23	25	15	33	12	3.8	22	3.5	1.7
11	29	24	22	24	25	21	35	10	7.7	21	3.5	1.7
12	30	24	22	23	25	24	33	11	9.0	19	3.3	2.2
13	29	24	23	23	26	21	31	16	9.4	16	3.0	2.5
14	29	24	22	23	23	21	26	15	11	15	4.2	2.2
15	28	23	22	23	21	23	24	14	6.2	12	5.6	2.0
16	28	22	22	23	21	26	26	14	5.2	11	3.5	2.8
17	30	23	23	24	20	30	25	13	5.2	17	3.5	3.0
18	34	24	23	25	20	32	26	11	20	44	2.5	2.8
19	30	23	22	23	20	32	25	11	7.7	54	2.5	2.8
20	29	22	25	25	21	31	23	9.4	5.9	25	2.0	3.3
21	28	20	25	25	23	31	25	15	3.5	39	3.0	2.8
22	27	20	24	24	25	27	22	19	2.2	42	3.5	3.3
23	28	20	24	23	24	26	23	15	1.5	33	3.3	4.2
24	25	20	24	24	23	29	25	17	1.6	26	1.7	4.8
25	22	20	25	24	25	33	24	19	.1	23	2.5	5.2
26	25	20	27	21	23	32	25	16	.1	25	2.2	4.8
27	24	20	26	22	22	30	21	16	.2	25	2.2	4.5
28	25	20	22	23	20	29	26	16	1.0	23	2.0	4.5
29	25	21	14	21	-	30	25	18	5.6	18	2.2	4.5
30	25	22	20	22	-	26	25	20	11	13	3.3	4.8
31	25	-	26	23	-	27	-	17	-	7.7	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	885	37	22	28.5	1,760
November.....	675	25	20	22.5	1,340
December.....	594	27	14	22.4	1,380
Calendar year 1942	14,900.3	212	9.5	40.8	29,570
January.....	740	26	21	23.9	1,470
February.....	650	26	20	23.2	1,290
March.....	770	33	15	24.8	1,530
April.....	867	38	21	28.9	1,720
May.....	477.4	25	9.4	15.4	947
June.....	178.3	20	.1	5.94	354
July.....	697.7	54	7.7	22.5	1,380
August.....	103.0	7.0	1.7	3.32	204
September.....	91.4	5.2	1.7	3.05	181
Water year 1942-43	6,828.8	54	.1	18.7	13,560

Peak discharge.- May 21 (10 p.m.) 106 sec.-ft.; June 18 (5 a.m.) 116 sec.-ft.; June 30 (4:30 p.m.) 169 sec.-ft.; July 9 (5:30 p.m.) 445 sec.-ft.; July 18 (10:30 p.m.) 405 sec.-ft.; July 21 (11:30 p.m.) 108 sec.-ft.

Time basis. Mountain war time: To convert war time to standard time, subtract 1 hour.

Rio Hondo at Diamond A Ranch, near Roswell, N. Mex.

Location.- Water-stage recorder, lat. 33°20'40", long. 104°51'10" (revised), in NE¼ sec. 20, T. 11 S., R. 21 E., at Diamond A Ranch headquarters, 8 miles upstream from Rocky Arroyo and 18 miles west of Roswell.

Drainage area.- 960 square miles (contributing area).

Records available.- May 1939 to September 1942 in reports of Geological Survey. May 1906 to August 1909 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,400 second-feet June 29 (gage height, 18.48 feet), no flow at times.
1939-43: Maximum discharge, 26,500 second-feet Sept. 22, 1941 (gage height, 28.78 feet), from rating curve extended above 5,000 second-feet on basis of slope-area determination at gage height 28.78 feet; no flow at times.

Remarks.- Records fair except those above 100 second-feet, which are poor. Many discharges above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	32	22	26	22	8.8	5.1	1.5	14	186	3.5	
2	46	29	20	26	23	8.2	8.8	2.7	4.6	149		
3	50	30	19	26	20	8.8	13	2.3	.5	141	2.1	
4	47		16	26	20	9.7	14	1.7	0	36	.7	
5	43		15	27	21	8.2	14	1.1	0	28	0	
6	43		20	28	20	7.6	13	.3	0	24	6.1	
7	42.0	a30	26	28	20	9.4	12	1.3	0	20	7.6	
8	41		20	25	18	8.2	11	0	0	16	5.1	
9	38		18	23	15	7.6	11	0	2.1	14	4.8	
10	38		22	22	22	6.5	9.1	0	16	47	2.2	
11	38		30	26	21	6.3	5.3	0	33	29	0	
12	40		32	26	22	7.6	6.0	0	7.9	25	0	
13	41		32	26	21	9.4	4.4	0	1.8	22	0	
14	39		31	26	20	7.5	4.2	0	1.1	18	0	
15	39		32	25	22	7.9	2.8	0	1.1	22	0	
16	43		29	24	20	11	2.6	0	1.3	17	0	
17	43		24	25	20	15	.7	0	0	13	0	
18	44		26	26	22	15	0	0	4.4	23	0	
19	44		24	26	19	15	.1	0	1.8	191	0	
20	42		24	28	20	14	1.2	0	.1	61	0	
21	41		24	35	21	14	0	0	0	50	0	
22	39		24	29	22	14	.4	0	0	70	0	
23	38		25	28	21	14	0	1.4	0	56	0	
24	38		25	26	20	13	9.7	4.6	0	46	0	
25	35		24	25	24	10	10	.5	0	174	0	
26	34		21	26	24	12	10	.9	0	66	0	
27	32		21	29	22	11	8.8	.3	0	33	0	
28	33		22	25	24	8.5	7.0	0	0	26	0	
29	32		22	24	22	-	7.3	2.4	.2	225	0	
30	32		24	18	22	-	6.5	3.0	24	401	11	0
31	32		-	24	22	-	5.1	-	26	-	7.0	0

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,233	50	32	39.8	2,450
November.....	817	32	21	27.2	1,620
December.....	748	35	15	24.1	1,480
Calendar year 1942.....	28,506.8	1,820	0	78.1	56,550
January.....	708	28	19	22.8	1,400
February.....	485.5	24	8.5	17.3	963
March.....	301.9	17	5.1	9.74	599
April.....	144.2	14	0	4.81	286
May.....	68.8	26	0	2.22	136
June.....	715.7	401	0	23.8	1,420
July.....	1,640.0	191	7.0	52.8	3,250
August.....	32.2	7.6	0	1.04	64
September.....	0	0	0	0	0
Water year 1942-43.....	6,894.3	401	0	18.6	13,670

Peak discharge.- June 29 (11 p.m.) 3,400 sec.-ft.; June 30 (11 a.m.) 2,000 sec.-ft.; July 1 (4 a.m.) 841 sec.-ft.; July 2 (10 p.m.) 1,210 sec.-ft.; July 25 (9 p.m.) 1,150 sec.-ft.
a No gage-height record; discharge computed on basis of records for Rio Bonito and Rio Ruidoso at Hondo.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Bonito at Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°23'20", long. 105°16'30", in NE 1/4 sec. 4, T. 11 S., R. 17 E., at Hondo, half a mile upstream from confluence with Rio Ruidoso.

Drainage area.- 306 square miles (contributing area).

Records available.- October 1930 to September 1943 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Average discharge.- 13 years (1930-43), 14.8 second-feet.

Extremes.- Maximum discharge during year, 1,420 second-feet July 18 (gage height, 5.50 feet, from floodmark); no flow at times. 1930-43; Maximum discharge, 11,000 second-feet Sept. 28 or 29, 1941 (gage height, 20.92 feet), from rating curve extended above 214 second-feet on basis of slope-area determination at gage height 19.0 feet; no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	13	8.9	7.4	1.8	0	0.2	0	7.4	8.5	0	
2	15	13	8.6	7.4	2.7	0	0	0	7.0	43	0	
3	17	15	6.6	7.0	3.0	0	0	0	5.0	27	0	
4	15	13	5.9	7.4	3.0	.2	0	0	3.3	14	0	
5	15	12	5.9	7.5	3.0	.7	0	0	2.8	8.9	18	
6	14	12	7.4	7.4	3.2	.5	0	0	2.6	8.9	10	
7	13	12	7.4	3.6	2.2	.5	0	0	5.3	5.9	5.9	
8	12	12	a7	a2	1.6	.5	0	0	13	4.1	4.8	
9	11	12	a8	a1	1.0	.4	0	0	9.2	22	4.1	
10	11	11	8.1	a1	.6	.5	0	0	6.5	16	3.3	
11	11	11	8.1	1.0	.7	.2	0	0	12	9.6	1.5	
12	12	12	7.8	.9	.5	.3	0	0	5.4	a.7	0	
13	11	12	7.8	.8	.5	.5	0	0	3.6	a.5	0	
14	11	10	7.4	2.1	.5	.3	0	0	1.2	10	0	
15	11	10	7.4	3.3	.5	.1	0	0	0	a5	0	
16	11	9.6	7.4	2.7	.7	0	0	0	0	4.1	0	
17	13	9.6	7.4	1.9	.6	0	0	0	0	5.2	0	
18	12	9.2	7.4	1.3	.5	0	0	0	0	a150	0	
19	12	9.2	6.6	.8	.5	0	0	0	0	a55	0	
20	12	9.2	8.1	1.2	.4	0	0	0	0	a20	0	
21	11	9.2	8.1	1.1	.4	0	0	.9	0	a30	0	
22	12	9.2	8.5	.8	.5	0	0	4.1	0	a30	1.0	
23	12	9.2	8.1	.8	.2	0	0	3.4	0	a20	5.0	
24	11	9.2	7.8	5.2	0	0	0	3.4	0	a20	2.0	
25	11	9.2	7.8	4.8	0	0	0	3.3	0	17	1.4	
26	12	8.9	8.1	3.2	0	0	0	2.1	0	a15	1.8	
27	12	8.9	7.8	1.4	0	0	.2	1.8	0	a10	.6	
28	12	8.9	7.8	1.5	0	0	0	2.0	5.9	a5	0	
29	12	8.9	7.8	1.5	-	0	0	13	5.4	a1	0	
30	13	8.9	7.4	1.7	-	0	0	9.6	8.5	.6	0	
31	13	-	7.0	1.7	-	.1	-	8.5	-	0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	385	17	11	12.4	764
November.....	315.3	13	8.9	10.5	625
December.....	235.3	8.9	5.9	7.59	467
Calendar year 1942.....	11,009.3	437	.2	50.2	21,640
January.....	91.7	7.8	.8	2.96	182
February.....	23.8	3.2	0	1.03	57
March.....	4.8	.7	0	.15	9.5
April.....	.4	.2	0	.01	.8
May.....	52.1	13	0	1.68	103
June.....	106.1	13	0	3.54	210
July.....	577.3	150	0	18.6	1,180
August.....	59.4	15	0	1.92	118
September.....	0	0	0	0	0
Water year 1942-43.....	1,856.7	150	0	5.09	3,690

Peak discharge.- May 21 (10 p.m.) 32 sec.-ft.; June 7 (10 p.m.) 44 sec.-ft.; July 2 (6 p.m.) 460 sec.-ft.; July 9 (5:30 p.m.) 178 sec.-ft.; July 13 (7 p.m.) 1,420 sec.-ft.; Aug. 5 (8 p.m.) 119 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Rio Ruidoso at Hondo and Rio Hondo at Diamond A Ranch, near Roswell.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rio Felix at old highway bridge, near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07'30", long. 104°20'40", in SW¹/₄ sec. 4, T. 14 S., R. 26 E., on downstream side of bridge, 1½ miles northwest of Hagerman and 2½ miles upstream from mouth.

Drainage area.- 932 square miles (contributing area).

Records available.- April 1939 to September 1943. March 1932 to April 1939 at site 1 mile downstream. Records for periods of low flow not equivalent.

Extremes.- Maximum discharge during year, 3,320 second-feet June 30 (gage height, 9.36 feet); minimum daily, 1.1 second-feet Mar. 19, June 25, 27, Sept. 9, 17.
1939-43: Maximum discharge, 20,000 second-feet Sept. 22, 1941 (gage height, 23.0 feet), from rating curve extended above 5,100 second-feet by logarithmic plotting; minimum daily, 0.4 second-feet Sept. 21, 1940.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	52	56	27	2.1	2.1	1.6	2.4	3.0	333	5.7	1.3
2	42	53	56	28	2.9	2.1	1.6	2.7	2.7	32	5.3	1.6
3	43	53	28	28	40	2.1	1.6	2.7	3.0	13	5.3	1.6
4	45	52	25	28	46	2.4	1.8	2.4	1.6	37	5.0	1.3
5	43	52	34	26	45	1.8	1.8	2.1	1.6	34	5.0	1.3
6	45	49	33	25	38	1.8	1.8	2.1	1.6	19	5.0	1.6
7	55	48	32	25	38	1.8	1.8	2.1	1.6	6.5	5.0	1.3
8	55	45	32	25	18	1.8	1.8	2.1	2.7	6.1	5.0	1.3
9	56	45	39	23	7.8	1.8	1.3	2.1	2.1	5.6	5.0	1.1
10	54	46	54	20	16	1.8	1.6	2.1	2.1	4.8	2.7	1.3
11	52	47	53	20	4.0	1.8	2.1	2.1	2.1	4.0	2.7	1.3
12	52	47	54	12	13	2.1	1.8	1.6	2.7	3.7	2.7	1.3
13	51	48	55	3.3	9.5	2.1	2.1	1.8	2.4	3.7	5.0	1.3
14	54	47	56	3.0	8.5	1.8	1.8	1.6	2.7	a4.5	2.7	1.3
15	56	47	56	2.7	7.5	1.8	1.6	1.6	2.7	a5.0	2.4	1.3
16	54	48	66	a2.4	7.0	1.6	1.3	1.6	2.7	a6.0	2.4	1.3
17	56	48	56	a2.4	5.2	1.6	1.3	1.8	2.1	a5.0	2.1	1.1
18	62	45	53	2.1	2.1	1.3	2.1	1.8	2.1	a5.5	1.8	1.6
19	60	44	27	1.8	1.8	1.1	2.1	1.8	2.1	4.4	1.6	1.3
20	60	43	28	2.1	1.8	1.3	1.8	1.6	1.8	4.4	1.6	1.3
21	59	42	33	2.1	1.8	1.3	1.8	1.8	1.8	10	1.6	1.5
22	58	40	30	1.8	1.8	1.3	1.3	1.8	1.8	4.8	1.3	1.3
23	55	41	28	1.8	2.1	1.3	1.6	2.4	1.8	4.4	1.3	2.3
24	54	39	26	3.0	2.4	1.6	1.6	2.7	1.6	4.4	1.3	1.6
25	53	28	25	16	3.0	1.3	1.6	2.4	1.1	4.0	1.3	1.6
26	52	30	29	2.1	2.4	1.6	2.1	2.7	1.3	8.1	1.3	1.6
27	52	39	29	2.1	2.1	1.6	1.3	2.7	1.1	13	1.3	1.6
28	50	39	24	1.8	2.1	1.6	1.6	2.1	1.3	4.0	1.3	1.1
29	49	34	28	1.8	-	1.6	1.6	2.1	12	9.0	1.3	1.6
30	50	37	28	1.6	-	1.6	2.1	2.1	915	3.3	1.3	1.8
31	51	-	28	2.1	-	1.8	-	2.4	-	3.3	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,621	62	42	53.3	3,220
November	1,328	53	28	44.3	2,630
December	1,151	66	24	37.1	2,280
Calendar year 1942	11,531.2	649	3.0	31.6	22,880
January	343.3	28	1.6	11.1	681
February	351.9	46	1.8	11.9	658
March	52.6	2.4	1.1	1.70	104
April	51.6	2.1	1.3	1.72	102
May	65.3	2.7	1.6	2.11	130
June	984.2	915	1.1	33.8	1,950
July	606.8	333	3.3	19.6	1,200
August	68.6	3.7	1.3	2.21	136
September	44.6	1.8	1.1	1.39	83
Water year 1942-43	6,645.6	915	1.1	18.2	13,170

Peak discharge.- June 30 (2 p.m.) 3,320 sec.-ft.; June 30 (12 p.m.) 1,820 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Cottonwood Creek near Lake Arthur.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Cottonwood Creek near Lake Arthur, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°55'00", long. 104°22'00", in SW 1/4 sec. 15, T. 16 S., R. 26 E., 1 1/2 miles upstream from mouth and 6 miles south of town of Lake Arthur.

Drainage area.- 199 square miles (contributing area).

Records available.- March 1932 to September 1943.

Average discharge.- 11 years (1932-43), 11.1 second-feet.

Extremes.- Maximum discharge during year, 310 second-feet June 30 (gage height, 10.32 feet); minimum daily, 0.3 second-foot Aug. 26, 28.
1932-43: Maximum discharge, 1,100 second-feet June 13, 1935, from rating curve extended above 15 second-feet by logarithmic plotting; maximum gage height, 15.5 feet May 30, 1937 (present datum, from floodmarks), affected by backwater from Pecos River; no flow at times.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	21	17	17	16	8.0	5.2	2.1	1.3	266	8.3	0.6
2	21	20	18	17	17	7.8	5.7	4.0	1.2	107	7.8	.6
3	22	19	18	17	18	8.1	5.5	1.6	1.1	50	6.5	.8
4	20	21	18	17	18	8.2	5.2	1.3	1.1	38	5.6	.7
5	20	23	19	18	18	8.4	5.8	1.6	2.4	33	5.9	1.9
6	20	20	20	18	17	8.0	6.1	.9	3.0	29	6.1	.9
7	20	20	20	18	16	8.4	5.9	.8	3.2	27	3.3	.6
8	20	20	19	19	17	8.8	5.9	1.2	2.8	22	1.4	.6
9	20	20	19	18	17	8.7	3.9	3.9	a2.9	19	.4	2.4
10	20	20	19	19	16	9.0	4.5	2.4	a3.0	29	.4	1.7
11	20	20	19	19	15	9.6	5.9	1.5	a3.0	20	.6	1.4
12	20	21	19	19	14	9.4	6.2	1.5	a2.6	18	.7	.9
13	23	22	18	19	13	9.3	4.3	1.1	a2.8	18	.7	1.1
14	25	22	19	19	13	9.5	4.7	1.7	a2.6	22	3.3	.6
15	22	22	19	20	11	9.1	4.5	1.7	2.5	28	3.3	.6
16	21	22	20	18	9.4	8.3	4.5	3.7	2.6	28	3.3	.6
17	22	20	19	18	8.3	8.6	3.7	2.7	2.5	25	3.5	.7
18	21	21	19	17	8.3	8.2	3.3	1.2	2.5	24	3.1	.6
19	20	21	19	17	8.9	6.8	4.7	1.9	2.5	25	3.5	.6
20	19	21	24	17	8.2	6.8	2.8	1.9	2.7	16	3.5	.8
21	18	20	23	17	6.3	6.9	2.4	2.7	3.2	14	3.6	.6
22	18	20	20	17	9.1	7.2	2.9	3.7	1.8	13	3.5	.6
23	17	20	19	17	8.5	6.9	2.2	4.0	1.4	14	3.3	.6
24	16	20	18	16	7.7	6.4	2.4	3.1	1.0	13	2.1	.4
25	18	20	19	16	7.4	6.2	1.9	2.4	1.8	13	2.9	.9
26	20	20	18	16	7.3	6.2	2.0	1.9	3.1	16	.3	3.8
27	21	19	18	16	7.3	5.9	2.1	2.0	3.1	18	.9	3.6
28	20	17	17	17	6.9	5.7	1.8	3.1	5.1	16	.3	2.7
29	19	17	17	17	-	5.5	2.2	1.6	14	16	.6	2.4
30	20	17	17	16	-	5.4	2.2	2.1	234	14	.4	2.7
31	20	-	18	16	-	5.0	-	1.7	-	9.5	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	624	25	17	20.1	1,240
November.....	606	23	17	20.2	1,200
December.....	586	24	17	18.9	1,160
Calendar year 1942.....	5,799.7	110	.9	15.9	11,600
January.....	542	20	16	17.5	1,080
February.....	341.6	18	6.9	12.2	678
March.....	236.9	9.6	5.0	7.64	470
April.....	119.7	6.2	1.8	3.99	237
May.....	67.0	4.0	.8	2.16	133
June.....	315.0	234	1.0	10.5	625
July.....	1,000.5	266	9.5	32.3	1,980
August.....	89.5	8.3	.3	2.89	178
September.....	37.0	3.8	.4	1.23	73
Water year 1942-43.....	4,565.2	266	.3	12.5	9,050

a No gage-height record; discharge computed on basis of weather records and recorded range in stage.
Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Delaware River near Red Bluff, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°01', long. 104°03', sec. 23, T. 26 S., R. 28 E., at bridge on U. S. Highway 285, 3½ miles upstream from mouth and 4 miles south of Red Bluff, Eddy County. Datum of gage is 2,900.7 feet above mean sea level, datum of 1929.

Drainage area.- 967 square miles.

Records available.- October 1937 to September 1943. April 1912 to September 1913 at site 3 miles upstream (published as Delaware River near Malaga, N. Mex.). May 1914 to June 1915, at site 2½ miles downstream (published as Delaware River near Angeles, Tex.).

Extremes.- Maximum discharge during year, 915 second-feet July 1 (gage height, 3.85 feet); minimum, 0.8 second-foot June 3, 4.

1912-13, 1914-15, 1937-43: Maximum discharge, 34,600 second-feet June 27, 1938 (gage height, 18.00 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. No diversion above station.

Rating table, water year 1942-43 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Oct. 1-12)

0.5	0	1.2	3.7	1.8	18
.7	.1	1.3	5.3	2.0	27
.9	.7	1.4	7.0	2.3	56
1.0	1.5	1.5	9.2	2.6	130
1.1	2.4	1.6	12	2.9	245

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	6.7	6.9	7.2	6.5	6.0	4.5	2.6	1.6	151	2.4	1.2
2	6.5	6.5	6.7	7.2	6.7	6.0	4.6	2.5	1.3	36	2.3	1.4
3	7.2	6.7	6.8	7.2	6.7	6.0	4.5	2.5	1.0	95	2.1	1.7
4	7.0	6.9	6.5	7.0	6.3	6.3	4.5	2.2	1.0	86	1.8	1.9
5	6.3	6.9	6.7	7.4	6.3	6.1	4.5	2.1	1.2	30	1.7	1.8
6	6.1	6.7	11	7.8	6.3	5.6	4.3	2.0	1.4	11	1.8	1.4
7	6.1	6.9	11	7.8	6.3	5.6	4.5	1.9	1.4	7.2	1.8	1.4
8	6.0	7.2	8.5	7.4	6.5	6.0	4.2	1.8	71	5.6	1.8	1.4
9	6.0	8.0	7.6	7.2	6.3	6.0	3.8	2.2	18	4.8	1.7	1.6
10	6.0	6.7	7.4	7.2	5.8	5.6	3.7	3.1	6.5	26	1.7	1.6
11	6.1	6.5	7.2	7.2	6.0	5.6	3.8	3.0	78	15	1.6	1.6
12	6.7	6.9	7.2	7.4	6.1	5.6	3.8	2.6	8.5	7.6	1.5	1.6
13	12	7.0	7.2	7.2	6.3	5.6	4.0	2.4	4.6	5.0	1.5	1.3
14	8.2	7.0	7.2	7.0	6.3	5.6	4.0	2.6	3.3	6.8	1.4	1.4
15	7.8	7.0	7.4	7.0	6.1	5.4	4.0	2.6	2.8	4.0	1.4	1.4
16	7.4	6.7	7.2	6.7	6.0	5.0	3.8	2.2	2.3	3.8	1.5	1.6
17	6.9	6.5	7.2	6.3	6.1	5.1	3.6	1.9	3.2	3.4	1.4	1.6
18	13	6.5	7.2	6.5	6.1	5.3	3.6	1.9	2.1	7.7	1.3	1.7
19	16	6.7	7.2	6.7	6.1	5.0	4.2	2.5	4.6	9.4	1.4	1.7
20	11	6.7	10	6.7	6.0	5.0	4.5	2.9	4.3	6.0	1.3	1.7
21	8.0	6.1	12	7.0	5.8	5.3	4.0	4.3	3.6	4.5	1.3	1.8
22	7.2	6.7	10	6.7	5.8	5.4	3.4	20	2.4	3.6	1.2	1.9
23	6.7	7.0	8.2	6.5	5.8	5.6	3.3	14	2.1	3.6	1.3	2.2
24	6.9	7.2	7.4	6.1	5.3	5.2	3.3	6.7	1.7	3.3	1.3	3.0
25	6.9	6.9	7.0	6.3	5.8	6.5	3.0	4.2	1.8	3.4	1.2	5.0
26	6.9	6.7	6.9	6.5	6.1	5.8	2.6	3.4	2.8	3.7	1.1	5.4
27	7.2	6.9	6.9	6.7	6.1	5.4	2.6	2.8	2.0	3.8	1.2	4.6
28	6.9	6.9	7.0	7.0	6.1	5.0	2.6	2.4	2.1	3.0	1.2	4.0
29	6.7	6.9	7.4	7.0	-	5.0	2.6	2.6	2.6	2.6	1.2	3.4
30	6.5	7.0	7.2	6.9	-	4.8	2.6	2.9	114	2.4	1.2	3.0
31	6.6	-	7.2	6.5	-	4.8	-	2.3	-	2.4	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	234.7	16	6.0	7.57	466
November	206.0	8.0	6.1	6.83	407
December	241.0	12	6.5	7.77	478
Calendar year 1942	3,698.7	305	2.9	10.1	7,340
January	215.3	7.8	6.1	6.95	427
February	172.1	6.7	5.8	6.15	341
March	174.2	8.2	4.9	6.62	346
April	112.4	4.6	2.6	3.75	223
May	113.1	20	1.8	3.65	224
June	352.2	114	1.0	11.7	699
July	557.6	151	2.4	18.0	1,110
August	46.8	2.4	1.1	1.51	93
September	65.2	5.4	1.2	2.17	129
Water year 1942-43	2,489.6	151	1.0	6.82	4,940

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Principal diversions from Pecos River between Red Bluff Reservoir and Imperial, Tex.

Records of discharge are collected for eight canals that divert water from Pecos River between Red Bluff Reservoir and Imperial, Tex. Each of these canals is equipped with a water-stage recorder for collecting gage-height records. All stations are located within 2 miles of canal head gate except as noted herein. One station was relocated during year; latitude and longitude herein are for latest locations. Water diverted by these canals is used for irrigation of lands on both sides of Pecos River in Reeves, Ward, and Pecos Counties. Stations prior to 1941 were published separately (daily discharge figures for the earlier records). Gage-height records collected in cooperation with Red Bluff Water Power Control District, Pecos, Tex.

Reeves County Water Improvement District No. 2 Canal near Mentone, diverts from right bank of Pecos River, lat. 31°38', long. 103°34'. Records available, February 1922 to July 1925 (published as Farmers Independent Canal near Porterville, Tex.) and August 1939 to September 1943.

Ward County Water Improvement District No. 3 Canal near Barstow, diverts from left bank, lat. 31°36', long. 103°31'. Records available, August 1939 to September 1943.

Ward County Irrigation District No. 1 Canal near Barstow, diverts from left bank, lat. 31°33', long. 103°29'. Records available, February 1922 to September 1925, at site about half a mile upstream (published as Barstow Canal near Barstow, Tex.) and August 1939 to September 1943.

Grandfalls-Big Valley Canal near Barstow, diverts from left bank, lat. 31°25', long. 103°15'. Records available, March 1922 to November 1925, September 1939 to September 1943. Water diverted through Ward County Water Improvement District No. 2 Canal irrigates most of lands formerly supplied by this canal.

Pecos County Water Improvement District No. 2 upper diversion canal near Grandfalls, diverts from right bank, lat. 31°18', long. 102°55' (gage 15 miles downstream from head gates). Records available, March 1922 to July 1925, at site 11 miles upstream (published as Imperial High-line Canal near Grandfalls, Tex.) and August 1939 to September 1943.

Pecos County Water Improvement District No. 2 Canal near Imperial, diverts from right bank, lat. 31°15', long. 102°45' (gage 7 1/2 miles below outlet head gate at Imperial Reservoir. Prior to June 1, station located half a mile upstream). Records available, April 1940 to September 1943.

Ward County Water Improvement District No. 2 Canal near Grandfalls, diverts from left bank, lat. 31°22', long. 103°01'. Records available, August 1939 to September 1943.

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°18', long. 102°45'. Records available, March 1940 to September 1943.

Several smaller diversions (pumps) divert water between Red Bluff Reservoir and Imperial for irrigation of lands adjacent to Pecos River, but no records for them were obtained.

Diversions, in acre-feet, water year October 1942 to September 1943

Month	Reeves County District 2 Canal near Mentone	Ward County District 3 Canal near Barstow	Ward County District 1 Canal near Barstow	Grandfalls- Big Valley Canal near Barstow
October.....	1,710	1,330	3,980	276
November.....	1,400	2,370	4,170	55
December.....	897	278	2,920	45
Calendar year 1942	-	22,200	68,150	7,940
January.....	724	102	1,690	13
February.....	462	878	5,610	127
March.....	741	2,000	4,690	1,060
April.....	2,290	2,900	8,010	1,820
May.....	21,790	1,120	3,980	1,580
June.....	21,470	2,320	24,990	1,230
July.....	1,450	2,880	25,400	1,170
August.....	23,810	3,350	10,630	1,510
September.....	1,850	1,340	3,540	957
Water year 1942-43	18,590	20,870	60,410	9,810

Month	Pecos County District 2 Canal (upper diver.) near Grandfalls	*Pecos County District 2 Canal near Imperial	Ward County District 2 Canal near Grandfalls	*Pecos County District 3 Canal near Imperial
October.....	21	1,460	3,270	23,160
November.....	18	0	3,360	239
December.....	1.0	0	797	8.5
Calendar year 1942	47,890	-	50,620	-
January.....	252	0	4.4	0
February.....	5,330	1,500	13	870
March.....	5,130	2,640	3,880	2,410
April.....	25,220	5,090	9,060	5,460
May.....	11,210	1,950	4,360	2,170
June.....	5,060	1,300	3,870	2,460
July.....	7,030	3,920	7,500	4,200
August.....	7,410	6,600	9,160	24,440
September.....	3,960	2,120	1,660	21,810
Water year 1942-43	51,640	26,580	46,910	27,030

* 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 upper diversion canal) plus water diverted from Pecos River by Pecos County Water Improvement District No. 2 lower diversion canal.

a No gage-height record part of month; discharge computed on basis of available discharge measurements, recorded range in stage, head-gate operation, and engineers' notes.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Madera Cañon near Toyahvale, Tex.

Location.- Water-stage recorder, lat. 30°52', long. 103°58', in Jeff Davis County, 11 miles upstream from Aguja Canyon and 12 miles southwest of Toyahvale, Reeves County.

Drainage area.- 54 square miles.

Records available.- July 1932 to September 1943.

Average discharge.- 11 years, 4.95 second-feet (10 years, 5.24 second-feet; figure published in Water-Supply Paper 958 is in error).

Extremes.- Maximum discharge during year, 1,600 second-feet May 21 (gage height, 4.69 feet), from rating curve extended above 100 second-feet on basis of slope-area determination at gage height 6.8 feet; no flow at times.
1932-43: Maximum discharge, 5,120 second-feet Sept. 29, 1932 (gage height, 8.00 feet, from floodmark), from rating curve extended above 200 second-feet on basis of slope-area determination at gage height 6.8 feet; no flow at times.

Remarks.- Records fair. No diversion.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.2						0	0.2	20	0.6	
2	.7	.2						0	.1	75	.5	
3	.6	.2						0	0	22	.3	
4	.5	.2						0	0	34	.1	
5	.5	.1						0	0	22	.3	
6	.4	0						0	0	54	0	
7	.4	0						0	0	20	0	
8	.4	0						0	0	10	0	
9	.4	0						0	0	54	0	
10	.3	0						0	0	3.8	0	
11	.3	0						0	0	2.7	0	
12	.3	0						0	0	1.8	0	
13	.3	0						0	.2	1.3	0	
14	.4	0						0	.2	8.6	0	
15	.4	0						0	.5	1.8	0	
16	.4	0						0	1.6	12	0	
17	.7	0						0	1.1	10	0	
18	.5	0						0	.5	76	0	
19	.5	0						0	.3	59	0	
20	.6	0						0	.2	35	0	
21	.4	0						46	.1	27	0	
22	.4	0						3.4	0	10	0	
23	.4	0						.4	0	4.8	0	
24	.4	0						.2	0	2.7	0	
25	.4	0						.1	.1	2.0	0	
26	.3	0						.2	6.0	1.8	0	
27	.2	0						.2	10	1.4	0	
28	.2	0						.4	22	1.1	0	
29	.2	0						.6	60	.9	0	
30	.2	0						.2	31	.7	0	
31	.2	-						.2	-	.6	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	12.8	0.9	0.2	0.41	25
November.....	.9	.2	0	.03	1.8
December.....	0	0	0	0	0
Calendar year 1942.....	1,539.4	263	0	4.22	3,050
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	51.9	46	0	1.67	103
June.....	134.1	60	0	4.47	266
July.....	529.4	78	.6	17.1	1,050
August.....	1.8	.6	0	.06	3.6
September.....	0	0	0	0	0
Water year 1942-43.....	730.9	78	0	2.00	1,450

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RIO GRANDE BASIN

Toyah Creek below Toyah Lake, near Pecos, Tex.

Location.- Water-stage recorder, lat. 31°21', long. 103°24', on bridge on county road between Pecos and Grandfalls, at lower end of Toyah Lake, 6 miles upstream from mouth, and 7.4 miles southeast of Pecos, Reeves County.

Drainage area.- 3,709 square miles (contributing area).

Records available.- August 1939 to September 1943.

Extremes.- Maximum discharge during year, 16 second-feet Dec. 21 (gage height, 1.54 feet); no flow at times.

1939-43: Maximum discharge, 5,850 second-feet Aug. 7, 1940 (gage height, 4.17 feet); no flow at times.

Flood of September 1932 reached a stage of 7.7 feet from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Several diversions above station for irrigation. Flood flow materially affected by use of spread-out dams above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0							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		0							0		
12	0		0							0		
13	0		0							0		
14	0		0							0		
15	0		0							0		
16	.3		0							0		
17	2.8		0							0		
18	1.7		0							0		
19	1.0		0							0		
20	.4		0							0		
21	.3		3.4							al.8		
22	1.0		2.7							a.3		
23	.1		2.7							.1		
24	.1		1.2							0		
25	.1		.4							0		
26	0		.4							0		
27	0		.2							0		
28	0		.1							0		
29	.7		0							0		
30	.1		0							0		
31	.1		0							0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8.7	2.8	0	0.28	.17
November.....	0	0	0	0	0
December.....	11.1	3.4	0	.36	.22
Calendar year 1942	844.3	60	0	2.31	1,670
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	0	0	0	0	0
June.....	0	0	0	0	0
July.....	2.2	1.8	0	.07	4.4
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43	22.0	3.4	0	.06	.45

a No gage-height record; discharge computed on basis of recorded range in stage and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

San Solomon Springs at Toyahvale, Tex.

Location.- Water-stage recorder and sharp-crested weir, lat. 30°56', long. 103°47', on South Canal at Toyahvale, Reeves County, and 540 feet downstream from spring pool. Datum of gage is 3,311.0 feet above mean sea level, datum of 1929.

Records available.- October 1931 to December 1933, March 1941 to September 1943. 1900, 1904, 1919, 1922-25, 1934-36 (occasional discharge measurements published as miscellaneous measurements).

Extremes.- Maximum daily discharge during year, 46 second-feet Oct. 3, 4; minimum daily, 35 second-feet Sept. 26.
1931-33, 1941-43: Maximum daily discharge, 71 second-feet Oct. 7-9, 1932, Oct. 26-30, 1941; minimum daily, 30 second-feet Nov. 5-11, 1931, Jan. 22 to Feb. 23, 1932.
Maximum discharge measured during years when occasional measurements were made, 46 second-feet Sept. 5, 1900, July 21, 1904.

Remarks.- Records good. Discharge represents total flow of springs and is determined by combining flows in South Canal and two additional outlets (flow measured periodically), Middle and North Canals. Flow into each canal regulated by operation of head gates. Water used for irrigation in vicinity of Balmorhea.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	45	41	39	39	37	38	38	39	39	41	38
2	45	45	41	39	39	37	38	38	38	39	40	38
3	46	45	41	39	39	37	38	38	38	39	40	38
4	46	45	41	39	39	37	38	38	39	39	40	38
5	45	45	40	39	39	37	38	38	38	39	40	38
6	45	44	40	39	39	37	38	38	38	39	40	37
7	45	44	40	39	39	37	38	38	38	39	40	37
8	45	44	40	39	38	37	38	38	38	39	40	37
9	45	44	40	39	38	38	38	38	38	38	40	37
10	45	44	40	39	38	38	38	38	38	39	40	37
11	45	44	40	39	38	38	38	38	38	40	40	37
12	45	44	40	39	38	38	38	38	38	39	40	36
13	45	44	40	39	38	38	38	38	38	39	40	36
14	45	44	40	39	38	38	38	38	38	40	40	36
15	45	44	39	39	37	38	38	38	38	41	40	36
16	45	44	39	39	37	38	38	38	38	41	40	36
17	45	44	39	39	37	38	38	38	38	41	40	36
18	45	43	39	39	37	38	38	38	38	41	40	36
19	45	42	39	39	37	38	38	38	38	41	40	36
20	45	42	39	39	37	38	38	38	38	41	40	36
21	45	42	39	39	37	38	38	38	38	42	40	36
22	45	42	39	39	37	38	38	38	38	42	40	36
23	45	42	39	39	37	38	38	39	38	43	39	36
24	45	42	39	39	37	38	38	39	38	43	39	36
25	45	42	39	39	37	38	38	39	38	43	39	36
26	45	41	39	39	37	38	38	39	38	42	39	35
27	45	41	39	39	37	38	38	39	38	42	39	36
28	45	41	39	39	37	38	38	39	38	42	39	36
29	45	41	39	39	-	38	38	38	38	42	38	36
30	45	41	39	39	-	38	38	38	38	41	38	36
31	45	-	39	39	-	38	-	38	-	41	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,397	46	45	45.1	2,770
November.....	1,295	45	41	45.2	2,670
December.....	1,227	41	39	39.6	2,451
Calendar year 1942.....	15,846	56	36	43.4	31,430
January.....	1,209	39	39	39.0	2,400
February.....	1,057	39	37	37.8	2,100
March.....	1,170	38	37	37.7	2,523
April.....	1,140	38	36	38.0	2,260
May.....	1,184	39	38	38.2	2,350
June.....	1,142	39	38	38.1	2,270
July.....	1,256	43	38	40.5	2,490
August.....	1,229	41	38	39.6	2,440
September.....	1,095	38	35	36.0	2,170
Water year 1942-43.....	14,401	46	35	39.5	28,570

f Computed on basis of partly estimated gage-height record.

Note.- No gage-height record Dec. 7-17, Dec. 18 to Jan. 2, Jan. 5-26, Apr. 27 to May 26, July 19-23; discharge computed on basis of discharge measurements, trend of flow, and engineer's notes.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Comanche Springs at Fort Stockton, Tex.

Location.-- Water-stage recorder, lat. 30°53', long. 102°52', on outlet canal of Pecos County Water Improvement District No. 1, in eastern outskirts of Fort Stockton, Pecos County, a quarter of a mile upstream from bridge on U. S. Highway 290, and 0.5 mile downstream from head of springs.

Records available.-- February 1941 to September 1943. 1899, 1904, 1919, 1922, 1924-25, 1932-41 (occasional discharge measurements published as miscellaneous measurements).

Extremes.-- Maximum daily discharge during year, 45 second-feet Mar. 27 to Apr. 1; minimum daily, 41 second-feet, Aug. 12 to Sept. 30.

1941-43: Maximum daily discharge, 54 second-feet Jan. 30, 1942; minimum daily, 40 second-feet Nov. 30 to Dec. 2, Dec. 5-13, 1941, June 30 to July 2, July 21, 1942.

Maximum discharge measured prior to 1941, 66 second-feet June 23, 1899; minimum measured, 38.7 second-feet July 14, 1936.

Remarks.-- Records good. Discharge represents total flow of springs exclusive of surface runoff from precipitation. About 6,000 acres of land irrigated below station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	43	44	43	44	45	45	45	45	e45	45	41
2	42	43	44	43	44	45	44	45	45	e45	45	41
3	42	43	44	43	44	45	44	45	45	45	e45	41
4	42	44	44	43	44	44	44	43	43	44	45	41
5	42	44	44	43	44	44	44	43	43	44	45	41
6	42	44	44	43	44	44	44	43	43	44	42	41
7	42	44	44	43	44	44	44	43	43	44	42	41
8	42	44	44	43	44	44	44	43	43	44	42	41
9	42	44	44	43	44	44	43	43	43	44	42	41
10	42	44	44	43	44	44	43	43	43	44	42	41
11	43	44	44	43	44	44	43	43	43	44	42	41
12	43	44	44	43	44	44	43	43	e45	44	41	41
13	43	44	44	43	44	44	43	43	43	44	41	41
14	43	44	44	44	44	44	43	42	42	44	41	41
15	43	44	44	44	44	44	43	42	43	44	41	41
16	43	44	44	44	44	44	44	43	43	e44	41	41
17	43	44	44	44	e44	44	44	42	43	44	41	41
18	43	44	44	44	e44	44	43	42	43	44	41	41
19	43	44	44	44	43	44	43	43	43	44	41	41
20	43	44	44	44	43	44	43	43	43	44	41	41
21	42	44	44	44	43	44	43	e45	e45	44	41	41
22	42	44	44	44	43	44	43	e45	43	44	41	41
23	42	44	43	44	43	44	43	e45	43	44	41	41
24	42	44	43	44	43	e44	43	43	43	44	41	41
25	42	44	43	44	43	44	43	43	43	44	41	41
26	42	44	43	44	43	44	43	43	43	44	41	e41
27	42	e44	43	44	43	45	e43	43	43	44	41	41
28	42	44	43	44	43	45	43	43	43	44	41	41
29	43	44	43	44	-	45	43	43	43	44	41	41
30	43	44	43	44	-	45	43	43	e45	43	41	41
31	43	-	43	44	-	45	-	43	-	43	e41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,315	43	42	42.4	2,610
November.....	1,317	44	43	43.9	2,610
December.....	1,366	44	43	43.7	2,690
Calendar year 1942.....	15,906	54	40	43.6	31,540
January.....	1,351	44	43	43.6	2,680
February.....	1,222	44	43	43.6	2,420
March.....	1,366	45	43	44.1	2,710
April.....	1,301	45	43	43.4	2,580
May.....	1,329	43	42	42.9	2,640
June.....	1,290	43	43	43.0	2,560
July.....	1,369	44	43	43.8	2,700
August.....	1,297	43	41	41.5	2,550
September.....	1,230	41	41	41.0	2,440
Water year 1942-43.....	15,722	45	41	43.1	31,190

e Gage height not representative of average spring flow for the day; discharge interpolated.

Note.-- Total spring flow in canal for period Dec. 9-30, diverted upstream into Comanche Creek; discharge computed on basis of discharge measurement and engineer's notes.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Devils River near Juno, Tex.

Location.— Water-stage recorder, lat. 29°58', long. 101°09', 500 feet downstream from Walter Baker ranch house, 2 miles upstream from Phillips Creek, and 13½ miles southwest of Juno, Val Verde County. Datum of gage is 1,489.7 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.— 2,733 square miles.

Records available.— May 1925 to September 1943.

Average discharge.— 18 years, 206 second-feet.

Extremes.— Maximum discharge during year, 25,400 second-feet Oct. 18 (gage height, 12.93 feet); minimum, 89 second-feet Aug. 24 to Sept. 1, Sept. 15.

1925-43: Maximum discharge, 370,000 second-feet Sept. 1, 1932 (gage height, 31.3 feet, from floodmarks), by slope-area method; minimum, 48 second-feet June 4-6, 1930.

Remarks.— Records good except those above 150 second-feet, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	140	133	138	125	117	111	99	140	111	101	91
2	101	140	133	138	125	117	111	97	138	109	101	132
3	106	138	133	138	125	115	111	97	133	109	99	105
4	101	138	133	135	123	115	109	95	135	109	99	101
5	101	138	133	135	123	115	107	97	138	107	99	99
6	99	140	133	135	121	115	107	97	131	107	97	97
7	99	139	133	135	121	113	109	97	129	107	97	97
8	99	144	133	133	121	113	111	97	127	107	97	95
9	99	144	133	133	119	115	107	101	125	107	95	95
10	99	142	133	133	119	115	107	111	123	107	95	95
11	97	140	131	131	117	113	107	105	123	115	95	95
12	97	140	131	131	117	113	105	103	123	109	95	91
13	97	140	131	131	117	113	105	101	123	107	95	91
14	99	138	131	129	117	113	105	101	121	107	93	91
15	133	138	131	129	117	113	105	202	121	109	93	89
16	115	138	131	129	117	113	109	135	121	107	93	93
17	846	138	131	129	119	113	107	131	119	107	93	93
18	13,200	138	131	129	119	113	105	127	116	107	93	93
19	1,100	138	131	127	119	113	103	128	127	105	95	91
20	354	135	135	127	119	111	103	121	117	103	93	91
21	228	135	169	127	119	111	103	131	117	101	91	91
22	188	133	158	127	117	111	103	1,430	117	101	91	91
23	169	133	163	129	117	113	103	1,070	119	101	91	91
24	162	133	149	129	117	119	101	381	115	101	91	93
25	153	133	149	127	117	113	101	209	113	105	91	95
26	146	135	146	125	117	113	101	178	113	113	91	99
27	144	133	142	125	117	111	101	167	113	105	91	97
28	144	133	140	125	117	111	101	168	113	103	91	95
29	146	133	140	125	-	111	99	155	111	103	91	95
30	144	133	140	125	-	111	99	151	113	103	89	93
31	140	-	136	125	-	111	-	144	-	101	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	18,606	13,200	97	600	35,900
November.....	4,147	169	133	138	8,230
December.....	4,268	169	131	138	8,470
Calendar year 1942	52,054	13,200	71	143	103,500
January.....	4,037	138	125	130	8,010
February.....	3,338	125	117	119	6,620
March.....	3,513	119	111	113	6,970
April.....	3,156	111	99	105	6,260
May.....	6,413	1,430	95	207	12,780
June.....	3,567	140	111	122	7,270
July.....	3,293	115	101	106	6,530
August.....	2,915	101	89	94.0	5,780
September.....	2,913	102	89	97.1	5,780
Water year 1942-43	60,266	13,200	89	165	119,500

Peak discharge.— Oct. 18 (6 a.m.) 25,400 sec.-ft.; May 22 (9:30 a.m.) 3,240 sec.-ft.; May 23 (11 a.m.) 1,680 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Las Moras Springs at Brackettville, Tex.

Location.— Staff gage, lat. 29°18', long. 100°25', in spring pool at Brackettville, Kinney County, a quarter of a mile upstream from bridge on Brackettville-Fort Clark road. Datum of gage is 1,095.0 feet above mean sea level (Texas Highway Department bench mark).

Records available.— December 1895 to August 1938 (occasional miscellaneous discharge measurements), September 1938 to September 1943 (discharge measurements only).

Extremes.— 1895-1943: Maximum discharge measured, 60 second-feet (by Prof. T. U. Taylor) June 30, 1899; minimum measured, 5.8 second-feet July 30, 1928.

Remarks.— Discharge measurements represent total flow of springs. Flow of the springs emerges from limestone outcrop in Balcones fault zone and responds to local rainfall on Edwards Plateau. Elevation of pool regulated by outlet gate and discharge is affected to large extent. City of Brackettville and U. S. Army (about 1 second-foot for Fort Clark) divert water from pool for domestic and recreational uses.

Discharge measurements, in second-feet, of Las Moras Springs at Brackettville, Tex., water year October 1942 to September 1943

Date	Gage height (feet)	Discharge (second-feet)	Date	Gage height (feet)	Discharge (second-feet)
Oct. 27.....	†4.00	40.9	June 4.....	††5.30	26.8
Dec. 14.....	†3.75	29.7	July 12.....	††4.99	14.5
Jan. 31.....	†3.41	16.3	Aug. 23.....	††4.82	9.07
Mar. 8.....	†3.28	13.4	Sept. 28.....	††4.89	11.5
Apr. 27.....	†3.15	11.2			

† Outlet gate open; water flowing under gate and effective head on springs increased.

†† Outlet gate closed; water flowing over top of gate.

Note. - Gage height indicates elevation of water surface in spring pool. Variation of head on pool has material effect on spring discharge.

MIMBRES RIVER BASIN

Mimbres River near Mimbres, N. Mex.

Location (revised). - Water-stage recorder and concrete control, lat. 32°52'27", long. 107°59'00", in NE 1/4 sec. 33, T. 16 S., R. 11 W., a quarter of a mile downstream from Bear Canyon and 1 1/2 miles northwest of Mimbres.

Drainage area. - 183 square miles.

Records available. - October 1930 to September 1943 in reports of Geological Survey. May 1921 to December 1931 in reports of State engineer.

Average discharge. - 20 years (1921-24, 1926-43), 12.8 second-feet.

Extremes. - Maximum discharge during year, 417 second-feet Aug. 21 (gage height, 3.91 feet), from rating curve extended above 120 second-feet by logarithmic plotting; minimum daily, 1.9 second-feet Aug. 3, 6-11.

1930-43: Maximum discharge, 2,060 second-feet July 17, 1933, from rating curve extended above 120 second-feet by logarithmic plotting; maximum gage height, 4.89 feet Aug. 6, 1939; minimum daily discharge, 1.4 second-feet July 11, 12, 1933.

Remarks. - Records good. Flow partly regulated by Bear Canyon Reservoir (capacity, 700 acre-feet). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	7.4	7.7	6.7	5.7	5.2	3.5	5.2	15	8.0	3.1	2.9
2	5.2	8.0	7.7	6.7	5.7	5.5	4.0	5.7	15	7.4	2.6	2.4
3	5.7	7.7	7.7	6.7	5.2	5.7	4.0	5.0	15	7.4	1.9	2.6
4	6.4	8.0	8.0	6.4	4.7	6.0	3.3	4.7	16	6.4	2.2	2.8
5	7.4	8.0	8.0	6.4	4.7	6.0	3.8	5.2	16	5.5	2.0	2.6
6												
7	7.4	7.7	7.7	6.4	5.0	7.7	4.3	5.2	14	5.7	1.9	2.9
8	7.7	7.7	7.7	6.7	5.0	6.7	5.2	5.0	10	7.0	1.9	4.3
9	7.7	7.7	7.4	6.4	5.0	5.7	5.7	7.0	9.9	8.7	1.9	4.5
10	8.3	7.7	7.4	6.4	5.2	5.2	5.7	8.3	9.9	8.0	1.9	3.8
11							7.7	8.0	9.9	8.0	1.9	3.5
12	8.3	7.4	7.4	6.0	5.2	4.5	9.4	7.7	9.9	7.7	1.9	3.5
13	8.3	7.4	7.4	6.0	5.5	4.5	9.9	8.0	11	9.0	2.0	3.1
14	8.3	7.4	7.4	6.0	5.5	4.3	8.7	8.0	12	7.0	2.8	3.3
15	8.3	7.4	7.7	6.0	5.7	4.3	7.7	7.4	11	6.7	2.8	3.8
16							8.0	7.0	9.0	5.5	6.0	4.3
17	9.0	7.4	7.7	6.0	5.5	4.0	9.4	7.0	7.0	5.5	3.5	4.0
18	8.3	7.4	7.4	6.0	5.5	3.8	9.0	5.4	7.0	4.7	9.0	4.0
19	8.3	7.4	7.4	5.7	5.5	3.8	12	6.7	7.7	4.3	25	4.0
20	8.0	7.4	7.4	6.0	5.2	3.8	13	6.7	8.7	4.5	12	3.3
21								7.4	10	4.3	7.4	3.1
22	8.0	7.4	7.4	5.7	5.5	2.8	13	7.0	9.4	5.5	12	2.8
23	7.7	7.4	7.4	5.7	5.2	2.2	12	7.0	8.3	6.3	16	2.8
24	7.7	7.4	7.0	6.0	5.0	2.4	12	7.0	7.4	11	12	3.5
25	7.4	7.4	7.7	6.0	5.0	2.4	12	7.0	7.7	9.8	14	5.2
26								6.4	6.0	18	8.0	6.4
27	7.4	7.4	7.0	6.0	5.5	2.2	12	4.5	5.2	9.0	5.7	6.7
28	7.4	7.7	7.0	6.0	5.2	2.4	12	3.8	5.7	6.7	4.7	8.0
29	7.4	7.7	7.0	6.0	5.2	2.0	9.9	3.8	6.0	6.4	4.5	7.4
30	7.4	7.7	7.0	5.7	-	3.5	9.9	3.5	8.3	6.0	4.3	7.0
31	7.4	-	6.7	5.5	-	3.3	7.7	3.1	9.0	5.7	3.5	7.0
				5.5	-	3.3	-	12	-	4.7	3.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	234.0	8.7	4.5	7.55	464
November.....	226.8	8.0	7.4	7.66	450
December.....	229.8	8.0	6.7	7.41	466
Calendar year 1942.....	3,660.6	11.0	2.4	10.0	7,260
January.....	198.7	6.7	5.5	6.09	374
February.....	145.0	5.7	4.7	5.29	284
March.....	129.2	7.7	2.0	4.17	266
April.....	259.8	13	3.3	8.66	515
May.....	196.7	12	3.1	6.35	390
June.....	297.0	16	5.2	9.90	589
July.....	220.4	18	4.3	7.11	437
August.....	181.7	25	1.9	6.86	360
September.....	125.5	8.0	2.4	4.18	249
Water year 1942-43.....	2,437.6	25	1.9	6.68	4,830

Peak discharge. - July 12 (4 p.m.) 111 sec.-ft.; Aug. 17 (11:30 p.m.) 149 sec.-ft.; Aug. 21 (10 p.m.) 417 sec.-ft.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Mimbres River near Faywood, N. Mex.

Location (revised).— Water-stage recorder, lat. 32°35'10", long. 107°55'10", in NW¼ sec. 7, T. 20 S., R. 10 W., 6 miles northeast of Faywood Hot Springs, 10 miles northeast of Faywood, and 12 miles upstream from San Vicente Arroyo. Prior to Oct. 1, 1942, at datum 1.00 foot higher.

Drainage area.— 485 square miles.

Records available.— April 1908 to December 1914 and October 1930 to September 1943 in reports of Geological Survey. April 1908 to December 1931 in reports of State engineer.

Average discharge.— 27 years (1908-10, 1912-17, 1919-24, 1926-27, 1929-43), 22.7 second-foot.

Extremes.— Maximum discharge during year, 5,400 second-feet June 30 (gage height, 7.00 feet), from rating curve extended above 320 second-feet by logarithmic plotting; minimum daily, 0.5 second-foot Sept. 29, 30.
1930-43: Maximum discharge not determined; maximum gage height, 11.0 feet, present datum, Aug. 4, 1939; no flow at times.

Remarks.— Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	7.3	4.0	8.9	8.0	4.3	3.2	2.7	1.8	23	2.0	1.2
2	4.3	6.6	4.0	8.9	8.4	3.9	3.5	2.5	1.6	26	2.0	1.1
3	4.8	5.5	3.8	6.6	10	3.5	4.5	2.5	1.6	2.6	2.0	1.2
4	3.8	5.6	4.0	6.2	11	3.8	3.8	2.2	1.6	2.0	2.0	1.1
5	3.2	5.5	5.5	7.0	11	5.5	3.5	2.5	1.6	40	2.0	1.1
6	4.0	5.5	4.5	7.0	11	6.2	3.5	2.2	1.4	25	2.0	1.1
7	4.0	5.9	4.5	7.3	12	5.5	3.5	2.2	1.4	a8	2.0	1.1
8	4.0	5.9	5.5	7.3	12	7.7	3.5	2.1	1.4	a5	12	1.1
9	4.3	5.5	6.2	7.0	12	7.0	3.8	2.1	1.2	8.8	3.2	1.1
10	4.3	5.2	7.3	5.2	13	6.6	4.8	2.1	1.4	4.6	2.3	1.1
11	4.5	4.3	7.3	5.2	13	7.7	3.5	1.9	1.5	2.1	2.0	1.1
12	4.8	4.5	7.0	5.2	13	7.0	3.2	1.9	1.5	1.4	1.8	1.0
13	3.8	4.8	7.7	7.0	12	5.9	3.2	1.9	1.5	1.4	1.8	1.0
14	3.8	5.5	7.7	6.6	12	4.5	3.0	1.8	1.5	4.7	1.7	1.0
15	4.0	6.2	7.7	6.2	12	4.0	3.0	1.6	1.5	28	11	1.0
16	5.5	5.5	8.0	5.9	12	3.5	3.2	1.8	1.2	1.8	2.3	1.0
17	9.5	4.9	8.0	6.2	11	3.8	3.5	1.8	1.2	1.6	2.0	1.0
18	8.9	4.8	8.0	6.4	11	4.3	2.7	1.6	1.2	1.6	12	.8
19	8.0	4.5	8.4	7.0	10	4.3	2.7	1.6	1.1	1.6	1.8	.8
20	8.0	5.2	9.5	7.3	7.7	4.5	2.7	1.8	.9	4.6	1.4	.8
21	7.7	5.5	8.9	6.2	7.3	4.3	2.5	1.8	.9	100	1.3	.7
22	7.7	6.2	8.4	4.5	7.0	3.5	2.5	1.8	.8	67	1.3	.7
23	7.0	6.2	8.4	4.8	4.5	3.5	2.5	1.9	.7	33	1.3	.8
24	7.3	5.9	8.4	4.5	4.5	3.5	2.5	1.9	.7	8.8	1.3	.8
25	7.0	5.9	8.9	5.5	4.0	3.0	2.5	1.9	.8	59	1.3	.8
26	6.6	6.2	10	6.2	3.8	3.2	2.2	1.9	.7	18	1.2	.7
27	6.2	6.2	8.9	8.9	4.0	5.5	2.2	2.1	.6	a5	1.2	.7
28	6.6	5.9	8.9	10	4.3	4.3	2.5	2.1	.7	a3	1.2	.6
29	7.0	5.9	8.9	8.9	-	3.5	2.5	2.1	180	2.1	1.1	.5
30	7.7	6.2	8.4	7.7	-	3.2	2.5	1.9	570	2.1	1.1	.5
31	7.0	-	8.9	8.4	-	3.2	-	1.8	-	2.0	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	179.1	9.5	3.2	5.78	355
November.....	163.6	7.3	4.3	5.62	334
December.....	226.6	10	3.8	7.28	447
Calendar year 1942.....	3,693.3	255	1.1	10.7	7,720
January.....	212.3	10	4.5	6.85	421
February.....	261.6	13	3.8	9.34	519
March.....	143.6	7.7	3.0	4.63	285
April.....	92.7	4.8	2.2	3.09	184
May.....	61.8	2.7	1.6	1.99	123
June.....	784.0	570	.6	26.1	1,560
July.....	493.8	100	1.4	15.9	979
August.....	82.8	12	1.1	2.67	164
September.....	27.5	1.2	.5	.92	55
Water year 1942-43.....	2,733.4	570	.5	7.49	5,430

Peak discharge.— June 30 (12:30 a.m.) 5,400 sec.-ft.; June 30 (3:30 p.m.) 1,170 sec.-ft.; July 21 (11 p.m.) 1,980 sec.-ft.; July 25 (5 p.m.) 750 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station near Mimbres.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Bear Canyon near Mimbres, N. Mex.

Location (revised).— Water-stage recorder and concrete Parshall flume, lat. 32°53', long. 107°59', in NW 3/4 sec. 28, T. 16 S., R. 11 W., 100 feet downstream from bridge on State Highway 167, 200 feet downstream from Bear Canyon Dam, and 2 miles northwest of Mimbres.

Records available.— October 1937 to September 1943.

Extremes.— Maximum discharge during year, 23 second-feet (gage height, 1.67 feet); no flow for long periods.

1937-43: Maximum discharge, 76 second-feet Sept. 29, 1941 (gage height, 2.88 feet), from rating curve extended above 21 second-feet by logarithmic plotting; no flow for long periods.

Remarks.— Records good. Flow regulated by Bear Canyon Reservoir (capacity, 700 acre-feet). One small diversion above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.1	0.1	0.1	0.1	0	0.1	0	7.9			
2	0	.1	.1	.1	.1	0	.1	0	7.9			
3	0	.1	.1	.1	.1	0	0	0	7.5			
4	0	.1	.1	.1	.1	0	0	0	7.4			
5	0	.1	.1	.1	.1	0	0	0	7.2			
6	0	.1	.1	.1	.1	0	0	0	5.2			
7	.1	.1	.1	.1	.1	0	0	0	3.9			
8	.1	.1	.1	.1	.1	0	0	0	3.9			
9	.1	.1	.1	.1	.1	0	0	0	3.9			
10	0	.1	.1	.1	.1	0	1.6	0	3.9			
11	0	.1	.1	.1	.1	0	1.9	0	3.8			
12	0	.1	.1	.1	.1	0	1.6	0	3.8			
13	0	.1	.1	.1	.1	0	1.6	0	3.8			
14	0	.1	.1	.1	.1	0	1.6	0	3.7			
15	0	.1	.1	.1	.1	0	1.5	0	3.7			
16	0	.1	.1	.1	.1	0	1.3	0	3.6			
17	0	.1	.1	.1	.1	0	1.3	0	3.5			
18	.1	.1	.1	.1	.1	0	1.4	0	3.4			
19	.1	.1	.1	.1	.1	0	1.5	0	3.5			
20	.1	0	.1	.1	.1	0	1.5	0	2.5			
21	.1	0	.1	.1	.1	0	1.5	0	1.7			
22	.1	0	.1	.1	.1	0	1.5	0	1.3			
23	.1	0	.1	.1	.1	0	1.5	0	1.1			
24	.1	0	.1	.1	.1	0	1.5	0	.8			
25	.1	0	.1	.1	.1	0	1.5	0	.1			
26	.1	0	.1	.1	.1	0	1.5	0	0			
27	.1	0	.1	.1	.1	0	1.5	0	0			
28	.1	.1	.1	.1	0	0	1.0	0	0			
29	.1	.1	.1	.1	-	.1	.3	0	0			
30	.1	.1	.1	.1	-	.1	0	0	0			
31	.1	-	.1	.1	-	.1	-	4.7	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1.7	0.1	0	0.05	3.4
November.....	2.2	.1	0	.07	4.4
December.....	3.1	.1	.1	.10	6.1
Calendar year 1942.....	483.1	12	0	1.32	958
January.....	3.1	.1	.1	.10	6.1
February.....	2.7	.1	0	.10	5.4
March.....	3	.1	0	.01	.6
April.....	25.7	1.9	0	.96	57
May.....	4.7	4.7	0	.15	9.3
June.....	95.9	7.9	0	3.30	196
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43.....	145.4	7.9	0	.40	288

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

TULAROSA VALLEY BASIN

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Rio Tularosa near Tularosa, N. Mex.

Location (revised).- Water-stage recorder and concrete control, lat. 33°05'35", long. 105°58'35", in SE 1/4 sec. 16, T. 14 S., R. 10 E., 200 feet upstream from diversion dam for Tularosa Community ditch and 3 miles northeast of Tularosa.

Records available.- December 1912 to December 1914 and October 1931 to September 1943 in reports of Geological Survey. December 1912 to December 1914 and October 1916 to July 1917 in reports of State engineer.

Average discharge.- 10 years (1932-37, 1938-43), 14.2 second-feet.

Extremes.- Maximum discharge during year, 1,260 second-feet July 25 (gauge height, 2.73 feet), from rating curve extended above 23 second-feet on basis of slope-area determinations at gauge heights 3.4 and 8.5 feet; minimum daily, 7.0 second-feet May 30. 1931-43: Maximum discharge, 9,640 second-feet Sept. 3, 1938 (gauge height, 8.50 feet, from floodmarks), by slope-area method; minimum daily, 1 second-foot July 31, Aug. 1, 1934.

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1942 to September 1943

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	16	14	18	18	17	15	12	14	27	15	11
2	21	16	14	18	18	18	16	11	14	18	15	11
3	16	17	14	18	18	19	17	13	15	17	15	12
4	15	16	15	19	17	22	15	17	15	15	14	12
5	15	17	18	19	17	22	13	16	15	16	14	7.4
6	15	17	22	19	17	22	15	17	15	14	14	7.6
7	16	18	16	18	17	23	18	16	12	22	12	12
8	17	17	16	19	17	17	19	15	13	16	8.8	12
9	15	17	17	17	16	17	18	20	15	15	10	21
10	15	17	17	17	14	17	18	19	14	16	14	15
11	15	18	17	20	15	18	19	15	18	12	15	15
12	19	17	17	19	15	17	17	12	17	11	15	14
13	17	17	17	20	15	22	17	13	9.2	15	15	14
14	16	17	16	19	15	21	15	12	8.8	21	16	14
15	17	18	17	19	16	21	16	14	15	17	16	12
16	19	17	17	18	15	20	17	8.3	14	16	14	13
17	16	17	17	18	15	19	17	9.6	17	16	54	13
18	17	17	17	19	17	18	12	14	17	17	15	13
19	17	18	17	17	17	19	12	15	15	40	14	8.8
20	17	18	19	17	17	18	17	15	15	24	13	10
21	17	17	19	17	16	15	17	16	14	21	14	14
22	17	17	18	17	19	19	17	18	13	19	9.6	15
23	17	17	18	17	17	19	16	16	12	16	8.3	17
24	16	16	18	17	17	21	17	14	11	16	14	16
25	15	15	19	18	17	17	16	12	12	42	16	15
26	15	14	19	18	17	14	14	11	14	a18	19	15
27	15	14	18	17	17	17	12	12	8.8	a17	15	57
28	15	15	17	18	17	17	12	12	12	a16	15	16
29	15	15	18	17	-	17	12	14	31	a15	16	15
30	15	14	18	17	-	17	12	7.0	18	15	12	14
31	15	-	18	18	-	16	-	10	-	16	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	504	21	15	16.3	1,000
November.....	496	18	14	16.5	984
December.....	534	22	14	17.2	1,060
Calendar year 1942	6,449	180	4	17.7	12,790
January.....	559	20	17	18.0	1,110
February.....	461	18	14	16.5	914
March.....	576	23	14	18.6	1,140
April.....	469	19	12	15.6	930
May.....	425.9	20	7.0	13.7	845
June.....	433.8	31	8.8	14.6	860
July.....	576	42	11	15.6	1,140
August.....	466.7	54	6.3	15.1	930
September.....	442.0	57	7.4	14.7	877
Water year 1942-43	5,945.4	57	7.0	16.3	11,790

Peak discharge.- June 29 (4 a.m.) 712 sec.-ft.; July 1 (5 p.m.) 260 sec.-ft.; July 19 (6:30 p.m.) 496 sec.-ft.; July 25 (1:30 p.m.) 1,260 sec.-ft.; Aug. 17 (6:30 p.m.) 1,020 sec.-ft.; Sept. 27 (10 a.m.) 890 sec.-ft.

a No gauge-height record; discharge computed on basis of weather records and record for Rio Ruidoso at Rondo.

- Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

TULAROSA VALLEY BASIN

Alamogordo-La Luz ditch at La Luz, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 32°58'50", long. 105°55'15", in SW $\frac{1}{4}$ sec. 25, T. 15 S., R. 10 E., a quarter of a mile upstream from La Luz and half a mile downstream from head gate.

Records available.- October 1934 to September 1943.

Extremes.- Maximum daily discharge during year, 19 second-feet Oct. 5, Oct. 28 to Nov. 4, Nov. 6, Feb. 2-7, 14; minimum daily, 0.7 second-foot June 8.

1934-43: Maximum daily discharge, 22 second-feet Feb. 2, 3, 5-13, 1942; no flow at times.

Remarks.- Records good. Ditch diverts water from left bank of Rio La Luz for irrigation.

Monthly discharge, in second-feet, water year October 1942 to
September 1943

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	19	9.8	16.6	1,020
November.....	19	9.6	13.8	820
December.....	18	11	13.6	836
Calendar year 1942	22	0	13.4	9,710
January.....	17	3.6	11.8	724
February.....	19	8.7	14.1	783
March.....	18	3.7	14.2	872
April.....	18	11	14.5	865
May.....	12	8.8	10.6	652
June.....	18	.7	8.39	499
July.....	18	3.6	12.7	779
August.....	13	4	10.8	664
September.....	15	4.0	9.84	586
Water year 1942-43	19	.7	12.6	9,100

Alamogordo water supply near Alamogordo, N. Mex.

Location.- Water-stage recorder and rectangular contracted weir, lat. 32°52'25", long. 105°55'40" (revised), in NW $\frac{1}{4}$ sec. 33, T. 16 S., R. 10 E., at lower end of pipe line, about a mile downstream from Alamo Canyon and 2 miles southeast of Alamogordo.

Records available.- October 1932 to September 1943.

Average discharge.- 11 years, 1.85 second-feet.

Extremes.- Maximum daily discharge during year, 3.5 second-feet Mar. 21, 22, Apr. 26 to Apr. 16 (gage height, 0.68 foot); minimum daily, 0.9 second-foot June 30.

1932-43: Maximum discharge, 6.2 second-feet July 8, 1936 (gage height, 0.89 foot, site and datum then in use); no flow July 7, 1933, Sept. 29, 1941.

Remarks.- Records good. Water is diverted from Alamo Creek for municipal supply of Alamogordo by pipe line having one intake on Alamo Creek just above former gaging station at Wood Ranch and a second intake at Fleming Springs in Duncan Arroyo, which is tributary to Alamo Creek about 2 miles below first intake.

Monthly discharge, in second-feet, water year October 1942 to
September 1943

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3.2	3.2	3.20	197
November.....	3.2	3.2	3.20	190
December.....	3.2	3.2	3.20	197
Calendar year 1942	4.2	2.9	3.24	2,340
January.....	3.2	3.2	3.20	197
February.....	3.3	3.1	3.20	178
March.....	3.5	2.0	3.20	197
April.....	3.5	3.3	3.44	205
May.....	3.3	3.3	3.30	203
June.....	3.4	.9	3.19	190
July.....	3.3	3.2	3.30	203
August.....	3.3	3.1	3.22	198
September.....	3.1	3.0	3.02	180
Water year 1942-43	3.5	.9	3.22	2,340

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

Measurements of stream flow in the western Gulf of Mexico basins made at points other than gaging stations are given in the following table:

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year, October 1942 to September 1943

Mermentau River Basin				
Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 5	Bayou Queue de Tortue.	Mermentau River....	Sec. 18, T. 11 S., R. 1 W. Louisiana meridian, at State Highway 128, 100 feet below Southern Pacific R. F. bridge and $\frac{1}{2}$ mile northeast of Riceville, La.	134
Nov. 3	.....do.....	.....do.....	.....do.....	706
6	.....do.....	.....do.....	.....do.....	330
Dec. 17	.....do.....	.....do.....	.....do.....	30.0
Jan. 20	.....do.....	.....do.....	.....do.....	207
Feb. 8	.....do.....	.....do.....	.....do.....	2,820
10	.....do.....	.....do.....	.....do.....	1,290
23	.....do.....	.....do.....	.....do.....	179
Mar. 10	.....do.....	.....do.....	.....do.....	297
29	.....do.....	.....do.....	.....do.....	2,840
30	.....do.....	.....do.....	.....do.....	2,180
July 6	.....do.....	.....do.....	.....do.....	1,010
7	.....do.....	.....do.....	.....do.....	793
30	.....do.....	.....do.....	.....do.....	810
Sept. 18	.....do.....	.....do.....	.....do.....	3,990
20	.....do.....	.....do.....	.....do.....	5,100
21	.....do.....	.....do.....	.....do.....	5,470
22	.....do.....	.....do.....	.....do.....	5,150
Calcasieu River Basin				
Aug. 27	Hickory Branch.....	West Fork Calcasieu River.	NE $\frac{1}{4}$ sec. 34, T. 7 S., R. 9 W. Louisiana meridian, highway bridge, 0.4 mile below Little Creek and 5.1 miles southwest of Gaytine, La.	5.64
27	Beckwith Creek.....	.....do.....	NE $\frac{1}{4}$ sec. 23, T. 7 S., R. 10 W. Louisiana meridian, at highway bridge, 2 $\frac{3}{4}$ miles below Missouri Pacific R. R. bridge and 3.2 miles southwest of Gordon, La.	4.53
Sabine River Basin				
Oct. 6	Little Cow Creek....	Sabine River.....	300 feet below State Highway 87, above McGraw Creek and $\frac{1}{2}$ mile south of Burkeville, Tex.	44.8
Nov. 5	.....do.....	.....do.....	.....do.....	46.0
Dec. 8	.....do.....	.....do.....	.....do.....	62.2
Jan. 16	.....do.....	.....do.....	.....do.....	55.4
Feb. 16	.....do.....	.....do.....	.....do.....	44.5
May 4	.....do.....	.....do.....	.....do.....	42.1
Sept. 13	.....do.....	.....do.....	.....do.....	28.9
Oct. 6	McGraw Creek.....	Little Cow Creek....	1 mile above mouth and 2 miles southeast of Burkeville, Tex.	24.0
Nov. 5	.....do.....	.....do.....	.....do.....	21.6
Dec. 8	.....do.....	.....do.....	.....do.....	37.7
Jan. 16	.....do.....	.....do.....	.....do.....	32.6
Feb. 16	.....do.....	.....do.....	.....do.....	24.8
May 4	.....do.....	.....do.....	.....do.....	17.3
Sept. 13	.....do.....	.....do.....	.....do.....	19.0
Feb. 16	Quicksand Creek....	Sabine River.....	At U. S. Highway 190, 0.7 mile above mouth and near Bon Wier, Tex.	35.7
May 4	.....do.....	.....do.....	.....do.....	24.8
July 15	.....do.....	.....do.....	.....do.....	24.1
Sept. 14	.....do.....	.....do.....	.....do.....	15.8
Neches River Basin				
Oct. 13	Morrall Creek.....	Angelina River.....	At county highway, 3 miles above Alazan Creek and 5.6 miles southwest of Nacogdoches, Tex.	6.96
Nov. 17	.....do.....	.....do.....	.....do.....	10.2
Dec. 11	.....do.....	.....do.....	.....do.....	15.1
Jan. 23	.....do.....	.....do.....	.....do.....	24.2
Mar. 9	.....do.....	.....do.....	.....do.....	20.6
Apr. 10	.....do.....	.....do.....	.....do.....	15.9
Aug. 28	.....do.....	.....do.....	.....do.....	1.77
Oct. 13	Alazan Creek.....	Morrall Creek.....	Just below Blounts Lake, 0.5 mile above mouth and 6.7 miles southwest of Nacogdoches, Tex.	2.40
Nov. 17	.....do.....	.....do.....	.....do.....	3.45
Dec. 11	.....do.....	.....do.....	.....do.....	6.53
Jan. 23	.....do.....	.....do.....	.....do.....	11.1
Mar. 9	.....do.....	.....do.....	.....do.....	6.47
Apr. 10	.....do.....	.....do.....	.....do.....	5.49
Aug. 28	.....do.....	.....do.....	.....do.....	a.20
Oct. 13	Lanans Creek.....	Angelina River.....	At county highway, 4 $\frac{1}{2}$ miles above mouth and 5 miles south of Nacogdoches, Tex.	5.00
Nov. 17	.....do.....	.....do.....	.....do.....	7.76
Dec. 12	.....do.....	.....do.....	.....do.....	14.2
Jan. 23	.....do.....	.....do.....	.....do.....	28.6
Mar. 9	.....do.....	.....do.....	.....do.....	26.3
Apr. 10	.....do.....	.....do.....	.....do.....	18.2
Aug. 28	.....do.....	.....do.....	.....do.....	.31

a Estimated.

MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year October 1942 to September 1943--Continued

Trinity River Basin

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 2	West Fork Trinity River.	Trinity River.....	Discharge of outlet gate 4 in Bridgeport Reservoir Dam, near Bridgeport, Tex.	a763
2	.....do.....	.....do.....	Discharge of outlet gate 3 in above-mentioned dam.	a312
2	.....do.....	.....do.....	Discharge of outlet gate 2 in above-mentioned dam.	a761
2	.....do.....	.....do.....	Discharge of outlet gate 1 in above-mentioned dam.	a746

a Measured at constant stage 1,000 feet below gatehouse. Reservoir elevation, 823.7 feet reservoir datum. Gate at which measurement made wide open; other 3 gates closed.

San Jacinto River Basin

Aug. 31	Luce Bayou.....	East Fork San Jacinto River.	Lat. 30°30'02", long. 95°06'00", at county road, 2.1 miles above East Fork San Jacinto River and 2.3 mile north-northwest of Huffman, Tex.	a.60
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a Estimated.

Brazos River Basin

Jan. 22	Walnut Creek.....	Leon River.....	50 feet above mouth and 2.1 miles northeast of Hasse, Tex.	4.33
Feb. 17	.....do.....	.....do.....	.....do.....	2.33
July 8	.....do.....	.....do.....	.....do.....	.84
Apr. 13	Lampasas River.....	Little River.....	Lat. 31°01'25", long. 97°31'35", 1½ miles above Stillhouse Hollow and 4.4 miles southwest of Belton, Tex.	108

Colorado River Basin

June 25	Spring Creek.....	Middle Concho River	3/4 mile below Tankersly Springs and 1½ miles south of Mertzon, Tex.	16.4
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Guadalupe River Basin

Nov. 2	San Marcos Springs (San Marcos River)	Guadalupe River....	At San Marcos, Tex.....	b218
Dec. 10	.....do.....	.....do.....	.....do.....	b176
Jan. 16	.....do.....	.....do.....	.....do.....	b169
Feb. 18	.....do.....	.....do.....	.....do.....	b135
Mar. 31	.....do.....	.....do.....	.....do.....	b140
May 14	.....do.....	.....do.....	.....do.....	b138
June 21	.....do.....	.....do.....	.....do.....	b136
July 31	.....do.....	.....do.....	.....do.....	b130
Aug. 27	.....do.....	.....do.....	.....do.....	b135
27	Medina River.....	San Antonio River..	½ mile above English Road crossing, 1½ miles below former gaging station near Pipecreek post office, Tex., and 4 miles southwest of post office named.	11.6

b Total flow of springs.

Nueces River Basin

Oct. 23	West Nueces River...	Nueces River.....	Lat. 29°24'05", long. 100°04'35", 4.4 miles below Liveoak Creek, 15½ miles downstream from gaging station near Brackettville, and 23 miles northeast of Brackettville, Tex.	c0
Aug. 26	Frio River.....	.....do.....	600 feet below Rio Frio-Leakey road crossing and 2.3 miles south of Leakey, Tex.	13.0
26	.....do.....	.....do.....	Lat. 29°28'45", long. 99°41'50", 0.9 mile below gaging station at Concan and 1.2 miles southeast of Concan, Tex.	18.2
Oct. 26	.....do.....	.....do.....	Near Texas & New Orleans R. R. bridge, 0.6 mile above Dry Frio and 10 miles northeast of Uvalde, Tex.	d0
Aug. 25	Hondo River.....	Frio River.....	100 feet below Williams Creek and 0.8 mile northwest of Tarpley, Tex.	e1.16
25	.....do.....	.....do.....	Just above second Tarpley-Hondo road crossing, 6.7 miles southeast of Tarpley, Tex.	1.46
25	.....do.....	.....do.....	At outlet of pool between second and third Tarpley-Hondo road crossings, 7.5 miles southeast of Tarpley, Tex.	a.1
25	.....do.....	.....do.....	At third Tarpley-Hondo road crossing, 8.0 miles southeast of Tarpley, Tex.	0

a Estimated.

c 3,690 acre-feet passed the gaging station on West Nueces River near Brackettville, Tex., during period Oct. 15-23, 1942; this runoff was lost by infiltration into the gravels above site of this measurement.

d Observation of no flow also made on following dates: Dec. 11, Mar. 6, Apr. 24, June 3, July 13, Aug. 20, Sept. 21.

e Two-thirds of the flow was from Williams Creek, based on field observation.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year October 1942 to September 1943--Continued

Rio Grande Basin

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
July 14	Rio Grande.....	Gulf of Mexico.....	SE $\frac{1}{2}$ sec. 29, T. 24 N., R. 11 E., at Pilar, N. Mex.	248
20	.....do.....	.....do.....	.....do.....	237
14	.....do.....	.....do.....	NE $\frac{1}{2}$ sec. 12, T. 23 N., R. 10 E., 3 miles southwest of Pilar and 6 miles northeast of Embudo, N. Mex.	284
20	.....do.....	.....do.....	.....do.....	239
June 20	Allen Creek.....	Costilla Creek.....	Lat. 36°58', long. 105°15', above Costilla Dam and Reservoir, 16 miles east of Costilla, N. Mex.	1.35
July 21	.....do.....	.....do.....	.....do.....	.46
30	.....do.....	.....do.....	.....do.....	.49
Aug. 28	.....do.....	.....do.....	.....do.....	.26
Sept. 22	.....do.....	.....do.....	.....do.....	a.25
Aug. 18	Cerro ditch.....	Latir Creek.....	SW $\frac{1}{4}$ sec. 15, T. 30 N., R. 13 E., 50 feet below head and 6 miles northwest of Cerro, N. Mex.	12.4
22	Cabresto Creek.....	Rio Colorado.....	SW $\frac{1}{4}$ sec. 29, T. 29 N., R. 13 E., 1.5 miles northeast of Questa, N. Mex.	0
30	.....do.....	.....do.....	.....do.....	.74
18	Cabresto ditch 5....	Cabresto Creek.....	SE $\frac{1}{4}$ sec. 21, T. 29 N., R. 13 E., at head, 2.6 miles northeast of Questa, N. Mex.	4.43
22	.....do.....	.....do.....	.....do.....	2.67
30	.....do.....	.....do.....	.....do.....	a3.94
18	Cabresto ditch 4....	.....do.....	SW $\frac{1}{4}$ sec. 29, T. 29 N., R. 13 E., at head, 2.5 miles northeast of Questa, N. Mex.	9.33
22	.....do.....	.....do.....	.....do.....	6.63
30	.....do.....	.....do.....	.....do.....	a7.63
18	Cabresto ditches 2 and 3.	.....do.....	NE $\frac{1}{4}$ sec. 29, T. 29 N., R. 13 E., 0.1 mile below head and 1.7 miles northeast of Questa, N. Mex.	4.97
22	.....do.....	.....do.....	.....do.....	2.50
30	.....do.....	.....do.....	.....do.....	a1.31
30	Cabresto ditch 2....	Cabresto ditches 2 and 3.	NE $\frac{1}{4}$ sec. 29, T. 29 N., R. 13 E., 50 feet below head and 1.7 miles northeast of Questa, N. Mex.	.63
18	Cabresto ditch 1....	Cabresto Creek.....	NE $\frac{1}{4}$ sec. 29, T. 29 N., R. 13 E., at head, 1.7 miles northeast of Questa, N. Mex.	1.20
30	.....do.....	.....do.....	.....do.....	.65
22	.....do.....	.....do.....	NE $\frac{1}{4}$ sec. 29, T. 29 N., R. 13 E., 0.5 mile below head and 1.3 miles northeast of Questa, N. Mex.	.29
Oct. 23	Santa Fe Creek.....	Rio Grande.....	Sec. 24, T. 17 N., R. 10 E., above upper reservoir, $\frac{1}{2}$ miles east of Santa Fe, N. Mex.	2.75
Nov. 27	.....do.....	.....do.....	.....do.....	3.03
May 4	.....do.....	.....do.....	.....do.....	28.8
June 3	.....do.....	.....do.....	.....do.....	7.48
24	.....do.....	.....do.....	.....do.....	2.59
July 13	.....do.....	.....do.....	.....do.....	1.86
Aug. 29	.....do.....	.....do.....	.....do.....	2.06
Sept. 7	.....do.....	.....do.....	.....do.....	1.57
Sept. 2	.....do.....	.....do.....	.....do.....	3.59
Feb. 12	Pecos River.....	.....do.....	SE $\frac{1}{4}$ sec. 9, T. 11 S., R. 26 E., just above mouth of Rio Hondo and 6 miles east of Roswell, N. Mex.	50.2
16	.....do.....	.....do.....	.....do.....	50.2
15	.....do.....	.....do.....	SE $\frac{1}{4}$ sec. 4, T. 13 S., R. 26 E., 2,000 feet above Dexter Bridge and 24 miles northeast of Dexter, N. Mex.	81.3
16	.....do.....	.....do.....	.....do.....	80.9
15	.....do.....	.....do.....	NE $\frac{1}{4}$ sec. 7, T. 14 S., R. 27 E., 1,000 feet below State Highway 61 and 2.5 miles east of Hagerman, N. Mex.	117
16	.....do.....	.....do.....	.....do.....	109
Aug. 6	.....do.....	.....do.....	At former gaging station near Angeles, 2 miles north of Texas-New Mexico State line and $8\frac{1}{2}$ miles northwest of Angeles, Tex.	110
Sept. 9	.....do.....	.....do.....	.....do.....	191
July 8	Agua Pura ditch.....	Gallinas River.....	Lat. 35°39', long. 105°19', 50 feet below head, $\frac{1}{2}$ mile below gaging station near Montezuma and 6 miles northwest of Las Vegas, N. Mex.	2.10
9	.....do.....	.....do.....	1,500 feet below head.....	2.60
9	.....do.....	.....do.....	2,190 feet below head.....	2.37
9	.....do.....	.....do.....	3,050 feet below head.....	2.37
9	.....do.....	.....do.....	4,180 feet below head.....	2.14
9	.....do.....	.....do.....	6,260 feet below head.....	1.64
8	.....do.....	.....do.....	8,920 feet below head and 200 feet above pump.....	1.35
9	.....do.....	.....do.....	.....do.....	1.58
8	.....do.....	.....do.....	9,140 feet below head and 100 feet below pump.....	3.17
9	.....do.....	.....do.....	.....do.....	3.63

a Estimated.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year
October 1942 to September 1943--Continued

Rio Grande Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
July 9	Agua Pura ditch.....	Gallinas River.....	10,300 feet below head.....	3.61
9	.....do.....	.....do.....	11,900 feet below head, 765 feet above Reservoir, and 5 miles northwest of Las Vegas, N. Mex.	3.40
Feb. 15	Rio Hondo.....	Pecos River.....	E $\frac{1}{2}$ sec. 9, T. 11 S., R. 25 E., $\frac{1}{2}$ mile above mouth and 7 miles east of Roswell, N. Mex.	7.85
16	.....do.....	.....do.....	.....do.....	7.55
15	Hagerman Canal.....	Rio Hondo.....	NE $\frac{1}{4}$ sec. 31, T. 10 S., R. 25 E., at head, 5 miles east of Roswell, N. Mex.	34.5
16	.....do.....	.....do.....	.....do.....	33.0
15	Rio Felix.....	Pecos River.....	SW $\frac{1}{4}$ sec. 35, T. 13 S., R. 26 E., $\frac{1}{2}$ mile above mouth and 2 miles north of Hagerman, N. Mex.	10.2
16	.....do.....	.....do.....	.....do.....	7.74
16	Michelot ditch pump	Rio Felix.....	NE $\frac{1}{4}$ sec. 3, T. 14 S., R. 26 E., at head, $\frac{1}{2}$ mile north of Hagerman, N. Mex.	4.59
15	Walnut Draw.....	Pecos River.....	Lot 2, sec. 2, T. 16 S., R. 26 E., 3 miles south of Lake Arthur, N. Mex.	3.28
16	.....do.....	.....do.....	.....do.....	3.44
Oct. 3	Phantom Lake Spring.	Phantom Lake Irriga- tion System Canal.	At source (mouth of cave), near Toyahvale, Tex.	19.0
Dec. 29	.....do.....	.....do.....	.....do.....	15.9
Jan. 28	.....do.....	.....do.....	.....do.....	14.6
Feb. 26	.....do.....	.....do.....	.....do.....	13.0
Mar. 26	.....do.....	.....do.....	.....do.....	13.4
Apr. 20	.....do.....	.....do.....	.....do.....	13.1
May 25	.....do.....	.....do.....	.....do.....	13.2
June 14	.....do.....	.....do.....	.....do.....	13.1
July 24	.....do.....	.....do.....	.....do.....	12.8
Aug. 19	.....do.....	.....do.....	.....do.....	14.8
Sept. 23	.....do.....	.....do.....	.....do.....	13.3
Dec. 18	Giffin Springs.....	Main canal of Reeves County Water Improvement District No. 1.	In middle of northeast boundary sec. 20, blk. 13 Houston & Great Northern R. R. survey, at Toyahvale, Tex.	13.4
Feb. 25	.....do.....	.....do.....	.....do.....	5.66
Apr. 20	.....do.....	.....do.....	.....do.....	5.32
June 15	.....do.....	.....do.....	.....do.....	5.14
Aug. 20	.....do.....	.....do.....	.....do.....	5.18
Dec. 18	West Sandia Spring..	Canal of Reeves County Water Im- provement Dis- trict No. 1.	At head of feeder canal, 800 feet south of U. S. Highway 290, at Balmorhea, Tex.	1.39
Feb. 25	.....do.....	.....do.....	.....do.....	1.17
Apr. 20	.....do.....	.....do.....	.....do.....	1.32
June 14	.....do.....	.....do.....	.....do.....	.99
Aug. 19	.....do.....	.....do.....	.....do.....	1.45
Dec. 18	East Sandia Spring..	.....do.....	At former gaging station just below small dam, 1 mile east of Balmorhea, Tex.	.84
Feb. 25	.....do.....	.....do.....	.....do.....	1.10
Apr. 20	.....do.....	.....do.....	.....do.....	.93
June 14	.....do.....	.....do.....	.....do.....	.89
Aug. 19	.....do.....	.....do.....	.....do.....	1.00
Jan. 13	Santa Rosa Spring...	Santa Rosa Irriga- tion Co.'s canal.	NW $\frac{1}{4}$ sec. 69, blk. 8 Houston & Great Northern R. R. survey, in Pecos County, in canal $\frac{1}{2}$ mile below source and $\frac{1}{2}$ miles southwest of Grandfalls, Tex.	4.41
13	Monument Spring....	Pecos River.....	In northeast corner sec. 6, blk. 143 Texas & St. Louis Ry. survey, in Pecos County, 2 $\frac{1}{2}$ miles west of State Highway 82 and 20 miles north of Fort Stockton, Tex.	.98
May 10	Deep Springs.....	Leon Creek.....	In survey 506, Garcia, Montez & Durar survey, Pecos County, at State High- way 82, 10.2 miles north of Fort Stockton, Tex.	.43
Oct. 16	San Pedro Land Co.'s canal.	Comanche Creek....	In survey 208, Joseph Burleson survey, Pecos County, 7 miles northeast of Fort Stockton, Tex.	16.15
16	Cold Springs.....	San Pedro Land Co.'s canal.	In S $\frac{1}{2}$ of survey 207, Heirs of Thomas J. Robinson survey, Pecos County, 2 $\frac{1}{2}$ miles below source and 5 miles northeast of Fort Stockton, Tex.	2.55
16	Unnamed springs....	.....do.....	In S $\frac{1}{2}$ of survey 208, Joseph Burleson survey, Pecos County, 1 mile below source and 7 miles northeast of Fort Stockton, Tex.	.43
16	San Pedro Springs...	.....do.....	In E $\frac{1}{2}$ of survey 208, Joseph Burleson survey, Pecos County, $\frac{1}{2}$ mile below source and 7 miles northeast of Fort Stockton, Tex.	5.84
May 10	Two artesian wells..	Comanche Creek....	In center of survey 622, Socorro Farming Co. survey, Pecos County, 7 $\frac{1}{2}$ miles north of Fort Stockton, Tex.	.04
12	Artesian well.....	.....do.....	In NE $\frac{1}{4}$ of survey 210, San Antonio & Mexican Gulf Railroad survey, 9 $\frac{1}{2}$ miles northeast of Fort Stockton, Tex.	.15

f Combined flow, less losses, of 3 springs tributary to canal--Cold and San Pedro Springs and
unnamed springs listed between them.

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year
October 1942 to September 1943--Continued

Rio Grande Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
May 11	San Simon Springs...	Comanche Creek.....	In W $\frac{1}{2}$ of survey 598, E. Gescheldie survey, Pecos County, 0.9 mile southwest of Devlin triangulation station of U. S. Coast & Geodetic Survey and 10 $\frac{1}{2}$ miles northeast of Fort Stockton, Tex.	0.18
May 12	Johnson Springs.....	.....do.....	In NW $\frac{1}{4}$ of survey 599, E. Gescheldie survey, Pecos County, 0.7 mile east of Devlin triangulation station of U. S. Coast & Geodetic Survey and 12 miles northeast of Fort Stockton, Tex.	.32
Jan. 12	Agua Bonito.....	.....do.....	In S $\frac{1}{2}$ sec. 20, blk. 5 Texas Central R. R. survey, Pecos County, 12 miles northeast of Fort Stockton, Tex.	.51
May 11	Miracle Well (13 artesian wells).	.....do.....	In SW $\frac{1}{4}$ sec. 19, blk. 140 Texas & St. Louis R. R. survey, 13 $\frac{1}{2}$ miles northeast of Fort Stockton, Tex.	1.03
11	Troy Well.....	.....do.....	On south line sec. 19, blk. 140 Texas & St. Louis R. R. survey, Pecos County, 13 $\frac{1}{2}$ miles northeast of Fort Stockton, Tex.	.19
Jan. 12	Tunis or West Escondido Springs.	Tunis Creek.....	In NW $\frac{1}{4}$ of survey 310, J. N. Shoffner survey, Pecos County, 20 miles east of Fort Stockton, Tex.	2.20
May 13	.....do.....	.....do.....	.....do.....	1.66
Jan. 12	Middle Escondido Springs.	.....do.....	In NW $\frac{1}{4}$ of survey 549, J. V. Massey survey, Pecos County, 24 miles east of Fort Stockton, Tex.	2.1
12	East Escondido Springs.	.....do.....	In center of survey 557, Garza Irrigation & Manufacturing Co. survey, Pecos County, 28 $\frac{1}{2}$ miles east of Fort Stockton, Tex.	2.06
Aug. 17	Pecos Springs.....	Pecos River.....	In NE $\frac{1}{4}$ of sec. 37, blk. 1 International & Great Northern R. R. survey, Pecos County, 1 mile east of Sheffield, Tex.	.46
Apr. 29	Geddes Spring.....	Geddes Canyon.....	Lat. 30°17', long. 101°47', 1 mile west of Banner Ranch and 34 miles northwest of Langtry, Tex.	2.55
29	Sweetwater Spring...	Pecos River.....	Lat. 30°17', long. 101°45', in Terrell County, at Banner Headquarters Ranch, 0.4 mile west of northwest corner of Val Verde County and 3 $\frac{1}{2}$ miles northwest of Langtry, Tex.	3.18
July 20	Unnamed stream .....	.....do.....	Lat. 30°13', long. 101°37', in Val Verde County, on east side of Pecos River, at Malone Ranch, and 28 $\frac{1}{2}$ miles north of Langtry, Tex.	.11
20	Howards Spring.....	Howards Canyon.....	Lat. 30°08', long. 101°35', in Val Verde County, in Howards Canyon, on east side of Pecos River, $\frac{1}{2}$ mile above mouth of canyon and 22 $\frac{1}{2}$ miles north of Langtry, Tex.	3.36
21	Unnamed stream.....	Pecos River.....	Lat. 30°00', long. 101°30', in Val Verde County, on east side of Pecos River about $\frac{1}{2}$ miles east-southeast of Cox Ranch (formerly W. I. Babb Ranch) and 14 miles north of Langtry, Tex.	16.6

a Estimated.

Tularosa Valley (closed basin)

Oct. 7	La Luz ditch.....	Alamogordo-La Luz ditch.	SW $\frac{1}{4}$ sec. 25, T. 15 S., R. 10 E., at head, $\frac{1}{2}$ mile above La Luz and 6 miles north of Alamogordo, N. Mex.	1.26
22	.....do.....	.....do.....	.....do.....	1.45
Nov. 5	.....do.....	.....do.....	.....do.....	1.53
14	.....do.....	.....do.....	.....do.....	1.39
27	.....do.....	.....do.....	.....do.....	1.25
Dec. 12	.....do.....	.....do.....	.....do.....	1.45
31	.....do.....	.....do.....	.....do.....	1.31
Jan. 14	.....do.....	.....do.....	.....do.....	1.25
28	.....do.....	.....do.....	.....do.....	1.47
Feb. 12	.....do.....	.....do.....	.....do.....	1.64
20	.....do.....	.....do.....	.....do.....	1.42
Mar. 11	.....do.....	.....do.....	.....do.....	1.29
25	.....do.....	.....do.....	.....do.....	1.21
Apr. 2	.....do.....	.....do.....	.....do.....	1.25
14	.....do.....	.....do.....	.....do.....	1.20
22	.....do.....	.....do.....	.....do.....	1.15
May 3	.....do.....	.....do.....	.....do.....	.99
20	.....do.....	.....do.....	.....do.....	1.09
June 5	.....do.....	.....do.....	.....do.....	1.05
17	.....do.....	.....do.....	.....do.....	.97
July 2	.....do.....	.....do.....	.....do.....	1.20
16	.....do.....	.....do.....	.....do.....	1.28
30	.....do.....	.....do.....	.....do.....	.98

MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements in western Gulf of Mexico basins during water year
October 1942 to September 1943--Continued

Tularosa Valley (closed basin)--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Aug. 16	La Luz ditch.....	Alamogordo-La Luz ditch.	SW $\frac{1}{4}$ sec. 25, T. 15 S., R. 10 E., at head, $\frac{1}{4}$ mile above La Luz and 6 miles north of Alamogordo, N. Mex.	1.34
26do.....do.....do.....	1.17
Sept. 9do.....do.....do.....	.96
23do.....do.....do.....	1.32

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