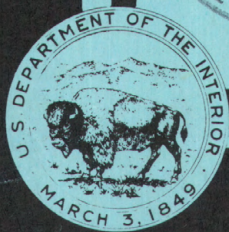
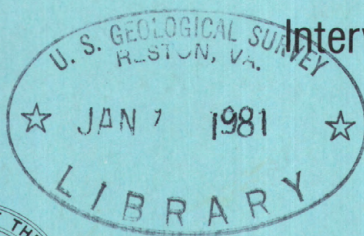


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Water Resources Data for Texas

Water Year 1975

Volume 1. Arkansas River Basin, Red River Basin,
Sabine River Basin, Neches River Basin,
Trinity River Basin and
Intervening Coastal Basins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TX-75-1

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

Water Resources Data for Texas

Water Year 1975

Volume 1. Arkansas River Basin, Red River Basin,
Sabine River Basin, Neches River Basin,
Trinity River Basin and
Intervening Coastal Basins



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Preface

This report was prepared by the U.S. Geological Survey in cooperation with the State of Texas and with other agencies by personnel of the Texas district of the Water Resources Division under the supervision of I. D. Yost, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region.

This report is one of a series issued State by State under the general direction of J. S. Cragwall, Jr., Chief Hydrologist, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Texas are in three volumes as follows:

- Volume 1. Arkansas River basin, Red River basin, Sabine River basin, Neches River basin, Trinity River basin, and intervening Coastal basins
- Volume 2. San Jacinto River basin, Brazos River basin, San Bernardo River basin, and intervening Coastal basins
- Volume 3. Colorado River basin, Lavaca River basin, Guadalupe River basin, Neches River basin, Rio Grande basin, and intervening Coastal basins

UNITED STATES DEPARTMENT OF THE INTERIOR

THOMAS S. KLEPPE, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

Prepared in cooperation with

Texas Water Development Board
Pecos River Commission
Sabine River Compact Administration
City of Austin
City of Dallas
City of Fort Worth
City of Houston
County of Dallas
Texas Department of Highways and Public Transportation
Corps of Engineers, U.S. Army
U.S. Soil Conservation Service

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WATER RESOURCES DATA FOR TEXAS, 1975

VOLUME 1 ARKANSAS, RED, SABINE, NECHES, TRINITY RIVERS, AND INTERVENING COASTAL BASINS

INTRODUCTION

Surface-water data for Texas for the 1975 water year are presented in three volumes, appropriately identified by river basins. Data in each volume consist of records of stage, discharge, and water quality of streams and canals; and stage, contents, and water quality of lakes and reservoirs. Records for a few pertinent stations in bordering states are also included. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Texas.

Records of discharge (or stage) of streams and contents (or stage) of lakes and reservoirs were first published in a series of Geological Survey Water-Supply Papers entitled, "Surface Water Supply of the United States." Through water year 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1971 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States."

Beginning with the 1961 water year and continuing through water year 1974, streamflow data have been released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records, beginning with the 1964 water year, have been similarly released in separate reports. These reports provided rapid release of preliminary water data shortly after the end of the water year. The final data were then released in the water-supply paper series. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the water-supply paper series. The 1975 and subsequent water-year reports will be in a series that will carry an identification number consisting of the two-letter State abbreviation, the last digits of the water year, and the report series number. For example, this report is identified as "U.S. Geological Survey Water-Data Report TX-75-1." These reports are for sale to the public for a nominal fee from the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22151. For more information on publications available, see "PUBLICATIONS" on page 19.

COOPERATION

Organizations that assisted in the collection of data in this report through cooperative agreements with the Geological Survey in 1975 are:

City of Austin, Charles B. Graves, Jr., Director, Engineering Department.

City of Dallas, Monroe McCorkle, Director, Public Works Department.

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

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

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

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

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

Texas Department of Highways and Public Transportation, B. L. DeBerry, Engineer-Director.

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

Assistance in the form of funds or services was given by the following Federal agencies:

Corps of Engineers, U.S. Army.

International Boundary and Water Commission, Department of State.

Soil Conservation Service, Department of Agriculture.

The National Oceanic and Atmospheric Administration, National Weather Service, is acknowledged for assistance in the collection of some of the records published in this report.

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

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. A table for converting English units to the International System of units (SI) is given on page 27.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, about 326,000 gallons, or 1,233 cubic metres.

Algae are mostly aquatic, single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, spiral, or threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on M-Endo medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 ml (millilitres) of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals and are often used as indicators of the sanitary quality of the water. These bacteria are defined as all the organisms that produce blue colonies within 24 hours when incubated at $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ on M-FC medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found in the intestines of warmblooded animals. The presence of fecal streptococci in water is considered to verify fecal pollution. These bacteria are defined as all the organisms that produce red or pink colonies within 48 hours at $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on M-enterococcus medium (nutrient medium for bacterial growth). Concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the fragmented alluvial material composing a stream-bed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash weight is the weight or amount of residue present after the residue from the dry-weight determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash-weight values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic metre), and the ash-weight values of periphyton and benthic organisms are expressed in g/m^2 (grams per square metre).

Biomass pigment ratio is the ratio of organic weight in mg/m^2 (milligrams per square metre) to the weight of chlorophyll a, in mg/m^2 .

Dry weight refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the weight remains unchanged. This weight represents the total

organic matter, ash, and sediment in the sample. Dry-weight values are expressed in the same units as ash weight.

Organic weight or volatile weight of a living substance is the difference between the dry weight and the ash weight, and represents the actual weight of the living matter. The organic weight is expressed in the same units as for ash and dry weights.

Cubic foot per second-day (Cfs-day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic metres. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimetre from 1 square kilometre.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of water. The number of coliform colonies per 100 ml of sample was determined by the immediate-incubation membrane-filter method.

Contents is the volume of water in a reservoir or lake, and unless otherwise indicated is computed on the basis of a level pool. The computation does not include bank storage.

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

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

Cubic foot per second (ft^3/s , ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second. This rate is equivalent to approximately 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic metres per second.

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

Mean discharge is the arithmetic average of individual daily mean discharges during a specified period.

Instantaneous discharge is the discharge at a given time.

Dissolved refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micrometre membrane filter, and may therefore include some very small (colloidal) suspended particles.

Dissolved oxygen (DO).--The dissolved-oxygen content of water in equilibrium with air is a function of atmospheric pressure, dissolved-solids content, and temperature of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids content. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen content in water from streams.

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

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

Gaging station is a designated site on a stream, canal, lake, or reservoir where systematic observations are made of the physical and (or) chemical and biological character of the water. The scope and frequency of data collected at a gaging station varies. This variation is reflected by the terminology used in further identifying the type of gaging station as follows:

Stream-gaging station is a gaging station at which a continuous record of discharge is generally computed. Water-quality data collected at a stream-gaging station may vary from only a temperature observation with each discharge measurement to continuous monitoring of one or more parameters. However, monthly and annual means and loads for dissolved constituents are not usually computed from less than daily samples.

Partial-record station is a gaging station where limited streamflow and (or) water-quality data are collected systematically over a period of years for use in hydrologic analyses of low-flow, peak-flow, and (or) general-runoff characteristics. Partial-record stations are further categorized as follows:

Crest-stage partial-record station is a gaging station at which only the annual peak stage and (or) discharge is obtained. Water-quality data are not usually collected at this type of gaging station.

Flood-hydrograph partial-record station is a gaging station at which flood hydrographs are sought for a variety of climatic and physiographic settings for purposes of modeling. Water-quality samples are sometimes collected at varying discharges during different seasons of the year.

Low-flow partial-record station is a gaging station at which definition of the quantity and (or) quality of the low flow (principally base flow) is sought. One or more discharge measurements and (or) water-quality samples may be obtained annually.

Reconnaissance partial-record station is a gaging station operated to define variations in water quality with discharge and (or) reservoir contents, and any changes in these variations. A discharge measurement and a water sample may be obtained at about 6-week intervals at some reconnaissance stations, or samples only may be obtained at greater time intervals at other stations.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Herbicides are substances or mixtures of substances intended to control or destroy vegetation.

Insecticides are substances or mixtures of substances intended to control or destroy insects.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic-detergent compounds.

Micrograms per litre (UG/L, $\mu\text{g/l}$) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) of solute per unit volume (litre) of water. One thousand micrograms per litre is equivalent to one milligram per litre.

Milligrams per litre (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per litre represent the weight of solute per unit volume of water. Milligrams or micrograms per litre may be converted to milliequivalents (one-thousandth of a gram-equivalent weight of a constituent) per litre by multiplying by the factors in table 1 on the following page. The concentration of suspended sediment is also expressed in mg/l and is based on the weight

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per litre to milliequivalents per litre

<u>Ion</u>	<u>Multiply by</u>	<u>Ion</u>	<u>Multiply by</u>
Aluminum (Al^{+3})*.....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as N.....	.07139	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})..	.01639	Lithium (Li^{+1})*.....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2}).....	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*....	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2})*.....	.03406
Chloride (Cl^{-1}).....	.02821	Nitrate as N.....	.07139
Chromium (Cr^{+6})*.....	.11539	Nitrite as N.....	.07139
Cobalt (Co^{+2})*.....	.03394	Phosphate as P.....	.03228
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1}).....	.02557
Cyanide (CN^{-1})*.....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*....	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2}).....	.02082
Hydroxide (OH^{-1}).....	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per litre; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per litre to parts per million*
(All values calculated to three significant figures)

<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>	<u>Range of concentration in 1000 mg/l</u>	<u>Di- vide by</u>
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-472	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

of sediment per litre of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2 on page 8.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, usually millilitres (ml) or litres (l).

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square metres (m^2), acres, or hectares. Numbers of periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually millilitres (ml) or litres (l). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Particle size is the diameter, in millimetres (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling) (Guy, 1969).

Particle-size classification as used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Do.
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distribution given in this report is not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, the assemblage may include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control or destroy undesirable plants and animals. The major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide, almost 60,000 pesticide formulations have been registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds of these compounds. Although efforts are being made to replace many of the chlorinated hydrocarbon pesticides with more specific, fast acting, and easily degradable compounds, chlorinated hydrocarbon pesticides are still commonly used in many areas of the country.

Phytoplankton is the plant part of the plankton. The plants are usually microscopic and movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because the plants are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. Phytoplankton are primary food producers in the aquatic environment and are commonly known as algae.

Plankton is the community of suspended, floating, or weakly swimming aquatic organisms that consist chiefly of minute plants (as diatoms and blue-green algae) and of minute animals (as protozoan, entomostracans, and various larvae).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

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

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which a dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or by volume, that is discharged in a given time.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams per litre of dry sediment in the water-sediment mixture.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimetre at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per litre) is about 65 percent of the specific conductance (in micromhos per centimetre at 25°C). This relation is not constant from stream to stream, and it may even vary in the same stream with changes in the composition of the water.

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

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that automatically records water temperatures on paper tape.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per litre by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a day.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension.

Weighted average indicates the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

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

SPECIAL NETWORKS AND PROGRAMS

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

National stream-quality accounting network is an accounting network designed by the Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in stream quality.

Radiochemical program is a network of regularly sampled gaging stations where additional samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in $\mu\text{g/l}$ (micrograms per litre), radium as radium-226 in PC/L, (pCi/l, picocuries per litre), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per litre. Gross alpha and beta radioactivity associated with the fine-grained (silt and clay sized) sediments in the samples are also determined.

A picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

DOWNSTREAM ORDER AND STATION NUMBER

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

Each gaging station has been assigned a station number in downstream order, without regard to the type of station. The numbers are not consecutive because some numbers are reserved for new stations that may be established. The complete number for each station consists of eight digits, such as 08123800. The first two digits, 08 or 07, identify the river basin as previously published in the series of water-supply papers on the

Surface Water Supply of the United States. The digits 07 indicate the Lower Mississippi River basin, and the digits 08 indicate the Western Gulf of Mexico Basins. The remaining six digits of the station number are sequential in downstream order.

All records for a drainage basin that extends across State boundaries can be arranged in downstream order by assembling the pages from the appropriate State reports by station number.

EXPLANATION OF SURFACE-WATER QUANTITY RECORDS

Collection and Computation of Data

The basic data collected at gaging stations consist of (1) records of stage; (2) measurements of discharge of streams and canals; and (3) stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement basic data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a non-recording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is often determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area measurements, contracted-opening measurements, or computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables; monthly and yearly mean discharges are computed from the daily values. 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 computed by the shifting-control method, in which correction factors (based on individual discharge measurements and notes by the hydrologists or observers) are used in applying the gage heights to the rating tables.

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

For a lake or reservoir gaging station, a capacity table giving the contents for any stage is prepared from a stage-area relation curve defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes in contents are computed.

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

At some gaging stations, there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report usually comprises a description of the station and tabulations of daily and monthly values. For stream-gaging stations on streams or canals, a table showing the daily, monthly, and yearly discharge is given. For a gaging station on a reservoir, a table showing the daily contents is given. Tables of daily or maximum and minimum daily gage heights are included for some gaging stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging stations, except those partial-record stations published in tabular form in the back of the report, gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging stations and the drainage areas are obtained from the most

accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies (U.S. Water Resources Council, 1968). Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of gages used previously during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record.

For stations where changes in upstream water-resources development occurred during the period of record, "AVERAGE DISCHARGE" is given for both before and after development. The maximum discharge or contents, maximum gage height or elevation, minimum discharge or contents (if there is little or no regulation), and minimum gage height or elevation (if it is significant) are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low).

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

Previously published records for some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description for all stations for which revised records have been published, each followed by the water years for which values are revised in that report. In listing the water years, one number

is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual values of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum discharge was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised value was first published is given.

It should be noted that for all stations for which runoff in cubic feet per second per square mile and in inches are published, a revision of the drainage area necessitates corresponding revision of all measurements based on the drainage area. Revised values of runoff in cubic feet per second per square mile and in inches, resulting from a revision of the drainage area only, are usually not published in the annual series of reports.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Measurements in cubic feet per second per square mile and in inches are omitted if there is extensive regulation or diversion, or if the drainage area includes large noncontributing areas.

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

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of the lack of a gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual conditions at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

For gaging stations on lakes and reservoirs, the data presented comprise a description of the station, a skeleton table of capacity at given stages, a table of daily contents, and a monthly summary of stage, contents, and known diversions.

Streamflow data collected at partial-record stations and miscellaneous sites where water-quality data are not collected are given in three tables at the end of this volume. The first is a table of low-flow discharge at low-flow partial-record stations; the second is a table of annual maximum stage and (or) discharge at crest-stage and (or) flood-hydrograph partial-record stations; and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of Data

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

The accuracy of the data are given under the "REMARKS" paragraph of the station description. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Values of daily mean discharge are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s, and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge values listed for partial-record stations and miscellaneous sites.

Discharge at some stations, as indicated by the monthly mean, may not reflect natural runoff because of the effects of diversion, consumption, or regulation by storage. For such stations, computations of cubic feet per second per square mile or computations in inches are not published unless satisfactory adjustments can be made for diversions and for changes in contents of upstream reservoirs.

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area.

Four series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950; the second series covers the period of October 1950 to September 1960; the third series covers the period October 1960 to September 1965; and the fourth series covers the period October 1965 to September 1970. The first and second series of reports contain summaries of monthly and annual discharge and contents for all published records, as well as some records not previously published in the annual series of water-supply papers. The third and fourth series of reports contain daily, monthly, and yearly discharge and content data. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Texas are compiled in Water-Supply Papers 1311-12 through September 1950; in WSP 1731-32 for October 1950 to September 1960; in WSP 1920-23 for October 1960 to September 1965; and in WSP 2120-23 for October 1965 to September 1970.

Special reports on major floods or droughts or on other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office, U.S. Geological Survey, WRD, 300 East 8th Street, Austin, Texas 78701.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the Texas District Office in Austin. Most gaging-station records are available in computer-usable form, and many statistical analyses have been made.

The International Boundary and Water Commission, United States and Mexico, operates all streamflow stations on the Rio Grande and near the mouth of its principal tributaries at and below El Paso, Texas. Records collected at these stations are published in annual bulletins by the Commission and may be obtained from the International Boundary and Water Commission, United States Section, P. O. Box 20003, El Paso, Texas 79998.

EXPLANATION OF SURFACE-WATER QUALITY RECORDS

Collection and Examination of Data

Water samples for analyses are usually collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the loads of chemical constituents and sediment.

Water-quality information is presented for chemical, biological, and microbiological quality; water temperature; and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, specific conductance, and pH. The biological information includes qualitative analyses of plankton and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water temperature was measured at the time of collection of most samples. At some sites, a continuous temperature recorder (thermograph) furnished information from which daily minimums and maximums were obtained; at other sites, once-daily temperatures were obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per litre (mg/l) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per millilitre), parts per million and milligrams per litre are equivalent. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3, page 22.

In October 1968, the Geological Survey began reporting the concentrations of many of the chemical constituents, including minor elements, in micrograms per litre instead of milligrams per litre. (See "Definition of Terms," p. 7.)

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in U.S. Geological Survey Techniques of Water Resources Investigations, book 5, chapter A1. Analytical methods for insecticides, herbicides, and organic substances in water are described in the Survey's Techniques of Water Resources

Investigations, book 5, chapter A3 and in Water-Supply Paper 1817. The collection and analysis of aquatic biological and microbiological samples are described in the Survey's Techniques of Water Resources Investigations, book 5, chapter A4.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed determination of for an accurate mean concentration and for use in calculating loads.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between the reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is probably the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

At stream-gaging stations where daily samples are obtained, tables are included to show monthly and annual means of specific conductance; concentrations of dissolved solids, chloride, sulfate, hardness; and loads of dissolved solids, chloride, and sulfate. The means have been computed by using the daily records of specific conductance and developing regression relationships between each water-quality parameter and specific conductance.

Temperature

Water temperatures are generally taken with each sample at a gaging station. Water temperatures are also taken at time of discharge measurements at gaging stations. At sites at which daily samples are taken, the water temperature is taken about the same time each day. Large streams have a small diurnal temperature change; but small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records published consist of maximum and minimum temperatures for each day and the monthly averages.

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected twice daily or, in some instances, hourly. The published values of sediment discharges for days of rapidly changing flow or concentrations were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days in which the published value of sediment discharge differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed

by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water-sediment discharge relations, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in estimating long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Publications

The annual series of water-supply papers that give information on quality of surface waters in Texas are listed in the following table. Data for the Lower Mississippi River basin are given in Part 7 and for the Western Gulf of Mexico Basin in Part 8.

Table 4.--Water-supply paper numbers and parts containing water-quality data for Texas, water years 1941-71

<u>Year</u>	<u>Parts 1-14</u>	<u>Year</u>	<u>Parts 7-8</u>	<u>Year</u>	<u>Parts 7-8</u>
1941	942	1950	1188	1963	1950
1942	950	1951	1199	1964	1957
1943	970	1952	1252	1965	1964
1944	1022	1953	1292	1966	1994
1945	1030	1954	1352	1967	2014
1946	1050	1955	1402	1968	C2096
1947	1102	1956	1452		D2097
1948	A1133	1957	1522	1969	C2146
1949	A1163	1958	1573		D2147
----	----	1959	1644	1970	C2156
----	----	1960	1744		D2157
----	----	1961	1884	1971	BC2166
----	----	1962	1944		BD2167

A Parts 7-14. B In Press. C Part 7. D Part 8.

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_____ 1941, Methods of analyzing sediment samples: Rept. 4.

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Table 5.--Factors for converting English units to International System (SI) units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI units equivalents in the station manuscript description until such time that all data will be published in SI units.

<u>Multiply English units</u>	<u>By</u>	<u>To obtain SI units</u>
Length		
inches (in)	25.4	millimetres (mm)
	.0254	metres (m)
feet (ft)	.3048	metres (m)
miles (mi)	1.609	kilometres (km)
Area		
acres	4047	square metres (m ²)
	.4047	hectares (ha)
	.4047	square hectometres (hm ²)
	.004047	square kilometres (km ²)
square miles (mi ²)	2.590	square kilometres (km ²)
Volume		
gallons (gal)	3.785	litres (l)
	3.785x10 ⁻³	cubic metres (m ³)
million gallons (10 ⁶ gal)	3785	cubic metres (m ³)
	3.785x10 ⁻³	cubic hectometres (hm ³)
cubic feet (ft ³)	.02832	cubic metres (m ³)
cubic feet per second-days	2447	cubic metres (m ³)
[(ft ³ /s)·d]	2.447x10 ⁻³	cubic hectometres (hm ³)
acre-feet (acre-ft)	1233	cubic metres (m ³)
	1.233x10 ⁻³	cubic hectometres (hm ³)
	1.233x10 ⁻⁶	cubic kilometres (km ³)
Flow		
cubic feet per second (ft ³ /s)	0.02832	cubic metres per second (m ³ /s)
gallons per minute (gal/min)	.06309	litres per second (l/s)
	6.309x10 ⁻⁵	cubic metres per second (m ³ /s)
million gallons per day	.04381	cubic metres per second (m ³ /s)
(10 ⁶ gal/d)		
Mass		
tons (short)	0.9072	tonnes (t)

29

LOCATION.--Lat 35°21'25", long 103°25'03", in NE¼ sec. 15, T. 13 N., R. 33 E., Quay County, on left bank, 1,100 ft (340 m) upstream from bridge on U.S. Highway 54, 0.7 mile (1.1 km) south of Logan, 1.4 miles (2.3 km) upstream from Chicago, Rock Island, & Pacific Railroad Co. bridge, 2.0 miles (3.2 km) downstream from Ute Dam, 4.3 miles (6.9 km) upstream from Revuelto Creek, and at mile 672.0 (1,081.2 km).

PERIOD OF RECORD.--June 1904 to November 1905 (gage heights and discharge measurements only), December 1908 to September 1909, February, April to July 1910, August 1910 to September 1911 (gage heights and discharge measurements only), October 1911 to May 1914, January to May 1924, September 1924 to July 1925, January 1927 to April 1934, August 1934 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for December 1909, January 1910, and May to July 1934, published in WSP 267, 287, and 762 are unreliable and should not be used. Published as South Canadian River, June to September 1904.

AVERAGE DISCHARGE.--15 years (1908-9, 1911-13, 1926-38) prior to completion of Conchas Dam, 392 ft³/s (11.10 m³/s), 284,000 acre-ft/yr (350 hm³/yr); 24 years (1938-62) prior to completion of Ute Dam, 257 ft³/s (7.278 m³/s), 186,200 acre-ft/yr (230 hm³/yr); 13 years (1962-75) regulated, 34.7 ft³/s (0.983 m³/s), 25,140 acre-ft/yr (31.0 hm³/yr).

Period of record (1930-75): Maximum discharge, 219,000 ft³/s (6,200 m³/s) Sept. 22, 1941 (gage height, 29.3 ft or 8.93 m, from pondmarks); from rating curve extended above 75,000 ft³/s (2,120 m³/s); no flow at times prior to completion of Ute Dam.

Maximum discharge, 278,000 ft³/s (7,870 m³/s) Sept. 30, 1904 (gage height, about 36.5 ft or 11.13 m, site and datum used in 1909, maximum rating curve extended above 14,000 ft³/s (396 m³/s), from Ninth Biennial Report of State Engineer.

REVIEWS (WATER YEARS).--WSP 1087: 1935-36. WSP 1117: Drainage area. WSP 1281: 1912, 1932(M), 1934, 1945-47, 1949-50. WSP 1311: 1931(M). See also PERIOD OF RECORD.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.4	2.4	2.6	2.4	2.4	1.6	2.0	2.0	1.4	2.0	1.8
2	2.0	2.4	2.3	2.4	2.4	2.4	2.0	2.0	2.2	1.4	2.7	1.8
3	2.0	2.6	2.3	2.4	2.4	2.4	1.8	2.0	2.2	1.4	2.6	1.8
4	2.0	2.6	2.3	2.4	2.4	2.4	1.6	2.0	2.2	1.4	1.8	1.8
5	2.0	2.4	2.3	2.4	2.4	2.4	1.6	2.0	2.2	1.4	1.8	1.8
6	2.0	2.4	2.3	2.4	2.4	2.2	1.8	2.0	2.2	1.4	1.8	2.0
7	2.3	23	2.3	2.2	2.4	2.2	2.0	2.0	2.2	1.4	1.8	2.0
8	2.1	73	2.3	2.2	2.2	2.2	1.6	2.0	2.2	1.3	1.8	2.0
9	2.1	4.3	2.3	2.2	2.2	2.6	1.6	2.0	2.2	1.6	1.8	2.0
10	4.7	3.0	2.4	2.2	2.2	2.2	2.6	2.0	2.9	1.8	1.8	2.0
11	2.9	2.4	2.4	2.2	2.2	2.2	2.4	2.2	2.6	1.8	1.8	1.8
12	3.6	2.4	2.4	2.0	2.2	2.2	2.4	2.2	2.2	1.6	1.8	2.6
13	2.4	2.4	2.4	2.6	2.2	2.4	2.6	2.0	2.0	1.4	1.8	2.2
14	2.1	2.4	2.3	2.4	2.2	2.2	2.4	2.0	2.0	1.3	2.0	2.2
15	2.1	2.4	2.3	2.2	2.4	2.4	2.4	2.0	1.8	17	2.0	2.2
16	2.1	2.4	2.3	2.2	2.6	2.2	2.4	2.0	1.8	2.6	2.6	2.2
17	2.1	2.4	2.4	2.2	2.6	2.2	2.4	2.0	1.8	1.8	2.6	2.2
18	2.1	2.4	2.3	2.2	2.4	2.2	2.2	2.0	1.8	1.8	2.0	2.2
19	2.1	2.4	2.3	2.0	2.2	2.2	2.2	2.0	1.8	1.6	2.0	2.2
20	2.1	2.4	2.1	2.2	2.2	2.0	2.2	2.0	2.0	1.6	2.0	2.2
21	2.3	2.4	2.3	2.0	2.2	1.8	2.2	2.0	2.0	3.8	2.0	2.9
22	2.3	2.4	2.1	2.0	2.9	1.8	2.2	2.2	1.8	3.5	1.8	2.2
23	3.1	2.4	2.1	2.0	3.2	1.8	2.2	2.0	2.0	9.5	1.8	2.2
24	2.4	2.4	2.1	2.0	2.6	1.8	2.2	2.0	2.0	8.5	1.8	2.2
25	2.3	2.4	2.3	2.0	2.4	1.8	2.2	2.0	1.9	3.2	1.8	2.4
26	2.3	2.4	2.3	2.0	2.4	2.0	2.2	1.8	1.8	2.6	1.8	2.4
27	4.3	2.6	2.3	2.0	2.4	1.6	2.2	2.2	2.0	2.4	2.0	2.4
28	3.0	2.3	2.3	2.2	2.4	2.0	2.2	2.9	10	2.2	2.0	2.4
29	2.6	2.4	2.3	2.2	---	2.2	2.2	2.6	2.0	2.0	1.8	2.4
30	2.6	2.4	2.4	2.4	---	2.0	2.2	2.4	1.6	2.0	1.8	2.4
31	2.4	---	2.4	2.4	---	1.8	---	2.2	---	2.0	1.8	---
TOTAL	76.4	166.2	71.3	68.8	67.1	66.2	63.8	64.7	69.3	88.7	60.9	64.9
MEAN	2.46	5.54	2.30	2.22	2.40	2.14	2.13	2.09	2.31	2.86	1.96	2.16
MAX	4.7	73	2.4	2.6	3.2	2.6	2.6	2.9	10	17	2.7	2.9
MIN	2.0	2.3	2.1	2.0	2.2	1.6	1.6	1.8	1.6	1.3	1.8	1.8
AC-FT	152	330	141	136	133	131	127	128	137	176	121	129
WTR YR 1974	TOTAL	898.4	MEAN 2.46	MAX 73	MIN 1.4	AC-FT 1780						
CAL YR 1975	T											

ARKANSAS RIVER BASIN

07227100 Revuelto Creek near Logan, N. Mex.

LOCATION.--Lat 35°20'28", Long 103°23'40", in SW¼NW¼ sec. 24, T. 13 N., R. 33 E., Quay County, on right bank, 0.3 mile (0.5 km) upstream from bridge on State Highway 39, 1.9 miles (3.1 km) southeast of Logan, and at mile 2.3 (3.7 km).

DRAINAGE AREA.--786 mi² (2,036 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 3,665 ft (1,117 m) from topographic map.

AVERAGE DISCHARGE.--16 years, 51.4 ft (1.456 m³/s), 37,240 acre-ft/yr (45.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,280 ft³/s (150 m³/s) June 28 (gage height, 7.02 ft or 2.140 m); no flow at times.
 Period of record: Maximum discharge, 26,700 ft³/s (756 m³/s) July 9, 1960 (gage height, 14.3 ft or 4.36 m); no flow at times
 In 1941-47, maximum discharge determined, about 13,400 ft³/s (379 m³/s) Sept. 18, 1946 (gage height, 9.04 ft or 2.755 m), at site 500 ft (150 m) downstream at different datum, from unpublished records collected by Bureau of Reclamation. A peak of 26,100 ft³/s (739 m³/s) date unknown (gage height, 12.9 ft or 3.93 m), was measured by slope-area method in May 1957.

REMARKS.--Records poor. Low flows are supplemented by surface and ground water return from irrigation in vicinity of Tucumcari.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	40	5.0	5.0	3.3	25	1.8	0	6.0	1.0	142	0
2	11	26	7.1	5.5	7.1	17	.89	0	.89	.23	816	0
3	10	20	8.2	6.5	6.0	10	1.2	0	.46	0	750	0
4	17	31	7.6	7.6	8.2	7.6	.60	4.3	0	0	44	0
5	20	22	6.0	7.0	8.9	4.5	.11	3.3	0	0	8.9	0
6	28	18	4.5	8.0	6.0	1.8	0	.40	0	0	4.5	0
7	40	18	3.7	8.0	5.0	.20	.15	0	0	0	3.3	0
8	47	14	3.3	7.6	6.0	0	0	0	0	0	2.6	0
9	191	11	3.0	7.0	3.7	4.1	0	1.6	0	0	2.3	0
10	452	9.5	4.1	6.2	3.0	5.0	.79	2.1	9.6	176	1.8	0
11	1460	8.9	5.5	5.4	2.6	3.0	40	15	20	157	.80	0
12	1120	7.6	4.5	6.4	1.8	1.4	22	24	6.5	260	.25	1.1
13	603	7.1	3.7	7.2	1.4	.40	54	13	.70	89	0	5.5
14	126	5.5	4.1	8.0	1.2	3.0	21	10	0	25	2.6	19
15	52	5.5	3.0	7.8	1.2	2.6	7.6	10	0	2.6	3.0	10
16	34	6.5	3.3	7.0	2.1	2.2	3.3	6.5	0	.14	4.1	6.5
17	26	6.5	4.5	7.0	7.1	2.0	.74	5.0	0	0	2.3	3.7
18	21	5.0	5.5	7.4	8.9	1.6	0	4.1	0	0	1.2	1.0
19	18	4.1	5.0	6.6	6.5	1.2	0	3.3	0	0	.43	.80
20	15	3.3	3.3	4.3	6.0	.74	0	3.7	6.6	0	0	1.6
21	11	3.3	3.3	3.3	2.6	.60	0	2.6	15	225	0	44
22	13	3.0	4.1	2.6	5.0	.27	0	1.4	.21	1430	0	44
23	199	3.0	2.6	3.7	6.5	0	0	.74	18	552	0	10
24	143	3.3	2.1	5.0	10	.03	0	.46	12	168	0	2.3
25	60	3.7	2.3	5.0	85	.12	0	.19	.68	46	0	.89
26	42	3.0	3.0	3.0	72	.01	0	0	0	17	0	.46
27	66	3.3	8.2	2.1	44	0	0	3.9	1.6	8.9	.04	.12
28	211	3.3	8.9	1.4	40	.46	0	20	1190	5.5	0	0
29	128	3.3	8.9	1.6	---	.74	0	6.5	34	2.1	0	0
30	60	4.1	8.2	5.0	---	1.2	0	6.5	7.1	.74	0	0
31	58	---	9.5	7.6	---	2.1	---	5.0	---	.12	0	---
TOTAL	5295	302.8	156.0	175.8	361.1	98.87	154.18	153.59	1329.34	3166.33	1790.12	150.77
MEAN	171	10.1	5.03	5.67	12.9	3.19	5.14	4.95	44.3	102	57.7	5.03
MAX	1460	40	9.5	8.0	85	25	54	24	1190	1430	816	44
MIN	10	3.0	2.1	1.4	1.2	0	0	0	0	0	0	0
AC-FT	10500	601	309	349	716	196	306	305	2640	6280	3550	299
CAL YR 1974 TOTAL	11830.72			MEAN 32.4	MAX 1460	MIN 0	AC-FT 23470					
WTR YR 1975 TOTAL	13133.90			MEAN 36.8	MAX 1460	MIN 0	AC-FT 26050					

07227140 Canadian River above New Mexico-Texas State line, N. Mex.
(National stream-quality accounting network)

LOCATION.--Lat 35°23'35", long 103°02'30", in SW¼ sec. 32, T.14 N., R.37 E., Quay County, 0.1 mile (0.2 km) upstream from New Mexico-Texas State line, 5.5 miles (8.8 km) downstream from Rana Canyon, and 14.7 miles (23.7 km) north of Glenrio.

DRAINAGE AREA.--12,616 mi² (32,675 km²).

PERIOD OF RECORD.--Chemical analyses: July 1969 to June 1973, November 1974 to September 1975. Sediment records: February 1970 to June 1973, November 1974 to September 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANG- NESE (MN) (UG/L) (01056)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED PO- TAS- SIUM (NA) (MG/L) (00930)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (MCO3) (MG/L) (00440)
NOV., 08...	1515	22	10	10	--	100	46	940	5.5	294
DEC., 05...	1235	15	11	20	--	120	65	1400	6.3	315
JAN., 16...	1310	15	11	10	--	130	75	1500	8.5	327
FEB., 25...	1356	17	9.3	10	--	120	64	1300	7.4	311
MAR., 24...	1235	6.3	12	10	200	130	80	1600	9.9	307
APR., 24...	1351	5.6	10	10	--	110	78	1500	9.9	268
MAY, 20...	1310	5.0	9.1	30	--	110	84	1400	12	256
JUNE, 24...	1700	50	5.8	40	0	17	6.0	110	3.8	130
JULY, 22...	1330	321	7.1	10	--	28	5.8	230	3.7	171

DATE	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED NITRATE (N) (MG/L) (00618)	DIS- SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
NOV., 08...	0	410	1300	.6	.44	.01	.44	.45	.03	.48
DEC., 05...	0	500	2000	.6	.34	.00	.38	.34	.05	.17
JAN., 16...	--	480	2300	.5	.34	.01	.36	.35	.02	.37
FEB., 25...	0	440	2000	.5	.36	.00	.38	.36	.03	.26
MAR., 24...	0	450	2300	.8	.38	.00	.40	.38	.02	.12
APR., 24...	0	410	2200	.6	.12	.01	.14	.13	.00	.15
MAY, 20...	0	610	1900	.7	.03	.01	.03	.04	.01	.45
JUNE, 24...	0	46	130	.3	.35	.02	.37	.37	.08	6.3
JULY, 22...	0	150	220	.5	--	--	.53	.50	.07	4.2

ARKANSAS RIVER BASIN

07227140 Canadian River above New Mexico-Texas State Line, N. Mex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL NITRO- GEN (N) (MG/L) (00000)	TOTAL PHOS- PHORUS (P) (MG/L) (00005)	DIS- SOLVED ORTHOPHOS- PHORUS (P) (MG/L) (00071)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	SODIUM AD- SUMP- TION RATIO (00931)	SPE- CIFIC CON- DUCTI- ANCE (MICRO- MHOS) (00095)
NOV. 08...	.95	.27	.02	2980	2960	440	200	20	5234
DEC. 05...	.60	.05	.02	4120	4260	570	310	26	7200
JAN. 16...	.75	.03	.01	4550	4670	630	370	26	7600
FEB. 25...	.67	.06	.00	3980	4100	560	310	24	6860
MAR. 24...	.54	.02	.02	4800	4740	650	400	27	8000
APR. 24...	.29	.02	.02	4460	4450	600	380	27	7400
MAY 20...	.09	.08	.08	4290	4250	620	410	24	7000
JUNE 24...	6.8	2.9	.00	369	385	67	0	5.8	670
JULY 22...	4.8	.03	.00	704	732	94	0	10	1250

DATE	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	TOTAL ORGANIC CARBON (C) (MG/L) (00480)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L) (00681)	DIS- SOLVED BORON (B) (UG/L) (01020)
NOV. 08...	8.2	14.0	14.5	200	9.0	20	4.3	--	330
DEC. 05...	8.4	19.5	11.5	40	10.0	48	3.7	--	350
JAN. 16...	8.8	5.5	5.5	6	11.5	55	4.0	--	340
FEB. 25...	8.4	12.0	12.0	30	9.6	57	3.6	--	320
MAR. 24...	8.3	16.0	12.0	4	10.4	52	1.4	--	350
APR. 24...	8.3	29.0	26.0	17	8.7	25	16	--	370
MAY 20...	8.4	31.0	24.5	39	7.5	46	4.5	--	450
JUNE 24...	8.0	32.0	27.0	1500	6.1	110	--	--	90
JULY 22...	8.3	24.0	22.0	22000	6.3	210	102	20	210

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
DEC. 05...	1235	2	1	350	--	1	--	<10	--	0	--	5
MAR. 24...	1235	1	1	350	20	0	1	0	<50	0	<10	0
JUNE 24...	1700	80	4	90	<10	1	120	0	50	0	150	9

07227140 Canadian River above New Mexico-Texas State Line, N. Mex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	DIS- SOLVED SELENIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
DEC. 05...	--	20	--	1	--	--	--	--	0	0	--	30
MAR. 24...	290	10	<100	0	230	200	.3	.3	1	1	20	20
JUNE 24...	91000	40	100	1	3000	0	.1	.0	1	0	370	0

DATE	TIME	TOTAL PHYTO- PLANK- TON (CELLS PER ML) (60050)	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (CUL- UNIES PER 100 ML) (31679)
NOV. 08...	1515	460	87	160
DEC. 05...	1235	660	31	19
JAN. 16...	1310	240	9	5
FEB. 25...	1356	540	1	0
MAR. 24...	1235	--	0	0
APR. 24...	1351	380	15	36
MAY 20...	1310	31000	2	15
JUNE 24...	1700	1300	17000	15000
JULY 22...	1330	15000	26000	7300

DATE	TIME	TEMPER- ATURE (DEG C) (00010)	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDIM- ENT CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- ENT CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER .062 MM (70331)
NOV. 08...	1515	14.5	22	401	24	95
DEC. 05...	1235	11.5	15	213	8.6	75
JAN. 16...	1310	5.5	15	51	2.1	83
FEB. 25...	1356	12.0	17	114	5.2	91
MAR. 24...	1235	12.0	6.3	29	.49	81
APR. 24...	1351	26.0	5.6	96	1.5	88
MAY 20...	1310	24.5	5.0	73	.99	92
JUNE 24...	1700	27.0	50	5880	794	99
JULY 22...	1330	22.0	321	25700	22300	97

ARKANSAS RIVER BASIN

07227470 Canadian River at Tascosa, Tex.

LOCATION.--Lat 35°31'10", long 102°15'30", Oldham County, on right bank at downstream side of bridge on U.S. Highway 385, 0.8 mile (1.3 km) northwest of Tascosa, and 1.0 mile (1.6 km) southwest of Boys Ranch.

DRAINAGE AREA.--18,536 mi² (48,008 km²), of which approximately 3,823 mi² (9,902 km²) is noncontributing.

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

Water quality: Chemical and biochemical analyses: October 1968 to current year. Water temperatures: October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,169.25 ft (965.987 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 187 ft³/s (5.296 m³/s), 135,500 acre-ft/yr (167 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 16,400 ft³/s (464 m³/s) Oct. 5 (gage height, 7.50 ft or 2.286 m), from rating curve extended as explained below; no flow at times.

Period of record: Maximum discharge, 27,500 ft³/s (779 m³/s) July 27, 1971 (gage height, 8.50 ft or 2.591 m), from rating curve extended above 12,000 ft³/s (340 m³/s); no flow at times each year.

Historic: Maximum stage probably occurred October 1904; other major floods occurred in May 1914, October 1937, and July 1941, from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 4,550 micromhos Mar. 29; minimum daily, 365 micromhos June 23. Maximum water temperatures, 34.0°C Aug. 15; minimum, freezing point on many days during winter months.

Period of record: Maximum daily specific conductance, 6,520 micromhos Mar. 3, 1971; minimum daily, 252 micromhos July 21, 1972. Maximum water temperatures, 35.0°C Aug. 5, 1969, June 22, 1972; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records poor. Some regulation by Conchas and Ute Reservoirs in New Mexico (capacity, 439,700 acre-ft or 542 hm³). Conchas and Bell Ranch Canals divert from Conchas Reservoir for irrigation of about 36,000 acres (15,000 hm²) in New Mexico.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	173	19	25	37	55	8.8	1.1	.04	40	24	1.0
2	28	137	26	20	42	76	8.5	.40	0	26	68	0
3	22	123	35	20	45	66	8.2	.15	0	13	184	0
4	20	105	30	20	45	55	5.5	.09	0	14	1,000	0
5	1,220	90	30	30	45	43	2.3	0	0	10	492	0
6	286	86	25	48	39	33	1.7	0	0	5.1	172	0
7	15	66	25	45	35	23	5.1	0	0	11	58	0
8	8.8	61	23	50	30	19	8.0	0	0	29	15	0
9	7.7	63	20	41	27	26	3.7	0	42	30	29	0
10	190	55	22	25	26	33	17	0	167	12	5.6	0
11	1,770	52	25	20	30	39	43	0	11	17	.89	0
12	1,230	82	26	15	33	33	44	0	2.7	4.2	.25	0
13	564	52	23	15	28	26	159	0	.02	2.5	.47	0
14	279	39	20	25	25	24	99	0	0	51	0	0
15	90	37	18	35	22	24	77	0	0	93	1.9	0
16	61	39	25	48	25	25	71	0	0	66	0	0
17	45	39	33	41	30	29	64	0	0	27	.19	0
18	52	37	20	41	35	28	42	0	0	19	2.2	0
19	50	32	16	37	43	28	31	0	0	26	0	0
20	39	30	16	23	43	27	24	0	0	16	0	0
21	35	25	16	16	35	17	16	0	358	8.6	0	0
22	105	23	16	12	69	10	13	.78	89	29	0	0
23	133	22	16	19	52	5.9	8.6	.53	1,320	964	0	0
24	45	23	15	19	63	3.4	6.7	0	3,090	818	0	0
25	280	23	14	19	82	3.7	7.7	0	173	472	0	0
26	132	22	15	19	50	3.0	7.1	0	57	372	0	0
27	110	22	15	20	41	1.6	144	0	56	282	0	0
28	257	19	22	16	37	3.3	23	.09	165	230	0	0
29	412	16	28	18	-----	6.4	4.4	345	568	124	124	0
30	302	16	28	28	-----	11	2.1	180	87	72	58	0
31	260	-----	30	33	-----	12	-----	.95	-----	37	15	-----
TOTAL	8,080.5	1,609	692	843	1,114	789.3	955.4	529.09	6,185.76	3,920.4	2,250.50	1.0
MEAN	261	53.6	22.3	27.2	39.8	25.5	31.8	17.1	206	126	72.6	.033
MAX	1,770	173	35	50	82	76	159	345	3,090	964	1,000	1.0
MIN	7.7	16	14	12	22	1.6	1.7	0	0	2.5	0	0
AC-FT	16,030	3,190	1,370	1,670	2,210	1,570	1,900	1,050	12,270	7,780	4,460	2.0
CAL YR 1974	TOTAL	40,673.25	MEAN	111	MAX	12,100	MIN	0	AC-FT	80,680		
WTR YR 1975	TOTAL	26,969.95	MEAN	73.9	MAX	3,090	MIN	0	AC-FT	53,490		

PEAK DISCHARGE (BASE, 10,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE
10- 5	2100	7.50	16,400
6-21	1645	6.88	10,300
6-23	2030	7.32	14,400

ARKANSAS RIVER BASIN

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07227470 Canadian River at Tascosa, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01...	0800	32	10	72	38	560	6.2	239	0	350
NOV.										
20...	1630	15	13	100	54	650	7.1	279	0	360
DEC.										
18...	1715	21	12	90	55	620	6.0	296	0	400
JAN.										
15...	1300	55	13	88	47	580	5.7	321	0	360
FEB.										
01...	0900	12	11	71	46	480	7.4	240	0	290
MAR.										
12...	1030	37	11	91	53	590	8.2	289	0	380
APR.										
25...	1015	7.0	9.9	78	56	720	7.8	262	0	480
MAY										
01...	0900	1.2	12	50	57	620	7.7	224	0	450
JUNE										
11...	0815	11	6.5	33	15	220	4.4	142	0	170
JULY										
10...	1830	11	9.9	47	21	220	5.5	189	10	170
AUG.										
29...	1025	141	11	45	15	250	4.4	225	0	110
SEP.										
01...	1430	1.0	8.5	28	9.1	160	3.8	136	4	85

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
OCT.									
01...	740	--	--	--	--	--	--	--	1890
NOV.									
20...	870	--	.03	.00	.04	.67	.71	.18	2190
DEC.									
18...	820	.7	--	--	--	--	--	--	2150
JAN.									
15...	760	.8	.14	.01	.06	.39	.45	.09	2020
FEB.									
01...	630	.3	--	--	--	--	--	--	1650
MAR.									
12...	790	.8	.03	.01	.12	.22	.34	.05	2070
APR.									
25...	890	.7	--	--	--	--	--	--	2370
MAY									
01...	780	.6	--	--	--	--	--	--	2090
JUNE									
11...	240	.4	.59	.02	.13	1.4	2.0	.63	761
JULY									
10...	260	.5	.01	.04	.00	1.0	1.0	.36	839
AUG.									
29...	240	--	--	--	--	--	--	--	826
SEP.									
01...	180	.6	--	--	--	--	--	--	546

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT.									
01...	340	140	13	3260	8.2	8.0	--	--	--
NOV.									
20...	470	240	13	3680	8.1	13.0	10.3	94	1.4
DEC.									
18...	450	210	13	3650	8.0	6.0	--	--	--
JAN.									
15...	420	150	12	3420	8.1	2.0	13.7	100	.5
FEB.									
01...	370	170	11	2900	8.0	3.0	--	--	--
MAR.									
12...	450	210	12	3510	8.2	2.0	13.7	100	12
APR.									
25...	430	210	15	4070	8.1	15.0	--	--	--
MAY									
01...	360	180	14	3510	8.2	15.0	--	--	--
JUNE									
11...	150	29	8.0	1390	8.0	12.0	9.9	92	3.8
JULY									
10...	210	33	6.7	1490	8.6	29.0	7.4	95	3.4
AUG.									
29...	170	0	8.2	1480	7.7	21.0	--	--	--
SEP.									
01...	110	0	6.7	974	8.6	30.0	--	--	--

ARKANSAS RIVER BASIN

07227470 Canadian River at Tascosa, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS- SOLVED ALUM- INUM- (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)				
DATE	TIME	JAN. 15... JUNE 11... JULY 10...	1300 0815 1830	30 50 0	0 3 4	310 260 240	0 0 1	0 10 0	1 2 0	1 4 2		
		DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)			
		JAN. 15... JUNE 11... JULY 10...	10 20 0	3 7 0	120 40 60	40 0 0	.1 .0 .0	5 5 0	2200 810 1100	20 10 20		
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)	
JAN. 15... JUNE 11... JULY 10...	1300 0815 1830	55 11 11	2.0 12.0 29.0	.00 .00 .00	.0 .0 .0	.00 .00 .00	.0 .0 .0	.00 .00 .00	.0 .0 .0	.00 .00 .00	.0 .0 .0	
DATE	TIME	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)
JAN. 15... JUNE 11... JULY 10...		.00 .00 .00	.0 .0 .0	.00 .00 .00	.0 .0 .0	.00 .00 .00	.0 .00 .00	.0 .00 .00	.0 .0 .0	.00 .01 .00	.0 .0 .0	.0 .0 .0
DATE	TIME	TOTAL PCB (UG/L)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	PCB IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DIA- ZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METH/L PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
JAN. 15... JUNE 11... JULY 10...		0 0 0	.0 .0 .0	0 0 0	.00 .00 .00	.00 .00 .00	.00 .00 .00	.00 .00 .00	.00 .01 .02	.00 .00 .00	.00 .00 .00	

ARKANSAS RIVER BASIN

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07227470 Canadian River at Tascosa, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	8080.49	1190	650	14200	180	3930	110	2400	170
NOV. 1974.....	1609	2710	1600	6950	590	2560	310	1350	320
DEC. 1974.....	692	3510	2000	3740	810	1510	410	766	390
JAN. 1975.....	843	3190	1900	4320	720	1540	370	842	360
FEB. 1975.....	1114	3240	1900	5710	730	2200	370	1110	370
MAR. 1975.....	789.29	3470	2000	4260	800	1700	400	852	390
APR. 1975.....	955.39	2820	1600	4130	620	1600	320	825	330
MAY 1975.....	529.09	744	390	557	58	83	57	81	120
JUNE 1975.....	6185.75	530	260	4340	38	635	30	501	100
JULY 1975.....	3920.4	1510	850	9000	270	2860	150	1590	200
AUG. 1975.....	2250.5	1320	730	4440	210	1280	130	790	180
SEPT 1975.....	1	987	530	1.4	120	0.32	84	0.24	150
TOTAL	26969.93	**	**	61600	**	20000	**	11100	**
WTD.AVG.	73.89	1510	850	**	270	**	150	**	200

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3270	1490	3540	3790	3250	3490	3700	3510	1440	1650	2490	987
2	3380	1530	3610	2870	3100	3650	3820	3650	---	1790	2440	---
3	3410	2140	3560	3950	3100	2660	3930	3610	---	1870	2270	---
4	3610	2160	3530	3990	3150	2530	4040	3540	---	2110	1290	---
5	800	2560	3290	2410	2420	2740	4240	---	---	2760	1010	---
6	754	2660	3130	2160	3300	3190	2790	---	---	2770	926	---
7	2000	2770	2610	3150	3600	3590	3750	---	---	2950	920	---
8	3060	2900	3620	3060	3820	3580	4380	---	---	2860	1120	---
9	3590	2900	3840	1750	3700	3520	4130	---	1400	896	1240	---
10	2170	3300	4030	3240	3660	3560	3760	---	798	1490	1870	---
11	1200	3320	3430	3240	3620	3240	3580	---	1390	2640	1580	---
12	983	4030	3920	3360	3550	3460	3770	---	1240	2670	2490	---
13	930	4010	3480	3500	3630	3600	1780	---	1490	3260	2150	---
14	796	3130	3080	3800	3610	3710	1930	---	---	3880	---	---
15	934	2790	3740	3420	3340	3790	3640	---	---	2800	2040	---
16	1140	2760	3620	3220	3630	3790	3900	---	---	2110	---	---
17	1230	2990	3720	2790	3620	3950	3830	---	---	2000	2670	---
18	1470	3470	3650	2790	3480	3780	3970	---	---	2000	2690	---
19	2190	3480	3540	3360	3070	3860	4480	---	---	2110	---	---
20	2210	3570	3300	3420	3100	3950	3600	---	---	2570	---	---
21	2370	3560	3390	3760	3050	4080	3530	---	1000	2640	---	---
22	2200	3570	3340	3900	3350	4520	3560	3500	962	2740	---	---
23	1520	3520	3490	4120	3340	4540	3720	1210	365	1660	---	---
24	1140	3520	3560	3840	3460	4530	4100	---	400	1210	---	---
25	1560	3480	3610	3820	2020	4270	4070	---	1170	1110	---	---
26	2110	3320	3670	3440	3340	4400	4120	---	1230	1260	---	---
27	1440	3300	3730	3540	3370	4510	1100	---	1360	1260	---	---
28	816	3230	3770	3580	3480	4510	1720	1400	606	1240	---	---
29	1190	3040	3510	3610	---	4550	2260	800	600	1320	1480	---
30	1560	3100	3180	3540	---	3920	3680	595	1360	1840	1030	---
31	1490	---	3440	3510	---	3800	---	755	---	2010	896	---
MONTH	1820	3050	3510	3330	3330	3780	3500	---	---	2110	---	---

ARKANSAS RIVER BASIN

07227470 Canadian River at Tascosa, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	7.0	5.0	0.0	3.0	2.0	5.0	15.0	20.0	29.0	26.0	30.0
2	13.0	10.0	4.0	3.0	5.0	15.0	0.0	25.0	---	20.0	20.0	---
3	22.0	8.0	5.0	0.0	2.0	7.0	3.0	14.0	---	19.0	24.0	---
4	23.0	6.0	0.0	0.0	6.0	15.0	4.0	25.0	---	30.0	28.0	---
5	15.0	5.0	11.0	1.0	0.0	7.0	5.0	---	---	29.0	22.0	---
6	12.0	15.0	5.0	2.0	---	17.0	19.0	---	---	28.0	24.0	---
7	15.0	15.0	2.0	4.0	0.0	6.0	10.0	---	---	28.0	28.0	---
8	12.0	11.0	0.0	8.0	0.0	3.0	1.0	---	---	30.0	22.0	---
9	25.0	7.0	7.0	8.0	---	8.0	13.0	---	---	25.0	23.0	---
10	12.0	8.0	0.0	0.0	12.0	10.0	8.0	---	15.0	23.0	26.0	---
11	16.0	7.0	10.0	3.0	13.0	2.0	10.0	---	12.0	22.0	18.0	---
12	11.0	11.0	0.0	0.0	0.0	0.0	5.0	---	15.0	21.0	21.0	---
13	15.0	12.0	0.0	---	15.0	15.0	12.0	---	33.0	29.0	25.0	---
14	10.0	5.0	5.0	5.0	12.0	5.0	5.0	---	---	19.0	20.0	---
15	8.0	12.0	0.0	6.0	0.0	13.0	20.0	---	---	20.0	34.0	---
16	20.0	15.0	0.0	0.0	2.0	11.0	12.0	---	---	20.0	---	---
17	10.0	15.0	10.0	8.0	1.0	5.0	12.0	---	---	19.0	---	---
18	21.0	11.0	3.0	0.0	0.0	4.0	10.0	---	---	19.0	---	---
19	12.0	12.0	1.0	6.0	10.0	7.0	7.0	---	---	22.0	---	---
20	19.0	14.0	6.0	0.0	5.0	11.0	19.0	---	---	24.0	---	---
21	12.0	14.0	8.0	1.0	3.0	15.0	13.0	---	---	22.0	---	---
22	12.0	5.0	8.0	0.0	0.0	6.0	27.0	---	27.0	24.0	---	---
23	14.0	7.0	2.0	2.0	0.0	7.0	12.0	21.0	15.0	25.0	---	---
24	12.0	10.0	1.0	0.0	0.0	13.0	19.0	---	13.0	19.0	---	---
25	14.0	7.0	0.0	0.0	9.0	10.0	11.0	---	20.0	20.0	---	---
26	10.0	8.0	0.0	13.0	11.0	7.0	15.0	---	30.0	26.0	---	---
27	14.0	10.0	3.0	5.0	0.0	8.0	15.0	---	25.0	26.0	---	---
28	15.0	1.0	3.0	0.0	12.0	0.0	6.0	---	19.0	29.0	---	---
29	10.0	0.0	5.0	1.0	---	0.0	7.0	---	27.0	27.0	21.0	---
30	11.0	0.0	0.0	4.0	---	5.0	16.0	---	21.0	21.0	21.0	---
31	8.0	---	3.0	2.0	---	20.0	---	13.0	---	30.0	27.0	---
MONTH	14.5	9.0	3.5	2.5	4.5	8.0	10.5	---	---	24.0	---	---

ARKANSAS RIVER BASIN

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07227500 Canadian River near Amarillo, Tex.

LOCATION.--Lat 35°28'13", Long 101°52'45", Potter County, near left bank on downstream side of pier of bridge on U.S. Highways 87 and 287, 1,500 ft (457 m) downstream from Pitcher Creek, 1.4 miles (2.3 km) downstream from East Amarillo Creek, 1.7 miles (2.7 km) downstream from Panhandle and Santa Fe Railway Co. bridge, 19 miles (31 km) north of Amarillo, and at mile 537.7 (865.2 km).

DRAINAGE AREA.--19,445 mi² (50,362 km²), of which 4,069 mi² (10,539 km²) is probably noncontributing.

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

Water quality: Chemical analyses: July 1948 to October 1949, February 1950 to current year. Chemical and biochemical analyses: January 1969 to current year. Pesticide analyses: October 1968 to current year. Water temperatures: August 1949 to current year. Sediment records: August 1949 to September 1952.

GAGE.--Water-stage recorder. Datum of gage is 2,989.16 ft (911.096 m) above mean sea level. Jan. 16, 1924, to Dec. 31, 1925, and Apr. 3 to June 1, 1938, nonrecording gage at site of old bridge 20 ft (6 m) upstream at same datum. June 2 to Dec. 5, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--38 years, 365 ft³/s (10.34 m³/s), 264,400 acre-ft/yr (326 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 30,600 ft³/s (867 m³/s) July 23 (gage height, 8.60 ft or 2.621 m); minimum, 0.44 ft³/s (0.012 m³/s) Apr. 27.

Period of record: Maximum discharge, 135,000 ft³/s (3,820 m³/s) July 25, 1941 (gage height, 15.7 ft or 4.79 m), from rating curve extended above 100,000 ft³/s (2,830 m³/s); no flow at times January 1924 to December 1925, Aug. 7, 8, 1940.

Historic: Flood in May 1914 reached a stage of 24 ft (7.3 m); a higher stage probably occurred during flood in October 1904, from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 4,580 micromhos Mar. 4; minimum daily, 627 micromhos June 28. Maximum water temperatures, 32.0°C June 6; minimum, freezing point on several days during winter months.

Period of record: Maximum daily specific conductance, 4,880 micromhos Mar. 6, 1971; minimum daily, 346 micromhos Oct. 29, 1964. Maximum water temperatures, 39.0°C July 7, 1973; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records poor. The city of Amarillo reported that during the year 7,760 acre-ft (9.57 hm³) of sewage effluent was discharged into East Amarillo Creek. Extreme low flow is maintained by effluent. For regulation and diversions see preceding page.

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	302	16	62	47	63	4.9	11	53	418	664	42
2	65	164	17	61	44	54	4.9	9.2	39	185	378	33
3	51	135	26	60	56	91	3.9	7.4	27	85	184	30
4	36	138	30	59	67	79	3.0	5.2	23	53	724	30
5	85	123	30	62	54	66	3.7	3.1	13	39	786	28
6	1,510	95	33	81	45	52	2.9	3.5	16	185	370	28
7	244	81	30	94	40	36	2.3	2.6	11	35	202	24
8	90	72	27	104	40	31	10	5.2	17	11	122	17
9	50	63	22	99	40	37	19	6.6	26	33	96	20
10	44	57	28	94	56	41	5.5	5.2	975	73	110	24
11	2,070	48	32	73	52	36	9.9	7.4	310	273	69	13
12	2,280	43	34	30	45	41	12	4.6	124	70	41	15
13	2,150	63	30	30	40	42	37	20	79	39	37	16
14	2,010	52	35	56	34	42	305	10	64	109	156	15
15	730	41	29	70	37	31	197	8.3	71	50	412	14
16	525	38	26	73	41	29	104	9.2	52	94	138	16
17	294	35	29	81	55	21	87	10	59	53	44	16
18	177	33	33	81	79	20	66	10	62	28	30	16
19	102	30	32	85	86	22	63	4.2	64	16	27	16
20	74	29	36	66	86	22	46	8.3	97	11	25	16
21	50	25	31	62	91	11	32	8.3	129	4.6	23	23
22	42	25	31	47	69	7.3	27	35	772	7.0	18	27
23	397	22	28	50	95	5.1	21	06	1,070	5,350	15	37
24	542	20	24	44	92	4.3	14	20	7,220	827	14	32
25	247	19	20	47	115	5.5	11	12	908	329	12	20
26	487	19	18	42	137	4.8	11	9.2	140	203	16	19
27	329	19	25	33	114	3.4	5.2	18	283	270	15	15
28	337	17	33	33	81	4.5	185	120	1,190	160	18	16
29	410	13	35	27	-----	6.8	109	47	1,440	140	81	12
30	1,130	12	46	33	-----	5.1	25	614	630	77	167	25
31	323	-----	94	37	-----	3.3	-----	131	-----	76	100	-----
TOTAL	14,400	1,838	980	1,875	1,843	917.1	1,427.2	1,236.5	15,969	9,303.6	5,094	655
MEAN	594	61.3	31.6	60.5	65.6	29.6	47.6	39.9	532	300	164	21.8
MAX	2,280	362	94	104	137	91	305	614	7,220	5,350	786	42
MIN	36	12	16	27	37	3.3	2.3	2.6	11	4.6	12	12
AC-FT	36,500	3,650	1,940	3,720	3,660	1,820	2,830	2,450	31,670	18,450	10,100	1,300

CAL YR 1974 TOTAL 67,042.5 MEAN 184 MAX 7,630 MIN 1.2 AC-FT 133,000

WTR YR 1975 TOTAL 59,538.4 MEAN 163 MAX 7,220 MIN 2.3 AC-FT 118,100

PEAK DISCHARGE (BASE, 14,000 FT³/S).--June 24 (0300) 16,000 ft³/s (6.65 ft); July 23 (0600) 30,600 ft³/s (8.60 ft).

ARKANSAS RIVER BASIN

07227500 Canadian River near Amarillo, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 03...	1500	49	13	84	33	410	11	195	0	320	520	--
NOV. 20...	1830	37	14	100	42	450	8.9	242	0	360	580	--
DEC. 31...	1300	94	13	110	46	490	8.1	230	0	410	680	.9
JAN. 15...	0930	29	18	120	45	480	10	314	0	440	630	1.1
FEB. 28...	1100	79	14	94	44	410	9.4	254	0	320	550	.0
MAR. 12...	0845	40	13	110	49	550	11	264	0	450	730	.8
APR. 24...	1430	12	16	120	49	490	12	207	0	470	630	1.2
MAY 14...	1500	5.9	12	80	32	300	18	285	21	290	320	.1
31...	1130	91	15	46	15	190	5.8	231	0	140	180	.6
JUNE 04...	1105	22	16	56	22	170	11	184	0	170	210	1.4
JULY 10...	1630	44	12	71	29	310	7.3	145	12	280	410	.7
AUG. 28...	1600	17	20	60	23	180	14	202	0	170	220	--
SEP. 17...	0830	25	16	58	24	200	13	228	0	190	220	1.1

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 03...	--	--	--	--	--	--	1490	--	--	350	190
NOV. 20...	1.2	.25	1.1	2.1	3.2	2.2	1670	168	24	420	220
DEC. 31...	--	--	--	--	--	--	1870	--	--	460	280
JAN. 15...	.66	.24	8.0	.00	8.0	4.5	1900	48	5	490	230
FEB. 28...	--	--	--	--	--	--	1570	--	--	420	210
MAR. 12...	.47	.16	4.4	.20	4.6	2.7	2040	71	7	480	260
APR. 24...	--	--	--	--	--	--	1890	--	--	500	330
MAY 14...	1.4	1.6	9.9	1.1	11	5.4	1220	43	10	330	65
31...	--	--	--	--	--	--	706	--	--	180	0
JUNE 04...	--	--	--	--	--	--	747	--	--	230	80
JULY 10...	1.6	.26	.04	.96	1.0	1.4	1210	1260	104	300	160
AUG. 28...	--	--	--	--	--	--	787	--	--	240	79
SEP. 17...	4.1	.66	1.5	2.1	3.6	5.6	836	54	9	250	58

ARKANSAS RIVER BASIN

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07227500 Canadian River near Amarillo, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 03...	9.6	2530	7.6	23.0	--	--	--	--	--	--	--
NOV. 20...	9.5	2870	8.2	11.5	20	90	9.8	90	11	--	.0
DEC. 31...	9.9	3200	8.0	3.0	--	--	--	--	--	--	--
JAN. 15...	9.5	3110	8.1	1.0	10	30	13.7	97	7.4	17	.2
FEB. 28...	8.8	2680	7.6	5.0	--	--	--	--	--	--	--
MAR. 12...	11	3430	8.0	2.0	8	45	12.6	92	.6	8.3	.2
APR. 24...	9.5	3220	7.1	26.0	--	--	--	--	--	--	--
MAY 14...	7.2	2130	8.5	26.5	20	20	11.1	135	9.6	10	.4
31...	6.2	1250	8.1	19.0	--	--	--	--	--	--	--
JUNE 04...	4.9	1380	6.9	22.0	--	--	--	--	--	--	--
JULY 10...	7.8	2130	8.6	31.5	20	800	7.2	97	5.3	8.0	.1
AUG. 28...	5.0	1360	7.3	30.5	--	--	--	--	--	--	--
SEP. 17...	5.6	1440	7.6	19.0	5	35	8.4	89	16	8.4	.2

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
JAN. 15...	0930	40	3	380	0	0	2	8
MAY 14...	1500	10	6	610	2	0	2	5
JULY 10...	1630	10	5	260	0	0	0	1
SEP. 17...	0830	10	8	420	1	10	1	4

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JAN. 15...	40	4	90	80	.0	8	2400	30
MAY 14...	130	2	70	90	.1	3	1800	8
JULY 10...	10	0	60	0	.0	0	1700	20
SEP. 17...	10	2	40	30	.1	7	1200	10

ARKANSAS RIVER BASIN

07227500 Canadian River near Amarillo, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)
JAN. 15...	0930	29	1.0	.00	.0	.00	.0	.00	.0	.00	.0
MAY 14...	1500	5.9	26.5	.00	--	.00	--	.00	--	.00	--
JULY 10...	1630	44	31.5	.00	.0	.00	.0	.00	.0	.00	.0
SEP. 17...	0830	25	19.0	.00	.0	.00	.0	.00	.0	.00	.0

DATE	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)
JAN. 15...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAY 14...	.00	--	.00	--	.00	--	.00	--	.02	--	.0
JULY 10...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 17...	.00	.0	.00	.0	.00	.0	.00	.0	.04	.0	.0

DATE	TOTAL CHLOR-DANE (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
JAN. 15...	0	.0	0	.04	.00	.00	.00	.03	.01	.00
MAY 14...	--	.0	--	.22	.00	.00	.00	.41	.10	.01
JULY 10...	0	.0	0	.02	.00	.00	.00	.05	.00	.07
SEP. 17...	0	.0	0	.08	.00	.00	.00	.10	.05	.06

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	18400	1140	630	31300	150	7450	150	7450	200
NOV. 1974.....	1838	2180	1300	6450	410	2030	310	1540	340
DEC. 1974.....	980	3170	1900	5030	650	1720	460	1220	480
JAN. 1975.....	1875	3190	1900	9620	650	3290	470	2380	480
FEB. 1975.....	1843	2980	1700	8460	600	2990	430	2140	450
MAR. 1975.....	917.09	3250	1900	4700	670	1660	470	1160	490
APR. 1975.....	1427.2	2450	1400	5390	470	1810	350	1350	380
MAY 1975.....	1236.5	1420	800	2670	220	734	190	634	240
JUNE 1975.....	15969	1140	630	27200	150	6470	150	6470	200
JULY 1975.....	9303.59	1240	690	17300	180	4520	170	4270	210
AUG. 1975.....	5094	1220	680	9350	170	2340	160	2200	210
SEPT 1975.....	655	1430	810	1430	220	389	190	336	240
TOTAL	59538.39	**	**	129000	**	35400	**	31100	**
WTD.AVG.	163.12	1420	800	**	220	**	190	**	240

ARKANSAS RIVER BASIN

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07227500 Canadian River near Amarillo, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2730	1530	2570	2410	3020	3040	1860	2040	1720	1590	786	1520
2	2690	1580	3230	2810	3180	3180	1800	2060	1840	1660	818	1400
3	2560	1690	3280	2910	3240	3390	1720	1960	2320	1910	1460	1470
4	2580	1850	3200	2580	3080	4580	1610	1930	1370	2120	1250	1400
5	2820	1790	3090	3130	2340	3070	1850	2020	1510	2260	1450	1490
6	811	2350	3160	2750	3180	2880	1930	1920	1620	1240	1300	1240
7	1010	2480	3000	3400	3520	2940	2020	1970	1840	1270	1230	1110
8	1490	2610	3130	3310	3260	3000	1750	1920	1780	2010	1430	1270
9	2140	2600	3170	3350	3360	3200	1220	1970	1120	2310	1560	1240
10	2660	2640	3130	3230	3360	3390	1810	2020	2000	2440	1420	1350
11	953	2730	3370	3150	3260	3420	3060	1830	1060	1740	1720	1490
12	953	2550	3270	3600	3160	3420	2430	1820	1300	1470	1930	1650
13	953	2720	3340	3420	3140	3220	3320	2220	1720	1770	2110	1600
14	991	3190	3420	3560	3320	3290	2550	2020	1870	1040	1000	1500
15	987	2920	3340	2990	3500	3350	2090	1910	1660	1270	800	1390
16	1090	2560	2780	3400	2410	3400	2390	1950	1450	3970	842	1520
17	1240	2620	2840	3160	3390	3420	3110	1950	1420	2960	1240	1450
18	1450	1680	3440	3150	3080	3160	3680	1920	1580	2610	1560	1610
19	1560	2670	3360	2830	3180	3030	4200	1920	1580	2380	2170	1700
20	1740	2530	3170	3010	3290	2790	3070	1870	1070	2420	1620	1580
21	1990	2830	3320	3450	3010	2750	3300	1920	1060	2510	1490	1470
22	2200	2700	3310	3470	3150	2620	2920	1480	2370	2200	1330	1470
23	1560	3130	3250	3340	2480	2440	3040	1650	1560	1000	1200	1320
24	1200	2900	3490	3510	3020	2060	2740	1860	833	1200	1450	1220
25	1170	2760	2720	3380	2900	2030	1780	1960	1390	1330	1370	1470
26	1880	2700	3640	3630	2650	1840	1690	2100	1370	1290	1210	1560
27	2000	3030	2590	3730	2310	1580	1820	1910	1150	1270	1240	1650
28	1880	3090	3050	3570	2680	1740	1450	1030	627	1380	1300	1500
29	1600	3180	3090	3220	---	1890	1820	1870	878	1670	1300	1560
30	1120	2250	3060	3300	---	2010	2220	1280	1700	1610	1960	1400
31	1420	---	3200	3370	---	2240	---	1250	---	1870	1510	---
MONTH	1660	2530	3160	3230	3050	2850	2340	1860	1490	1860	1390	1450

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	11.0	1.0	10.0	5.0	9.0	5.0	14.0	17.0	22.0	19.0	21.0
2	16.0	11.0	1.0	4.0	6.0	11.0	3.0	18.0	19.0	22.0	23.0	21.0
3	17.0	12.0	1.0	4.0	9.0	4.0	12.0	21.0	20.0	23.0	22.0	20.0
4	18.0	8.0	4.0	1.0	8.0	6.0	12.0	18.0	23.0	25.0	24.0	20.0
5	20.0	12.0	7.0	2.0	1.0	8.0	11.0	18.0	23.0	24.0	26.0	21.0
6	14.0	14.0	5.0	4.0	1.0	12.0	13.0	14.0	32.0	21.0	24.0	19.0
7	13.0	14.0	4.0	5.0	2.0	5.0	14.0	20.0	25.0	25.0	21.0	21.0
8	16.0	10.0	3.0	4.0	0.0	3.0	12.0	17.0	22.0	25.0	22.0	22.0
9	17.0	11.0	1.0	6.0	1.0	5.0	11.0	18.0	20.0	26.0	22.0	21.0
10	19.0	11.0	1.0	1.0	9.0	4.0	8.0	14.0	15.0	22.0	25.0	28.0
11	16.0	6.0	4.0	1.0	8.0	3.0	12.0	15.0	15.0	22.0	20.0	20.0
12	17.0	8.0	1.0	0.0	10.0	1.0	11.0	19.0	18.0	22.0	22.0	11.0
13	17.0	9.0	0.0	2.0	7.0	4.0	5.0	15.0	25.0	30.0	21.0	14.0
14	11.0	3.0	1.0	1.0	5.0	6.0	5.0	17.0	22.0	24.0	20.0	14.0
15	9.0	3.0	1.0	2.0	0.0	6.0	10.0	20.0	24.0	24.0	23.0	20.0
16	12.0	9.0	0.0	1.0	4.0	5.0	14.0	15.0	23.0	21.0	23.0	19.0
17	12.0	15.0	7.0	3.0	0.0	9.0	15.0	19.0	22.0	21.0	23.0	21.0
18	18.0	13.0	7.0	5.0	7.0	9.0	10.0	18.0	25.0	23.0	25.0	17.0
19	13.0	7.0	4.0	3.0	4.0	10.0	9.0	20.0	24.0	24.0	25.0	17.0
20	15.0	8.0	4.0	9.0	10.0	12.0	12.0	17.0	23.0	23.0	30.0	16.0
21	14.0	5.0	4.0	5.0	4.0	12.0	14.0	21.0	21.0	21.0	26.0	12.0
22	15.0	7.0	7.0	0.0	---	13.0	16.0	19.0	21.0	25.0	29.0	13.0
23	15.0	4.0	0.0	1.0	1.0	9.0	15.0	20.0	24.0	20.0	22.0	11.0
24	13.0	3.0	0.0	4.0	5.0	7.0	16.0	17.0	19.0	20.0	23.0	12.0
25	13.0	6.0	0.0	5.0	4.0	10.0	17.0	20.0	22.0	20.0	20.0	11.0
26	12.0	1.0	0.0	9.0	2.0	11.0	17.0	19.0	24.0	20.0	22.0	13.0
27	13.0	9.0	0.0	4.0	3.0	9.0	17.0	25.0	22.0	24.0	21.0	12.0
28	15.0	2.0	3.0	4.0	5.0	3.0	13.0	18.0	19.0	25.0	22.0	17.0
29	13.0	0.0	5.0	3.0	---	0.0	13.0	15.0	18.0	26.0	23.0	17.0
30	11.0	0.0	0.0	3.0	---	4.0	14.0	15.0	26.0	26.0	26.0	13.0
31	12.0	---	3.0	2.0	---	9.0	---	19.0	---	21.0	23.0	---
MONTH	14.5	7.5	2.5	3.5	4.5	7.0	12.0	18.0	22.0	23.0	23.0	17.0

ARKANSAS RIVER BASIN

07227900 Lake Meredith near Sanford, Tex.

LOCATION.--Lat 35°42'38", long 101°33'03", Hutchinson County, in outlet tower near right end of dam on Canadian River, 1.2 miles (1.9 km) northwest of Sanford, and at mile 508.5 (818.2 km).

DRAINAGE AREA.--20,220 mi² (52,370 km²), of which 4,172 mi² (10,805 km²) is probably noncontributing.

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

Water quality: Chemical analyses: October 1968 to current year.

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

EXTREMES.--Current year: Maximum contents, 456,800 acre-ft (563 hm³) Aug. 6 (elevation, 2,907.63 ft or 886.246 m); minimum, 417,400 acre-ft (515 hm³) June 9, 10 (elevation, 2,904.15 ft or 885.185 m).

Period of record: Maximum contents, 546,100 acre-ft (673 hm³) Apr. 28, 1973 (elevation, 2,914.91 ft or 888.465 m); minimum since first appreciable storage, 219,900 acre-ft (271 hm³) Apr. 10, 11, 1967 (elevation, 2,883.10 ft or 878.769 m).

REMARKS.--The lake is formed by a rolled earthfill dam 6,410 ft (1,954 m) long. The dam was completed and storage began in October 1964. The service spillway is an uncontrolled concrete drop inlet located near the left end of dam. The spillway discharges into a 22-foot-diameter (7-metre) conduit that is designed to discharge 19,300 ft³/s (547 m³/s) at an elevation of 3,004.9 ft (915.89 m). The flood-control outlet works consist of three 12- by 15-foot (4- by 5-metre) gates that open into three 15.5-foot (4.7-metre) concrete conduits. The flood-control works are located just to the left of the service spillway near the left end of dam. The dam was built by the U.S. Bureau of Reclamation for the Canadian River Municipal Water Authority for flood control and for municipal and industrial supply for the cities of Amarillo, Borger, Brownfield, Lamesa, Levelland, Lubbock, O'Donnel, Pampa, Plainview, Slaton, and Tahoka. The area-capacity curves are based on Geological Survey topographic maps dated 1953. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	3,011.0	
Design flood.....	3,004.9	2,434,200
Crest of drop inlet.....	2,965.0	1,407,600
Top of conservation pool.....	2,936.5	864,400
Crest of flood-control outlet works (invert).....	2,894.0	313,700
Lowest gated outlet (invert).....	2,850.0	43,050

COOPERATION.--Record of elevations and diversions furnished by the Canadian River Municipal Water Authority. The area-capacity curves were furnished by the U.S. Bureau of Reclamation.

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

2,903.0	404,800	2,907.0	449,500
2,905.0	426,800	2,909.0	472,900

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	430,800	451,500	447,100	441,400	438,100	437,800	432,800	427,300	418,700	437,200	455,300	445,000
2	430,500	451,500	447,100	441,500	438,100	437,400	432,600	426,800	419,300	437,200	455,900	444,700
3	430,300	451,500	447,100	441,400	438,300	437,600	432,700	426,800	419,300	437,100	456,200	443,900
4	430,300	451,500	447,100	441,300	438,200	437,600	432,400	426,300	418,200	437,100	456,000	443,700
5	431,700	451,500	445,700	440,800	438,400	437,500	432,300	425,800	418,700	436,900	456,700	442,800
6	433,000	451,700	446,000	440,900	438,200	437,400	431,400	425,400	418,600	436,600	456,800	442,400
7	433,500	451,500	446,000	441,200	438,100	437,300	432,800	424,900	419,100	436,600	456,700	441,800
8	433,500	451,700	446,000	441,500	438,100	437,300	431,700	424,400	417,800	436,400	456,700	441,200
9	433,700	451,000	444,800	441,300	438,100	436,700	431,500	423,800	417,400	436,600	455,400	440,700
10	433,700	451,000	444,800	440,700	437,800	437,200	431,300	423,600	417,400	436,300	455,100	440,100
11	435,000	450,800	444,600	440,500	437,800	437,100	431,200	423,800	423,300	438,000	454,600	438,900
12	438,400	451,000	444,400	440,600	437,800	436,800	431,200	423,500	423,500	437,700	454,100	438,600
13	441,800	450,500	444,400	440,000	437,300	436,800	431,400	423,000	423,200	437,700	453,600	438,200
14	441,800	450,500	444,400	440,000	437,100	436,600	431,300	423,000	423,300	436,500	453,400	437,500
15	441,800	450,100	444,400	439,700	437,000	436,700	431,400	422,300	423,200	436,400	453,300	437,100
16	441,800	449,900	443,700	440,100	437,300	437,000	431,300	422,200	424,500	436,200	453,000	436,700
17	446,200	449,600	443,400	439,900	437,200	436,600	431,300	422,200	421,500	435,700	452,900	436,300
18	446,400	449,600	443,400	439,600	437,500	436,500	431,000	420,900	421,800	435,000	452,600	435,800
19	446,400	449,400	443,000	439,700	437,200	436,400	430,800	421,100	421,000	434,600	452,200	435,500
20	446,600	449,400	443,000	439,700	437,200	436,500	430,400	420,800	420,400	434,000	451,900	434,800
21	446,600	449,200	442,800	439,100	437,100	436,400	430,200	419,900	419,700	433,800	451,400	435,000
22	446,600	448,900	442,100	439,400	437,700	436,000	430,200	420,600	420,200	437,500	450,800	434,500
23	446,600	448,200	441,600	439,400	437,700	435,300	430,000	420,500	421,700	449,600	450,200	434,000
24	447,100	448,200	441,700	439,200	437,700	434,900	429,700	420,100	427,600	452,300	449,700	433,600
25	447,300	448,200	441,800	439,000	437,600	434,600	429,600	419,100	432,200	453,100	448,600	433,300
26	447,600	448,200	441,600	438,900	437,700	435,100	429,400	418,900	432,600	453,700	448,200	433,100
27	448,000	447,800	441,400	438,800	437,400	433,200	429,300	418,600	433,300	453,900	447,700	432,200
28	448,000	447,100	441,400	438,600	437,800	433,700	428,400	419,100	434,100	454,300	447,300	431,800
29	448,500	447,100	441,400	438,400	-----	433,900	428,200	419,700	434,800	455,100	446,800	431,500
30	450,100	447,100	441,200	438,300	-----	433,600	427,500	419,400	436,200	454,300	446,200	430,600
31	451,500	-----	441,400	438,300	-----	433,200	-----	419,200	-----	453,900	445,700	-----
(†)	2,907.17	2,906.79	2,906.29	2,906.02	2,905.98	2,905.57	2,905.06	2,904.31	2,905.83	2,907.38	2,906.67	2,905.34
(*)	+20,500	-4,400	-5,700	-3,100	-500	-4,600	-5,700	-8,300	+17,000	+17,700	-8,200	-15,100
(††)	4,440	4,422	4,391	4,425	3,741	4,859	5,318	6,884	6,992	6,509	7,373	6,432
MAX	451,500	451,700	447,100	441,500	438,400	437,800	432,800	427,300	436,200	455,100	456,800	445,000
MIN	430,300	447,100	441,200	438,300	437,000	433,200	427,500	418,600	417,400	433,800	445,700	430,600
CAL YR 1974.....	* -29,500				†† 69,961	MAX 470,900				MIN 411,900		
WTR YR 1975.....	* -400				†† 65,786	MAX 456,800				MIN 417,400		

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial use.

07227900 Lake Meredith near Sanford, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
JAN. 22...	1315	.7	56	29	280	6.9	202	4
MAY 28...	1135	.4	59	30	290	7.9	219	0
SEP. 09...	1005	.9	58	28	280	7.8	198	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
JAN. 22...	300	300	.8	.03	.02	.01	1080	260	87
MAY 28...	290	310	.9	.00	.00	.00	1100	270	91
SEP. 09...	280	290	.8	.01	.00	.03	1040	260	98

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
JAN. 22...	7.6	1800	8.7	5.0	10.9	85	10	0
MAY 28...	7.7	1900	7.7	20.0	8.9	97	10	10
SEP. 09...	7.6	1790	8.3	24.0	7.2	85	30	50

ARKANSAS RIVER BASIN

07227920 Dixon Creek near Borger, Tex.

LOCATION.--Lat 35°39'53", long 101°21'02", Hutchinson County, on right bank at downstream side of bridge on State Highway 152, 2.4 miles (3.9 km) east of Borger, and 7.6 miles (12.2 km) upstream from mouth.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,834.84 ft (864.059 m) above mean sea level.

EXTREMES.--March to September 1974: Maximum discharge during period, 94 ft³/s (2.662 m³/s) Aug. 10 (gage height, 4.51 ft or 1.375 m); no flow most of period.

Water year 1975: Maximum discharge, 1,070 ft³/s (303 m³/s) July 23 (gage height, 6.65 ft or 2.027 m), from rating curve extended above 25 ft³/s (0.71 m³/s) on basis of slope-conveyance studies; no flow for many days.

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

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	0	0	.21		0	
2						0	0	0	.10		0	
3						0	0	0	.19		0	
4						0	0	0	0		0	
5						0	0	0	0		.61	
6						0	0	0	.08		0	
7						0	0	0	.09		0	
8						0	0	0	0		0	
9						.93	0	0	0		0	
10						1.8	0	0	0		6.7	
11						.45	0	0	0		0	
12						0	0	0	0		0	
13						0	0	0	0		0	
14						0	0	0	0		0	
15						0	0	0	0		0	
16						0	0	0	0		0	
17						0	0	0	.04		0	
18						0	.01	0	0		0	
19						0	.32	0	0		0	
20						0	.14	0	0		0	
21						0	.08	0	0		0	
22						0	.05	0	0		0	
23						0	.05	0	0		0	
24						0	.03	.45	0		0	
25						0	.02	11	0		0	
26						0	.01	.13	0		0	
27						0	0	0	0		0	
28						0	0	0	0		0	
29						0	0	0	0		0	
30						0	0	0	0		0	
31						0	---	0	---		0	---
TOTAL						3.18	.71	11.58	.71	0	7.31	0
MEAN						.10	.024	.37	.024	0	.24	0
MAX						1.8	.32	11	.21	0	6.7	0
MIN						0	0	0	0	0	0	0
AC-FT						6.3	1.4	23	1.4	0	14	0

WTR YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 500 FT³/S).--No peak above base during period.

ARKANSAS RIVER BASIN

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07227920 Dixon Creek near Borger, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.01	.01	.01	.06	.05	.32	0	.01	
2	0	.73	.01	0	.01	.02	.06	.08	.30	0	.81	
3	0	.09	.01	0	.01	.02	.04	.09	5.1	0	1.9	
4	0	.02	.01	.01	.01	.05	.03	.12	.26	0	1.2	
5	0	.01	.01	.01	.02	.10	.03	.15	.18	0	.65	
6	0	.01	.01	.01	0	.20	.03	.12	.10	.04	.35	
7	0	.01	.01	.01	0	.40	.17	.10	.06	.23	.26	
8	0	.01	.01	.01	0	.30	.10	.14	.04	0	.16	
9	0	.01	.02	.01	0	.25	.07	.14	13	12	.11	
10	0	.01	.02	.01	.02	.26	.08	.14	42	74	.08	
11	0	.01	.01	0	.01	.24	.14	.16	3.7	1.3	.05	
12	0	.01	0	0	0	.22	.12	.21	1.1	.43	.03	
13	0	.01	0	0	0	.19	.46	4.8	.29	.12	.03	
14	0	.01	0	.01	.01	.19	.21	1.1	.08	.16	4.4	
15	0	.01	.01	.01	.01	.19	.17	.53	.05	.07	2.2	
16	0	.01	0	.01	0	.33	.14	.53	.04	.02	.13	
17	0	.01	.01	.01	0	.26	.17	.52	.02	.02	.05	
18	0	.02	0	.01	.03	.19	.06	.54	.03	0	.02	
19	0	.02	0	.01	.01	.16	.04	.58	0	0	0	
20	0	.02	0	.01	.05	.18	.04	.59	0	0	0	
21	0	.02	.01	.01	.02	.13	.03	.56	0	0	0	
22	0	.02	.01	.01	.01	.10	.03	8.4	0	3.3	0	
23	0	.02	.01	.01	0	.10	.03	7.1	.29	225	0	
24	0	.02	.03	.01	0	.08	.04	.60	9.4	21	0	
25	0	.02	.06	.01	0	.09	.03	.52	2.6	2.2	0	
26	0	.02	.03	.02	0	.09	.05	.23	.02	.61	0	
27	0	.02	.03	.02	0	.09	.05	.38	0	.29	0	
28	0	.02	.06	.02	0	.06	.04	3.2	0	.26	0	
29	0	.01	.01	.01	---	.10	.04	7.2	0	.21	0	
30	.08	0	.01	.01	---	.08	.03	4.4	0	.11	0	
31	.01	---	.01	.01	---	.08	---	.69	---	.09	0	---
TOTAL	.09	1.20	.41	.29	.23	4.76	2.59	43.97	78.98	341.46	92.63	0
MEAN	.003	.04	.01	.009	.008	.15	.08	1.42	2.63	11.0	2.99	0
MAX	.08	.73	.06	.02	.05	.40	.46	8.4	42	225	81	0
MIN	0	0	0	0	0	.01	.03	.05	0	0	0	0
AC-FT	.2	2.4	.8	.6	.5	9.4	5.1	87	157	677	184	0

CAL YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1975 TOTAL 566.61 MEAN 1.55 MAX 225 MIN 0 AC-FT 1,120

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
7-10	0030	6.37	836
7-23	0500	6.65	1,070
8- 2	0330	6.31	790

ARKANSAS RIVER BASIN

07228000 Canadian River near Canadian, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 35°56'06", long 100°22'13", Hemphill County, near left bank on downstream side of pier of bridge on U.S. Highways 60 and 83, 500 ft (150 m) downstream from Panhandle and Santa Fe Railway Co. bridge, 1.2 miles (1.9 km) downstream from Red Deer Creek, 1.6 miles (2.6 km) northeast of Canadian, and at mile 433.9 (698.1 km).

DRAINAGE AREA.--22,866 mi² (59,222 km²), of which 4,688 mi² (12,142 km²) is probably noncontributing.

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

Water quality: Chemical and biochemical analyses: March 1968 to current year. Pesticide analyses: October 1971 to current year. Water temperatures: October 1974 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 2,301.50 ft (701.497 m) above mean sea level. July 1, 1924, to Aug. 31, 1925, and Apr. 21 to Dec. 15, 1938, nonrecording gage; Dec. 16, 1938, to Sept. 30, 1953, water-stage recorder and nonrecording gages; all at site 300 ft (91 m) upstream at same datum.

AVERAGE DISCHARGE.--26 years (1938-64) prior to completion of Lake Meredith, 549 ft³/s (15.55 m³/s), 397,800 acre-ft/yr (490 hm³/yr); 11 years (1964-75) regulated, 90.4 ft³/s (2.560 m³/s), 65,490 acre-ft/yr (80.7 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 3,180 ft³/s (90.1 m³/s) May 29 (gage height, 5.37 ft or 1.637 m); minimum, 0.02 ft³/s (0.001 m³/s) Sept. 30 (gage height, 3.09 ft or 0.942 m); minimum gage height, 3.05 ft (0.930 m) Oct. 5.

Period of record: Maximum discharge, 122,000 ft³/s (3,460 m³/s) Sept. 23, 1941 (gage height, 9.8 ft or 2.99 m, from graph based on gage readings), from rating curves for two channels extended above 8,000 and 54,000 ft³/s (227 and 1,530 m³/s); no flow at times most years.

Historic: Maximum stage 20.0 ft (6.10 m) Oct. 2, 1904. Floods of May 2, 1914, and Oct. 5, 1923, reached stages of 12 ft (3.7 m).

Water quality: Current year: Maximum daily specific conductance, 3,930 micromhos Aug. 8; minimum daily, 727 micromhos Sept. 10.

Maximum water temperatures, 33.0°C on several days during June and August; minimum, freezing point Nov. 30, Feb. 5, 8.

REMARKS.--Discharge records good. Extreme low flow is maintained by springs which enter the river about 600 ft (180 m) above gage. Some regulation and diversions from Lake Meredith 75 miles (121 km) upstream (station 07227900).

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	44	23	68	86	113	60	14	112	3.6	239	1.1
2	2.7	59	33	90	90	101	56	16	83	1.9	179	.62
3	2.4	73	35	97	92	97	49	17	46	1.4	120	.68
4	1.6	74	33	97	110	93	43	14	24	1.1	116	.68
5	1.3	66	31	93	122	83	40	12	20	.89	128	.62
6	5.0	68	31	86	117	74	37	8.5	16	.62	93	.62
7	11	66	30	86	100	52	46	5.9	9.6	.46	53	.62
8	11	53	28	83	90	51	67	6.2	9.6	.46	33	.62
9	21	48	27	80	70	61	60	6.2	9.6	.51	22	.62
10	31	46	30	80	90	82	65	4.8	37	.35	18	.62
11	36	42	42	80	99	92	65	5.2	51	.56	11	.56
12	33	38	38	74	94	97	71	100	66	12	6.2	.56
13	46	35	36	68	82	88	106	612	158	82	3.9	.81
14	66	31	35	77	74	79	174	927	543	316	4.2	.97
15	60	30	30	108	74	70	210	155	281	132	7.0	.81
16	58	31	28	124	72	65	168	144	84	30	8.5	.89
17	53	31	28	100	67	65	116	71	33	9.1	53	.89
18	40	31	30	97	80	72	77	32	37	4.5	259	.81
19	31	31	28	93	90	69	66	24	20	2.2	42	.74
20	26	26	30	86	170	67	68	12	20	1.4	22	.68
21	21	27	31	83	151	53	51	6.8	13	.89	12	.68
22	19	28	31	74	143	48	48	7.9	12	.81	8.0	.89
23	21	28	30	74	172	39	48	30	10	53	4.8	.74
24	20	26	30	71	192	33	28	23	33	112	3.2	.68
25	20	27	28	74	190	31	24	29	20	108	2.7	.82
26	18	26	31	77	190	32	24	18	14	108	2.0	.85
27	20	24	31	74	167	80	26	8.3	30	253	1.8	.76
28	22	24	53	71	132	75	19	13	17	516	2.0	.72
29	23	23	48	66	---	69	16	529	11	478	1.3	.73
30	26	22	48	81	---	68	14	142	5.9	163	.89	.49
31	42	---	63	84	---	65	---	138	---	86	1.1	---
TOTAL	791.2	1178	1050	2596	3206	2164	1942	3131.8	1825.7	2479.75	1457.59	21.88
MEAN	25.5	39.3	33.9	83.7	115	69.8	64.7	101	60.9	80.0	47.0	.73
MAX	66	74	63	124	192	113	210	927	543	516	259	1.1
MIN	1.3	22	23	66	67	31	14	4.8	5.9	.35	.89	.49
AC-FT	1570	2340	2080	5150	6360	4290	3850	6210	3620	4920	2890	43

CAL YR 1974 TOTAL 18849.10 MEAN 51.6 MAX 4150 MIN .20 AC-FT 37390
WTR YR 1975 TOTAL 21843.92 MEAN 59.8 MAX 927 MIN .35 AC-FT 43330

PEAK DISCHARGE (BASE, 8,900 FT³/S).--No peak above base.

07228000 Canadian River near Canadian, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 24...	1700	17	23	120	53	410	17	255	0	250	670	--
NOV. 21...	0945	23	17	110	52	370	19	266	0	230	600	--
DEC. 18...	1600	31	22	120	47	370	16	288	0	230	580	1.7
JAN. 15...	1730	147	22	110	43	330	12	268	0	210	540	1.3
FEB. 20...	0930	380	21	110	46	340	12	300	0	180	520	1.3
MAR. 12...	1500	90	19	110	52	360	14	287	0	230	580	1.6
APR. 16...	1000	330	14	130	49	400	13	286	0	240	650	1.8
MAY 14...	0715	2900	15	64	26	230	9.9	280	0	120	300	1.1
JUNE 11...	1430	425	23	99	47	360	12	267	5	160	590	1.4
JULY 11...	0900	.50	36	76	20	85	2.8	345	0	19	110	1.1
AUG. 06...	1515	96	17	140	59	410	20	196	0	280	740	1.4
SEP. 17...	1415	.50	33	58	18	81	3.4	280	12	9.3	97	1.1

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 24...	.01	.00	.06	.37	.43	.02	1760	1670	520	310	7.8
NOV. 21...	.00	.00	.04	.75	.79	.08	1630	1530	490	270	7.3
DEC. 18...	.53	.04	.63	.67	1.3	.19	1580	1530	490	260	7.3
JAN. 15...	.40	.01	1.2	.70	1.9	.19	1520	1400	450	230	6.8
FEB. 20...	.36	.01	.83	.77	1.6	.15	1460	1380	470	220	6.9
MAR. 12...	.56	.02	.19	--	.00	.15	1590	1510	490	250	7.1
APR. 16...	.06	.01	.05	1.0	1.1	.22	1740	1640	530	290	7.6
MAY 14...	.13	.01	.38	.92	1.3	.50	856	904	270	37	6.1
JUNE 11...	.00	.00	.01	1.1	1.1	.11	1490	1430	440	220	7.5
JULY 11...	.00	.01	.00	.43	.43	.06	505	520	270	0	2.2
AUG. 06...	.00	.01	.00	.81	.81	.11	1910	1770	600	430	7.3
SEP. 17...	.01	.01	.00	.50	.50	.09	439	451	220	0	2.4

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMM- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 24...	2950	8.1	19.5	4	9.8	107	1.1	800	100	36	6.2
NOV. 21...	2690	8.2	5.5	10	13.1	105	1.3	210	22	46	--
DEC. 18...	2610	8.3	7.0	8	12.8	106	3.0	42	12	94	--
JAN. 15...	2420	8.2	2.0	20	14.0	101	3.1	420	280	980	--
FEB. 20...	2480	8.1	2.0	25	14.3	104	2.8	120	70	840	5.9
MAR. 12...	2630	7.9	4.5	15	14.5	112	2.2	28	22	370	--
APR. 16...	2890	8.2	15.5	20	10.9	109	3.5	68	38	110	--
MAY 14...	1740	7.6	15.5	160	7.5	74	13	71000	18000	33000	--
JUNE 11...	2570	8.4	27.0	30	9.0	111	3.0	160	54	94	6.4
JULY 11...	895	7.5	23.0	2	9.4	108	.9	6400	5800	4800	--
AUG. 06...	3100	8.1	32.0	15	7.9	108	5.0	19	19	27	1.0
SEP. 17...	773	8.5	29.5	3	15.1	196	2.4	870	400	920	--

ARKANSAS RIVER BASIN

07228000 Canadian River near Canadian, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED	TOTAL	DIS-	DIS-	TOTAL	DIS-	TOTAL	DIS-	TOTAL
		ALUM- (AL) (UG/L)		ARSENIC (AS) (UG/L)	SOLVED ARSENIC (AS) (UG/L)	SOLVED BORON (B) (UG/L)	CAD- MIUM (CD) (UG/L)	SOLVED CAD- MIUM (CD) (UG/L)	CHRO- MIUM (CR) (UG/L)	SOLVED CHRO- MIUM (CR) (UG/L)
OCT. 24...	1700	20	7	7	210	10	0	0	0	<50
FEB. 20...	0930	20	3	3	170	10	1	0	0	<50
JUNE 11...	1430	20	6	5	170	<10	0	0	0	<50
AUG. 06...	1515	20	4	3	220	10	0	0	10	50

DATE	DIS-	TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-	DIS-	TOTAL
	COBALT (CO) (UG/L)	COPPER (CU) (UG/L)	SOLVED COPPER (CU) (UG/L)	IRON (FE) (UG/L)	SOLVED IRON (FE) (UG/L)	LEAD (PB) (UG/L)	SOLVED LEAD (PB) (UG/L)	SOLVED LITHIUM (LI) (UG/L)	MAN- GANESE (MN) (UG/L)
OCT. 24...	0	<10	1	290	80	<100	1	150	50
FEB. 20...	1	10	1	840	20	<100	1	100	70
JUNE 11...	0	10	4	570	20	<100	0	90	--
AUG. 06...	0	10	0	450	0	<100	0	90	30

DATE	DIS-	TOTAL	DIS-	DIS-	TOTAL	DIS-	DIS-	TOTAL	DIS-
	MAN- GANESE (MN) (UG/L)	MERCURY (HG) (UG/L)	SOLVED MERCURY (HG) (UG/L)	SOLVED NICKEL (NI) (UG/L)	SELE- NIUM (SE) (UG/L)	SOLVED SELE- NIUM (SE) (UG/L)	SOLVED STRON- TIUM (SR) (UG/L)	ZINC (ZN) (UG/L)	SOLVED ZINC (ZN) (UG/L)
OCT. 24...	0	.0	.0	3	0	0	2300	190	20
FEB. 20...	50	.2	.1	4	3	2	1900	20	10
JUNE 11...	10	.0	.0	3	1	0	2000	30	0
AUG. 06...	10	.1	.0	4	2	2	2500	0	20

DATE	TIME	INSTAN-	TEMPER-	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
		TANEOUS DIS- CHARGE (CFS)									
OCT. 24...	1700	17	19.5	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	0930	380	2.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 11...	1430	425	27.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 06...	1515	96	32.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	LINDANE (UG/L)	CHLOR- DANE (UG/L)	PCB (UG/L)	DI- AZINON (UG/L)	MALA- THION (UG/L)	METHYL PARA- THION (UG/L)	PARA- THION (UG/L)	2,4-D (UG/L)	SILVEX (UG/L)	2,4,5-T (UG/L)
OCT. 24...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 20...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 11...	.00	.0	.0	.00	.00	.00	.00	.04	.00	.00
AUG. 06...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

07228000 Canadian River near Canadian, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
NOV. 21	28	7.7	6.2	7.7	1.9	200	Polyethylene strip
JAN. 15	28	3.1	2.3	.2	.2	4000	
MAY 14	28	91	35	4.4	.4	13000	
AUG. 06	26	25	16	7.2	6.2	1200	
SEP. 17	42	48	36	22	5.2	530	

OCT. 24, 1974 TIME 1700

DEC. 18, 1974 TIME 1800

PHYTOPLANKTON 12,000 CELLS/ML

PHYTOPLANKTON 22,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT	ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			CHLOROPHYTA		
..CHLOROPHYCEAE			..CHLOROPHYCEAE		
..CHLOROCOCCALES			..CHLOROCOCCALES		
..COELASTRACEAE			..OCCYSTACEAE		
...COELASTRUM	1,100	9	...ANKISTRODESMUS	1,900	9
...HYDRODICTYACEAE			...TETRAEDRON	180	1
...PEDIASTRUM	440	4	...SCENEDESMAEAE		
...SCENEDESMAEAE			...SCENEDESMAEAE	13,000	62
...SCENEDESMAEAE	7,400	63	CHRYSTOPHYTA		
CHRYSTOPHYTA			..BACILLARIOPHYCEAE		
..BACILLARIOPHYCEAE			..CENTRALES		
..CENTRALES			...COSCONODISCACEAE		
...COSCONODISCACEAE			...CYCLOTELLA	530	2
...CYCLOTELLA	1,200	10	..PENNALES		
..PENNALES			...FRAGILARIACEAE		
...ACHNANTHACEAE			...SYNEDRA	180	1
...ACHNANTHES	220	2	...GOMPHONEMACEAE		
...COCCONEIS		0	...GOMPHONEMA	180	1
...FRAGILARIACEAE			...NAVICULACEAE		
...SYNEDRA	830	7	...AMPHIPRORA	890	4
...NAVICULACEAE			...NAVICULA	2,100	10
...AMPHIPRORA	110	1	...NITZSCHIAEAE		
...DIPLOEIS		0	...NITZSCHIA	2,300	11
...NITZSCHIAEAE					
...NITZSCHIA	390	3			

NOV. 21, 1974 TIME 0945

JAN. 15, 1975 TIME 1730

PHYTOPLANKTON 11,000 CELLS/ML

PHYTOPLANKTON 22,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT	ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			CHLOROPHYTA		
..CHLOROPHYCEAE			..CHLOROPHYCEAE		
..CHLOROCOCCALES			..CHLOROCOCCALES		
..HYDRODICTYACEAE			..OCCYSTACEAE		
...PEDIASTRUM	390	3	...ANKISTRODESMUS	12,000	54
...OCCYSTACEAE			...VOLVOCALES		
...ANKISTRODESMUS	240	2	...CHLAMYDOMONADACEAE		
...SCENEDESMAEAE			...CHLAMYDOMONAS	510	2
...ACTINASTRUM	1,400	12	CHRYSTOPHYTA		
...SCENEDESMAEAE	5,300	47	..BACILLARIOPHYCEAE		
CHRYSTOPHYTA			..CENTRALES		
..BACILLARIOPHYCEAE			...COSCONODISCACEAE		
..CENTRALES			...CYCLOTELLA	340	2
...COSCONODISCACEAE			..PENNALES		
...CYCLOTELLA	440	4	...CYMBELLACEAE		
..PENNALES			...AMPHORA	170	1
...NAVICULACEAE			...FRAGILARIACEAE		
...NAVICULA	340	3	...SYNEDRA	170	1
...NITZSCHIAEAE			...GOMPHONEMACEAE		
...NITZSCHIA	3,000	27	...GOMPHONEMA	670	3
CYANOPHYTA			...NAVICULACEAE		
..MYXOPHYCEAE			...AMPHIPRORA	1,300	6
..OSCILLATORIALES			...DIPLOEIS	510	2
...NOSTOCACEAE			...NAVICULA	3,200	15
...ANABAENA	150	1	...NITZSCHIAEAE		
			...MANTZSCHIA	340	2
			...NITZSCHIA	2,200	10
			CYANOPHYTA		
			..MYXOPHYCEAE		
			..CHROOCOCCALES		
			..CHROOCOCCACEAE		
			...AGMENELLUM	670	3

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

FEB. 20, 1975 TIME 0930

PHYTOPLANKTON 15,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	840	6
....SCENEDESMACEAE		
....SCENEDESMUS	6,500	44
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	210	1
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	100	1
...GOMPHONEMATACEAE		
....GOMPHONEMA	730	5
...NAVICULACEAE		
....AMPHIPRORA	630	4
....CALONEIS	100	1
....DIPLONEIS	100	1
....NAVICULA	3,500	24
....NEIDIUM	100	1
....PINNULARIA	100	1
....NITZSCHACEAE		
....HANTZSCHIA	100	1
....NITZSCHIA	1,600	11
...SURIPELLACEAE		
....SURIPELLA	100	1

MAR. 12, 1975 TIME 1500

PHYTOPLANKTON 15,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
....CHODATELLA	96	1
....SCENEDESMACEAE		
....CRUCIGENIA	1,500	10
....SCENEDESMUS	10,000	67
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...GOMPHONEMATACEAE		
....GOMPHONEMA	290	2
...NAVICULACEAE		
....AMPHIPRORA	190	1
....NAVICULA	290	2
....NEIDIUM	2,100	14
....NITZSCHACEAE		
....NITZSCHIA	190	1
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	290	2

APR. 16, 1975 TIME 1000

PHYTOPLANKTON 50,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	1,700	3
....CHLORELLA	420	1
....SCENEDESMACEAE		
....SCENEDESMUS	39,000	79
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	420	1
...MELOSIRA	850	2
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	420	1
...NAVICULACEAE		
....NAVICULA	3,800	8
....NITZSCHACEAE		
....NITZSCHIA	3,000	6

MAY 14, 1975 TIME 0715

PHYTOPLANKTON 120,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....SCENEDESMUS	91,000	79
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	4,900	4
...NAVICULACEAE		
....NAVICULA	9,900	9
....NITZSCHACEAE		
....NITZSCHIA	9,900	9

JUNE 11, 1975 TIME 1430

PHYTOPLANKTON 100,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM	19,000	19
....SCENEDESMACEAE		
....ACTINASTRUM	2,000	2
....SCENEDESMUS	63,000	63
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	1,000	1
..PENNALES		
...NAVICULACEAE		
....NAVICULA		0
....NITZSCHACEAE		
....NITZSCHIA	3,700	4
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	1,000	1
...OSCILLATORIALES		
....NOSTOCACEAE		
....ANABAENA	10,000	10

JULY 11, 1975 TIME 0900

PHYTOPLANKTON 4,200 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM	1,100	25
...OCCYSTACEAE		
....DICTYOSPHAERIUM		0
....SCENEDESMACEAE		
....SCENEDESMUS	260	6
...ZYGNEHATALES		
....DESMIDIACEAE		
....PENIUM	66	2
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	260	6
...MELOSIRA		0
..PENNALES		
...CYMBELLACEAE		
....RHOPALODIA		0
...GOMPHONEMATACEAE		
....GOMPHONEMA	66	2
...NAVICULACEAE		
....NAVICULA	130	3
....NITZSCHACEAE		
....HANTZSCHIA	66	2
....NITZSCHIA	860	20
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....NOSTOCACEAE		
....ANABAENA	1,500	34

07228000 Canadian River near Canadian, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

AUG. 6, 1975 TIME 1515

PHYTOPLANKTON 40,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...COELASTRACEAE		
....COELASTRUM		0
...HYDRODICTYACEAE		
....PEDIASTRUM	12,000	30
...MICRACINIACEAE		
....MICRACINIUM	1,400	4
...OCCYSTACEAE		
....ANKISTRODESMUS	1,300	3
...SCENEDESMACEAE		
....ACTINASTRUM		0
...SCENEDESMUS	17,000	41
CHRYCOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	2,200	5
...PENNIALES		
...CYMBELLACEAE		
....EPITHEMIA		0
...NAVICULACEAE		
....CALONEIS		0
....NAVICULA	360	1
....PINNULARIA		0
....TROPIDONEIS		0
...NITZSCHIA		
....NITZSCHIA	1,100	3
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	2,500	6
...OSCILLATORIALES		
...NOSTOCACEAE		
....APHANIZOMENON		0
...OSCILLATORIAEAE		
....ARTHROSPIRA	2,700	7

SEP. 17, 1975 TIME 1415

PHYTOPLANKTON 2,300 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM		0
...SCENEDESMACEAE		
....SCENEDESMUS	170	8
...ZYGNEMATALES		
...DESMIDIACEAE		
....CLOSTERIUM		0
...COSMARIUM	44	2
...ZYGNEMATAEAE		
....SPIROGYRA		0
CHRYCOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	260	11
...PENNIALES		
...ACHNANTHACEAE		
....COCCONEIS		0
...CYMBELLACEAE		
....AMPHORA	44	2
....RHOPALODIA	87	4
...FRAGILARIACEAE		
....SYNEDRA		0
...GOMPHONEMATAEAE		
....GOMPHONEMA	44	2
...NAVICULACEAE		
....CALONEIS	44	2
....DIPLONEIS		0
....GYROSIGMA		0
....NAVICULA	520	23
....TROPIDONEIS	44	2
...NITZSCHIAEAE		
....HANTZSCHIA		0
...NITZSCHIA	310	13
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	310	13
...OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA	440	19

ARKANSAS RIVER BASIN

07228000 Canadian River near Canadian, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT. 24...	1700	17	19.5	21	.96	78
NOV. 21...	0945	23	5.5	27	1.7	69
DEC. 18...	1600	31	7.0	25	2.1	69
JAN. 15...	1730	147	2.0	114	45	37
FEB. 20...	0930	380	2.0	104	107	88
MAR. 12...	1500	285	4.5	153	118	16
APR. 16...	1000	330	15.5	73	65	43
MAY 13...	1830	1140	--	5350	16500	82
14...	0715	2900	15.5	3740	29300	80
JUNE 11...	1430	425	27.0	77	88	45
JULY 11...	0900	.50	23.0	5	.01	87
AUG. 06...	1515	96	32.0	31	8.0	45
SEP. 17...	1415	.50	29.5	17	.02	66

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	791.2	2890	1600	3420	640	1370	210	449	540
NOV. 1974.....	1178	2800	1600	5090	620	1970	200	636	520
DEC. 1974.....	1050	2660	1500	4250	580	1640	190	539	500
JAN. 1975.....	2596	2750	1600	11200	600	4210	200	1400	520
FEB. 1975.....	3206	2710	1500	13000	590	5110	190	1640	510
MAR. 1975.....	2164	2840	1600	9350	630	3680	200	1170	530
APR. 1975.....	1942	2930	1700	8910	650	3410	210	1100	550
MAY 1975.....	3131.79	1790	1000	8460	360	3040	120	1010	350
JUNE 1975.....	1825.7	2370	1300	6410	510	2510	170	838	450
JULY 1975.....	2479.74	1900	1100	7360	380	2540	130	870	370
AUG. 1975.....	1457.58	2440	1400	5510	520	2050	170	669	460
SEPT 1975.....	21.88	837	460	27	110	6.5	13	0.77	190
TOTAL	21843.9	**	**	83000	**	31500	**	10300	**
WTD.AVG.	59.85	2480	1400	**	530	**	180	**	470

ARKANSAS RIVER BASIN

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07228000 Canadian River near Canadian, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	3080	2700	2670	2610	2960	2820	2870	2310	2250	1660	832
2	1640	2590	2480	2600	2620	2920	2860	2870	2880	2400	2530	752
3	1600	2520	2680	2650	2670	2950	2910	2960	2960	2440	2690	794
4	1500	2830	2630	2740	2590	2900	2910	2800	2940	2190	3380	794
5	1400	2830	2650	2760	2630	2930	2870	2850	2980	1290	2550	794
6	2400	2980	2740	2800	2800	2920	2760	2990	3060	1050	3140	778
7	2600	2620	2740	2850	2480	2990	2700	2960	3100	858	3830	806
8	2500	2820	2740	2780	2740	2820	2710	2890	3030	729	3930	789
9	2450	2940	2670	2810	2950	2770	2870	2870	2650	800	3850	739
10	2400	2860	2700	2820	2740	2750	2790	2830	2200	848	3700	727
11	2350	2970	2600	2790	2720	2780	2680	2750	2620	2650	3640	755
12	2840	2900	2660	3120	2860	2720	2930	1010	2770	1720	3380	789
13	2640	2880	2720	3000	2740	2780	2600	1680	1600	1430	3020	907
14	2980	2880	2700	2700	2700	2850	2880	1560	1870	1600	2740	900
15	3000	2820	2680	2530	2780	2870	2730	1980	2490	1670	2720	833
16	3090	2830	2700	2750	2620	2820	2980	2280	2890	1340	2730	787
17	3170	2800	2650	2800	2530	2830	3200	2510	3050	1720	1310	815
18	2880	2770	2710	2760	2530	2760	3210	2700	3400	2110	1840	795
19	3160	2750	2710	2820	2590	2740	3130	2530	3650	2040	2420	771
20	3260	2730	2680	2780	2530	2780	3220	2930	3320	1490	1930	800
21	3220	2670	2650	2780	2670	2930	3270	2970	3390	903	2150	1160
22	3160	2730	2640	2740	2660	2880	3150	2710	3260	843	2020	1040
23	2990	2760	2690	2760	2690	3000	3140	2780	3390	1110	1840	900
24	3250	2780	2750	2740	2620	3030	3150	2810	2930	2200	1580	856
25	2960	2740	2660	2760	2740	2970	3110	2820	2400	1980	1370	856
26	2990	2770	2660	2750	2840	3040	3110	2600	2710	1620	1170	856
27	2960	2760	2490	2730	2970	2580	3070	2230	2500	1560	1500	846
28	2940	2820	2570	2730	3050	2930	3110	2390	2030	2070	1290	833
29	3010	2720	2720	2750	---	2770	2950	1340	2530	1910	1020	846
30	2800	2780	2620	2600	---	2650	2880	2260	2230	2640	933	824
31	2820	---	2580	2620	---	2760	---	2270	---	3010	885	---
MONTH	2660	2800	2660	2760	2700	2850	2960	2520	2770	1690	2350	832

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	17.0	1.0	5.0	7.0	17.0	7.0	21.0	28.0	30.0	28.0	27.0
2	---	15.0	5.0	6.0	6.0	13.0	11.0	24.0	29.0	29.0	25.0	29.0
3	---	10.0	6.0	4.0	7.0	5.0	15.0	24.0	29.0	28.0	31.0	30.0
4	---	12.0	10.0	4.0	6.0	15.0	17.0	19.0	29.0	27.0	33.0	28.0
5	---	15.0	12.0	5.0	0.0	18.0	---	24.0	---	28.0	33.0	25.0
6	---	13.0	6.0	7.0	6.0	16.0	---	23.0	33.0	29.0	32.0	24.0
7	---	12.0	8.0	9.0	3.0	14.0	16.0	23.0	32.0	29.0	26.0	23.0
8	---	11.0	4.0	9.0	0.0	10.0	17.0	27.0	29.0	31.0	27.0	23.0
9	---	13.0	5.0	11.0	1.0	7.0	21.0	26.0	24.0	---	30.0	28.0
10	---	13.0	3.0	4.0	6.0	8.0	11.0	27.0	17.0	---	---	29.0
11	24.0	10.0	9.0	3.0	11.0	5.0	12.0	26.0	27.0	---	---	---
12	15.0	12.0	9.0	1.0	12.0	6.0	12.0	23.0	29.0	---	30.0	19.0
13	13.0	9.0	8.0	1.0	12.0	13.0	13.0	21.0	33.0	---	31.0	15.0
14	12.0	9.0	---	2.0	5.0	12.0	21.0	24.0	29.0	---	31.0	16.0
15	17.0	8.0	2.0	4.0	1.0	6.0	22.0	28.0	27.0	---	29.0	27.0
16	21.0	12.0	4.0	6.0	1.0	16.0	25.0	28.0	32.0	---	31.0	28.0
17	23.0	11.0	7.0	8.0	2.0	13.0	20.0	27.0	29.0	---	23.0	27.0
18	21.0	14.0	8.0	10.0	7.0	19.0	14.0	29.0	28.0	---	32.0	21.0
19	19.0	12.0	6.0	8.0	8.0	23.0	21.0	27.0	27.0	---	30.0	25.0
20	20.0	13.0	6.0	10.0	11.0	23.0	18.0	26.0	29.0	---	28.0	22.0
21	20.0	14.0	8.0	5.0	7.0	16.0	23.0	29.0	27.0	---	32.0	19.0
22	16.0	15.0	8.0	8.0	1.0	19.0	20.0	23.0	29.0	---	28.0	21.0
23	20.0	11.0	5.0	11.0	5.0	13.0	26.0	29.0	29.0	---	29.0	22.0
24	19.0	11.0	3.0	10.0	12.0	15.0	26.0	27.0	32.0	---	30.0	20.0
25	19.0	11.0	2.0	11.0	13.0	16.0	25.0	28.0	31.0	---	32.0	21.0
26	20.0	11.0	2.0	11.0	12.0	13.0	25.0	---	33.0	22.0	26.0	22.0
27	16.0	10.0	4.0	8.0	14.0	17.0	19.0	26.0	---	31.0	24.0	21.0
28	18.0	3.0	8.0	11.0	15.0	5.0	24.0	26.0	30.0	31.0	29.0	23.0
29	19.0	2.0	8.0	6.0	---	8.0	25.0	19.0	31.0	31.0	---	23.0
30	16.0	0.0	3.0	8.0	---	12.0	25.0	23.0	33.0	29.0	31.0	18.0
31	17.0	---	7.0	6.0	---	20.0	---	24.0	---	31.0	30.0	---
MONTH	---	11.0	6.0	7.0	7.0	13.5	19.0	25.0	29.0	---	29.5	23.5

07233500 Palo Duro Creek near Spearman, Tex.

LOCATION.--Lat 36°12'08", Long 101°18'20", Hansford County, on right bank at downstream side of bridge on State Highway 15, 6 miles (10 km) west of Spearman, and 18 miles (29 km) upstream from Horse Creek.

DRAINAGE AREA.--960 mi² (2,490 km²), of which 520 mi² (1,350 km²) is probably noncontributing.

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

Water quality: Chemical analyses: January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,961.63 ft (902.705 m) above mean sea level. May 8, 1968, to Dec. 4, 1969, at site 5 miles (8 km) downstream at different datum.

AVERAGE DISCHARGE.--30 years, 20.1 ft³/s (0.569 m³/s), 14,560 acre-ft/yr (18.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,520 ft³/s (99.7 m³/s) July 24 (gage height, 14.12 ft or 4.304 m); no flow at times.

Period of record: Maximum discharge, 21,200 ft³/s (600 m³/s) Oct. 7, 1946 (gage height, 19.87 ft or 6.056 m); no flow at times most years.

Maximum stage since 1936, 22.5 ft (6.86 m) Sept. 4, 1938, from floodmark (discharge, about 34,000 ft³/s or 963 m³/s). Flood of June 4, 1936, reached a stage of 21 ft (6.4 m), from floodmark (discharge, 26,100 ft³/s or 739 m³/s, from rating curve extended above 20,000 ft³/s or 566 m³/s).

REMARKS.--Discharge records good except those for period of no gage-height record, which are poor. Small diversion above station for irrigation.

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	29					0	0	72	4.5	311	5.9
2	0	8.4					0	0	26	4.0	475	7.0
3	0	4.2					0	0	13	4.0	122	5.0
4	0	2.3					0	0	5.9	4.0	61	5.6
5	0	.75					0	0	6.0	4.0	33	3.1
6	0	.32					0	0	5.6	15	18	3.0
7	0	.02					0	0	5.4	8.0	11	5.1
8	0	.04					0	0	5.2	10	6.5	3.9
9	0	.04					0	0	8.0	8.0	7.6	2.1
10	0	.04					0	0	6.5	10	8.0	2.7
11	0	0					0	0	6.0	15	8.0	2.7
12	0	0					0	18	5.5	8.0	10	3.2
13	0	0					15	571	5.0	7.0	10	2.7
14	0	0					1.3	283	5.0	9.0	9.6	6.7
15	0	0					0	52	4.5	8.0	23	7.4
16	0	0					0	28	4.5	8.0	28	4.0
17	0	0					0	15	4.5	7.5	16	4.4
18	0	0					0	11	4.5	4.8	13	5.5
19	0	0					0	11	10	4.8	8.4	3.6
20	0	0					0	9.7	10	5.8	8.4	2.4
21	0	0					0	11	50	3.6	5.8	3.8
22	0	0					0	24	20	2.0	5.8	3.6
23	0	0					0	41	10	393	4.2	7.8
24	0	0					0	36	8.0	2,230	3.9	5.9
25	0	0					0	15	7.0	230	4.2	2.8
26	0	0					0	8.0	6.0	98	7.6	4.4
27	0	0					0	5.9	5.0	43	6.5	5.6
28	0	0					0	12	5.0	22	8.0	5.1
29	0	0					0	37	4.5	11	16	5.6
30	0	0					0	82	4.5	7.6	11	5.0
31	34	-----			-----		-----	155	-----	7.1	6.9	-----
TOTAL	34	45.13	0	0	0	0	16.3	1,425.6	333.0	3,196.7	1,267.4	135.6
MEAN	1.10	1.50	0	0	0	0	.54	46.0	11.1	103	40.9	4.52
MAX	34	29	0	0	0	0	15	571	72	2,230	475	7.8
MIN	0	0	0	0	0	0	0	0	4.5	2.0	3.9	2.1
AC-FT	67	90	0	0	0	0	32	2,830	661	6,340	2,510	269
CAL YR 1974	TOTAL	1,240.43	MEAN	3.40	MAX	146	MIN	0	AC-FT	2,460		
WTR YR 1975	TOTAL	6,453.73	MEAN	17.7	MAX	2,230	MIN	0	AC-FT	12,800		

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE
5-13	1930	11.07	1,110
7-24	0200	14.12	3,520
8-2	0300	9.79	807

NOTE.--No gage-height record June 4 to July 17.

ARKANSAS RIVER BASIN

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07233500 Palo Duro Creek near Spearman, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
NOV. 06...	1440	.35	12	31	8.8	11	10	128	0	16
JUNE 04...	1710	5.8	16	35	7.6	9.7	33	136	0	33
JULY 17...	1020	7.5	19	33	11	13	11	144	0	22
AUG. 28...	0945	9.4	24	51	23	23	11	242	4	38

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 06...	10	--	162	110	9	.5	297	7.6	15.0
JUNE 04...	20	.7	222	120	7	.4	378	7.9	25.0
JULY 17...	13	1.0	194	130	10	.5	340	7.7	20.0
AUG. 28...	16	.2	310	220	17	.7	511	8.5	21.0

ARKANSAS RIVER BASIN

07235000 Wolf Creek at Lipscomb, Tex.

LOCATION.--Lat 36°14'16", long 100°16'28", Lipscomb County, near center of stream on downstream side of bridge on State Highway 305, 0.3 mile (0.5 km) north of Lipscomb, 0.7 mile (1.1 km) downstream from Little Sandy Creek, 2 miles (3 km) upstream from Plum Creek, and at mile 61.2 (98.5 km).

DRAINAGE AREA.--697 mi² (1,805 km²), of which 222 mi² (575 km²) is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 2,371.29 ft (722.769 m) above mean sea level. Prior to Feb. 25, 1938, nonrecording gage, Feb. 25, 1938, to Sept. 30, 1942, water-stage recorder at present site at datum 5.77 ft (1.759 m) higher.

AVERAGE DISCHARGE.--19 years (1937-42, 1961-75), 20.0 ft³/s (0.566 m³/s), 14,490 acre-ft/yr (17.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 486 ft³/s (13.8 m³/s) May 14 (gage height, 5.99 ft or 1.826 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Jan. 13, 14.

Period of record: Maximum discharge, 20,000 ft³/s (566 m³/s) Oct. 21, 1941 (gage height, 11.57 ft or 3.527 m, present datum), from rating curve extended above 14,000 ft³/s (396 m³/s) on basis of velocity-area studies; no flow at times.

Maximum stage since 1890, 15.5 ft (4.72 m) June 23, 1957, present site and datum, from floodmarks. Flood in May 1955 reached a stage of 12.1 ft (3.69 m), present site and datum, from information by State Highway Department.

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

REVISIONS.--WSP 1311: 1938-39, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.1	.90	2.6	3.9	4.8	4.2	2.4	7.9	1.2	26	.34
2	1.9	2.3	1.0	2.4	4.2	4.8	3.9	2.6	7.6	1.0	95	.34
3	1.8	2.8	1.4	1.9	4.2	4.8	4.2	3.0	7.0	1.0	61	.34
4	1.8	3.1	1.8	2.1	3.9	4.6	3.9	2.4	6.5	1.0	56	.34
5	1.7	3.0	2.1	2.1	2.5	4.6	3.9	15	5.0	.93	25	.34
6	1.8	2.8	2.1	2.1	1.5	4.4	4.2	17	4.6	.93	15	.41
7	1.9	3.0	2.1	2.6	.50	3.9	4.8	6.0	4.4	.93	9.2	.34
8	2.1	3.0	1.9	2.6	.50	4.2	4.6	3.9	4.2	.83	6.7	.34
9	1.9	3.0	1.8	2.4	1.0	4.2	4.4	3.0	4.4	.83	4.6	.34
10	1.8	3.0	1.7	2.1	1.5	4.6	4.6	3.5	5.0	.74	3.1	.34
11	1.7	2.8	1.5	1.0	2.5	4.8	4.6	2.1	4.4	.74	2.4	.41
12	1.8	2.6	1.5	.50	3.0	4.8	4.8	2.1	4.2	.65	1.8	.41
13	2.3	2.4	1.4	.20	3.7	4.6	6.0	194	3.5	.56	1.4	.56
14	2.3	2.4	1.4	.20	4.2	4.4	6.0	177	3.3	.56	1.3	.74
15	2.1	2.3	1.4	.50	4.2	4.4	6.0	57	3.1	.56	1.3	.74
16	1.9	2.3	1.3	1.2	4.4	4.4	5.3	33	3.0	.48	1.2	.65
17	1.7	2.4	1.3	2.0	5.0	4.4	4.6	25	2.6	.48	.93	.56
18	1.7	2.4	1.4	2.4	5.0	3.9	4.4	20	2.8	.41	1.3	.65
19	1.7	2.8	1.4	2.6	4.6	3.7	4.4	17	2.4	.41	1.0	.65
20	1.7	2.3	1.4	2.6	4.8	3.7	4.4	14	2.3	.34	.83	.56
21	1.7	2.3	1.7	2.6	5.5	3.5	3.7	12	3.0	.34	.74	.83
22	1.7	2.3	1.5	2.6	5.5	3.5	3.9	12	2.6	.41	.65	.65
23	1.7	2.1	1.7	2.6	5.0	3.5	4.2	12	2.4	.41	.48	.48
24	1.8	2.1	1.7	2.8	4.8	3.3	3.9	10	2.3	.41	.41	.48
25	2.3	2.1	1.7	2.8	4.8	3.3	3.7	9.2	2.1	.41	.41	.56
26	1.9	1.9	1.7	3.1	5.0	3.7	3.5	8.2	1.9	.41	.41	.56
27	1.9	1.8	1.3	3.3	5.0	6.0	3.5	7.9	1.8	.34	.48	.56
28	2.1	1.4	1.2	3.3	4.8	5.0	2.8	8.2	1.7	.34	.56	.56
29	1.8	1.2	1.7	3.3	---	4.4	2.4	9.5	1.4	.34	.41	.48
30	2.1	1.1	2.4	3.5	---	4.6	2.3	8.5	1.3	20	.41	.56
31	2.4	---	2.4	3.7	---	4.2	---	7.9	---	26	.41	---
TOTAL	59.4	71.1	49.80	69.70	105.50	133.0	127.1	705.4	108.7	63.99	320.43	15.12
MEAN	1.92	2.37	1.61	2.25	3.77	4.29	4.24	22.8	3.62	2.06	10.3	.50
MAX	2.4	3.1	2.4	3.7	5.5	6.0	6.0	194	7.9	26	95	.83
MIN	1.7	1.1	.90	.20	.50	3.3	2.3	2.1	1.3	.34	.41	.34
AC-FT	118	141	99	138	209	264	252	1400	216	127	636	30

CAL YR 1974 TOTAL 3391.73 MEAN 9.29 MAX 63. MIN .05 AC-FT 6730
WTR YR 1975 TOTAL 1629.24 MEAN 5.01 MAX 194 MIN .20 AC-FT 3630

PEAK DISCHARGE (BASE, 500 FT³/S).--No peak above base.

07297910 Prairie Dog Town Fork Red River near Wayside, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 34°50'15", long 101°24'49", Armstrong County, on left bank at downstream side of bridge on Farm Road 284, 13 miles (21 km) northeast of Wayside, 26 miles (42 km) south of Claude, and at mile 1,145 (1,842 km).

DRAINAGE AREA.--4,211 mi² (10,906 km²), of which 3,281 mi² (8,498 km²) is probably noncontributing.

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

Water quality: Chemical analyses: November 1967 to current year. Water temperatures: November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,463.74 ft (750.948 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 34.4 ft³/s (0.974 m³/s), 24,920 acre-ft/yr (30.7 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 8,160 ft³/s (231 m³/s) July 23 (gage height, 10.08 ft or 3.072 m); no flow at times.

Period of record: Maximum discharge, 58,000 ft³/s (1,640 m³/s) Aug. 28, 1968 (gage height, 13.0 ft or 3.96 m, from floodmark); no flow at times.

Water quality: Current year: Maximum daily specific conductance, 42,000 micromhos Aug. 14; minimum daily, 417 micromhos July 10. Maximum water temperatures, 38.0°C June 13; minimum, freezing point Jan. 12.

Period of record: Maximum daily specific conductance, 47,300 micromhos May 5, 1971; minimum daily, 417 micromhos July 10, 1975. Maximum water temperatures, 38.0°C Oct. 14, 1968, June 13, 1975; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records fair. Several small diversions above station. Flow partly regulated by Buffalo Lake, Amarillo City Lake, Palo Duro Lake, and Lake Tanglewood, having a capacity of 28,600 acre-ft (35.3 hm³). Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	14	3.1	.73	4.0	2.0	2.0	1.1	3.6	.64	5.0	
2	5.8	12	3.6	2.1	5.9	1.7	1.4	1.3	6.6	.49	35	
3	5.3	11	3.7	1.2	8.4	1.7	1.3	1.2	103	.38	10	
4	5.7	11	3.6	.94	5.5	1.9	1.3	1.4	19	1.1	4.5	
5	38	9.1	3.4	.88	3.7	1.6	1.3	1.4	7.4	2.2	3.4	
6	21	8.1	2.1	.79	2.9	1.4	2.3	1.1	4.8	40	2.7	
7	18	7.5	2.2	.99	2.4	.86	5.1	1.1	3.2	236	2.2	
8	5.4	7.1	1.9	.66	2.2	1.2	2.0	1.1	2.6	18	1.9	
9	2.6	9.4	1.9	.62	1.8	2.6	1.4	1.1	1.9	6.2	1.5	
10	1.5	6.0	4.0	.40	2.9	2.5	14	1.4	46	571	1.2	
11	3.7	4.7	3.5	.38	2.1	3.1	19	.73	4.7	28	.82	
12	49	4.6	2.6	.53	1.6	3.0	10	.55	.95	12	.53	
13	139	4.1	2.2	.88	1.6	2.4	17	2.5	.36	7.0	.40	
14	46	4.1	2.0	1.1	2.0	2.0	5.9	3.0	.14	70	.48	
15	39	4.2	1.9	1.3	2.0	2.2	3.3	1.1	.07	15	135	
16	26	4.2	1.8	.99	7.9	2.4	1.8	.58	.07	4.8	11	
17	23	4.4	2.2	1.2	6.2	2.1	1.0	.60	.07	2.8	5.8	
18	18	5.3	2.0	1.1	5.0	1.8	.79	4.5	.03	2.1	3.9	
19	14	6.0	1.9	.73	4.4	1.6	1.0	4.2	.02	1.4	1.2	
20	11	5.3	2.0	.62	3.6	1.3	.93	1.8	.02	1.1	.39	
21	10	5.6	2.2	.90	3.4	.96	.95	.60	.02	.81	.10	
22	46	5.2	1.7	.64	7.2	.98	1.5	160	163	.59	0	
23	447	3.6	1.6	1.1	4.2	.59	1.6	15	49	1,180	0	
24	153	3.6	1.2	1.4	2.8	.75	1.1	3.6	904	83	0	
25	30	3.6	1.5	1.3	2.2	.93	1.2	1.6	34	24	0	
26	27	3.5	3.9	1.1	2.2	1.0	1.3	.74	5.3	11	0	
27	50	3.7	3.6	.87	2.0	.76	1.4	.62	2.1	24	0	
28	47	3.1	3.1	1.1	2.2	.73	1.1	.77	22	17	0	
29	26	2.6	2.5	.87	-----	2.7	1.1	307	4.5	9.4	0	
30	215	2.7	3.6	7.9	-----	2.7	1.1	27	1.1	20	0	
31	22	-----	1.3	4.0	-----	2.4	-----	6.0	-----	19	0	-----
TOTAL	1,550.5	179.3	77.8	39.32	102.3	53.86	105.17	554.69	1,389.55	2,409.01	227.02	0
MEAN	50.0	5.98	2.51	1.27	3.65	1.74	3.51	17.9	46.3	77.7	7.32	0
MAX	447	14	4.0	7.9	8.4	3.1	19	307	904	1,180	135	0
MIN	1.5	2.6	1.2	.38	1.6	.59	.79	.55	.02	.38	0	0
AC-FT	3,080	356	154	78	203	107	209	1,100	2,760	4,780	450	0

CAL YR 1974 TOTAL 13,236.43 MEAN 36.3 MAX 1,550 MIN 0 AC-FT 26,250
WTR YR 1975 TOTAL 6,688.52 MEAN 18.3 MAX 1,180 MIN 0 AC-FT 13,270

PEAK DISCHARGE (BASE, 6,000 FT³/S).--June 24 (0345) 6,200 ft³/s (9.84 ft); July 23 (0830) 8,160 ft³/s (10.08 ft).

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 24...	1025	156	11	32	7.7	100	4.0	128	0	130	48	--
NOV. 20...	1330	4.7	25	470	100	1100	21	174	0	1500	1600	--
DEC. 18...	1030	2.3	25	510	100	1400	24	164	0	1600	2000	1.2
JAN. 14...	1700	.90	24	450	100	1300	23	152	0	1500	1900	1.1
FEB. 19...	1630	.74	23	540	130	1600	27	152	0	1700	2400	1.1
MAR. 11...	1600	.61	23	510	120	1900	37	156	0	1800	2800	1.1
APR. 15...	1545	.74	26	500	100	960	22	133	0	1700	1300	1.5
MAY 15...	1000	1.3	25	570	120	2000	40	160	0	1800	3000	1.2
JUNE 10...	1615	8.6	9.2	72	19	180	5.0	114	0	310	150	.9
JULY 10...	1230	184	8.8	31	6.2	62	4.3	101	0	140	17	.6
AUG. 06...	1000	.28	25	480	110	1600	33	142	0	1600	2300	1.1

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 24...	.43	.02	.09	2.9	3.0	.84	403	399	110	8	4.1
NOV. 20...	.19	.05	.04	.39	.43	.01	5060	4900	1600	1400	12
DEC. 18...	.07	.01	.02	.58	.60	.03	6110	5740	1700	1600	15
JAN. 14...	.06	.01	.04	.52	.56	.02	5680	5370	1500	1400	14
FEB. 19...	.02	.00	.03	.05	.08	.01	6740	6510	1900	1800	16
MAR. 11...	.04	.01	.09	.52	.61	.01	7420	7270	1800	1600	20
APR. 15...	.00	.00	.05	.43	.48	.01	4980	4680	1700	1600	10
MAY 15...	.01	.00	.07	.07	.14	.05	7980	7640	1900	1800	20
JUNE 10...	.92	.04	.07	5.9	6.0	1.2	864	805	260	170	4.9
JULY 10...	1.9	.05	.03	6.7	6.7	2.8	332	320	100	20	2.7
AUG. 06...	.06	.00	.03	.18	.21	.00	6400	6230	1700	1500	17

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 24...	646	8.1	15.0	3500	9.2	90	5.4	46000	25000	24000	--
NOV. 20...	7090	8.2	17.0	3	9.3	98	.4	6	6	12	--
DEC. 18...	8690	8.0	5.5	5	12.1	98	.4	17	17	17	--
JAN. 14...	8200	8.1	7.0	2	11.4	95	.4	70	52	24	--
FEB. 19...	9800	8.1	13.5	1	10.1	99	.0	5	5	31	.6
MAR. 11...	10800	7.9	7.0	1	11.6	98	.5	7	4	67	--
APR. 15...	6700	8.3	25.5	25	8.1	99	.4	22	22	120	--
MAY 15...	12000	8.1	22.0	55	9.0	106	.1	180	180	500	--
JUNE 10...	1350	8.0	17.5	17500	9.0	94	15	60000	54000	45000	110
JULY 10...	521	7.6	26.0	6500	7.6	93	6.5	82000	50000	40000	--
AUG. 06...	9950	7.9	24.0	30	8.3	100	.6	330	330	39	9.1

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT. 24...	1025	80	80	7	160	<10	<1	50	0	<50
FEB. 19...	1630	<10	3	3	610	10	0	10	10	<50
JUNE 10...	1615	60	240	3	290	10	0	290	0	250
AUG. 06...	1000	20	3	3	640	20	0	30	10	150

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
OCT. 24...	0	90	9	48000	1700	100	3	30	2900
FEB. 19...	0	20	5	60	10	<100	0	140	110
JUNE 10...	0	360	20	180000	30	400	0	40	--
AUG. 06...	0	10	0	760	0	100	0	110	150

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 24...	10	.1	.0	1	2	1	920	330	20
FEB. 19...	110	.2	.1	0	2	2	9800	30	7
JUNE 10...	5	.2	.0	2	5	5	2100	790	0
AUG. 06...	130	.1	.1	0	1	1	9900	20	10

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass pigment ratio	Sampling method
DEC. 18	28	4.6	3.8	1.4	0.5	570	Polyethylene strip
FEB. 19	36	6.8	5.5	3.1	.2	420	
APR. 15	35	6.2	5.1	.7	.1	1700	

OCT. 24, 1974 TIME 1025

PHYTOPLANKTON 21,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	710	3
...PENNALES		
...DIATOMACEAE		
...DIATOMA	2,800	14
...GOMPHONEMACEAE		
...GOMPHONEMA	710	3
...NAVICULACEAE		
...NAVICULA	1,400	7
...PINNULARIA	710	3
CYANOPHYTA		
..MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIA	14,000	69

NOV. 20, 1974 TIME 1330

PHYTOPLANKTON 2,900 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
...ACTINASTRUM	1,500	50
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	1,200	41
...PENNALES		
...FRAGILARIACEAE		
...SYNEORA	26	1
...NAVICULACEAE		
...NAVICULA	26	1
...NITZSCHIA	210	7

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

DEC. 18, 1974 TIME 1030

PHYTOPLANKTON 1,600 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	670	41
....NAVICULACEAE		
....AMPHIPRORA	120	7
....NAVICULA	610	37
....NITZSCHIA		
....NITZSCHIA	240	15

JAN. 14, 1975 TIME 1700

PHYTOPLANKTON 1,500 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....SCENEDESMUS	41	3
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	580	38
....GOMPHONEMACEAE		
....GOMPHONEMA	41	3
....NAVICULACEAE		
....NAVICULA	370	24
....NITZSCHIA		
....NITZSCHIA	490	32

FEB. 19, 1975 TIME 1630

PHYTOPLANKTON 2,100 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	990	48
....NAVICULACEAE		
....AMPHIPRORA	83	4
....NAVICULA	330	16
....NITZSCHIA		
....NITZSCHIA	660	32

MAR. 11, 1975 TIME 1600

PHYTOPLANKTON 1,400 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	250	18
....NAVICULACEAE		
....AMPHIPRORA	42	3
....NAVICULA	42	3
....NITZSCHIA		
....NITZSCHIA	1,000	76

APR. 15, 1975 TIME 1545

PHYTOPLANKTON 2,200 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	190	9
....GOMPHONEMACEAE		
....GOMPHONEMA	64	3
....NAVICULACEAE		
....NAVICULA	510	23
....NITZSCHIA		
....NITZSCHIA	1,500	66

MAY 15, 1975 TIME 1000

PHYTOPLANKTON 3,600 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCAEAE		
....CYCLOTELLA	240	7
..PENNALES		
...NAVICULACEAE		
....AMPHIPRORA	240	7
....NAVICULA	1,200	33
....NITZSCHIA		
....NITZSCHIA	1,900	53

JUNE 10, 1975 TIME 1615

PHYTOPLANKTON 2,500 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...DIATOMACEAE		
....DIATOMA	850	33
....NITZSCHIA		
....MANTZSCHIA	850	33
....NITZSCHIA	850	33

JULY 10, 1975 TIME 1230

PHYTOPLANKTON 38,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	1,100	3
....CYMBELLACEAE		
....CYMBELLA	1,100	3
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
....CHROOCOCCACEAE		
....AGMENELLUM	36,000	94

AUG. 6, 1975 TIME 1000

PHYTOPLANKTON 580 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	91	16
....NAVICULACEAE		
....CALONEIS	30	5
....NAVICULA	150	26
....NITZSCHIA		
....MANTZSCHIA	61	11
....NITZSCHIA	240	42

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT. 24...	1025	156	15.0	6500	2740	85
NOV. 20...	1330	4.7	17.0	19	.24	92
DEC. 18...	1030	2.3	5.5	100	.62	--
JAN. 14...	1700	.90	7.0	33	.08	83
FEB. 19...	1630	.74	13.5	19	.04	20
MAR. 11...	1600	.61	7.0	2	.00	31
APR. 15...	1545	.74	25.5	40	.08	88
MAY 15...	1000	1.3	22.0	126	.44	97
JUNE 10...	1615	8.6	17.5	28500	662	100
JULY 10...	1230	184	26.0	16100	8000	91
AUG. 06...	1000	.28	24.0	41	.03	99

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICHO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	1550.5	1420	850	3560	160	570	320	1340	330
NOV. 1974.....	179.3	4960	3600	1740	960	465	1300	629	1400
DEC. 1974.....	77.8	8700	5500	1160	1900	399	1600	336	1700
JAN. 1975.....	39.32	9400	6000	637	2100	223	1700	180	1700
FEB. 1975.....	102.3	9610	6200	1710	2300	635	1600	442	1600
MAR. 1975.....	53.86	13400	8700	1270	3600	524	1900	276	****
APR. 1975.....	105.17	9940	6400	1820	2400	642	1600	454	1800
MAY 1975.....	554.67	2050	1300	1950	280	419	540	809	510
JUNE 1975.....	1389.54	1100	660	2440	110	413	270	1010	240
JULY 1975.....	2409	1140	690	4490	120	781	270	1760	250
AUG. 1975.....	227.02	3850	2000	1720	640	342	1100	674	1000
SEPT 1975.....	0	****	****	0	****	0	****	0	****
TOTAL	6686.52	**	**	22500	**	5600	**	7910	**
WTD.AVG.	16.32	1970	1200	**	310	**	440	**	490

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8330	2390	7420	7360	9310	10700	15400	29300	7560	7410	9230	
2	8960	3000	6820	7150	10300	11400	18100	26400	8850	10000	3320	
3	9450	3360	7420	7360	9810	12500	20900	29000	2280	12200	7330	
4	9350	3370	8140	7300	8110	11200	19500	27800	3010	8500	11700	
5	2670	3360	7580	7100	9570	10900	19900	27400	5470	2210	14200	
6	2540	3730	9050	8350	12200	11900	18100	28500	7430	1120	17400	
7	2330	4110	9050	6950	8310	16000	12500	29600	11700	668	20800	
8	4730	4370	9460	7670	9220	15000	16400	30700	16600	2840	23900	
9	6870	4450	8970	7090	10900	11700	19500	31700	25100	3480	26800	
10	7130	4520	7810	11700	8900	10800	14200	32900	2010	417	29900	
11	6860	4620	7780	8620	10700	11300	2550	33900	3070	2800	32900	
12	1060	4810	8080	17600	12000	10300	4890	35000	5700	3930	35300	
13	945	4980	9630	14600	11300	11100	5770	16400	9900	3150	39100	
14	2000	5750	8640	8190	11000	11300	6610	4530	13800	558	42000	
15	1630	5660	9290	8460	10900	11600	6530	15000	17700	1650	1170	
16	2000	5880	8080	10000	8150	11000	9190	29300	21500	4090	2540	
17	2220	5620	12300	9950	8740	11700	9530	41600	25600	6530	3380	
18	2570	6250	9050	9370	9530	13200	18500	9270	29300	8470	4990	
19	2350	6460	9130	10600	10200	13400	14200	3440	33200	10700	8790	
20	3490	6780	8710	11300	9440	14500	14300	7720	37000	12100	13800	
21	3690	7020	8570	10600	10300	17100	16300	29400	41000	15800	16200	
22	3030	6440	8970	14600	8520	18100	14900	1310	1160	23600	---	
23	594	7500	10100	10000	9620	23100	11700	1720	2140	792	---	
24	821	7610	10800	9220	8820	23700	17800	3900	424	4210	---	
25	1820	7390	10300	10000	10400	23700	17100	6270	1910	4090	---	
26	2060	8150	9130	10800	10800	19600	16800	11900	4580	5960	---	
27	2640	8190	9010	11700	10700	21400	15800	15200	6250	2610	---	
28	1300	9160	8710	12000	10900	27600	20300	15900	1080	5000	---	
29	2350	9200	9210	12800	---	20500	24600	563	2770	6020	---	
30	880	7850	9550	8510	---	12000	29300	1540	5590	5820	---	
31	1450	---	7610	9450	---	12300	---	5450	---	6520	---	
MONTH	3510	5730	8870	9880	9950	14860	15040	18790	11790	5910	---	

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	19.0	5.0	2.0	8.0	2.0	9.0	21.0	23.0	29.0	28.0	
2	25.0	21.0	9.0	8.0	6.0	8.0	11.0	25.0	29.0	30.0	28.0	
3	19.0	13.0	10.0	9.0	7.0	7.0	9.0	29.0	26.0	29.0	32.0	
4	25.0	11.0	12.0	10.0	14.0	8.0	17.0	25.0	30.0	25.0	30.0	
5	25.0	19.0	17.0	8.0	3.0	23.0	20.0	23.0	33.0	30.0	27.0	
6	15.0	12.0	11.0	9.0	5.0	18.0	17.0	16.0	35.0	27.0	30.0	
7	13.0	10.0	14.0	15.0	11.0	15.0	16.0	24.0	33.0	27.0	27.0	
8	21.0	11.0	8.0	10.0	3.0	8.0	18.0	24.0	29.0	35.0	25.0	
9	15.0	15.0	11.0	13.0	5.0	6.0	15.0	11.0	27.0	33.0	30.0	
10	20.0	17.0	9.0	4.0	15.0	15.0	10.0	16.0	19.0	25.0	23.0	
11	25.0	16.0	15.0	4.0	13.0	4.0	10.0	26.0	23.0	30.0	24.0	
12	26.0	17.0	10.0	0.0	15.0	5.0	7.0	20.0	26.0	33.0	28.0	
13	15.0	16.0	9.0	2.0	19.0	17.0	16.0	18.0	38.0	29.0	26.0	
14	14.0	13.0	7.0	10.0	10.0	5.0	21.0	17.0	33.0	30.0	26.0	
15	17.0	12.0	7.0	13.0	3.0	13.0	25.0	27.0	22.0	28.0	23.0	
16	18.0	14.0	7.0	10.0	9.0	13.0	27.0	25.0	30.0	27.0	27.0	
17	27.0	16.0	3.0	7.0	4.0	12.0	28.0	23.0	29.0	26.0	34.0	
18	28.0	18.0	9.0	12.0	11.0	21.0	15.0	28.0	30.0	26.0	30.0	
19	23.0	19.0	8.0	9.0	8.0	18.0	22.0	28.0	27.0	35.0	31.0	
20	20.0	17.0	11.0	11.0	15.0	20.0	28.0	27.0	23.0	30.0	27.0	
21	22.0	19.0	13.0	5.0	10.0	17.0	23.0	27.0	22.0	31.0	---	
22	16.0	21.0	15.0	8.0	5.0	20.0	19.0	19.0	25.0	29.0	---	
23	23.0	16.0	8.0	13.0	8.0	10.0	25.0	25.0	27.0	21.0	---	
24	17.0	12.0	3.0	11.0	15.0	11.0	27.0	24.0	23.0	27.0	---	
25	18.0	13.0	4.0	16.0	13.0	14.0	25.0	23.0	30.0	21.0	---	
26	17.0	14.0	4.0	2.0	16.0	20.0	26.0	26.0	26.0	28.0	---	
27	15.0	13.0	5.0	13.0	15.0	12.0	26.0	27.0	33.0	32.0	---	
28	20.0	10.0	9.0	11.0	20.0	3.0	20.0	28.0	28.0	33.0	---	
29	23.0	5.0	10.0	8.0	---	5.0	26.0	14.0	30.0	34.0	---	
30	17.0	8.0	4.0	8.0	---	14.0	23.0	15.0	29.0	33.0	---	
31	18.0	---	8.0	7.0	---	20.0	---	26.0	---	31.0	---	
MONTH	20.0	14.5	9.0	8.5	10.0	12.5	19.5	23.0	28.0	29.0	---	

07298100 Mackenzie Reservoir near Silverton, Tex.

LOCATION.--Lat 34°32'43", long 101°26'16", Briscoe County, at upstream side of dam, 0.9 mile (1.4 km) upstream from Rock Creek, 9.5 miles (15.3 km) northwest of Silverton, and 17.5 miles (28.2 km) upstream from Prairie Dog Town Fork Red River.

DRAINAGE AREA.--188 mi² (487 km²).

PERIOD OF RECORD.--Contents: October 1974 to September 1975.
Water quality: Chemical analyses: October 1974 to September 1975.

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

EXTREMES.--Maximum contents during year, 1,050 acre-ft (1.29 hm³) July 26 (elevation, 2,986.96 ft or 910.425 m); minimum, 598 acre-ft (0.737 hm³) Oct. 1, 2 (elevation, 2,980.61 ft or 908.490 m).

REMARKS.--The reservoir is formed by a rolled earthfill dam 2,100 ft (640 m) long. The dam was completed in August 1974 and storage began in June 1974. The uncontrolled emergency spillway is an open cut channel just beyond the right end of dam. The service spillway is an uncontrolled ogee type wier across a concrete chute at the right end of dam. There is a 30-inch (762-millimetre) gated outlet concrete pipe that discharges into a valve vault at the downstream toe of the dam and then into the creek bed downstream. Water is used for municipal, industrial, and recreational purposes by the cities of Floydada, Silverton, and Tulia. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	3,127.0	-
Crest of spillway.....	3,111.0	57,770
Crest of spillway with ogee wier.....	3,100.0	46,080
Lowest gated outlet (invert).....	2,961.0	17

COOPERATION.--The area and capacity tables A-1 and C-1 furnished by Mackenzie Municipal Water Authority.

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

2,980.0	561	2,986.0	971
2,982.0	685	2,988.0	1,140
2,984.0	821		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	598	777	769	781	801	833	812	796	893	899	1,040	1,020
2	598	771	770	781	804	830	810	795	896	896	1,040	1,020
3	600	771	770	782	808	829	808	794	892	899	1,040	1,020
4	606	770	771	783	810	831	806	792	892	900	1,030	1,020
5	605	771	771	783	812	830	807	791	890	898	1,030	1,010
6	605	771	771	784	813	831	810	787	887	898	1,030	1,010
7	605	772	771	785	814	829	810	787	886	897	1,030	1,010
8	605	773	769	785	814	829	810	784	881	896	1,020	1,010
9	605	775	770	786	815	829	811	783	886	896	1,020	1,010
10	604	775	772	787	816	830	811	783	888	907	1,020	1,000
11	604	776	773	787	816	829	812	783	890	906	1,020	1,000
12	604	776	773	788	817	828	812	782	890	904	1,020	1,000
13	611	776	774	789	817	828	813	780	890	902	1,020	1,000
14	613	775	774	790	817	829	813	778	886	899	1,030	1,000
15	613	776	774	790	818	829	814	778	884	897	1,030	1,000
16	613	776	774	791	819	829	814	776	882	895	1,030	1,000
17	613	776	775	792	820	829	814	779	882	892	1,030	1,000
18	613	776	775	792	820	829	810	787	878	891	1,030	999
19	613	775	774	793	821	829	810	788	875	1,000	1,030	998
20	613	775	776	794	822	829	809	787	873	1,010	1,030	998
21	612	775	776	794	824	827	809	786	871	1,000	1,020	1,000
22	651	776	776	795	825	826	809	785	872	1,000	1,020	1,000
23	705	774	776	795	825	823	808	783	900	1,040	1,020	1,000
24	740	773	776	796	829	822	806	782	909	1,040	1,020	999
25	746	773	776	797	828	821	806	780	909	1,040	1,020	999
26	750	773	777	797	829	820	806	779	909	1,040	1,010	998
27	754	773	777	796	830	814	804	778	907	1,040	1,030	996
28	762	771	778	798	832	813	800	776	905	1,040	1,030	995
29	765	770	778	795	-----	813	799	891	903	1,040	1,030	995
30	766	769	779	798	-----	814	798	894	900	1,040	1,020	992
31	768	-----	780	799	-----	812	-----	894	-----	1,040	1,020	-----
(†)	2,983.24	2,983.26	2,983.42	2,983.68	2,984.15	2,983.87	2,983.67	2,985.00	2,985.08	2,986.84	2,986.65	2,986.27
(*)	+170	+1	+11	+19	+33	-20	-14	+96	+6	+140	-20	-28
MAX	768	776	780	799	832	833	814	894	909	1,040	1,040	1,020
MIN	598	769	769	781	801	812	798	776	871	891	1,010	992

CAL YR 1974..... * -

WTR YR 1975..... * +394 MAX 1,040 MIN 598

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

RED RIVER BASIN

07298100 MacKenzie Reservoir near Silverton, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	
JULY, 1975 07...	1640	9.9	36	22	77	2.5	214	0	160	
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY, 1975 07...	17	2.3	432	180	5	2.5	713	8.1	30.0	

07298200 Tule Creek near Silverton, Tex.

LOCATION.--Lat 34°32'38", long 101°25'40", Briscoe County, on downstream side of bridge on State Highway 207 (revised), 0.1 mile (0.2 km) downstream from Rock Creek, 1.0 mile (1.6 km) downstream from MacKenzie Dam, 8.6 miles (13.8 km) northwest of Silverton, 15 miles (24 km) downstream from South Tule Draw, and 17.5 miles (28.2 km) upstream from Prairie Dog Town Fork Red River.

DRAINAGE AREA.--1,150 mi² (2,980 km²), of which 960 mi² (2,490 km²) is probably noncontributing.

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

Water quality: Chemical analyses: October 1967 to September 1975 (discontinued). Water temperatures: October 1967 to September 1969.

GAGE.--Water-stage recorder. Datum of gage is 2,852.44 ft (869.424 m) above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--9 years (1964-73) prior to completion of MacKenzie Dam, 9.24 ft³/s (0.262 m³/s), 6,690 acre-ft/yr (8.25 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,210 ft³/s (34.3 m³/s) Sept. 11 (gage height, 5.44 ft or 1.658 m); no flow for many days. Period of record: Maximum discharge, 9,900 ft³/s (280 m³/s) June 11, 1965 (gage height, 11.65 ft or 3.551 m); no flow for many days each year.

Maximum stage since 1890, occurred in 1892 (stage and discharge unknown); second highest stage occurred September 1926 (stage and discharge unknown); third highest stage occurred May 10, 1934 (gage height, 20.3 ft or 6.19 m), discharge unknown, from information by local residents.

REMARKS.--Discharge records fair. Since June 1974, flow is regulated by MacKenzie Reservoir 1.0 mile (1.6 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.08	.03	.15	.20	.11	.11	0	0	0	0	0
2	0	.08	.04	.36	.36	.08	.04	0	0	0	0	0
3	0	.08	.11	.36	.46	.08	.01	0	0	0	0	0
4	0	.08	.11	.15	.46	.11	0	0	0	20	0	0
5	0	.06	.11	.27	.27	.11	0	0	0	4.6	0	0
6	0	.06	.08	.36	.20	.08	0	0	0	0	0	0
7	0	.11	.06	.20	.11	.08	.02	0	0	1.6	0	0
8	0	.15	.08	.15	.36	.06	.11	0	0	0	0	0
9	0	.15	.04	.11	.27	.11	.06	0	3.8	0	0	0
10	0	.20	.15	.08	.11	.15	.15	0	.58	35	0	0
11	0	.08	.20	.08	.15	.11	.46	0	.03	0	0	96
12	0	.06	.11	.06	.11	.15	.15	0	0	0	0	25
13	3.9	.06	.08	.08	.08	.15	.27	0	0	0	0	0
14	0	.06	.08	.20	.08	.11	.20	.65	0	0	8.7	0
15	0	.06	.06	.27	.11	.11	.11	.01	0	0	1.3	0
16	0	.06	.06	.27	.15	.11	.08	0	0	0	0	0
17	0	.06	.06	.15	.36	.08	.03	0	0	0	0	0
18	0	.08	.08	.15	.15	.08	0	3.2	0	0	0	0
19	0	.08	.11	.15	.15	.08	0	.90	0	38	0	0
20	0	.06	.08	.11	.15	.06	0	1.2	0	5.6	0	0
21	0	.06	.08	.11	.11	.04	0	0	0	0	0	5.3
22	22	.06	.11	.20	.20	.03	0	0	0	0	0	0
23	25	.06	.08	.11	.27	0	0	0	0	34	0	0
24	.75	.04	.08	.11	.46	0	0	0	4.2	0	0	0
25	.15	.03	.08	.02	.20	0	0	0	.03	0	0	0
26	.08	.04	.15	0	.15	0	0	0	0	0	0	0
27	.34	.04	.20	0	.11	0	0	0	0	0	16	0
28	.36	.06	.20	0	.11	0	0	0	0	0	.12	0
29	.11	.04	.15	.02	---	0	0	18	0	0	0	0
30	.27	.04	.27	.11	---	.07	0	0	0	0	0	0
31	.20	---	.36	.27	---	.15	---	0	---	0	0	---
TOTAL	53.18	2.18	3.49	4.66	5.90	2.30	1.80	23.96	9.84	138.8	26.12	126.3
MEAN	1.72	.073	.11	.15	.21	.074	.060	.77	.33	4.48	.84	4.21
MAX	25	.20	.36	.36	.46	.15	.46	18	4.2	38	16	96
MIN	0	.03	.03	0	.08	0	0	0	0	0	0	0
AC-FT	105	4.3	6.9	9.2	12	4.6	3.6	48	26	275	52	251

CAL YR 1974 TOTAL 402.74 MEAN 1.10 MAX 82 MIN 0 AC-FI 799
WTR YR 1975 TOTAL 398.53 MEAN 1.09 MAX 96 MIN 0 AC-FI 790

RED RIVER BASIN

07298200 Tule Creek near Silverton, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 18...	1700	.08	40	60	66	130	20	522	10	200
DEC. 10...	--	.10	45	56	66	120	16	475	14	170
JAN. 24...	0915	.17	33	56	83	150	19	522	0	300
MAR. 03...	1645	.08	32	58	96	160	27	552	12	290
APR. 17...	0830	.04	29	54	100	190	13	556	35	350

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 18...	61	5.6	852	430	0	2.7	1300	8.4	17.0
DEC. 10...	50	5.6	777	410	0	2.6	1170	8.5	6.0
JAN. 24...	65	6.3	970	480	53	3.0	1420	8.3	3.0
MAR. 03...	65	7.2	1020	540	67	3.0	1530	8.4	7.0
APR. 17...	74	7.5	1130	550	32	3.5	1710	8.6	14.5

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

LOCATION.--Lat 34°34'23", long 100°44'43", Hall County, on left bank at downstream side of bridge on Farm Road 657, 7.6 miles (12.2 km) southwest of Lakeview, 8.6 miles (13.8 km) upstream from Little Red River, 13.3 miles (21.4 km) downstream from former gage near Brice, and at mile 1,092.5 (1,757.8 km).

DRAINAGE AREA.--6,792 mi² (17,591 km²), of which 4,769 mi² (12,352 km²) is probably noncontributing.

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

Water quality: Chemical analyses: July 1968 to current year. Water temperatures: July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,926.41 ft (587.170 m) above mean sea level. Aug. 29 to Dec. 12, 1968, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--12 years, 73.5 ft³/s (2.082 m³/s), 53,250 acre-ft/yr (65.7 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 12,000 ft³/s (340 m³/s) June 23 (gage height, 6.81 ft or 2.076 m); no flow Aug. 6-13.

Period of record: Maximum discharge, 51,000 ft³/s (1,440 m³/s) Aug. 29, 1968 (gage height, 9.10 ft or 2.774 m, from floodmarks), from rating curve extended above 19,000 ft³/s (538 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 10.50 ft (3.200 m) June 26, 1965; no flow at times.

Water quality: Current year: Maximum daily specific conductance, 25,400 micromhos Aug. 5; minimum daily, 3,830 micromhos July 23.

Period of record: Maximum daily specific conductance, 28,200 micromhos July 9, 1974; minimum daily, 1,510 micromhos July 15, 1973. Minimum water temperatures, freezing point on several days during winter months.

REMARKS.--Discharge records poor. Several small diversions above station. At end of year, flow from 37.8 mi² (97.9 km²) above this station was partly controlled by three floodwater-retarding structures with a combined capacity of 9,320 acre-ft (11.5 hm³) below the flood-spillway crests, of which 596 acre-ft (0.735 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity below flood-spillway crests of 4,770 acre-ft (5.88 hm³) of which 396 acre-ft (0.488 hm³) is sediment-pool capacity. The capacity in this pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	182	1.0	3.6	3.4	4.3	.25	4.2	1.1	.21	1.1	.04
2	1.8	103	1.0	11	5.5	3.8	.06	6.0	.1	.21	.27	.04
3	1.5	86	1.5	4.7	6.7	4.3	.12	4.3	.1	.09	.27	.04
4	1.3	71	2.0	5.4	9.8	3.0	.23	6.2	.1	129	.04	.04
5	1.8	58	2.0	3.7	16	2.3	.46	6.7	.4	654	.05	.04
6	2.3	46	1.4	3.0	15	1.3	1.9	.44	.5	314	0	.05
7	2.3	106	1.2	2.4	14	1.8	12	.29	.5	123	0	.12
8	2.6	123	1.1	1.8	13	3.0	4.7	.46	.4	122	0	.07
9	1.3	140	1.0	1.6	10	4.9	1.6	.68	.7	12	0	.11
10	1.1	108	1.0	1.1	7.1	3.0	15	2.1	2,310	349	0	.29
11	1.1	86	2.0	.80	3.7	4.4	7.5	4.7	322	478	0	29
12	4.5	61	2.3	.60	4.0	3.4	5.7	1.5	89	82	0	255
13	425	39	2.0	.50	4.6	3.0	17	1.9	14	26	0	86
14	380	22	1.5	1.8	5.4	2.3	8.6	1.1	2.0	18	19	30
15	119	11	1.8	1.7	5.2	3.9	4.3	1.0	.9	14	210	11
16	35	9.8	1.4	1.4	4.0	3.0	1.5	.70	1.5	26	113	4.5
17	28	7.4	1.8	1.6	4.0	3.0	1.1	.29	1.6	8.9	36	1.5
18	13	3.9	1.2	1.5	5.0	2.3	3.0	12	.6	2.0	14	.55
19	5.0	2.3	1.2	.54	6.0	1.5	6.8	37	.4	.90	4.4	.16
20	3.0	3.1	1.4	.87	7.0	1.2	7.2	6.2	.3	.47	2.6	.11
21	1.9	3.8	1.5	.61	7.9	.90	7.2	1.0	.6	.36	.90	5.5
22	7.6	3.4	1.1	.57	7.0	.74	16	42	39	.27	.36	.31
23	167	2.1	1.1	1.2	5.0	.55	13	19	4,860	1,040	.16	.19
24	293	2.0	.85	1.0	6.0	.32	6.9	4.6	4,920	263	.06	.22
25	82	2.2	.50	.96	8.2	.60	7.5	1.9	872	90	.06	.25
26	38	2.3	.50	.89	6.9	1.2	10	.22	194	82	.12	.23
27	32	2.1	1.0	.74	5.5	2.6	8.2	.40	70	34	8.2	.33
28	49	1.9	1.6	.90	5.6	2.0	1.7	.31	15	16	4.4	.24
29	78	1.5	1.4	.68	-----	4.8	3.4	2,030	3.4	14	.60	.29
30	67	1.3	2.5	1.0	-----	2.2	3.2	528	1.3	7.4	.36	.34
31	273	-----	4.3	2.4	-----	.42	-----	42	-----	3.0	.12	-----
TOTAL	2,120.1	1,291.1	46.15	60.56	201.5	76.03	176.12	2,767.19	13,721.5	3,909.81	416.07	426.56
MEAN	68.4	43.0	1.49	1.95	7.20	2.45	5.87	89.3	457	126	13.4	14.2
MAX	425	182	4.3	11	16	4.9	17	2,030	4,920	1,040	210	255
MIN	1.1	1.3	.50	.50	3.4	.32	.06	.22	.10	.09	0	.04
AC-FT	4,210	2,560	92	120	400	151	349	5,490	27,220	7,760	825	846

CAL YR 1974 TOTAL 37,183.45 MEAN 102 MAX 8,020 MIN 0 AC-FT 73,750

WTR YR 1975 TOTAL 25,212.69 MEAN 69.1 MAX 4,920 MIN 0 AC-FT 50,010

PEAK DISCHARGE (BASE, 6,000 FT³/S).--June 10 (0715) 6,340 ft³/s (6.53 ft); June 23 (0430) 12,000 ft³/s (6.81 ft).

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 08...	0930	2.5	--	730	250	--	--	--	--	2100
NOV. 19...	1530	2.0	--	670	240	--	--	--	--	2200
DEC. 11...	0930	3.4	--	540	190	--	--	--	--	2100
JAN. 23...	1000	1.6	--	630	250	--	--	--	--	2200
FEB. 13...	1221	3.1	--	640	260	--	--	--	--	2200
MAR. 04...	1500	2.3	--	660	260	--	--	--	--	2100
APR. 16...	1245	1.5	--	710	240	--	--	--	--	2300
MAY 28...	1500	.12	--	540	180	--	--	--	--	2100
JUNE 06...	1410	.37	--	620	260	--	--	--	--	2300
JULY 08...	1625	157	21	350	67	1400	18	174	0	1200
AUG. 19...	1500	2.4	--	580	140	--	--	--	--	1700

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 08...	6500	--	--	2900	--	--	21700	--	14.0
NOV. 19...	7300	--	--	2700	--	--	21400	--	19.0
DEC. 11...	6100	--	--	2100	--	--	19300	--	3.0
JAN. 23...	6400	--	--	2600	--	--	20200	--	3.5
FEB. 13...	6900	--	--	2700	--	--	20700	--	14.0
MAR. 04...	6800	--	--	2700	--	--	21200	--	17.0
APR. 16...	6400	--	--	2800	--	--	21800	--	26.0
MAY 28...	4000	--	--	2100	--	--	14600	--	26.0
JUNE 06...	7200	--	--	2600	--	--	23300	--	35.0
JULY 08...	2000	.9	5140	1200	1000	18	8320	7.2	34.0
AUG. 19...	4600	--	--	2000	--	--	15600	--	31.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	2120.1	8260	5400	30900	1600	9160	1900	10900	1200
NOV. 1974.....	1291.09	15500	9900	34500	4200	14600	2100	7320	****
DEC. 1974.....	46.15	20500	14000	1740	6700	835	2300	287	****
JAN. 1975.....	60.56	20800	14000	2290	6700	1100	2300	376	****
FEB. 1975.....	201.5	21700	15000	8160	7300	3970	2300	1250	****
MAR. 1975.....	76.03	20800	14000	2870	6700	1380	2300	472	****
APR. 1975.....	176.12	20100	13000	6180	6100	2900	2200	1050	****
MAY 1975.....	2767.19	8310	5500	41100	1600	12000	1900	14200	1200
JUNE 1975.....	13721.39	5750	3900	144000	1300	48200	1200	44500	890
JULY 1975.....	3904.8	5690	3900	41200	1300	13700	1200	12700	880
AUG. 1975.....	416.06	8440	5600	6290	1700	1910	1900	2130	1200
SEPT 1975.....	426.55	10200	6600	7600	2300	2650	1900	2190	****
TOTAL	25212.57	**	**	327000	**	112000	**	97400	**
MTD. AVG.	69.08	7190	4800	**	1700	**	1400	**	1100

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14200	9600	19500	20400	17800	20900	21000	20600	16500	13500	20100	21500
2	17500	10900	19800	19200	18300	21200	22200	21000	17900	18400	20300	19600
3	20000	12500	21000	21400	20700	21500	20300	20700	19400	20400	20500	21300
4	23300	14900	20800	22800	19300	21200	21400	20500	20300	15200	20600	21900
5	23800	16500	21100	22100	20700	20900	22200	20700	21000	4030	25400	21000
6	22000	17500	21200	21900	22600	21400	21500	20000	23300	6120	---	20000
7	21600	14500	21100	21800	23300	22000	13400	18900	22500	8000	---	17500
8	21700	15300	21500	21800	23600	20900	20900	19100	21700	8100	---	17600
9	21800	16400	21900	21900	22300	20700	21700	19300	20600	8790	---	15900
10	22100	18600	20600	22000	21500	20500	19200	19400	5810	6100	---	15700
11	21900	20200	19300	21300	21500	20400	20900	17500	7870	4180	---	9640
12	21900	20500	19900	21400	20900	20500	20900	17900	11500	5190	---	8690
13	5470	20900	20600	21600	20700	20000	19400	19500	16000	10000	---	10200
14	6820	20900	20600	20600	20600	20400	20400	17800	19700	12400	10700	14500
15	11900	21000	20900	20600	20800	20900	20900	17400	20500	16200	6980	18900
16	13300	20700	21300	20400	20100	20600	21700	16900	21800	10500	8000	21700
17	14600	20900	20400	20200	19200	20200	21900	16600	22600	11800	9700	21900
18	14900	21200	20600	20600	22700	20500	21700	20000	23800	14300	10600	23300
19	15900	21400	20700	20400	24300	20700	21600	22100	22900	17000	15600	23400
20	17100	21300	20600	20300	24800	21000	21500	21800	21800	17700	20600	23700
21	18100	21000	20600	20200	21100	22600	21400	22500	20100	18100	22700	21100
22	17500	21000	20700	20100	19700	23100	19900	18300	15200	17000	24300	23000
23	7030	21400	20600	20200	20900	23000	20700	19900	6160	3830	23800	23900
24	6890	21300	20800	20300	24600	22700	20500	18800	4620	6200	24200	23400
25	8540	21200	20200	20000	23800	21700	21300	17500	6580	6480	24900	23900
26	10200	21100	19600	20100	22900	19800	22100	16000	8240	7850	23600	22900
27	11300	21200	19900	20200	20900	20100	21000	14500	8750	11800	14300	23300
28	12500	21300	20000	20000	21000	20400	20900	14600	9280	15700	22700	23200
29	13400	21500	22300	20200	---	20500	20400	7650	10000	16600	23800	22900
30	10400	19200	20000	19200	---	19800	19700	7220	10600	19400	24200	23100
31	8500	---	19400	19800	---	19100	---	7600	---	20000	23500	---
MONTH	15360	18860	20560	20740	21450	20940	20750	17820	15880	11960	---	19950

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	---	---	7.0	4.0	7.0	7.0	13.0	---	29.0	27.0	---
2	---	14.0	---	9.0	---	---	15.0	21.0	28.0	32.0	23.0	29.0
3	21.0	---	1.0	---	7.0	6.0	18.0	15.0	14.0	31.0	---	32.0
4	27.0	11.0	12.0	0.0	10.0	17.0	13.0	---	30.0	---	26.0	32.0
5	17.0	17.0	---	---	---	13.0	7.0	27.0	33.0	23.0	32.0	---
6	---	13.0	9.0	---	0.0	17.0	---	19.0	---	---	---	20.0
7	19.0	11.0	3.0	15.0	7.0	17.0	16.0	18.0	---	27.0	---	---
8	29.0	---	---	---	3.0	4.0	14.0	24.0	---	31.0	---	31.0
9	26.0	11.0	3.0	---	---	---	24.0	---	28.0	28.0	---	27.0
10	25.0	---	6.0	7.0	8.0	3.0	11.0	15.0	19.0	27.0	---	29.0
11	20.0	10.0	12.0	0.0	15.0	6.0	10.0	---	19.0	30.0	---	---
12	19.0	---	---	---	11.0	7.0	7.0	22.0	28.0	22.0	---	15.0
13	---	13.0	7.0	---	14.0	13.0	---	24.0	---	---	---	14.0
14	12.0	---	3.0	0.0	10.0	---	17.0	25.0	20.0	28.0	23.0	---
15	19.0	10.0	---	11.0	3.0	5.0	15.0	---	---	31.0	25.0	19.0
16	11.0	5.0	---	---	---	---	27.0	17.0	---	---	24.0	30.0
17	15.0	---	0.0	12.0	2.0	18.0	23.0	22.0	32.0	25.0	---	25.0
18	22.0	---	10.0	3.0	12.0	---	---	---	28.0	---	31.0	28.0
19	12.0	10.0	---	---	10.0	22.0	6.0	32.0	30.0	22.0	---	22.0
20	---	6.0	0.0	---	15.0	10.0	21.0	28.0	33.0	---	29.0	15.0
21	17.0	---	3.0	---	---	---	---	---	21.0	32.0	19.0	---
22	---	12.0	---	10.0	0.0	7.0	21.0	21.0	---	28.0	30.0	---
23	12.0	10.0	---	4.0	---	---	30.0	25.0	26.0	27.0	22.0	25.0
24	16.0	---	5.0	14.0	13.0	16.0	29.0	17.0	25.0	27.0	---	24.0
25	17.0	9.0	---	4.0	10.0	15.0	---	---	29.0	24.0	30.0	23.0
26	14.0	---	4.0	---	12.0	12.0	18.0	---	30.0	22.0	32.0	18.0
27	---	3.0	---	14.0	14.0	---	---	23.0	---	---	26.0	24.0
28	---	---	4.0	10.0	13.0	11.0	18.0	26.0	26.0	33.0	32.0	---
29	22.0	8.0	---	4.0	---	0.0	11.0	18.0	---	28.0	---	25.0
30	18.0	0.0	5.0	8.0	---	---	25.0	15.0	27.0	31.0	23.0	17.0
31	13.0	---	7.0	5.0	---	18.0	---	15.0	---	30.0	---	---
MONTH	---	---	---	---	9.0	---	17.0	---	---	---	---	---

RED RIVER BASIN

07299300 Little Red River near Turkey, Tex.

LOCATION.--Lat 34°32'27", long 100°46'13", Hall County, on left bank at downstream side of bridge on Farm Road 657, 10 miles (16 km) upstream from mouth, and 14.5 miles (23.3 km) northeast of Turkey.

DRAINAGE AREA.--139 mi² (360 km²).

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

Water quality: Chemical analyses: July 1968 to current year. Water temperatures: July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,925.39 ft (586.859 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 10.5 ft³/s (0.297 m³/s), 7,610 acre-ft/yr (9.38 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 1,800 ft³/s (51.0 m³/s) June 23 (gage height, 9.85 ft or 3.002 m); minimum, 0.01 ft³/s (0.0003 m³/s) Sept. 9.

Period of record: Maximum discharge, 3,570 ft³/s (101 m³/s) Aug. 29, 1968 (gage height, 13.48 ft or 4.109 m, from floodmarks), from rating curve extended above 620 ft³/s (17.6 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

Water quality: Current year: Maximum daily specific conductance, 86,500 micromhos Feb. 18; minimum daily, 6,030 micromhos Sept. 11.

Period of record: Maximum daily specific conductance, 118,000 micromhos Apr. 1, 1970; minimum daily, 6,030 micromhos Sept. 11, 1975. Maximum water temperatures, 36.0°C July 23, 1969; minimum, freezing point on several days during December 1968, January and March 1969.

REMARKS.--Discharge records good. No diversion above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	6.2	.60	1.1	.72	.27	.21	.24	.24	2.4	.35	.02
2	1.5	4.5	.47	2.0	1.3	.27	.18	.24	.22	1.9	.34	.02
3	1.1	4.6	.62	1.3	1.9	.27	.21	.26	.23	2.5	.31	.02
4	.85	8.8	.55	.86	1.8	.21	.21	.27	.21	3.2	.31	.02
5	.44	6.1	.45	.72	1.7	.21	.18	.25	.26	74	.26	.02
6	.48	5.4	.49	.66	1.3	.21	.16	.22	.27	3.2	.23	.02
7	.44	22	.46	.54	1.0	.21	.60	.22	.31	.60	.22	.02
8	.49	10	.38	.54	.79	.35	1.2	.23	.29	.28	.21	.02
9	.40	8.4	.21	.44	.60	.21	.27	.24	.52	.35	.20	.02
10	.65	6.9	.23	.31	.44	.21	.27	.26	83	62	.18	.03
11	.66	4.6	.69	.35	.35	.21	.86	.29	2.8	19	.16	317
12	.63	4.1	.64	.30	.26	.21	.44	.28	1.4	1.2	.17	221
13	104	3.2	.32	.38	.26	.21	.35	.30	1.3	.53	.16	29
14	71	3.2	.26	.31	.27	.21	.35	.27	1.4	.48	33	8.3
15	13	3.0	.38	.27	.27	.21	.24	.27	1.4	.36	85	3.0
16	4.9	3.0	.32	.27	.49	.21	.21	.29	1.6	.31	5.0	1.5
17	3.4	2.8	.23	.27	1.1	.21	.22	.31	1.7	.25	.12	1.2
18	3.6	2.8	.24	.27	.55	.21	.20	.76	1.5	.20	.09	.58
19	2.5	1.9	.24	.24	.43	.21	.21	.60	1.7	.21	.07	.42
20	1.9	1.4	.24	.24	.42	.16	.20	.19	1.8	20	.08	.31
21	1.4	1.2	.28	.24	.29	.16	.18	.17	2.0	2.2	.09	17
22	5.7	1.1	.26	.21	.72	.16	.20	.30	2.8	.53	.07	10
23	17	1.0	.28	.21	1.0	.16	.20	.21	314	3.5	.07	.62
24	12	.86	.26	.19	.72	.16	.20	.19	520	2.3	.06	.13
25	8.4	.97	.31	.18	.50	.18	.21	.17	21	2.2	.06	.10
26	7.4	.83	.35	.18	.26	.21	.21	.15	4.3	7.5	.06	.12
27	4.5	.49	.54	.18	.27	.18	.23	.16	2.7	2.5	.24	.12
28	4.3	.76	.60	.18	.27	.21	.24	.19	2.4	1.2	.09	.16
29	4.1	.66	.44	.18	-----	.24	.23	1.8	2.2	.49	.06	.16
30	9.9	.52	1.8	.21	-----	.21	.25	.21	2.5	.39	.04	.18
31	11	-----	3.0	.39	-----	.21	-----	.21	-----	.36	.02	-----
TOTAL	299.84	162.69	16.14	13.72	19.98	6.55	8.92	9.75	976.05	216.14	127.32	611.11
MEAN	9.67	5.42	.52	.44	.71	.21	.30	.31	32.5	6.97	4.11	20.4
MAX	104	46	3.0	2.0	1.9	.35	1.2	1.8	520	74	85	317
MIN	.40	.49	.21	.18	.26	.16	.16	.15	.21	.20	.02	.02
AC-FT	595	323	32	27	40	13	18	19	1,940	429	253	1,210

CAL YR 1974 TOTAL 5,513.43 MEAN 15.1 MAX 1,120 MIN .04 AC-FT 10,940

WTR YR 1975 TOTAL 2,468.21 MEAN 6.76 MAX 520 MIN .02 AC-FT 4,900

PEAK DISCHARGE (BASE, 1,000 FT³/S).--June 23 (2400) 1,800 ft³/s (9.85 ft); Sept. 11 (2100) 1,760 ft³/s (9.77 ft).

07299300 Little Red River near Turkey, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 07...	1655	5.0	1400	290	3100	14000	4700	43900	18.0
NOV. 19...	1345	1.9	1400	340	3400	21000	4900	57000	18.5
DEC. 10...	1715	.23	1200	300	3200	16000	4200	46200	9.0
JAN. 23...	1400	.20	1400	290	3700	16000	4700	47600	5.0
MAR. 04...	1142	.10	1400	380	3200	18000	5100	50000	12.0
APR. 16...	1000	.25	1600	360	3600	21000	5500	56400	16.0
MAY 28...	1105	.19	1500	350	3600	18000	5200	51400	23.0
JULY 31...	0850	.28	1600	340	3300	18000	5400	49800	24.0
AUG. 19...	1300	.07	1700	350	3400	19000	5700	51800	32.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	299.84	26700	18000	14600	8900	7210	2300	1860	****
NOV. 1974.....	162.69	40200	27000	11900	13000	5710	3900	1710	****
DEC. 1974.....	16.14	51600	35000	1530	18000	784	3900	170	****
JAN. 1975.....	13.72	62800	42000	1560	22000	815	4200	156	****
FEB. 1975.....	19.98	75700	51000	2750	28000	1510	3900	210	****
MAR. 1975.....	6.55	51400	35000	619	18000	318	3900	69	****
APR. 1975.....	8.92	53800	36000	867	19000	458	3500	84	****
MAY 1975.....	9.75	42300	28000	737	14000	369	3500	92	****
JUNE 1975.....	976.04	10300	6500	17100	2700	7120	1400	3690	****
JULY 1975.....	216.14	18300	12000	7000	5600	3270	1900	1110	****
AUG. 1975.....	127.32	20600	13000	4470	6200	2130	1900	653	****
SEPT 1975.....	611.1	11200	7100	11700	3000	4950	1400	2310	****
TOTAL	2468.21	**	**	74800	**	34600	**	12100	**
WTD.AVG.	6.76	17200	11000	**	5200	**	1800	**	*****

RED RIVER BASIN

07299300 Little Red River near Turkey, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45600	55000	47300	71400	71600	59800	50000	51400	44300	47600	50000	51300
2	44900	65500	47200	68300	77500	55500	50200	51300	50000	49000	50000	52900
3	44400	19600	46900	75400	82900	52300	49500	52100	52000	50000	50800	53400
4	45400	18000	46700	83800	81300	50000	49100	51800	54700	47600	51500	54300
5	45600	38300	46800	78500	78200	51700	50100	51400	56000	11800	53400	53900
6	44700	44400	46300	73200	74500	50900	50000	53000	56500	21500	54300	53700
7	43800	41000	45700	67900	74200	51400	43600	54900	56900	26000	54600	54000
8	45200	45500	46500	63700	80000	50200	51900	53500	56000	36100	53800	54200
9	45400	49900	47300	59800	75300	50000	63300	52500	55400	37900	54600	54000
10	46400	57500	46200	55900	69500	49800	47100	51500	22800	13000	55200	54000
11	46700	64200	43500	53600	70300	49600	64500	51300	30400	18000	55900	6030
12	46400	62500	45900	51800	68100	49800	51900	51400	42000	26500	54400	12200
13	10400	60800	67700	49300	61700	49800	60000	52200	45500	34600	54600	25800
14	12200	59900	64500	47500	53200	50000	67300	51800	49000	41100	22700	46500
15	43300	57600	51300	50100	51900	50200	62400	51300	50000	45900	16200	63800
16	45200	56800	49200	49500	78500	50100	57500	52600	50900	48400	54900	59400
17	50000	57200	48800	48900	80100	49900	52600	52600	51900	50500	52700	58800
18	54700	57500	48400	51000	86500	50100	52900	36500	52200	50900	50800	54100
19	53300	57000	47700	50300	82300	50500	53200	37800	52200	51000	51700	51400
20	52000	56200	47100	49600	70800	51200	50900	45300	52200	20200	52500	50200
21	50700	54000	46900	48800	60000	52300	50500	45700	52600	24100	52700	20400
22	50900	51800	47200	48100	57400	53200	50000	46100	51500	32600	53400	23500
23	24200	48900	47000	47600	80000	52900	50700	48800	64300	33700	52700	38100
24	60800	48200	47100	47900	80400	52500	51300	50200	80100	34100	54000	43800
25	45800	47300	45200	47900	76200	51500	51000	50900	16900	33100	54900	46900
26	59300	47200	44600	47800	72200	50700	50800	51700	27300	33000	53800	48600
27	62000	47000	53500	47900	67000	51800	52000	52600	33300	38500	28000	49500
28	64600	47100	66700	47400	61900	51600	53200	52100	38700	45500	35500	49400
29	67300	47300	65400	47900	---	49800	53300	17800	42200	48300	41700	49600
30	57500	47200	43700	45700	---	51200	51900	29900	45600	48600	48000	49500
31	44600	---	63000	46200	---	52400	---	38200	---	49800	49700	---
MONTH	46880	50350	50040	55570	72270	51380	53090	48070	43450	37060	49000	46110

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	---	---	5.0	5.0	9.0	10.0	13.0	---	32.0	29.0	---
2	---	15.0	---	8.0	---	---	13.0	19.0	24.0	30.0	24.0	27.0
3	20.0	---	2.0	---	7.0	5.0	14.0	16.0	21.0	29.0	---	31.0
4	27.0	12.0	10.0	0.0	10.0	12.0	12.0	---	29.0	---	25.0	30.0
5	17.0	16.0	---	---	---	12.0	9.0	24.0	28.0	23.0	31.0	---
6	---	15.0	4.0	---	2.0	15.0	---	14.0	---	---	30.0	21.0
7	18.0	12.0	5.0	12.0	9.0	15.0	17.0	19.0	19.0	27.0	30.0	---
8	28.0	---	---	---	5.0	5.0	12.0	23.0	---	32.0	21.0	30.0
9	25.0	12.0	5.0	---	---	---	17.0	26.0	26.0	24.0	---	28.0
10	25.0	---	7.0	7.0	7.0	3.0	11.0	16.0	20.0	30.0	---	29.0
11	29.0	10.0	10.0	0.0	12.0	5.0	10.0	---	20.0	30.0	30.0	---
12	19.0	---	---	---	10.0	6.0	9.0	21.0	30.0	23.0	26.0	15.0
13	---	12.0	7.0	---	13.0	10.0	---	20.0	---	---	26.0	14.0
14	14.0	---	5.0	1.0	9.0	---	16.0	21.0	20.0	27.0	26.0	---
15	20.0	10.0	---	10.0	4.0	5.0	14.0	26.0	---	29.0	25.0	18.0
16	12.0	6.0	2.0	---	---	---	23.0	17.0	---	---	24.0	29.0
17	16.0	---	---	9.0	2.0	17.0	24.0	20.0	30.0	26.0	---	24.0
18	20.0	---	9.0	3.0	4.0	---	---	---	29.0	---	32.0	27.0
19	14.0	12.0	---	---	9.0	18.0	9.0	27.0	29.0	23.0	---	23.0
20	---	8.0	2.0	---	14.0	11.0	18.0	26.0	30.0	---	30.0	16.0
21	17.0	---	4.0	---	---	---	---	---	22.0	30.0	30.0	---
22	---	13.0	---	4.0	2.0	9.0	21.0	20.0	---	29.0	32.0	---
23	13.0	12.0	---	5.0	---	---	26.0	23.0	24.0	27.0	22.0	26.0
24	18.0	---	5.0	12.0	13.0	14.0	24.0	17.0	20.0	28.0	---	24.0
25	19.0	9.0	---	4.0	10.0	13.0	---	---	30.0	24.0	29.0	25.0
26	15.0	---	4.0	---	11.0	11.0	14.0	---	32.0	22.0	31.0	19.0
27	---	5.0	---	12.0	12.0	---	---	22.0	---	---	26.0	25.0
28	---	---	4.0	---	12.0	10.0	17.0	26.0	28.0	32.0	31.0	---
29	23.0	6.0	---	7.0	---	2.0	13.0	17.0	---	31.0	---	25.0
30	20.0	0.0	5.0	8.0	---	---	22.0	15.0	30.0	30.0	23.0	18.0
31	14.0	---	5.0	5.0	---	17.0	---	15.0	---	32.0	---	---
MONTH	---	---	---	---	8.5	---	16.0	20.0	---	---	---	---

75

LOCATION.--Lat 34°34'20", long 100°26'10", Hall County, at bridge on U.S. Highway 287, 1.8 miles (2.9 km) north of Estelline, and at mile 1.076 (1.731 km).

DRAINAGE AREA.--7,293 mi² (18,889 km²), of which 4,679 mi² (12,119 km²) is noncontributing.

PERIOD OF RECORD.--Periodic measurements of discharge and water-quality data: June 1974 to current year. Operated as a daily discharge station 1924-25, 1938-47.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

[illegible][illegible]

PERIOD OF RECORD.--Periodic measurements of discharge and water-quality data: June 1974 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

[illegible][illegible]

RED RIVER BASIN

77

07299510 Prairie Dog Town Fork Red River above Jonah Creek near Estelline, Tex.
(Low-flow partial-record station)

LOCATION.--Lat 34°33'55", long 100°18'25", Childress County, just above mouth of Jonah Creek, 7.6 miles (12.2 km) northeast of Estelline, and at mile 1,068 (1,718 km).

DRAINAGE AREA.--7,533 mi² (19,510 km²), of which 4,769 mi² (12,352 km²) is noncontributing.

PERIOD OF RECORD.--Periodic measurements of discharge and water-quality data: June 1974 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.							
04...	1800	4.5	1100	250	--	--	2800
NOV.							
06...	1620	15	750	150	148	0	1900
20...	1730	5.4	1000	260	--	--	2700
DEC.							
12...	1215	17	970	250	--	--	2700
JAN.							
04...	1430	22	1000	240	--	--	2800
22...	--	.00	--	--	--	--	--
FEB.							
12...	1705	5.9	1200	300	--	--	3400
MAR.							
05...	1700	1.5	1500	370	--	--	3700
25...	--	.00	--	--	--	--	--
APR.							
15...	1545	21	430	230	--	--	2500
MAY							
06...	--	.00	--	--	--	--	--
JUNE							
15...	--	.00	--	--	--	--	--
JULY							
16...	1015	11	610	130	--	--	1600
AUG.							
25...	1145	4.4	650	130	--	--	1800
SEP.							
10...	--	.00	--	--	--	--	--

DATE	DIS- SOLVED CAL- CIUM (CL) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.						
05...	13000	490	--	37500	--	28.0
NOV.						
06...	7100	2500	2400	22000	7.9	14.5
20...	11000	3600	--	32100	--	14.0
DEC.						
12...	10000	3500	--	29300	--	8.0
JAN.						
05...	13000	3700	--	36000	--	11.0
22...	--	--	--	--	--	--
FEB.						
12...	17000	4200	--	48100	--	6.0
MAR.						
05...	25000	5300	--	69400	--	--
25...	--	--	--	--	--	--
APR.						
15...	7000	3000	--	22300	--	24.0
MAY						
06...	--	--	--	--	--	--
JUNE						
15...	--	--	--	--	--	--
JULY						
16...	4200	2100	--	14500	--	23.0
AUG.						
25...	5000	2300	--	16500	--	30.0
SEP.						
10...	--	--	--	--	--	--

RED RIVER BASIN

07299512 Jonah Creek at weir near Estelline, Tex.

LOCATION.--Lat 34°34'20", long 100°20'00", Childress County, on left bank, 4 miles (6 km) upstream from mouth, and 6.5 miles (10.5 km) northeast of Estelline.

DRAINAGE AREA.--65.5 mi² (169.6 km²).

PERIOD OF RECORD.--Discharge: May 1974 to current year.

Water quality: Chemical analyses: May 1974 to current year.

GAGE.--Water-stage and specific conductance recorders and concrete control. Altitude of gage is 1,700 ft (518 m), from topographic map.

EXTREMES.--Discharge: May to September 1974: Maximum discharge during period, 1,170 ft³/s (33.1 m³/s) May 25 (gage height, 4.63 ft or 1.411 m), from rating curve extended above 3.5 ft³/s (0.099 m³/s) on basis of Francis weir formula; no flow Aug. 14-24.
 Water year 1975: Maximum discharge, 366 ft³/s (10.4 m³/s) Aug. 14 (gage height, 3.25 ft or 0.991 m); no flow for part of many days.
 Water quality: Current year: Maximum daily specific conductance, 156,000 micromhos May 14; minimum daily, 11,300 micromhos May 29.
 Period of record: Maximum daily specific conductance, 156,000 micromhos May 14, 1975; minimum daily, 9,540 micromhos Sept. 19, 1974.

REMARKS.--Discharge records good. Low flow is regulated by an unknown amount of water diverted 0.25 mile (0.40 km) upstream. Water is diverted from a collection system and pumped into a disposal well that penetrates the Ellenberger Formation at a depth of 7,480 ft (2,280 m). Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.46	.01	.01	.02
2								---	.65	.01	.01	.10
3								---	1.4	.10	.01	.08
4								---	1.1	.10	.01	.05
5								---	.78	.05	.01	.05
6								---	.51	.04	.10	.09
7								---	.76	.06	.13	.14
8								---	.46	.05	.27	.22
9								---	.28	.05	.48	.24
10								---	.22	.01	.30	.28
11								---	.34	.01	.17	.25
12								---	.34	.01	.03	.23
13								---	.28	.01	.01	.20
14								---	.28	.01	0	.23
15								---	.34	.01	0	.40
16								---	.28	.01	0	.30
17								---	.28	.10	0	.25
18								---	.34	.09	0	.25
19								---	.38	.02	0	50
20								---	.43	.02	0	1.5
21								---	.37	.02	0	.50
22								2.6	.16	.02	0	.30
23								.64	.22	.02	0	.50
24								1.8	.16	.02	0	7.0
25								353	.22	.04	.30	.80
26								6.3	.16	.20	.20	.30
27								1.4	.09	.04	.12	.10
28								.50	.33	.01	.06	.05
29								.46	.28	.01	.01	.05
30								.28	.22	.01	.01	.07
31								.72	---	.01	.02	---
TOTAL								-	12.12	1.17	2.26	64.55
MEAN								-	.40	.038	.073	2.15
MAX								-	1.4	.20	.48	50
MIN								-	.09	.01	0	.02
AC-FT								-	24	2.3	4.5	128

PEAK DISCHARGE (BASE, 500 FT³/S).--May 25 (0600) 1,170 ft³/s (4.63 ft).

07299512 Jonah Creek at weir near Estelline, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.65	.56	.63	1.5	.42	.60	.51	.62	.84	.64	.53
2	.09	2.0	.60	1.5	1.9	.38	.52	.66	.62	.84	.60	.52
3	.08	.84	.59	.78	1.5	.45	.53	.58	.61	3.0	.57	.46
4	.13	.78	.58	.69	1.5	.46	.59	.57	.67	4.5	.66	.42
5	.15	.84	.64	.72	.93	.34	.62	.60	.78	1.5	.64	.55
6	.23	.90	.69	.66	.80	.28	.65	.59	.68	.65	.55	.51
7	.22	1.1	.59	.68	.73	.28	2.2	.51	.67	.54	.49	.50
8	.21	.69	.58	.58	.80	.28	.68	.53	.67	.39	.57	.48
9	.15	2.1	.57	.52	.62	.65	.50	.47	1.2	.26	.53	.46
10	.15	.65	.78	.46	.74	.40	.79	.52	66	6.1	.50	.46
11	.22	.60	1.2	.46	.62	.40	.58	.53	2.2	.77	.49	3.2
12	2.6	.60	.67	.40	.61	.52	.58	.45	1.5	.33	.47	11
13	4.6	.66	.62	.46	.61	.51	1.8	.58	1.6	.31	.46	3.1
14	1.4	.68	.66	.46	.62	.38	.84	.67	1.9	.82	19	1.3
15	.54	.67	.71	.46	.65	3.0	.78	.53	1.6	.29	2.6	1.0
16	.41	.71	.80	.46	1.8	.79	.66	.49	1.8	.28	.55	.84
17	.40	.58	.77	.52	1.1	.66	.68	.49	1.5	.36	.34	.75
18	.32	.61	.82	.52	1.2	.81	.72	.73	1.3	.55	.30	.60
19	.40	.59	.75	.52	.72	.56	.83	.86	.99	.46	.36	.42
20	.39	.51	.72	.40	.71	.38	.79	.56	.88	.49	.41	.29
21	.42	.51	.69	.66	.73	.39	.78	.53	1.0	.43	.45	1.6
22	2.7	.52	.72	.55	1.3	.34	.70	1.2	42	.42	.51	.50
23	.80	.58	.60	.63	.73	.43	.71	.75	1.5	14	.54	.25
24	3.0	.44	.59	.68	.66	.35	.66	.57	13	1.1	.58	.32
25	.98	.46	.56	.59	.72	.44	.62	.53	1.4	.68	.55	.33
26	.93	.52	.70	.62	.72	.48	.65	.59	1.2	.63	.39	.47
27	.72	.46	.70	.59	.51	1.8	.76	.55	1.0	.92	.93	.44
28	.84	.57	.64	.52	.46	.54	.59	.68	.84	.73	.55	.27
29	.52	.45	.66	.59	---	.89	.61	39	.82	.61	.54	.27
30	1.5	.49	.96	1.5	---	.71	.58	3.0	.84	.60	.57	.31
31	1.1	---	.94	.77	---	.67	---	.77	---	.56	.57	---
TOTAL	26.28	21.76	21.66	19.58	25.49	18.99	22.60	59.60	151.39	43.96	36.91	32.15
MEAN	.85	.73	.70	.63	.91	.61	.75	1.92	5.05	1.42	1.19	1.07
MAX	4.6	2.1	1.2	1.5	1.9	3.0	2.2	.39	.66	.14	.19	.11
MIN	.08	.44	.56	.40	.46	.28	.50	.45	.61	.26	.30	.25
AC-FT	52	43	43	39	51	38	45	118	300	87	73	64

CAL YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1975 TOTAL 480.37 MEAN 1.32 MAX 66 MIN .08 AC-FT 953

PEAK DISCHARGE (BASE, 500 FT³/S).--No peak above base.

RED RIVER BASIN

07299512 Jonah Creek at weir near Estelline, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.							
08...	1400	.28	1600	360	--	--	4500
25...	1530	.84	800	140	--	--	2100
NOV.							
06...	1110	.90	1600	360	117	0	4400
20...	1215	.52	1700	340	--	--	4700
DEC.							
12...	1620	.73	1700	380	--	--	4500
JAN.							
09...	1500	.72	1700	400	--	--	4800
MAR.							
05...	1815	.30	1700	410	--	--	4800
APR.							
14...	1145	.90	1400	350	--	--	4000
MAY							
06...	1245	1.2	1800	400	--	--	5500
JUNE							
18...	1230	.97	1700	410	--	--	4700
JULY							
30...	1200	.90	1500	420	--	--	5100
SEP.							
11...	1200	.09	1700	440	--	--	5300

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.						
08...	35000	5500	--	93600	--	23.5
25...	17000	2600	--	47700	--	20.0
NOV.						
06...	36000	5500	5400	91900	7.5	12.0
20...	40000	5600	--	96300	--	10.5
DEC.						
12...	38000	5800	--	91100	--	12.0
JAN.						
09...	38000	5900	--	96300	--	14.0
MAR.						
05...	40000	5900	--	98100	--	18.5
APR.						
14...	31000	4900	--	79800	--	14.5
MAY						
06...	41000	6100	--	105000	--	20.0
JUNE						
18...	43000	5900	--	101000	--	--
JULY						
30...	40000	5500	--	96700	--	30.5
SEP.						
11...	45000	6100	--	104000	--	31.0

07299512 Jonah Creek at weir near Estelline, Tex.--Continued

MONTHLY AND PERIOD MEANS AND LOADS FOR JUNE 1974 TO SEPTEMBER 1974

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1973.....	--	--	--	--	--	--	--	--	--
NOV. 1973.....	--	--	--	--	--	--	--	--	--
DEC. 1973.....	--	--	--	--	--	--	--	--	--
JAN. 1974.....	--	--	--	--	--	--	--	--	--
FEB. 1974.....	--	--	--	--	--	--	--	--	--
MAR. 1974.....	--	--	--	--	--	--	--	--	--
APR. 1974.....	--	--	--	--	--	--	--	--	--
MAY 1974.....	--	--	--	--	--	--	--	--	--
JUNE 1974.....	12.12	99700	72100	2360	39500	1290	5140	168	
JULY 1974.....	1.17	114000	83600	264	45800	145	5910	19	
AUG. 1974.....	2.26	75200	54400	332	29900	183	3700	23	
SEP. 1974.....	64.55	17500	11300	1980	6480	1130	480	83	
TOTAL	80.10	--	--	4940	--	2750	--	293	
WTD.AVG.	0.66	33000	22800	--	12700	--	1360	--	

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	26.28	62700	43000	3050	24000	1700	2600	184	****
NOV. 1974.....	21.76	86800	62000	3640	34000	2000	4400	259	****
DEC. 1974.....	21.66	93300	67000	3920	37000	2160	4500	263	****
JAN. 1975.....	19.58	97000	70000	3700	36000	2010	5300	280	****
FEB. 1975.....	25.49	102000	74000	5090	41000	2620	4800	330	****
MAR. 1975.....	18.99	96500	70000	3590	34000	1950	5300	272	****
APR. 1975.....	22.6	92500	66000	4030	36000	2200	4900	299	****
MAY 1975.....	59.6	39800	24000	3660	13000	2090	1800	290	****
JUNE 1975.....	151.39	56700	38000	15500	21000	6580	2500	1020	****
JULY 1975.....	43.96	78100	55000	6530	30000	3560	4000	475	****
AUG. 1975.....	36.91	83500	59000	5880	32000	3190	4500	448	****
SEPT 1975.....	32.15	42800	27000	2340	15000	1300	1700	148	****
TOTAL	486.37	**	**	61100	**	33600	**	4270	**
WTD.AVG.	1.32	68300	47000	**	26000	**	3300	**	*****

RED RIVER BASIN

07299512 Jonah Creek at weir near Estelline, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.) WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									80200	116000	116000	102000
2									85700	117000	117000	111000
3									74100	119000	106000	113000
4									71700	119000	102000	113000
5									85700	117000	107000	113000
6									92100	113000	96700	113000
7									90700	115000	104000	113000
8									95500	119000	93700	113000
9									101000	123000	75200	112000
10									107000	123000	78700	111000
11									104000	123000	86300	110000
12									112000	126000	95600	113000
13									119000	129000	100000	115000
14									126000	128000	---	114000
15									124000	124000	---	91300
16									133000	124000	---	52000
17									137000	118000	---	77300
18									124000	123000	---	88800
19									110000	123000	---	95400
20									122000	127000	---	13200
21									125000	123000	---	35000
22									124000	121000	---	45400
23									122000	123000	---	61100
24									119000	124000	---	24700
25									116000	115000	37400	25300
26									110000	92900	56100	50800
27									106000	105000	65300	67800
28									111000	102000	67500	81600
29									113000	98700	70000	89600
30									115000	101000	81000	93600
31									---	116000	93600	---
MONTH									108520	117660	---	82430

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.) WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93600	87800	95800	94900	102000	97300	97200	104000	92400	97600	107000	100000
2	96000	63700	95500	94200	102000	98900	98500	105000	102000	99400	107000	101000
3	97000	92600	95100	94600	103000	102000	99000	104000	108000	99500	107000	103000
4	97900	94200	94800	95200	102000	99200	99400	105000	114000	70600	107000	104000
5	97900	93600	94400	95100	103000	98100	99500	105000	115000	53000	108000	101000
6	98900	91900	94100	94800	103000	98800	99100	105000	115000	62700	109000	102000
7	96000	88200	93700	95300	104000	99400	86000	111000	119000	84600	109000	101000
8	93600	87400	92900	94900	103000	100000	60500	110000	118000	91200	109000	102000
9	93900	63800	92600	96300	105000	99100	76200	108000	117000	94500	110000	103000
10	95000	69700	92500	95300	103000	103000	82200	108000	74300	85300	110000	104000
11	97300	80500	91700	95300	103000	104000	83900	104000	40000	80700	110000	32700
12	94000	86900	91100	94500	103000	102000	86400	106000	59700	81800	111000	20100
13	27700	90500	92000	93700	102000	103000	74100	110000	67900	85200	112000	23300
14	53400	92800	92100	93400	104000	103000	79800	156000	81000	90400	72200	29600
15	67000	93900	92200	92700	105000	100000	89100	149000	92400	94700	61300	32100
16	76400	93800	92700	92800	107000	96300	92300	118000	95000	97400	68900	35600
17	81300	93900	92400	93200	105000	96900	95300	108000	98600	99400	86500	39900
18	82500	94000	92000	93200	103000	95400	101000	108000	101000	100000	91400	45200
19	80600	94600	92300	97300	101000	95600	103000	97300	107000	102000	96400	54500
20	83400	96300	92300	98100	99600	96500	101000	105000	107000	103000	98100	61100
21	82100	96800	92200	99100	99900	96800	102000	110000	107000	103000	97200	42300
22	63300	96200	92600	98400	99600	96600	100000	101000	15300	104000	97100	48100
23	75500	96700	92900	99700	94500	97400	98100	96900	40600	64600	97000	54200
24	35200	98700	93400	99200	93800	97400	99600	102000	32500	60100	96200	59600
25	47700	97500	94200	99600	95000	99500	102000	103000	52900	73800	97000	65500
26	69400	97000	94700	99900	95900	99600	102000	106000	75200	78400	98900	64100
27	91100	96700	94100	100000	97000	81200	101000	106000	84400	83500	95200	71200
28	83400	96600	94300	101000	96600	94300	105000	103000	91000	88500	97600	79900
29	89900	97400	94500	101000	---	92400	105000	11300	95000	93800	99900	88500
30	64800	96600	95000	102000	---	92600	104000	19400	96700	96700	98800	95000
31	75200	---	94600	102000	---	95500	---	60000	---	105000	99000	---
MONTH	80030	90680	93380	96670	101250	97800	94070	101450	87160	87880	98860	68780

07299514 Jonah Creek below weir near Estelline, Tex.

LOCATION.--Lat 34°33'33", Long 100°20'21", Childress County, on right bank, 2 miles (3 km) downstream from weir, 2 miles (3 km) upstream from mouth, and 6 miles (10 km) northeast of Estelline.

DRAINAGE AREA.--66.6 mi² (172.5 km²).

PERIOD OF RECORD.--Discharge: May 1974 to current year.

Water quality: Chemical analyses: May 1974 to current year.

GAGE.--Water-stage and specific-conductance recorders. Altitude of gage is 1,680 ft (512 m), from topographic map.

EXTREMES.--Discharge: May to September 1974: Maximum discharge during period, 1,200 ft³/s (34.0 m³/s) May 25 (gage height, 4.80 ft or 1.463 m, from floodmark); minimum, 0.53 ft³/s (0.015 m³/s) Aug. 3.

Water year 1975: Maximum discharge, 445 ft³/s (12.6 m³/s) Aug. 14 (gage height, 3.48 ft or 1.061 m); minimum, 0.37 ft³/s (0.010 m³/s) Sept. 10.

Water quality: Current year: Maximum daily specific conductance, 87,100 micromhos Aug. 10; minimum daily, 11,800 micromhos June 22.

Period of record: Maximum daily specific conductance, 87,100 micromhos Aug. 10, 1975; minimum daily, 11,800 micromhos June 22, 1975.

REMARKS.--Discharge records poor prior to May 6, 1975, and good thereafter. For statement regarding regulation and diversion, see station 07299512. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	1.0	1.0	.70	.86
2								---	1.3	.94	.64	.66
3								---	2.0	.87	.61	.75
4								---	1.6	.76	.69	.85
5								---	1.4	.80	.76	1.0
6								---	1.4	.82	.70	.92
7								---	1.5	.76	.80	.94
8								---	1.4	.76	.87	.97
9								---	1.2	.74	.77	1.0
10								---	1.1	.76	.77	.89
11								---	1.1	.78	.87	1.0
12								---	1.0	.79	.83	.78
13								---	1.0	.75	1.0	.79
14								---	1.1	.72	.99	.98
15								---	1.1	.71	.96	2.1
16								---	.96	.74	.93	1.8
17								---	1.1	.75	.92	1.1
18								---	1.0	.79	.92	1.1
19								---	1.2	.75	.95	.64
20								---	1.1	.75	1.1	3.3
21								---	1.1	.73	.99	1.2
22								---	.92	.72	.89	.91
23								1.3	.80	.60	.83	1.2
24								5.0	.79	.65	.93	10
25								400	.81	.74	2.8	1.9
26								15	.82	1.2	1.6	1.1
27								2.0	.90	.70	1.1	.89
28								1.4	.86	.70	.86	.62
29								1.3	.86	.63	.79	.80
30								1.2	.85	.65	.79	.90
31								1.7	---	.68	.83	---
TOTAL								-	33.27	23.74	29.19	105.31
MEAN								-	1.11	.77	.94	3.51
MAX								-	2.0	1.2	2.8	.64
MIN								-	.79	.60	.61	.62
AC-FT								-	.66	.47	.58	209

WTR YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 500 FT³/S).--May 25 (about 0630) 1,200 ft³/s (4.80 ft, from floodmark).

NOTE.--No gage-height record May 23 to June 4.

07299514 Jonah Creek below weir near Estelline, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	1.4	.98	1.0	2.3	.84	.80	.70	2.1	1.9	1.2	.85
2	.99	2.7	1.0	2.0	3.0	.80	.59	1.0	2.1	1.7	1.2	.84
3	1.0	1.5	1.0	1.3	2.0	.90	.93	.80	2.1	4.2	1.1	.77
4	1.0	1.5	1.0	1.3	1.9	.90	.94	.70	2.1	6.9	1.1	.79
5	1.0	1.5	1.1	1.2	1.4	.80	1.0	.70	1.9	3.0	1.0	.69
6	.95	1.5	1.2	1.2	1.3	.70	1.1	.70	2.2	1.6	.92	.83
7	.99	1.8	1.1	1.1	1.2	.60	2.7	.70	1.9	1.4	.96	.88
8	1.0	1.4	1.0	1.0	1.1	.60	1.3	.84	1.9	1.5	.92	.89
9	.99	2.9	1.0	.95	1.0	1.0	.88	.85	1.7	1.4	.92	.66
10	.97	1.4	1.2	.94	1.1	.60	.97	.85	97	16	.85	.44
11	.93	1.2	1.5	.92	1.0	.60	.99	.91	3.1	1.6	.98	3.9
12	1.3	1.0	1.4	.92	.94	.80	1.0	1.0	2.1	1.4	1.0	16
13	9.0	1.2	1.3	.94	.89	.70	2.4	.89	2.1	1.3	.93	3.5
14	2.0	1.1	1.2	1.0	.90	.59	1.5	.98	2.3	1.8	4.3	1.2
15	1.4	1.1	1.2	1.0	.90	3.7	1.0	1.1	2.0	1.3	7.4	1.0
16	1.2	1.1	1.3	1.0	2.8	1.8	1.1	1.0	2.3	1.4	.98	.92
17	1.1	1.1	1.2	1.0	2.6	.94	1.1	1.0	2.4	1.4	.90	.88
18	1.1	1.1	1.2	1.0	3.0	1.1	.96	1.1	2.7	1.5	.78	.72
19	1.1	1.1	1.1	1.0	1.5	1.1	1.0	2.1	2.3	1.3	.85	.71
20	1.1	.85	1.1	1.0	1.5	.76	1.1	1.3	2.0	1.4	.91	.70
21	1.2	.96	1.1	1.0	1.5	.76	1.2	1.9	2.0	1.2	.89	1.9
22	3.6	1.0	1.1	1.0	2.0	.78	1.3	2.1	70	1.2	.95	.88
23	1.8	1.1	1.0	1.0	1.5	.72	1.3	1.5	3.2	28	1.1	.64
24	4.8	.92	1.0	1.0	1.3	.61	1.2	1.5	16	2.6	1.1	.68
25	1.6	.94	1.0	1.0	1.4	.71	1.2	1.3	2.3	1.4	1.0	.69
26	1.6	.94	1.1	.95	1.4	1.1	1.7	1.1	2.1	1.4	1.0	.81
27	1.4	.92	1.1	.92	1.0	2.0	2.0	1.3	1.9	2.9	1.4	.99
28	1.4	.91	1.0	.90	.92	.80	1.0	1.6	2.0	1.3	.98	.89
29	1.6	.90	1.0	1.0	---	.70	.90	64	2.1	1.2	.76	.89
30	2.2	.83	1.2	2.0	---	.98	.80	7.1	2.0	1.3	.83	1.1
31	2.0	---	1.2	1.5	---	.92	---	2.6	---	1.5	.93	---
TOTAL	53.21	37.87	34.88	34.04	43.45	29.91	35.96	105.22	241.9	98.0	78.84	46.64
MEAN	1.72	1.26	1.13	1.10	1.55	.96	1.20	3.39	8.06	3.16	2.54	1.55
MAX	9.0	2.9	1.5	2.0	3.0	3.7	2.7	64	97	28	43	16
MIN	.89	.83	.98	.90	.89	.59	.59	.70	1.7	1.2	.76	.44
AC-FT	106	75	69	68	86	59	71	209	480	194	156	93

CAL YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1975 TOTAL 839.92 MEAN 2.30 MAX 97 MIN .44 AC-FT 1670

PEAK DISCHARGE (BASE, 500 FT³/S).--No peak above base.

NOTE.--No gage-height record Nov. 3-5, Mar. 5-13. Doubtful gage-height record Nov. 26 to Dec. 11, Dec. 19 to Mar. 4, and Apr. 27 to May 5.

RED RIVER BASIN

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07299514 Jonah Creek below weir near Estelline, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG) (MG/L)	BICAR- BONATE (MCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 08...	1530	.95	1500	270	--	--	3700
NOV. 06...	1325	1.5	1500	300	120	0	3800
20...	1530	.93	1500	300	--	--	3800
DEC. 12...	1540	1.3	1200	300	--	--	3700
JAN. 08...	1650	5.7	1500	340	--	--	4200
MAR. 14...	1355	2.2	1600	360	--	--	4100
APR. 15...	1330	1.1	1300	270	--	--	3600
MAY 06...	1130	1.2	1600	340	--	--	4600
JUNE 18...	1020	2.4	1600	370	--	--	4100
JULY 30...	1030	4.1	1400	360	--	--	4300
AUG. 20...	1345	.74	1300	290	--	--	4100
SEP. 11...	1100	4.1	1400	300	--	--	4000

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCTI- VANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 08...	24000	4900	--	64500	--	25.5
NOV. 06...	27000	5000	4900	72000	7.7	19.0
20...	26000	5000	--	70800	--	20.0
DEC. 12...	25000	4200	--	66100	--	16.0
JAN. 08...	27000	5100	--	73700	--	10.0
MAR. 14...	24000	5500	--	76600	--	17.0
APR. 15...	21000	4400	--	59400	--	25.0
MAY 06...	30000	5400	--	75100	--	20.0
JUNE 18...	30000	5500	--	77600	--	--
JULY 30...	29000	5000	--	73400	--	25.0
AUG. 20...	23000	4400	--	61200	--	29.0
SEP. 11...	22000	4700	--	59400	--	24.0

RED RIVER BASIN

07299514 Jonah Creek below weir near Estelline, Tex.--Continued

MONTHLY AND PERIOD MEANS AND LOADS FOR JUNE 1974 TO SEPTEMBER 1974

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1973.....	--	--	--	--	--	--	--	--	--
NOV. 1973.....	--	--	--	--	--	--	--	--	--
DEC. 1973.....	--	--	--	--	--	--	--	--	--
JAN. 1974.....	--	--	--	--	--	--	--	--	--
FEB. 1974.....	--	--	--	--	--	--	--	--	--
MAR. 1974.....	--	--	--	--	--	--	--	--	--
APR. 1974.....	--	--	--	--	--	--	--	--	--
MAY 1974.....	--	--	--	--	--	--	--	--	--
JUNE 1974.....	33.27	60200	41400	3720	21900	1970	3760	337	
JULY 1974.....	23.74	61700	43800	2810	23300	1500	3840	246	
AUG. 1974.....	29.19	63600	44100	3480	23500	1850	3850	303	
SEP. 1974.....	105.31	32800	19400	5520	9110	2590	2930	832	
TOTAL	191.51	--	--	15500	--	7910	--	1720	
WTD.AVG.	1.57	45800	30000	--	15300	--	3330	--	

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	53.21	60000	41000	5890	22000	3160	3400	488	****
NOV. 1974.....	37.87	71700	51000	5210	26000	2860	3600	368	****
DEC. 1974.....	34.88	68600	48000	4520	26000	2450	3800	358	****
JAN. 1975.....	34.04	75100	53000	4870	29000	2670	3900	358	****
FEB. 1975.....	43.45	69500	49000	5750	26000	3050	4400	516	****
MAR. 1975.....	29.91	72200	51000	4120	28000	2260	3600	291	****
APR. 1975.....	35.96	69500	49000	4760	26000	2520	4400	427	****
MAY 1975.....	105.22	40000	25000	7100	12000	3410	3500	994	****
JUNE 1975.....	241.9	26600	14000	9140	6000	3920	2700	1760	****
JULY 1975.....	98	53500	36000	9530	19000	5030	3300	873	****
AUG. 1975.....	78.84	40000	25000	5320	12000	2550	3500	745	****
SEPT 1975.....	46.64	41200	26000	3270	13000	1640	3100	390	****
TOTAL	839.92	**	**	69500	**	35500	**	7570	**
WTD.AVG.	2.3	47000	31000	**	16000	**	3300	**	*****

RED RIVER BASIN

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07299514 Jonah Creek below weir near Estelline, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									56900	64100	65800	60900
2									56000	68400	65200	62300
3									55100	62000	63700	64700
4									58200	61600	63000	65100
5									58900	61800	63100	63700
6									59300	61800	62100	62300
7									59400	62300	61800	62100
8									59700	63100	62300	63000
9									59900	62900	62100	63400
10									60200	62200	61800	62700
11									60300	61700	62200	63200
12									60700	61700	61600	63900
13									60900	61800	60800	64600
14									61300	61800	61000	65000
15									61400	61800	61300	68400
16									61700	61700	61600	69300
17									62000	61300	62100	67600
18									62200	59700	62800	66800
19									64800	58800	62600	22500
20									63300	58200	61800	25400
21									63100	57500	62200	38700
22									62700	57000	61000	42300
23									62200	56500	60400	40700
24									61800	56100	59200	28900
25									61600	56900	73300	36400
26									61100	74900	69200	44200
27									60600	75700	63700	53600
28									60400	74100	61600	60100
29									60200	70200	62200	58800
30									60000	68100	62700	57600
31									---	66900	62100	---
MONTH									60530	62990	62780	55610

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65600	70500	68800	71700	65900	79500	73000	74600	48000	74300	83600	63300
2	64300	73100	68500	73200	65200	79800	71400	74900	53000	75200	85900	63700
3	63700	72900	68400	72800	61500	78900	71500	76800	58800	79100	84100	64400
4	64200	71800	68100	72400	60100	79000	71800	76200	63100	80800	84500	64100
5	64800	72200	67900	72600	59900	79200	72200	76900	68300	71400	84800	64700
6	65400	72600	68300	72700	60600	78600	73300	75100	78600	69800	85200	64000
7	65100	72400	67700	73000	63200	78200	74100	79400	81800	70700	85700	63500
8	64500	73000	67300	73700	69800	77900	58200	82100	82100	71500	84800	63400
9	64900	71600	67100	73500	71800	78500	58600	79400	83400	71900	86400	64200
10	65600	72100	66900	73900	72700	81400	57800	78400	12100	51300	87100	65300
11	65900	72000	67300	74400	74500	80000	60900	80700	76200	65000	86600	59400
12	64100	71800	66100	74600	76500	78800	63600	76500	74700	66000	85900	23900
13	55200	72300	66000	75000	75700	78200	65200	75700	73700	67500	86300	27800
14	54800	72000	66400	75100	75700	76800	51700	81800	73600	69700	21100	30300
15	55300	71800	66900	75600	75900	67700	56600	76600	74100	71300	30400	32500
16	55700	71500	67300	75400	77300	46100	62400	74700	75100	71300	36600	34300
17	56900	71200	67200	75800	68400	62000	66500	73700	76800	74500	43000	36500
18	57300	71100	68000	76000	67500	65800	70900	75600	77600	77800	60100	39000
19	58800	70900	68400	76200	67000	69700	71900	85800	79100	79100	62300	41800
20	59600	70800	68600	76300	64800	72300	71200	70700	78800	80300	61200	45100
21	59500	70700	69100	76500	69300	79600	73500	70500	81600	80600	61500	40700
22	57700	71100	69300	76900	73200	81300	76300	77400	11800	81100	60900	43400
23	58300	72000	69100	76900	74100	81700	77200	72200	34800	20700	60700	47600
24	56100	71600	70200	77100	73700	82400	76800	67100	26800	31700	61300	50700
25	57900	71400	70700	77600	73800	82900	75000	67400	40500	45800	61700	53900
26	59100	71500	71500	78700	76600	76600	73700	68500	50000	56100	62100	56100
27	60800	70700	71800	78700	77500	67400	76100	69000	57600	67700	61600	57300
28	63200	70100	71100	78400	77900	60300	80000	75000	64600	71900	62000	60400
29	65500	69300	71400	78000	---	63600	75600	25300	69200	72700	62400	62600
30	68200	69000	72700	77300	---	72200	75300	17000	72900	73400	62900	64800
31	69900	---	71900	72100	---	72100	---	36000	---	83000	62500	---
MONTH	61550	71500	68710	75230	70360	74470	69410	70680	63290	68490	67910	51620

RED RIVER BASIN

07299516 Jonah Creek at mouth near Estelline, Tex.
(Low-flow partial-record station)

LOCATION.--Lat 34°33'55", long 100°18'40", Childress County, at mouth 7.5 miles (12.1 km) northeast of Estelline.

DRAINAGE AREA.--76 mi² (197 km²).

PERIOD OF RECORD.--Periodic measurements of discharge and water-quality data: June 1974 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CHL- ORIDE (MG/L)	DIS- SOLVED CHL- ORIDE (MG/L)	DIS- SOLVED CHL- ORIDE (MG/L)	DIS- SOLVED CHL- ORIDE (MG/L)	DIS- SOLVED CHL- ORIDE (MG/L)	DIS- SOLVED CHL- ORIDE (MG/L)	DIS- SOLVED CHL- ORIDE (MG/L)	TEMPER- ATURE (DEG C)
OCT.									
1730	2.0	1400	290	3400	23000	4700	66200	26.0	
NOV.									
1550	2.8	1400	290	3800	25000	4700	69300	17.0	
1400	1.4	1600	260	4000	29000	5100	71000	14.0	
DEC.									
1145	2.5	1200	310	3700	26000	4300	68300	10.0	
JAN.									
1500	1.5	1500	340	4100	26000	5100	72200	14.0	
FEB.									
2200	2.1	--	--	--	--	--	--	--	
MAR.									
1200	2.1	--	--	--	--	--	--	--	
APR.									
1800	2.81	1700	410	4900	34000	5900	94100	21.0	
MAY									
2500	2.4	--	--	--	--	--	--	--	
JUN.									
1515	2.3	1700	310	3900	25000	5500	65800	29.0	
JULY									
1300	2.2	1700	370	4700	29000	5800	77200	16.0	
AUG.									
0525	1.4	1600	360	4300	30000	5500	76700	--	
SEP.									
1650	2.5	1600	330	4200	27000	5400	68200	22.0	
OCT.									
1250	2.0	1400	350	4000	23000	4900	64300	33.0	
NOV.									
1000	1.4	--	--	--	--	--	--	--	

07299530 Salt Creek near Estelline, Tex.

LOCATION.--Lat 34°35'26", long 100°15'08", Childress County, on left bank, 3 miles (5 km) upstream from mouth, and 11.5 miles (18.5 km) northeast of Estelline.

DRAINAGE AREA.--142 mi² (368 km²).

PERIOD OF RECORD.--Discharge: May 1974 to current year.

Water quality: Chemical analyses: June 1974 to current year.

GAGE.--Water-stage and specific-conductance recorders. Altitude of gage is 1,650 ft (503 m), from topographic map.

EXTREMES.--Discharge: May to September 1974: Maximum discharge during period, 1,950 ft³/s (55.2 m³/s) May 25 (gage height, 7.62 ft or 2.323 m), from rating curve extended above 8.0 ft³/s (0.23 m³/s); minimum daily, 0.20 ft³/s (0.006 m³/s) July 30.

Water year 1975: Maximum discharge, 179 ft³/s (5.07 m³/s) June 24 (gage height, 3.76 ft or 1.146 m); minimum daily, 0.34 ft³/s (0.010 m³/s) Mar. 23.

Water quality: Current year: Maximum daily specific conductance, 71,500 micromhos Sept. 24; minimum daily, 11,000 micromhos June 24.

Period of record: Maximum daily specific conductance, 76,400 micromhos Aug. 26, 1974; minimum daily, 11,000 micromhos June 24, 1975.

REMARKS.--Discharge records fair. No diversion above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	1.2	.50	.34	.69
2								---	1.4	.69	.50	.69
3								---	2.0	.50	.69	.50
4								---	2.4	.50	.90	.50
5								---	2.0	.69	.90	.50
6								---	2.0	.90	1.2	.69
7								---	1.4	.90	.69	.69
8								---	1.2	.90	.69	.69
9								---	.50	.90	.69	.69
10								---	.90	.90	.69	.50
11								---	.90	.90	.69	.50
12								---	.90	.90	.69	.50
13								---	1.2	.69	.69	.50
14								---	1.2	.50	.69	.69
15								---	1.2	.69	.69	.90
16								---	1.2	.90	.69	.69
17								---	1.2	.90	.69	.50
18								---	1.2	.69	.69	.34
19								---	1.2	.50	.69	37
20								---	1.2	.34	.69	12
21								---	.90	.50	.69	1.7
22								---	.90	.34	.69	.69
23								---	.90	.34	1.4	.69
24								---	.90	.34	2.0	6.0
25								358	.90	.34	1.4	3.9
26								17	.90	.50	1.4	2.0
27								2.7	.90	.34	28	.90
28								1.7	.90	.34	2.0	.34
29								.34	.69	.34	.90	.34
30								.34	.50	.20	.90	.50
31								1.2	---	.34	.69	---
TOTAL								-	34.79	18.31	54.26	76.82
MEAN								-	1.16	.59	1.75	2.56
MAX								-	2.4	.90	.28	.37
MIN								-	.50	.20	.34	.34
AC-FT								-	.69	.36	108	152

WTR YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 1,000 FT³/S).--May 25 (0400) 1,950 ft³/s (7.62 ft).

RED RIVER BASIN

07299530 Salt Creek near Estelline, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.90	1.4	1.2	2.0	.69	1.2	1.9	1.0	.69	1.2	.59
2	.50	1.7	1.4	1.7	2.0	.90	.69	1.8	.67	.69	1.1	.68
3	.69	1.2	1.4	1.7	2.4	.69	.90	1.6	.64	1.4	1.1	.73
4	.69	.90	1.4	1.4	2.0	.90	1.2	1.8	.65	2.0	.91	.73
5	.90	.90	1.7	.90	1.7	.90	1.7	1.9	.66	1.7	1.1	.77
6	.69	.90	2.0	.90	1.2	.50	2.0	1.5	.65	1.2	1.1	.69
7	.69	1.2	2.0	.90	1.2	.50	2.4	1.6	.43	.90	1.1	.74
8	.90	1.2	2.0	1.2	1.2	.69	8.1	1.7	.36	.90	1.2	.82
9	.90	1.7	2.0	1.2	.90	.90	6.4	1.9	.41	.90	1.2	.91
10	.90	1.7	2.0	.69	.90	.69	2.0	1.9	20	16	1.2	.81
11	.90	1.2	1.7	1.2	.69	.90	2.0	2.1	2.0	7.5	1.1	1.2
12	.90	1.2	1.4	1.2	.90	.90	1.7	2.6	.80	1.4	1.2	1.2
13	3.5	1.2	1.2	1.2	.69	.90	2.4	2.3	.69	.90	1.1	1.8
14	2.0	1.2	.90	1.2	.69	1.2	2.4	2.0	.60	1.2	2.0	1.4
15	1.2	1.2	.69	1.4	.69	1.7	1.4	2.1	.64	.90	2.2	1.2
16	.90	1.2	.90	1.4	1.7	2.4	1.7	2.2	.63	1.2	1.6	1.4
17	.69	1.4	1.2	1.4	1.7	2.0	1.4	2.4	.75	1.3	1.4	1.4
18	.69	1.4	.90	1.4	1.4	1.4	.81	1.6	.97	1.4	1.3	.90
19	.69	1.4	1.2	1.2	1.4	1.2	1.3	1.7	.99	1.4	1.4	.69
20	.69	1.2	1.2	1.4	1.2	1.2	1.8	2.3	.72	1.2	1.2	.69
21	1.2	1.4	1.2	1.4	.90	.69	1.8	2.3	1.1	1.1	.74	1.2
22	1.4	1.2	1.2	1.2	.90	.90	1.9	3.3	21	1.0	.82	.90
23	1.7	1.2	1.2	.90	.69	.34	1.6	2.4	24	1.7	.85	.69
24	2.4	1.2	1.2	1.2	.69	.69	1.3	2.3	47	7.1	.75	.69
25	2.0	1.2	.90	1.2	.90	1.2	1.5	2.4	2.7	2.3	.73	.69
26	1.7	1.2	1.2	1.4	.69	2.4	2.2	2.3	1.4	1.5	.88	.90
27	1.4	1.4	1.2	1.2	.69	1.4	1.7	2.5	1.2	1.4	1.4	1.2
28	1.4	1.4	1.2	1.2	.69	.90	1.1	3.3	.90	1.8	.89	.90
29	1.2	1.2	1.2	1.2	---	1.2	1.3	19	.69	1.0	.74	.90
30	1.2	1.2	1.2	1.4	---	1.2	1.4	9.5	.90	1.1	.76	.90
31	1.4	---	1.2	2.0	---	.90	---	1.7	---	1.2	.87	---
TOTAL	36.52	37.50	41.49	39.09	32.71	32.98	59.30	89.9	135.15	65.98	35.14	28.32
MEAN	1.18	1.25	1.34	1.26	1.17	1.06	1.98	2.90	4.51	2.13	1.13	.94
MAX	3.5	1.7	2.0	2.0	2.4	2.4	8.1	19	.47	.16	2.2	1.8
MIN	.50	.90	.69	.69	.69	.34	.69	1.5	.36	.69	.73	.59
AC-FT	72	74	82	78	65	65	118	178	268	131	70	56

CAL YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1975 TOTAL 634.08 MEAN 1.74 MAX 47 MIN .34 AC-FT 1,260

PEAK DISCHARGE (BASE, 1,000 FT³/S).--No peak above base.

07299530 Salt Creek near Estelline, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.									
09...	0910	.91	1400	300	3500	21000	4700	60700	17.0
30...	0945	1.3	1300	270	3300	20000	4400	55900	20.0
NOV.									
20...	0930	1.0	1400	260	3500	22000	4600	58600	10.0
DEC.									
12...	1000	1.6	1200	260	3200	18000	4100	50200	6.0
JAN.									
09...	1250	1.9	1400	310	3800	22000	4800	61800	15.0
MAR.									
13...	1400	1.0	1400	310	3300	20000	4800	53900	13.0
APR.									
15...	1050	1.4	1200	260	3400	16000	4100	47300	16.5
MAY									
06...	1500	1.5	1500	330	4200	23000	5100	65200	24.0
JUNE									
18...	1430	4.7	1500	330	4000	24000	5100	65700	--
JULY									
30...	1300	6.5	1300	320	3700	22000	4600	59400	30.0
AUG.									
20...	1545	.96	1500	300	3400	26000	5000	65600	34.0
SEPT.									
11...	1045	8.3	1400	350	4000	26000	4900	60300	25.0

RED RIVER BASIN

07299530 Salt Creek near Estelline, Tex.--Continued

MONTHLY AND PERIOD MEANS AND LOADS FOR JUNE 1974 TO SEPTEMBER 1974

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1973.....	--	--	--	--	--	--	--	--	--
NOV. 1973.....	--	--	--	--	--	--	--	--	--
DEC. 1973.....	--	--	--	--	--	--	--	--	--
JAN. 1974.....	--	--	--	--	--	--	--	--	--
FEB. 1974.....	--	--	--	--	--	--	--	--	--
MAR. 1974.....	--	--	--	--	--	--	--	--	--
APR. 1974.....	--	--	--	--	--	--	--	--	--
MAY 1974.....	--	--	--	--	--	--	--	--	--
JUNE 1974.....	34.79	58700	39900	3750	21300	2000	3520	331	
JULY 1974.....	18.31	68200	47100	2330	25200	1250	4100	203	
AUG. 1974.....	54.26	46600	31600	4640	16800	2470	2880	422	
SEP. 1974.....	76.82	39500	26300	5450	13900	2880	2460	510	
TOTAL	184.18	--	--	16200	--	8600	--	1470	
WTD. AVG.	1.51	48100	32500	--	17300	--	2950	--	

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	36.52	57000	39000	3850	21000	2070	3300	325	****
NOV. 1974.....	37.5	56000	38000	3850	20000	2020	3700	375	****
DEC. 1974.....	41.49	52600	35000	3920	19000	2130	2800	314	****
JAN. 1975.....	39.09	61000	42000	4430	22000	2320	4100	433	****
FEB. 1975.....	32.71	59400	40000	3530	21000	1850	3900	344	****
MAR. 1975.....	32.98	58300	40000	3560	21000	1870	3900	347	****
APR. 1975.....	59.3	55500	38000	6080	20000	3200	3700	592	****
MAY 1975.....	89.9	47900	32000	7770	17000	4130	2900	704	****
JUNE 1975.....	135.15	20000	13000	4740	6600	2410	1500	547	****
JULY 1975.....	65.98	43700	29000	5170	15000	2670	3100	552	****
AUG. 1975.....	35.14	64200	44000	4170	23000	2180	4400	417	****
SEPT 1975.....	28.32	68200	47000	3590	25000	1910	4300	329	****
TOTAL	634.08	**	**	54700	**	28800	**	5280	**
WTD.AVG.	1.74	47300	32000	**	17000	**	3100	**	*****

RED RIVER BASIN

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07299530 Salt Creek near Estelline, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.) • WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									54500	66300	68200	69000
2									53000	65800	68100	70300
3									52300	66100	67800	72000
4									50600	66500	67700	71500
5									51200	66400	67800	71200
6									52400	66000	67800	71500
7									53800	66300	67600	71800
8									55300	66800	68500	72200
9									58700	67200	69000	72600
10									58100	67500	69200	72700
11									60600	67900	69800	72700
12									63200	68400	69800	73000
13									60900	68800	70300	73100
14									61200	69100	71000	73100
15									61900	69500	71400	73200
16									61600	70000	71800	73200
17									62000	70400	72500	73300
18									62100	70900	73100	73200
19									62400	70300	73700	29300
20									63300	70300	74500	31500
21									66100	69800	75500	34500
22									65200	69500	75400	36000
23									65200	69400	75800	42200
24									61600	69700	76000	49200
25									60800	69300	76100	47600
26									63500	69800	76400	46700
27									65100	68800	26900	46800
28									65400	68600	35100	50700
29									65600	68500	46900	56300
30									65900	68200	58200	57500
31									---	68200	66000	---
MONTH									60120	68400	67350	60930

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C.) • WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57900	57100	52300	60400	57100	61000	64800	60200	27300	43700	59300	66000
2	58500	53500	51700	60900	58000	61500	65700	61700	31400	45400	58800	66700
3	58200	54600	51000	60600	56300	59800	65000	62900	42700	42700	59700	67700
4	58900	55400	50600	62700	57900	57000	64300	63200	45100	41500	61300	68100
5	59300	56000	49700	63100	58400	59200	60100	64000	47400	43300	62000	68300
6	59900	53500	48200	63700	58700	59300	59400	65200	49800	46800	62700	68100
7	60900	53000	48000	64000	59200	60300	58900	64800	52100	50100	63000	68000
8	60500	54800	47600	62300	59700	58300	47600	64500	54400	53900	63100	68300
9	60700	56100	47400	61800	60200	57800	47900	65300	56800	56800	63700	68700
10	65400	58400	48200	64100	60900	56100	55200	64900	24000	22900	63600	69100
11	66500	59300	49900	64500	61300	56800	55500	63700	25300	30300	63700	68300
12	66600	59200	50200	65600	61500	55500	57200	62800	31100	40700	64100	67600
13	54100	59800	51000	62700	62500	53900	54800	63600	36800	53600	64300	66200
14	45300	58500	52400	62500	60900	54500	55100	64500	42600	50200	63200	65200
15	48600	57900	53800	61100	61900	53600	56000	64000	48400	57300	62800	65600
16	53600	58700	53600	60500	58100	52100	55400	63700	54200	60100	63400	66300
17	57400	57700	52900	59900	61200	52200	56200	62800	59900	61400	63900	64900
18	59100	58100	54200	59100	64300	53700	57500	64000	65700	62600	64500	68000
19	60200	58200	53700	59300	65000	55200	57100	63600	67300	62800	65000	69000
20	60800	58600	54200	58400	63200	59400	56000	60500	68000	63400	65600	69800
21	61100	57300	54900	57800	59800	60200	56700	61100	65200	64700	67400	70900
22	61400	56500	55200	57100	57200	59800	56400	58800	17500	65500	68100	70500
23	61600	55700	56000	61200	53600	61300	57900	60200	15600	62300	68400	70100
24	60200	54800	56400	60800	54300	63800	59200	61300	11000	51900	68700	71500
25	56000	54100	57800	60700	59400	64300	59000	61000	20300	52400	68900	71000
26	52000	53200	57300	60200	58700	61100	57300	61800	29600	54800	69200	70100
27	51900	52400	57800	61100	58800	62400	58800	60900	32400	56500	68300	69700
28	53100	52100	58400	61600	59900	62900	60200	58300	38700	55200	66300	69700
29	54200	53600	58800	61400	---	63300	60000	19100	42300	59800	65800	69800
30	55900	52900	59400	60800	---	64700	60700	19700	41500	59400	65900	70500
31	56400	---	59900	57400	---	65600	---	23500	---	59700	66000	---
MONTH	57940	56030	53310	61200	59570	58900	57860	58570	41480	52640	64540	68460

RED RIVER BASIN

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

LOCATION.--Lat 34°34'09", long 100°11'37", Childress County, on left bank at downstream side of bridge on U.S. Highways 62 and 83, 3.1 miles (5.0 km) downstream from Salt Creek, 10.0 miles (16.1 km) north of Childress, and at mile 1.061 (1.707 km).

DRAINAGE AREA.--7,725 mi² (20,008 km²), of which 4,769 mi² (12,352 km²) is probably noncontributing.

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

Water quality: Chemical analyses: July 1968 to current year. Water temperatures: July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,628.4 ft (496.34 m) above mean sea level, from highway bridge plans.

AVERAGE DISCHARGE.--10 years, 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 6,030 ft³/s (171 m³/s) June 22 (gage height, 8.98 ft or 2.737 m); no flow June 19, July 22, 23.

Period of record: Maximum discharge, 58,800 ft³/s (1,670 m³/s) June 26, 1965 (gage height, 12.0 ft or 3.66 m), from rating curve extended above 33,000 ft³/s (935 m³/s); no flow at times.

Historic: Maximum stage since at least 1899, 16.9 ft (5.15 m) in May or June 1957, from information by local residents and State Highway Department.

Water quality: Current year: Maximum daily specific conductance, 84,900 micromhos May 20, 21, 26; minimum daily, 7,300 micromhos July 24. Maximum observed water temperature, 33.0°C Aug. 17; minimum, freezing point on many days during winter months.

Period of record: Maximum daily specific conductance, 98,100 micromhos June 18, July 28, and Aug. 9, 1970; minimum daily, 3,000 micromhos Aug. 13, 1971. Maximum water temperatures, 38.0°C Aug. 20, 1969, June 19, 21, 22, 1974; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records poor. Many small diversions above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	201	1.0	41	97	14	1.6	1.0	150	.74	.43	.02
2	6.8	107	1.4	54	90	12	1.0	.78	88	.38	.10	.02
3	2.9	59	1.4	55	176	10	1.0	.43	24	.71	.01	.03
4	.95	83	2.6	44	162	9.0	1.6	.24	4.8	27	.01	.04
5	.27	35	4.5	36	203	3.7	1.6	1.9	3.8	279	.01	.07
6	.86	19	4.3	30	103	2.4	1.9	1.0	9.0	229	.01	.10
7	2.2	30	3.5	28	64	2.4	143	1.0	.43	92	.01	.13
8	3.6	57	1.8	24	56	3.0	20	1.5	.78	179	.01	.13
9	4.4	143	.94	19	38	3.7	39	2.0	.30	140	.01	.18
10	1.1	114	6.9	14	37	4.5	58	2.5	736	685	.01	.34
11	.41	100	32	10	25	5.5	68	7.0	234	446	.01	.39
12	2.4	70	23	6.3	14	3.0	68	3.3	138	257	.01	702
13	333	45	17	9.0	10	1.3	80	4.8	76	100	.01	533
14	527	33	10	12	6.6	1.0	86	7.2	20	72	51	296
15	313	25	7.4	16	5.5	1.9	36	5.3	.25	23	397	157
16	107	23	5.9	19	4.5	3.7	9.0	3.3	4.7	1.3	397	92
17	52	22	4.7	19	5.5	4.5	3.7	2.6	9.8	.09	335	55
18	40	21	4.4	18	6.0	5.5	1.9	8.3	.01	.10	197	21
19	27	15	3.9	13	9.0	1.6	1.0	30	.01	.06	87	4.5
20	15	11	3.8	11	14	.18	.60	1.5	.06	.04	10	3.0
21	6.7	8.0	3.4	5.1	10	.14	.43	1.0	14	.01	5.0	129
22	48	8.8	3.6	.58	9.0	.24	.24	55	1,200	.01	1.0	107
23	105	4.0	3.7	.18	10	.78	.78	39	254	25	.10	45
24	302	1.2	2.6	.76	14	2.9	5.5	5.5	907	1,220	.05	16
25	339	.91	3.0	.97	10	5.5	5.5	2.5	351	379	.02	6.6
26	218	1.1	6.9	.42	14	3.3	4.5	2.7	176	311	.01	3.4
27	100	.86	10	.44	20	7.7	5.5	1.9	88	210	120	2.7
28	93	.86	12	.21	12	4.2	2.4	26	38	162	69	2.4
29	57	.42	11	.13	-----	3.0	1.0	715	17	28	5.7	2.0
30	150	.47	21	37	-----	1.9	1.0	1,230	4.3	3.7	.53	2.2
31	194	-----	42	77	-----	3.0	-----	397	-----	.43	.11	-----
TOTAL	3,069.59	1,239.62	259.64	601.09	1,225.1	125.54	649.75	2,561.25	4,549.24	4,871.57	1,676.16	2,219.86
MEAN	99.0	41.3	8.38	19.4	43.8	4.05	21.7	82.6	152	157	54.1	74.0
MAX	527	201	42	77	203	14	143	1,230	1,200	1,220	397	702
MIN	.27	.42	.94	.13	4.5	.14	.24	.24	.01	.01	.01	.02
AC-FT	6,090	2,460	515	1,190	2,430	249	1,290	5,080	9,020	9,660	3,320	4,400

CAL YR 1974 TOTAL 47,586.87 MEAN 130 MAX 13,100 MIN .04 AC-FT 94,390
WTR YR 1975 TOTAL 23,048.41 MEAN 63.1 MAX 1,230 MIN .01 AC-FT 45,720

PEAK DISCHARGE (BASE, 7,000 FT³/S).--No peak above base.

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 29...	1555	72	820	160	1900	7800	2700	25200	22.0
NOV. 23...	0745	9.9	1300	190	3400	22000	4000	59700	9.0
DEC. 13...	0915	18	1100	280	3300	17000	3900	48600	18.5
JAN. 21...	1445	3.9	1500	320	4200	25000	5100	71800	9.0
MAR. 06...	1025	2.3	1500	370	3900	26000	5300	69400	19.0
APR. 14...	1525	80	1000	170	2500	10000	3200	32800	25.0
MAY 30...	1105	1380	510	110	1700	4000	1700	14200	15.0
JUNE 06...	1040	2.7	1600	360	4200	29000	5500	74100	29.0
JULY 09...	1725	123	570	100	1400	3700	1800	13400	31.0
AUG. 21...	0820	4.5	1300	260	3600	20000	4300	53800	24.0
SEPT. 11...	1420	.85	1600	410	4300	34000	5700	83200	34.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	3069.59	20000	13000	108000	6200	51400	1900	15700	****
NOV. 1974.....	1239.61	29800	20000	66900	10000	33500	2500	8370	****
DEC. 1974.....	259.64	59800	40000	28000	22000	15400	3000	2100	****
JAN. 1975.....	601.08	51700	34000	55200	18000	29200	3200	5190	****
FEB. 1975.....	1225.1	44100	29000	95900	15000	49600	3100	10300	****
MAR. 1975.....	125.54	65300	44000	14900	24000	8130	3500	1190	****
APR. 1975.....	649.75	45100	30000	52600	16000	28100	2700	4740	****
MAY 1975.....	2561.25	19900	13000	89900	6200	42900	1900	13100	****
JUNE 1975.....	4549.23	12000	7600	93400	3100	38100	1600	19700	****
JULY 1975.....	4871.56	10200	6300	82900	2300	30300	1600	21000	****
AUG. 1975.....	1676.15	18900	12000	54300	5600	25300	1900	8600	****
SEPT 1975.....	2219.86	27000	18000	108000	9000	53900	2200	13200	****
TOTAL	23048.37	**	**	850000	**	406000	**	123000	**
WTD.AVG.	63.15	21000	14000	**	6500	**	2000	**	*****

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41000	18900	74000	44100	51200	58900	71600	77100	20800	30800	49500	79300
2	47100	19400	70200	40200	51900	63800	71500	70800	24500	33800	56400	81200
3	54600	27200	69700	47700	42900	67000	74400	75000	50100	36700	63400	81900
4	63200	23600	70400	43900	38800	68800	76100	76400	70000	22400	70000	81900
5	70300	33300	69300	45500	36400	69200	73400	75800	72200	11800	71200	81000
6	71200	39500	64400	49200	41400	69400	75300	81000	74800	10000	73600	81900
7	67200	46200	68200	50000	45200	73700	30200	82100	79100	11200	75600	81000
8	67400	44200	72600	53600	45800	75300	50400	80800	77300	12100	78100	82300
9	64800	26200	72400	55700	51500	73100	47600	77700	81000	13300	78500	82900
10	68200	27800	67500	58700	47500	73700	44500	77100	11300	7700	78100	81600
11	72300	25200	51400	62800	48900	72600	59300	71400	13500	7880	79300	28200
12	72600	27900	58700	70000	50200	71900	60700	77700	18100	9860	81200	12900
13	23900	34300	48600	74800	54200	69600	40000	82800	25800	11400	82900	20900
14	13500	42200	53200	72300	59100	67100	37200	74800	36400	16400	47700	32500
15	16600	46600	59800	66800	61400	72500	39400	77100	56700	21500	14000	34100
16	17500	46300	62800	61300	47500	44900	46500	79200	65400	28500	13000	40000
17	23000	51800	66500	62800	44600	42800	64000	79200	48500	41400	14700	46900
18	26500	53400	66000	62800	41100	50000	71600	77500	76700	42300	17200	56000
19	29800	46500	66500	67200	43100	56100	71400	64500	78900	47200	25300	66100
20	35200	48600	69400	67500	46400	65500	73200	84900	84700	52300	37900	71600
21	41300	60800	69300	71800	48500	69900	73400	84900	46300	50500	54100	46000
22	34500	63600	70500	71700	48600	73700	73100	58700	9250	63800	65500	50100
23	32300	59700	69600	73200	48800	77500	73600	70600	12500	46700	73400	44500
24	13800	65600	72000	73400	43700	80500	73900	77700	7800	7300	76900	57500
25	15200	68900	71500	72400	47400	75200	73900	78300	9160	10600	81600	64400
26	18100	71100	72000	72400	45100	77500	79100	84900	10800	14700	78100	69900
27	22900	69600	66600	72700	52100	58100	76500	81500	12600	13300	30700	73900
28	29600	71100	59800	72400	56600	59500	75100	61400	15800	11100	43800	74700
29	25200	70300	67400	71900	---	69900	77400	16700	19800	23100	74600	73600
30	21400	72000	61400	44100	---	69900	75700	14600	24500	42500	74600	74700
31	27000	---	53000	49500	---	71300	---	15800	---	42900	79600	---
MONTH	39590	46730	65640	61370	47850	67380	64330	70580	41140	25650	59370	61780

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	15.0	0.0	0.0	8.0	8.0	6.0	11.0	16.0	30.0	24.0	20.0
2	15.0	16.0	0.0	0.0	5.0	15.0	9.0	27.0	20.0	22.0	23.0	21.0
3	14.0	15.0	0.0	3.0	5.0	15.0	2.0	15.0	20.0	20.0	25.0	23.0
4	15.0	8.0	6.0	0.0	6.0	4.0	17.0	17.0	20.0	21.0	20.0	21.0
5	17.0	10.0	8.0	1.0	0.0	21.0	18.0	17.0	20.0	23.0	20.0	27.0
6	13.0	9.0	7.0	0.0	0.0	17.0	15.0	23.0	20.0	23.0	22.0	20.0
7	11.0	10.0	4.0	4.0	5.0	5.0	15.0	10.0	19.0	25.0	21.0	20.0
8	14.0	10.0	0.0	5.0	4.0	5.0	7.0	12.0	25.0	23.0	23.0	19.0
9	15.0	11.0	0.0	9.0	1.0	14.0	7.0	21.0	20.0	24.0	24.0	21.0
10	15.0	13.0	5.0	0.0	0.0	4.0	7.0	18.0	19.0	29.0	21.0	23.0
11	17.0	8.0	4.0	1.0	5.0	4.0	6.0	18.0	16.0	26.0	23.0	24.0
12	18.0	5.0	8.0	0.0	3.0	5.0	5.0	18.0	18.0	23.0	23.0	15.0
13	15.0	8.0	3.0	0.0	5.0	0.0	10.0	17.0	23.0	21.0	23.0	14.0
14	14.0	7.0	5.0	0.0	5.0	5.0	10.0	15.0	20.0	20.0	25.0	14.0
15	11.0	10.0	6.0	0.0	3.0	12.0	12.0	15.0	24.0	21.0	25.0	17.0
16	10.0	5.0	5.0	0.0	5.0	18.0	16.0	15.0	25.0	22.0	25.0	20.0
17	11.0	6.0	4.0	0.0	5.0	7.0	18.0	15.0	23.0	21.0	33.0	20.0
18	12.0	8.0	10.0	1.0	0.0	12.0	17.0	19.0	24.0	25.0	25.0	20.0
19	17.0	10.0	0.0	5.0	0.0	12.0	17.0	17.0	---	23.0	21.0	19.0
20	11.0	5.0	2.0	0.0	10.0	21.0	15.0	17.0	30.0	22.0	25.0	17.0
21	20.0	8.0	2.0	1.0	5.0	18.0	16.0	18.0	25.0	25.0	30.0	15.0
22	18.0	8.0	6.0	0.0	---	10.0	15.0	22.0	20.0	25.0	25.0	13.0
23	15.0	10.0	4.0	2.0	0.0	10.0	14.0	25.0	19.0	27.0	28.0	11.0
24	17.0	5.0	0.0	5.0	0.0	17.0	20.0	20.0	20.0	26.0	25.0	11.0
25	16.0	4.0	0.0	3.0	10.0	5.0	20.0	19.0	22.0	21.0	24.0	20.0
26	15.0	9.0	0.0	4.0	3.0	10.0	20.0	15.0	23.0	21.0	26.0	19.0
27	15.0	6.0	0.0	5.0	1.0	9.0	20.0	20.0	30.0	25.0	24.0	30.0
28	15.0	5.0	4.0	4.0	18.0	4.0	10.0	19.0	25.0	25.0	21.0	14.0
29	14.0	0.0	4.0	5.0	---	9.0	12.0	15.0	22.0	25.0	28.0	28.0
30	19.0	0.0	4.0	5.0	---	12.0	11.0	15.0	23.0	30.0	24.0	28.0
31	16.0	---	4.0	5.0	---	4.0	---	15.0	---	25.0	23.0	---
MONTH	15.0	8.0	3.5	2.0	4.0	10.0	13.0	17.5	22.0	24.0	24.0	19.5

07299570 Red River near Quanah, Tex.

LOCATION.--Lat 34°24'47", long 99°44'03", Hardeman County, on right bank at downstream side of bridge on State Highway 6 (revised), 8 miles (13 km) north of Quanah, 30 miles (48 km) upstream from Salt Fork Red River, and at mile 1,030 (1,657 km).

DRAINAGE AREA.--8,321 mi² (21,551 km²), of which 4,769 mi² (12,352 km²) is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 1,412.97 ft (430.673 m) above mean sea level.

AVERAGE DISCHARGE.--15 years (1960-75), 139 ft³/s (3.936 m³/s), 100,700 acre-ft/yr (124 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 22,800 ft³/s (646 m³/s) June 24 (gage height, 11.35 ft or 3.459 m); minimum, 0.25 ft³/s (0.007 m³/s) May 21.

Period of record: Maximum discharge, 64,000 ft³/s (1,810 m³/s) June 7, 1960 (gage height, 16.00 ft or 4.877 m), from rating curve extended above 32,000 ft³/s (906 m³/s); no flow at times.

Maximum stage since at least 1891 occurred in 1896, about 23 ft (7.0 m); second highest stage occurred June 1, 1957, 21.2 ft (6.46 m), from information by local resident.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	124	3.1	67	153	36	4.7	.75	191	63	17	4.5
2	43	389	4.7	96	184	26	2.0	1.5	48	50	12	4.5
3	30	284	6.6	107	244	21	1.3	2.3	30	41	7.0	4.5
4	22	144	7.9	107	282	21	1.1	8.8	17	64	4.4	25
5	15	110	8.8	93	232	19	1.1	7.3	9.3	392	2.7	14
6	15	92	11	67	190	15	2.2	1.5	5.4	603	2.0	6.1
7	11	74	9.6	56	134	11	33	.87	3.9	235	1.3	4.6
8	10	71	8.8	44	98	7.1	430	1.1	5.4	138	1.1	3.5
9	9.4	94	7.1	34	68	12	108	1.2	2.5	212	1.5	3.6
10	6.7	153	14	25	62	14	43	1.3	122	177	1.4	3.9
11	6.1	126	56	16	48	13	33	1.6	642	439	1.6	20
12	5.1	82	75	9.3	37	17	22	1.7	99	377	1.6	33
13	24	70	73	5.9	29	12	32	1.5	81	218	1.8	240
14	107	53	58	15	22	10	56	3.3	77	136	17	205
15	190	37	42	18	24	12	63	1.7	41	89	365	123
16	99	30	35	18	62	31	45	1.1	20	68	222	87
17	78	29	27	16	128	112	24	.87	11	43	287	59
18	54	29	25	16	185	320	12	.77	6.7	38	123	35
19	39	28	17	17	190	71	1.9	1.9	5.7	38	56	20
20	28	22	16	10	161	40	1.0	1.4	7.5	37	33	16
21	22	17	14	9.7	104	22	.75	4.3	141	21	17	58
22	29	15	13	5.9	124	14	1.5	18	1,410	12	10	30
23	48	12	12	5.9	117	7.9	1.5	15	1,050	13	6.4	33
24	157	6.6	10	6.7	107	4.5	1.2	4.5	5,150	677	5.1	22
25	235	5.3	8.0	7.7	85	3.6	1.1	2.2	4,930	1,060	4.4	15
26	185	5.0	11	7.1	64	3.9	1.2	1.5	504	393	11	11
27	140	4.9	16	6.9	50	16	1.2	2.2	244	221	7.2	9.9
28	120	4.9	18	5.7	42	11	1.3	1.6	162	297	14	9.3
29	104	3.8	21	6.5	-----	8.9	.89	434	117	155	33	8.9
30	101	2.3	32	24	-----	10	.74	1,340	87	59	12	7.9
31	148	-----	61	129	-----	7.0	-----	684	-----	27	5.5	-----
TOTAL	2,140.3	2,117.8	721.6	1,052.3	3,230	928.9	927.68	2,549.76	15,220.4	6,393	1,284.0	1,117.2
MEAN	69.0	70.6	23.3	33.9	115	30.0	30.9	82.3	507	206	41.4	37.2
MAX	235	389	75	129	282	320	430	1,340	5,150	1,060	365	240
MIN	5.1	2.3	3.1	5.7	22	3.6	.74	.75	2.5	12	1.1	3.5
AC-FT	4,250	4,200	1,430	2,090	6,410	1,840	1,840	5,060	30,190	12,680	2,550	2,220
CAL YR 1974	TOTAL 56,119.58 MEAN 154 MAX 9,580 MIN .02 AC-FT 111,300											
WTR YR 1975	TOTAL 37,682.94 MEAN 103 MAX 5,150 MIN .74 AC-FT 74,740											

PEAK DISCHARGE (BASE, 5,000 FT³/S).--June 24 (2100) 22,800 ft³/s (11.35 ft).

RED RIVER BASIN

07299670 Groesbeck Creek at State Highway 6 near Quanah, Tex.
(Formerly published as Groesbeck Creek at State Highway 283 near Quanah)

LOCATION.--Lat 34°21'16", long 99°44'24", Hardeman County, near left bank on downstream side of bridge on State Highway 6 (revised), 2 miles (3 km) downstream from confluence of North and South Groesbeck Creeks, 4 miles (6 km) north of Quanah, and 9 miles (14 km) upstream from mouth.

DRAINAGE AREA.--303 mi² (785 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,425.69 ft (434.550 m) above mean sea level.

AVERAGE DISCHARGE.--13 years (1962-75), 12.9 ft³/s (0.365 m³/s), 9,350 acre-ft/yr (11.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,820 ft³/s (137 m³/s) July 25 (gage height, 19.39 ft or 5.910 m); minimum, 3.6 ft³/s (0.10 m³/s) July 23, 24.

Period of record: Maximum discharge, 13,900 ft³/s (394 m³/s) Sept. 19, 1974 (gage height, 23.56 ft or 7.181 m), from rating curve extended above 6,100 ft³/s (173 m³/s); no flow at times.

Highest stage occurred in June 1891; highest stage since 1891 occurred in September 1929; other large floods are reported to have occurred in 1912, 1936, 1946, 1951, 1955, and 1957, from information by local residents.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	8.5	7.6	7.4	9.5	7.5	6.9	5.7	7.1	6.5	8.4	7.7
2	13	8.8	7.6	7.7	9.8	7.7	6.3	6.0	7.0	6.5	7.9	7.9
3	12	237	7.6	7.2	9.7	7.8	6.0	6.3	6.9	6.7	8.5	8.2
4	9.8	44	7.2	6.3	8.3	8.4	6.5	8.1	6.9	7.7	8.2	7.7
5	9.8	12	7.1	6.5	7.4	8.3	6.9	13	7.0	8.2	7.8	7.7
6	9.0	9.9	7.1	6.6	6.5	8.7	7.6	6.2	7.3	7.1	7.2	8.6
7	7.3	9.3	7.1	6.9	6.4	8.0	8.7	5.2	7.1	6.7	6.8	7.9
8	8.3	9.2	7.1	7.0	6.3	8.0	31	5.6	7.8	6.7	7.1	7.7
9	8.2	9.9	7.1	7.4	6.3	8.2	174	5.7	7.9	6.9	7.2	7.6
10	8.6	9.5	7.0	7.2	6.5	8.0	18	5.7	13	6.6	7.0	7.5
11	8.9	8.6	7.6	6.7	6.7	8.2	7.3	6.0	8.7	6.7	6.9	7.4
12	8.7	8.3	7.2	6.4	6.6	8.2	6.5	6.0	8.0	6.0	7.9	11
13	7.5	8.0	6.7	6.5	6.7	8.0	7.1	6.3	7.9	5.5	8.1	12
14	7.6	7.8	6.8	7.1	6.9	7.8	7.1	6.3	7.6	5.4	12	13
15	9.2	7.4	6.7	7.1	7.1	7.7	7.1	6.4	7.6	5.3	39	8.5
16	8.0	7.5	6.6	6.9	7.0	8.1	6.9	6.5	8.1	5.4	16	8.1
17	8.0	7.4	6.6	7.0	7.0	16	7.5	6.5	8.2	5.0	11	8.0
18	8.0	7.4	6.8	7.5	7.1	152	7.4	6.7	8.5	4.9	9.6	7.7
19	7.6	7.6	6.8	7.2	7.1	12	6.7	6.8	8.2	6.3	8.9	7.2
20	7.8	7.5	6.7	7.6	7.2	7.1	6.7	6.7	8.3	6.1	8.6	6.9
21	7.8	7.5	6.3	7.7	7.0	6.8	6.8	6.7	16	4.6	8.8	7.7
22	8.2	7.7	6.5	7.8	7.0	6.8	7.1	7.8	47	3.9	8.8	8.3
23	9.0	7.8	6.5	7.7	7.0	7.0	7.5	7.5	37	3.7	8.1	7.9
24	43	7.4	6.3	8.0	7.1	6.7	7.5	6.7	28	68	8.5	7.8
25	33	7.7	6.3	8.2	7.1	6.4	6.9	6.7	11	2,010	8.4	8.1
26	9.5	7.8	6.2	8.5	6.7	6.6	7.0	6.4	7.5	1,130	8.2	7.8
27	7.3	8.4	6.0	7.9	6.9	7.6	6.6	6.4	7.1	130	7.8	8.0
28	11	8.2	6.1	8.5	7.2	6.8	6.3	6.8	7.1	77	7.9	7.8
29	8.0	8.2	6.9	8.6	-----	6.5	5.7	35	6.8	17	8.0	7.9
30	7.1	7.6	6.9	8.6	-----	6.7	5.6	19	6.6	11	7.6	8.0
31	7.8	-----	7.4	10	-----	6.9	-----	9.1	-----	9.5	7.4	-----
TOTAL	333.0	513.9	212.4	231.7	202.1	390.5	409.2	249.8	333.2	3,590.9	293.6	247.6
MEAN	10.7	17.1	6.85	7.47	7.22	12.6	13.6	8.06	11.1	116	9.47	8.25
MAX	43	237	7.6	10	9.8	152	174	35	47	2,010	39	13
MIN	7.1	7.4	6.0	6.3	6.3	6.4	5.6	5.2	6.6	3.7	6.8	6.9
AC-FT	661	1,020	421	460	401	775	812	495	661	7,120	582	491

CAL YR 1974 TOTAL 12,948.9 MEAN 35.5 MAX 4,080 MIN 1.1 AC-FT 25,680
WTR YR 1975 TOTAL 7,007.9 MEAN 19.2 MAX 2,010 MIN 3.7 AC-FT 13,900

PEAK DISCHARGE (BASE, 1,000 FT³/S).--July 25 (2030) 4,820 ft³/s (19.39 ft).

07299840 Greenbelt Lake near Clarendon, Tex.

LOCATION.--Lat 35°00'02", long 100°53'40", Donley County, on upstream side and near right end of dam on Salt Fork Red River and 4.3 miles (6.9 km) north of Clarendon.

DRAINAGE AREA.--457 mi² (1,184 km²), of which 191 mi² (495 km²) is probably noncontributing.

PERIOD OF RECORD.--Contents: August 1967 to current year. Prior to October 1973, published as Greenbelt Reservoir.
Water quality: Chemical analyses: October 1969 to current year.

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

EXTREMES.--Current year: Maximum contents, 44,650 acre-ft (55.1 hm³) June 26-28 (elevation, 2,655.71 ft or 809.460 m); minimum, 23,540 acre-ft (29.0 hm³) Oct. 6, 7, 12, 13 (elevation, 2,640.12 ft or 804.709 m).
Period of record: Maximum contents, 44,650 acre-ft (55.1 hm³) June 26-28, 1975 (elevation, 2,655.71 ft or 809.460 m); minimum, 2,950 acre-ft (3.64 hm³) Aug. 29, 30, 1967 (elevation, 2,607.37 ft or 794.726 m).

REMARKS.--The lake is formed by a rolled earthfill dam 5,800 ft (1,770 m) long. Deliberate impoundment began Dec. 5, 1966, and the dam was completed in August 1967. The dam is the property of Greenbelt Municipal and Industrial Water Authority and was built to impound water for municipal and industrial uses by the cities of Childress, Clarendon, Crowell, Hedley, and Quanah. The spillway is an uncontrolled open cut through natural ground, 1,450 ft (442 m) wide located at the left end of dam, designed to discharge 184,000 ft³/s (5,210 m³/s) at an elevation of 2,684.0 ft (818.08 m). A morning-glory type drop inlet with a 26-foot 8.5-inch-diameter (8.14-metre) opening at crest discharges into a 7- by 7-foot (2- by 2-metre) concrete conduit. The outlet works consist of one 36-inch (914-millimetre) pipe that is controlled by two 20-inch (508-millimetre) valves that control the discharge into a stilling basin and to a water treatment plant. The capacity table, dated April 1964, is based on the 1962 Geological Survey topographic maps. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	2,686.0	-
Design flood.....	2,683.0	105,600
Crest of spillway.....	2,674.0	81,760
Crest of morning-glory type drop inlet.....	2,663.65	59,110
Lowest gated outlet (invert).....	2,597.0	900

COOPERATION.--Records of diversion and capacity table furnished by Greenbelt Municipal and Industrial Water Authority.

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

2,640.0	23,410	2,650.0	35,770
2,642.0	25,580	2,652.0	38,730
2,644.0	27,900	2,654.0	41,850
2,646.0	30,370	2,656.0	45,130
2,648.0	32,990		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23,660	23,810	23,690	23,780	24,000	24,300	24,230	24,100	36,190	44,520	43,800	42,470
2	23,650	23,830	23,700	23,830	24,010	24,240	24,230	24,100	36,140	44,430	43,780	42,400
3	23,610	23,810	23,730	23,830	24,050	24,230	24,260	24,090	36,020	44,380	43,740	42,380
4	23,610	23,820	23,750	23,850	24,050	24,290	24,280	24,070	36,140	44,380	43,700	42,300
5	23,590	23,840	23,760	23,830	24,020	24,330	24,290	24,080	36,210	44,380	43,650	42,320
6	23,540	23,830	23,740	23,880	24,060	24,320	24,290	24,010	36,270	44,350	43,590	42,220
7	23,560	23,840	23,730	23,900	24,090	24,230	24,330	23,980	36,240	44,350	43,500	42,190
8	23,580	23,860	23,680	23,900	24,040	24,230	24,330	23,980	36,190	44,350	43,420	42,110
9	23,590	23,900	23,710	23,890	24,050	24,240	24,340	23,930	36,210	44,380	43,370	42,090
10	23,580	23,880	23,720	23,850	24,120	24,230	24,330	23,930	36,240	44,380	43,310	42,040
11	23,580	23,860	23,750	23,820	24,090	24,270	24,380	23,930	36,250	44,500	43,240	41,930
12	23,540	23,870	23,740	23,810	24,120	24,260	24,380	23,900	36,220	44,550	43,210	41,880
13	23,670	23,830	23,760	23,840	24,120	24,240	24,460	23,890	36,190	44,380	43,130	41,850
14	23,650	23,830	23,730	23,850	24,120	24,280	24,490	23,900	36,160	44,400	43,190	41,790
15	23,670	23,830	23,720	23,880	24,080	24,280	24,550	23,880	36,090	44,330	43,240	41,790
16	23,690	23,850	23,770	23,850	24,100	24,320	24,560	23,860	36,140	44,270	43,240	41,790
17	23,690	23,860	23,760	23,870	24,140	24,330	24,560	23,870	36,120	44,180	43,230	41,770
18	23,690	23,890	23,760	23,900	24,140	24,340	24,430	23,860	36,050	44,150	43,190	41,720
19	23,670	23,850	23,750	23,860	24,150	24,370	24,450	23,880	36,020	44,080	43,130	41,680
20	23,660	23,850	23,750	23,900	24,230	24,380	24,440	23,860	35,940	44,080	43,060	41,630
21	23,660	23,880	23,750	23,870	24,200	24,340	24,440	23,830	36,210	44,070	43,050	41,660
22	23,690	23,900	23,740	23,850	24,190	24,370	24,300	23,850	36,650	44,000	42,970	41,660
23	23,720	23,820	23,740	23,890	24,210	24,280	24,300	23,960	41,850	44,020	42,890	41,600
24	23,740	23,810	23,740	23,880	24,230	24,270	24,280	23,840	44,580	44,020	42,840	41,600
25	23,730	23,830	23,730	23,890	24,230	24,260	24,290	23,840	44,630	43,970	42,770	41,550
26	23,740	23,820	23,730	23,900	24,220	24,280	24,300	23,770	44,650	43,970	42,640	41,520
27	23,750	23,810	23,730	23,970	24,280	24,320	24,220	23,750	44,650	43,970	42,630	41,460
28	23,780	23,770	23,780	23,940	24,280	24,260	24,180	26,490	44,620	43,970	42,630	41,460
29	23,800	23,730	23,750	23,900	-----	24,240	24,160	36,320	44,580	43,920	42,610	41,420
30	23,810	23,690	23,760	23,970	-----	24,280	24,120	36,310	44,550	43,900	42,560	41,340
31	23,810	-----	23,780	23,960	-----	24,310	-----	36,280	-----	43,840	42,510	-----
(†)	2,640.37	2,640.26	2,640.35	2,640.51	2,640.81	2,640.84	2,640.66	2,650.34	2,655.65	2,655.22	2,654.41	2,653.68
(*)	+160	-120	+90	+180	+320	+30	-190	+12,160	+8,270	-710	-1,330	-1,170
(††)	230	213	219	205	180	212	232	302	336	336	378	275
MAX	23,810	23,900	23,780	23,970	24,280	24,380	24,560	36,320	44,650	44,520	43,800	42,470
MIN	23,540	23,690	23,680	23,780	24,000	24,230	24,120	23,750	35,940	43,840	42,510	41,340

CAL YR 1974..... * -2,710 †† 3,726 MAX 26,930 MIN 23,120
WTR YR 1975..... * +17,690 †† 3,118 MAX 44,650 MIN 23,540

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial use.

RED RIVER BASIN

07299840 Greenbelt Lake near Clarendon, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
JAN. 23...	1100	11	48	20	47	6.4	198	0
MAY 29...	0915	9.8	49	19	45	6.2	188	0
SEP. 09...	1430	11	45	12	27	5.2	168	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NIT-ITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
JAN. 23...	92	46	.8	.01	.02	.01	369	200	40
MAY 29...	81	42	.8	.02	.00	.01	345	200	46
SEP. 09...	51	25	.5	.00	.03	.03	260	160	24

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
JAN. 23...	1.4	610	8.0	3.5	10.0	75	10	0
MAY 29...	1.4	599	7.9	18.5	8.0	85	50	10
SEP. 09...	.9	446	8.1	25.5	5.6	67	60	10

RED RIVER BASIN

101

07300000 Salt Fork Red River near Wellington, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 34°57'27", long 100°13'14", Collingsworth County, near center of stream on downstream side of bridge on U.S. Highway 83, 4 miles (6 km) downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 miles (7.2 km) south of Lutie, and 7.2 miles (11.6 km) north of Wellington.

DRAINAGE AREA.--1,222 mi² (3,165 km²), of which 209 mi² (541 km²) is probably noncontributing.

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

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,941.41 ft (591.742 m) above mean sea level.

AVERAGE DISCHARGE.--14 years (1952-66) prior to completion of Greenbelt Lake, 72.6 ft³/s (2.056 m³/s), 52,600 acre-ft/yr (64.9 hm³/yr); 9 years (1966-75) regulated, 42.6 ft³/s (1.206 m³/s), 30,860 acre-ft/yr (38.1 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 48,300 ft³/s (1,370 m³/s) June 24 (gage height, 12.70 ft or 3.871 m); minimum daily, 4.9 ft³/s (0.14 m³/s) Dec. 6.

Period of record: Maximum discharge, 146,000 ft³/s (4,130 m³/s) May 16, 1957 (gage height, 19.00 ft or 5.791 m), from rating curve extended above 11,000 ft³/s (312 m³/s) on basis of slope-area measurement of 63,400 ft³/s (1,800 m³/s); minimum, 0.1 ft³/s (0.003 m³/s) June 19, 1952.

Water quality: Current year: Maximum daily specific conductance, 3,610 micromhos Sept. 1; minimum daily, 1,000 micromhos Aug. 14. Maximum water temperatures, 36.0°C July 8; minimum, 2.0°C Feb. 8.

Period of record: Maximum daily specific conductance, 4,190 micromhos May 11, 1970; minimum daily, 807 micromhos Apr. 24, 1973. Maximum water temperatures, 38.0°C July 27, 1974; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records fair. Flow partly regulated since December 1966 (revised) by Greenbelt Lake (station 07299840).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	84	6.2	41	81	30	31	20	54	26	18	7.3
2	15	129	8.4	39	93	25	28	25	34	20	19	7.3
3	14	237	9.2	62	121	22	30	26	35	15	17	7.1
4	13	93	9.2	54	121	20	25	28	26	20	16	7.9
5	13	43	8.4	43	110	20	26	37	25	41	17	8.6
6	14	31	4.9	37	52	22	28	39	26	41	18	9.3
7	18	41	5.5	33	45	19	70	33	27	26	15	10
8	18	57	7.6	31	64	14	141	37	25	28	18	11
9	16	75	12	28	57	15	87	37	22	29	19	11
10	14	70	13	26	43	26	57	45	177	51	21	11
11	13	31	26	22	54	28	117	50	122	50	23	11
12	16	26	31	19	45	31	106	75	78	30	22	10
13	94	23	28	15	37	31	44	125	54	25	25	10
14	195	20	18	15	33	31	141	87	45	37	390	12
15	93	20	12	20	33	31	87	78	34	42	85	11
16	64	20	11	28	43	72	43	70	32	25	30	9.5
17	50	22	10	31	64	70	28	75	32	17	19	9.7
18	41	20	12	30	78	62	19	84	31	15	20	9.7
19	35	19	14	30	84	67	16	310	24	14	15	9.4
20	35	16	14	28	75	50	15	145	24	13	13	9.5
21	33	16	13	28	59	33	15	145	30	13	12	15
22	47	11	13	26	54	23	16	249	3,291	13	13	15
23	78	11	13	25	58	22	14	266	462	142	13	13
24	106	11	13	26	60	18	18	190	9,080	94	14	12
25	100	11	11	28	81	16	16	195	419	67	15	12
26	70	10	11	31	52	14	16	243	153	54	12	12
27	57	10	13	31	39	47	35	237	78	52	11	12
28	57	9.2	15	26	31	52	35	243	70	33	10	12
29	64	8.4	16	26	-----	41	19	2,300	47	28	9.2	11
30	81	6.2	26	39	-----	31	18	176	35	22	8.4	10
31	100	-----	47	54	-----	30	-----	72	-----	20	7.9	-----
TOTAL	1,584	1,180.8	451.4	972	1,759	1,017	1,385	5,832	14,603	1,108	949.5	316.3
MEAN	51.1	39.4	14.6	31.4	62.8	32.8	46.2	188	487	35.7	30.6	10.5
MAX	195	237	47	62	121	72	141	2,300	9,080	142	390	15
MIN	13	6.2	4.9	15	31	14	15	20	22	13	7.9	7.1
AC-FT	3,140	2,340	895	1,930	3,490	2,020	2,750	11,570	28,970	2,200	1,880	627

CAL YR 1974 TOTAL 14,067.6 MEAN 38.5 MAX 1,010 MIN 1.6 AC-FT 27,400
WTR YR 1975 TOTAL 31,158.0 MEAN 45.4 MAX 9,080 MIN 4.9 AC-FT 61,300

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
5-29	1045	8.57	13,200
6-22	0300	7.20	6,810
6-24	0800	12.70	48,300

RED RIVER BASIN

07300000 Salt Fork Red River near Wellington, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 25...	1015	105	18	300	88	240	5.2	188	0	990	290	--
NOV. 21...	1330	15	20	520	88	220	4.6	204	0	1400	320	--
DEC. 19...	1000	16	19	470	82	230	3.9	214	0	1300	300	.6
JAN. 16...	1000	32	19	450	83	220	3.9	211	0	1300	340	.6
FEB. 20...	1330	38	19	350	78	220	4.7	210	0	1040	300	.7
MAR. 13...	1000	32	18	420	83	220	5.5	215	0	1200	300	.8
APR. 16...	1400	42	19	410	80	230	5.2	185	0	1100	290	.7
MAY 13...	1500	12	15	460	83	240	5.4	182	0	1300	350	.5
31...	0920	2.7	19	250	60	180	6.2	197	0	750	240	.8
JUNE 11...	1730	2.2	19	290	75	210	6.7	182	0	890	270	.7
JULY 11...	1230	.10	22	250	59	180	6.0	164	0	760	240	.7
AUG. 07...	1000	19	21	520	95	190	5.1	178	0	1500	280	.6
SEP. 18...	1000	10	20	540	82	200	4.4	190	0	1600	270	.5

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 25...	.48	.00	.04	1.4	1.4	.24	2280	2030	1100	960	3.1
NOV. 21...	1.3	.01	.03	.22	.25	.05	2870	2670	1700	1500	2.4
DEC. 19...	1.4	.02	.02	.41	.43	.01	2650	2510	1500	1300	2.6
JAN. 16...	.99	.01	.01	.38	.39	.03	2650	2520	1500	1300	2.5
FEB. 20...	.78	.01	.03	.57	.60	.04	2170	2120	1200	1000	2.8
MAR. 13...	1.2	.01	.04	.19	.23	.01	2500	2350	1400	1200	2.6
APR. 16...	.69	.01	.03	.84	.87	.03	2430	2230	1400	1200	2.7
MAY 13...	.86	.01	.08	.51	.59	.03	2750	2540	1500	1300	2.7
31...	--	--	--	--	--	--	--	1600	870	710	2.7
JUNE 11...	.42	.01	.02	1.2	1.2	.12	1980	1850	1000	890	2.8
JULY 11...	.57	.01	.04	.61	.65	.19	1710	1600	870	730	2.7
AUG. 07...	1.4	.03	.00	.26	.26	.03	2890	2700	1700	1500	2.0
SEP. 18...	1.4	.03	.00	.13	.13	.04	2900	2810	1700	1500	2.1

RED RIVER BASIN

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07300000 Salt Fork Red River near Wellington, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMM- EDIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 25...	2860	8.0	16.0	400	9.2	92	1.6	19000	6100	10000	12
NOV. 21...	3330	8.1	18.0	20	10.2	107	.1	15	10	31	--
DEC. 19...	3160	8.0	4.0	8	13.2	101	.6	29	11	72	--
JAN. 16...	3240	8.0	3.5	15	13.6	102	.4	160	10	100	--
FEB. 20...	2790	7.8	13.5	65	11.3	108	.3	460	7	150	3.2
MAR. 13...	3040	8.0	2.0	15	13.0	94	.2	72	69	2900	--
APR. 16...	2970	7.9	25.5	35	8.3	100	.3	110	6	42	--
MAY 13...	3280	7.9	22.0	55	9.6	109	.8	1800	1600	1900	--
JUNE 31...	2270	8.3	19.0	--	--	--	--	--	--	--	--
JULY 11...	2590	7.7	28.0	150	7.8	99	1.5	2400	2000	1600	9.4
AUG. 07...	3290	7.7	26.0	6	8.5	104	.3	45	45	410	.9
SEP. 18...	3300	7.6	20.5	3	9.4	103	.4	80	72	81	--

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT. 25...	1015	--	18	4	230	<10	--	10	--	<50
FEB. 20...	1330	<10	0	0	240	<10	0	0	0	<50
JUNE 11...	1730	10	9	2	240	<10	0	40	10	<50
AUG. 07...	1000	50	3	2	260	<10	0	20	10	<50

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
OCT. 25...	--	20	--	14000	--	<100	--	--	520
FEB. 20...	0	10	0	3100	30	<100	1	70	100
JUNE 11...	2	20	1	11000	10	<100	0	60	--
AUG. 07...	0	10	0	60	40	<100	0	60	40

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 25...	--	.2	--	--	3	0	3400	230	--
FEB. 20...	10	.1	.1	0	4	4	3200	20	0
JUNE 11...	10	.0	.0	0	3	3	3100	50	0
AUG. 07...	40	.1	.1	0	11	8	4400	80	0

07300000 Salt Fork Red River near Wellington, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a	Chlorophyll b	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight	(mg/m ²)	(mg/m ²)		
DEC. 19	28	2.3	1.5	5.9	1.1	140	Polyethylene strip
FEB. 20	35	2.8	2.5	.2	.0	1500	
MAY 13	27	70	65	8.7	.7	650	
AUG. 07	27	14	13	.5	.1	3300	

OCT. 25, 1974 TIME 1015

PHYTOPLANKTON 6,800 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...DIATOMACEAE		
....DIATOMA	710	10
...FRAGILARIACEAE		
....SYNEDRA	140	2
...NAVICULACEAE		
....NAVICULA	570	8
....NEIDIUM	210	3
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	2,000	29
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....LYNGBYA	3,200	47

NOV. 21, 1974 TIME 1330

PHYTOPLANKTON 780 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCCOCCALES		
...SCENEDESMACEAE		
....ACTINASTRUM	180	23
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CARTERIA	31	4
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISACEAE		
....CYCLOTELLA	8	1
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	8	1
...CYMBELLACEAE		
....CYMBELLA	15	2
...DIATOMACEAE		
....DIATOMA	15	2
...FRAGILARIACEAE		
....SYNEDRA	84	11
...GOMPHONEMACEAE		
....GOMPHONEMA	8	1
...NAVICULACEAE		
....NAVICULA	38	5
...TROPIDONEIS	8	1
...NITZSCHIAEAE		
....NITZSCHIA	390	50

DEC. 19, 1974 TIME 1000

PHYTOPLANKTON 3,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	26	1
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	26	1
...CYMBELLACEAE		
....EPITHEMIA	26	1
...FRAGILARIACEAE		
....SYNEDRA	340	11
...NAVICULACEAE		
....AMPHIPRORA	130	4
....DIPLONEIS	52	2
....GYROSIGMA	26	1
....NAVICULA	340	11
...NITZSCHIAEAE		
....NITZSCHIA	260	9
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	1,800	60

JAN. 16, 1975 TIME 1000

PHYTOPLANKTON 3,300 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	57	2
...CYMBELLACEAE		
....AMPHORA	110	4
...FRAGILARIACEAE		
....SYNEDRA	170	5
...GOMPHONEMACEAE		
....GOMPHONEMA	57	2
...NAVICULACEAE		
....AMPHIPRORA	110	4
....CALONEIS	57	2
....NAVICULA	630	19
...NITZSCHIAEAE		
....NITZSCHIA	57	2
...HANTZSCHIA		
....NITZSCHIA	680	21
...SURIPELLACEAE		
....SURIPELLA	57	2
CYANOPHYTA		
..MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	1,300	39

07300000 Salt Fork Red River near Wellington, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

FEB. 20, 1975 TIME 1330

PHYTOPLANKTON 4,600 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...CYMBELLACEAE		
....AMPHORA	200	4
...FRAGILARIACEAE		
....SYNEDRA	790	17
...NAVICULACEAE		
....AMPHIPRORA	200	4
....NAVICULA	3,000	65
...NITZSCHIA		
....NITZSCHIA	200	4
....NITZSCHIA	200	4

MAR. 13, 1975 TIME 1000

PHYTOPLANKTON 1,900 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	130	7
...GOMPHONEMACEAE		
....GOMPHONEMA	32	2
...NAVICULACEAE		
....AMPHIPRORA	65	3
....NAVICULA	130	7
...NITZSCHIA		
....NITZSCHIA	97	5
....NITZSCHIA	97	5
...SURIPELLACEAE		
....SURIPELLA	32	2
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....OSCILLATORIALES		
....SPIRULINA	1,300	69

APR. 16, 1975 TIME 1400

PHYTOPLANKTON 2,200 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...CYMBELLACEAE		
....AMPHORA	82	4
....CYMBELLA	82	4
...FRAGILARIACEAE		
....SYNEDRA	82	4
...NAVICULACEAE		
....NAVICULA	1,200	56
...NITZSCHIA		
....NITZSCHIA	490	22
...SURIPELLACEAE		
....CYMATOPLEURA	160	7
....SURIPELLA	82	4

MAY 13, 1975 TIME 1500

PHYTOPLANKTON 12,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...CYMBELLACEAE		
....CYMBELLA	1,200	10
...NAVICULACEAE		
....AMPHIPRORA	580	5
....NAVICULA	4,600	40
...NITZSCHIA		
....NITZSCHIA	4,000	35
...SURIPELLACEAE		
....CYMATOPLEURA	580	5
....SURIPELLA	580	5

JUNE 11, 1975 TIME 1730

PHYTOPLANKTON 3,600 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...CYMBELLACEAE		
....CYMBELLA	220	6
...GOMPHONEMACEAE		
....GOMPHONEMA	220	6
...NAVICULACEAE		
....NAVICULA	340	9
...NITZSCHIA		
....NITZSCHIA	2,800	78

JULY 11, 1975 TIME 1230

PHYTOPLANKTON 3,300 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
....ACTINASTRUM	370	11
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	93	3
..PENNALES		
...DIATOMACEAE		
....DIATOMA		0
...MERIDIONACEAE		
....MERIDION	460	14
...NITZSCHIA		
....NITZSCHIA	2,300	71

AUG. 7, 1975 TIME 1000

PHYTOPLANKTON 600 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
....CRUCIGENIA	140	23
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	34	6
..PENNALES		
...CYMBELLACEAE		
....AMPHORA	34	6
...NAVICULACEAE		
....NAVICULA	86	14
...TROPIDONEIS		0
...NITZSCHIA		
....NITZSCHIA	310	51

SEP. 18, 1975 TIME 1000

PHYTOPLANKTON 2,200 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	41	2
..PENNALES		
...CYMBELLACEAE		
....CYMBELLA		0
...RHOPALODIA		0
...NAVICULACEAE		
....NAVICULA	160	7
...NITZSCHIA		
....NITZSCHIA	120	6
...MANTZSCHIA		
....MANTZSCHIA	330	15
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	1,100	52
....ANACYSTIS	330	15
EUGLENOPHYTA		
..CRYPTOPHYCEAE		
...CRYPTOMONADIALES		
....CRYPTOMONADACEAE		
....CRYPTOMONAS	41	2
...EUGLENOPHYCEAE		
....EUGLENALES		
....EUGLENA	41	2

RED RIVER BASIN

07300000 Salt Fork Red River near Wellington, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. & FINER THAN .062 MM
OCT. 25...	1015	105	16.0	1000	283	89
NOV. 21...	1330	15	18.0	82	3.3	25
DEC. 19...	1000	16	4.0	23	.99	90
JAN. 16...	1000	32	3.5	89	7.7	78
FEB. 20...	1330	38	13.5	518	53	17
MAR. 13...	1000	32	2.0	49	4.2	47
APR. 16...	1400	42	25.5	102	12	67
MAY 13...	1500	12	22.0	167	5.4	74
JUNE 11...	1730	2.2	28.0	522	3.1	93
JULY 11...	1230	.10	29.0	302	.08	94
AUG. 07...	1000	19	26.0	33	1.7	91
SEP. 18...	1000	10	20.5	26	.70	30

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	1584	3110	2400	10300	320	1370	1200	5130	1400
NOV. 1974.....	1180.8	2950	2200	7010	310	988	1100	3510	1300
DEC. 1974.....	451.4	3210	2500	3050	340	414	1300	1580	1400
JAN. 1975.....	972	3100	2400	6300	320	840	1200	3150	1400
FEB. 1975.....	1759	2820	2100	9970	290	1380	1000	4750	1200
MAR. 1975.....	1017	3040	2300	6320	320	879	1200	3300	1300
APR. 1975.....	1385	2910	2200	8230	300	1120	1100	4110	1300
MAY 1975.....	5832	2590	1900	29900	270	4250	900	14200	1100
JUNE 1975.....	14603	1220	880	34700	120	4730	430	17000	500
JULY 1975.....	1108	2570	1900	5680	270	808	890	2660	1100
AUG. 1975.....	949.5	2220	1600	4100	230	590	780	2000	920
SEPT 1975.....	316.3	3380	2600	2220	350	299	1400	1200	1500
TOTAL	31157.99	**	**	128000	**	17700	**	62600	**
WTD.AVG.	85.36	2050	1500	**	210	**	740	**	850

RED RIVER BASIN

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07300000 Salt Fork Red River near Wellington, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3370	3050	3210	3050	2720	3040	3170	3120	2450	2480	3220	3610
2	3330	3240	3270	3040	2730	3100	3170	3010	2600	2590	3280	3410
3	3330	2500	3310	2760	2720	3020	3140	3150	2810	2730	3340	3420
4	3300	2320	3310	2920	2740	3120	3140	3080	2920	2650	3450	3480
5	3260	2930	3300	2980	2730	3100	3170	3370	3000	2400	3390	3420
6	3310	3170	3270	3050	3030	3030	3210	2910	3070	2400	3450	3320
7	3340	3310	3210	3140	3190	3110	3200	3240	3180	2510	3420	3370
8	3350	2930	3260	3110	2850	2930	2900	3210	3360	2510	3420	3420
9	3340	3100	3210	3100	2860	3000	2710	3180	3340	2540	3450	3420
10	3310	2850	3210	3150	3120	3240	3000	3150	1410	2150	3480	3480
11	3280	3090	3580	3150	2880	3050	2550	3160	2600	2360	3520	3340
12	3270	3190	2890	3200	2890	3070	2740	3180	2760	2730	3520	3230
13	2850	3330	3060	3260	3070	3050	2950	3000	3000	2800	3480	3220
14	2690	3280	3190	3170	3070	3070	2480	3300	3280	2790	1000	3360
15	2990	3310	3220	3210	3030	3080	2740	3130	3370	2550	1790	3370
16	3360	3330	3270	3050	2950	3070	3000	3170	3350	3010	2160	3290
17	3410	3310	3270	3000	2730	2840	3220	3120	3340	3170	3000	3430
18	3380	3260	3410	3110	2680	2990	3290	3180	3320	3250	2990	3380
19	3330	3260	3160	3110	2680	2800	3320	3000	3320	3230	3310	3410
20	3320	3220	3220	3100	2740	3010	3230	3350	3290	3310	3360	3360
21	3330	3270	3260	3240	2960	3100	3160	3310	3240	3320	3410	3360
22	3170	3330	3230	3250	2870	3040	3120	3130	1070	3340	3460	3360
23	3250	3350	3210	3270	2880	3050	3150	3360	1300	2500	3410	3310
24	3040	3290	3270	3250	2830	3060	3170	3250	1070	1800	3430	3470
25	3080	3230	3220	3230	2670	3060	3110	3280	1410	2160	3460	3390
26	3280	3250	3170	3150	2790	3070	3100	3200	1770	2590	3480	3430
27	3350	3210	3390	3150	2960	3010	2960	3190	2060	2740	3180	3350
28	3390	3220	3210	3150	2960	3170	3320	3180	2200	2960	3430	3320
29	3050	3230	3250	3210	---	3110	3100	1800	2470	3040	3360	3330
30	2900	3150	3160	3210	---	3180	3150	1850	2420	3230	3420	3340
31	3000	---	3130	3150	---	3200	---	2270	---	3260	3430	---
MONTH	3230	3150	3240	3130	2870	3060	3060	3060	2630	2750	3210	3380

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	21.0	---	---	5.0	20.0	20.0	24.0	---	34.0	30.0	30.0
2	28.0	24.0	11.0	8.0	---	14.0	13.0	28.0	22.0	32.0	31.0	32.0
3	26.0	---	5.0	8.0	8.0	4.0	8.0	30.0	30.0	30.0	34.0	34.0
4	28.0	9.0	13.0	10.0	11.0	20.0	10.0	29.0	32.0	---	30.0	30.0
5	20.0	11.0	---	---	4.0	18.0	9.0	30.0	35.0	33.0	31.0	30.0
6	---	16.0	10.0	13.0	4.0	20.0	---	21.0	35.0	---	30.0	22.0
7	16.0	12.0	7.0	15.0	13.0	5.0	16.0	26.0	30.0	35.0	30.0	---
8	29.0	12.0	---	8.0	2.0	10.0	10.0	30.0	30.0	36.0	33.0	30.0
9	27.0	14.0	11.0	10.0	5.0	---	12.0	28.0	27.0	34.0	32.0	31.0
10	26.0	18.0	4.0	5.0	15.0	12.0	11.0	26.0	18.0	30.0	---	31.0
11	26.0	15.0	12.0	3.0	15.0	6.0	15.0	---	28.0	29.0	30.0	27.0
12	25.0	12.0	12.0	---	17.0	7.0	12.0	25.0	20.0	30.0	31.0	14.0
13	---	11.0	6.0	6.0	20.0	5.0	15.0	20.0	---	25.0	34.0	15.0
14	12.0	14.0	6.0	10.0	10.0	12.0	12.0	24.0	34.0	30.0	23.0	16.0
15	16.0	10.0	8.0	4.0	5.0	5.0	16.0	20.0	31.0	32.0	22.0	30.0
16	23.0	16.0	9.0	10.0	---	7.0	25.0	28.0	---	30.0	24.0	24.0
17	28.0	16.0	5.0	4.0	---	12.0	28.0	16.0	23.0	29.0	---	30.0
18	28.0	20.0	6.0	15.0	11.0	11.0	18.0	17.0	32.0	28.0	28.0	29.0
19	20.0	13.0	10.0	---	5.0	25.0	20.0	---	32.0	26.0	31.0	24.0
20	---	10.0	6.0	5.0	15.0	25.0	25.0	29.0	32.0	33.0	32.0	23.0
21	20.0	12.0	14.0	8.0	10.0	20.0	24.0	28.0	27.0	32.0	34.0	20.0
22	17.0	20.0	---	---	---	19.0	20.0	20.0	18.0	34.0	32.0	23.0
23	20.0	11.0	12.0	---	7.0	---	29.0	19.0	20.0	28.0	34.0	25.0
24	20.0	13.0	3.0	---	14.0	8.0	31.0	24.0	20.0	22.0	---	30.0
25	20.0	11.0	---	16.0	13.0	6.0	20.0	22.0	30.0	26.0	34.0	25.0
26	22.0	10.0	4.0	10.0	13.0	10.0	21.0	---	25.0	29.0	32.0	24.0
27	---	9.0	10.0	10.0	18.0	11.0	25.0	28.0	30.0	29.0	26.0	27.0
28	20.0	---	13.0	6.0	18.0	10.0	25.0	22.0	32.0	31.0	32.0	---
29	22.0	6.0	---	5.0	---	9.0	28.0	16.0	30.0	---	33.0	---
30	16.0	4.0	---	8.0	---	---	26.0	16.0	29.0	33.0	34.0	25.0
31	15.0	---	6.0	8.0	---	11.0	---	19.0	---	31.0	35.0	---
MONTH	22.0	13.0	---	---	11.0	12.0	19.0	24.0	28.0	30.5	31.0	26.0

RED RIVER BASIN

07300500 Salt Fork Red River at Mangum, Okla.

LOCATION.--Lat 34°51'32", long 99°30'28", in SW¼SW¼ sec. 34, T.5 N., R.22 W., Greer County, near left bank on downstream side of pier of bridge on State Highway 34, 0.5 mile (0.8 km) south of Mangum, 13 miles (21 km) downstream from Fish Creek, and at mile 35.5 (57.1 km).

DRAINAGE AREA.--1,566 mi² (4,056 km²), of which 209 mi² (541 km²) is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 1,490.87 ft (454.417 m) above mean sea level (levels by Bureau of Reclamation). Apr. 11, 1905, to June 30, 1906, nonrecording gage at site 0.2 mile (0.3 km) upstream at different datum. Oct. 1, 1937, to Nov. 8, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--38 years (1937-75), 87.8 ft³/s (2.486 m³/s), 63,610 acre-ft/yr (78.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 29,900 ft³/s (847 m³/s) June 24 (gage height, 13.10 ft or 3.993 m); minimum daily, 6.8 ft³/s (0.19 m³/s) Aug. 13.

Period of record: Maximum discharge, 72,000 ft³/s (2,040 m³/s) May 16, 1957 (gage height, 14.55 ft or 4.435 m); maximum gage height, 14.7 ft (4.48 m) June 16, 1938; no flow at times each year except 1975.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	42	31	78	77	80	51	22	152	106	65	17
2	33	2540	32	98	82	68	45	19	100	89	57	15
3	30	220	36	86	117	58	43	18	73	72	48	14
4	27	138	41	83	116	56	41	17	54	62	31	13
5	26	112	39	89	130	53	41	17	42	55	25	12
6	24	101	38	69	127	50	41	17	35	48	20	11
7	24	91	38	57	97	45	142	16	30	77	17	11
8	27	87	36	55	84	43	203	14	27	97	14	11
9	30	105	35	55	81	44	123	13	22	104	12	10
10	30	112	37	51	74	46	114	12	101	62	9.8	9.9
11	27	96	56	49	85	46	86	11	80	77	8.5	9.1
12	25	85	67	38	83	50	75	12	69	73	7.4	11
13	27	68	74	29	69	49	117	18	42	55	6.8	21
14	57	56	76	38	62	51	104	23	26	47	1360	27
15	113	53	62	44	55	49	86	25	19	38	313	28
16	83	52	54	56	68	56	96	25	17	31	192	26
17	51	53	51	52	90	65	82	22	18	34	178	24
18	38	56	47	49	98	100	72	19	16	27	107	21
19	30	56	41	51	111	98	60	18	14	31	72	17
20	26	54	39	51	133	80	50	17	14	24	55	15
21	23	51	39	47	137	75	40	17	228	23	44	18
22	23	49	41	47	138	61	36	27	1660	22	38	20
23	36	46	40	48	129	48	34	29	330	19	33	21
24	139	40	37	47	130	38	32	26	9070	296	28	19
25	85	39	35	47	132	35	30	22	3470	219	24	16
26	39	38	36	48	118	36	29	19	448	376	25	15
27	30	37	38	49	124	59	28	16	300	308	21	14
28	31	36	41	49	100	49	31	14	276	184	22	14
29	28	34	43	47	---	51	29	22	210	79	22	14
30	43	33	48	79	---	56	25	814	190	58	23	13
31	55	---	67	85	---	57	---	194	---	45	19	---
TOTAL	1298	4580	1395	1771	2847	1752	1986	1555	17133	2838	2897.5	487.0
MEAN	41.9	153	45.0	57.1	102	56.5	66.2	50.2	571	91.5	93.5	16.2
MAX	139	2540	76	98	138	100	203	814	9070	376	1360	28
MIN	23	33	31	29	55	35	25	11	14	19	6.8	9.1
AC-FT	2570	9080	2770	3510	5650	3480	3940	3080	33980	5630	5750	966
CAL YR 1974	TOTAL	25938.99	MEAN	71.1	MAX	3380	MIN	0	AC-FT	51450		
WTR YR 1975	TOTAL	40539.50	MEAN	111	MAX	9070	MIN	6.8	AC-FT	80410		

PEAK DISCHARGE (BASE, 6,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-2	1000	12.05	17,000	6-24	2000	13.10	29,900
5-30	0130	10.26	6,520	8-14	0930	10.51	7,960

07301200 McClellan Creek near McLean, Tex.

LOCATION.--Lat 35°19'45", long 100°36'32", Gray County, on left bank at downstream side of bridge on State Highway 273, 5 miles (8 km) upstream from mouth, and 6.6 miles (10.6 km) north of McLean.

DRAINAGE AREA.--759 mi² (1,966 km²), of which 299 mi² (774 km²) is probably noncontributing.

PERIOD OF RECORD.--Discharge: Occasional low-flow measurements, 1965-67, October 1967 to current year.
Water quality: Chemical analyses: October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,545.99 ft (776.018 m), revised, above mean sea level.

AVERAGE DISCHARGE.--8 years, 23.7 ft³/s (0.671 m³/s), 17,170 acre-ft/yr (21.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 26,600 ft³/s (753 m³/s) May 29 (gage height, 14.55 ft or 4.435 m); minimum, 0.02 ft³/s (0.001 m³/s) Sept. 10, 11.

Period of record: Maximum discharge, 26,600 ft³/s (753 m³/s) May 29, 1975 (gage height, 14.55 ft or 4.435 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of contracted-opening measurement of peak stage; no flow at times.

Maximum stage since 1912, 21 ft (6.4 m) May 1957, from information by local residents. Other major floods occurred in 1920, 1941, and 1951.

REVISIONS.--Figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in WSP 2120 and WRD Texas for the water years indicated.

Report	Water Year	Date	Discharge (cfs)	Gage height (feet)
WSP 2120	1968	June 10, 1968	4,460	10.56
WSP 2120	1969	Aug. 25, 1969	3,540	10.32
WSP 2120	1970	Apr. 18, 1970	4,780	10.64
WRD Texas	1972	July 9, 1972	4,780	10.64
WRD Texas	1973	Mar. 30, 1973	1,330	9.54
WRD Texas	1974	May 25, 1974	4,420	10.55

REMARKS.--Discharge records poor. Flow is largely regulated by Lake McClellan (capacity, 5,000 acre-ft or 6.16 hm³) 18 miles (29 km) upstream. One small diversion from Lake McClellan.

REVISIONS (WATER YEARS).--Revised figures of discharge, in cubic feet per second, for the water years 1968-74, superseding those published in WSP 2120 and WRD Texas, 1971, 1972, and 1974, are given herewith:

Date	Discharge	Date	Discharge
1968		1970-Con.	
June 9	687	Apr. 18	1,950
10	794		
1969		1972	
Aug. 25	636	June 13	604
		July 9	433
1970		1974	
Apr. 17	169	May 25	696

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
June 1968.....	2,681.2	794	6.0	89.4	5,320
WTR YR 1968.....	13,336.28	794	0	36.4	26,450
CAL YR 1968.....	12,947.68	794	0	35.4	25,680
August 1969.....	862.05	636	0	27.8	1,710
WTR YR 1969.....	7,725.85	636	0	21.2	15,320
CAL YR 1969.....	6,981.76	636	0	19.1	13,850
April 1970.....	3,324	1,950	14	111	6,590
WTR YR 1970.....	6,285.54	1,950	0	17.2	12,470
CAL YR 1970.....	6,389.09	1,950	0	17.5	12,670
June 1972.....	1,137.15	604	.12	37.9	2,260
July.....	613.48	433	.02	19.8	1,220
WTR YR 1972.....	9,904.13	1,200	0	27.1	19,640
CAL YR 1972.....	7,680.52	604	0	21.0	15,230
May 1974.....	913.74	696	.03	29.5	1,810
WTR YR 1974.....	4,112.92	696	0	11.3	8,160

RED RIVER BASIN

07301200 McClellan Creek near McLean, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	12	16	11	6.7	8.5	9.9	23	27	27	5.5	.46
2	1.5	23	13	12	9.0	9.8	9.3	20	37	19	6.4	.46
3	1.2	45	8.9	11	8.9	12	11	18	30	15	5.5	.46
4	.88	17	9.4	15	8.9	14	10	16	33	21	4.6	.77
5	1.2	10	8.9	13	9.8	7.8	11	11	24	30	3.3	.60
6	2.4	8.5	7.8	14	9.0	7.5	13	3.6	24	13	3.3	.77
7	9.4	7.1	9.3	11	8.0	7.2	31	7.3	30	19	2.2	.24
8	8.2	9.0	7.3	10	9.0	7.1	26	5.6	30	11	2.2	.34
9	6.0	11	11	11	9.0	9.2	3.2	8.0	30	33	1.8	.46
10	11	6.3	11	9.0	8.0	10	7.5	10	33	17	1.8	.24
11	12	6.1	11	10	8.3	10	14	12	33	6.4	2.2	.17
12	17	5.9	9.8	9.0	8.2	9.4	12	28	33	4.6	1.5	.46
13	37	5.8	8.5	8.0	7.1	9.4	31	72	37	5.5	2.2	.96
14	33	5.1	9.2	9.0	6.5	9.4	17	21	33	13	33	1.5
15	30	6.0	9.3	11	6.3	11	13	10	37	11	11	1.2
16	27	7.0	9.9	14	21	6.4	9.7	7.6	37	11	2.7	1.2
17	26	5.7	14	14	7.5	3.0	6.1	1.9	44	11	3.9	.96
18	21	6.3	9.8	12	7.3	3.0	4.7	10	44	13	2.2	.60
19	16	5.7	10	11	5.7	4.8	8.5	9.0	44	13	.96	.46
20	15	5.7	12	11	7.3	3.7	7.0	5.1	44	9.9	.77	.34
21	18	7.8	13	9.3	11	4.4	8.8	6.7	44	11	.60	6.4
22	21	7.0	8.8	12	10	5.2	11	57	44	13	.34	4.6
23	22	6.6	11	9.6	9.0	5.2	12	24	696	21	.34	1.5
24	19	6.8	9.6	9.0	12	3.2	14	6.8	4440	30	.24	1.2
25	17	7.8	9.0	8.8	10	2.3	16	6.6	334	24	.24	.96
26	14	8.3	9.0	8.9	9.4	5.0	16	6.7	127	9.9	.34	1.2
27	14	8.2	9.0	8.7	9.7	18	19	9.1	66	15	1.8	.96
28	19	7.9	10	7.6	9.4	7.6	21	63	33	13	2.2	.77
29	16	8.5	11	6.7	---	15	24	7060	24	9.9	.96	1.5
30	18	11	9.6	7.6	---	10	26	259	21	7.4	1.2	.96
31	16	---	9.0	6.3	---	9.0	---	33	---	4.6	.77	---
TOTAL	471.28	288.1	315.1	320.5	252.0	248.1	422.7	7831.0	6513	462.2	106.06	32.70
MEAN	15.2	9.60	10.2	10.3	9.00	8.00	14.1	253	217	14.9	3.42	1.09
MAX	37	45	16	15	21	18	31	7060	4440	33	33	6.4
MIN	.88	5.1	7.3	6.3	5.7	2.3	3.2	1.9	21	4.6	.24	.17
AC-FT	935	571	625	636	500	492	838	15530	12920	917	210	65
CAL YR 1974	TOTAL	4488.15	MEAN	12.3	MAX	696	MIN	0	AC-FT	8900		
WTR YR 1975	TOTAL	17262.74	MEAN	47.3	MAX	7060	MIN	.17	AC-FT	34240		

RED RIVER BASIN

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07301200 McClellan Creek near McLean, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
01...	0925	1.4	23	60	19	150	2.6	174	0	120
NOV.										
08...	1300	7.8	23	71	20	120	3.3	242	0	120
DEC.										
16...	1230	9.9	22	76	19	120	3.0	238	0	120
JAN.										
28...	1000	7.6	20	71	20	110	4.2	229	0	110
MAR.										
10...	1115	9.6	20	79	20	110	4.9	258	0	110
APR.										
22...	1025	12	19	68	20	120	3.9	216	0	130
JUNE										
27...	1525	67	19	72	8.6	50	5.2	226	0	51
JULY										
15...	1025	12	23	73	16	100	4.6	227	0	94
AUG.										
26...	1045	.96	27	62	18	130	3.4	225	0	76

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
01...	190	--	650	230	85	4.3	1160	8.1	12.0
NOV.									
08...	150	.7	627	260	61	3.2	1060	8.0	11.0
DEC.									
16...	150	.6	628	270	73	3.2	1090	8.1	4.0
JAN.									
28...	140	.9	589	260	72	3.0	1040	8.0	2.0
MAR.									
10...	150	.8	622	280	68	2.9	1050	7.9	3.0
APR.									
22...	140	.7	608	250	75	3.3	1050	8.0	17.0
JUNE									
27...	59	.6	377	220	30	1.5	637	7.7	33.0
JULY									
15...	130	.6	553	250	62	2.8	974	7.9	25.0
AUG.									
26...	160	.6	588	230	44	3.7	1060	8.3	26.0

RED RIVER BASIN

07301300 North Fork Red River near Shamrock, Tex.

LOCATION.--Lat 35°15'51", long 100°14'29", Wheeler County, on left bank at downstream side of bridge on U.S. Highway 83, 2.5 miles (4.0 km) north of Shamrock, 16 miles (26 km) upstream from Oklahoma-Texas State line, and 23 miles (37 km) downstream from McClellan Creek.

DRAINAGE AREA.--1,082 mi² (2,802 km²), of which 379 mi² (982 km²) is probably noncontributing.

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

Water quality: Chemical analyses: October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,165.55 ft (660.060 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 28.5 ft³/s (0.807 m³/s), 20,650 acre-ft/yr (25.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 20,400 ft³/s (578 m³/s) May 29 (gage height, 7.47 ft or 2.277 m); no flow at times.

Period of record: Maximum discharge, 20,400 ft³/s (578 m³/s) May 29, 1975 (gage height, 7.47 ft or 2.277 m), from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

Maximum stage since at least 1915, 16.1 ft (4.91 m) in May 1957, from information by State Highway Department and local residents.

REMARKS.--Discharge records poor. Some regulation by Lake McClellan (capacity, 5,000 acre-ft or 6.16 hm³) 41 miles (66 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	25	.04	4.4	69	32	9.0	0	60	66	0	
2	0	44	.06	5.0	66	21	2.2	0	43	43	0	
3	0	874	.13	6.6	95	17	.73	0	35	43	0	
4	0	44	8.2	9.5	49	18	.09	3.0	31	35	0	
5	0	21	27	13	5.1	20	.29	2.1	43	28	0	
6	.21	17	21	17	1.5	19	1.1	.16	35	31	0	
7	.14	25	10	32	1.0	9.4	8.3	.01	22	66	0	
8	.06	24	5.1	30	2.0	4.0	244	0	12	31	0	
9	0	38	.91	18	1.0	9.5	46	0	5.7	28	0	
10	0	53	2.7	8.4	2.0	19	38	0	497	152	0	
11	0	23	89	2.8	10	32	136	0	7.7	39	0	
12	.17	9.2	59	2.4	20	39	45	5.7	6.7	12	0	
13	68	6.2	28	2.0	7.9	21	65	707	4.2	48	31	
14	174	1.7	21	2.8	7.9	19	80	314	.67	490	248	
15	41	1.8	11	7.7	7.0	17	23	20	.05	43	89	
16	13	2.1	6.0	27	7.0	23	6.5	6.5	0	25	28	
17	4.4	4.1	3.3	32	9.0	24	2.3	1.3	.03	1.5	3.6	
18	.94	7.4	11	27	20	35	.24	.66	.02	.42	.42	
19	.14	4.9	8.5	13	50	20	.05	5.9	0	.34	.01	
20	.11	.98	3.8	9.5	79	13	.03	3.3	0	.34	0	
21	.10	.36	3.3	7.5	53	4.2	.01	.07	42	.16	0	
22	.16	.37	4.4	2.4	12	.96	.07	.09	1000	.05	0	
23	.75	.54	5.8	2.4	12	.09	.06	52	64	13	0	
24	14	.15	2.8	3.3	30	.03	.03	12	4990	31	0	
25	19	.11	2.0	7.5	64	.03	.01	.31	976	142	0	
26	5.8	.05	2.0	6.6	64	.15	.02	0	346	108	0	
27	3.8	.05	2.0	3.8	46	19	.85	0	184	35	0	
28	6.6	.06	10	3.3	41	37	.02	.06	220	17	0	
29	12	.05	14	6.6	---	11	0	7060	152	6.7	0	
30	21	.03	6.6	15	---	6.6	0	1270	98	.82	0	
31	44	---	5.0	72	---	7.6	---	258	---	.06	0	---
TOTAL	429.38	1228.15	373.64	400.5	831.4	498.56	708.90	9722.16	8875.07	1536.39	400.03	0
MEAN	13.9	40.9	12.1	12.9	29.7	16.1	23.6	314	296	49.6	12.9	0
MAX	174	874	89	72	95	39	244	7060	4990	490	248	0
MIN	0	.03	.04	2.0	1.0	.03	0	0	0	.05	0	0
AC-FT	852	2440	741	794	1650	989	1410	19280	17600	3050	793	0

CAL YR 1974 TOTAL 6514.11 MEAN 17.8 MAX 943 MIN 0 AC-FT 12920
WTR YR 1975 TOTAL 25004.18 MEAN 68.5 MAX 7060 MIN 0 AC-FT 49600

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-3	0030	4.47	3,470	6-22	0200	4.59	5,960
5-13	1300	4.40	3,210	6-24	0630	7.07	18,600
5-29	0900	7.47	20,400				

RED RIVER BASIN

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07301300 North Fork Red River near Shamrock, Tex.--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
NOV. 07...	1600	25	19	300	52	260	5.2	178	0	630
DEC. 17...	1015	3.9	20	350	59	260	5.1	178	0	750
JAN. 29...	0915	8.5	19	260	50	250	6.5	99	0	640
MAR. 10...	1725	23	17	250	52	260	7.3	163	0	630
MAY 29...	1545 10800		12	89	13	76	4.5	156	0	120
JUNE 05...	1800	48	18	170	30	150	7.1	160	0	340
JULY 15...	1810	43	16	160	29	140	7.0	164	0	320

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 07...	500	--	1850	960	820	3.6	2860	8.0	12.0
DEC. 17...	500	.5	2030	1100	970	3.4	2980	7.8	1.0
JAN. 29...	490	.7	1770	860	770	3.7	2690	7.9	3.0
MAR. 10...	470	1.1	1770	840	700	3.9	2720	7.7	12.0
MAY 29...	130	.5	522	280	150	2.0	929	7.6	19.0
JUNE 05...	290	.6	1080	550	420	2.8	1750	7.7	32.0
JULY 15...	240	.5	993	520	380	2.7	1590	7.8	30.0

RED RIVER BASIN

07301410 Sweetwater Creek near Kelton, Tex.

LOCATION.--Lat 35°28'23", long 100°07'14", Wheeler County, near center of stream on downstream side of bridge on Farm Road 592, 5 miles (8 km) north of Kelton, 8 miles (13 km) upstream from Texas-Oklahoma State line, and 8.5 miles (13.7 km) northeast of Wheeler.

DRAINAGE AREA.--287 mi² (743 km²), of which 20 mi² (50 km²) is probably noncontributing.

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

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,230 ft (680 m), from topographic map.

AVERAGE DISCHARGE.--13 years (1962-75), 13.9 ft³/s (0.394 m³/s), 10,070 acre-ft/yr (12.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,440 ft³/s (40.8 m³/s) Nov. 3 (gage height, 14.12 ft or 4.304 m); minimum, 0.54 ft³/s (0.015 m³/s) Sept. 12.

Period of record: Maximum discharge, 2,110 ft³/s (59.8 m³/s) Apr. 18, 1970 (gage height, 14.95 ft or 4.557 m); no flow at times.

Maximum stage since at least 1882, about 20 ft (6.1 m) May 16, 1957.

REMARKS.--Discharge records good. Diversion above station for ranch use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	8.8	8.0	14	17	19	17	12	27	8.4	7.5	1.4
2	2.3	15	9.0	16	17	18	16	15	22	7.5	7.7	1.2
3	2.1	581	10	18	20	17	16	20	19	7.1	7.5	1.1
4	2.2	58	11	17	23	18	16	12	18	6.9	6.8	.87
5	2.1	37	11	17	21	18	16	11	17	6.4	6.2	.98
6	2.6	27	11	16	17	18	16	10	17	6.3	5.9	1.1
7	4.6	22	11	16	15	16	20	9.8	14	11	5.2	1.0
8	5.6	20	11	15	12	16	27	9.4	13	25	4.7	.74
9	4.1	19	11	15	12	17	20	8.9	12	15	4.2	.69
10	3.7	19	12	14	12	19	20	9.6	28	13	3.8	.82
11	3.5	17	14	12	16	19	28	11	20	11	3.7	.71
12	3.7	15	15	11	15	19	24	51	15	9.4	3.3	.70
13	7.3	15	14	10	14	17	25	139	12	8.9	3.4	1.3
14	18	13	14	13	14	17	28	104	10	86	4.7	1.8
15	8.3	13	13	14	14	17	24	37	9.3	24	5.6	1.9
16	6.7	13	13	13	12	17	20	23	8.6	14	4.4	1.5
17	6.1	12	13	13	12	18	19	19	8.2	9.1	4.0	1.5
18	5.8	12	13	13	15	18	17	15	7.8	7.4	3.5	1.1
19	5.5	12	12	13	18	16	15	21	7.2	6.8	3.1	1.1
20	5.6	10	12	12	23	16	14	16	6.7	6.4	3.1	.89
21	5.6	10	12	12	24	16	14	13	7.2	6.2	3.0	1.6
22	5.7	11	13	11	20	15	14	13	220	5.9	2.9	1.5
23	6.1	10	12	12	15	15	15	15	38	7.8	2.5	1.3
24	6.6	9.6	12	12	20	15	14	12	122	15	2.3	1.1
25	6.6	9.4	12	12	32	14	13	11	44	13	2.1	1.1
26	6.5	9.8	13	12	25	15	13	9.5	23	17	2.1	1.3
27	6.6	9.5	14	12	22	25	14	9.2	16	12	2.2	1.5
28	7.4	10	14	11	20	21	14	10	13	10	2.3	1.4
29	7.4	9.9	14	11	-----	18	13	100	11	10	1.9	1.4
30	7.4	8.0	14	13	-----	18	12	168	9.6	9.5	1.8	1.4
31	9.8	-----	15	16	-----	17	-----	42	-----	8.0	1.4	-----
TOTAL	177.8	1,036.0	383.0	416	497	539	534	956.4	795.6	404.0	122.8	36.00
MEAN	5.74	34.5	12.4	13.4	17.8	17.4	17.8	30.9	26.5	13.0	3.96	1.20
MAX	18	581	15	18	32	25	28	168	220	86	7.7	1.9
MIN	2.1	8.0	8.0	10	12	14	12	8.9	6.7	5.9	1.4	.69
AC-FT	353	2,050	760	825	986	1,070	1,060	1,900	1,580	801	244	71

CAL YR 1974 TOTAL 4,788.56 MEAN 13.1 MAX 581 MIN .02 AC-FT 9,500
WTR YR 1975 TOTAL 5,897.60 MEAN 16.2 MAX 581 MIN .69 AC-FT 11,700

PEAK DISCHARGE (BASE, 500 FT³/S).--Nov. 3 (0715) 1,440 ft³/s (14.12 ft); June 22 (0945) 550 ft³/s (12.21 ft).

07301410 Sweetwater Creek near Kelton, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 01...	1635	2.3	30	150	33	76	2.9	302	0	350
NOV. 07...	1345	22	31	150	30	77	4.4	346	0	280
DEC. 17...	1240	13	23	120	25	65	2.8	323	0	200
JAN. 29...	1045	12	15	79	23	58	2.5	232	0	170
MAR. 11...	1000	19	21	97	21	57	3.8	328	0	140
APR. 23...	0910	15	20	110	24	59	3.1	310	0	170
MAY 06...	1450	17	28	110	23	55	3.6	321	0	160
JULY 16...	1100	13	22	84	16	45	5.5	262	0	110
AUG. 27...	0945	2.2	22	97	36	80	3.2	176	0	370

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 01...	47	--	838	510	260	1.5	1250	8.2	22.0
NOV. 07...	50	--	793	500	210	1.5	1200	8.0	13.0
DEC. 17...	38	.6	634	400	140	1.4	978	8.1	5.0
JAN. 29...	36	.6	498	290	100	1.5	801	8.2	5.5
MAR. 11...	35	.8	537	330	60	1.4	873	8.1	5.0
APR. 23...	37	.7	577	370	120	1.3	906	7.9	17.0
MAY 06...	35	.6	573	370	110	1.2	917	7.9	28.0
JULY 16...	27	.5	439	280	61	1.2	726	7.9	23.0
AUG. 27...	47	.7	743	390	250	1.8	1170	8.2	21.0

RED RIVER BASIN

07307600 North Pease River near Childress, Tex.

LOCATION.--Lat 34°16'30", Long 100°17'05", Cottle County, on left bank at downstream side of bridge on U.S. Highways 62 and 83, 12.2 miles (19.6 km) south of Childress, and at mile 87.6 (140.9 km).

DRAINAGE AREA.--1,434 mi² (3,714 km²).

PERIOD OF RECORD.--Discharge: May 1973 to current year.

Water quality: Chemical analyses: March 1973 to current year. Water temperatures: October 1974 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 1,610 ft (491 m), from topographic map. Prior to June 8, 1973, nonrecording gage at same site and datum.

EXTREMES.--Discharge: Current year: Maximum discharge, 7,030 ft³/s (199 m³/s) June 23 (gage height, 10.21 ft or 3.112 m); no flow for many days.

Period of record: Maximum discharge, 7,130 ft³/s (202 m³/s) June 2, 1973 (gage height, 10.24 ft or 3.121 m); no flow at times.

Water quality: Current year: Maximum daily specific conductance, 38,500 micromhos Sept. 21; minimum daily, 1,450 micromhos June 23. Maximum water temperatures, 35.0°C Aug. 17; minimum, freezing point on many days during winter months.

Period of record: Maximum daily specific conductance, 38,500 micromhos Sept. 21, 1975; minimum daily, 1,450 micromhos June 23, 1975. Maximum water temperatures, 35.0°C Aug. 17, 1975; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records fair. At end of year, flow from 6.97 mi² (18.1 km²) above this station was partly controlled by six floodwater-retarding structures with a combined capacity of 1,840 acre-ft (2.27 hm³) below the flood-spillway crests, of which 480 acre-ft (0.592 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	54	.40	13	13	7.8	0	.02	0	.11	1.2	.17
2	6.8	43	.71	12	25	6.9	0	.03	0	.12	2.6	.17
3	4.9	24	.66	15	50	5.6	0	0	0	.18	2.1	.17
4	3.3	35	.82	13	59	5.4	0	.02	0	466	.82	.13
5	2.3	24	.87	10	50	4.5	0	.01	0	92	.58	.10
6	1.6	15	.95	8.7	31	3.9	0	0	0	66	.50	.30
7	1.5	15	.45	7.9	18	2.8	463	0	0	33	.43	.25
8	1.4	40	.26	5.8	16	2.3	44	0	0	9.0	.36	.74
9	1.2	35	.23	4.9	16	2.4	4.9	0	0	5.3	.36	1.2
10	.92	39	1.5	3.6	21	2.4	3.4	0	0	4.8	.36	.13
11	.74	33	3.2	2.5	6.7	2.3	3.2	0	0	3.7	.36	9.0
12	.58	21	2.5	1.8	6.0	2.3	2.5	0	0	3.3	.36	12
13	175	16	4.7	2.1	5.0	1.9	3.6	0	.68	3.1	.29	13
14	213	12	3.8	2.5	4.4	1.6	3.8	0	.04	2.1	13	7.1
15	107	9.1	2.8	2.3	3.7	1.7	2.3	0	0	1.6	136	3.7
16	48	7.8	2.5	2.1	5.0	2.4	1.7	0	0	1.6	7.3	2.3
17	27	6.9	2.2	3.8	27	2.7	1.2	0	0	1.5	2.4	1.6
18	18	7.4	1.8	4.4	30	2.6	.75	0	0	1.4	2.3	.74
19	12	7.2	1.6	3.3	18	1.8	.63	0	0	4.5	5.1	.43
20	9.1	6.2	1.4	2.7	14	.88	.61	0	0	2.8	3.1	.36
21	6.8	5.0	1.4	2.0	10	.44	.55	0	0	1.9	1.8	2.4
22	13	4.8	1.2	1.1	9.5	.27	.43	.09	76	1.9	.66	1.6
23	107	3.7	.63	1.1	15	.08	.43	0	1,340	4.6	.25	1.3
24	164	2.8	.47	1.2	23	.03	.27	0	128	25	.21	.58
25	118	2.3	.37	1.1	22	.04	.27	0	70	411	.21	.50
26	49	1.9	.85	.97	15	.13	.25	0	8.9	79	.17	.36
27	34	1.4	1.9	1.1	11	.13	.21	0	2.1	16	3.0	.25
28	34	1.3	1.7	.74	9.0	.03	.05	0	.65	8.5	.50	.21
29	34	.81	2.0	.59	-----	.04	.05	0	.23	4.5	.30	.25
30	30	.40	3.5	2.7	-----	.10	.01	0	.09	2.2	.25	.25
31	45	-----	5.1	13	-----	.02	-----	0	-----	1.6	.17	-----
TOTAL	1,278.84	475.01	52.47	147.00	533.3	65.49	538.11	.17	1,626.69	1,258.31	187.04	61.29
MEAN	41.3	15.8	1.69	4.74	19.0	2.11	17.9	.006	54.2	40.6	6.03	2.04
MAX	213	54	5.1	15	59	7.8	463	.09	1,340	466	136	13
MIN	.58	.40	.23	.59	3.7	.02	0	0	0	.11	.17	.10
AC-FT	2,540	942	104	292	1,060	130	1,070	.3	3,230	2,500	371	122

CAL YR 1974 TOTAL 12,850.02 MEAN 35.2 MAX 1,970 MIN 0 AC-FT 25,490
WTR YR 1975 TOTAL 6,223.72 MEAN 17.1 MAX 1,340 MIN 0 AC-FT 12,340

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4 -7	1830	9.48	4,570	7- 4	1000	8.15	1,930
6-23	0100	10.21	7,030	7-25	1700	7.75	1,230

07307600 North Pease River near Childress, Tex.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
09...	1425	1.3	--	670	120	--	--	--	--	1800
NOV.										
07...	0940	16	--	480	110	--	--	--	--	1200
DEC.										
10...	1705	1.4	--	700	140	--	--	--	--	1800
JAN.										
21...	1715	1.9	--	830	180	--	--	--	--	2400
FEB.										
10...	1410	20	--	540	150	--	--	--	--	1500
MAR.										
04...	0955	5.4	--	690	190	--	--	--	--	1800
APR.										
06...	1135	34	9.7	380	82	880	11	114	0	960
MAY										
05...	1600	.01	--	650	150	--	--	--	--	2100
JULY										
09...	0845	5.2	--	600	100	--	--	--	--	1400
AUG.										
18...	1505	1.6	--	630	170	--	--	--	--	1800
SEP.										
10...	1440	.09	--	700	150	--	--	--	--	2100

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
09...	5900	--	--	2200	--	--	19500	--	29.0
NOV.									
07...	4400	--	--	1700	--	--	14400	--	12.0
DEC.									
10...	7800	--	--	2300	--	--	23100	--	6.0
JAN.									
21...	8300	--	--	2800	--	--	25100	--	8.5
FEB.									
10...	5200	--	--	2000	--	--	15000	--	13.0
MAR.									
04...	6600	--	--	2500	--	--	20600	--	3.0
APR.									
04...	1400	.3	3780	1300	1200	11	6080	7.4	12.0
MAY									
05...	5700	--	--	2200	--	--	19200	--	26.0
JULY									
09...	4200	--	--	1900	--	--	14900	--	24.0
AUG.									
18...	6300	--	--	2300	--	--	19900	--	35.0
SEP.									
10...	3800	--	--	2400	--	--	14700	--	33.5

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	1278.83	6270	4000	13800	1700	5870	830	2870	1000
NOV. 1974.....	475	10400	6700	8590	3000	3850	1200	1540	****
DEC. 1974.....	52.47	24200	16000	2270	7500	1060	2600	368	****
JAN. 1975.....	147	15700	10000	3970	4600	1830	1700	675	****
FEB. 1975.....	533.3	10500	6700	9650	3000	4320	1200	1730	****
MAR. 1975.....	65.49	22100	14000	2480	6500	1150	2300	407	****
APR. 1975.....	538.1	7670	4900	7120	2100	3050	1000	1450	1200
MAY 1975.....	0.17	19500	13000	6.0	6100	2.8	2100	0.96	****
JUNE 1975.....	1626.69	1800	1000	4390	220	966	380	1670	470
JULY 1975.....	1258.3	3380	2100	7130	760	2580	520	1770	670
AUG. 1975.....	187.04	7650	4900	2470	2100	1060	1000	505	1200
SEPT 1975.....	61.29	18100	12000	1990	5600	927	2000	331	****
TOTAL	6223.7	**	**	63900	**	26700	**	13300	**
WTD.AVG.	17.05	6010	3800	**	1600	**	790	**	1000

RED RIVER BASIN

07307600 North Pease River near Childress, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11200	6710	20200	10900	16500	16100	---	19700	---	18500	20300	16300
2	15100	5980	22700	11000	13400	17500	---	19500	---	18200	19800	16600
3	16700	12200	23900	9000	6890	18900	---	---	---	17500	23400	16600
4	16600	9000	24800	9550	6800	20200	---	19300	---	2780	20700	16400
5	16900	7880	24800	11700	7900	22100	---	19200	---	2490	18200	16200
6	16300	10900	25800	13000	9600	22900	---	---	---	4250	17000	10000
7	17500	14400	24700	15300	11800	23600	6330	---	---	3730	16700	11500
8	20400	9000	21500	16300	12600	23300	8570	---	---	9270	16700	13600
9	19500	7910	21200	17800	13500	25100	15000	---	---	14600	16800	14600
10	17700	9410	23100	19800	15000	26900	22600	---	---	17300	16600	14700
11	16100	7510	28700	21800	14500	25800	29300	---	---	23600	16800	7500
12	14200	9590	26900	24500	15500	27700	30700	---	---	19500	16700	3960
13	5190	12200	18600	25300	17600	27600	29000	---	18000	15700	16400	18600
14	3660	14000	16600	27200	18200	27100	37400	---	18700	17000	15000	30900
15	4300	15800	19500	25800	21000	26000	32300	---	---	18400	4490	31500
16	5760	17800	23100	26800	18900	27600	30200	---	---	17300	10500	28600
17	7490	19800	24400	28500	10000	25800	25700	---	---	17000	19000	28500
18	9510	19600	25800	19400	9720	22700	23900	---	---	17000	19500	23900
19	11600	18900	26400	22100	10400	23500	22200	---	---	16800	16200	18700
20	14000	19080	26200	22400	11000	25100	26600	---	---	13200	16700	17700
21	15700	19600	27100	25100	11900	23700	20100	---	---	11500	16500	38500
22	17400	20600	27100	25500	13500	21300	19200	19500	3670	13800	16200	37100
23	7160	21300	25600	24900	11000	20800	18500	---	1450	13500	16000	25200
24	4280	20900	25600	26600	9450	19600	19400	---	3220	6080	16300	18800
25	4380	20100	22900	26700	9070	19400	19400	---	2870	1560	16400	18200
26	7400	20900	23400	26000	9580	19600	18900	---	4650	2990	16500	17500
27	8790	20700	23800	25700	11900	17900	18500	---	9670	11100	16000	17200
28	11100	21500	32000	24100	14300	24700	19600	---	16300	16800	15400	17400
29	10000	21700	31800	23200	---	19300	19600	---	18500	20100	15800	17000
30	10100	19600	21900	22000	---	18600	19800	---	18000	21200	16000	17100
31	9500	---	23700	14800	---	22000	---	---	---	20100	16100	---
MONTH	11790	15150	24640	20730	12550	22660	21950	---	---	13640	16600	19350

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	11.0	0.0	0.0	4.0	6.0	---	---	---	---	23.0	23.0
2	23.0	17.0	0.0	2.0	6.0	6.0	---	---	---	---	23.0	24.0
3	24.0	15.0	0.0	0.0	5.0	5.0	---	---	---	---	22.0	23.0
4	15.0	8.0	1.0	0.0	5.0	3.0	---	---	---	26.0	23.0	23.0
5	16.0	13.0	7.0	3.0	---	6.0	---	---	---	23.0	21.0	23.0
6	17.0	8.0	5.0	0.0	---	9.0	---	---	---	24.0	20.0	21.0
7	13.0	11.0	4.0	2.0	0.0	6.0	15.0	---	---	24.0	21.0	22.0
8	14.0	11.0	10.0	5.0	4.0	4.0	18.0	---	---	23.0	21.0	20.0
9	19.0	11.0	0.0	6.0	0.0	---	9.0	---	---	25.0	---	27.0
10	19.0	12.0	5.0	2.0	0.0	3.0	12.0	---	---	24.0	---	23.0
11	16.0	8.0	3.0	0.0	5.0	4.0	9.0	---	---	23.0	---	23.0
12	28.0	6.0	1.0	0.0	2.0	5.0	7.0	---	---	22.0	23.0	15.0
13	15.0	8.0	1.0	0.0	19.0	1.0	10.0	---	---	32.0	24.0	13.0
14	14.0	5.0	2.0	0.0	6.0	1.0	11.0	---	---	21.0	23.0	17.0
15	9.0	5.0	0.0	0.0	5.0	5.0	12.0	---	---	21.0	22.0	17.0
16	11.0	5.0	2.0	2.0	10.0	17.0	15.0	---	---	21.0	23.0	21.0
17	12.0	17.0	---	0.0	10.0	7.0	18.0	---	---	22.0	35.0	19.0
18	14.0	8.0	4.0	1.0	2.0	8.0	15.0	---	---	22.0	23.0	19.0
19	13.0	8.0	1.0	3.0	---	9.0	---	---	---	23.0	---	19.0
20	12.0	5.0	0.0	0.0	1.0	9.0	10.0	---	---	26.0	27.0	15.0
21	12.0	5.0	12.0	2.0	5.0	9.0	12.0	---	---	25.0	---	22.0
22	15.0	8.0	4.0	0.0	2.0	7.0	17.0	---	19.0	24.0	---	12.0
23	15.0	11.0	3.0	4.0	0.0	16.0	17.0	---	18.0	25.0	24.0	11.0
24	16.0	5.0	3.0	5.0	1.0	4.0	17.0	---	22.0	23.0	24.0	13.0
25	16.0	3.0	0.0	2.0	5.0	4.0	18.0	---	24.0	20.0	24.0	12.0
26	15.0	4.0	2.0	4.0	4.0	7.0	20.0	---	22.0	21.0	25.0	13.0
27	15.0	4.0	0.0	4.0	2.0	10.0	20.0	---	23.0	24.0	22.0	15.0
28	14.0	5.0	3.0	4.0	4.0	3.0	15.0	---	27.0	24.0	22.0	17.0
29	12.0	2.0	4.0	5.0	---	6.0	14.0	---	25.0	28.0	23.0	15.0
30	18.0	0.0	4.0	5.0	---	2.0	15.0	---	24.0	23.0	24.0	15.0
31	14.0	---	3.0	5.0	---	4.0	---	---	---	23.0	24.0	---
MONTH	15.5	8.0	3.0	2.0	4.5	6.0	14.0	---	---	23.5	23.5	18.5

RED RIVER BASIN

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07307660 North Pease River near Kirkland, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 34°16'06", long 100°10'19", Cottle County, at ranchroad crossing, 0.6 mile (1.0 km) south of Buckle L Ranch House, and 11.5 miles (18.5 km) southwest of Kirkland.

PERIOD OF RECORD.--Occasional discharge measurements and water-quality data: March 1973 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA+MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 10...	1025	5.4	1200	210	2900	15000	3900	42000	19.0
NOV. 21...	1400	8.0	830	170	2200	8800	2800	24800	18.0
DEC. 11...	1105	8.0	980	210	2400	9400	3300	27800	6.0
JAN. 22...	0825	3.3	1000	220	2700	11000	3400	34700	.0
MAR. 04...	1125	8.4	790	210	2300	7800	2800	24100	5.5
APR. 15...	0820	9.4	980	190	2300	9000	3200	27200	11.5
MAY 28...	0725	.22	1300	300	3200	14000	4500	41400	21.0
JUNE 17...	1215	.01	1400	340	3500	16000	4900	45200	30.0
JULY 09...	0740	19	570	84	1400	3300	1800	11800	23.5
29...	1100	13	800	130	2000	6500	2500	20900	34.5
AUG. 18...	1705	9.1	900	140	2000	7000	2800	22600	34.0
SEPT. 10...	1805	.52	1400	250	3400	14000	4500	39700	31.5

07307750 Middle Pease River near Paducah, Tex.

LOCATION.--Lat 34°12'31", long 100°18'03", Cottle County, on left bank at downstream side of bridge on U.S. Highways 62 and 83, 11.8 miles (19.0 km) north of Paducah, and at mile 13.4 (21.6 km).

DRAINAGE AREA.--1,086 mi² (2,813 km²), of which 65 mi² (168 km²) is probably noncontributing.

PERIOD OF RECORD.--Discharge: May 1973 to current year.

Water quality: Chemical analyses: May 1973 to current year. Water temperatures: October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,630 ft (497 m), from topographic map. Prior to June 6, 1973, nonrecording gage to same site and datum.

EXTREMES.--Discharge: Current year: Maximum discharge, 340 ft³/s (9.63 m³/s) July 25 (gage height, 6.05 ft or 1.844 m); no flow for many days.

Period of record: Maximum discharge, 5,390 ft³/s (153 m³/s) June 4, 1974 (gage height, 11.20 ft or 3.414 m); no flow for many days.

Water quality: Current year: Maximum daily specific conductance, 4,910 micromhos Feb. 12; minimum daily, 1,520 micromhos Aug. 15.

Period of record: Maximum daily specific conductance, 4,910 micromhos Feb. 12, 1975; minimum daily, 940 micromhos June 4, 1974.

REMARKS.--Discharge records fair. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	43	4.6	4.1	11	16	8.1		0	0	0	0
2	2.7	62	4.5	6.2	13	13	5.3		0	0	28	0
3	2.3	40	4.0	6.5	32	14	5.0		0	0	11	0
4	1.8	25	4.0	7.5	52	13	6.0		0	23	3.9	0
5	1.4	19	4.1	6.8	37	12	5.6		0	.05	.92	0
6	.71	19	3.9	6.1	30	11	7.1		0	0	.04	0
7	.55	18	3.5	5.6	25	8.6	23		0	0	.01	0
8	.58	25	3.5	4.9	22	8.7	24		0	0	0	0
9	.53	26	3.2	4.7	18	9.3	11		0	0	0	0
10	.15	30	3.6	3.8	15	9.6	8.2		0	0	0	0
11	0	38	5.0	3.2	14	11	7.8		0	0	0	.35
12	0	31	5.0	2.5	13	12	7.4		0	0	0	0
13	8.5	20	6.0	2.5	13	12	7.0		0	0	0	0
14	226	16	5.0	3.0	12	12	6.0		0	0	.04	0
15	78	14	3.5	3.4	11	14	6.7		0	0	21	0
16	29	14	3.1	2.9	17	15	6.0		0	0	11	0
17	20	14	3.0	3.1	41	15	5.3		0	0	4.0	0
18	16	14	2.8	3.0	48	17	3.9		0	0	.67	0
19	13	12	2.4	2.6	27	14	2.8		0	.06	.01	0
20	12	9.6	2.2	2.6	27	13	2.6		0	0	0	0
21	9.8	8.2	1.9	2.3	25	11	1.9		0	0	0	0
22	9.3	8.4	2.0	1.9	27	10	2.7		0	0	0	0
23	37	6.4	1.8	2.0	33	8.7	3.5		33	0	0	0
24	117	5.4	1.6	2.4	41	7.8	1.7		0	0	0	0
25	186	5.4	1.6	2.8	49	8.2	.14		0	128	0	0
26	86	4.8	1.5	2.6	35	9.6	.07		0	44	0	0
27	47	4.5	1.7	2.7	29	8.1	.03		0	15	0	0
28	34	4.5	1.7	2.5	21	6.5	.01		0	55	0	0
29	29	4.0	2.1	2.6	-----	6.4	0		0	13	0	0
30	31	4.0	2.6	3.3	-----	8.1	0		0	2.4	0	0
31	29	-----	3.9	5.1	-----	8.7	-----		-----	.04	0	-----
TOTAL	1,032.02	545.2	99.3	115.2	738	343.3	168.85	0	33	280.55	80.59	.35
MEAN	33.3	18.2	3.20	3.72	26.4	11.1	5.63	0	1.10	9.05	2.60	.012
MAX	226	62	6.0	7.5	52	17	24	0	33	128	28	.35
MIN	0	4.0	1.5	1.9	11	6.4	0	0	0	0	0	0
AC-FT	2,050	1,080	197	228	1,460	681	335	0	65	556	160	.7

CAL YR 1974 TOTAL 7,353.60 MEAN 20.1 MAX 3,090 MIN 0 AC-FT 14,590

WTR YR 1975 TOTAL 3,436.36 MEAN 9.41 MAX 226 MIN 0 AC-FT 6,820

PEAK DISCHARGE (BASE, 400 FT³/S).--No peak above base.

RED RIVER BASIN

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07307750 Middle Pease River near Paducah, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 30...	1600	32	15	220	55	480	6.3	160	0	600
NOV. 07...	1050	17	18	270	60	490	6.8	130	0	780
DEC. 10...	1500	4.0	16	350	74	440	6.1	152	0	1000
JAN. 21...	1500	2.2	14	330	86	500	7.8	152	0	1100
FEB. 10...	1500	15	15	290	86	610	7.0	175	0	900
MAR. 03...	1620	14	14	290	93	550	6.5	152	0	910
APR. 08...	1030	26	12	190	30	150	7.1	116	0	500
JULY 29...	1415	11	16	200	46	240	10	140	0	570
AUG. 18...	1215	1.1	18	280	65	310	11	122	0	860

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 30...	720	--	2180	780	640	7.5	3580	7.8	16.0
NOV. 07...	740	.5	2430	920	810	7.0	3780	8.0	12.5
DEC. 10...	680	.4	2640	1200	1100	5.6	3750	7.2	6.0
JAN. 21...	780	.4	2890	1200	1100	6.3	4120	7.7	9.0
FEB. 10...	880	.8	2880	1100	930	8.1	4270	7.8	14.0
MAR. 03...	850	.5	2790	1100	980	7.2	4260	7.8	6.0
APR. 08...	230	.3	1180	600	500	2.7	1810	7.4	11.5
JULY 29...	350	--	1500	690	570	4.0	2280	7.9	36.0
AUG. 18...	500	--	2100	970	870	4.3	2980	7.8	30.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	1032.02	2930	1900	5290	500	1390	710	1980	840
NOV. 1974.....	545.2	3680	2400	3530	670	986	850	1250	1000
DEC. 1974.....	99.3	3790	2500	670	710	190	880	236	1000
JAN. 1975.....	115.2	3910	2600	809	740	230	910	283	1100
FEB. 1975.....	738	3860	2600	5180	740	1470	910	1810	1100
MAR. 1975.....	343.3	4180	2800	2600	810	751	970	899	1100
APR. 1975.....	168.85	3560	2400	1090	670	305	850	388	990
MAY 1975.....	0	****	****	0	****	0	****	0	****
JUNE 1975.....	33	1750	1100	98	220	20	460	41	580
JULY 1975.....	280.55	1770	1200	909	250	189	490	371	580
AUG. 1975.....	80.59	1740	1100	239	220	48	460	100	570
SEPT 1975.....	0.35	3400	2200	2.1	600	0.57	800	0.76	950
TOTAL	3436.36	**	**	20400	**	5580	**	7360	**
WTD.AVG.	9.41	3330	2200	**	600	**	790	**	940

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	21.0	---	7.0	---	---	---					
2	24.0	23.0	---	5.0	---	---	---					
3	24.0	---	---	5.0	---	---	---					
4	23.0	14.0	---	---	---	---	---					
5	26.0	17.0	---	---	---	---	---					
6	16.0	14.0	---	12.0	---	---	---					
7	20.0	13.0	---	14.0	---	---	15.0					
8	24.0	---	---	---	---	---	9.0					
9	25.0	14.0	---	---	---	---	7.0					
10	---	---	14.0	---	18.0	---	---					
11	---	15.0	12.0	---	15.0	---	---					
12	---	15.0	10.0	---	14.0	---	12.0					
13	---	15.0	---	---	---	---	---					
14	---	12.0	---	---	12.0	---	11.0					
15	19.0	10.0	---	14.0	---	---	12.0					
16	24.0	10.0	---	---	---	---	---					
17	---	---	---	---	---	---	29.0					
18	---	---	9.0	---	---	---	---					
19	25.0	---	11.0	---	8.0	---	---					
20	25.0	---	11.0	---	---	---	15.0					
21	17.0	17.0	10.0	4.0	---	---	---					
22	20.0	17.0	---	5.0	---	---	---					
23	20.0	---	12.0	---	---	---	---					
24	14.0	---	---	---	---	---	13.0					
25	19.0	---	---	---	---	---	19.0					
26	---	---	14.0	---	---	---	27.0					
27	18.0	14.0	---	16.0	---	---	---					
28	22.0	---	---	14.0	---	5.0	---					
29	23.0	---	---	---	---	---	---					
30	16.0	---	---	---	---	---	---					
31	19.0	---	---	---	---	---	---					
MONTH	---	---	---	---	---	---	---					

07307780 Middle Pease River near Kirkland, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 34°14'17", long 100°07'46", Cottle County, 0.3 mile (0.5 km) upstream from mouth and 10.5 miles (16.9 km) southwest of Kirkland.

PERIOD OF RECORD.--Occasional discharge measurements and water-quality data: March 1973 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
10...	0820	2.7	--	1100	200	--	--	--	--	2400
31...	1650	50	--	570	99	--	--	--	--	1400
NOV.										
21...	1700	16	--	840	160	--	--	--	--	2200
DEC.										
11...	1145	15	11	930	180	6800	18	150	0	2400
JAN.										
22...	0945	6.4	--	1000	190	--	--	--	--	2800
MAR.										
04...	1640	18	--	690	150	--	--	--	--	2100
APR.										
15...	0945	12	--	920	180	--	--	--	--	2400
MAY										
08...	1230	2.8	--	1200	240	--	--	--	--	3300
28...	0915	3.9	--	1100	240	--	--	--	--	3200
JUNE										
17...	1100	.56	--	1200	250	--	--	--	--	3400
JULY										
08...	1730	2.4	--	1200	250	--	--	--	--	2700
AUG.										
19...	0825	8.3	--	1000	230	--	--	--	--	2700
SEP.										
10...	1020	2.3	--	1400	240	--	--	--	--	3200

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
10...	11000	--	--	3600	--	--	34200	--	15.5
31...	5600	--	--	1800	--	--	17500	--	19.0
NOV.									
21...	9300	--	--	2800	--	--	26200	--	17.0
DEC.									
11...	11000	.3	21400	3100	2900	53	32900	7.8	9.0
JAN.									
22...	12000	--	--	3300	--	--	34800	--	10.0
MAR.									
04...	6800	--	--	2300	--	--	21500	--	9.5
APR.									
15...	10000	--	--	3000	--	--	27900	--	15.0
MAY									
08...	14000	--	--	4000	--	--	40900	--	27.0
28...	13000	--	--	3700	--	--	39900	--	19.0
JUNE									
17...	14000	--	--	4000	--	--	40700	--	26.0
JULY									
08...	15000	--	--	4000	--	--	40000	--	33.5
AUG.									
19...	11000	--	--	3400	--	--	35600	--	23.0
SEP.									
10...	15000	--	--	4500	--	--	42200	--	24.0

RED RIVER BASIN

07307800 Pease River near Childress, Tex.

LOCATION.--Lat 34°13'39", long 100°04'24", Cottle County, near right bank on downstream side of bridge on Farm Road 104, 0.8 mile (1.3 km) upstream from Catfish Creek, 4.4 miles (7.1 km) downstream from confluence of North and Middle Forks, 17 miles (27 km) southeast of Childress, and at mile 71.0 (114.2 km).

DRAINAGE AREA.--2,754 mi² (7,133 km²), of which 559 mi² (1,448 km²) is probably noncontributing.

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

Water quality: Chemical analyses: July 1968 to current year. Water temperatures: July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,492.98 ft (455.060 m) above mean sea level. Prior to Dec. 21, 1959, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--10 years (1960-62, 1967-75), 66.0 ft³/s (1.869 m³/s), 47,820 acre-ft/yr (59.0 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 4,840 ft³/s (137 m³/s) June 23 (gage height, 10.99 ft or 3.350 m); minimum, 0.16 ft³/s (0.005 m³/s) June 18.

Period of record: Maximum discharge, 19,000 ft³/s (538 m³/s) June 9, 1960 (gage height, 13.59 ft or 4.142 m); no flow Aug. 10-22, 1969, May 25, 26, 1971.

Historic: Maximum stage since at least 1909, 22 ft (6.7 m) June 1, 1957; flood in May 1935 reached a stage of 18 ft (5.5 m) and was the second highest, from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 36,600 micromhos June 20; minimum daily, 2,670 micromhos June 23.

Maximum water temperatures, 36.0°C July 16, Aug. 25; minimum, 1.0°C Feb. 16, 17.

Period of record: Maximum daily specific conductance, 43,800 micromhos Apr. 11, 1974; minimum daily, 1,820 micromhos June 4, 1974.

Maximum water temperatures, 37.0°C Aug. 10, 12, 14, 15, 1969; minimum, freezing point on several days during January and February of 1971, 1973-74.

REMARKS.--Discharge records fair. Three small diversions for irrigation above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	192	10	28	37	37	17	4.6	2.9	12	18	34
2	55	709	14	46	44	31	15	5.5	1.8	8.6	31	30
3	52	109	18	40	85	28	14	6.0	1.3	14	97	24
4	44	92	17	47	165	30	14	7.0	.96	618	25	14
5	35	80	18	46	102	27	14	17	1.0	365	16	10
6	24	68	17	35	71	26	15	6.7	.96	104	12	8.6
7	23	60	17	29	52	24	432	3.8	1.1	86	9.6	6.9
8	20	63	15	23	42	23	346	3.5	1.0	38	8.8	6.4
9	19	109	14	20	45	25	89	3.5	.83	24	8.8	5.4
10	13	105	19	17	39	25	56	3.6	1.6	29	8.4	4.5
11	10	112	27	15	33	25	43	4.0	1.9	28	7.9	3.7
12	12	78	26	10	32	26	35	3.5	1.8	22	8.4	31
13	95	56	24	8.0	30	23	32	2.9	1.9	24	8.1	61
14	326	42	28	10	29	22	30	4.9	7.2	15	180	45
15	246	39	25	13	27	24	25	4.5	2.2	12	499	26
16	112	37	23	12	40	31	23	2.8	1.2	9.0	72	21
17	76	34	22	11	45	40	20	2.5	.94	8.1	44	18
18	40	32	21	14	95	34	15	1.9	.86	8.5	25	14
19	28	31	20	14	64	31	12	3.0	.85	112	17	11
20	22	28	19	11	49	25	11	3.2	.68	118	15	9.7
21	20	28	19	10	41	22	11	5.4	.81	41	14	19
22	20	27	19	9.5	46	22	12	11	124	28	12	17
23	26	22	18	9.0	43	21	14	15	1,560	24	11	10
24	457	18	17	10	48	16	11	6.8	398	137	9.6	6.9
25	402	17	16	10	63	15	9.6	3.4	184	1,030	7.9	5.4
26	163	15	15	9.3	67	15	8.8	1.9	130	344	7.6	5.4
27	138	14	15	8.6	52	23	9.3	2.3	55	169	108	5.5
28	132	13	18	8.4	42	17	6.9	3.7	28	68	142	5.4
29	129	11	18	8.4	-----	16	5.5	19	19	51	43	4.3
30	129	10	20	13	-----	17	4.6	17	14	30	36	4.2
31	126	-----	30	30	-----	19	-----	5.8	-----	21	36	-----
TOTAL	3,064	2,251	599	575.2	1,528	760	1,350.7	185.7	2,545.79	3,598.2	1,538.1	467.3
MEAN	98.8	75.0	19.3	18.6	54.6	24.5	45.0	5.99	84.9	116	49.6	15.6
MAX	457	709	30	47	165	40	432	19	1,560	1,030	499	61
MIN	10	10	10	8.0	27	15	4.6	1.9	.68	8.1	7.6	3.7
AC-FT	6,080	4,460	1,190	1,140	3,030	1,510	2,680	368	5,050	7,140	3,050	927
CAL YR 1974	TOTAL 30,599.75 MEAN 83.8 MAX 4,740 MIN .16 AC-FT 60,690											
WTR YR 1975	TOTAL 18,462.99 MEAN 50.6 MAX 1,560 MIN .68 AC-FT 36,620											

PEAK DISCHARGE (BASE, 2,200 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 2	0600	9.88	2,470	7-25	1030	9.99	2,410
4- 7	2130	10.92	4,820	8-14	2300	9.89	2,230
6-23	0430	10.99	4,840				

07307800 Pease River near Childress, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 31...	1445	7.8	--	500	90	--	--	--	--	1200
NOV. 07...	1710	54	--	690	120	--	--	--	--	1800
DEC. 11...	1300	27	--	850	180	--	--	--	--	2500
JAN. 22...	1050	10	--	1100	200	--	--	--	--	2900
FEB. 11...	0800	60	--	680	150	--	--	--	--	1900
MAR. 04...	1350	31	--	780	170	--	--	--	--	1900
APR. 08...	1400	218	9.2	420	54	1000	9.6	120	0	1100
MAY 05...	1150	23	--	800	140	--	--	--	--	2200
JUNE 03...	1200	1.9	--	1100	220	--	--	--	--	2900
JULY 08...	1340	33	--	550	86	--	--	--	--	890
AUG. 19...	1015	18	--	950	180	--	--	--	--	2500
SEP. 17...	1330	15	--	1100	220	--	--	--	--	2800

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	3600	--	--	1600	--	--	12200	--	20.0
NOV. 07...	5700	--	--	2200	--	--	18900	--	13.5
DEC. 11...	9800	--	--	2900	--	--	28200	--	9.5
JAN. 22...	10000	--	--	3600	--	--	32600	--	2.0
FEB. 11...	6100	--	--	2300	--	--	19300	--	5.0
MAR. 04...	7500	--	--	2600	--	--	22500	--	12.0
APR. 08...	1600	.4	4250	1300	1200	12	6920	7.3	14.5
MAY 05...	7400	--	--	2600	--	--	24100	--	24.0
JUNE 03...	10000	--	--	3700	--	--	32100	--	25.0
JULY 08...	4300	--	--	1700	--	--	11100	--	34.0
AUG. 19...	9000	--	--	3100	--	--	26600	--	23.0
SEP. 17...	12000	--	--	3700	--	--	35400	--	31.0

RED RIVER BASIN

07307800 Pease River near Childress, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	3064	10400	6600	54600	3000	24800	1100	9100	****
NOV. 1974.....	2251	13000	8300	50400	3900	23700	1300	7900	****
DEC. 1974.....	599	24900	16000	25900	7900	12800	2100	3400	****
JAN. 1975.....	575.2	22200	14000	21700	6900	10700	1800	2800	****
FEB. 1975.....	1528	15000	9600	39600	4600	19000	1400	5780	****
MAR. 1975.....	760	24500	16000	32800	7900	16200	2100	4310	****
APR. 1975.....	1350.69	14000	8900	32500	4200	15300	1400	5110	****
MAY 1975.....	185.7	25500	17000	8520	8400	4210	2200	1100	****
JUNE 1975.....	2545.79	5090	3100	21300	1200	8250	740	5090	900
JULY 1975.....	3598.2	7460	4600	44700	2000	19400	870	8450	1100
AUG. 1975.....	1538.09	13900	8900	37000	4200	17400	1400	5810	****
SEPT 1975.....	467.3	30700	20000	25200	10000	12600	2500	3150	****
TOTAL	18462.98	**	**	394000	**	184000	**	62000	**
WTD.AVG.	50.58	12400	7900	**	3700	**	1200	**	*****

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20700	14500	21000	27300	22200	19400	26700	26300	25700	29500	31500	33600
2	20700	4180	24200	20800	21800	19400	28100	25600	34100	30600	25000	31400
3	22300	15800	24800	19000	15000	19600	33100	27500	34200	28700	14600	31500
4	23600	10400	24700	16900	8780	22500	33900	25400	33900	3950	26800	32200
5	27800	14300	25600	16900	9900	22700	34200	15000	21900	4860	32200	25400
6	28200	16800	24800	17200	12500	22700	33200	20000	22000	8430	33500	28200
7	27600	18900	29400	20700	14500	22700	6300	26100	21900	8060	33800	26000
8	26900	19800	28000	21700	16400	25200	6400	24200	31900	10700	33300	25800
9	27800	14200	20600	22100	17600	23200	18200	26000	32600	19400	33000	25800
10	29400	13800	23500	26100	17700	23900	18600	28400	23500	20800	32700	26500
11	27900	13800	28200	24000	19300	23900	18900	34700	21900	18500	32100	33800
12	27900	13400	25600	22100	18800	23100	20500	35300	34000	18000	32000	26400
13	11700	17200	28600	26600	19400	22300	21700	32900	22900	18000	31700	23100
14	6970	19500	25700	24200	19800	27000	25000	33300	33400	25600	6020	27300
15	5080	21700	23600	23700	23100	22900	28800	30700	33600	24000	3940	32400
16	6900	22700	24900	24200	19400	23600	29200	35300	33900	22800	11000	34700
17	11400	22400	23900	25800	21600	22900	24200	34500	31900	28900	15800	36000
18	12900	22000	24900	29300	12000	24500	25600	24200	19800	28100	22000	35800
19	16200	22400	23000	25100	12000	28100	27500	22900	20000	3960	26600	35700
20	19400	22500	24300	25100	13900	28100	33500	22600	36600	6570	31400	35700
21	20400	24300	18900	20300	15200	29300	26000	27600	26100	17700	31700	33100
22	22200	23100	24400	32600	15500	29300	33000	31200	7970	22000	32600	34200
23	22000	24600	26300	24000	17600	33200	25200	33000	2670	26100	34200	36400
24	5060	26300	18800	28300	18700	29500	27100	34500	4500	12000	34000	36200
25	4500	23300	27300	25800	13800	25700	26200	28500	6400	2800	33900	36000
26	7120	24000	27300	18700	12700	28100	26100	26400	10200	5860	33700	34700
27	11100	23800	23400	24700	15100	22300	28000	29300	17800	12600	14100	35700
28	12700	25100	24800	26100	16900	18900	34200	35100	23600	21300	14800	35700
29	14400	23800	22600	18700	---	29200	33100	17100	27200	22200	24800	36400
30	13900	21700	24900	25900	---	33700	26100	17500	26200	26100	30000	34900
31	12200	---	28000	27700	---	27700	---	25300	---	31400	32500	---
MONTH	17640	19340	24710	23600	16470	24990	25950	27630	24080	18050	26620	32020

RED RIVER BASIN

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07307800 Pease River near Childress, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	14.0	9.0	7.0	8.0	5.0	9.0	26.0	24.0	29.0	28.0	30.0
2	---	19.0	9.0	5.0	6.0	6.0	7.0	24.0	23.0	28.0	---	22.0
3	---	13.0	8.0	8.0	5.0	5.0	20.0	25.0	24.0	28.0	27.0	21.0
4	20.0	12.0	7.0	8.0	5.0	6.0	17.0	19.0	24.0	25.0	28.0	22.0
5	25.0	12.0	8.0	6.0	3.0	10.0	16.0	---	25.0	29.0	26.0	23.0
6	20.0	13.0	10.0	6.0	3.0	13.0	17.0	---	26.0	27.0	26.0	22.0
7	20.0	13.0	6.0	6.0	2.0	11.0	15.0	23.0	---	28.0	34.0	21.0
8	19.0	13.0	4.0	7.0	4.0	8.0	9.0	---	21.0	29.0	28.0	23.0
9	18.0	14.0	6.0	8.0	6.0	17.0	20.0	17.0	20.0	28.0	27.0	25.0
10	23.0	11.0	7.0	7.0	6.0	13.0	13.0	26.0	21.0	26.0	26.0	22.0
11	24.0	11.0	9.0	---	4.0	8.0	9.0	26.0	21.0	26.0	31.0	28.0
12	21.0	10.0	10.0	---	7.0	8.0	8.0	20.0	25.0	33.0	26.0	15.0
13	17.0	11.0	11.0	---	7.0	5.0	13.0	19.0	23.0	33.0	32.0	15.0
14	14.0	14.0	4.0	---	5.0	12.0	15.0	17.0	31.0	26.0	31.0	17.0
15	16.0	11.0	5.0	---	6.0	10.0	18.0	24.0	31.0	27.0	28.0	24.0
16	14.0	11.0	5.0	7.0	1.0	12.0	21.0	24.0	30.0	36.0	30.0	22.0
17	25.0	13.0	4.0	3.0	1.0	15.0	18.0	26.0	22.0	27.0	32.0	24.0
18	14.0	13.0	5.0	3.0	2.0	15.0	14.0	29.0	32.0	28.0	31.0	23.0
19	23.0	13.0	5.0	3.0	3.0	15.0	14.0	20.0	30.0	27.0	22.0	25.0
20	21.0	13.0	5.0	4.0	5.0	17.0	20.0	24.0	25.0	29.0	30.0	20.0
21	15.0	9.0	7.0	6.0	3.0	25.0	20.0	20.0	25.0	32.0	23.0	21.0
22	16.0	12.0	8.0	3.0	3.0	27.0	17.0	22.0	25.0	---	24.0	20.0
23	16.0	13.0	7.0	6.0	10.0	13.0	24.0	24.0	35.0	23.0	29.0	24.0
24	15.0	13.0	4.0	15.0	5.0	15.0	18.0	24.0	---	23.0	35.0	25.0
25	18.0	8.0	4.0	6.0	6.0	11.0	21.0	20.0	26.0	22.0	36.0	19.0
26	16.0	8.0	4.0	5.0	6.0	18.0	23.0	23.0	26.0	28.0	26.0	15.0
27	18.0	8.0	5.0	5.0	13.0	12.0	20.0	20.0	28.0	33.0	26.0	27.0
28	18.0	8.0	7.0	5.0	17.0	9.0	20.0	23.0	26.0	30.0	27.0	29.0
29	16.0	6.0	6.0	7.0	---	4.0	15.0	25.0	30.0	26.0	31.0	22.0
30	17.0	6.0	7.0	8.0	---	4.0	18.0	19.0	29.0	32.0	29.0	19.0
31	15.0	---	7.0	5.0	---	13.0	---	24.0	---	29.0	22.0	---
MONTH	18.5	11.5	6.5	6.0	5.5	11.5	16.5	22.5	26.0	28.0	28.5	22.0

07308200 Pease River near Vernon, Tex.

LOCATION.--Lat 34°10'44", long 99°16'40", Wilbarger County, near left bank on downstream side of bridge on U.S. Highway 283, 1.9 miles (3.1 km) north of Vernon, and 10 miles (16 km) upstream from mouth.

DRAINAGE AREA.--3,488 mi² (9,034 km²), of which 559 mi² (1,448 km²) is probably noncontributing.

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

Water quality: Chemical analyses: November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,166.03 ft (355.406 m) above mean sea level.

AVERAGE DISCHARGE.--15 years (1960-75), 109 ft³/s (3.087 m³/s), 78,970 acre-ft/yr (97.4 km³/yr).

EXTREMES.--Current year: Maximum discharge, 22,500 ft³/s (637 m³/s) July 25 (gage height, 17.37 ft or 5.294 m); minimum, 4.1 ft³/s (0.116 m³/s) May m³/s) May 18.

Period of record: Maximum discharge, 31,000 ft³/s (878 m³/s) Sept. 19, 1965 (gage height, 18.50 ft or 5.639 m); no flow at times.

Maximum stage since at least 1890, 24 ft (7.3 m) in 1891; flood in September 1936 reached a stage of 23.5 ft (7.16 m), and flood of June 2, 1957, reached a stage of 22.0 ft (6.71 m), from information by local residents.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	373	42	30	67	87	25	18	80	56	165	41
2	130	251	39	43	74	77	21	18	59	47	147	36
3	106	597	39	46	92	69	20	16	40	65	128	33
4	92	367	37	43	188	67	20	15	32	147	120	28
5	79	216	37	47	220	64	19	16	27	1,250	147	27
6	69	156	36	46	209	59	19	15	22	482	108	36
7	61	136	37	47	165	53	22	20	19	233	92	24
8	54	115	34	45	133	49	415	17	28	131	81	27
9	50	104	33	42	115	46	263	14	22	224	70	33
10	46	112	32	39	102	42	175	11	19	100	65	27
11	42	147	34	25	94	45	108	11	19	79	61	23
12	39	125	37	25	89	46	92	9.5	16	65	54	89
13	37	112	37	28	82	46	82	11	15	58	49	79
14	41	104	36	33	74	45	71	8.3	14	50	88	168
15	109	98	36	31	71	42	64	7.7	13	42	2,550	146
16	386	88	34	28	71	42	57	6.8	13	37	1,430	99
17	233	84	33	27	75	45	52	5.8	11	32	443	73
18	147	79	32	27	79	150	46	5.2	10	30	224	59
19	102	75	32	24	86	86	40	6.2	8.1	32	145	47
20	79	70	32	24	113	58	37	72	7.0	32	112	42
21	64	67	31	23	113	50	34	61	9.0	110	91	43
22	53	62	31	21	136	42	32	38	525	112	78	44
23	49	59	30	21	128	36	32	263	1,880	62	65	41
24	110	54	29	19	112	34	31	94	1,080	2,090	59	39
25	1,240	53	28	20	99	31	28	42	596	13,200	51	37
26	657	49	29	19	92	30	27	26	251	13,900	47	34
27	379	47	29	19	98	29	28	15	153	2,190	51	34
28	251	45	29	18	96	29	32	780	119	935	56	31
29	195	43	29	17	-----	29	25	1,950	86	471	40	30
30	147	42	29	22	-----	30	20	836	68	280	52	28
31	364	-----	30	42	-----	28	-----	131	-----	198	52	-----
TOTAL	5,579	3,930	1,033	941	3,073	1,586	1,937	4,539.5	5,241.1	36,740	6,921	1,498
MEAN	180	131	33.3	30.4	110	51.2	64.6	146	175	1,185	223	49.9
MAX	1,240	597	42	47	220	150	415	1,950	1,880	13,900	2,550	168
MIN	37	42	28	17	67	28	19	5.2	7.0	30	40	23
AC-FT	11,070	7,800	2,050	1,870	6,100	3,150	3,840	9,000	10,400	72,870	13,730	2,970

CAL YP 1974 TOTAL 60,240.17 MEAN 165 MAX 8,090 MIN 0 AC-FT 119,500

WTR YR 1975 TOTAL 73,018.60 MEAN 200 MAX 13,900 MIN 5.2 AC-FT 144,800

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-29	1645	10.52	2,500	7-25	2000	17.37	22,500
6-23	1945	12.31	6,210	8-15	1315	11.74	4,910

07308200 Pease River near Vernon, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV.										
14...	1000	103	13	570	130	2400	13	159	0	1600
DEC.										
10...	0950	32	12	710	170	2800	13	182	0	2000
JAN.										
21...	0910	24	8.9	790	180	3300	16	163	0	2100
MAR.										
03...	1105	68	9.1	610	170	2500	16	150	0	1800
APR.										
08...	1605	1460	9.0	720	150	2500	16	104	0	1900
14...	0900	72	7.8	630	120	2000	15	152	0	1500
MAY										
28...	1500	1070	8.7	87	16	150	6.5	124	0	180
JUNE										
03...	0845	42	8.4	430	93	1700	15	167	0	1400
JULY										
08...	0840	135	9.6	420	37	580	9.5	73	0	1000
30...	1545	255	12	440	91	1300	12	188	0	1200
AUG.										
19...	1730	142	10	440	69	1000	8.2	134	0	1100

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.									
14...	4000	.6	8810	2000	1800	24	13500	7.7	7.0
DEC.									
10...	4600	.3	10400	2500	2300	25	15300	7.7	5.0
JAN.									
21...	5400	.7	11900	2700	2600	28	17800	7.7	3.0
MAR.									
03...	4000	.8	9180	2200	2100	23	13800	7.8	5.0
APR.									
08...	4000	.4	9350	2400	2300	22	14100	7.8	15.5
14...	3500	.4	7850	2100	1900	19	12300	7.9	12.0
MAY									
28...	250	.3	760	280	180	3.9	1370	7.6	22.0
JUNE									
03...	2500	.4	6230	1500	1300	19	10000	7.8	20.0
JULY									
08...	930	.5	3020	1200	1100	7.3	4570	7.5	26.0
30...	2100	.3	5250	1500	1300	15	8440	7.8	31.0
AUG.									
19...	1500	.4	4190	1400	1300	12	6690	7.8	32.0

RED RIVER BASIN

07308400 China Creek near Electra, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 34°06'20", long 98°53'58", Wichita County, on paved county road and 5.3 miles (8.5 km) northeast of Electra.

DRAINAGE AREA.--37 mi² (96 km²).

PERIOD OF RECORD.--Occasional discharge measurements and water-quality data: November 1967 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 07...	0920	.05	12	150	64	490	8.4	320	0	86
NOV. 19...	1150	.14	6.9	190	110	730	6.8	512	0	110
DEC. 11...	1715	.45	1.9	1300	880	4700	12	150	0	200
JAN. 20...	1600	.08	6.7	190	140	880	5.1	710	0	150
MAR. 03...	0915	.45	3.3	300	170	1100	9.4	338	0	130
APR. 15...	1600	.43	2.2	320	190	1200	7.2	330	0	110
MAY 28...	1645	1280	5.0	43	13	87	5.5	106	0	11
JULY 07...	1400	.15	7.4	110	57	390	9.5	328	0	50
AUG. 20...	1600	.38	6.9	310	310	1900	6.0	266	0	150
DATE		DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 07...	950	--		1920	640	380	8.4	3470	7.9	16.0
NOV. 19...	1500	.4		2910	930	510	10	5180	7.8	12.5
DEC. 11...	12000	.1		19200	6900	6700	25	28900	7.4	7.0
JAN. 20...	1600	.6		3320	1100	470	12	5980	7.6	5.5
MAR. 03...	2500	.4		4380	1500	1200	13	7640	7.6	7.0
APR. 15...	2700	.4		4690	1600	1300	13	8400	7.7	18.0
MAY 28...	180	.2		397	160	74	3.0	789	7.7	21.0
JULY 07...	770	.5		1560	510	240	7.5	2890	7.5	25.0
AUG. 20...	4000	.4		6810	2100	1800	18	12100	7.8	28.0

07308500 Red River near Burkburnett, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 34°06'30", long 98°32'00", Wichita County, on downstream side of bridge on U.S. Highways 277 and 281, 2 miles (3 km) north-east of Burkburnett, and at mile 933 (1,501 km).

DRAINAGE AREA.--20,570 mi² (53,280 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

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

Water quality: Chemical analyses: July 1968 to current year. Water temperatures: July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 952.57 ft (290.343 m) above mean sea level. July 11, 1924, to Aug. 31, 1925, nonrecording gage at site 1,000 ft (305 m) downstream at same datum. Dec. 16, 1959, to Jan. 11, 1960, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--15 years (1960-75), 823 ft³/s (23.31 m³/s), 596,000 acre-ft/yr (735 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 61,400 ft³/s (1,740 m³/s) July 27 (gage height, 12.64 ft or 3.853 m); minimum, 210 ft³/s (5.95 m³/s) June 22 (gage height, 6.07 ft or 1.850 m).

Period of record: Maximum discharge, 62,800 ft³/s (1,780 m³/s) Oct. 19, 1965 (gage height, 11.46 ft or 3.493 m); maximum gage height, 12.64 ft (3.853 m) July 27, 1975; no flow at times.

Historic: Flood of June 3, 1957, reached a stage of 13.54 ft (4.127 m), from levels to floodmarks. According to local residents, higher stages occurred in 1891 and June 1941.

Water quality: Current year: Maximum daily specific conductance, 12,500 micromhos Oct. 18; minimum daily, 1,090 micromhos May 30.

Period of record: Maximum daily specific conductance, 17,400 micromhos July 30, 1972; minimum daily, 889 micromhos Sept. 24, 1970. Maximum water temperatures, 35.0°C July 10, 1969; minimum, freezing point on several days during winter months.

REMARKS.--Discharge records fair. Some regulation by Greenbelt Lake on Salt Fork (capacity, 59,110 acre-ft or 72.9 hm³), Lake Altus on North Fork (capacity, 134,600 acre-ft or 166 hm³), and Lake McClellan on McClellan Creek (capacity, 5,000 acre-ft or 6.16 hm³). Many small diversions for irrigation upstream from station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,300	3,540	364	360	516	1,020	680	263	3,320	1,180	4,360	635
2	1,040	3,730	357	475	568	952	515	261	2,520	923	3,720	605
3	849	2,660	380	628	931	813	442	273	1,960	795	3,030	569
4	691	4,420	408	608	1,570	695	397	281	1,460	769	2,590	526
5	586	6,090	398	644	1,460	711	359	325	982	993	2,010	496
6	522	3,870	410	638	1,440	674	368	304	717	2,210	1,780	473
7	522	2,300	434	615	1,200	617	396	281	569	1,260	1,610	441
8	498	1,950	415	560	1,070	577	731	408	622	1,660	1,490	411
9	474	1,790	396	526	843	561	837	369	986	1,000	1,410	397
10	474	1,560	408	469	743	577	1,140	339	1,650	1,120	1,310	358
11	450	1,610	469	402	752	516	1,300	324	1,460	991	1,160	357
12	395	1,460	514	373	764	542	1,630	285	1,460	1,010	1,030	463
13	376	1,560	516	362	721	566	1,180	301	1,710	1,050	966	643
14	381	1,290	548	327	671	525	929	320	1,500	2,330	965	1,190
15	388	1,030	533	299	671	505	791	363	1,100	1,520	722	1,930
16	372	824	536	319	653	490	679	389	702	1,060	8,760	1,680
17	1,300	711	509	333	650	491	665	441	568	799	6,650	1,180
18	1,190	685	468	338	633	718	633	598	456	669	5,240	836
19	922	652	459	330	620	807	595	496	356	612	2,670	711
20	728	640	443	331	725	1,360	539	392	273	662	2,160	592
21	547	616	423	303	786	1,170	475	374	234	574	1,690	524
22	427	615	410	296	1,330	937	419	676	9,980	777	1,440	445
23	374	563	403	291	1,610	821	390	7,850	18,800	658	1,120	440
24	432	494	387	297	1,730	680	355	3,990	19,900	638	948	404
25	483	437	362	310	1,480	571	327	1,190	13,900	10,900	857	354
26	2,630	395	349	300	1,370	502	310	651	13,200	30,600	810	331
27	3,290	384	339	293	1,300	516	356	525	4,230	52,700	749	301
28	2,730	406	337	280	1,170	487	400	438	2,370	35,600	719	296
29	2,180	390	348	263	-----	469	445	6,640	1,820	15,300	733	284
30	1,930	370	355	269	-----	464	314	9,290	1,530	8,980	711	279
31	3,070	-----	381	385	-----	687	-----	4,880	-----	5,020	674	-----
TOTAL	31,551	47,042	13,059	12,224	27,977	21,021	18,597	43,517	110,335	184,360	64,084	18,151
MEAN	1,018	1,568	421	394	999	678	620	1,404	3,678	5,947	2,087	605
MAX	3,290	6,090	548	644	1,730	1,360	1,630	9,290	19,900	52,700	8,760	1,930
MIN	372	370	337	263	516	464	310	261	234	574	674	279
AC-FT	62,580	93,310	25,900	24,250	55,490	41,700	36,890	86,320	218,800	365,700	127,100	36,000

CAL YR 1974 TOTAL 400,883 MEAN 1,098 MAX 21,500 MIN 13 AC-FT 795,200
WTR YR 1975 TOTAL 591,918 MEAN 1,622 MAX 52,700 MIN 234 AC-FT 1,174,000

PEAK DISCHARGE (BASE, 9,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
5-23	0730	9.31	10,100	7-27	1400	12.64	61,400
5-30	0100	9.49	11,600	8-16	1400	8.95	10,900
6-22	1830	10.39	20,000				

RED RIVER BASIN

07308500 Red River near Burkburnett, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 15...	1000	388	10	390	110	1400	11	172	0	1100	2100	--
NOV. 05...	0930	5740	8.3	160	34	520	6.4	104	0	370	820	--
08...	0900	1900	10	250	42	610	8.9	145	0	660	950	.3
DEC. 02...	1530	362	15	440	120	1400	9.7	272	0	1200	2200	.4
JAN. 08...	1100	565	8.4	440	120	1700	9.4	244	0	1200	2800	.4
FEB. 25...	0900	1570	7.0	270	85	1000	12	168	0	730	1600	.3
MAR. 25...	1000	573	6.1	380	110	1100	13	191	0	1100	1800	.6
APR. 25...	1230	343	4.0	380	120	1200	9.2	140	0	1100	1900	.4
MAY 13...	1000	257	2.8	330	100	1100	11	96	0	1100	1700	.3
30...	1507	9230	9.3	63	14	120	7.2	122	0	110	190	.2
JUNE 16...	1120	676	11	250	64	830	14	164	0	700	1300	.4
17...	0930	1750	8.8	310	67	960	13	170	0	830	1600	.5
JULY 22...	1000	1020	9.8	330	90	980	11	131	0	950	1700	.4
AUG. 05...	1030	1770	13	270	78	720	11	225	0	760	1200	.4
SEP. 23...	1010	1670	10	370	110	1600	12	168	0	1100	2500	.5

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 15...	.05	.00	.15	.95	1.1	.15	5380	5210	1400	1300	16
NOV. 05...	.39	.00	.09	3.1	3.2	.92	2110	1970	540	450	9.7
08...	--	--	--	--	--	--	--	2600	800	680	9.4
DEC. 02...	.92	.02	.09	.90	.99	.14	5710	5520	1600	1400	15
JAN. 08...	.82	.03	.08	.81	.89	.11	6500	6400	1600	1400	19
FEB. 25...	.93	.01	.19	2.5	2.7	.48	3970	3790	1000	890	14
MAR. 25...	.11	.02	.19	1.0	1.2	.15	4860	4600	1400	1200	13
APR. 25...	--	.01	.04	.81	.85	.10	5190	4780	1400	1300	14
MAY 13...	.01	.00	.00	.81	.81	.06	4620	4390	1200	1200	14
30...	--	--	--	--	--	--	--	574	220	120	3.6
JUNE 16...	--	--	--	--	--	--	--	3250	890	750	12
17...	.87	.01	.08	2.8	2.9	.22	4030	3880	1100	910	13
JULY 22...	--	.01	.03	1.8	1.8	.29	4280	4140	1200	1100	12
AUG. 05...	.01	.01	.08	1.3	1.4	.35	3280	3170	1000	810	9.9
SEP. 23...	.00	.01	.04	1.3	1.3	.19	5500	5790	1400	1200	19

07308500 Red River near Burkburnett, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOC- CI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 15...	8220	7.6	13.0	60	10.0	96	4.5	630	80	160	18
NOV. 05...	3470	7.8	13.5	1500	9.0	87	4.4	24000	1800	4000	--
NOV. 08...	4120	7.6	12.0	--	--	--	--	--	--	--	--
DEC. 02...	8440	7.9	6.0	35	11.9	95	1.0	230	20	36	--
JAN. 08...	10200	7.7	9.0	35	9.8	88	.8	110	4	16	--
FEB. 25...	6280	7.7	6.0	650	11.1	90	6.4	3800	400	3800	30
MAR. 25...	7390	7.9	9.5	70	10.9	97	5.9	300	0	30	--
APR. 25...	7810	8.0	24.0	55	8.4	101	4.9	400	8	40	--
MAY 13...	7220	7.9	22.0	40	8.7	101	9.9	60	30	10	--
MAY 30...	1030	7.7	22.0	--	--	--	--	--	--	--	--
JUNE 16...	5590	7.6	26.0	--	--	--	--	--	--	--	--
JUNE 17...	6600	8.2	25.5	1100	7.7	94	3.6	12000	200	1000	17
JULY 22...	6690	7.8	28.0	320	6.9	90	3.3	38000	700	1900	--
AUG. 05...	4910	8.2	28.0	150	6.9	88	3.0	2000	740	100	10
SEP. 23...	9580	8.0	17.5	65	9.3	99	6.2	2100	40	60	--

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT. 15...	1000	10	5	6	530	10	0	0	0	<50
FEB. 25...	0900	240	19	3	400	10	4	40	0	<50
JUNE 17...	0930	40	8	7	380	<10	1	50	10	<50
AUG. 05...	1030	10	11	3	430	<10	1	20	10	100

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
OCT. 15...	0	<10	1	1500	20	<100	1	100	130
FEB. 25...	3	60	80	31000	140	100	50	70	870
JUNE 17...	0	50	3	34000	6700	100	0	50	1200
AUG. 05...	0	10	10	7500	50	<100	0	40	440

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 15...	20	.0	.0	1	3	1	4800	60	30
FEB. 25...	50	.0	.0	5	1	1	3300	120	120
JUNE 17...	0	.1	.0	3	2	2	3400	190	10
AUG. 05...	0	.0	.0	4	2	1	3200	60	0

RED RIVER BASIN

07308500 Red River near Burkburnett, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	TOTAL DDT (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DIELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTACHLOR (UG/L)	TOTAL HEPTACHLOR EPOXIDE (UG/L)
OCT. 15...	1000	388	13.0	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 25...	0900	1570	6.0	.00	.00	.02	.00	.01	.00	.00	.00
JULY 22...	1000	1020	28.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 05...	1030	1770	28.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL LINDANE (UG/L)	TOTAL CHLOR-DANE (UG/L)	TOTAL PCB (UG/L)	TOTAL DI-AZINON (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL METHYL-PARA-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
OCT. 15...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 25...	.00	.0	.0	.00	.00	.00	.00	.03	.00	.00
JULY 22...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 05...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a	Chlorophyll b	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight	(mg/m ²)	(mg/m ²)		
MAY 13	18	6.3	2.2	0.2	0.0	2100	Polyethylene strip

OCT. 15, 1974 TIME 1000

PHYTOPLANKTON 17,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
..OCCYSTACEAE		
....ANKISTRODESMUS	640	4
....SCENEDESMACEAE		
....SCENEDESMUS	640	4
..VOLVOCALES		
....CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	480	3
..ZYGNEMATALES		
....DESMIDIACEAE		
....CLOSTERIUM	160	1
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
....COSCINODISCACEAE		
....CYCLOTELLA	7,100	42
..PENNALES		
....GOMPHONEMACEAE		
....GOMPHONEMA	2,200	13
....NAVICULACEAE		
....NAVICULA	5,500	32
....NITZSCHACEAE		
....NITZSCHIA	320	2

NOV. 5, 1974 TIME 0930

PHYTOPLANKTON 130 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
....DIATOMACEAE		
....DIATOMA	67	50
....NITZSCHACEAE		
....NITZSCHIA	67	50

07308500 Red River near Burkburnett, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

DEC. 2, 1974 TIME 1530

PHYTOPLANKTON 2,500 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	69	3
....KIRCHNERIELLA	23	1
...SCENEDESMACEAE		
....ACTINASTRUM	650	26
....SCENEDESMUS	120	5
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	230	9
...PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	140	6
...GOMPHONEMACEAE		
....GOMPHONEMA	46	2
...NITZSCHIA	46	2
..NITZSCHIA		
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA	230	9
...OSCILLATORIA		
....OSCILLATORIA	690	28
EUGLENOPHYTA		
..CRYPTOPHYCEAE		
...CRYPTOMONADACEAE		
....CRYPTOMONAS	230	9

JAN. 8, 1975 TIME 1100

PHYTOPLANKTON 4,300 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	230	5
...SCENEDESMACEAE		
....SCENEDESMUS	56	1
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	340	8
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	390	9
...PENNALES		
...NAVICULACEAE		
....NAVICULA	1,300	30
...TROPIDONEIS	560	13
...NITZSCHIA		
....NITZSCHIA	340	8
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
....CHROOCOCCACEAE		
....ANACYSTIS	1,100	26

FEB. 25, 1975 TIME 0900

PHYTOPLANKTON 7,400 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
....ACTINASTRUM	570	8
....SCENEDESMUS	140	2
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	280	4
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	420	6
...PENNALES		
...GOMPHONEMACEAE		
....GOMPHONEMA	850	12
...NAVICULACEAE		
....AMPHIPRORA	280	4
...FRUSTULIA	140	2
...NAVICULA	3,300	44
...NITZSCHIA		
....NITZSCHIA	1,400	19

MAR. 25, 1975 TIME 1000

PHYTOPLANKTON 18,000 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	310	2
...SCENEDESMACEAE		
....SCENEDESMUS	1,300	7
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	9,100	52
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	2,500	14
...PENNALES		
...NAVICULACEAE		
....NAVICULA	3,800	21
...NITZSCHIA		
....NITZSCHIA	630	4

APR. 25, 1975 TIME 1230

PHYTOPLANKTON 39,000 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	720	2
...SCENEDESMACEAE		
....SCENEDESMUS	19,000	48
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	2,500	6
...PENNALES		
...NAVICULACEAE		
....AMPHIPRORA	360	1
...NAVICULA	720	2
...NITZSCHIA		
....NITZSCHIA	15,000	39
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
....CHROOCOCCACEAE		
....ANACYSTIS	1,100	3

07308500 Red River near Burkburnett, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

MAY 13, 1975 TIME 1000

PHYTOPLANKTON 100,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	800	1
....DICTYOSPHAERIUM	1,600	2
...SCENEDESMACEAE		
....ACTINASTRUM	1,600	2
....CRUCIGENIA	1,600	2
...SCENEDESMUS	70,000	67
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS		0
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	13,000	12
..PENNALES		
...NAVICULACEAE		
....NAVICULA		0
...NITZSCHACEAE		
....NITZSCHIA	1,200	1
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....OSCILLATORIA	14,000	13

JULY 22, 1975 TIME 1000

PHYTOPLANKTON 130,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
....ACTINASTRUM		0
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	14,000	11
....MELOSIRA	1,900	1
..PENNALES		
...CYMBELLACEAE		
....CYMBELLA		0
...NAVICULACEAE		
....NAVICULA		0
...TROPIDONEIS		0
...NITZSCHACEAE		
....NITZSCHIA	6,500	5
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....OSCILLATORIA	110,000	83

AUG. 5, 1975 TIME 1030

PHYTOPLANKTON 50,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....DICTYOSPHAERIUM	3,300	7
...SCENEDESMACEAE		
....ACTINASTRUM	1,100	2
...SCENEDESMUS	1,700	3
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	1,400	3
..PENNALES		
...NAVICULACEAE		
....NAVICULA	280	1
...NITZSCHACEAE		
....NITZSCHIA	1,100	2
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....OSCILLATORIA	41,000	82

SEP. 23, 1975 TIME 1010

PHYTOPLANKTON 76,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...COELASTRACEAE		
....COELASTRUM	4,600	6
...OCCYSTACEAE		
....ANKISTRODESMUS	1,200	2
....DICTYOSPHAERIUM	9,200	12
...SCENEDESMACEAE		
....SCENEDESMUS	1,200	2
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	1,200	2
...VOLVOCAEAE		
....GONIUM	9,200	12
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	4,000	5
..PENNALES		
...NITZSCHACEAE		
....NITZSCHIA	1,700	2
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....OSCILLATORIA	44,000	58

07308500 Red River near Burkburnett, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT. 15...	1000	388	13.0	148	155	82
NOV. 05...	0930	5740	13.5	7460	116000	57
DEC. 02...	1530	362	6.0	349	341	54
JAN. 08...	1100	565	9.0	736	1120	16
APR. 25...	1230	343	24.0	995	921	10
MAY 13...	1000	257	22.0	291	202	28
JUNE 09...	1330	1160	--	1790	5010	90
JULY 22...	1000	1020	28.0	2000	5510	53
AUG. 05...	1030	1770	28.0	1470	7030	29
SEP. 23...	1010	1670	17.5	304	1370	47

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	31563	7060	4400	375000	1800	153000	910	77600	1200
NOV. 1974.....	47046.93	5260	3200	406000	1300	165000	670	85100	900
DEC. 1974.....	13063.66	8530	5300	187000	2200	77600	1100	38800	1400
JAN. 1975.....	12225.42	8950	5500	182000	2300	75900	1100	36300	1500
FEB. 1975.....	27982.93	7360	4500	340000	1900	144000	870	65700	1200
MAR. 1975.....	21029.66	7030	4300	244000	1800	102000	840	47700	1200
APR. 1975.....	18602.82	7000	4300	216000	1800	90400	840	42200	1200
MAY 1975.....	43517.28	2460	1500	176000	580	68100	330	38800	470
JUNE 1975.....	110348.18	3410	2000	596000	800	238000	430	128000	620
JULY 1975.....	184233.12	2150	1300	647000	490	244000	300	149000	430
AUG. 1975.....	64083.09	4270	2600	450000	1100	190000	500	86500	750
SEPT 1975.....	18152.74	6610	4100	201000	1700	83300	820	40200	1100
TOTAL	591848.64	**	**	4020000	**	1630000	**	836000	**
WTD.AVG.	1621.5	4140	2500	**	1000	**	520	**	730

RED RIVER BASIN

07308500 Red River near Burkburnett, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4560	4900	8640	8350	6680	6150	6520	8330	3850	5770	3520	6680
2	5330	3990	8770	7930	6710	6500	5670	8450	7020	6120	3890	7130
3	6120	3870	7540	6690	6740	6500	6200	8320	4790	6310	4370	7650
4	6520	5240	6460	7750	4280	6710	7540	8250	4370	5520	4130	7290
5	6900	3190	6940	8560	6330	6930	7830	7860	5620	6120	4740	6980
6	7280	2070	6750	8920	7460	7170	8020	8030	5440	5960	5300	6930
7	7650	3290	6610	10000	7470	7380	7830	8270	5500	6730	6000	6980
8	7770	4050	7730	10000	7610	7620	5910	8310	5260	10900	6380	7090
9	7790	5180	8540	9860	8200	7510	5420	7280	4320	8670	6380	7250
10	7910	5480	8440	10000	8330	7480	9670	7390	3050	7480	6390	7170
11	8100	5890	8300	10000	8610	7620	7890	8000	3090	6260	6420	6650
12	8210	6650	8200	9860	8820	7500	6920	8660	3380	6010	6380	6860
13	8340	7920	8240	10000	9010	7420	3770	7280	3180	7300	6410	6230
14	8210	8770	8340	9510	9230	7700	4980	6700	7380	8120	6500	3720
15	8170	8730	8610	9510	9290	7650	5190	7730	5790	5970	6620	3370
16	8370	8590	8990	9230	8980	7510	6230	7610	5590	5290	3280	4240
17	9420	8450	9450	9470	8870	7560	6540	6820	6280	5670	2380	6600
18	12500	8020	9730	8590	8870	6600	7210	4260	6400	5670	2640	7820
19	10000	8140	9950	8460	9010	6800	8310	4610	5890	6340	2960	8600
20	10000	8240	9760	8880	9550	6190	8900	5320	5720	6100	4270	8810
21	10000	8370	9670	8730	10000	6520	8820	5110	6130	6770	4360	8740
22	9360	8480	9400	8990	9210	6740	8420	4000	1650	6700	4830	8870
23	9200	8550	9120	9220	6670	6960	8110	1210	1100	5920	5260	8670
24	8770	8580	9040	9220	6420	7380	8020	1420	2250	6360	5510	8390
25	9040	8580	8950	9070	6280	7350	7980	2370	2980	3870	5960	8600
26	8650	8580	8860	8920	5920	7410	8150	4570	6450	1150	5960	8720
27	6800	8510	8750	8730	5560	7350	7960	4660	4730	1130	5930	8810
28	4660	8580	8680	8880	5930	7170	7770	5000	4630	1130	6380	8780
29	5560	8610	8590	8730	---	7280	7800	1440	4990	1280	6320	8810
30	6370	8620	8510	8650	---	7540	7890	1090	5350	1640	6040	8820
31	3920	---	8410	7830	---	7700	---	1470	---	2580	6210	---
MONTH	7790	6870	8520	8990	7720	7160	7250	5800	4740	5540	5220	7370

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	19.0	---	7.0	7.0	13.0	7.0	24.0	---	30.0	28.0	---
2	18.0	20.0	---	5.0	---	11.0	---	---	19.0	29.0	---	---
3	21.0	21.0	---	4.0	7.0	6.0	---	---	20.0	28.0	29.0	26.0
4	18.0	13.0	---	4.0	4.0	5.0	14.0	---	21.0	25.0	26.0	---
5	---	13.0	---	8.0	6.0	8.0	16.0	---	28.0	---	28.0	26.0
6	---	13.0	---	4.0	2.0	9.0	15.0	---	25.0	---	26.0	23.0
7	14.0	12.0	---	5.0	6.0	11.0	15.0	27.0	---	---	27.0	27.0
8	17.0	12.0	---	8.0	5.0	12.0	14.0	28.0	27.0	30.0	28.0	22.0
9	21.0	12.0	7.0	8.0	4.0	10.0	14.0	27.0	23.0	31.0	28.0	28.0
10	20.0	---	---	6.0	1.0	8.0	14.0	27.0	23.0	27.0	---	24.0
11	22.0	12.0	5.0	4.0	2.0	---	11.0	---	20.0	---	---	24.0
12	23.0	17.0	---	---	12.0	---	11.0	25.0	23.0	---	28.0	17.0
13	23.0	11.0	16.0	0.0	5.0	---	11.0	20.0	24.0	---	---	---
14	19.0	9.0	10.0	1.0	---	11.0	15.0	17.0	24.0	28.0	---	15.0
15	12.0	8.0	8.0	4.0	6.0	8.0	21.0	19.0	---	28.0	---	16.0
16	17.0	---	6.0	6.0	---	15.0	---	17.0	---	28.0	---	20.0
17	20.0	---	6.0	5.0	3.0	15.0	23.0	---	27.0	27.0	---	21.0
18	21.0	9.0	---	7.0	4.0	16.0	20.0	---	26.0	28.0	29.0	25.0
19	18.0	12.0	7.0	8.0	4.0	19.0	16.0	22.0	27.0	28.0	30.0	21.0
20	---	10.0	7.0	6.0	---	19.0	17.0	21.0	28.0	28.0	29.0	23.0
21	19.0	13.0	4.0	5.0	8.0	19.0	22.0	21.0	28.0	27.0	29.0	19.0
22	17.0	12.0	---	2.0	4.0	---	21.0	23.0	---	26.0	---	20.0
23	20.0	18.0	14.0	8.0	5.0	17.0	23.0	22.0	25.0	29.0	31.0	16.0
24	18.0	11.0	6.0	6.0	---	11.0	27.0	22.0	27.0	---	26.0	18.0
25	20.0	10.0	---	13.0	---	16.0	23.0	---	27.0	23.0	29.0	14.0
26	19.0	9.0	---	13.0	---	---	24.0	27.0	---	25.0	24.0	---
27	19.0	10.0	---	14.0	9.0	14.0	---	23.0	29.0	26.0	27.0	23.0
28	20.0	9.0	---	10.0	10.0	7.0	23.0	19.0	25.0	27.0	28.0	---
29	20.0	---	---	8.0	---	---	26.0	---	---	28.0	29.0	21.0
30	---	---	---	---	---	---	23.0	20.0	30.0	24.0	31.0	20.0
31	19.0	---	7.0	8.0	---	7.0	---	18.0	---	26.0	---	---
MONTH	19.0	12.5	---	6.5	---	---	18.0	---	---	---	---	21.0

RED RIVER BASIN

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07311600 North Fork Wichita River near Paducah, Tex.

LOCATION.--Lat 33°57'02", long 100°03'52", Cottle County, near center of stream on downstream side of county bridge, 4 miles (6 km) downstream from Cottonwood Creek, 7 miles (11 km) downstream from Salt Creek, 10 miles (16 km) upstream from Middle Fork, 14 miles (23 km) southeast of Paducah, and at mile 211.3 (340.0 km).

DRAINAGE AREA.--540 mi² (1,399 km²).

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

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,530 ft (466 m), from topographic map.

AVERAGE DISCHARGE.--14 years, 19.8 ft³/s (0.561 m³/s), 14,350 acre-ft/yr (17.7 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 2,550 ft³/s (72.2 m³/s) Aug. 15 (gage height, 8.69 ft or 2.649 m); minimum, 7.9 ft³/s (0.22 m³/s) July 2.

Period of record: Maximum discharge, 9,920 ft³/s (281 m³/s) Aug. 25, 1966 (gage height, 15.3 ft or 4.66 m, from floodmarks); minimum, 0.3 ft³/s (0.008 m³/s) Sept. 1-4, 1964 (gage height, 4.35 ft or 1.326 m); minimum gage height, 2.89 ft (0.881 m) July 2, 1975.

Historic: Maximum stage since at least 1908, 29.5 ft (8.99 m) in October 1955; flood in May or June 1956 reached a stage of 27 ft (8.2 m), from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 23,600 micromhos June 20, 21, July 18; minimum daily, 925 micromhos July 26. Minimum water temperatures, 2.0°C Feb. 9.

Period of record: Maximum daily specific conductance, 37,500 micromhos Sept. 22, 1968; minimum daily, 418 micromhos Sept. 25, 1974. Maximum water temperatures, 34.0°C July 4, Aug. 10, 1973; minimum, freezing point on several days during winter months.

REMARKS.--Discharge records good. One small diversion for irrigation above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	50	15	15	18	14	13	11	22	8.5	15	12
2	17	25	16	16	18	14	11	12	16	8.5	16	11
3	17	20	16	16	22	14	12	12	14	10	15	11
4	16	19	16	15	21	14	13	12	13	81	12	21
5	16	18	16	15	17	14	14	12	12	40	12	17
6	14	17	15	15	16	14	14	11	12	18	12	15
7	14	17	13	15	16	13	16	10	11	13	12	14
8	14	17	13	15	16	13	16	10	11	12	11	13
9	14	19	13	15	15	14	13	10	11	11	11	12
10	13	19	16	14	16	13	13	11	11	14	10	12
11	13	17	16	14	15	13	13	11	11	14	10	13
12	12	15	15	13	15	13	13	11	11	11	10	26
13	12	16	14	14	15	13	16	10	11	11	10	31
14	15	16	14	14	15	13	18	10	11	9.9	12	28
15	15	16	14	14	14	14	14	10	9.9	9.5	1,600	21
16	12	16	14	14	18	14	14	9.9	11	9.5	473	20
17	12	16	14	14	17	14	14	9.8	10	9.4	79	17
18	12	16	13	14	15	14	13	9.7	10	9.6	41	16
19	11	16	13	12	15	13	12	13	9.6	13	25	15
20	11	16	14	13	15	12	13	12	9.4	16	19	16
21	11	16	14	13	14	12	13	11	9.5	12	16	19
22	12	16	14	14	18	12	13	163	9.4	11	15	18
23	14	15	14	14	16	12	14	127	19	10	13	16
24	370	13	13	15	15	12	13	43	52	18	13	16
25	454	14	13	14	14	12	12	21	18	910	12	15
26	68	14	15	14	14	14	13	15	13	937	12	15
27	32	14	15	14	14	15	13	15	10	149	13	15
28	48	14	15	14	14	13	12	81	9.8	54	104	15
29	33	14	14	14	-----	13	12	36	9.1	27	34	15
30	23	14	15	16	-----	13	11	58	8.5	20	19	15
31	132	-----	16	23	-----	13	-----	54	-----	17	14	-----
TOTAL	1,476	526	448	452	448	411	401	841.4	395.2	2,493.9	2,670	500
MEAN	47.6	17.5	14.5	14.6	16.0	13.3	13.4	27.1	13.2	80.4	86.1	16.7
MAX	454	50	16	23	22	15	18	163	52	937	1,600	31
MIN	11	13	13	12	14	12	11	9.7	8.5	8.5	10	11
AC-FT	2,930	1,040	889	897	889	815	795	1,670	784	4,950	5,300	992
CAL YR 1974	TOTAL 13,114.4	MEAN 35.9	MAX 1,770	MIN 4.6	AC-FT 26,010							
WTR YR 1975	TOTAL 11,062.5	MEAN 30.3	MAX 1,600	MIN 8.5	AC-FT 21,940							

PEAK DISCHARGE (BASE, 400 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-24	2400	7.60	1,460	7-26	0100	7.95	1,940
5-22	1730	5.65	594	8-15	1800	8.69	2,550

RED RIVER BASIN

07311600 North Fork Wichita River near Paducah, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA+MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 23...	1230	12	770	160	2200	7200	2600	21100	18.5
NOV. 05...	1535	18	670	130	1800	5300	2200	17400	13.0
DEC. 03...	1425	16	770	180	2300	6400	2700	20000	7.5
JAN. 21...	0950	13	790	170	2300	6500	2700	20400	5.5
FEB. 11...	0835	14	770	180	2200	5900	2700	19400	8.0
MAR. 25...	0940	7.5	770	130	1900	6500	2500	20400	11.0
APR. 15...	0850	14	790	150	2300	6000	2600	20000	14.0
MAY 06...	1345	12	830	160	2400	6600	2700	22400	25.0
JUNE 16...	1910	10	780	180	2400	7200	2700	22900	32.0
JULY 29...	1455	25	520	100	1400	3800	1700	13000	32.0
AUG. 19...	1040	24	510	100	1400	3500	1700	12300	26.0
SEP. 30...	1810	15	710	180	2100	6100	2500	20200	23.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	1476	7630	4500	17900	2000	7970	790	3150	940
NOV. 1974.....	526	17900	12000	17000	5700	8100	1700	2410	****
DEC. 1974.....	448	19900	13000	15700	6200	7500	1900	2300	****
JAN. 1975.....	452	19800	13000	15900	6200	7570	1900	2320	****
FEB. 1975.....	448	19300	13000	15700	6200	7500	1900	2300	****
MAR. 1975.....	411	20200	13000	14400	6200	6880	1900	2110	****
APR. 1975.....	401	21200	14000	15200	6600	7150	2100	2270	****
MAY 1975.....	841.4	11000	6600	15000	3000	6820	1100	2500	****
JUNE 1975.....	395.2	18400	12000	12800	5700	6080	1700	1810	****
JULY 1975.....	2493.9	5020	3000	20200	1300	8750	560	3770	650
AUG. 1975.....	2670	5990	3500	25200	1500	10800	670	4830	760
SEPT 1975.....	500	18700	12000	16200	5700	7690	1700	2290	****
TOTAL	11062.49	**	**	201000	**	92800	**	32100	**
WTD.AVG.	30.31	10700	6700	**	3100	**	1100	**	*****

RED RIVER BASIN

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07311600 North Fork Wichita River near Paducah, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18200	10600	20000	19500	18800	20000	21000	22100	8450	21700	17000	16100
2	18200	11600	20000	19400	18600	20200	21600	22100	14700	21600	18100	18400
3	19200	14600	20000	19500	18400	20200	21100	22000	18400	22200	17600	18700
4	19700	16600	20000	19800	18300	20200	21000	22000	20000	7510	18500	18700
5	20100	17400	20000	19800	18600	20200	21100	22000	20600	7290	19600	16900
6	20300	18100	20200	19600	19400	20400	21400	22500	21200	11100	19600	16900
7	20100	18400	19800	20200	19200	20400	21100	22400	21600	19100	19800	19400
8	20500	18700	20000	19800	19400	20000	21000	22700	21800	19900	20000	19100
9	20800	18800	20200	20200	19600	20400	21200	22900	21900	21300	20100	19400
10	20800	19000	19700	20000	19700	20200	21400	22600	22100	21500	20300	19400
11	21200	19000	19800	19800	19600	20000	21300	22800	22200	21600	20400	19800
12	21200	19100	19800	20000	19400	20000	21600	22800	22100	22100	20500	18000
13	21300	19500	20000	20000	19800	20100	20800	22700	22500	22000	20500	17100
14	20700	19200	19800	19800	19900	20000	19600	22900	22600	22200	20300	17800
15	20900	19600	20000	19600	19500	20200	20000	23200	22900	22100	4660	17500
16	21000	19600	19800	19900	19300	20200	21100	23200	23200	22600	2200	17700
17	21000	19700	19800	20100	19300	19600	21000	23300	23200	22700	4980	17900
18	21000	19700	20000	20300	19800	19800	21300	23000	23400	23600	9920	18700
19	21000	19800	20000	20300	19800	19600	21300	23200	23500	22800	12300	19100
20	21200	19700	20000	20100	19800	20400	21300	22900	23600	20900	13800	19400
21	21300	19700	20000	20200	19800	20000	21300	23400	23600	21600	15200	19200
22	21100	20000	20200	20000	18700	20000	21400	6050	23300	22400	15800	19400
23	21100	19800	20000	20000	19000	20600	21400	3350	20500	22400	16800	19700
24	3750	20000	20200	20000	19400	20200	21500	5770	10300	20500	17100	19800
25	1040	20000	20000	19800	19800	20400	21200	10700	9860	3590	18500	19800
26	5890	20000	19900	20100	19600	20200	21600	15200	15900	925	18600	19800
27	11900	19600	19800	20300	19700	20500	21500	17200	18300	4650	18600	19800
28	13000	19600	19800	20500	19900	20600	21800	5380	20100	7790	5850	19800
29	10800	19700	19800	19700	---	20700	21700	11100	20500	13400	7320	20100
30	14800	19900	19600	19600	---	20200	21900	9020	21100	15400	11600	20200
31	6420	---	19500	18000	---	20200	---	6900	---	16900	13900	---
MONTH	17400	18570	19930	19870	19360	20180	21220	18300	20110	17590	15470	18790

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	23.0	4.0	---	---	11.0	13.0	20.0	18.0	34.0	27.0	25.0
2	23.0	18.0	8.0	---	---	11.0	15.0	21.0	23.0	30.0	28.0	32.0
3	24.0	14.0	7.0	6.0	---	8.0	15.0	21.0	23.0	31.0	33.0	30.0
4	22.0	13.0	12.0	8.0	---	7.0	9.0	25.0	25.0	---	26.0	25.0
5	21.0	15.0	12.0	6.0	---	11.0	---	21.0	25.0	32.0	23.0	32.0
6	22.0	13.0	13.0	6.0	8.0	20.0	---	23.0	28.0	26.0	27.0	26.0
7	19.0	14.0	9.0	13.0	3.0	15.0	---	26.0	25.0	31.0	---	30.0
8	26.0	14.0	5.0	8.0	9.0	7.0	---	24.0	29.0	---	---	25.0
9	22.0	---	7.0	7.0	2.0	15.0	---	20.0	27.0	32.0	---	29.0
10	23.0	14.0	---	9.0	3.0	9.0	---	25.0	---	---	32.0	31.0
11	27.0	16.0	7.0	5.0	11.0	7.0	---	23.0	20.0	31.0	28.0	27.0
12	20.0	12.0	9.0	4.0	7.0	9.0	---	25.0	21.0	25.0	29.0	---
13	---	15.0	13.0	6.0	10.0	---	---	24.0	29.0	25.0	28.0	---
14	---	9.0	9.0	5.0	10.0	15.0	22.0	26.0	26.0	25.0	33.0	---
15	14.0	11.0	11.0	12.0	6.0	10.0	14.0	27.0	23.0	22.0	---	---
16	23.0	10.0	6.0	7.0	---	18.0	24.0	26.0	29.0	23.0	27.0	---
17	16.0	16.0	4.0	11.0	---	12.0	25.0	28.0	31.0	---	25.0	23.0
18	25.0	13.0	4.0	15.0	7.0	11.0	22.0	27.0	26.0	---	---	27.0
19	17.0	17.0	11.0	9.0	8.0	13.0	15.0	23.0	27.0	---	---	23.0
20	12.0	18.0	7.0	10.0	7.0	18.0	17.0	27.0	29.0	32.0	---	20.0
21	12.0	13.0	9.0	11.0	11.0	20.0	23.0	28.0	30.0	26.0	33.0	---
22	11.0	18.0	11.0	7.0	---	12.0	26.0	---	24.0	31.0	29.0	---
23	---	19.0	12.0	8.0	---	19.0	27.0	---	---	26.0	29.0	---
24	---	10.0	7.0	14.0	14.0	12.0	26.0	21.0	23.0	---	27.0	25.0
25	---	13.0	7.0	9.0	11.0	14.0	27.0	22.0	26.0	---	32.0	20.0
26	13.0	11.0	---	10.0	9.0	13.0	25.0	---	32.0	---	29.0	23.0
27	---	8.0	8.0	15.0	11.0	---	22.0	24.0	32.0	---	26.0	19.0
28	22.0	7.0	9.0	14.0	10.0	11.0	27.0	---	31.0	---	28.0	20.0
29	18.0	---	11.0	10.0	---	---	23.0	28.0	26.0	32.0	30.0	---
30	12.0	9.0	8.0	5.0	---	15.0	17.0	23.0	25.0	33.0	32.0	26.0
31	17.0	---	---	---	---	7.0	---	18.0	---	30.0	26.0	---
MONTH	19.5	14.0	8.5	9.0	---	12.5	---	24.0	26.0	---	---	---

07311622 North Fork Wichita River near Crowell, Tex.

LOCATION.--Lat 33°52'12", long 99°56'48", Foard County, on left bank 152 ft (46 m) downstream from ranch road, 2.0 miles (3.2 km) upstream from Middle Fork, 15.0 miles (24.1 km) southwest of Crowell, and at mile 203.3 (327.1 km).

DRAINAGE AREA.--591 mi² (1,531 km²).

PERIOD OF RECORD.--Discharge: 1956-57 (occasional discharge measurements at site 2 miles or 3 km downstream), October 1970 to current year.

Water quality: Chemical analyses: August 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,450 ft (442 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 25.0 ft³/s (0.708 m³/s), 18,110 acre-ft/yr (22.3 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 3,430 ft³/s (97.1 m³/s) July 25 (gage height, 7.43 ft or 2.265 m); minimum, 8.2 ft³/s (0.23 m³/s) June 27, July 9, 10, 14.

Period of record: Maximum discharge, 4,200 ft³/s (119 m³/s) Sept. 4, 1972 (gage height, 8.17 ft or 2.490 m); minimum, 1.2 ft³/s (0.034 m³/s) July 19, 1971.

Water quality: Current year: Maximum daily specific conductance, 24,500 micromhos May 18; minimum daily, 1,000 micromhos Aug. 16.

Period of record: Maximum daily specific conductance, 35,300 micromhos May 3, 1971; minimum daily, 730 micromhos Sept. 25, 1974.

REMARKS.--Discharge records good. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	52	17	19	21	19	15	13	28	8.6	27	16
2	20	31	16	19	19	19	14	13	18	8.6	33	16
3	18	25	16	19	29	16	14	13	15	9.6	38	15
4	17	22	16	16	32	16	14	13	14	30	25	14
5	17	21	16	16	22	16	14	13	14	52	24	33
6	16	20	17	15	16	16	14	13	14	17	21	19
7	16	20	17	15	13	16	20	13	14	14	21	17
8	17	20	17	15	13	16	22	13	15	12	21	16
9	17	21	17	16	15	16	15	12	15	9.7	20	15
10	16	22	17	16	16	16	13	13	23	14	19	14
11	16	20	20	16	18	16	13	13	14	15	19	14
12	16	19	19	14	16	16	13	13	16	13	19	24
13	16	19	18	13	17	16	14	13	14	12	19	33
14	19	19	18	15	17	16	21	13	14	11	20	48
15	21	19	18	15	17	16	15	13	13	10	206	26
16	20	19	19	15	19	17	12	13	13	10	581	24
17	17	19	19	15	20	16	12	13	13	10	87	20
18	17	19	19	14	20	18	11	12	12	12	43	18
19	17	19	19	14	19	16	11	14	11	14	31	17
20	16	18	19	14	19	15	12	15	12	19	26	16
21	17	17	19	14	20	15	12	13	13	16	24	19
22	17	17	19	14	19	15	12	88	13	14	22	21
23	21	17	19	14	16	14	14	145	25	15	20	15
24	184	17	19	14	16	14	13	49	29	80	18	15
25	479	17	17	14	19	15	13	25	20	1,420	17	15
26	85	17	17	14	19	14	12	18	13	738	17	15
27	39	17	17	14	19	17	14	17	11	138	17	15
28	51	17	19	14	19	15	15	110	9.3	65	33	15
29	37	17	19	14	-----	14	13	33	9.2	40	54	14
30	28	16	19	15	-----	15	13	32	9.4	32	25	14
31	83	-----	19	35	-----	15	-----	45	-----	28	20	-----
TOTAL	1,390	613	557	487	525	491	420	836	453.9	2,887.5	1,567	573
MEAN	44.8	20.4	18.0	15.7	18.8	15.8	14.0	27.0	15.1	93.1	50.5	19.1
MAX	479	52	20	35	32	19	22	145	29	1,420	581	48
MIN	16	16	16	13	13	14	11	12	9.2	8.6	17	14
AC-FT	2,760	1,220	1,100	966	1,040	974	833	1,660	900	5,730	3,110	1,140
CAL YR 1974	TOTAL 12,044.2	MEAN 33.0	MAX 1,540	MIN 3.6	AC-FT 23,890							
WTR YR 1975	TOTAL 10,800.4	MEAN 29.6	MAX 1,420	MIN 8.6	AC-FT 21,420							

PEAK DISCHARGE (BASE, 600 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
10-25	0400	4.68	1,010
7-25	1500	7.43	3,430
8-16	0330	5.18	1,380

07311622 North Fork Wichita River near Crowell, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	
DATE	TIME									
OCT. 09...	1000	17	--	770	160	--	--	--	--	
NOV. 06...	0950	21	--	690	140	--	--	--	--	
DEC. 04...	0950	16	--	760	180	--	--	--	--	
JAN. 21...	1340	14	--	790	180	--	--	--	--	
FEB. 11...	1155	14	--	760	190	--	--	--	--	
MAR. 04...	1420	17	--	770	160	--	--	--	--	
APR. 15...	1208	16	--	770	190	--	--	--	--	
MAY 06...	0910	14	--	830	190	--	--	--	--	
JUNE 17...	1415	14	--	850	200	--	--	--	--	
JULY 29...	0850	42	9.4	350	76	1200	14	134	0	
AUG. 19...	1410	31	9.5	410	85	1600	14	151	0	
SEP. 09...	1230	29	--	740	170	--	--	--	--	
DATE		DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 09...	2100	5800	--	2600	--	--	--	18600	--	18.0
NOV. 06...	1800	4500	--	2300	--	--	--	14700	--	10.5
DEC. 04...	2300	5800	--	2600	--	--	--	18900	--	3.0
JAN. 21...	2300	5800	--	2700	--	--	--	19500	--	6.5
FEB. 11...	2100	5200	--	2700	--	--	--	17800	--	9.0
MAR. 04...	2400	5600	--	2600	--	--	--	19700	--	14.0
APR. 15...	2100	4600	--	2700	--	--	--	16500	--	17.0
MAY 06...	2500	6300	--	2900	--	--	--	21600	--	19.0
JUNE 17...	2600	7100	--	2900	--	--	--	22800	--	34.0
JULY 29...	930	1000	4550	1200	1100	15	7230	7.7	26.0	
AUG. 19...	1100	2600	5890	1400	1300	19	9270	7.9	32.0	
SEP. 09...	2300	5300	--	2500	--	--	--	17900	--	29.0

RED RIVER BASIN

07311622 North Fork Wichita River near Crowell, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	1390	8770	5500	20600	2400	9010	1000	3750	1400
NOV. 1974.....	613	15100	9700	16100	4200	6950	2000	3310	****
DEC. 1974.....	557	18700	12000	18000	5400	8120	2300	3460	****
JAN. 1975.....	487	18900	12000	15800	5400	7100	2300	3020	****
FEB. 1975.....	525	17100	11000	15600	4900	6950	2100	2980	****
MAR. 1975.....	491	20600	14000	18600	6400	8480	2500	3310	****
APR. 1975.....	420	20700	14000	15900	6400	7260	2500	2830	****
MAY 1975.....	836	11700	7400	16700	3300	7450	1400	3160	****
JUNE 1975.....	453.9	16700	11000	13500	4900	6010	2100	2570	****
JULY 1975.....	2887.5	4150	2500	19500	960	7480	600	4680	870
AUG. 1975.....	1567	6990	4400	18600	1900	8040	850	3600	1200
SEPT 1975.....	573	15700	10000	15500	4400	6810	2000	3090	****
TOTAL	10800.39	**	**	204000	**	89700	**	39800	**
WTD.AVG.	29.59	10900	7000	**	3100	**	1400	**	*****

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11500	4260	19000	18500	15700	19600	21400	22900	7750	19900	13500	10800
2	12600	7270	18900	18700	16500	19700	21400	22800	8470	20900	13000	12800
3	13400	8830	18800	18800	14000	19900	21400	22700	9580	21200	11500	14800
4	14200	11400	18900	18600	13300	19700	21500	22400	12200	16400	11200	16600
5	15600	13600	18700	18600	13900	19900	21600	22000	15400	12400	15000	11100
6	17600	14700	18400	18800	14700	20100	21300	21600	17600	6060	15900	11400
7	17900	15200	18600	18900	15600	20300	19700	22100	18900	8200	16900	11600
8	18300	15600	18900	18800	17100	20400	16800	22600	19500	10900	17600	17000
9	18600	15800	19100	19000	15900	20400	18300	22900	19700	14000	18200	17900
10	18800	15700	18600	19100	16800	20400	19300	23300	15300	14000	18500	19400
11	19400	16200	18300	19100	17800	20500	20400	24000	19200	17100	19100	19000
12	19500	16800	18200	19200	18000	20400	20500	23600	19900	17700	19300	16400
13	19700	17200	18300	19100	18100	20300	20500	23700	20700	20900	19300	13900
14	18900	17600	18500	19000	18200	20300	20400	23500	21300	21700	17600	9570
15	18900	17900	18800	19100	18300	20400	16500	23400	21400	22300	4940	14100
16	19300	17900	18900	19300	18000	20400	19900	24100	22200	23100	1000	16200
17	19500	17900	18800	19400	18000	20500	20100	24300	22800	23400	3730	17200
18	19800	17900	18800	19300	17800	20400	20800	24500	22800	23100	6530	18200
19	19900	17900	18900	19200	18200	20500	21300	23500	23100	22600	9270	18100
20	20100	18200	18900	19400	18400	20500	21500	21800	23200	22100	10500	18200
21	20600	18200	18900	19500	19100	20800	22000	24000	23700	21900	12400	17200
22	20300	18200	18900	20000	17900	21000	21600	9530	23400	18700	13400	17600
23	19300	18200	18800	19900	17700	21000	21600	6780	14900	21000	14200	17600
24	8440	18500	19000	19700	17400	21600	21900	5250	13200	8030	14900	18400
25	1800	18700	19100	19500	18000	21800	21900	5720	13500	1940	15800	18900
26	3370	18700	18900	19500	19000	21800	22400	6460	14100	1060	16800	19200
27	6430	18700	18700	19600	19300	21100	21800	6700	13000	3270	17000	19500
28	8180	18700	18700	19700	19400	21400	21600	3840	14000	6520	12600	19500
29	11000	18900	18600	19800	---	21400	22400	3920	15800	7230	6650	19600
30	10700	18900	18800	19600	---	21100	22500	5450	17800	10200	6360	19600
31	10600	---	18400	15200	---	21500	---	6520	---	12200	8610	---
MONTH	15300	16120	18750	19090	17220	20620	20810	17610	17480	15160	12940	16380

RED RIVER BASIN

145

07311648 Middle Fork Wichita River near Truscott, Tex.

LOCATION.--Lat 33°51'12", long 99°57'44", Foard County, on right bank 32 ft (10 m) downstream from ranch road, 3.0 miles (4.8 km) upstream from mouth, and 11.1 miles (17.9 km) northwest of Truscott.

DRAINAGE AREA.--161 mi² (417 km²).

PERIOD OF RECORD.--Discharge: 1956-57, 1968-70, occasional discharge measurements made 3 miles (5 km) downstream, published as "near Crowell", October 1970 to current year.

Water quality: Chemical analyses: August 1970 to current year.

GAGE.--Water-stage and specific-conductance recorders. Datum of gage is 1,457.87 ft (444.359 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--5 years, 9.99 ft³/s (0.283 m³/s), 7,240 acre-ft/yr (8.93 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 1,680 ft³/s (47.6 m³/s) July 25 (gage height, 9.96 ft or 3.036 m); minimum daily, 2.0 ft³/s (0.057 m³/s) June 21, 22.

Period of record: Maximum discharge, 1,680 ft³/s (47.6 m³/s) July 25, 1975 (gage height, 9.96 ft or 3.036 m); minimum, 1.6 ft³/s (0.045 m³/s) July 9, 1971.

Historic: Maximum stage since at least 1900 occurred in August 1913, about 17 ft (5.2 m), from information furnished by longtime local resident.

Water quality: Current year: Maximum daily specific conductance, 19,500 micromhos Oct. 23; minimum daily, 1,920 micromhos May 29.

Period of record: Maximum daily specific conductance, 20,100 micromhos July 18, 1974; minimum daily, 880 micromhos Sept. 4, 1972.

REMARKS.--Discharge records good. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	6.8	4.3	4.6	11	6.9	3.8	4.0	8.1	2.4	12	4.0
2	3.3	5.0	4.3	5.7	8.8	6.7	3.5	4.3	5.6	2.4	33	3.5
3	3.3	5.0	4.1	5.3	16	6.3	3.5	4.3	4.4	2.4	34	3.4
4	3.6	5.3	4.1	4.3	24	7.1	3.6	4.3	3.7	2.2	21	5.8
5	3.6	4.3	4.3	4.3	13	5.7	3.4	4.6	3.3	22	18	11
6	4.0	4.3	5.0	4.1	5.0	4.6	3.8	5.3	3.4	15	17	9.8
7	4.2	5.3	5.0	4.1	5.0	4.6	13	5.3	3.7	11	18	4.5
8	4.7	5.7	4.1	4.3	5.7	4.3	31	5.6	6.6	8.6	20	3.1
9	4.1	6.4	3.8	4.3	5.7	4.7	6.8	5.6	7.0	7.2	21	3.3
10	4.3	7.7	4.3	4.6	5.0	4.6	3.9	5.6	6.4	16	21	3.8
11	5.0	6.8	5.3	4.3	6.0	4.8	3.9	6.0	6.9	11	21	4.8
12	5.0	5.7	5.0	4.0	5.6	5.5	3.7	6.8	6.5	15	21	27
13	5.0	6.0	3.8	4.0	5.6	4.9	4.2	6.4	6.5	8.1	28	4.5
14	9.1	5.3	3.5	4.6	5.3	4.4	4.4	6.4	5.6	7.7	10	28
15	11	5.3	3.3	4.6	5.4	4.4	4.0	6.4	5.5	7.2	6.4	15
16	7.7	5.7	3.5	4.3	7.1	4.5	3.5	7.2	5.2	6.0	6.0	8.9
17	6.0	5.7	4.1	4.3	7.8	4.3	3.8	6.4	5.9	6.8	6.0	7.3
18	5.7	6.0	4.1	4.3	7.0	4.6	3.5	6.0	6.4	7.2	5.7	7.1
19	6.0	6.4	3.8	4.6	6.1	4.4	3.3	7.2	4.2	6.8	5.3	5.6
20	5.7	6.0	3.8	4.1	6.1	4.5	3.3	12	2.7	7.2	4.6	5.2
21	6.0	5.7	4.1	4.3	6.6	4.0	3.5	15	2.0	7.2	3.1	10
22	7.2	6.0	4.1	4.4	6.5	4.1	3.8	110	2.0	7.7	3.2	9.6
23	8.6	6.0	3.5	4.5	6.0	4.0	4.6	249	6.0	7.2	3.5	7.8
24	126	5.3	3.5	4.8	7.0	3.7	4.6	16	7.2	84	4.4	5.5
25	34	5.3	3.0	4.8	7.8	3.6	4.3	6.0	2.7	789	4.2	4.3
26	5.0	5.3	3.0	4.7	7.0	4.0	4.6	4.6	2.7	311	5.3	5.2
27	3.3	5.0	3.5	5.1	6.7	5.5	9.1	26	2.5	46	9.5	7.7
28	7.2	5.0	4.1	4.7	7.2	5.2	8.1	508	2.5	15	9.0	4.0
29	5.7	4.6	3.8	4.8	-----	4.4	6.8	62	2.5	9.1	8.0	4.8
30	5.7	4.3	3.5	5.5	-----	4.3	5.0	34	2.5	7.2	8.2	5.3
31	14	-----	4.3	11	-----	4.1	-----	23	-----	7.5	5.6	-----
TOTAL	327.4	167.2	123.9	147.3	216.0	148.7	168.3	1,173.3	140.2	1,463.1	393.0	270.3
MEAN	10.6	5.57	4.00	4.75	7.71	4.80	5.61	37.8	4.67	47.2	12.7	9.01
MAX	126	7.7	5.3	11	24	7.1	31	508	8.1	789	34	45
MIN	3.3	4.3	3.0	4.0	5.0	3.6	3.3	4.0	2.0	2.2	3.1	3.1
AC-FT	649	332	246	292	428	295	334	2,330	278	2,900	780	536

CAL YR 1974 TOTAL 3,912.3 MEAN 10.7 MAX 494 MIN 2.4 AC-FT 7,760
WTR YR 1975 TOTAL 4,738.7 MEAN 13.0 MAX 789 MIN 2.0 AC-FT 9,400

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-24	1200	5.84	258	5-28	1030	9.32	1,300
5-23	0130	7.68	688	7-25	1345	9.96	1,680

RED RIVER BASIN

07311648 Middle Fork Wichita River near Truscott, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 09...	1400	4.0	--	650	140	--	--	--	--	1600
NOV. 06...	1235	4.6	--	730	160	--	--	--	--	2200
DEC. 04...	1245	4.0	--	820	180	--	--	--	--	2600
JAN. 21...	1550	4.3	--	860	180	--	--	--	--	2300
FEB. 11...	1325	3.8	--	680	190	--	--	--	--	2200
MAR. 25...	1330	4.2	--	840	160	--	--	--	--	2500
APR. 15...	1520	3.9	--	710	160	--	--	--	--	2200
MAY 06...	1040	4.2	--	880	200	--	--	--	--	2700
JUNE 03...	1535	4.7	2.0	510	110	1300	5.9	65	0	1500
JULY 29...	1130	8.7	7.1	280	56	480	6.0	114	0	750
AUG. 20...	1240	5.0	--	650	170	--	--	--	--	2100
SEP. 09...	1410	5.0	--	860	180	--	--	--	--	2600

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 09...	3300	--	--	2200	--	--	11600	--	24.0
NOV. 06...	3700	--	--	2500	--	--	12400	--	11.0
DEC. 04...	4200	--	--	2800	--	--	15000	--	5.0
JAN. 21...	4500	--	--	2900	--	--	15300	--	7.0
FEB. 11...	3800	--	--	2500	--	--	12700	--	9.0
MAR. 25...	4200	--	--	2800	--	--	16300	--	12.0
APR. 15...	3500	--	--	2400	--	--	13500	--	18.0
MAY 06...	4600	--	--	3000	--	--	16900	--	22.0
JUNE 03...	2100	.3	5560	1700	1700	14	8560	7.8	28.0
JULY 29...	750	--	2390	930	840	6.9	3800	7.6	30.0
AUG. 20...	3300	--	--	2300	--	--	12400	--	30.0
SEP. 09...	4200	--	--	2900	--	--	15300	--	30.0

07311648 Middle Fork Wichita River near Truscott, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	327.4	13000	8800	7780	3500	3090	2200	1940	****
NOV. 1974.....	167.2	15200	10000	4510	4000	1810	2500	1130	****
DEC. 1974.....	123.9	15400	10000	3350	4000	1340	2500	836	****
JAN. 1975.....	147.3	15000	10000	3980	4000	1590	2500	994	****
FEB. 1975.....	216	13000	8800	5130	3500	2040	2200	1280	****
MAR. 1975.....	148.7	15400	10000	4010	4000	1610	2500	1000	****
APR. 1975.....	168.3	15600	11000	5000	4500	2040	2600	1180	****
MAY 1975.....	1173.3	5700	3700	11700	1300	4120	1100	3480	1200
JUNE 1975.....	140.2	10600	7000	2650	2700	1020	1800	681	****
JULY 1975.....	1463.1	4870	3200	12600	1100	4350	910	3590	1100
AUG. 1975.....	392.99	9530	6200	6580	2400	2550	1600	1700	1800
SEPT 1975.....	270.3	12000	8000	5840	3200	2340	2000	1460	****
TOTAL	4738.69	**	**	73100	**	27900	**	19300	**
WTD.AVG.	12.98	8640	5700	**	2200	**	1500	**	1700

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C): WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10000	11500	15300	15000	12200	15300	16100	17000	7590	14900	4360	15200
2	10300	11400	15300	14500	12700	15500	16200	17100	8070	15000	4210	15400
3	10500	11400	15200	14400	11600	15500	16300	17100	8560	14900	3860	15600
4	10700	11400	15000	14600	10200	15200	16200	17200	8700	14300	4640	15600
5	10600	11600	15000	14600	10600	15200	16200	16700	8680	10700	5040	15000
6	10900	12400	14900	14500	11000	15400	16200	16900	8500	12200	5890	14900
7	11300	12600	14900	14500	11300	15700	15900	17300	8210	13200	6950	14700
8	11200	13400	15000	14800	11700	15800	15200	17400	7980	13500	7560	15000
9	11600	14500	15900	15500	12600	15900	15300	17600	8170	13100	8820	15300
10	12300	17000	15900	15900	13000	16000	15300	17700	8180	11700	10700	15900
11	13600	17300	15600	15400	12700	15400	15100	17700	8610	11600	12400	16000
12	14200	17300	15600	15800	13800	14700	15000	17800	9140	11300	13500	12500
13	15000	17000	15600	16100	14000	14500	14300	18100	9680	11300	14400	10800
14	15700	17000	15600	16200	14100	14900	13900	17900	10100	11300	14400	10100
15	15500	17000	15600	15900	14300	15500	13500	17900	10500	11800	12400	10600
16	16100	16500	15500	15300	14600	15100	15100	18200	10800	13100	12300	10700
17	16400	16200	15300	15000	14200	15200	15300	18400	11300	14100	12200	10300
18	16800	16200	15400	14800	14200	14800	15400	18600	12000	14500	11600	10800
19	17500	16200	15500	15000	14200	14700	15100	18200	12900	15100	11600	11800
20	18000	16300	15300	15300	14300	15300	15000	17200	14700	15500	12400	12300
21	19200	16000	15200	15300	14800	15600	15100	17800	15000	16400	13100	11200
22	19300	16400	15500	15300	14500	15700	15400	17600	15200	17200	13600	10800
23	19500	16000	16100	15300	14300	15900	15600	17900	15100	17700	14100	11200
24	12000	16100	16400	14900	13800	16000	15800	17900	13700	17100	14500	11400
25	10800	16200	16400	15000	14400	16300	16100	17900	14300	17100	14800	11700
26	11300	15400	15400	15300	15000	16000	16400	19500	14600	3150	15200	11200
27	11300	15600	15600	15500	15100	15100	16500	19200	14900	2060	14800	10500
28	11600	16000	15500	15600	15000	15200	16400	19400	14900	3210	14800	11900
29	11400	16500	15300	15400	---	15500	16400	19200	14900	3800	15300	12700
30	11400	16400	15500	15300	---	15800	16800	3010	14900	4170	15400	13800
31	11200	---	15100	13000	---	16000	---	5510	---	4300	15000	---
MONTH	13460	15160	15460	15130	13360	15440	15570	13900	11330	11230	11280	12830

RED RIVER BASIN

07311700 North Fork Wichita River near Truscott, Tex

LOCATION.--Lat 33°49'14", long 99°47'10", Foard-Knox County line, near right bank on downstream side of bridge on State Highway 6 (revised), 4.5 miles (7.2 km) north of Truscott, about 47.6 miles (76.6 km) upstream from confluence with South Fork, and at mile 188.4 (303.1 km).

DRAINAGE AREA.--937 mi² (2,427 km²).

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

Water quality: Chemical analyses: July 1968 to current year. Water temperatures: July 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,351.78 ft (412.023 m) above mean sea level. Prior to Jan. 2, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--15 years (1960-75), 62.7 ft³/s (1.776 m³/s), 45,430 acre-ft/yr (56.0 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 8,500 ft³/s (241 m³/s) July 25 (gage height, 17.78 ft or 5.419 m); minimum, 4.8 ft³/s (0.14 m³/s) June 18-22.

Period of record: Maximum discharge, 28,900 ft³/s (818 m³/s) Sept. 19, 1965 (gage height, 21.96 ft or 6.693 m); minimum, 0.01 ft³/s (0.0003 m³/s) July 25, 1964, Aug. 22, 23, 1974.

Historic: Maximum stage since at least 1900 occurred in September 1919; the next highest flood occurred in May 1954, from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 22,400 micromhos June 27; minimum daily, 1,460 micromhos June 8.

Period of record: Maximum daily specific conductance, 33,800 micromhos Aug. 19, 1970; minimum daily, 840 micromhos Sept. 23, 1969. Maximum water temperatures, 39.0°C Aug. 21, 23, 1969, Aug. 22, 1973; minimum, freezing point on several days during winter months.

REMARKS.--Discharge records good. One small diversion for irrigation above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	150	24	27	61	22	20	15	74	11	212	23
2	44	80	25	31	46	21	19	14	42	11	143	19
3	40	50	25	31	69	21	19	14	28	11	181	18
4	38	40	23	28	126	22	18	60	22	50	112	17
5	37	36	24	26	109	22	19	39	19	114	71	41
6	37	34	27	25	55	21	18	15	17	54	60	34
7	36	34	24	23	41	20	43	12	84	26	58	23
8	36	35	21	23	35	20	80	11	372	18	54	19
9	34	37	21	23	32	23	46	9.7	35	15	53	18
10	27	43	23	23	30	23	26	9.7	27	18	50	17
11	28	40	26	23	27	24	23	9.7	20	46	47	53
12	28	35	26	23	26	26	21	9.7	17	39	46	175
13	27	32	24	23	31	25	23	8.9	16	21	49	193
14	53	31	23	23	22	23	28	8.9	15	18	50	251
15	49	30	23	24	23	27	31	11	15	16	242	96
16	41	31	21	23	29	25	22	9.7	15	14	992	55
17	33	32	21	23	33	42	21	8.9	12	13	279	39
18	30	30	21	24	30	28	19	8.1	6.8	12	131	28
19	30	30	21	23	26	23	18	11	5.8	26	72	22
20	29	28	21	22	23	19	17	35	5.6	18	53	20
21	29	27	21	21	22	19	17	13	5.8	31	42	36
22	31	27	20	21	34	18	17	208	6.1	19	36	40
23	47	26	19	21	41	18	18	765	37	16	31	30
24	404	24	20	21	34	18	18	166	46	228	27	24
25	785	23	21	21	28	17	17	64	80	3,840	24	20
26	259	23	23	21	25	18	15	36	31	3,980	24	19
27	95	24	23	21	23	24	39	34	18	560	26	19
28	85	23	23	20	22	27	30	1,320	13	240	28	19
29	80	24	21	21	-----	25	17	313	11	134	92	19
30	67	24	23	22	-----	24	15	121	12	88	49	20
31	127	-----	25	73	-----	23	-----	99	-----	135	31	-----
TOTAL	2,732	1,103	703	774	1,103	708	734	3,459.3	1,108.1	9,822	3,365	1,407
MEAN	88.1	36.8	22.7	25.0	39.4	22.8	24.5	112	36.9	317	109	46.9
MAX	785	150	27	73	126	42	80	1,320	372	3,980	992	251
MIN	27	23	19	20	22	17	15	6.1	5.6	11	24	17
AC-FT	5,420	2,190	1,390	1,540	2,190	1,400	1,460	6,860	2,200	19,480	6,670	2,790

CAL YR 1974 TOTAL 27,175.56 MEAN 74.5 MAX 4,530 MIN .02 AC-FT 53,900
WTR YR 1975 TOTAL 27,018.40 MEAN 74.0 MAX 3,980 MIN 5.6 AC-FT 53,590

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-25	1215	9.83	1,140	7-25	2400	17.78	8,500
5-22	2345	10.89	1,530	8-16	0945	11.25	1,690
5-28	0715	12.97	2,630				

07311700 North Fork Wichita River near Truscott, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
09...	1610	28	--	670	150	--	--	--	--	1900
NOV.										
06...	1505	32	--	540	120	--	--	--	--	1500
DEC.										
30...	1440	22	--	780	180	--	--	--	--	2400
JAN.										
22...	0900	21	--	790	190	--	--	--	--	2400
FEB.										
11...	1500	21	--	660	190	--	--	--	--	2100
MAR.										
25...	1510	21	--	840	200	--	--	--	--	2500
APR.										
16...	0930	25	--	810	190	--	--	--	--	2400
MAY										
27...	1525	35	8.4	360	69	1100	12	114	0	1100
28...	0910	2300	9.3	89	14	83	4.9	95	0	210
JUNE										
03...	1713	26	7.2	450	100	1400	15	132	0	1200
JULY										
28...	1430	227	9.9	240	42	500	13	130	0	680
AUG.										
20...	1535	47	8.6	420	91	1200	13	152	0	1100
SEP.										
09...	1600	19	--	620	150	--	--	--	--	1800

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
09...	4800	--	--	2300	--	--	15200	--	25.5
NOV.									
06...	3000	--	--	1800	--	--	11100	--	10.0
DEC.									
30...	5200	--	--	2700	--	--	17000	--	18.0
JAN.									
22...	5400	--	--	2800	--	--	18100	--	2.0
FEB.									
11...	4300	--	--	2400	--	--	14700	--	12.0
MAR.									
25...	5900	--	--	2900	--	--	18600	--	12.0
APR.									
16...	5500	--	--	2800	--	--	18200	--	18.0
MAY									
27...	1700	.4	4410	1200	1100	14	7070	7.4	22.0
28...	120	.4	577	280	200	2.2	970	7.6	18.0
JUNE									
03...	2300	.4	5540	1500	1400	16	9000	7.4	28.0
JULY									
28...	770	--	2320	770	670	7.8	3770	7.3	31.0
AUG.									
20...	1900	.4	4810	1400	1300	14	8080	7.5	33.0
SEP.									
09...	3600	--	--	2200	--	--	13200	--	31.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	2732	7530	4700	34700	2000	14800	980	7230	1300
NOV. 1974.....	1103	12600	8200	24400	3600	10700	1600	4760	****
DEC. 1974.....	703	16800	11000	20900	4900	9300	2100	3990	****
JAN. 1975.....	774	16700	11000	23000	4900	10200	2100	4390	****
FEB. 1975.....	1103	12800	8300	24700	3600	10700	1700	5060	****
MAR. 1975.....	708	17200	12000	22900	5400	10300	2200	4210	****
APR. 1975.....	734	16100	11000	21800	4900	9710	2100	4160	****
MAY 1975.....	3459.3	4890	3000	28000	1200	11200	670	6260	870
JUNE 1975.....	1108.09	8050	5000	15000	2100	6280	1100	3290	1300
JULY 1975.....	9822	2810	1700	45100	560	14900	500	13300	570
AUG. 1975.....	3365	6420	4000	36300	1600	14500	940	8540	1100
SEPT 1975.....	1407	9460	5900	22400	2500	9500	1200	4560	1500
TOTAL	27018.39	**	**	319000	**	132000	**	69700	**
WTD.AVG.	74.02	6870	4400	**	1800	**	960	**	1200

RED RIVER BASIN

07311700 North Fork Wichita River near Truscott, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11300	9540	17300	16700	14000	16400	18900	19800	8160	16500	2940	9400
2	10900	6500	17100	16500	15300	16600	19200	20500	8580	18100	6180	10400
3	11600	7430	17000	16300	11400	16600	19400	20500	9000	17800	5220	12100
4	12400	8320	17100	16500	9010	16600	19400	12200	9800	13500	6480	12600
5	13100	9410	18300	16700	7550	16800	19300	12600	10400	12300	7750	11500
6	13700	11100	16500	16900	9400	16900	19400	15500	11000	10800	9050	12100
7	14300	11600	16600	17100	11200	16800	15000	18300	2890	9230	10400	12600
8	14700	12600	16600	17200	12200	17000	12000	21200	1460	10200	11000	13200
9	15200	12900	16700	17200	13300	17100	12500	21200	9900	13500	11500	13200
10	15500	12700	16300	16800	14300	17200	15500	21100	8210	12100	12100	13800
11	15700	13400	16200	17300	14700	17000	15700	21500	10900	10700	12400	10500
12	16500	13700	16300	17700	15100	16500	15900	21800	13400	14100	13100	6130
13	17300	13900	16500	18200	15000	16900	17700	20400	15900	14900	13200	5720
14	16100	14600	16300	17900	15400	17000	16700	21200	16500	15600	13200	5510
15	15300	14900	16500	17500	15600	16700	16000	21900	17300	18100	6200	7860
16	14800	15100	16700	17500	15000	17000	15800	22200	18200	18700	3040	11300
17	15500	15300	16900	17500	14600	17300	16000	22300	19100	19300	3500	12100
18	15800	15300	17000	17500	15200	17000	17500	22300	19800	19900	3920	13400
19	16200	15500	17100	17500	15200	17200	18600	22000	20000	16900	6950	14400
20	16600	15700	17200	17600	15200	17000	19800	18500	20200	13900	8080	13900
21	16900	15800	17100	17800	15400	17500	19800	19000	20500	18300	8900	12800
22	16900	16000	17100	18100	14900	17700	19800	4450	21000	19900	9860	12600
23	14800	16200	17200	18100	14200	17900	19800	5120	18300	20400	10800	15500
24	5210	16300	17000	17900	15000	18400	19600	4210	14000	9820	11800	14700
25	3830	16500	16700	17900	15000	18600	19700	5780	6610	1530	12700	14700
26	2190	16600	16500	17900	14900	18600	19900	7290	19400	1590	13800	15500
27	3750	16700	16800	17900	15500	17800	11600	7070	22400	2500	14900	16000
28	5170	16800	17100	18000	16000	17500	11900	1780	17200	3560	14000	16500
29	5920	17000	17100	17900	---	17300	14800	3460	16100	5880	16500	16500
30	9070	17200	17000	17900	---	17600	17000	4500	14300	7250	15800	16300
31	6950	---	16800	9640	---	17800	---	5800	---	5560	13200	---
MONTH	12360	13820	16860	17200	13910	17240	17140	15010	14020	12660	9950	12430

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	9.0	---	7.0	---	12.0	17.0	22.0	30.0	24.0	28.0
2	---	---	4.0	---	---	16.0	---	15.0	---	27.0	27.0	23.0
3	---	---	15.0	7.0	8.0	5.0	9.0	16.0	---	28.0	24.0	31.0
4	---	---	7.0	8.0	---	15.0	11.0	---	---	---	23.0	26.0
5	---	---	4.0	10.0	---	---	---	---	26.0	31.0	---	28.0
6	---	---	15.0	0.0	---	---	11.0	---	---	---	24.0	30.0
7	---	---	13.0	---	1.0	---	11.0	---	24.0	26.0	26.0	---
8	---	---	4.0	11.0	---	8.0	---	22.0	21.0	34.0	---	21.0
9	---	---	6.0	13.0	---	---	---	20.0	28.0	30.0	---	---
10	---	---	15.0	10.0	10.0	6.0	13.0	20.0	20.0	26.0	33.0	---
11	---	---	---	---	7.0	7.0	---	---	---	25.0	23.0	26.0
12	---	---	5.0	---	20.0	---	15.0	20.0	---	30.0	30.0	18.0
13	---	---	15.0	15.0	8.0	6.0	15.0	22.0	27.0	---	24.0	15.0
14	---	---	15.0	---	5.0	5.0	15.0	---	---	28.0	24.0	16.0
15	---	---	10.0	16.0	6.0	---	15.0	20.0	---	31.0	27.0	17.0
16	---	---	9.0	7.0	---	---	15.0	19.0	26.0	---	27.0	17.0
17	---	---	7.0	15.0	3.0	12.0	15.0	27.0	29.0	24.0	---	30.0
18	---	---	12.0	9.0	---	15.0	---	23.0	28.0	25.0	25.0	26.0
19	---	---	5.0	16.0	9.0	15.0	---	21.0	26.0	24.0	31.0	24.0
20	---	---	7.0	7.0	7.0	10.0	15.0	---	20.0	24.0	---	19.0
21	---	---	9.0	---	---	16.0	15.0	---	---	26.0	27.0	14.0
22	---	---	10.0	---	4.0	---	15.0	24.0	22.0	32.0	26.0	15.0
23	---	---	15.0	5.0	---	13.0	13.0	20.0	25.0	31.0	32.0	20.0
24	---	---	---	5.0	3.0	10.0	21.0	22.0	30.0	24.0	---	21.0
25	---	---	---	14.0	---	---	---	21.0	26.0	21.0	24.0	14.0
26	---	---	---	16.0	4.0	10.0	---	23.0	27.0	21.0	---	15.0
27	---	---	---	15.0	14.0	15.0	20.0	---	15.0	---	---	---
28	---	---	9.0	---	---	---	25.0	---	28.0	22.0	28.0	26.0
29	---	---	10.0	---	---	---	---	15.0	24.0	25.0	30.0	26.0
30	---	---	10.0	7.0	---	8.0	---	---	25.0	---	31.0	---
31	---	---	---	9.0	---	8.0	---	20.0	---	26.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	27.0	---	22.0

07311780 South Fork Wichita River near Guthrie, Tex.

LOCATION.--Lat 33°37'29", long 100°13'04", King County, on left bank 60 ft (18 m) upstream from ranch road, 3.9 miles (6.3 km) upstream from Willow Creek, 6.1 miles (9.8 km) east of Guthrie, and at mile 92.5 (148.8 km).

DRAINAGE AREA.--239 mi² (619 km²).

PERIOD OF RECORD.--Discharge: 1952-54, 1956-57 (discharge measurements only), October 1970 to current year.

Water quality: Chemical analyses: August 1970 to current year.

GAGE.--Water-stage and specific-conductance recorders. Altitude of gage 1,600 ft (488 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 5.50 ft³/s (0.156 m³/s), 3,980 acre-ft/yr (4.91 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 341 ft³/s (9.66 m³/s) May 28 (gage height, 4.74 ft or 1.445 m); minimum, 2.6 ft³/s (0.074 m³/s) July 8, 9.

Period of record: Maximum discharge, 2,060 ft³/s (58.3 m³/s) Aug. 25, 1971 (gage height, 7.15 ft or 2.179 m), from rating curve extended above 200 ft³/s (5.66 m³/s) on basis of indirect discharge estimate of peak flow; minimum, 2.1 ft³/s (0.060 m³/s) for many days in 1971.

Historic: Maximum stage since 1950, 20.8 ft (6.34 m) in May 1954, present site and datum, from floodmarks furnished by local resident.

Water quality: Current year: Maximum daily specific conductance, 45,500 micromhos July 19; minimum daily, 9,170 micromhos May 23. Period of record: Maximum daily specific conductance, 47,300 micromhos Aug. 11, 1971; minimum daily, 2,230 micromhos Aug. 25, 1971.

REMARKS.--Discharge records good. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.0	4.7	4.4	4.1	4.1	4.7	2.8	5.7	3.1	4.7	4.7
2	5.6	5.0	4.7	4.4	4.1	4.1	4.1	2.8	4.8	3.1	5.0	4.7
3	5.3	5.0	4.7	4.4	4.3	4.4	4.1	2.8	3.8	3.4	4.7	4.7
4	5.0	5.0	4.7	4.4	4.7	4.4	3.8	3.1	3.8	3.5	4.7	4.4
5	5.0	5.0	4.7	4.4	4.7	4.4	3.8	3.3	3.6	3.5	5.0	4.4
6	4.7	4.7	4.7	4.4	4.1	4.4	3.8	3.1	3.5	3.5	4.7	4.1
7	4.4	4.7	4.7	4.4	3.8	4.4	4.2	3.1	3.6	3.3	4.7	4.1
8	4.1	4.7	4.7	4.4	3.8	4.4	4.4	3.3	5.6	3.0	4.7	4.1
9	4.1	4.7	4.7	4.4	3.8	4.4	4.2	3.3	4.1	2.6	5.0	4.1
10	4.1	4.7	4.7	4.1	3.9	4.7	3.8	3.3	7.9	2.8	5.0	4.1
11	4.1	4.7	4.7	4.1	4.1	4.7	3.8	3.3	11	2.8	5.0	4.1
12	4.1	4.4	4.7	4.1	3.9	4.7	3.8	3.3	9.7	2.8	5.0	5.9
13	4.1	4.4	4.7	4.1	3.8	4.7	4.1	3.3	5.5	2.8	5.4	6.8
14	5.0	4.4	4.7	4.0	3.8	4.7	4.1	4.1	4.4	3.2	5.4	6.6
15	4.8	4.4	4.7	4.0	3.8	4.7	3.5	4.1	4.3	3.1	8.7	5.8
16	3.9	4.4	4.7	4.1	4.1	4.7	3.5	4.1	4.4	3.1	6.0	5.4
17	3.8	4.4	4.7	4.1	4.1	4.7	3.5	4.1	4.0	3.1	5.7	5.2
18	3.8	4.4	4.7	4.1	4.1	4.7	3.5	4.1	3.9	3.5	5.4	5.0
19	3.8	4.4	4.7	4.1	4.1	4.7	2.8	4.1	3.5	4.1	5.7	4.9
20	3.8	4.7	4.4	4.2	4.1	4.7	2.8	4.7	3.5	6.4	5.7	4.4
21	3.8	4.7	4.4	4.4	3.8	4.7	2.8	5.4	3.3	5.1	5.7	4.9
22	3.8	4.7	4.4	4.2	3.8	4.7	3.1	26	3.5	4.3	5.4	4.9
23	4.3	4.7	4.4	4.1	3.8	4.7	3.1	99	3.5	4.1	5.4	4.7
24	18	4.7	4.4	4.1	3.8	5.0	3.1	21	3.5	4.4	5.4	4.6
25	22	4.7	4.4	4.1	3.8	4.5	3.1	8.7	3.3	55	5.4	4.7
26	8.3	4.7	4.4	4.1	4.1	4.5	3.3	5.4	3.3	12	5.4	4.7
27	6.6	4.7	4.4	4.1	4.1	5.4	3.5	5.0	3.3	7.8	5.4	4.4
28	6.6	4.7	4.4	4.1	4.1	4.9	3.3	127	3.3	6.0	5.4	4.4
29	6.0	4.7	4.4	4.1	-----	5.3	3.1	50	3.1	5.1	5.0	4.4
30	5.3	4.7	4.4	4.2	-----	4.8	2.8	16	3.1	4.4	4.7	4.4
31	5.0	-----	4.4	4.1	-----	4.7	-----	7.9	-----	4.7	4.7	-----
TOTAL	179.1	140.1	142.1	130.2	112.5	143.9	107.5	441.5	133.8	179.6	164.1	143.6
MEAN	5.78	4.67	4.58	4.20	4.02	4.64	3.58	14.2	4.46	5.79	5.29	4.79
MAX	22	5.0	4.7	4.4	4.7	5.4	4.7	127	11	55	8.7	6.8
MIN	3.8	4.4	4.4	4.0	3.8	4.1	2.8	2.8	3.1	2.6	4.7	4.1
AC-FT	355	278	282	258	223	285	213	876	265	356	325	285

CAL YR 1974 TOTAL 1,800.0 MEAN 4.93 MAX 120 MIN 2.5 AC-FT 3,570
WTR YR 1975 TOTAL 2,018.0 MEAN 5.53 MAX 127 MIN 2.6 AC-FT 4,000

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
5-23	0130	4.41	261
5-28	0415	4.74	341
7-25	1900	4.38	250

RED RIVER BASIN

07311780 South Fork Wichita River near Guthrie, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 08...	0930	4.5	1100	260	2700	13000	3800	38900	17.0
NOV. 05...	1130	5.5	930	220	2600	11000	3200	32900	12.0
DEC. 30...	1210	4.4	1100	260	2800	13000	3800	36700	7.0
JAN. 20...	1555	4.4	1100	260	3000	13000	3800	38800	7.0
FEB. 10...	1650	4.4	1100	260	2800	13000	3800	36300	6.5
MAR. 24...	1545	4.4	1100	270	2900	13000	3900	40300	14.0
APR. 14...	1610	4.2	1100	240	2900	13000	3700	38400	23.0
JUNE 16...	1713	4.7	950	230	2500	11000	3300	31000	35.0
JULY 30...	0950	3.0	1100	160	2700	10000	3400	29900	29.0
AUG. 18...	1635	5.7	1100	210	2700	11000	3600	33000	33.0
SEP. 08...	1610	5.7	1100	260	2700	12000	3800	35800	30.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	179.1	30600	20000	9670	10000	4840	2500	1210	****
NOV. 1974.....	140.1	33100	22000	8320	11000	4160	2800	1060	****
DEC. 1974.....	142.1	35500	23000	8820	12000	4600	2400	921	****
JAN. 1975.....	130.2	37300	25000	8790	13000	4570	2600	914	****
FEB. 1975.....	112.5	36700	24000	7290	12000	3640	3000	911	****
MAR. 1975.....	143.9	39300	26000	10100	13000	5050	3300	1280	****
APR. 1975.....	107.5	39900	26000	7550	13000	3770	3300	958	****
MAY 1975.....	441.5	17400	11000	13100	5100	6090	1800	2150	****
JUNE 1975.....	133.8	27400	18000	6500	8900	3220	2400	867	****
JULY 1975.....	179.6	26900	17000	8240	8400	4070	2200	1070	****
AUG. 1975.....	164.1	32800	21000	9300	11000	4870	2100	930	****
SEPT 1975.....	143.6	33800	22000	8530	11000	4260	2800	1090	****
TOTAL	2017	**	**	106000	**	53100	**	13400	**
WTD.AVG.	5.53	30000	19000	**	9800	**	2500	**	*****

RED RIVER BASIN

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07311780 South Fork Wichita River near Guthrie, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29000	27800	34300	36500	35300	37300	39500	41000	25100	30700	31000	34600
2	30600	29500	34400	36500	34500	37800	39700	40300	28400	31000	31100	35000
3	31800	31000	34400	36400	33900	37800	40900	40300	29300	31400	31300	35200
4	33300	32300	34500	36600	33000	36700	39700	40400	30200	31400	30200	35300
5	34700	32900	34700	36700	34900	37800	39800	39400	30200	31400	31500	35400
6	36100	33000	34600	36400	36200	37500	40000	39800	29800	31700	32500	35400
7	37600	33300	34600	36300	36300	37800	39800	40400	29800	32800	33000	35500
8	38900	33200	34800	36600	36200	38300	39500	39900	28000	33400	33200	35800
9	39300	33300	34900	36600	38200	38500	39800	39500	26900	34100	33500	35800
10	39600	33200	35200	36700	36300	38800	39200	39000	23200	35000	33400	36100
11	40000	33200	35000	36600	37300	39700	39700	36600	25300	36300	33400	36200
12	39900	33400	35000	36800	37200	39200	39800	34600	18500	36700	34500	33900
13	40200	33300	35100	36700	37600	40200	39200	34400	22500	38300	34000	29400
14	40000	33300	35300	36900	37900	38300	38400	34300	26300	40100	33900	28100
15	40500	33400	35400	37100	38100	37700	39200	34400	29300	41900	29100	28700
16	41100	33500	35600	37400	38200	38700	39400	33000	31000	43500	27000	30800
17	41400	33600	35500	37600	36800	39500	39300	31700	30700	44900	30200	32400
18	42000	33500	35500	37800	37100	38900	40100	31600	30200	45400	33000	33200
19	42500	33500	35600	38100	37700	39200	40800	31400	30400	45500	33200	33900
20	42400	33600	36000	38800	37100	38900	40500	32100	30900	43200	33500	34500
21	42800	33800	36100	38900	37300	39500	41000	32300	30600	36800	33900	33600
22	42900	33700	36200	39700	37500	39600	41300	19200	29700	40200	34100	33400
23	41200	33800	36300	38300	37500	39600	41100	9170	28900	43000	34400	33000
24	31700	33900	36400	37700	36800	40300	40800	14500	28500	43600	34700	33800
25	10500	34000	36400	37700	37200	40400	40400	20900	28500	11000	34900	34700
26	17500	34100	36500	37800	37600	41200	40400	24600	28800	19200	34800	35200
27	19900	34100	36600	37900	37800	40200	39700	26200	29100	27700	34500	35400
28	21400	34000	36500	38300	37600	41800	40000	14400	29500	25000	33600	35600
29	23600	34100	36600	37700	---	43000	40200	11200	29900	27200	33300	35800
30	24900	34200	36700	38000	---	40800	40300	16600	30300	29900	33700	35800
31	26300	---	36700	36400	---	39300	---	21300	---	30800	34300	---
MONTH	34310	33120	35530	37340	36750	39240	39980	30480	28330	34620	32860	34050

RED RIVER BASIN

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

LOCATION.--Lat 33°39'18", long 100°00'49", King County, on left bank 170 ft (52 m) upstream from ranch road, 1.6 miles (2.6 km) downstream from Ox Yoke Creek, 13.7 miles (22.0 km) northwest of Benjamin, and at mile 64.5 (103.8 km).

DRAINAGE AREA.--499 mi² (1,292 km²).

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

Water quality: Chemical analyses: August 1970 to current year.

GAGE.--Water-stage and specific-conductance recorders. Altitude of gage is 1,450 ft (442 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 15.1 ft³/s (0.428 m³/s), 10,940 acre-ft/yr (13.5 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 2,780 ft³/s (78.7 m³/s) May 28 (gage height, 12.23 ft or 3.728 m); minimum, 2.8 ft³/s (0.079 m³/s) May 13.

Period of record: Maximum discharge, 2,780 ft³/s (78.7 m³/s) May 28, 1975 (gage height, 12.23 ft or 3.728 m); no flow at times.

Water quality: Current year: Maximum daily specific conductance, 39,600 micromhos Oct. 21; minimum daily, 1,500 micromhos May 28.

Period of record: Maximum daily specific conductance, 50,900 micromhos July 16, 1974; minimum daily, 1,500 micromhos May 28, 1975.

REMARKS.--Discharge records fair. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	28	10	10	12	7.4	5.5	8.0	34	13	15	7.2
2	13	19	10	11	11	7.4	4.7	8.3	32	12	17	7.8
3	12	18	10	11	13	7.3	5.1	8.4	29	11	19	7.5
4	11	17	10	10	22	7.4	5.1	8.0	27	9.7	15	7.4
5	11	16	11	9.9	25	8.6	5.1	6.9	25	8.5	12	7.9
6	10	16	12	9.7	11	8.4	5.6	6.6	21	7.4	10	8.5
7	8.6	15	11	9.7	8.6	7.8	8.0	5.8	25	8.8	10	7.9
8	7.7	15	10	9.7	8.6	7.4	12	4.3	227	6.8	10	7.7
9	7.9	15	10	9.5	9.7	7.4	9.9	3.4	44	6.8	9.4	7.2
10	7.3	19	11	9.5	9.6	7.4	7.2	4.0	139	7.3	9.1	7.4
11	6.8	19	12	9.0	9.1	7.4	7.3	3.6	56	8.5	9.0	9.9
12	6.8	16	12	8.0	8.1	7.7	7.3	3.4	23	9.0	7.4	130
13	6.8	15	11	8.5	7.4	7.6	7.3	3.0	23	9.1	5.4	134
14	12	15	10	9.8	7.4	7.2	6.8	3.1	18	8.3	5.8	118
15	20	14	10	8.9	7.4	6.9	7.3	3.2	16	7.3	6.3	62
16	14	14	11	6.7	8.8	6.8	7.1	3.4	15	8.4	6.8	55
17	9.7	14	11	6.5	9.7	7.1	4.7	3.4	23	8.8	7.4	39
18	9.2	14	11	6.8	9.0	8.0	4.4	3.1	20	14	8.5	18
19	9.1	14	11	7.1	7.9	8.7	5.4	4.0	19	15	6.8	14
20	8.6	14	11	7.4	7.4	7.6	5.2	7.6	16	17	6.4	13
21	7.9	14	11	6.9	6.8	6.4	4.6	8.5	16	19	5.5	13
22	7.4	13	11	6.8	11	6.5	4.9	135	15	21	5.1	13
23	8.5	12	10	6.8	11	6.3	5.6	504	51	18	4.9	13
24	50	12	10	7.1	10	5.9	5.7	153	26	14	4.7	12
25	45	12	10	7.4	9.1	5.5	5.8	69	24	346	4.2	11
26	40	12	10	7.4	8.2	5.5	6.1	46	22	718	17	11
27	20	12	10	7.4	7.4	6.6	13	104	21	249	19	11
28	18	11	10	7.4	7.4	6.6	15	1,200	18	99	6.1	9.9
29	19	10	10	7.0	-----	5.6	12	374	16	51	6.6	9.1
30	19	10	9.8	7.7	-----	5.5	9.3	201	14	35	9.0	9.1
31	29	-----	10	13	-----	5.6	-----	54	-----	17	6.7	-----
TOTAL	469.3	445	326.8	263.6	283.6	217.5	213.0	2,950.0	1,055	1,781.7	285.1	781.5
MEAN	15.1	14.8	10.5	8.50	10.1	7.02	7.10	95.2	35.2	57.5	9.20	26.1
MAX	50	28	12	13	25	8.7	15	1,200	227	718	19	134
MIN	6.8	10	9.8	6.5	6.8	5.5	4.4	3.0	14	6.8	4.2	7.2
AC-FT	931	883	648	523	563	431	422	5,850	2,090	3,530	565	1,550

CAL YR 1974 TOTAL 3,936.40 MEAN 10.8 MAX 289 MIN .09 AC-FT 7,810
WTR YR 1975 TOTAL 9,072.10 MEAN 24.9 MAX 1,200 MIN 3.0 AC-FT 17,990

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
5-23	0015	8.77	1,110	7-26	0230	9.60	1,440
5-28	0645	12.23	2,780	7-30	1245	7.02	580
6-8	0415	7.44	688				

RED RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	HARD- NESS (CA+MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT. 07...	1245	8.8	1100	270	2600	9600	3900	31200	16.0
NOV. 04...	1630	17	870	230	2300	6900	3100	20500	13.0
DEC. 30...	1100	9.6	1100	270	2800	9500	3900	27900	8.0
JAN. 20...	1405	7.1	1100	300	2800	10000	4000	31900	6.0
FEB. 10...	1500	9.3	1000	260	2500	8000	3600	23400	6.5
MAR. 24...	1425	7.4	1200	320	2900	9800	4300	31800	13.0
APR. 14...	1335	6.9	1100	250	3000	9600	3800	30100	21.5
JUNE 16...	1455	13	840	220	2300	6100	3000	19900	35.0
JULY 30...	1315	22	630	96	1800	4200	2000	14000	32.0
AUG. 18...	1350	8.7	1000	250	2500	6000	3500	22100	31.0
SEPT. 08...	1350	8.6	1200	300	2900	9000	4200	29000	29.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	469.3	27600	18000	22800	8700	11000	2800	3550	****
NOV. 1974.....	445	22800	15000	18000	7100	8530	2500	3000	****
DEC. 1974.....	326.8	28000	19000	16800	9200	8120	2900	2560	****
JAN. 1975.....	263.6	30200	20000	14200	9700	6900	3000	2140	****
FEB. 1975.....	283.6	24400	16000	12300	7600	5820	2600	1990	****
MAR. 1975.....	217.5	29800	20000	11700	9700	5700	3000	1760	****
APR. 1975.....	213	28600	19000	10900	9200	5290	2900	1670	****
MAY 1975.....	2950	4320	3000	23900	870	6930	1000	7960	910
JUNE 1975.....	1055	11900	7600	21600	3100	8830	1800	5130	****
JULY 1975.....	1781.7	8120	5200	25000	2000	9620	1300	6250	1400
AUG. 1975.....	285.1	17300	11000	8470	4900	3770	2100	1620	****
SEPT 1975.....	781.5	16000	10000	21100	4400	9240	2000	4220	****
TOTAL	9072.09	**	**	207000	**	89800	**	41800	**
WTD.AVG.	24.86	12900	8400	**	3700	**	1700	**	*****

RED RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17100	22000	27400	28500	28200	27600	31700	25800	7580	22500	16100	20700
2	19500	20200	27700	28000	28400	27400	32200	25100	11200	22600	16200	22900
3	21800	20600	27800	27100	27600	27700	32900	24400	12000	22800	16300	25600
4	24200	20500	27900	26000	21000	27500	33700	27600	12900	23200	16500	27400
5	26500	21200	28200	26700	19300	27100	34000	31200	13400	23500	16400	27900
6	28800	21000	28600	27500	19600	27300	33900	32700	14000	24100	16700	27200
7	31200	21400	27800	28100	20200	28700	32400	35900	14100	24500	16600	28300
8	33700	21500	28000	28500	21400	29100	29100	36200	4740	24500	16900	29000
9	33800	21900	28000	29100	22700	29000	30200	36700	7790	25000	16600	29900
10	35200	20400	28600	29700	23400	29300	29400	36300	7060	24500	16400	30900
11	37000	20200	29000	30300	25200	29500	29600	37000	10200	24200	17000	31200
12	37600	20600	29200	30300	25400	29200	30200	37700	10900	24200	16600	15500
13	36800	21100	28500	32400	25300	30300	29900	38100	13300	24500	16400	7770
14	33100	21900	27600	34700	25300	31200	30100	38000	15400	24700	18100	13100
15	28800	22300	27100	31000	25500	31500	30100	37800	17600	24600	19900	13700
16	27800	22800	27400	31000	26100	31800	30000	37300	19900	24900	21300	14700
17	29400	23300	27600	32100	25600	31300	29300	37200	20700	24400	21900	16400
18	31900	23900	27700	31600	25500	30600	29600	37900	21700	22400	22100	17900
19	34800	24100	28000	31700	25500	29200	29700	37100	22000	20800	23500	18600
20	35700	24600	28300	31900	25900	29400	29500	36300	22200	20900	24300	19100
21	39600	24900	27600	32100	26800	30700	29400	34800	22500	21700	25800	19600
22	38300	25200	28700	32200	25100	30900	28700	11500	22800	22000	26200	20200
23	38300	25400	28000	32100	24800	31500	27900	4580	12200	21800	26300	20600
24	24900	25700	27900	32000	25000	31800	27400	5160	16400	21300	26500	20900
25	18400	25800	27700	32200	26300	32000	26800	6750	20500	6540	26500	20900
26	29200	25900	27800	32300	26900	32100	26300	7940	20700	3250	15200	21000
27	29300	26300	28200	32200	27400	31200	24900	4150	21100	6160	6770	21500
28	29400	26700	28000	32400	27600	30900	23500	1500	21500	8920	7650	22000
29	27800	26900	27900	32500	---	31300	23200	1850	21700	11900	14100	22700
30	24500	27200	27900	31600	---	31200	23700	2560	22100	14000	16600	23300
31	24000	---	27500	27600	---	31400	---	4070	---	14800	18400	---
MONTH	29950	23180	27990	30500	24890	29990	29310	24880	16010	20170	18570	21680

RED RIVER BASIN

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07311800 South Fork Wichita River near Benjamin, Tex.

LOCATION.--Lat 33°38'39", long 99°48'02", Knox County, on right bank at upstream side of bridge on State Highway 6 (revised), 2 miles (3 km) downstream from Panhandle and Santa Fe Railway Co. bridge, 4 miles (6 km) north of Benjamin, and 41 miles (66 km) upstream from confluence with North Fork Wichita River.

DRAINAGE AREA.--584 mi² (1,513 km²).

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

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,334.23 ft (406.673 m) above mean sea level. Prior to Jan. 2, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--15 years (1960-75), 43.3 ft³/s (1.226 m³/s), 31,370 acre-ft/yr (38.7 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 2,820 ft³/s (79.9 m³/s) May 29 (gage height, 13.71 ft or 4.179 m); minimum, 0.69 ft³/s (0.020 m³/s) May 17 (gage height, 4.10 ft or 1.250 m).

Period of record: Maximum discharge, 13,000 ft³/s (368 m³/s) Oct. 18, 1960 (gage height, 15.40 ft or 4.694 m); maximum gage height, 16.48 ft (5.023 m) Oct. 18, 1965; no flow at times.

Historic: Maximum stage since at least 1903 occurred in September 1919 (stage and discharge unknown), from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 34,100 micromhos May 19; minimum daily, 2,000 micromhos May 28. Maximum water temperatures, 32.0°C Aug. 31; minimum, freezing point on several days during winter months.

Period of record: Maximum daily specific conductance, 48,900 micromhos May 13, 1971; minimum daily, 901 micromhos Sept. 6, 1973.

Maximum water temperatures, 38.0°C Sept. 7, 1969; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records good. No known regulation or diversion above station. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	53	9.4	10	25	14	9.0	5.6	112	9.7	97	10
2	13	35	9.4	15	21	13	7.4	5.3	72	9.2	322	8.7
3	12	30	9.1	13	29	13	6.2	5.2	56	9.4	136	7.4
4	8.8	26	9.0	11	105	13	6.6	4.3	43	39	48	9.6
5	11	23	9.0	11	173	14	7.0	7.1	37	44	34	9.2
6	11	22	9.5	9.6	24	14	7.8	4.9	30	22	21	6.6
7	9.7	21	9.9	9.4	21	13	85	3.6	78	14	15	5.3
8	9.8	21	9.8	9.4	19	11	123	3.2	956	13	13	9.5
9	10	21	8.8	9.4	19	10	17	1.5	99	11	13	4.9
10	9.9	24	9.7	9.0	19	10	14	1.2	246	11	12	4.6
11	9.9	23	10	7.8	18	9.4	14	1.2	128	12	11	70
12	9.9	19	10	6.5	15	9.2	15	1.8	57	14	10	872
13	9.5	18	10	6.2	15	9.0	12	1.3	41	11	233	519
14	21	16	10	9.0	13	7.9	21	1.4	35	11	102	278
15	34	15	9.0	9.4	13	7.9	7.4	1.3	31	11	20	95
16	17	15	9.0	9.9	15	8.7	5.9	.88	28	10	17	60
17	12	15	9.0	9.0	17	8.7	7.2	.69	24	10	20	41
18	9.6	15	9.0	8.6	15	8.6	4.9	.80	19	10	18	23
19	8.2	14	9.0	9.0	12	8.8	3.8	.80	19	75	14	16
20	7.3	14	9.0	8.5	12	8.9	3.4	42	18	131	10	14
21	7.0	13	9.0	8.2	10	8.6	3.3	8.2	13	12	8.7	39
22	7.3	12	9.0	8.2	33	8.5	3.0	366	11	8.4	7.4	39
23	51	12	9.0	7.8	27	8.1	2.5	1,470	24	7.8	6.3	24
24	536	11	9.0	7.8	25	7.8	2.5	262	30	61	5.0	16
25	109	9.9	8.6	7.8	20	8.0	2.1	119	16	1,350	4.1	12
26	55	9.0	8.6	7.4	17	8.8	1.8	69	12	1,050	16	12
27	43	9.0	8.8	7.4	15	10	70	306	11	257	17	12
28	61	9.0	9.0	7.4	15	11	33	1,690	11	97	23	12
29	35	9.0	9.0	7.0	-----	10	7.0	1,430	10	62	17	11
30	68	8.1	9.1	14	-----	9.9	6.1	1,020	10	45	14	11
31	122	-----	11	27	-----	9.9	-----	178	-----	432	12	-----
TOTAL	1,341.9	542.0	287.7	300.7	762	312.7	508.9	7,012.27	2,277	3,859.5	1,296.5	2,251.8
MEAN	43.3	18.1	9.28	9.70	27.2	10.1	17.0	226	75.9	125	41.8	75.1
MAX	536	53	11	27	173	14	123	1,690	956	1,350	322	872
MIN	7.0	8.1	8.6	6.2	10	7.8	1.8	.69	10	7.8	4.1	4.6
AC-FT	2,660	1,080	571	596	1,510	620	1,010	13,910	4,520	7,660	2,570	4,470

CAL YR 1974 TOTAL 10,066.50 MEAN 27.6 MAX 1,150 MIN 0 AC-FT 19,970
WTR YR 1975 TOTAL 20,752.97 MEAN 56.9 MAX 1,690 MIN .69 AC-FT 41,160

PEAK DISCHARGE (BASE, 800 FT²/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-24	0415	8.27	959	7-26	1245	10.20	1,450
5-23	0900	12.61	2,290	7-31	1800	11.07	1,740
5-27	1645	8.98	1,070	8- 2	2015	8.67	976
5-29	0115	13.71	2,820	8-13	1900	8.73	994
5-30	0500	11.72	1,970	9-12	0330	11.07	1,740
6- 8	0645	11.52	1,900	9-13	1530	8.89	1,040
7-25	0200	12.20	2,150				

RED RIVER BASIN

07311800 South Fork Wichita River near Benjamin, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
07...	1615	9.6	--	990	230	--	--	--	--	2200
NOV.										
04...	1125	25	--	730	220	--	--	--	--	2100
DEC.										
02...	1635	9.2	--	1000	330	--	--	--	--	2700
JAN.										
20...	1130	7.8	--	1100	310	--	--	--	--	2800
FEB.										
10...	1120	20	--	770	270	--	--	--	--	2300
MAR.										
05...	1515	13	--	950	350	--	--	--	--	2600
APR.										
16...	1235	8.5	--	860	210	--	--	--	--	2500
MAY										
28...	1055	1910	8.7	160	23	110	6.4	104	0	420
JUNE										
02...	1155	72	7.9	650	160	1000	18	164	0	1600
JULY										
31...	0910	29	6.8	580	67	1600	16	118	0	1500
AUG.										
20...	0935	9.7	--	990	170	--	--	--	--	2300
SEP.										
08...	1155	5.6	--	1000	310	--	--	--	--	2700

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
07...	7800	--	--	3400	--	--	22500	--	16.5
NOV.									
04...	4700	--	--	2700	--	--	13500	--	12.0
DEC.									
02...	8500	--	--	3900	--	--	25700	--	6.0
JAN.									
20...	9000	--	--	4000	--	--	27500	--	4.0
FEB.									
10...	4600	--	--	3000	--	--	14800	--	5.0
MAR.									
05...	6600	--	--	3800	--	--	21000	--	15.0
APR.									
16...	6500	--	--	3000	--	--	21600	--	21.0
MAY									
28...	140	.3	920	490	410	2.2	1380	7.9	20.0
JUNE									
02...	1900	.4	5420	2300	2100	9.1	8210	7.9	23.0
JULY									
31...	2600	--	6430	1700	1600	17	10000	7.5	27.0
AUG.									
20...	5300	--	--	3200	--	--	18100	--	26.0
SEP.									
08...	6600	--	--	3800	--	--	21900	--	27.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHQS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	1341.9	8550	5700	20700	2200	7970	1500	5430	1700
NOV. 1974.....	542	16800	11000	16100	5000	7320	2100	3070	****
DEC. 1974.....	287.7	25700	17000	13200	8100	6290	2800	2180	****
JAN. 1975.....	300.7	24700	17000	13800	8100	6580	2800	2270	****
FEB. 1975.....	762	11900	8000	16500	3400	7000	1700	3500	****
MAR. 1975.....	312.7	23500	16000	13500	7500	6330	2800	2360	****
APR. 1975.....	508.89	12800	8600	11800	3700	5080	1800	2470	****
MAY 1975.....	7012.27	3130	2100	39800	370	7010	970	18400	870
JUNE 1975.....	2277	6890	4600	28300	1700	10500	1200	7380	1400
JULY 1975.....	3859.5	4630	3100	32300	880	9170	1100	11500	1100
AUG. 1975.....	1296.5	7840	5200	18200	2000	7000	1300	4550	1600
SEPT 1975.....	2251.8	5990	4000	24300	1300	7900	1300	7900	1300
TOTAL	20752.95	**	**	248000	**	88100	**	71000	**
WTD.AVG.	56.86	6630	4400	**	1600	**	1300	**	1400

RED RIVER BASIN

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07311800 South Fork Wichita River near Benjamin, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13800	7410	25500	18300	11900	18900	27900	24500	6960	20300	2180	14200
2	15500	11600	25700	19100	17400	19600	28900	28200	8000	21100	2920	15500
3	17000	12000	26000	21000	14800	20200	29300	29300	9120	21600	2930	16800
4	18400	13500	25900	23700	8000	20200	29600	31200	10200	8700	7570	12300
5	19800	14600	25800	24100	5320	21000	29800	31600	11400	5980	11500	8910
6	21200	16000	25400	24400	8480	21300	29600	13600	12400	12300	17200	14800
7	22500	16600	25700	25100	10800	22100	11100	24000	8540	12300	14600	20700
8	22700	17000	26100	25300	13900	23200	4710	32400	3420	12800	15700	21600
9	23800	17100	26000	25400	13900	22700	9050	33900	4690	15300	16700	22300
10	24700	15600	25100	26000	14800	23500	16300	33700	5030	18100	17500	22800
11	25300	16600	23900	25400	15300	23400	21400	33800	8020	19200	18100	5870
12	25900	17000	24900	26800	17000	24300	24500	33900	8280	17500	18900	2140
13	26400	18200	24900	27500	16900	22500	22600	31300	11200	22100	6230	9720
14	15000	18900	24900	25600	17900	23600	9060	31300	12400	17800	9810	2660
15	9580	19300	25400	26700	18100	23800	15200	31900	12000	23700	6380	5570
16	13400	19800	25700	26700	18100	23000	21400	33300	13600	24500	12300	7860
17	22200	19800	26000	26600	17900	20100	24900	33300	15600	25100	18200	9280
18	21600	20000	25900	26800	17900	23300	27200	33900	16900	25100	19600	10800
19	21800	20000	26200	27000	19000	24400	28600	34100	18200	8880	14600	12100
20	22800	20800	26400	27500	19000	24900	29200	7940	18600	4620	17900	13600
21	23400	21300	26300	27600	19800	26100	30000	8900	19000	14100	19900	7570
22	24200	21800	26300	27900	9070	26100	29600	3730	19900	12700	20800	6800
23	11300	22500	26700	27600	14700	27200	29700	3160	17500	23100	21000	10800
24	2700	23200	26800	27600	14500	27600	30400	5590	16500	9830	21800	14000
25	8030	23400	26500	27800	15600	27700	31200	6850	11900	2190	22100	14900
26	11000	23700	26200	27700	17000	28000	31700	8120	12600	4920	20000	15600
27	13300	24100	26300	27700	17700	26300	6630	3490	14500	3520	19600	15800
28	7500	24600	26400	27900	17900	26200	9400	2000	16000	3880	23200	16900
29	13400	24800	26400	27800	---	25800	11900	2610	19000	6250	16300	17500
30	12000	25200	26100	25000	---	26600	19400	2180	19500	8530	12800	18200
31	5980	---	22900	18300	---	26100	---	4510	---	2950	13300	---
MONTH	17300	18880	25750	25550	15100	23860	22340	20590	12700	13840	14760	12920

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	12.0	6.5	7.0	5.5	9.0	10.0	15.5	22.0	25.5	23.5	23.5
2	15.0	18.5	0.0	2.0	7.0	9.0	7.0	19.0	21.0	24.0	26.0	23.0
3	16.0	17.0	4.0	2.0	6.0	6.0	5.0	19.0	21.0	24.0	24.5	23.0
4	17.0	10.0	3.5	0.0	6.5	4.5	8.0	24.5	20.5	23.5	23.5	23.5
5	18.5	8.0	8.5	9.0	3.5	8.0	11.5	18.0	23.0	23.0	23.5	22.0
6	23.0	8.5	8.5	1.5	0.0	12.0	19.0	19.0	24.0	24.5	23.0	---
7	15.5	12.0	5.5	4.5	0.0	10.5	16.0	16.0	24.0	25.0	24.0	21.0
8	15.5	11.5	6.0	6.0	3.5	12.0	10.0	17.0	26.0	25.5	23.5	20.5
9	18.5	12.0	0.0	6.5	2.0	15.0	11.5	18.0	23.5	27.0	23.0	22.0
10	17.0	19.0	6.0	5.0	1.0	6.5	13.0	20.0	21.0	26.0	31.0	23.5
11	19.0	9.5	6.0	0.0	5.5	7.0	10.0	---	20.0	23.5	23.5	22.0
12	19.5	8.0	4.5	0.0	5.0	7.0	10.0	20.0	20.0	23.0	25.0	16.5
13	19.0	9.0	3.5	0.0	4.5	3.0	16.5	20.0	22.0	26.0	24.5	14.5
14	16.5	9.5	5.0	0.0	5.5	4.0	9.0	18.0	22.0	23.0	23.0	15.0
15	16.0	6.0	5.5	1.5	5.0	8.0	8.5	16.5	25.0	23.0	24.0	17.0
16	11.0	8.5	2.0	3.5	3.0	10.0	15.0	15.5	25.0	22.0	24.0	20.5
17	14.0	10.0	4.0	3.5	5.0	10.0	18.0	17.0	24.0	23.0	25.0	20.0
18	15.0	9.0	4.5	1.5	3.0	10.5	18.0	26.0	24.0	23.0	24.5	20.5
19	15.5	11.0	2.0	5.5	2.0	11.5	10.0	20.0	22.0	23.5	24.5	20.5
20	20.5	8.0	2.0	4.0	4.0	13.0	18.0	19.0	23.0	26.0	25.0	17.0
21	14.0	8.0	3.5	4.0	8.0	13.0	14.5	19.5	23.0	24.0	25.0	16.5
22	15.5	10.5	8.0	1.5	9.0	11.0	18.5	23.0	27.0	24.0	25.0	13.0
23	15.5	---	5.0	5.5	1.0	17.0	18.5	18.0	23.0	24.5	25.0	13.5
24	16.5	13.0	5.5	7.0	2.0	9.0	19.0	20.0	24.0	25.0	31.5	15.0
25	16.5	4.5	---	5.0	5.0	9.0	19.0	---	24.5	21.0	24.0	13.0
26	17.0	5.0	0.0	14.5	6.0	11.0	21.0	23.0	23.5	22.0	24.0	13.0
27	---	5.0	3.0	8.5	4.0	14.0	18.5	23.5	24.5	26.5	21.0	15.5
28	15.5	13.0	4.0	6.5	8.5	8.0	14.0	18.0	24.0	26.0	22.0	25.0
29	16.5	3.5	9.5	7.0	---	4.0	15.5	20.0	28.5	26.5	23.0	17.0
30	19.0	0.0	7.0	7.0	---	15.0	15.0	18.0	24.5	25.5	24.0	17.0
31	14.0	---	5.0	6.5	---	7.0	---	18.0	---	26.5	32.0	---
MONTH	16.5	9.5	4.5	4.5	4.5	9.5	14.0	19.5	23.5	24.5	24.5	19.0

RED RIVER BASIN

07311900 Wichita River near Seymour, Tex.

LOCATION.--Lat 33°42'01", long 99°23'18", Baylor County, near left bank on downstream side of pier of bridge on Ranch Road 1919, 6 miles (10 km) upstream from head of Lake Kemp, 10 miles (16 km) downstream from confluence of North and South Forks, and 10.5 miles (16.9 km) northwest of Seymour.

DRAINAGE AREA.--1,874 mi² (4,854 km²).

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

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage and specific-conductance recorders. Datum of gage is 1,152.7 ft (351.34 m) above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--15 years (1960-75), 175 ft³/s (4.956 m³/s), 126,800 acre-ft/yr (156 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 7,660 ft³/s (217 m³/s) July 26 (gage height, 14.27 ft or 4.349 m); minimum, 4.6 ft³/s (0.13 m³/s) May 17-19.

Period of record: Maximum discharge, 23,100 ft³/s (654 m³/s) Sept. 20, 1965 (gage height, 17.75 ft or 5.410 m); no flow at times.

Water quality: Current year: Maximum daily specific conductance, 20,200 micromhos Apr. 2; minimum daily, 1,450 micromhos May 23.

Maximum water temperatures, 35.0°C June 18, July 14, Aug. 8, 15, Sept. 3; minimum, 4.0°C Feb. 6, 22.

Period of record: Maximum daily specific conductance, 30,800 micromhos Feb. 12, 1969; minimum daily, 735 micromhos Sept. 22, 1969.

Maximum water temperatures (1967-72, 1974-75), 37.0°C Aug. 11, 1969; minimum, freezing point Dec. 29, 1969, Jan. 5, 1971.

REMARKS.--Discharge records good. Specific conductance is recorded continuously at this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	208	33	44	97	46	29	32	331	34	976	51
2	108	169	34	146	110	43	27	31	225	32	540	38
3	95	114	34	112	144	42	23	31	164	38	738	34
4	84	92	34	66	218	41	22	30	130	103	420	32
5	76	76	34	53	247	40	21	36	98	131	203	28
6	68	72	37	49	252	38	22	82	82	88	144	25
7	54	70	36	49	143	37	91	36	74	67	119	38
8	51	69	36	48	104	35	990	23	892	45	106	34
9	52	70	34	46	88	35	238	12	1080	38	95	29
10	49	72	45	45	75	34	115	9.4	263	32	86	22
11	46	72	52	40	67	35	85	7.6	256	36	74	20
12	45	71	44	35	62	75	68	7.0	183	94	70	1910
13	45	69	42	30	57	40	61	5.5	100	62	63	2100
14	112	63	40	35	51	36	54	6.5	89	35	716	2740
15	159	60	38	40	49	35	62	7.0	73	25	312	1060
16	89	56	37	41	52	35	51	5.5	67	21	204	367
17	65	56	36	40	51	36	41	5.0	61	20	855	202
18	56	53	34	38	54	39	31	4.6	60	19	335	140
19	49	53	34	37	54	59	24	4.6	54	102	162	106
20	45	52	36	37	50	36	25	131	50	245	124	89
21	42	49	34	36	46	31	23	93	48	230	94	146
22	41	46	34	32	104	29	23	954	189	55	82	156
23	42	46	33	31	117	26	24	3830	73	35	71	106
24	462	42	34	32	82	24	25	1970	232	364	63	86
25	683	39	30	30	75	24	25	552	237	2730	56	75
26	683	36	30	30	62	22	26	233	85	5980	77	68
27	258	36	30	29	54	27	25	151	71	4360	210	60
28	232	36	34	28	49	53	281	582	52	1240	172	52
29	142	34	37	27	---	45	126	2730	44	545	65	50
30	125	33	37	27	---	36	53	2110	39	328	60	47
31	408	---	49	78	---	32	---	1180	---	243	72	---
TOTAL	4588	2014	1132	1411	2614	1166	2711	14891.7	5402	17377	7364	9911
MEAN	148	67.1	36.5	45.5	93.4	37.6	90.4	480	180	561	238	330
MAX	683	208	52	146	252	75	990	3830	1080	5980	976	2740
MIN	41	33	30	27	46	22	21	4.6	39	19	56	20
AC-FT	9100	3990	2250	2800	5180	2310	5380	29540	10710	34470	14610	19660
CAL YR 1974	TOTAL	49136.64	MEAN 135	MAX 6300	MIN 0	AC-FT	97460					
WTR YR 1975	TOTAL	70581.70	MEAN 193	MAX 5980	MIN 4.6	AC-FT	140000					

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
5-23	0400	12.89	5,610	7-26	2000	14.27	7,660
5-29	1000	10.95	3,160	9-14	0200	10.91	3,280

07311900 Wichita River near Seymour, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 10...	0905	49	--	530	110	--	--	--	--	1300
NOV. 07...	0915	72	7.0	570	120	1500	12	152	0	1400
DEC. 31...	1215	36	--	560	140	--	--	--	--	1600
JAN. 22...	1245	31	--	830	220	--	--	--	--	2200
FEB. 12...	0910	63	--	610	190	--	--	--	--	1900
MAR. 06...	0930	40	--	800	170	--	--	--	--	2200
APR. 17...	0855	41	--	770	190	--	--	--	--	2300
MAY 23...	1550	2820	12	160	30	260	6.3	142	0	420
JUNE 04...	0915	145	7.9	470	100	1000	14	127	0	1400
JULY 28...	1115	1130	9.0	160	23	190	6.8	95	0	450
AUG. 21...	0915	97	9.0	360	77	960	16	126	0	940
SEP. 10...	0850	33	--	630	160	--	--	--	--	1600

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CAR-BONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 10...	3100	--	--	1800	--	--	10600	--	19.5
NOV. 07...	2400	.3	6080	1900	1800	15	9230	7.8	10.0
DEC. 31...	3800	--	--	2000	--	--	13200	--	8.0
JAN. 22...	5400	--	--	3000	--	--	18200	--	3.5
FEB. 12...	4500	--	--	2300	--	--	15000	--	6.0
MAR. 06...	4700	--	--	2700	--	--	16500	--	11.0
APR. 17...	4500	--	--	2700	--	--	16000	--	18.0
MAY 23...	380	.3	1340	520	410	4.9	2180	7.5	22.0
JUNE 04...	1700	.3	4750	1600	1500	11	7190	7.3	20.0
JULY 28...	280	--	1170	490	420	3.7	1850	7.5	29.0
AUG. 21...	1600	.4	4020	1200	1100	12	6840	7.6	27.0
SEP. 10...	4000	--	--	2200	--	--	13500	--	26.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	4588	6150	3700	45800	1500	18600	830	10300	1100
NOV. 1974.....	2014	10800	6700	36400	2900	15800	1300	7070	****
DEC. 1974.....	1132	16600	11000	33600	4900	15000	2000	6110	****
JAN. 1975.....	1411	15200	9800	37300	4300	16400	1900	7240	****
FEB. 1975.....	2614	9840	6000	42300	2600	18400	1200	8470	1600
MAR. 1975.....	1166	16200	11000	34600	4900	15400	2000	6300	****
APR. 1975.....	2711	8610	5100	37300	2100	15400	1100	8050	1400
MAY 1975.....	14891.69	2950	1800	72400	580	23300	550	22100	600
JUNE 1975.....	5402	5150	3100	45200	1200	17500	750	10900	920
JULY 1975.....	17377	2500	1500	70400	440	20600	500	23500	530
AUG. 1975.....	7364	4270	2600	51700	960	19100	680	13500	790
SEPT 1975.....	9911	3040	1800	48200	580	15500	550	14700	610
TOTAL	70581.68	--	--	555000	--	211000	--	138000	--
WTD.AVG.	193.37	4750	2900	--	1100	--	730	--	860

RED RIVER BASIN

07311900 Wichita River near Seymour, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6080	4430	16400	16500	9520	14900	19800	12300	3140	14100	2870	15200
2	6700	6300	16400	8400	9820	15200	20200	12900	4830	14600	2580	15800
3	7240	9110	16400	8090	7870	15800	19800	13600	6620	14400	2230	13700
4	7680	7130	16400	10700	6630	15800	19800	15200	7360	7500	3050	12100
5	8370	7820	16500	14700	7040	16000	19800	16700	8110	4060	4600	11900
6	8840	8640	16500	15800	7990	16500	19800	16800	8410	10000	5670	12000
7	9360	9230	16800	15800	6900	16900	7380	10500	9200	11000	6500	12600
8	9810	10000	17100	15800	7280	16900	3920	11100	3370	12600	8000	12600
9	10200	10600	17200	16500	8270	16900	6760	13400	2400	13500	7980	13100
10	10600	11000	16300	17200	10000	17000	7270	13200	3380	13500	9120	13700
11	11200	11900	15100	17400	11300	17000	9850	15200	3260	14100	10300	14200
12	11600	12600	15500	17600	12200	17200	11300	19100	4770	6470	10300	2160
13	11900	12600	16400	17500	13200	16200	10800	19100	7300	6490	8160	1500
14	7880	12700	16800	17200	13700	17300	12300	19400	5120	8530	4180	1550
15	7190	13200	16800	17000	14100	17400	14100	19600	9200	8600	3070	2040
16	7300	13200	16600	17500	14100	17400	17700	20000	10500	10700	3090	3330
17	12300	13500	16800	17800	14500	17100	17000	19800	11300	11800	4050	4370
18	14700	13700	17000	18000	15100	17100	17900	19800	11800	12300	1780	5640
19	12300	14000	16800	18100	15500	16200	17100	19800	11800	5490	3820	6480
20	11100	14300	16900	18100	15200	17300	16700	10200	12400	5940	5520	7690
21	12500	14500	17000	18400	15100	14200	17000	8310	13100	4270	7120	6650
22	13000	14600	17200	18200	9740	13200	16700	1590	3960	7590	8250	5890
23	13700	14800	17300	18100	6930	16200	16800	1450	8480	10700	9040	7630
24	5400	14800	17300	17900	12000	18000	17700	4110	5320	4130	10000	9630
25	5010	15200	17400	17900	10500	18500	18200	5420	4480	2040	10000	9980
26	4030	15200	17000	18100	14400	18700	18900	5060	11800	1480	9040	10200
27	3070	15300	17200	18200	13700	18000	18200	6450	12900	1950	5890	11100
28	4250	15300	17200	18400	14300	12700	8140	5370	14500	1980	3220	11800
29	5340	15700	17300	18400	---	17900	7410	2000	14300	3130	3950	12000
30	6570	16100	17300	18300	---	17800	8450	2020	12300	3720	8320	12300
31	3650	---	14300	14900	---	17500	---	2580	---	4830	14900	---
MONTH	8670	12250	16680	16530	11320	16450	14560	11680	8180	8110	6340	9290

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	19.0	8.0	8.0	8.0	17.0	---	26.0	---	29.0	25.0	32.0
2	24.0	---	10.0	9.0	7.0	8.0	14.0	27.0	29.0	30.0	26.0	33.0
3	23.0	21.0	12.0	10.0	7.0	7.0	---	27.0	27.0	26.0	27.0	35.0
4	22.0	15.0	11.0	9.0	11.0	17.0	18.0	28.0	29.0	29.0	30.0	31.0
5	23.0	16.0	13.0	9.0	5.0	17.0	20.0	28.0	33.0	31.0	29.0	33.0
6	33.0	15.0	10.0	12.0	4.0	21.0	---	26.0	33.0	28.0	---	30.0
7	33.0	15.0	14.0	14.0	6.0	14.0	17.0	28.0	30.0	30.0	31.0	28.0
8	23.0	15.0	6.0	13.0	9.0	10.0	16.0	31.0	27.0	34.0	35.0	31.0
9	25.0	14.0	11.0	17.0	8.0	14.0	---	31.0	26.0	31.0	27.0	---
10	23.0	16.0	10.0	14.0	12.0	12.0	14.0	24.0	25.0	28.0	32.0	31.0
11	24.0	16.0	11.0	---	14.0	9.0	16.0	30.0	26.0	---	34.0	29.0
12	24.0	15.0	17.0	17.0	15.0	8.0	17.0	34.0	30.0	29.0	30.0	17.0
13	21.0	15.0	12.0	9.0	17.0	10.0	15.0	22.0	31.0	34.0	25.0	16.0
14	15.0	13.0	9.0	10.0	14.0	14.0	---	20.0	30.0	35.0	28.0	16.0
15	16.0	11.0	9.0	11.0	7.0	11.0	---	27.0	30.0	---	35.0	21.0
16	21.0	11.0	8.0	9.0	9.0	10.0	24.0	24.0	34.0	---	25.0	21.0
17	22.0	13.0	12.0	9.0	11.0	18.0	29.0	33.0	33.0	---	28.0	27.0
18	---	15.0	11.0	17.0	10.0	21.0	20.0	23.0	35.0	31.0	32.0	27.0
19	---	17.0	10.0	---	11.0	24.0	24.0	30.0	24.0	25.0	31.0	22.0
20	25.0	16.0	9.0	---	15.0	21.0	---	24.0	26.0	26.0	30.0	21.0
21	21.0	19.0	10.0	---	14.0	19.0	25.0	31.0	---	32.0	31.0	18.0
22	23.0	21.0	14.0	---	4.0	18.0	21.0	24.0	29.0	29.0	34.0	21.0
23	20.0	16.0	13.0	9.0	9.0	25.0	25.0	19.0	28.0	31.0	29.0	24.0
24	17.0	13.0	9.0	13.0	11.0	20.0	30.0	21.0	28.0	26.0	34.0	21.0
25	19.0	11.0	5.0	17.0	12.0	18.0	---	27.0	29.0	23.0	31.0	---
26	---	14.0	5.0	19.0	14.0	11.0	25.0	24.0	33.0	24.0	22.0	21.0
27	20.0	15.0	10.0	15.0	16.0	20.0	22.0	23.0	32.0	24.0	26.0	26.0
28	22.0	14.0	10.0	11.0	18.0	13.0	21.0	24.0	32.0	30.0	28.0	27.0
29	22.0	7.0	13.0	8.0	---	14.0	25.0	22.0	33.0	34.0	31.0	28.0
30	20.0	8.0	9.0	9.0	---	---	24.0	21.0	31.0	26.0	33.0	28.0
31	19.0	---	10.0	7.0	---	---	---	24.0	---	---	34.0	---
MONTH	22.0	14.5	10.0	11.5	10.5	15.0	21.0	26.5	30.0	29.0	30.0	25.5

RED RIVER BASIN

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07312000 Lake Kemp near Mabelle, Tex.

LOCATION.--Lat 33°45'30", long 99°09'03", Baylor County, in outlet gate tower near center of dam on Wichita River, 6.2 miles (10.0 km) north of Mabelle, 10.2 miles (16.4 km) northeast of Seymour, and at mile 126.7 (203.9 km).

DRAINAGE AREA.--2,086 mi² (5,403 km²).

PERIOD OF RECORD.--October 1922 (revised) to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1972, nonrecording gage at different site and at datum 2.40 ft (0.732 m) higher.

EXTREMES.--Current year: Maximum contents, 228,300 acre-ft (281 hm³) Sept. 22 (elevation, 1,141.30 ft or 347.868 m); minimum, 126,000 acre-ft (155 hm³) Jan. 22 (elevation, 1,130.86 ft or 344.686 m).
Period of record: Maximum contents, 420,900 acre-ft (519 hm³) June 30, 1941 (elevation, 1,152.0 ft or 351.13 m, present datum); minimum since first appreciable storage, 26,160 acre-ft (32.3 hm³) June 30, 1953 (elevation, 1,108.0 ft or 337.72 m, present datum).

REMARKS.--The lake is formed by an earthfill dam 8,890 ft (2,710 m) long. The original dam was completed Aug. 25, 1923, but deliberate impoundment had begun Oct. 1, 1922. Enlargement of the dam was completed in November 1973. The uncontrolled emergency spillway is 3,000 ft (910 m) wide, and is located approximately 600 ft (180 m) to right and slightly upstream from right end of dam. The controlled outlet works, near center of dam, consist of two hydraulically operated slide gates 5 ft 8 inches by 13 ft (1.7 by 4 metre) with a 13-foot-diameter (4.0-metre) conduit and spillway basin. The dam and lake are owned by the city of Wichita Falls and the Wichita County Water Improvement District No. 2. Water is used for irrigation in the Wichita River Valley, oilfield operation, and municipal and industrial uses. The capacity table is based on a resurvey made in 1973. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	1,183.0	-
Crest of spillway.....	1,160.0	603,000
Top of flood-control pool.....	1,156.0	502,900
Top of conservation pool.....	1,144.0	268,000
Lowest gated outlet (invert).....	1,090.0	1,400

COOPERATION.--Capacity table No. 4-C was furnished by the Corps of Engineers.

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

1,130.0	120,400	1,138.0	186,700
1,132.0	133,800	1,140.0	210,900
1,134.0	148,900	1,142.0	238,200
1,136.0	166,200		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130,400	144,200	144,800	146,500	127,200	133,500	132,800	133,300	170,300	184,500	213,500	214,400
2	130,400	144,800	144,800	147,800	127,700	133,500	132,600	133,300	170,800	184,400	214,500	214,100
3	130,400	145,400	144,800	148,100	128,700	133,500	132,600	133,400	170,900	184,200	215,500	213,900
4	130,500	144,800	144,800	148,100	129,700	133,600	132,600	133,400	171,200	184,400	216,100	213,500
5	130,600	144,800	144,900	148,300	130,100	133,800	132,600	133,300	171,400	184,500	216,300	212,800
6	130,600	145,100	145,000	148,400	130,600	134,100	132,700	133,200	171,500	184,500	216,300	212,200
7	130,700	145,100	145,000	148,400	130,800	134,000	132,800	132,400	172,000	184,100	216,100	211,400
8	130,700	145,200	144,900	148,400	131,000	133,900	135,700	131,600	173,300	183,600	215,900	210,700
9	130,800	145,500	144,900	148,400	131,000	133,800	136,400	130,900	175,700	183,100	215,300	210,100
10	130,800	145,700	145,400	148,000	131,300	133,800	136,500	130,500	176,400	182,700	214,500	209,800
11	130,800	145,800	145,500	146,900	131,400	134,400	136,500	130,000	176,700	182,100	214,000	209,600
12	130,800	145,900	145,600	146,000	131,400	134,700	136,200	129,600	177,100	181,800	213,200	213,700
13	131,000	145,800	145,800	144,800	131,700	134,600	135,800	129,400	177,100	181,200	213,700	218,100
14	131,500	145,700	145,800	143,400	131,700	134,700	135,500	129,200	177,300	180,100	214,100	223,700
15	131,800	145,800	145,800	141,600	131,600	134,700	135,200	129,000	177,300	178,900	215,900	226,000
16	131,900	145,400	145,800	139,200	131,700	134,800	135,000	128,900	177,300	177,600	214,900	226,800
17	132,100	145,300	145,800	136,900	131,800	135,000	134,500	128,800	177,300	176,600	216,000	227,500
18	132,200	145,200	145,700	134,800	131,800	135,100	133,900	128,800	177,200	175,400	216,400	227,800
19	132,200	145,200	145,800	132,300	131,900	135,200	133,600	128,800	176,800	176,800	216,400	227,400
20	132,200	145,300	145,900	130,200	132,100	134,500	133,500	128,700	176,700	177,600	216,100	227,400
21	132,400	145,300	145,900	127,800	132,100	134,400	132,400	136,100	183,100	178,200	215,300	228,200
22	132,200	145,500	145,900	126,100	132,800	134,300	132,400	136,100	183,100	178,200	215,300	228,200
23	132,400	145,500	145,900	126,100	133,000	134,300	132,500	146,800	183,200	178,100	214,900	228,200
24	134,200	145,200	145,800	126,300	133,100	134,200	132,600	151,600	183,600	179,700	214,700	227,800
25	135,800	145,200	145,800	126,300	133,100	133,500	132,600	153,300	184,400	194,200	214,100	227,900
26	137,400	145,200	145,900	126,500	133,200	132,900	132,600	154,000	184,600	203,200	214,100	227,600
27	138,200	145,200	145,900	126,400	133,300	132,900	133,000	154,100	184,800	210,700	214,300	227,800
28	139,700	145,000	146,000	126,500	133,300	132,900	133,200	155,100	184,700	212,300	214,800	227,800
29	140,100	144,900	146,100	126,400	-----	132,900	133,500	163,100	184,700	212,800	214,800	227,800
30	142,000	144,900	146,200	126,700	-----	132,800	133,300	167,000	184,600	212,000	214,700	227,500
31	143,500	-----	146,400	126,700	-----	132,800	-----	169,700	-----	212,000	214,500	-----
(†)	1,133.31	1,133.50	1,133.69	1,130.96	1,131.93	1,131.85	1,131.92	1,136.36	1,137.81	1,140.11	1,140.28	1,141.24
(*)	+13,400	+1,400	+1,500	-19,700	+6,600	-500	+500	+36,400	+14,900	+27,700	+2,200	+13,000
MAX	143,500	145,900	146,400	148,400	133,300	135,200	136,500	169,700	184,800	212,800	216,400	228,200
MIN	130,400	144,200	144,800	126,100	127,200	132,800	132,400	128,700	170,300	175,400	213,200	209,600

CAL YR 1974..... * -6,100 MAX 156,400 MIN 97,160
WTR YR 1975..... * +97,400 MAX 228,200 MIN 126,100

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

07312100 Wichita River near Mabelle, Tex.

LOCATION.--Lat 33°45'36", Long 99°08'33", Baylor County, near left bank on downstream side of bridge on U.S. Highways 183 and 283, 0.3 mile (0.5 km) downstream from Lake Kemp Dam, 6 miles (10 km) north of Mabelle, and 13 miles (21 km) northeast of Seymour.

DRAINAGE AREA.--2,086 mi² (5,403 km²), all of which is above Lake Kemp Dam.

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

Water quality: Chemical analyses: October 1966 to current year. Water temperatures: October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,062.72 ft (323.917 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 158 ft³/s (4.475 m³/s), 114,500 acre-ft/yr (141 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 3,800 ft³/s (108 m³/s) Apr. 21 (gage height, 9.85 ft or 3.002 m); minimum daily, 0.28 ft³/s (0.008 m³/s) Feb. 11.

Period of record: Maximum discharge, 3,800 ft³/s (108 m³/s) Apr. 3, 1974, Apr. 21, 1975 (gage height, 9.85 ft or 3.002 m); minimum daily 0.15 ft³/s (0.004 m³/s) June 22, 1973.

Water quality: Current year: Maximum daily specific conductance, 5,700 micromhos May 14, 15; minimum daily, 561 micromhos May 28. Maximum water temperatures, 32.0°C June 26, July 5; minimum, 2.0°C Feb. 6.

Period of record: Maximum daily specific conductance (1968-75), 6,190 micromhos May 25, 1971; minimum daily, 561 micromhos May 28, 1975. Maximum water temperatures (1968-75), 32.0°C Sept. 4, 1972; June 26, July 5, 1975; minimum, freezing point Dec. 20, 1973.

REMARKS.--Discharge records good. Flow regulated by Lake Kemp (see station 07312000). Water is released from Lake Kemp to supply Lake Diversion. Water from Lake Diversion is released for mining and industrial uses, recreation, and irrigation in vicinity of Wichita Falls.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.83	.62	.6	.72	.39	.33	.46	.82	.72	1.3	.62
2	.54	.72	.62	3.0	.94	.39	.33	.39	.72	.72	1.2	.62
3	.54	1.4	.54	.6	1.9	.39	.33	.39	.62	.72	1.2	.83
4	.46	.95	.54	.5	1.1	.39	.33	.39	.82	.72	1.2	130
5	.46	28	.54	.5	.46	.43	.33	.39	1.7	.72	1.2	175
6	.46	.75	.54	.5	.33	.39	.33	.45	1.5	.72	1.2	233
7	.46	.72	.46	.5	.33	.39	.46	456	9.4	124	8.0	233
8	.39	.71	.46	.5	.33	.39	.46	452	6.3	230	17	233
9	.39	.72	.46	.5	.33	.46	.39	303	4.0	231	146	233
10	.39	.73	.62	155	.33	.46	.39	210	1.5	233	229	233
11	.39	.72	.54	355	.28	.46	.39	210	1.2	235	232	231
12	.39	.72	.54	357	.33	1.2	165	166	1.2	233	233	85
13	.39	.71	.53	494	.33	.72	280	106	1.2	233	233	6.0
14	1.2	.72	.52	918	.33	.54	280	104	.94	404	233	5.0
15	.60	37	.53	1,120	.33	.46	280	44	.82	513	233	1.4
16	.46	65	.52	1,510	.33	.54	280	1.2	.94	514	234	3.2
17	.46	65	.53	1,510	.33	.54	277	.72	.82	516	236	.83
18	.46	48	.53	1,510	.33	.54	277	.62	.72	516	168	.66
19	.41	.71	.55	1,500	.33	.54	158	.46	.82	284	128	.62
20	.39	.63	.54	1,490	.33	667	.46	.46	.72	4.3	128	.62
21	.36	.64	.54	1,490	.33	.62	714	38	.72	2.4	127	2.3
22	.34	.65	.56	1,130	1.9	.54	1.4	174	39	1.4	127	.67
23	.47	.65	.54	.7	.46	.46	1.1	74	1.4	1.3	127	.62
24	3.4	.63	.54	.5	.39	.46	.94	1.7	.94	4.1	127	.64
25	.64	.67	.54	.5	.33	228	.82	.72	1.1	36	127	.70
26	.46	.66	.54	.5	.33	530	.82	.54	.94	14	75	.72
27	.46	.72	.54	.4	.33	187	1.1	1.9	.82	2.5	1.0	.73
28	1.9	.88	.54	.4	.33	.46	.62	4.8	.82	1.3	.78	.74
29	.53	.62	.54	.4	-----	.39	.54	11	.72	1.1	.69	.72
30	4.6	.62	.55	.5	-----	.39	.46	7.2	.72	1.2	.63	.72
31	2.4	-----	.69	.6	-----	.39	-----	1.1	-----	1.6	.63	-----
TOTAL	25.34	261.48	16.85	13,550.7	14.42	1,625.33	2,723.33	2,416.44	83.94	4,341.52	3,179.03	1,897.13
MEAN	.82	8.72	.54	437	.52	52.4	90.8	77.9	2.80	140	103	63.2
MAX	4.6	65	.69	1,510	1.9	667	714	456	39	516	236	233
MIN	.34	.62	.46	.40	.28	.39	.33	.39	.62	.72	.63	.62
AC-FT	50	519	33	26,880	29	3,220	5,400	4,790	166	8,610	6,310	3,760
CAL YR 1974	TOTAL	44,867.44	MEAN	123	MAX	2,010	MIN	.33	AC-FT	88,990		
WTR YR 1975	TOTAL	30,135.51	MEAN	82.6	MAX	1,510	MIN	.28	AC-FT	59,770		

07312100 Wichita River near Mabelle, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 10...	1230	.40	10	200	71	640	5.6	222	0	540
NOV. 20...	1300	.62	9.6	230	67	700	6.5	217	0	620
DEC. 12...	1100	.55	10	210	70	680	6.1	190	0	630
JAN. 22...	1550	1540	5.4	240	72	750	7.8	103	0	730
FEB. 13...	0820	.33	8.4	220	75	660	8.7	200	0	540
MAR. 05...	1005	.44	6.8	220	80	660	5.9	195	0	610
APR. 16...	0950	281	5.2	270	67	790	8.2	108	0	740
MAY 29...	1115	14	8.3	41	17	110	4.6	118	0	100
JULY 09...	1620	234	4.5	250	56	700	7.6	102	0	640
AUG. 20...	0845	127	5.9	250	53	660	7.5	96	0	610

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 10...	1000	--	2580	790	610	9.9	4510	7.9	21.0
NOV. 20...	1100	.4	2840	850	670	10	4590	7.9	13.0
DEC. 12...	1100	.4	2800	810	660	10	4540	7.7	10.0
JAN. 22...	1200	.5	3060	900	810	11	4760	7.7	5.0
FEB. 13...	1100	.5	2710	860	690	9.8	4460	7.9	9.0
MAR. 05...	1100	.4	2780	880	720	9.7	4590	7.8	9.0
APR. 16...	1300	.3	3230	950	860	11	5460	8.1	13.0
MAY 29...	160	.4	499	170	76	3.6	917	7.9	18.5
JULY 09...	1100	--	2810	860	770	10	4780	7.8	28.0
AUG. 20...	1100	--	2730	840	760	9.9	4420	7.5	27.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	25.34	3180	1900	130	740	51	480	33	600
NOV. 1974.....	261.47	4150	2500	1760	990	699	640	452	780
DEC. 1974.....	16.85	4580	2700	123	1100	50	640	29	860
JAN. 1975.....	13550.65	4710	2800	102000	1100	40200	660	24100	890
FEB. 1975.....	14.42	3260	1900	74	760	30	490	19	610
MAR. 1975.....	1625.32	4960	3000	13200	1200	5270	710	3120	940
APR. 1975.....	2723.32	5340	3200	23500	1300	9560	770	5660	930
MAY 1975.....	2416.43	5420	3300	21500	1300	8480	780	5090	940
JUNE 1975.....	83.94	3000	1800	408	700	159	450	102	560
JULY 1975.....	4341.49	4720	2800	32800	1100	12900	670	7850	890
AUG. 1975.....	3179.02	4400	2600	22300	1100	9440	680	5840	830
SEPT 1975.....	1897.12	4390	2600	13300	1100	5630	680	3480	830
TOTAL	30135.41	**	**	231000	**	92500	**	55800	**
WTD.AVG.	82.56	4770	2800	**	1100	**	690	**	890

RED RIVER BASIN

07312100 Wichita River near Mabelle, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4160	3310	4650	4490	1730	4520	5000	4830	4580	4740	4530	4690
2	4250	4350	4680	1500	4170	4520	4830	4830	4630	4740	4550	4710
3	4320	4250	4660	3090	2890	4620	4810	4880	4560	4790	4550	4460
4	4490	2180	4700	4130	1630	4620	4870	4900	4610	4740	4630	4430
5	4500	2500	4660	4450	2100	4560	4890	4900	4680	4820	4650	4400
6	4500	4470	4660	4500	3370	4610	4990	5100	4630	4850	4670	4390
7	4540	4580	4650	4530	4030	4580	4930	5610	4740	4820	4670	4410
8	4520	4580	4660	4590	4360	4650	3100	5610	4120	4820	4730	4410
9	4470	4540	4660	4570	4430	4690	4250	5610	4580	4820	4440	4410
10	4460	4500	4650	4620	4070	4680	4530	5610	4200	4820	4440	4430
11	4500	4590	4470	4640	4260	4660	4670	5690	4580	4820	4390	4410
12	4540	4610	4530	4650	4470	2580	5070	5670	4680	4820	4390	4110
13	4570	4590	4570	4670	4430	4160	5460	5670	4650	4790	4390	3280
14	2800	4640	4600	4670	4400	4360	5460	5700	4770	4790	4390	3140
15	2930	4350	4630	4670	4510	4500	5460	5700	4790	4820	4390	3830
16	4220	4340	4630	4670	4430	4550	5460	5300	4790	4820	4390	4220
17	4370	4340	4650	4670	4520	4580	5460	5170	4790	4820	4390	4520
18	4370	4340	4650	4690	4470	4550	5460	5080	4840	4820	4390	4590
19	4430	4400	4650	4780	4540	4580	5490	5080	4920	4070	4390	4610
20	4510	4580	4650	4750	4500	4620	5050	4830	5000	2710	4390	4670
21	4560	4590	4670	4770	4560	5000	5110	5250	4960	4270	4390	1230
22	4580	4610	4650	4750	1310	4790	5220	5500	1200	4650	4390	4390
23	4580	4610	4670	4720	2460	4980	5110	1020	4240	4650	4390	4480
24	2360	4650	4670	4690	3830	4850	5180	3830	4490	1650	4390	4560
25	3440	4650	4630	4690	4140	5210	5080	4340	3960	1130	4390	4590
26	3800	4650	4750	4670	4400	5210	5050	4300	4560	2510	4390	4610
27	4010	4660	4650	4770	4460	5200	4830	4570	4630	3040	4650	4660
28	1310	4660	4670	4690	4450	4280	4110	561	4680	4270	4670	4610
29	3820	4670	4650	4690	---	4720	4700	650	4710	4360	4670	4660
30	3000	4690	4710	4790	---	4770	4830	2900	4760	4650	4670	4670
31	1130	---	2980	3520	---	4770	---	4140	---	4600	4690	---
MONTH	3940	4350	4590	4450	3820	4610	4950	4610	4510	4290	4500	4290

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	14.0	9.0	7.0	6.0	---	11.0	23.0	17.0	24.0	22.0	26.0
2	16.0	19.0	6.0	4.0	9.0	---	9.0	19.0	18.0	22.0	23.0	22.0
3	17.0	19.0	7.0	5.0	9.0	---	12.0	19.0	19.0	24.0	22.0	27.0
4	18.0	11.0	7.0	6.0	8.0	---	10.0	25.0	19.0	22.0	22.0	27.0
5	19.0	11.0	11.0	7.0	6.0	---	13.0	23.0	21.0	32.0	20.0	---
6	19.0	13.0	11.0	7.0	2.0	13.0	19.0	20.0	23.0	23.0	20.0	28.0
7	16.0	15.0	10.0	8.0	7.0	12.0	16.0	20.0	28.0	29.0	21.0	26.0
8	16.0	14.0	7.0	10.0	8.0	9.0	13.0	21.0	26.0	28.0	22.0	26.0
9	18.0	14.0	5.0	11.0	6.0	15.0	13.0	21.0	23.0	28.0	29.0	26.0
10	18.0	15.0	9.0	8.0	5.0	14.0	14.0	20.0	22.0	28.0	29.0	26.0
11	19.0	13.0	8.0	8.0	9.0	9.0	11.0	21.0	17.0	28.0	27.0	26.0
12	20.0	11.0	9.0	6.0	9.0	9.0	11.0	22.0	22.0	27.0	28.0	20.0
13	21.0	10.0	9.0	6.0	9.0	7.0	12.0	21.0	22.0	27.0	27.0	16.0
14	17.0	10.0	9.0	5.0	10.0	7.0	11.0	21.0	20.0	27.0	27.0	16.0
15	12.0	9.0	8.0	6.0	10.0	10.0	13.0	20.0	19.0	26.0	---	18.0
16	13.0	14.0	7.0	5.0	6.0	11.0	14.0	18.0	19.0	29.0	27.0	21.0
17	16.0	14.0	5.0	6.0	6.0	11.0	14.0	19.0	---	26.0	27.0	20.0
18	---	13.0	7.0	5.0	8.0	12.0	16.0	26.0	---	26.0	27.0	20.0
19	---	13.0	7.0	6.0	7.0	19.0	15.0	21.0	---	25.0	28.0	19.0
20	---	12.0	8.0	6.0	7.0	14.0	14.0	23.0	---	25.0	29.0	22.0
21	15.0	11.0	7.0	6.0	9.0	12.0	15.0	21.0	---	27.0	27.0	17.0
22	16.0	13.0	10.0	6.0	---	12.0	17.0	22.0	---	27.0	27.0	16.0
23	15.0	13.0	10.0	10.0	---	15.0	18.0	18.0	---	24.0	27.0	16.0
24	16.0	14.0	9.0	10.0	---	11.0	19.0	20.0	---	25.0	27.0	16.0
25	17.0	9.0	7.0	10.0	---	12.0	20.0	18.0	---	23.0	27.0	16.0
26	18.0	9.0	7.0	12.0	---	13.0	21.0	21.0	32.0	23.0	27.0	15.0
27	17.0	10.0	10.0	10.0	---	12.0	20.0	20.0	22.0	23.0	21.0	16.0
28	16.0	10.0	7.0	10.0	---	9.0	16.0	18.0	22.0	23.0	27.0	17.0
29	15.0	8.0	12.0	11.0	---	7.0	17.0	17.0	21.0	28.0	22.0	23.0
30	19.0	6.0	9.0	11.0	---	5.0	16.0	17.0	23.0	22.0	28.0	18.0
31	15.0	---	7.0	9.0	---	9.0	---	16.0	---	24.0	28.0	---
MONTH	17.0	12.0	8.0	7.5	---	11.0	14.5	20.5	---	25.5	25.5	21.0

RED RIVER BASIN

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07312110 South Side Canal near Dundee, Tex.

LOCATION.--Lat 33°48'50", long 98°55'57", Archer County, on left bank 125 ft (38 m) downstream from Lake Diversion headgates and 5.3 miles ; (8.5 km) northwest of Dundee.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,039.70 ft (316.901 m) above mean sea level (Wichita County Water Improvement District bench mark).

EXTREMES.--Period of record: Maximum daily discharge, 374 ft³/s (10.6 m³/s) July 22, 1974; maximum gage height, 8.31 ft (2.533 m) July 22, 1974; no flow at times.

REMARKS.--Records fair Oct. 1 to Apr. 15, good thereafter. Water diverted from Lake Diversion is used for mining, industrial use, recreation, and irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	0	0	0	52	13	56	31	4.3	119	51	52
2	96	0	15	0	66	13	57	61	6.0	158	69	51
3	94	0	15	0	66	13	61	72	14	210	22	79
4	76	0	15	0	66	13	70	51	15	180	61	95
5	60	0	0	0	66	13	71	11	14	186	117	122
6	55	0	0	0	66	13	69	25	10	187	117	154
7	51	0	0	0	66	13	66	69	1.2	183	117	154
8	44	0	0	0	66	13	63	83	1.0	173	117	165
9	44	0	0	0	66	13	57	89	1.8	187	117	175
10	43	0	0	0	48	14	56	82	14	212	126	177
11	37	0	0	0	35	14	56	81	16	204	155	191
12	31	0	0	0	35	14	56	87	18	200	168	169
13	25	0	0	0	34	14	44	105	18	200	172	65
14	11	0	0	0	35	13	19	126	18	185	163	26
15	3.0	15	0	37	35	13	29	116	19	172	140	24
16	1.1	15	0	47	35	13	68	99	24	171	134	24
17	.71	15	0	71	48	13	103	87	54	152	134	20
18	.47	15	0	71	65	12	87	87	68	161	134	8.7
19	.30	15	0	85	82	12	72	86	67	176	134	8.0
20	.22	7.0	0	59	102	12	68	86	76	138	133	8.0
21	.16	0	0	50	103	12	88	90	84	153	133	7.8
22	.11	0	0	47	102	12	130	100	87	58	147	7.8
23	.09	0	0	44	58	12	130	20	90	44	156	7.7
24	.11	0	0	40	13	13	144	5.7	101	84	156	7.5
25	6.9	0	0	40	13	17	150	5.4	102	70	157	7.3
26	18	0	0	40	13	44	176	5.0	100	37	113	7.3
27	13	0	0	40	13	43	169	4.8	95	52	35	7.3
28	3.1	0	0	5.0	13	42	81	4.5	94	47	51	7.3
29	.22	0	0	30	-----	43	15	4.2	94	29	54	7.3
30	.05	0	0	40	-----	43	13	4.1	99	21	54	7.3
31	1.3	-----	0	40	-----	47	-----	4.2	-----	20	53	-----
TOTAL	812.84	82.0	45	786.0	1,462	589	2,324	1,781.9	1,405.3	4,169	3,490	1,842.3
MEAN	26.2	2.73	1.45	25.4	52.2	19.0	77.5	57.5	46.8	134	113	61.4
MAX	97	15	15	85	103	47	176	126	102	212	172	191
MIN	.05	0	0	0	13	12	13	4.1	1.0	20	22	7.3
AC-FT	1,610	163	89	1,560	2,900	1,170	4,610	3,530	2,790	8,270	6,920	3,650
CAL YR 1974	TOTAL 32,571.04			MEAN 89.2	MAX 374	MIN 0	AC-FT 64,600					
WTR YR 1975	TOTAL 18,789.34			MEAN 51.5	MAX 212	MIN 0	AC-FT 37,270					

07312200 Beaver Creek near Electra, Tex.

LOCATION.--Lat 33°54'21", long 98°54'17", Wichita County, near right bank on downstream side of bridge on Farm Road 2326, 6.5 miles (10.5 km) northwest of Kanay, 8 miles (13 km) upstream from Wichita River, and 9 miles (14 km) south of Electra.

DRAINAGE AREA.--652 mi² (1,689 km²).

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

Water quality: Chemical analyses: October 1968 to June 1970. Water temperatures: October 1968 to June 1970. Sediment records: April 1966 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 991.3 ft (302.15 m) above mean sea level (State Highway Department reference point).

AVERAGE DISCHARGE.--15 years, 64.1 ft³/s (1.815 m³/s), 46,440 acre-ft/yr (57.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,620 ft³/s (187 m³/s) May 23 (gage height, 31.31 ft or 9.543 m); minimum, 0.71 ft³/s (0.020 m³/s) Mar. 26.

Period of record: Maximum discharge, 11,700 ft³/s (331 m³/s) Mar. 17, 1961 (gage height, 33.57 ft or 10.232 m); no flow at times.

Maximum stage since at least 1925, 36.0 ft (10.97 m) in 1941 (partly caused by deliberate demolition of Santa Rosa Dam to avoid its failure), from information by local residents.

REMARKS.--Discharge records fair. Some regulation by Santa Rosa Lake (capacity, 11,570 acre-ft or 14.3 hm³) about 30 miles (48 km) upstream. Several small diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	201	5.5	6.8	50	2.7	2.6	3.0	141	9.2	1,100	9.5
2	16	43	5.5	185	52	2.4	2.1	2.3	51	7.3	678	9.2
3	16	32	5.6	116	174	2.2	1.9	13	24	7.4	440	9.0
4	15	25	5.7	16	475	2.3	1.8	4.4	18	12	244	7.6
5	14	12	5.7	6.2	188	2.2	1.3	2.9	16	7.5	204	6.8
6	15	7.4	5.8	4.9	48	2.4	1.1	2.4	14	9.4	273	5.9
7	16	6.5	5.8	4.5	11	2.3	112	2.3	12	7.3	252	4.9
8	15	5.9	5.5	4.2	6.0	2.2	416	2.0	142	5.7	212	8.1
9	16	6.1	5.5	4.2	4.5	2.1	62	1.8	244	177	174	11
10	14	6.9	6.4	4.3	3.3	2.7	4.2	1.8	113	88	138	3.3
11	14	6.6	7.5	4.2	2.8	3.4	2.7	1.7	47	21	120	3.1
12	14	6.0	6.9	4.0	2.5	130	2.3	1.7	25	94	111	167
13	14	5.6	6.3	4.0	2.3	14	2.3	56	20	53	101	192
14	17	5.7	5.9	4.4	2.0	4.8	2.3	73	17	16	80	436
15	18	5.2	5.8	4.7	2.1	3.7	2.3	5.6	15	9.8	38	192
16	15	5.2	5.8	4.6	2.4	3.4	2.2	3.5	13	8.2	37	118
17	12	5.3	6.0	4.4	2.8	3.5	2.0	2.3	11	9.2	15	89
18	8.8	5.2	6.2	4.3	2.5	8.4	1.9	1.7	7.3	17	11	88
19	8.0	5.2	6.3	4.7	2.6	6.1	1.8	2.3	4.9	109	11	87
20	7.1	5.1	6.1	4.8	2.5	4.8	1.6	2.4	3.7	129	13	76
21	6.4	4.5	6.2	4.8	2.5	4.6	1.3	3.4	2.4	110	11	69
22	6.2	4.4	6.2	5.1	345	3.9	1.1	524	421	34	9.4	64
23	6.5	4.8	6.2	4.8	108	2.7	1.4	5,520	474	15	7.9	56
24	108	5.1	6.2	5.5	17	2.3	2.0	2,400	129	31	5.9	48
25	63	4.9	6.0	5.3	6.9	2.1	2.3	259	30	3,040	4.5	41
26	16	5.0	6.2	4.1	4.8	1.1	2.3	101	17	6,030	55	35
27	7.8	5.4	6.3	3.1	3.6	1.1	141	55	11	4,370	45	32
28	384	5.3	6.3	2.3	3.0	6.9	261	375	11	2,880	17	29
29	148	5.5	6.3	1.9	-----	5.8	33	1,360	9.4	1,910	9.0	25
30	74	5.3	6.4	1.8	-----	3.1	5.2	1,470	9.8	1,780	9.4	22
31	853	-----	9.1	44	-----	3.1	-----	343	-----	1,540	13	-----
TOTAL	1,954.8	451.1	191.2	478.9	1,527.1	242.3	1,077.0	12,596.5	2,053.5	22,537.0	4,439.1	1,944.4
MEAN	63.1	15.0	6.17	15.4	54.5	7.82	35.9	406	68.5	727	143	64.8
MAX	853	201	9.1	185	475	130	416	5,520	474	6,030	1,100	436
MIN	6.2	4.4	5.5	1.8	2.0	1.1	1.1	1.7	2.4	5.7	4.5	3.1
AC-FT	3,880	895	379	950	3,030	481	2,140	24,990	4,070	44,700	8,800	3,860
CAL YR 1974	TOTAL	11,052.8	MEAN	30.3	MAX	1,730	MIN	2.1	AC-FT	21,920		
WTR YR 1975	TOTAL	49,492.9	MEAN	136	MAX	6,030	MIN	1.1	AC-FT	98,170		

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	0600	16.20	1,090	5-29	1800	22.66	2,020
5-23	1200	31.31	6,620	7-26	1200	31.20	6,390

RED RIVER BASIN

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07312200 Beaver Creek near Electra, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
MAY 23...	1130	6460	20.0	2370	41300	--	--
24...	--	2000	21.5	943	5090	--	--
JULY 31...	0915	1560	26.5	1290	5430	94	99

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
MAY 23...	--	--	--	--	--	--
24...	--	--	--	--	--	--
JULY 31...	100	52	59	67	78	87

RED RIVER BASIN

07312500 Wichita River at Wichita Falls, Tex.

LOCATION.--Lat 33°54'34", Long 98°32'00", Wichita County, near center of stream on downstream side of bridge on Beverly Drive in Wichita Falls, 4 miles (6 km) upstream from Fort Worth and Denver Railway Co. bridge, 8.4 miles (13.5 km) upstream from Holliday Creek, and at mile 55.3 (89.0 km).

DRAINAGE AREA.--3,140 mi² (8,130 km²), of which 2,086 mi² (5,403 km²) is above Lake Kemp Dam.

PERIOD OF RECORD.--Discharge: February 1900 to January 1902 (monthly discharge only, published in WSP 1311), October 1910 to December 1911 (gage heights only), March 1938 to current year.
Water quality: Sediment records: January 1966 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 924.26 ft (281.714 m) above mean sea level. February 1900 to February 1902 and Oct. 1, 1910, to Dec. 31, 1911, nonrecording gages at site 4 miles (6 km) downstream at different datum. Mar. 30, 1938, to Dec. 1, 1959, non-recording gage at present site and datum.

AVERAGE DISCHARGE.--38 years (1900-1, 1938-75), 289 ft³/s (8.184 m³/s), 209,400 acre-ft/yr (258 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,500 ft³/s (184 m³/s) July 27 (gage height, 18.83 ft or 5.739 m); minimum, 8.0 ft³/s (0.23 m³/s) Mar. 9.

Period of record: Maximum discharge, 17,800 ft³/s (504 m³/s) Oct. 3, 1941 (gage height, 24.0 ft or 7.32 m); no flow Oct. 11, 1960 (construction of cofferdam upstream).

Maximum discharge, 50,000 ft³/s (1,420 m³/s) June 8, 1915, computed by Vernon L. Sullivan, engineer for Big Wichita River Irrigation Co.

REMARKS.--Discharge records good. Flow from 2,086 mi² (5,403 km²) is regulated by Lake Kemp (capacity, 603,000 acre-ft or 743 hm³) 71 miles (114 km) upstream. Flow is partly regulated by five major reservoirs (capacity, 683,970 acre-ft or 843 hm³). Since completion of dam in 1923 no flow has been permitted to pass over spillway. Water is diverted from Lake Diversion (capacity, 40,000 acre-ft or 49.3 hm³) 51 miles (82 km) upstream for irrigation, 42,000 acres (17,000 hm²) under permit in the vicinity of Wichita Falls. During the water year, Wichita County Water Improvement District No. 2 diverted 37,270 acre-ft (46.0 hm³) from Lake Diversion for mining, industrial use, recreation, and irrigation of 23,466 acres (9,500 hm²). For diversions from Lake Diversion during the current year see station 07312110.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	1,390	36	61	40	32	45	97	1,940	114	1,620	100
2	106	825	38	90	96	28	39	83	704	133	1,480	98
3	98	584	37	255	124	22	36	78	412	139	954	97
4	97	567	36	170	383	18	34	102	283	144	679	96
5	227	441	36	88	569	16	34	72	231	142	477	95
6	494	218	36	58	289	12	33	54	207	133	395	94
7	594	134	34	41	171	11	35	44	186	136	351	92
8	626	182	32	32	124	10	104	38	188	123	342	92
9	617	95	30	26	106	9.0	308	38	246	105	321	91
10	646	98	36	24	85	10	170	50	523	156	302	91
11	637	79	48	21	74	11	133	61	411	275	290	107
12	626	77	46	20	62	12	105	62	236	165	280	294
13	621	70	40	19	53	15	49	55	195	152	270	377
14	640	64	35	20	47	17	80	139	160	145	261	568
15	646	58	32	20	41	19	70	151	134	134	251	634
16	614	52	29	21	36	25	57	111	132	124	243	226
17	580	52	28	21	37	34	50	80	129	123	232	165
18	560	51	27	21	34	40	45	70	122	118	218	133
19	533	49	27	51	30	41	43	63	123	148	202	135
20	308	49	25	83	27	41	43	58	119	273	170	129
21	143	48	27	77	26	41	44	55	114	240	149	124
22	113	47	27	75	46	38	44	290	121	205	133	116
23	96	47	28	66	373	37	44	5,230	540	171	124	114
24	112	46	27	65	201	35	43	4,990	700	188	121	112
25	160	45	24	62	127	34	41	5,000	347	2,900	119	107
26	137	45	25	59	96	32	40	4,340	251	5,450	1,070	105
27	99	44	24	54	66	28	40	1,280	226	6,450	1,230	104
28	151	43	26	31	45	34	318	1,270	210	6,310	312	108
29	456	42	27	18	-----	41	327	2,680	160	5,550	234	115
30	260	40	29	15	-----	44	123	3,500	116	4,230	186	121
31	832	-----	41	16	-----	46	-----	3,230	-----	2,570	140	-----
TOTAL	11,963	5,495	995	1,680	3,412	833.0	2,817	33,271	9,470	37,246	13,156	4,840
MEAN	386	183	32.1	54.2	122	26.9	87.2	1,073	316	1,201	424	161
MAX	832	1,390	48	255	569	46	327	5,230	1,940	6,450	1,620	634
MIN	96	46	24	15	26	9.0	33	38	116	105	119	91
AC-FT	23,730	10,910	1,976	3,330	6,776	1,650	5,190	65,990	18,780	73,880	26,090	9,600

CAL YR 1974 TOTAL 51,859.0 MEAN 142 MAX 2,500 MIN 12 AC-FT 102,900
WTR YR 1975 TOTAL 124,981.0 MEAN 342 MAX 6,450 MIN 9.0 AC-FT 247,900

RED RIVER BASIN

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07312500 Wichita River at Wichita Falls, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

				SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)			
FEB. 06...	0955	627	6.5	2920	4940	99	100
MAY 23...	0950	5270	19.0	1540	21900	--	--
24...	0950	4840	22.0	1290	16900	--	--
27...	1415	839	25.5	765	1730	--	--
JUNE 11...	1445	360	24.0	692	673	--	--
JULY 28...	1020	6250	26.5	589	9940	98	98
		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
FEB. 06...	--	--	54	71	77	95	98
MAY 23...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--
JUNE 11...	--	--	--	--	--	--	--
JULY 28...	99	100	87	90	94	95	96

RED RIVER BASIN

07312700 Wichita River near Charlie, Tex.

LOCATION.--Lat 34°03'11", long 98°17'47", Clay County, on right bank at upstream side of bridge on Farm Road 810, 3.0 miles (4.8 km) southeast of Charlie, and 5.7 miles (9.2 km) northwest of Petrolia.

DRAINAGE AREA.--3,439 mi² (8,907 km²), of which 2,086 mi² (5,403 km²) is above Lake Kemp Dam and 143 mi² (370 km²) is above Lake Wichita Dam.

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

Water quality: Chemical and biochemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 872.71 ft (266.002 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 307 ft³/s (8.694 m³/s), 222,400 acre-ft/yr (274 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 5,770 ft³/s (163 m³/s) July 30 (gage height, 20.97 ft or 6.392 m); minimum, 43 ft³/s (1.22 m³/s) Mar. 25.

Period of record: Maximum discharge, 6,090 ft³/s (172 m³/s) Nov. 4, 1972 (gage height, 21.21 ft or 6.465 m); minimum, 25 ft³/s (0.71 m³/s) Feb. 4, 1974.

Water quality: Current year: Maximum daily specific conductance, 6,690 micromhos Mar. 15; minimum daily, 425 micromhos July 29. Maximum water temperatures, 31.5°C July 7, 8; minimum, 1.5°C Jan. 12.

Period of record: Maximum daily specific conductance, 10,000 micromhos Apr. 25, 1972; minimum daily, 384 micromhos Aug. 16, 1971. Maximum water temperatures, 33.0°C July 31, 1970; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records good. Flow is partly regulated by five major reservoirs with a capacity of 683,970 acre-ft (843 hm³). For statement regarding regulations and diversions, see station 07312500. Records furnished by the city of Wichita Falls show that 12,950 acre-ft (16.0 hm³) was returned to river above station as sewage effluent or filter plant washwater.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	1,390	73	106	84	89	91	181	4,040	206	3,120	169
2	178	1,330	72	114	143	80	74	115	3,030	187	1,690	161
3	161	846	72	307	232	72	59	102	1,480	184	1,490	162
4	148	652	73	366	392	68	51	110	990	202	1,060	152
5	147	638	71	256	645	66	52	143	641	268	712	142
6	354	466	73	158	601	66	63	109	494	272	536	144
7	581	262	76	115	373	65	68	81	408	243	477	149
8	649	178	70	94	256	59	178	73	389	224	519	171
9	680	153	65	83	196	60	335	81	358	206	496	165
10	681	146	69	76	170	63	381	270	457	183	442	160
11	684	159	104	73	174	65	177	288	769	321	397	173
12	669	136	109	66	160	65	109	264	667	416	366	457
13	658	118	88	63	131	93	95	144	557	283	366	878
14	730	107	79	63	112	175	154	180	465	314	401	1,010
15	801	104	72	65	102	140	110	272	376	299	368	672
16	703	97	66	65	98	105	87	277	311	246	371	617
17	657	94	65	62	104	97	64	199	273	219	376	450
18	625	94	64	64	98	95	57	140	230	197	369	331
19	604	93	63	64	98	107	74	126	198	193	302	273
20	576	93	63	74	85	78	92	128	195	363	260	241
21	350	90	63	123	86	67	77	112	182	469	250	230
22	203	85	60	143	91	62	76	126	239	397	242	228
23	169	88	62	137	127	53	77	2,790	324	354	235	207
24	153	85	60	126	485	49	69	4,900	762	246	229	191
25	220	80	59	124	290	46	86	5,300	741	715	220	177
26	245	83	58	116	180	45	105	5,140	406	2,540	508	170
27	195	80	57	112	132	50	129	4,790	303	3,800	1,970	161
28	166	78	58	108	104	77	437	2,460	258	4,940	1,160	152
29	312	75	58	105	-----	151	585	2,460	233	5,570	397	147
30	553	74	58	84	-----	101	386	3,710	220	5,670	253	143
31	1,040	-----	64	80	-----	96	-----	4,080	-----	4,940	197	-----
TOTAL	14,089	7,974	2,144	3,592	5,749	2,505	4,398	39,151	19,996	34,667	19,779	8,483
MEAN	454	266	69.2	116	205	80.8	147	1,263	667	1,118	638	283
MAX	1,040	1,390	109	366	645	175	585	5,300	4,040	5,670	3,120	1,010
MIN	147	74	57	62	84	45	51	73	182	183	197	142
AC-FT	27,950	15,820	4,250	7,120	11,400	4,970	8,720	77,660	39,660	68,760	39,230	16,830
CAL YR 1974	TOTAL	74,526	MEAN	204	MAX	2,680	MIN	27	AC-FT	147,800		
WTR YR 1975	TOTAL	162,527	MEAN	445	MAX	5,670	MIN	45	AC-FT	322,400		

RED RIVER BASIN

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07312700 Wichita River near Charlie, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 23...	1105	165	8.1	230	63	640	7.4	128	0	510
NOV. 05...	1030	660	7.0	190	50	580	5.3	107	0	470
DEC. 23...	1645	65	1.6	260	110	750	3.9	254	0	500
JAN. 08...	1200	86	6.3	150	43	320	5.5	144	0	160
FEB. 05...	1215	657	8.4	180	70	560	8.8	146	0	190
MAR. 25...	1150	61	5.1	200	100	700	8.6	254	0	470
APR. 30...	1240	370	7.7	170	59	550	8.0	140	0	190
MAY 13...	1150	135	5.2	98	35	260	8.2	127	0	190
JUNE 09...	0845	344	9.3	150	54	400	8.1	222	0	300
JULY 22...	1130	403	7.3	160	58	500	8.1	148	0	300
AUG. 25...	1000	222	9.9	170	67	510	7.8	229	0	350
SEP. 23...	1200	207	11	150	57	360	9.3	232	0	230

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 23...	1100	--	--	--	--	--	--	--	2620
NOV. 05...	950	--	.19	.01	.09	.87	.96	.36	2310
DEC. 23...	1400	.5	--	--	--	--	--	--	3150
JAN. 08...	700	.3	1.2	.12	1.5	1.1	2.6	1.8	1460
FEB. 05...	1200	.2	--	--	--	--	--	--	2290
MAR. 25...	1300	.7	.75	.20	.84	.86	1.7	2.3	2910
APR. 30...	1100	.4	--	--	--	--	--	--	2150
MAY 13...	460	.3	.64	.23	.59	.41	1.0	.90	1120
JUNE 09...	720	.4	--	--	--	--	--	--	1750
JULY 22...	930	.3	.22	.10	.08	1.4	1.5	.56	2040
AUG. 25...	850	--	--	--	--	--	--	--	2080
SEP. 23...	660	.6	.47	.08	.39	1.2	1.6	.79	1590

RED RIVER BASIN

07312700 Wichita River near Charlie, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT. 23...	830	730	9.6	4390	7.6	17.0	--	--	--
NOV. 05...	680	590	9.7	3920	7.6	15.5	7.5	75	3.2
DEC. 23...	1100	890	9.8	5360	7.7	8.5	--	--	--
JAN. 08...	550	430	5.9	2890	7.6	9.0	8.6	75	7.0
FEB. 05...	740	620	9.0	4100	7.2	8.0	--	--	--
MAR. 25...	910	700	10	4920	8.2	14.0	10.3	100	5.3
APR. 30...	670	550	9.3	3960	7.6	21.0	--	--	--
MAY 13...	390	280	5.7	2060	7.1	24.0	3.5	41	5.4
JUNE 09...	600	410	7.1	3060	8.0	25.0	--	--	--
JULY 22...	640	520	8.6	3600	7.3	29.0	4.9	64	2.4
AUG. 25...	700	510	8.4	3750	7.7	26.0	--	--	--
SEP. 23...	610	420	6.3	2850	7.5	19.5	7.5	82	4.3

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	14089	4100	2400	91300	1000	38000	330	12600	790
NOV. 1974.....	7974	3340	1900	40900	830	17900	270	5810	640
DEC. 1974.....	2144	5280	3100	17900	1300	7530	420	2430	1000
JAN. 1975.....	3592	4210	2400	23300	1100	10700	340	3300	810
FEB. 1975.....	5749	3670	2100	32600	910	14100	290	4500	700
MAR. 1975.....	2505	4460	2600	17600	1100	7440	360	2430	860
APR. 1975.....	4398	4440	2600	30900	1100	13100	360	4270	850
MAY 1975.....	39151	1120	550	58100	250	26400	90	9510	210
JUNE 1975.....	19996	2180	1200	64800	520	28100	170	9180	420
JULY 1975.....	34667	1140	560	52400	250	23400	91	8520	210
AUG. 1975.....	19779	1740	920	49100	410	21900	140	7480	330
SEPT 1975.....	8483	3010	1700	38900	740	16900	240	5500	580
TOTAL	162527	**	**	518000	**	225000	**	75500	**
WTD.AVG.	445.28	2150	1200	**	510	**	170	**	410

RED RIVER BASIN

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07312700 Wichita River near Charlie, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3200	1950	5310	4890	4210	4350	4930	3740	860	3700	700	3700
2	3570	2220	5390	4320	4480	4330	5340	3650	1580	3760	850	3940
3	3820	3270	5350	3070	3440	4330	6030	3680	2010	3940	900	3960
4	4000	3750	5390	4510	4400	4550	5550	3860	2170	3810	1600	3960
5	4130	3120	5350	3670	4100	4730	5460	4520	2410	4100	2000	3990
6	4700	3550	5300	2900	2250	4770	5190	5160	2600	4010	2010	4130
7	4690	3520	5250	2950	2380	4910	5150	5070	2830	3830	2140	4330
8	4660	3480	5280	2890	2300	5110	5140	4170	3040	4040	2230	4310
9	4660	3420	5330	3230	2620	5160	3780	4430	2800	3850	2080	4190
10	4660	3590	5330	3980	3080	5200	6140	3390	3880	3660	2140	4150
11	4730	3780	5200	3190	3470	5100	4050	1210	4100	3890	2310	4230
12	4650	3910	5100	3930	3660	4700	4490	2000	1740	4000	2460	3360
13	4650	4730	3740	4290	4000	4830	3640	2060	1740	3480	2700	1510
14	4340	5230	4640	4670	4200	4010	3590	3600	1940	3430	2810	2810
15	3980	4780	5060	4860	4230	6690	2610	4050	2320	4220	2950	3260
16	4750	5260	5210	4940	4290	4430	3830	3880	2970	3840	3020	2510
17	4560	5100	5250	4980	4380	3810	4150	3470	3230	3660	3100	2220
18	4560	5090	6030	4980	4520	3420	4330	3580	3420	3760	2240	2470
19	4600	5100	5440	5220	4380	3630	4500	4130	3520	3680	3090	2880
20	4630	5190	5360	5220	4570	2840	4690	4410	3590	3510	3390	2990
21	4630	5160	5360	5050	4600	3870	5660	4280	3980	3030	3750	3110
22	4450	5260	5390	6040	4700	4220	5110	4670	3610	3600	3860	2990
23	4390	5310	5360	4110	4850	4730	5000	576	2520	3450	3840	2850
24	4430	5310	5400	4390	6030	4790	4740	440	4480	3380	3800	2980
25	4650	5310	5670	4340	2220	4980	4740	750	2130	1800	3750	3040
26	4300	5310	5580	4360	2480	5390	4790	800	2170	482	2540	3150
27	5380	5440	5580	4560	3520	5170	5740	1400	2260	485	900	3200
28	4150	5280	5680	4700	4130	4730	3950	1400	2660	502	1000	3340
29	2720	5260	5460	4750	---	4110	3590	1120	3090	425	1800	3410
30	1500	5260	5430	4570	---	2630	3960	860	3420	525	3800	3570
31	1000	---	5400	4580	---	4590	---	841	---	632	3600	---
MONTH	4170	4430	5310	4330	3840	4520	4660	2940	2770	3050	2500	3350

TEMPERATURE (DEG. C) OF WATER + WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	18.5	4.5	6.0	8.5	14.0	16.5	21.0	21.5	30.0	29.0	30.5
2	21.0	19.0	4.5	8.0	7.0	14.0	13.0	22.0	21.5	29.5	28.5	30.0
3	21.0	19.0	5.5	7.0	8.0	8.5	14.0	24.0	25.0	28.5	28.5	30.5
4	21.0	19.0	8.0	6.5	8.5	10.0	14.5	24.0	26.0	27.0	27.0	29.0
5	22.0	15.5	---	9.0	7.0	11.0	16.0	24.0	27.0	29.5	28.0	29.5
6	21.5	14.5	10.0	7.0	4.5	14.5	16.5	25.0	28.5	29.5	29.0	28.0
7	19.0	14.0	10.0	8.5	5.5	13.5	---	26.0	28.5	31.5	28.5	28.0
8	20.0	14.0	7.0	10.0	6.0	11.5	18.0	25.5	25.5	31.5	28.5	26.0
9	20.5	14.0	6.5	10.5	4.5	10.5	18.0	28.0	26.0	---	28.5	27.0
10	21.0	14.5	6.0	7.0	7.0	9.0	15.5	24.5	24.5	28.0	29.0	28.5
11	21.5	14.0	7.0	4.5	7.0	8.5	15.5	25.5	24.0	28.0	29.5	28.5
12	21.5	13.5	8.5	1.5	10.0	7.0	15.5	25.0	24.5	28.5	29.5	20.0
13	22.0	14.5	8.5	3.5	12.0	9.0	14.5	25.0	26.5	28.5	28.5	18.0
14	19.5	18.0	7.0	4.0	11.0	10.0	16.5	21.5	27.0	27.0	28.0	17.0
15	18.5	10.0	7.0	6.5	8.0	10.0	20.0	22.0	28.0	28.0	29.5	19.5
16	18.0	11.0	6.5	6.5	7.0	11.0	21.0	24.5	29.0	29.5	27.0	20.5
17	19.5	11.0	6.5	5.5	7.0	13.0	24.5	25.0	29.0	28.5	28.0	23.5
18	19.5	11.5	7.0	7.0	8.5	15.5	21.0	28.0	26.5	29.0	28.5	25.5
19	19.5	14.0	7.0	7.0	8.5	16.5	20.5	26.5	28.0	28.0	29.5	24.0
20	19.5	14.0	7.0	6.5	10.0	18.5	20.0	24.5	28.5	28.0	29.5	23.5
21	18.5	14.0	7.0	6.5	---	19.0	21.0	26.5	29.0	29.5	30.0	20.0
22	18.0	14.5	8.5	6.0	7.0	19.0	21.0	26.5	28.5	30.5	30.0	20.0
23	19.0	16.5	11.0	7.0	7.0	18.0	22.0	20.5	27.0	30.5	30.0	21.0
24	18.5	12.0	---	9.0	6.5	16.5	25.5	21.0	28.0	28.0	30.0	20.0
25	19.5	10.0	5.0	10.0	8.5	15.0	27.0	22.0	26.0	25.5	30.0	20.0
26	20.0	10.0	5.0	11.0	8.5	13.0	26.0	21.0	28.5	24.5	25.0	20.0
27	19.5	10.0	5.5	11.5	8.5	18.5	24.0	24.5	29.5	26.0	24.0	21.0
28	19.5	11.0	7.0	10.0	13.0	11.0	13.5	24.0	30.0	26.0	25.5	22.0
29	20.5	7.0	9.0	9.0	---	7.0	22.0	23.0	30.0	26.0	29.0	24.0
30	---	4.5	7.0	8.5	---	8.5	21.0	20.5	30.5	28.0	30.0	24.5
31	17.0	---	7.0	9.0	---	13.0	---	20.5	---	27.0	30.5	---
MONTH	20.0	13.5	7.0	7.5	8.0	12.5	19.0	24.0	27.0	28.5	28.5	24.0

RED RIVER BASIN

07314000 Lake Kickapoo near Archer City, Tex.

LOCATION.--Lat 33°39'47", long 98°46'43", Archer County, on intake tower near left end of dam on North Fork Little Wichita River, 8.2 miles (13.2 km) south of Mankins, and 9.2 miles (14.8 km) northwest of Archer City.

DRAINAGE AREA.--275 mi² (712 km²).

PERIOD OF RECORD.--Contents: February 1946 to current year. Prior to October 1965, monthend contents only.
Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Nonrecording gage read twice daily prior to Feb. 17, 1974, once daily thereafter. Datum of gage is at mean sea level. Prior to Oct. 8, 1946, water-stage recorder at same site and datum.

EXTREMES (at 0800).--Current year: Maximum contents, 112,500 acre-ft (139 hm³) June 12, 13 (elevation, 1,046.0 ft or 318.82 m); minimum observed, 96,040 acre-ft (118 hm³) Oct. 14-21 (elevation, 1,043.4 ft or 318.03 m).
Period of record: Maximum contents, 134,300 acre-ft (166 hm³) Aug. 2, 1950 (elevation, 1,049.2 ft or 319.80 m); minimum observed since first filling in July 1950, 35,660 acre-ft (44.0 hm³) June 30, 1953 (elevation, 1,029.8 ft or 313.88 m).

REMARKS.--The lake is formed by a rolled earthfill dam 8,200 ft (2,500 m) long, including a 483-foot-wide (147-metre) reinforced concrete ogee-type uncontrolled spillway near right end of dam. The dam was completed Dec. 15, 1945, and storage began Feb. 1, 1946. The service outlet consists of two gate controlled 4- by 5-foot (1.2- by 1.5-metre) conduits. The dam and lake are owned by the city of Wichita Falls, which uses the lake for their municipal water supply. The capacity table is based on Geological Survey topographic maps, 5-foot (1.5-metre) contour interval, surveyed in 1929. A copy of the capacity curve was entitled "Lake Kickapoo Area & Capacity Curve", dated November 1946. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	1,082.0	-
Design flood (2-foot freeboard).....	1,060.0	221,000
Crest of spillway.....	1,045.0	106,000
Lowest gated outlet (invert).....	1,000.92	0

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

REVISIONS.--WSP 1211: Drainage area.

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

1,043.0	93,600	1,045.0	106,000
1,044.0	99,700	1,046.0	112,500

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99,700	103,500	103,500	102,200	101,600	102,200	99,700	99,700	111,200	108,600	109,200	107,300
2	99,700	104,700	102,800	102,200	101,600	102,200	99,700	99,700	111,200	108,600	109,200	107,300
3	99,700	104,700	102,800	102,200	101,600	102,200	99,700	99,700	111,200	108,600	108,600	106,600
4	99,700	104,700	102,800	102,200	101,600	102,200	99,700	99,700	110,600	108,600	108,600	106,600
5	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	109,900	108,600	108,600	106,600
6	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	109,200	109,900	108,600	106,600
7	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	109,200	109,900	108,600	106,600
8	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	109,200	109,900	108,600	106,600
9	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	109,200	109,200	108,600	106,600
10	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	109,200	108,600	108,600	106,600
11	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	111,800	108,600	108,600	106,600
12	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,700	112,500	108,000	108,600	106,600
13	99,700	104,700	102,800	102,200	102,200	102,200	99,700	99,090	112,500	107,300	108,600	106,600
14	96,040	104,700	102,800	102,200	102,200	101,600	99,700	99,090	111,800	106,600	108,600	107,300
15	96,040	104,700	102,800	102,200	102,200	101,600	99,700	99,090	111,800	106,600	108,600	107,300
16	96,040	104,700	102,200	102,200	102,200	101,600	99,700	99,090	111,800	106,600	108,600	107,300
17	96,040	104,700	102,200	102,200	102,200	101,600	99,700	99,090	111,800	106,600	108,600	107,300
18	96,040	104,700	102,200	102,200	102,200	101,600	99,700	99,090	111,800	106,600	108,600	107,300
19	96,040	104,700	102,200	102,200	102,200	101,000	99,700	99,090	111,200	106,600	108,600	107,300
20	96,040	104,700	102,200	102,200	102,200	101,000	99,700	99,090	111,200	106,600	108,600	107,300
21	96,040	104,700	102,200	102,200	102,200	101,000	99,700	99,090	111,200	106,600	108,600	107,300
22	97,870	104,700	102,200	102,200	102,200	100,300	99,700	99,090	111,200	106,600	108,600	107,300
23	97,870	104,700	102,200	102,200	102,200	100,300	99,700	99,090	111,200	106,600	108,600	107,300
24	98,480	104,700	102,200	102,200	102,200	99,700	99,700	105,400	111,800	106,600	108,600	106,000
25	98,480	104,700	102,200	102,200	102,200	99,700	99,700	106,000	111,200	106,600	107,300	106,000
26	98,480	104,700	102,200	101,600	102,200	99,700	99,700	106,600	110,600	109,200	107,300	106,000
27	98,480	104,100	102,200	101,600	102,200	99,700	99,700	107,300	109,900	109,200	107,300	106,000
28	99,700	104,100	102,200	101,600	102,200	99,700	99,700	107,300	109,200	109,200	107,300	106,000
29	99,700	104,100	102,200	101,600	-----	99,700	99,700	108,600	108,600	109,200	107,300	106,000
30	101,000	103,500	102,200	101,600	-----	99,700	99,700	109,900	108,600	109,200	107,300	106,000
31	102,200	-----	102,200	101,600	-----	99,700	-----	110,600	-----	109,200	107,300	-----
(†)	1,044.4	1,044.6	1,044.4	1,044.3	1,044.4	1,044.0	1,044.0	1,045.7	1,045.4	1,045.5	1,045.2	1,045.0
(*)	+2,500	+1,300	-1,300	-600	+600	-2,500	0	+10,900	-2,000	+600	-1,900	-1,300
(††)	73.0	77.8	102	117	80.9	57.7	58.9	81.5	93.6	129	126	137
MAX	102,200	104,700	103,500	102,200	102,200	102,200	99,700	110,600	112,500	109,900	109,200	107,300
MIN	96,040	103,500	102,200	101,600	101,600	99,700	99,700	99,090	108,600	106,000	107,300	106,000
CAL YR 1974.....	+ +8,600			†† 918			MAX	104,700	MIN 83,140			
WTR YR 1975.....	+ +6,300			†† 1,134			MAX	112,500	MIN 96,040			

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use.

RED RIVER BASIN

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07314000 Lake Kickapoo near Archer City, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
APR., 1975 29...	1535	4.7	33	8.9	45	5.9	178	0	15	
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
APR., 1975 29...	45	.4	246	120	0	1.8	458	8.1	24.0	

RED RIVER BASIN

07314500 Little Wichita River near Archer City, Tex.

LOCATION.--Lat 33°39'45", long 98°36'46", Archer County, on left bank at downstream side of bridge on State Highway 79, 1.5 miles (2.4 km) downstream from confluence of North and Middle Forks, and 4.8 miles (7.7 km) north of Archer City.

DRAINAGE AREA.--481 mi² (1,246 km²).

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

Water quality: Chemical analyses: January 1953 to January 1956. Water temperatures: January 1953 to January 1956. Sediment records: May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 934.72 ft (284.903 m) above mean sea level. Aug. 17, 1954, to Jan. 6, 1956, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--13 years (1932-45) prior to completion of Lake Kickapoo, 110 ft³/s (3.115 m³/s), 79,700 acre-ft/yr (98.3 hm³/yr); 19 years (1946-55, 1966-75) regulated, 41.5 ft³/s (1.175 m³/s), 30,070 acre-ft/yr (37.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,560 ft³/s (129 m³/s) May 31 (gage height, 24.75 ft or 7.544 m); no flow Oct. 12, 13. Period of record: Maximum discharge, 17,900 ft³/s (507 m³/s) Oct. 31, 1941 (gage height, 26.18 ft or 7.980 m); no flow at times. Flood of June 1930 reached a stage of about 28 ft (8.5 m), from information by State Highway Department.

REMARKS.--Discharge records good. Some regulation by Lake Kickapoo (station 07314000) on North Fork Little Wichita River. Records furnished by Wichita Falls show that 1,134 acre-ft (1.40 hm³) was diverted from Lake Kickapoo for municipal use during the current water year.

REVISIONS (WATER YEARS).--WSP 827: 1932-35. WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	1420	.03	.39	.21	.46	1.7	4.3	3220	31	7.1	.92
2	.32	611	.03	13	2.2	.36	1.0	2.9	1930	18	4.2	.89
3	.14	31	.03	61	53	.32	.76	2.0	990	8.3	25	.64
4	.06	236	.12	16	162	.28	.49	6.4	436	4.3	56	.45
5	.04	112	.14	4.8	186	.27	.34	3.5	203	16	47	.30
6	.03	17	.19	2.6	78	.21	.29	3.3	107	47	33	.14
7	.02	6.9	.20	2.5	22	.25	.30	2.2	65	27	23	.14
8	.02	3.6	.20	2.0	10	.25	5.2	1.7	134	17	12	.10
9	.01	2.7	.19	1.4	4.8	.25	24	1.1	754	6.3	6.2	.04
10	.01	3.8	.32	1.1	3.4	.24	7.5	1.1	1050	6.3	4.6	.04
11	.01	3.3	.43	.71	2.2	.25	2.8	1.3	1010	22	1.7	.04
12	0	2.7	.73	1.2	1.6	.26	1.5	2.4	636	125	1.3	.21
13	0	2.4	.74	.51	1.2	2.2	1.0	2.0	301	40	1.3	.43
14	124	2.1	.46	.33	1.3	1.5	1.7	147	188	14	1.1	.44
15	502	1.8	.30	.24	1.0	.74	2.0	69	92	6.7	.77	.64
16	69	1.5	.23	.22	1.0	.48	1.3	1.2	49	4.0	.76	.30
17	15	1.3	.16	.26	1.0	.38	2.3	5.2	54	3.2	2.3	7.6
18	3.2	.88	.14	.26	.97	119	2.5	3.8	36	2.7	7.9	1.9
19	1.2	.47	.10	.17	.89	55	2.5	2.5	24	3.2	3.6	.72
20	.67	.34	.10	.11	.82	12	2.5	1.8	11	146	1.4	.43
21	.40	.28	.12	.10	.76	5.0	2.4	1.1	4.9	63	1.2	.26
22	.32	.22	.23	.13	.77	2.3	2.4	2.1	54	54	.92	.26
23	.28	.20	.17	.14	.77	1.2	2.5	1200	395	39	.67	.24
24	.22	.15	.14	.14	1.1	.73	2.3	2300	424	43	.57	.14
25	.33	.11	.17	.14	2.4	.50	1.4	2080	282	467	.40	.14
26	1.1	.07	.87	.14	.99	.30	1.1	745	254	506	.83	.08
27	.65	.05	.65	.14	.76	.64	1.2	22	162	122	8.6	.04
28	1.8	.04	.42	.14	.54	1.4	63	510	85	68	2.6	.03
29	27	.04	.37	.14	---	25	50	1700	54	57	8.7	.03
30	87	.04	.29	.14	---	13	2.9	3260	46	30	2.6	.03
31	947	---	.30	.14	---	3.7	---	4080	---	16	1.2	---
TOTAL	1782.50	2461.99	8.57	110.29	541.68	248.47	190.88	16164.9	13050.9	2013.0	268.52	217.60
MEAN	57.5	82.1	.28	3.56	19.3	8.02	6.36	521	435	64.9	8.66	7.25
MAX	947	1420	.87	61	186	119	63	4080	3220	506	56	64
MIN	0	.04	.03	.10	.21	.21	.29	1.1	4.9	2.7	.40	.03
AC-FT	3540	4880	17	219	1070	493	379	32060	25890	3990	533	432
CAL YR 1974	TOTAL	11916.36	MEAN	32.6	MAX	1420	MIN	0	AC-FT	23640		
WTR YR 1975	TOTAL	37059.30	MEAN	102	MAX	4080	MIN	0	AC-FT	73510		

RED RIVER BASIN

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07314500 Little Wichita River near Archer City, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	
APR. 29...	1410	23	18.5	3940	245	--	--	
MAY 29...	1455	1680	22.0	529	2400	97	98	
JUNE 11...	1020	1070	21.0	152	439	--	--	
		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
APR. 29...	--	--	--	--	--	--	--	--
MAY 29...	99	100	78	90	91	95	96	
JUNE 11...	--	--	--	--	--	--	--	--

RED RIVER BASIN

07314800 Lake Arrowhead near Henrietta, Tex.

LOCATION.--Lat 33°45'51", long 98°22'17", Clay County, at intake tower near center of dam on Little Wichita River, 2.3 miles (3.7 km) upstream from Lake Creek, 11 miles (18 km) southwest of Henrietta, and 12.3 miles (19.8 km) southeast of Wichita Falls.

DRAINAGE AREA.--822 mi² (2,129 km²).

PERIOD OF RECORD.--Contents: June 1967 to current year.
Water quality: Chemical analyses: October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.40 ft (0.122 m) below mean sea level.

EXTREMES.--Current year: Maximum contents, 246,300 acre-ft (304 hm³) July 28, 30 (gage height, 925.40 ft or 282.062 m); minimum, 152,500 acre-ft (188 hm³) Oct. 8-12 (gage height, 918.40 ft or 279.928 m).
Period of record: Maximum contents, 246,300 acre-ft (304 hm³) July 28, 30, 1975 (gage height, 925.40 ft or 282.062 m); minimum since first appreciable storage, 4,640 acre-ft (5.72 hm³) Aug. 31 to Sept. 4, 1967.

REMARKS.--The lake is formed by a rolled-fill earthen dam 15,900 ft (4,846 m) long, including an uncontrolled reinforced concrete ogee spillway 1,581 ft (482 m) wide located near the left end of dam. The dam was completed in December 1966 and storage began in June 1967. The service outlet works, located in a cylindrical service tower at upstream side of dam, consist of two gated 5-foot-diameter (2-metre) inlets that can be used for controlled releases. The area-capacity curves are based on Geological Survey topographic maps. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam.....	944.4	-
Design flood.....	939.95	551,400
Crest of spillway (top of conservation pool).....	926.4	262,100
Lowest gated outlet (invert).....	874.1	-

COOPERATION.--Capacity table furnished by Homer Hunter and Associates and Biggs and Mathews Consulting Engineers for the city of Wichita Falls. Area-capacity curves furnished by Homer Hunter and Associates. Record of diversions furnished by the city of Wichita Falls.

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

918.0	148,000	924.0	225,200
920.0	171,300	926.0	255,700
922.0	197,000		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154,200	159,900	163,300	162,900	162,900	164,600	162,600	161,700	217,200	237,700	245,500	240,800
2	153,900	161,700	163,300	162,900	162,900	163,700	162,400	162,100	223,000	237,200	245,200	240,600
3	154,200	163,500	163,300	162,900	162,900	163,700	162,700	161,400	227,500	237,200	244,900	240,400
4	154,100	165,300	163,300	162,900	162,900	164,300	162,600	161,300	230,600	237,100	244,900	240,000
5	153,700	167,100	163,100	162,900	164,700	164,700	162,700	161,600	231,100	237,200	244,700	238,900
6	153,400	167,200	163,000	162,900	164,700	164,600	162,900	161,200	231,200	237,000	244,600	238,900
7	152,800	167,200	162,900	162,900	164,600	163,500	163,600	161,000	232,000	236,400	244,100	238,600
8	152,500	167,200	162,900	162,900	164,600	163,600	163,600	160,900	231,800	236,200	243,800	238,400
9	152,500	167,200	162,900	162,900	164,500	163,700	163,600	160,600	233,200	236,000	243,500	238,600
10	152,500	167,200	162,900	162,900	164,500	163,300	163,400	160,600	234,100	235,800	243,000	238,600
11	152,500	167,100	162,900	162,900	164,300	163,500	163,000	160,900	236,500	235,600	242,400	238,600
12	152,500	167,100	162,900	162,900	164,500	163,400	163,300	160,900	238,000	235,600	242,100	239,200
13	153,000	167,100	162,900	162,900	164,300	163,400	163,600	160,900	238,800	235,200	241,300	240,200
14	153,300	167,100	162,900	162,900	164,200	163,600	163,700	160,900	238,600	234,700	241,000	241,400
15	153,600	167,100	162,900	162,900	163,700	163,400	164,200	161,200	238,200	234,600	240,800	242,400
16	154,100	167,100	162,900	162,900	164,200	163,600	164,200	161,200	238,600	234,100	241,200	242,400
17	154,400	167,100	162,900	162,900	164,000	163,700	164,100	161,200	238,600	233,500	241,600	243,200
18	154,700	167,100	162,900	162,900	164,200	164,000	163,500	161,100	238,300	233,200	241,400	242,600
19	154,700	167,100	162,900	162,900	164,600	164,500	162,900	161,000	237,200	233,000	241,300	241,800
20	154,700	167,100	162,900	162,900	164,800	164,800	162,600	160,900	237,000	233,500	240,800	241,800
21	154,600	167,100	162,900	162,900	164,700	163,800	162,600	160,500	236,400	233,500	240,400	241,400
22	154,500	167,100	162,900	162,900	164,700	164,100	163,000	161,100	237,400	233,200	240,000	241,400
23	154,400	166,600	162,900	162,900	164,600	163,400	163,000	171,700	237,600	232,800	239,800	241,400
24	154,400	166,000	162,900	162,900	164,800	163,400	162,300	177,300	238,000	233,400	239,800	240,600
25	154,400	165,500	162,900	162,900	164,600	163,300	162,600	182,600	238,300	237,700	239,800	240,600
26	154,400	165,100	162,900	162,900	164,600	164,100	162,400	187,300	238,300	242,200	241,800	240,600
27	154,400	164,700	162,900	162,900	164,600	162,900	162,500	189,700	238,400	245,200	241,900	240,200
28	154,400	164,100	162,900	162,900	164,700	163,000	162,600	193,300	238,400	246,100	242,100	240,100
29	154,400	163,800	162,900	162,900	-----	163,300	162,500	199,700	238,300	245,700	241,800	240,000
30	155,900	163,500	162,900	162,900	-----	163,600	161,400	205,300	238,200	245,800	241,400	239,500
31	157,600	-----	162,900	162,900	-----	163,700	-----	211,800	-----	245,500	241,200	-----
(†)	918.85	919.35	919.30	919.30	919.45	919.37	919.18	923.07	924.87	925.35	925.07	924.96
(*)	+3,200	+5,900	-600	0	+1,800	-1,000	-2,300	+50,400	+26,400	+7,300	-4,300	-1,700
(††)	1,306	1,167	1,162	1,145	1,062	1,222	1,257	1,418	1,640	1,879	1,904	1,639
MAX	157,600	167,200	163,300	162,900	164,800	164,800	164,200	211,800	238,800	246,100	245,500	243,200
MIN	152,500	159,900	162,900	162,900	162,900	162,900	161,400	160,500	217,200	232,800	239,800	238,400

CAL YR 1974..... † -2,400

WTR YR 1975..... * +85,100

†† 18,260

†† 16,801

MAX 167,200

MAX 246,100

MIN 130,100

MIN 152,500

† Gage height, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by the city of Wichita Falls.

RED RIVER BASIN

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07314800 Lake Arrowhead near Henrietta, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
NOV.. 1974 24...	0945	.9	43	15	91	8.5	158	0	9.1

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.. 1974 24...	170	415	170	40	3.0	812	8.0	19.0

RED RIVER BASIN

07314900 Little Wichita River above Henrietta, Tex.
(Formerly published as 07315000 Little Wichita River near Henrietta)

LOCATION (revised).--Lat 33°49'36", Long 98°14'23", Clay County, on right bank at downstream side of bridge on U.S. Highways 82 and 287, 1.0 mile (1.6 km) downstream from Duck Creek, 2.8 miles (4.5 km) west of Henrietta, 6.6 miles (10.6 km) upstream from Turkey Creek, and 7.6 miles (12.2 km) upstream from Dry Fork Little Wichita River.

DRAINAGE AREA.--1,037 mi² (2,686 km²).

PERIOD OF RECORD.--Discharge: January 1953 to current year. Prior to October 1974, published as "near Henrietta".

Water quality: Chemical analyses: December 1952 to January 1956, March 1959 to September 1966, January 1968 to September 1975.

Water temperatures: December 1952 to January 1956, March 1959 to September 1966.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 831.57 ft (253.463 m) above mean sea level. Prior to June 26, 1953, nonrecording gage. Prior to July 11, 1975, at site 2.6 miles (4.2 km) downstream at same datum.

AVERAGE DISCHARGE.--13 years (1953-66) prior to completion of Lake Arrowhead, 124 ft³/s (3.512 m³/s), 89,840 acre-ft/yr (111 hm³/yr); 9 years (1966-75) regulated, 25.3 ft³/s (0.716 m³/s), 18,330 acre-ft/yr (22.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,340 ft³/s (123 m³/s) May 24 (gage height, 17.72 ft or 5.401 m); no flow for many days. Period of record: Maximum discharge, 7,630 ft³/s (216 m³/s) May 1, 1966 (gage height, 18.28 ft or 5.572 m); maximum gage height, 18.36 ft (5.596 m) May 2, 1957; no flow at times each year.

Flood in 1908 reached a stage of about 21 ft (6.4 m), from information by State Highway Department.

REMARKS.--Discharge records good. Two major reservoirs, Lake Kickapoo and Lake Arrowhead, with a capacity of 368,100 acre-ft (454 hm³) largely affect the flow at the station. The city of Wichita Falls diverted 1,130 acre-ft (1.39 hm³) from Lake Kickapoo and 16,800 acre-ft (20.7 hm³) from Lake Arrowhead for municipal uses, and returned 12,950 acre-ft (16.0 hm³) as sewage effluent and filter plant washwater to the Wichita River below station 07312500 at Wichita Falls and above station 07312700 near Charlie. The city of Henrietta diverted 453 acre-ft (0.559 hm³) from pool at gage for municipal use. Diversion records were furnished by the cities of Wichita Falls and Henrietta, respectively.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	1.010			0	0	7.6	.3	420	.01	.14	1.5
2	4.0	535			0	0	5.3	.3	100	0	.47	.27
3	3.5	144		24	0	0	3.6	.3	55	0	1.5	.03
4	3.0	322		65	0	0	2.7	.3	29	0	2.7	.01
5	2.5	150		88	0	0	1.5	.3	16	20	7.6	0
6	2.0	63			55	0	1.0	.3	8.8	6.4	3.6	0
7	1.5	2.7			36	0	23	.3	11	1.0	.68	0
8	1.0	.01		30	0	0	99	.3	24	.44	.03	0
9	.50	0		26	0	0	35	.3	21	.14	.01	0
10	0	0		20	0	0	20	.1	30	.03	.01	0
11	0	0			13	0	13	75	6.4	0	0	0
12	0	0			8.8	0	8.8	137	16	0	0	178
13	0	0			8.8	2.0	7.6	74	29	0	0	296
14	2.4	0			7.6	1.0	8.8	26	21	0	0	780
15	144	0			7.6	.44	5.3	17	16	0	0	688
16	77	0			6.4	.44	2.7	13	10	0	0	552
17	17	0			5.3	1.0	2.7	10	7.6	0	.01	345
18	7.6	0			3.6	2.0	2.0	5.3	4.4	0	.01	172
19	5.3	0			1.5	7.6	.27	2.7	3.6	0	0	66
20	3.6	0			.27	7.6	.02	2.7	2.0	0	0	14
21	2.0	0			.27	6.4	.02	1.0	3.6	0	0	5.3
22	1.5	0			1.5	4.4	.01	.3	13	0	0	.68
23	.44	0			1.5	3.6	.01	2,730	5.3	0	0	.03
24	.44	0			.44	6.4	0	3,900	16	20	0	.01
25	.27	0			.07	5.3	0	3,380	16	389	0	0
26	.27	0			0	5.3	0	1,140	5.3	242	0	0
27	.68	0			0	6.4	0	149	3.6	131	0	0
28	1.5	0			0	7.6	.27	201	2.7	68	126	0
29	2.0	0			-----	10	.27	626	.14	21	130	0
30	7.5	0			-----	10	.14	2,430	.03	5.3	36	0
31	495	-----			-----	8.8	-----	2,090	-----	.68	7.6	-----
TOTAL	791.50	2,226.71	0	0	410.65	96.28	250.61	17,012.8	896.47	905.00	362.89	3,102.83
MEAN	25.5	74.2	0	0	14.7	3.11	8.35	549	29.9	29.2	11.7	103
MAX	495	1,010	0	0	88	10	99	3,900	420	389	130	780
MIN	0	0	0	0	0	0	0	.10	.03	0	0	0
AC-FT	1,570	4,420	0	0	815	191	497	33,740	1,780	1,800	720	6,150
CAL YR 1974 TOTAL	9,991.17		MEAN 27.4	MAX 1,350	MIN 0	AC-FT 19,820						
WTR YR 1975 TOTAL	26,055.74		MEAN 71.4	MAX 3,900	MIN 0	AC-FT 51,680						

07314900 Little Wichita River above Henrietta, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
17...	1340	10	11	12	3.4	9.6	3.9	62	0	5.0
23...	1315	.35	8.8	14	4.0	13	3.9	62	0	5.2
FEB.										
05...	1405	102	8.4	21	6.1	35	5.3	96	0	13
19...	1245	7.7	6.7	35	11	66	7.0	106	0	11
JUNE										
09...	1105	15	10	25	7.0	25	8.1	99	0	7.0
JULY										
29...	0930	22	9.9	20	5.4	29	8.0	72	0	6.9

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
17...	9.8	--	85	44	0	.6	148	7.5	17.0
23...	18	--	97	51	1	.8	180	7.3	17.5
FEB.									
05...	45	.4	182	78	0	1.7	336	7.4	7.0
19...	130	.3	319	130	46	2.5	630	7.4	13.0
JUNE									
09...	43	.2	174	91	10	1.1	330	7.2	25.0
JULY									
29...	55	.2	170	72	13	1.5	318	7.1	28.0

RED RIVER BASIN

07315200 East Fork Little Wichita River near Henrietta, Tex.

LOCATION.--Lat 33°48'46", long 98°05'05", Clay County, on downstream side of bridge on U.S. Highway 82, 5.8 miles (9.3 km) upstream from Little Wichita River, 6.4 miles (10.3 km) east of Henrietta, and 8.9 miles (14.3 km) west of Ringgold.

DRAINAGE AREA.--178 mi² (461 km²).

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

Water quality: Chemical analyses: October 1965 to September 1968, October 1969 to current year. Sediment records: October 1965 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 825.32 ft (251.558 m) above mean sea level.

AVERAGE DISCHARGE.--11 years (1964-75), 24.0 ft³/s (0.680 m³/s), 17,390 acre-ft/yr (21.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,360 ft³/s (38.5 m³/s) May 30 (gage height, 21.41 ft or 6.526 m); no flow Oct. 13.

Period of record: Maximum discharge, 15,500 ft³/s (439 m³/s) May 12, 1972 (gage height, 28.85 ft or 8.793 m), from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of contracted-opening measurement of 15,500 ft³/s (439 m³/s); no flow for many days most years.

Maximum stage since at least 1920, 28.85 ft (8.793 m) on May 12, 1972. Flood in October 1941 reached a stage of 28.8 ft (8.78 m), from information by local residents.

REMARKS.--Discharge records good. No known diversion above station.

REVISIONS (WATER YEARS).--WRD Texas 1972: 1966(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	517	.17	.06	.92	8.2	14	.27	504	1.1	16	.01
2	.82	446	.16	1.9	138	5.3	7.6	.25	40	.84	5.5	.01
3	.51	111	.15	4.3	266	3.2	4.5	.26	21	.93	3.8	.01
4	.33	2.9	.12	10	293	2.2	2.9	.25	14	1.4	2.5	.01
5	.17	3.3	.12	6.6	321	1.8	2.0	.21	9.4	.57	1.3	.01
6	.07	.60	.12	4.1	223	1.4	1.4	.18	6.6	.38	.99	.01
7	.04	.58	.11	2.2	83	1.1	1.5	.16	4.9	2.3	.72	.01
8	.03	.49	.10	1.4	39	.87	.55	.13	6.8	2.2	.46	.01
9	.02	.48	.10	1.2	25	.79	115	.10	31	1.5	.28	.01
10	.02	.49	.11	1.2	17	.69	39	.15	155	1.3	.16	.01
11	.02	.46	.15	.95	11	.74	17	.87	485	1.1	.09	.01
12	.01	.46	.15	.78	7.4	57	9.1	110	349	.70	.05	.82
13	.01	.46	.19	.66	5.0	21	11	26	26	.45	.04	2.1
14	.17	.40	.17	.59	3.8	9.6	34	50	14	.27	.03	16
15	17	.40	.14	.49	2.4	5.7	28	185	8.0	.18	.06	39
16	11	.40	.11	.38	1.9	5.9	16	30	5.5	.14	1.0	17
17	6.1	.38	.10	.33	1.8	4.3	9.2	10	4.2	.12	1.4	5.0
18	3.0	.38	.12	.30	1.5	3.2	5.4	4.9	3.0	.10	.49	1.5
19	1.5	.38	.10	.24	1.4	2.6	2.9	2.1	2.3	.30	.12	.98
20	1.2	.35	.09	.19	1.3	2.1	1.7	1.4	1.9	.43	.06	.77
21	.98	.35	.08	.15	1.1	2.1	1.1	1.0	1.7	.33	.05	.44
22	.67	.33	.08	.12	119	1.7	.98	1.2	9.1	.30	.04	.26
23	.47	.30	.07	.11	245	1.2	.94	704	19	.22	.03	.12
24	.35	.30	.07	.11	133	.81	.87	728	20	10	.03	.05
25	.24	.30	.06	.10	73	.67	.72	666	9.7	181	.02	.03
26	.17	.28	.06	.08	41	.67	.63	66	7.2	128	.03	.03
27	.12	.30	.07	.08	22	.77	.54	239	3.6	73	.03	.02
28	.19	.46	.06	.08	14	31	.57	444	2.1	14	.03	.02
29	.19	.22	.06	.07	-----	99	.46	746	1.6	11	.02	.01
30	1.5	.19	.06	.06	-----	56	.38	1,240	1.4	107	.02	.01
31	290	-----	.07	.06	-----	25	-----	1,180	-----	98	.01	-----
TOTAL	338.00	1,089.94	3.32	38.89	2,091.52	356.61	384.39	6,523.56	1,767.0	639.16	35.36	84.27
MEAN	10.9	36.3	.11	1.25	74.7	11.5	12.8	210	58.9	20.6	1.14	2.81
MAX	290	517	.19	10	321	99	115	1,240	504	181	16	39
MIN	.01	.19	.06	.06	.92	.67	.38	.10	1.4	.10	.01	.01
AC-FT	670	2,160	6.6	77	4,150	707	762	12,940	3,500	1,270	70	167

CAL YR 1974 TOTAL 2,805.50 MEAN 7.69 MAX 517 MIN 0 AC-FT 5,560
WTR YR 1975 TOTAL 13,352.02 MEAN 36.6 MAX 1,240 MIN .01 AC-FT 26,480

PEAK DISCHARGE (BASE, 300 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	2400	16.52	578	5-30	1600	21.41	1,360
2- 5	1330	13.63	346	6-12	0230	17.25	606
5-23	1330	19.70	946				

07315200 East Fork Little Wichita River near Henrietta, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 23...	1450	.52	12	15	4.3	12	4.8	78	0	5.5
NOV. 27...	1425	.28	14	45	14	62	6.2	186	0	21
JAN. 02...	1315	.58	11	57	20	110	5.6	308	0	58
FEB. 05...	1525	337	12	20	5.9	28	5.2	76	0	12
APR. 30...	1500	.39	9.1	72	34	190	6.3	380	0	52
JUNE 09...	1240	45	16	100	36	170	8.2	256	0	34

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 23...	12	--	104	55	0	.7	181	7.6	17.0
NOV. 27...	95	.2	349	170	17	2.1	633	7.6	10.0
JAN. 02...	120	.5	534	220	0	3.2	956	8.0	9.0
FEB. 05...	43	.4	164	74	12	1.4	296	7.0	7.5
APR. 30...	250	.5	801	320	8	4.6	1470	8.2	22.0
JUNE 09...	360	.3	851	400	190	3.7	1630	8.0	23.0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
FEB. 05...	1530	337	7.5	262	238	84	89	98
MAY 23...	1425	945	20.0	454	1160	--	--	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
FEB. 05...	99	100	57	69	71	80	81
MAY 23...	--	--	--	--	--	--	--

RED RIVER BASIN

07315500 Red River near Terral, Okla.

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, near left bank on downstream side of pier of bridge on U.S. Highway 81, 0.5 mile (0.8 km) downstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, 1.2 miles (1.9 km) south of Terral, 3.6 miles (5.8 km) downstream from Little Wichita River, and at mile 872 (1,403 km).

DRAINAGE AREA.--28,723 mi² (74,393 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

PERIOD OF RECORD.--Discharge: January 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.
Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 770.31 ft (234.790 m) above mean sea level. Prior to Jan. 12, 1939, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--37 years, 2,221 ft³/s (62.90 m³/s), 1,609,000 acre-ft/yr (1.98 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 53,300 ft³/s (1,510 m³/s) May 25 (gage height, 20.85 ft or 6.355 m); minimum, 488 ft³/s (13.8 m³/s) Feb. 1.

Period of record: Maximum discharge, 197,000 ft³/s (5,580 m³/s) June 8, 1941 (gage height, 28.12 ft or 8.571 m); minimum, 43 ft³/s (1.22 m³/s) Mar. 15, 1939.

Historic: Maximum stage since at least 1891, that of June 8, 1941. Flood of May 19, 1935, reached a stage of 27.2 ft (8.29 m); floods in 1891 and May 1, 1908, are reported to have reached about the same stage.

Water quality: Current year: Maximum daily specific conductance, 7,980 micromhos Oct. 20; minimum daily, 450 micromhos May 25. Maximum water temperatures, 29.0°C July 7-9; minimum, freezing point Jan. 13.

Period of record: Maximum daily specific conductance, 10,700 micromhos Apr. 23, 1970; minimum daily, 450 micromhos May 25, 1975. Maximum water temperatures, 32.0°C July 19, 1974; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records good. Some regulation by nine major upstream reservoirs in Oklahoma and Texas with a capacity of 1,402,000 acre-ft (1.73 km³). Many small diversions for irrigation, oilfield, and municipal uses upstream from station.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,050	15,800	759	594	640	2,020	1,060	1,190	32,500	2,830	13,500	1,180
2	2,540	14,400	737	668	2,130	1,850	1,090	857	20,900	2,220	9,020	1,070
3	2,120	10,100	698	861	2,830	1,640	990	1,080	10,500	2,090	6,380	1,000
4	1,690	6,480	688	3,250	5,470	1,930	779	620	5,770	1,870	5,290	931
5	1,470	11,100	694	3,460	9,510	1,780	896	935	3,810	1,900	4,740	872
6	1,300	10,300	686	2,130	8,080	1,330	917	820	2,790	1,860	3,710	936
7	1,280	5,690	666	1,490	6,410	1,190	696	651	2,350	2,050	2,930	838
8	1,440	3,540	657	1,240	4,680	1,120	4,440	551	2,200	2,180	2,550	785
9	1,450	3,250	653	1,080	3,530	1,080	4,540	762	2,790	2,000	2,310	767
10	1,420	4,120	656	1,010	2,950	1,050	2,840	1,290	3,380	1,880	2,210	751
11	1,390	3,210	665	926	2,140	1,040	2,180	2,490	8,260	1,690	2,070	718
12	1,360	2,530	673	1,140	1,770	1,540	1,900	3,830	14,000	1,770	1,830	1,220
13	1,320	2,400	735	966	1,630	2,680	1,910	2,180	9,710	1,870	1,670	1,600
14	1,370	2,170	723	744	1,480	2,530	2,000	1,390	6,880	1,740	1,580	2,230
15	1,430	1,850	737	662	1,390	1,480	1,690	1,340	4,180	1,990	1,570	4,770
16	1,500	1,610	723	631	1,300	1,160	1,400	2,240	2,620	2,200	1,980	6,950
17	1,390	1,480	699	624	1,280	1,070	1,220	3,130	2,130	1,640	9,660	4,770
18	1,320	1,330	678	609	1,220	1,160	1,030	2,620	1,620	1,320	8,310	2,760
19	1,780	1,230	654	598	1,220	3,290	915	2,380	1,300	1,150	6,340	1,920
20	1,590	1,140	633	568	1,230	2,530	853	1,580	1,130	1,140	3,530	1,570
21	1,440	1,110	602	564	1,210	1,600	812	1,120	1,080	1,550	2,650	1,340
22	1,190	1,070	583	560	1,860	1,810	745	1,460	1,070	1,860	2,280	1,170
23	947	992	596	571	5,790	1,470	695	24,700	20,400	1,480	2,100	1,040
24	856	956	578	597	7,880	1,150	663	42,500	29,800	1,620	1,810	949
25	835	915	568	574	5,860	983	638	49,000	30,800	3,290	1,620	880
26	890	880	570	549	3,470	868	651	36,700	24,100	22,900	1,570	831
27	1,510	845	563	540	2,540	833	663	24,400	18,900	34,300	1,900	788
28	3,590	813	552	522	2,360	968	850	14,900	8,660	40,400	3,180	748
29	4,540	796	545	513	-----	1,690	1,500	20,900	4,540	47,400	2,610	716
30	7,490	780	543	496	-----	2,060	1,670	37,500	3,610	27,700	1,810	681
31	9,530	-----	575	508	-----	1,240	-----	43,100	-----	17,100	1,390	-----
TOTAL	65,028	112,887	20,089	29,245	91,860	48,142	42,233	328,216	281,780	236,990	114,100	46,781
MEAN	2,098	3,763	648	943	3,281	1,553	1,408	10,590	9,393	7,645	3,681	1,559
MAX	9,530	15,800	759	3,460	9,510	3,290	4,540	49,000	32,500	47,400	13,500	6,950
MIN	835	780	543	496	640	833	638	551	1,070	1,140	1,390	681
AC-FT	129,000	223,900	39,850	58,010	182,200	95,490	83,770	651,000	558,900	470,100	226,300	92,790
CAL YR 1974	TOTAL	619,895	MEAN	1,698	MAX	32,900	MIN	175	AC-FT	1,230,000		
WTR YR 1975	TOTAL	1,417,351	MEAN	3,883	MAX	49,000	MIN	496	AC-FT	2,811,000		

PEAK DISCHARGE (BASE, 21,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-25	0100	20.85	53,300	6-25	0900	18.00	31,500
5-31	0400	20.00	45,800	7-29	1300	20.46	49,800

07315500 Red River near Terral, Okla.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 31...	0800	9000	9.3	89	21	260	5.9	122	0	170
NOV. 20...	1205	1140	13	350	80	1100	9.2	261	0	850
DEC. 31...	0815	900	5.8	340	100	1000	8.9	272	0	910
JAN. 29...	0930	519	5.3	320	100	970	10	266	0	880
FEB. 28...	0915	2900	8.1	220	73	660	11	180	0	540
MAR. 12...	1220	1830	7.8	260	82	700	7.6	247	0	630
APR. 23...	1005	693	7.5	300	91	990	9.2	219	0	870
MAY 31...	0850	45000	10	40	7.8	48	6.4	120	0	37
JUNE 25...	1040	31500	10	89	16	170	8.0	124	0	170
JULY 31...	1215	17800	12	69	18	130	6.4	147	0	130
AUG. 27...	1050	1760	11	230	62	570	8.8	170	0	570
SEP. 30...	1130	620	9.6	250	91	910	13	152	0	670

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 31...	410	--	1030	310	210	6.4	1880	7.9	18.0
NOV. 20...	1700	.4	4230	1200	990	14	6560	8.1	13.0
DEC. 31...	1700	.5	4200	1300	1000	12	6730	8.0	6.0
JAN. 29...	1600	.7	4020	1200	990	12	6460	7.9	8.0
FEB. 28...	1100	.4	2700	850	700	9.9	4490	7.7	9.0
MAR. 12...	1100	.5	2910	990	780	9.7	4820	8.1	8.0
APR. 23...	1600	.5	3980	1100	940	13	6500	7.6	19.5
MAY 31...	74	.2	283	130	34	1.8	527	7.9	20.0
JUNE 25...	270	.4	795	290	190	4.4	1440	7.6	25.0
JULY 31...	180	--	618	250	130	3.6	1130	7.5	28.5
AUG. 27...	880	--	2420	830	690	8.6	4110	7.5	26.0
SEP. 30...	1400	.6	3420	1000	870	13	5910	7.9	22.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	65028	4780	2900	509000	1200	211000	630	111000	890
NOV. 1974.....	112887	3080	1900	579000	750	229000	390	119000	580
DEC. 1974.....	20089	6800	4100	222000	1700	92200	920	49900	1300
JAN. 1975.....	29245	5210	3200	253000	1300	103000	690	54500	970
FEB. 1975.....	91860	3750	2300	570000	910	226000	490	122000	700
MAR. 1975.....	48142	4340	2600	338000	1100	143000	570	74100	810
APR. 1975.....	42233	4060	2500	285000	990	113000	530	60400	760
MAY 1975.....	328216	826	460	408000	190	168000	73	64700	160
JUNE 1975.....	281780	1670	980	746000	400	304000	190	145000	320
JULY 1975.....	236990	1850	1100	704000	440	282000	220	141000	350
AUG. 1975.....	114100	2870	1700	524000	690	213000	360	111000	540
SEPT 1975.....	46781	3850	2300	291000	940	119000	500	63200	720
TOTAL	1417351	**	**	5430000	**	2200000	**	1120000	**
WTD.AVG.	3883.15	2370	1400	**	580	**	290	**	450

RED RIVER BASIN

07315500 Red River near Terral, Okla.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3010	1560	6850	6540	6100	4500	4560	3670	656	3490	1300	4500
2	3360	1490	6610	6310	3140	4810	5580	4380	1090	3790	1530	4630
3	3750	1870	6470	5980	2780	5100	5290	4960	1700	3920	1970	4770
4	4290	2160	6550	4140	2590	4170	4720	5280	2090	4060	2190	5260
5	4740	3140	6850	2370	2200	4030	4700	3620	2300	4170	2680	5630
6	5260	3020	6840	2880	1950	4830	3780	3910	2490	3940	2690	5660
7	5640	2140	6780	4340	2990	5280	4850	4500	2830	4620	3280	4770
8	5560	2340	6530	5180	3890	5540	1440	4870	2730	4650	3480	5480
9	5670	3040	6490	6310	4100	5720	2160	5270	2670	4850	3810	5480
10	5620	2950	6610	6820	4150	5890	3330	5040	2240	5560	3970	5510
11	5600	3610	6450	6520	4740	5840	3300	1880	1620	7370	4130	5600
12	5810	4080	6450	5710	5440	3780	6090	1720	1070	6150	4120	4320
13	5850	4280	6360	4620	5750	3830	6160	1800	1030	5500	4200	3410
14	5570	4830	6350	6130	5990	2900	5290	2250	1230	4960	4290	3470
15	5820	6020	6390	6770	6330	4060	3350	2980	1720	4710	4360	3070
16	5320	6710	6320	6770	6500	4800	3920	2250	3610	5970	3730	1890
17	5070	6710	6430	6540	6710	5100	3800	1440	3460	5720	4270	2230
18	5490	6500	6740	6460	6500	4820	3930	1940	3210	4520	2420	2460
19	6190	6400	7250	6670	6370	2210	4490	1860	3640	4260	2720	3660
20	7980	6560	7470	6810	6230	3010	4910	2080	3750	4270	2640	4480
21	7880	6340	7750	6230	6390	4330	5880	2160	3860	4190	2820	4980
22	7370	6420	7580	6460	6310	5510	6170	3170	3450	3330	3670	5630
23	7770	6900	7460	6550	5020	5940	6370	545	1350	3280	3860	5800
24	7770	7000	7540	6420	2320	4700	6370	624	930	4210	4120	5750
25	7360	6700	7130	6340	3510	5100	6140	450	1430	2520	4360	5800
26	7180	6790	7090	6700	4180	5450	5910	477	1680	2230	4480	5750
27	6750	7200	6870	6510	4430	5700	5740	602	3700	1050	4110	5670
28	7180	6940	6870	6420	4550	5090	4800	1020	2750	1080	3340	5800
29	6330	6780	6800	6460	---	4190	3830	1070	3050	1040	2460	5850
30	2430	6930	6750	6310	---	3050	3790	681	3230	1010	3010	5740
31	1870	---	6730	6200	---	4300	---	527	---	1130	4070	---
MONTH	5660	4910	6820	5950	4680	4630	4690	2480	2350	3920	3360	4770

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	17.0	8.0	5.0	7.0	11.0	18.0	18.0	20.0	28.0	27.0	28.0
2	18.0	15.0	7.0	6.0	7.0	10.0	12.0	20.0	21.0	25.0	28.0	28.0
3	18.0	19.0	4.0	4.0	7.0	7.0	14.0	18.0	24.0	27.0	28.0	28.0
4	18.0	16.0	6.0	4.0	7.0	9.0	10.0	20.0	23.0	27.0	28.0	28.0
5	19.0	14.0	8.0	5.0	6.0	13.0	13.0	21.0	25.0	26.0	28.0	27.0
6	19.0	13.0	10.0	5.0	5.0	16.0	16.0	22.0	27.0	27.0	28.0	25.0
7	18.0	14.0	8.0	6.0	4.0	11.0	16.0	24.0	27.0	29.0	28.0	24.0
8	17.0	12.0	6.0	7.0	5.0	9.0	16.0	22.0	25.0	29.0	27.0	24.0
9	17.0	12.0	3.0	8.0	4.0	9.0	18.0	23.0	23.0	29.0	27.0	25.0
10	19.0	14.0	5.0	7.0	2.0	9.0	16.0	22.0	24.0	28.0	27.0	26.0
11	20.0	12.0	5.0	4.0	6.0	8.0	16.0	21.0	22.0	27.0	27.0	27.0
12	21.0	11.0	6.0	3.0	6.0	8.0	14.0	22.0	22.0	26.0	27.0	21.0
13	21.0	11.0	7.0	0.0	8.0	8.0	12.0	22.0	24.0	27.0	27.0	18.0
14	18.0	10.0	9.0	4.0	9.0	8.0	16.0	21.0	24.0	27.0	27.0	17.0
15	15.0	9.0	5.0	8.0	8.0	7.0	20.0	19.0	25.0	26.0	28.0	18.0
16	15.0	9.0	4.0	4.0	5.0	8.0	21.0	19.0	27.0	26.0	27.0	19.0
17	16.0	9.0	4.0	5.0	4.0	9.0	24.0	20.0	25.0	26.0	26.0	19.0
18	18.0	10.0	6.0	4.0	5.0	14.0	21.0	21.0	26.0	26.0	26.0	22.0
19	17.0	10.0	5.0	6.0	4.0	16.0	15.0	23.0	25.0	27.0	28.0	23.0
20	16.0	11.0	6.0	4.0	8.0	18.0	16.0	22.0	25.0	27.0	28.0	20.0
21	16.0	11.0	7.0	4.0	9.0	18.0	21.0	22.0	26.0	28.0	28.0	24.0
22	15.0	12.0	6.0	4.0	7.0	19.0	19.0	24.0	24.0	28.0	28.0	17.0
23	16.0	17.0	11.0	5.0	5.0	17.0	21.0	20.0	25.0	28.0	28.0	17.0
24	18.0	11.0	8.0	7.0	5.0	24.0	20.0	21.0	25.0	28.0	28.0	17.0
25	17.0	9.0	4.0	8.0	8.0	16.0	23.0	20.0	26.0	25.0	26.0	17.0
26	18.0	9.0	4.0	8.0	9.0	12.0	25.0	23.0	26.0	25.0	25.0	17.0
27	19.0	8.0	4.0	9.0	10.0	18.0	22.0	23.0	26.0	25.0	24.0	17.0
28	17.0	9.0	7.0	9.0	9.0	9.0	17.0	22.0	26.0	27.0	25.0	18.0
29	18.0	7.0	---	9.0	---	6.0	20.0	21.0	27.0	28.0	25.0	20.0
30	19.0	2.0	7.0	8.0	---	10.0	20.0	21.0	28.0	27.0	26.0	22.0
31	18.0	---	6.0	7.0	---	13.0	---	20.0	---	27.0	28.0	---
MONTH	17.5	11.5	6.0	5.5	6.5	12.0	17.5	21.0	25.0	27.0	27.0	22.0

RED RIVER BASIN

189

07315950 Moss Lake near Gainesville, Tex.

LOCATION.--Lat 33°46'26", long 97°12'52", Cooke County, at upstream side of outlet tower near right end of dam on Fish Creek, 1.6 miles (2.6 km) upstream from Bearhead Creek, 3.7 miles (6.0 km) upstream from mouth, and 11 miles (18 km) northwest of Gainesville.

DRAINAGE AREA.--65 mi² (168 km²).

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

Water quality: Chemical analyses: October 1969 to current year.

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

EXTREMES.--Current year: Maximum contents, 32,960 acre-ft (40.6 hm³) Oct. 31 (elevation, 722.63 ft or 220.258 m); minimum, 22,800 acre-ft (28.0 hm³) Sept. 13 (elevation, 714.54 ft or 217.792 m).

Period of record: Maximum contents, 32,960 acre-ft (40.6 hm³) Oct. 31, 1974 (elevation, 722.63 ft or 220.258 m); minimum since lake first filled in May 1968, 20,800 acre-ft (25.6 hm³) Oct. 20, 1972 (elevation, 712.77 ft or 217.252 m).

REMARKS.--The lake is formed by a rolled earthfill dam 1,460 ft (445 m) long. The dam was completed and storage began Dec. 2, 1966. An uncontrolled morning-glory type spillway with a 7- by 7-foot (2- by 2-metre) opening is designed to discharge 2,500 ft³/s (70.8 m³/s) at a 10-foot (3-metre) head. The emergency spillway is a 400-foot-wide (120-metre) cut through natural ground located about 100 ft (30 m) to the left of the left end of dam. The dam was built by the city of Gainesville to impound water for municipal use. Area and capacity tables are based on a 1961 survey. There was no diversion from the lake during the current water year. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	740.0	-
Top of design flood pool.....	736.0	55,230
Crest of spillway.....	725.0	36,440
Crest of spillway (top of conservation pool).....	715.0	23,210
Lowest gated outlet (invert).....	666.0	78

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

714.0	22,110	720.0	29,340
716.0	24,360	722.0	32,070
718.0	26,770	723.0	33,490

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23,280	27,460	23,070	23,190	23,780	23,300	23,520	23,120	23,500	22,990	23,020	22,940
2	23,230	25,190	23,070	23,220	23,840	23,270	23,420	23,130	23,380	22,980	23,010	22,920
3	23,180	24,060	23,080	23,240	23,840	23,260	23,360	23,130	23,300	23,010	23,010	22,900
4	23,130	23,800	23,090	23,230	23,800	23,240	23,300	23,130	23,230	23,010	22,990	22,890
5	23,100	23,680	23,100	23,210	23,680	23,220	23,270	23,130	23,200	23,000	22,980	22,880
6	23,080	23,540	23,120	23,210	23,580	23,220	23,270	23,130	23,170	22,980	22,960	22,850
7	23,070	23,440	23,130	23,200	23,490	23,200	23,500	23,120	23,120	22,970	22,950	22,840
8	23,060	23,380	23,130	23,180	23,420	23,170	24,190	23,110	23,730	22,960	22,920	22,810
9	23,060	23,440	23,120	23,190	23,370	23,200	23,840	23,110	23,580	22,960	22,910	22,800
10	23,040	23,960	23,120	23,160	23,340	23,180	23,640	23,100	23,530	22,960	22,890	22,790
11	23,030	23,750	23,180	23,140	23,300	23,190	23,510	23,100	23,410	22,950	22,860	22,770
12	23,030	23,590	23,180	23,120	23,280	23,200	23,410	23,090	23,320	22,920	22,820	22,730
13	23,020	23,470	23,180	23,120	23,230	23,210	23,380	23,130	23,260	22,910	22,790	22,730
14	23,060	23,390	23,170	23,120	23,220	23,200	23,350	23,140	23,210	22,890	22,770	22,740
15	23,040	23,340	23,160	23,120	23,200	23,220	23,300	23,130	23,160	22,880	22,840	22,910
16	23,030	23,300	23,130	23,110	23,200	23,300	23,280	23,110	23,120	22,860	22,840	22,920
17	23,030	23,270	23,140	23,110	23,190	23,760	23,270	23,100	23,090	22,840	23,010	22,910
18	23,030	23,230	23,120	23,130	23,170	24,100	23,220	23,090	23,040	22,810	23,190	22,900
19	23,020	23,210	23,120	23,130	23,160	23,810	23,200	23,080	23,030	22,820	23,160	22,890
20	23,010	23,190	23,100	23,100	23,140	23,620	23,180	23,060	23,020	22,820	23,110	22,880
21	23,000	23,180	23,090	23,090	23,130	23,500	23,170	23,060	23,010	22,810	23,070	22,860
22	23,000	23,160	23,110	23,090	23,450	23,420	23,170	23,040	23,110	22,820	23,040	22,840
23	23,000	23,140	23,120	23,090	23,440	23,350	23,180	23,600	23,090	22,810	23,020	22,820
24	23,010	23,120	23,120	23,100	23,430	23,280	23,190	23,450	23,090	22,840	23,000	22,790
25	23,020	23,120	23,120	23,110	23,420	23,240	23,180	23,340	23,080	22,850	22,960	22,780
26	23,030	23,100	23,120	23,100	23,370	23,230	23,180	23,320	23,040	23,200	23,000	22,770
27	23,030	23,100	23,130	23,100	23,340	23,750	23,190	23,370	23,030	23,170	22,990	22,760
28	23,170	23,100	23,140	23,090	23,320	24,710	23,180	23,970	23,030	23,120	22,990	22,740
29	23,160	23,090	23,160	23,090	-----	24,140	23,170	24,290	23,020	23,100	22,970	22,730
30	28,200	23,080	23,170	23,090	-----	23,830	23,140	23,920	23,010	23,070	22,960	22,730
31	32,750	-----	23,190	23,210	-----	23,620	-----	23,660	-----	23,040	22,950	-----
(†)	722.48	714.88	714.98	715.00	715.10	715.36	714.94	715.39	714.82	714.85	714.76	714.56
(*)	+9,400	-9,670	+110	+20	+110	+300	-480	+520	-650	+30	-90	-220
MAX	32,750	27,460	23,190	23,240	23,840	24,710	24,190	24,290	23,730	23,200	23,190	22,940
MIN	23,000	23,080	23,070	23,090	23,130	23,170	23,140	23,040	23,010	22,810	22,770	22,730

CAL YR 1974..... * +100

WTR YR 1975..... * -620

MAX 32,750

MIN 21,480

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

RED RIVER BASIN

07315950 Moss Lake near Gainesville, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
DEC., 1974									
17...	1445	9.1	48	3.1	9.4	3.2	156	0	12

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH
DEC., 1974								
17...	11	.1	173	130	5	.4	306	8.1

07316000 Red River near Gainesville, Tex.

LOCATION.--Lat 33°43'40", long 97°09'35", in SW¼ sec. 36, T.9 S., R.1 E., Love County, Okla., near center of span on downstream side of bridge on U.S. Highway 77, 0.2 mile (0.3 km) downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 5.0 miles (8.0 km) downstream from Fish Creek, 7.0 miles (11.0 km) north of Gainesville, and at mile 791.5 (1,273.5 km).

DRAINAGE AREA.--30,782 mi² (79,725 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

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

Water quality: Chemical analyses: May 1944 to April 1946, October 1952 to September 1963, October 1966 to current year. Pesticide analyses: April 1968 to current year. Water temperatures: October 1952 to September 1963, October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 627.91 ft (191.387 m) above mean sea level. Prior to Jan. 17, 1939, and Feb. 13, 1965, to Nov. 14, 1966, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--39 years, 2,785 ft³/s (78.87 m³/s), 2,018,000 acre-ft/yr (2.49 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 57,700 ft³/s (1,630 m³/s) May 26 (gage height, 21.23 ft or 6.471 m); minimum, 728 ft³/s (20.6 m³/s) Dec. 31 to Jan. 2, Jan. 29-31.

Period of record: Maximum discharge, 168,000 ft³/s (4,760 m³/s) June 9, 1941 (gage height, 24.15 ft or 7.361 m); maximum gage height, 26.53 ft (8.086 m) May 21, 1951; minimum discharge, 48 ft³/s (1.36 m³/s) Jan. 27, 1940.

Water quality: Current year: Maximum daily specific conductance, 7,500 micromhos Oct. 26; minimum daily, 479 micromhos May 27.

Period of record: Maximum daily specific conductance, 11,100 micromhos July 16, 1972; minimum daily, 176 micromhos Nov. 4, 1958. Maximum water temperatures, 35.0°C July 13, 1954; minimum, freezing point on many days during winter months.

REMARKS.--Discharge records good. Flow slightly regulated by Lake Kemp (station 07312000), since 1943 by Lake Altus, since 1946 by Lake Kickapoo (station 07314000), and since 1967 by Lake Arrowhead (station 07314800) and Moss Lake (station 07315950).

COOPERATION.--Gage-height record and 35 discharge measurements furnished by the Corps of Engineers; records computed by the Geological Survey.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5490	21900	970	729	1240	2440	3270	2080	49000	5350	20000	1770
2	4220	21700	947	768	1410	2270	2150	2170	42600	4120	17100	1430
3	3190	15400	928	989	1810	2110	1810	1760	23000	3350	12300	1380
4	2670	12200	906	1310	3690	2020	1710	1330	11900	2830	8290	1150
5	2270	11800	892	1440	6310	1980	1540	1110	7750	2470	7000	1070
6	2030	13000	878	3040	11100	2020	1390	1040	5830	2220	5700	1020
7	1830	12000	876	2820	9080	1910	1480	1150	4580	2130	5000	967
8	1700	7930	864	2030	6640	1570	3570	1210	4330	2020	4090	932
9	1620	5630	853	1590	5090	1470	6290	1060	4730	2110	3560	929
10	1620	5890	840	1440	4040	1390	8920	950	11800	2230	3180	911
11	1630	7130	841	1330	3310	1360	7420	1360	11700	2060	2910	894
12	1620	5810	869	1250	2740	1340	5350	3880	17500	1960	2650	861
13	1600	3870	862	1160	2230	2040	3330	3350	19800	1790	2440	883
14	1570	3230	862	1250	1960	3640	2590	3750	14100	1760	2240	1270
15	1660	2830	862	1190	1750	3700	2520	3100	9680	1820	2230	2250
16	1640	2540	862	1000	1680	3090	2460	2280	5660	1780	2280	3910
17	1750	2260	862	905	1590	2150	2200	1990	3800	1840	2400	6700
18	1720	2030	862	875	1500	3760	1890	2440	2930	2110	5810	6730
19	1560	1810	871	841	1460	6210	1690	2890	2360	1720	10100	4540
20	1460	1680	852	804	1420	7230	1540	2630	1940	1480	7130	3020
21	1620	1570	832	797	1370	6750	1430	2580	1640	1320	4970	2140
22	1600	1460	815	780	2110	4390	1350	2270	1480	1270	3490	1720
23	1490	1410	801	760	4050	2500	1310	8740	1510	1340	2820	1490
24	1310	1340	797	755	7720	2230	1280	38500	17100	1680	2370	1320
25	1160	1250	772	755	8740	1960	1220	54700	36100	1660	2020	1200
26	1070	1200	762	755	7330	1940	1170	56200	40600	2080	1850	1110
27	1060	1140	757	755	4710	2270	1130	46200	30700	17600	1770	1030
28	1120	1100	751	749	3030	5310	1100	27500	20100	34100	1610	961
29	3560	1060	746	739	---	6520	1130	17800	10800	41100	1820	912
30	7170	1020	735	728	---	6370	1420	27500	7440	45000	3020	859
31	22000	---	728	904	---	4770	---	42800	---	35600	2570	---
TOTAL	86010	173190	26055	35238	109110	98710	75660	366320	422460	229900	154720	55359
MEAN	2775	5773	840	1137	3897	3184	2522	11820	14080	7416	4991	1845
MAX	22000	21900	970	3040	11100	7230	8920	56200	49000	45000	20000	6730
MIN	1060	1020	728	728	1240	1340	1100	950	1480	1270	1610	859
AC-FT	170600	343500	51680	69890	216400	195800	150100	726600	837900	456000	306900	109800
CAL YR 1974 TOTAL	858834		MEAN	2353	MAX	37400	MIN	183	AC-FT	1703000		
WTR YR 1975 TOTAL	1832732		MEAN	5021	MAX	56200	MIN	728	AC-FT	3635000		

RED RIVER BASIN

07316000 Red River near Gainesville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 31...	1805	22000	10	55	7.3	53	4.5	148	0	55
NOV. 06...	1000	13000	10	68	13	150	5.3	125	0	110
DEC. 31...	1750	728	6.5	270	92	730	7.3	298	0	650
FEB. 25...	1510	8740	7.8	140	43	420	8.1	172	0	290
MAR. 12...	0810	1340	9.6	230	69	560	6.8	303	0	480
APR. 25...	0800	1220	8.2	240	73	630	8.0	231	0	590
MAY 31...	2015	42800	9.8	45	11	65	6.2	133	0	52
JULY 31...	1920	35600	12	72	16	120	6.9	144	0	140
AUG. 05...	1310	7000	11	110	29	220	7.5	180	0	230
SEP. 30...	1940	859	11	230	80	780	10	154	0	590

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 31...	73	--	331	170	46	1.8	602	7.9	20.0
NOV. 06...	250	.2	668	220	120	4.4	1210	7.4	16.0
DEC. 31...	1300	.4	3200	1100	810	9.8	5230	8.1	11.5
FEB. 25...	690	.5	1680	530	390	8.0	2970	7.4	8.0
MAR. 12...	910	.5	2420	860	610	8.3	4060	7.8	--
APR. 25...	1000	.4	2660	900	710	9.1	4350	7.5	22.0
MAY 31...	98	.2	353	160	49	2.3	640	8.0	23.0
JULY 31...	190	.3	628	250	130	3.3	1100	7.9	28.0
AUG. 05...	350	--	1050	390	250	4.8	1840	7.7	29.5
SEP. 30...	1300	1.5	3080	900	780	11	5210	7.5	29.0

07316000 Red River near Gainesville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 16...	0930	--	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 25...	1510	8.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 17...	1300	--	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 05...	1310	29.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL LINDANE (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL PCB (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
OCT. 16...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 25...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
JUNE 17...	.00	.0	.0	.01	.00	.00	.00	.04	.00	.05
AUG. 05...	.00	.0	.0	.00	.00	.00	.00	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	86010	3130	1900	441000	720	167000	390	90600	580
NOV. 1974.....	173190	2020	1200	561000	440	206000	240	112000	390
DEC. 1974.....	26055	5390	3300	232000	1300	91500	680	47800	980
JAN. 1975.....	35238	4400	2700	257000	1100	105000	550	52300	800
FEB. 1975.....	109110	2640	1600	471000	600	177000	320	94300	490
MAR. 1975.....	98710	2330	1400	373000	520	139000	280	74600	440
APR. 1975.....	75660	2340	1400	286000	520	106000	280	57200	440
MAY 1975.....	366320	830	440	435000	130	129000	88	87000	180
JUNE 1975.....	422460	1250	700	798000	230	262000	140	160000	250
JULY 1975.....	229900	2000	1200	745000	430	267000	240	149000	380
AUG. 1975.....	154720	2290	1300	543000	510	213000	280	117000	430
SEPT 1975.....	55359	3270	2000	299000	760	114000	410	61300	610
TOTAL	1832732	**	**	5440000	**	1980000	**	1100000	**
WTD.AVG.	5021.18	1880	1100	**	400	**	220	**	360

RED RIVER BASIN

07316000 Red River near Gainesville, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	1000	5400	5180	2300	3480	1860	3290	600	2840	1060	2820
2	2170	1030	5460	2680	2200	3520	2010	3280	660	2880	1120	2930
3	2620	1170	5510	3000	2200	3640	2210	3320	974	2990	1340	3670
4	2900	1600	5540	3450	2060	3800	2460	3360	820	3120	1640	3920
5	3180	1800	5500	4010	1960	3940	2700	3660	712	3240	1900	4390
6	3460	2040	5460	3870	1880	4300	2910	3920	1100	3460	2250	4420
7	3820	2100	5400	3600	1820	3630	3110	4360	1630	3640	2470	4480
8	4140	2290	5320	3420	1750	3000	1730	3420	2050	3960	2740	4550
9	4440	1760	5230	3100	2660	2450	1750	3480	1800	4040	2910	4640
10	4820	1430	5490	3800	3000	3200	1020	3410	1000	4180	3140	4750
11	4960	1230	4680	4300	3370	4040	1200	2780	960	5000	3370	4690
12	5100	1680	4720	4890	3320	4310	1410	1540	1020	5260	3650	4710
13	5250	2300	4760	4350	3710	3560	2070	1440	1240	5650	3710	4730
14	5300	2950	4800	5500	4020	2510	2740	1640	1020	6300	3760	3810
15	4950	3410	4980	5100	4240	2650	2760	1830	877	5900	3850	3100
16	5000	3560	5270	4660	4050	1800	2800	1920	1160	4920	3800	2840
17	4750	4200	4880	4290	4560	1790	2780	2020	1390	5200	3710	2300
18	4500	4850	5240	4960	4780	1730	2810	1860	2280	5670	3600	2210
19	4720	5000	5330	5460	4890	1670	4010	1720	3150	6000	2620	2050
20	5000	5150	5520	5460	5300	1630	3170	1890	3120	4900	2000	2400
21	5210	5020	5700	5250	5380	1910	3170	2020	3080	4480	2300	2700
22	6200	5020	5940	5430	3350	1500	3470	2040	3000	4110	2630	3120
23	7420	5100	6000	5420	2600	3240	3760	1270	2920	4200	2650	4090
24	7390	5090	6060	5380	2370	3480	4190	721	1330	4240	3120	4460
25	7400	5080	6110	5320	2970	3850	4480	487	991	3700	3710	4680
26	7500	5400	5220	5250	1960	3310	4700	482	1270	3600	3720	4900
27	7400	5560	5830	5270	2490	2160	4640	479	1950	2500	3740	5260
28	4920	5420	5700	5300	2920	1160	4560	572	2460	1600	3970	5240
29	3370	5400	5530	5320	---	1280	4490	605	2820	1000	4250	5260
30	2100	5300	5560	5340	---	1540	4350	1000	2580	1060	4150	5220
31	700	---	5220	5000	---	1720	---	640	---	1100	2610	---
MONTH	4590	3430	5400	4620	3150	2770	2980	2090	1670	3890	2950	3940

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	---	---	7.0	10.0	15.0	---	22.0	---	30.0	---	---
2	22.0	21.0	---	10.0	9.0	---	---	---	---	---	---	32.0
3	22.0	21.0	9.5	---	10.0	---	13.5	---	23.0	---	28.5	32.0
4	---	---	9.0	9.0	11.0	---	---	24.0	---	30.0	---	---
5	---	---	---	11.0	---	15.0	---	---	23.0	---	29.0	32.0
6	23.5	16.0	---	8.0	8.0	13.0	---	25.0	---	---	---	---
7	21.5	---	---	---	---	15.0	15.0	25.0	24.0	34.0	---	---
8	23.0	16.0	7.0	---	8.0	---	19.0	25.0	25.0	34.0	---	---
9	23.0	---	7.0	13.0	6.0	11.5	18.0	25.5	---	35.0	---	---
10	23.0	16.0	7.0	11.0	---	---	19.0	25.0	23.0	---	---	32.0
11	---	---	9.0	---	11.5	---	---	25.0	---	---	29.0	31.0
12	---	---	10.0	3.0	15.0	---	---	25.0	---	---	29.0	---
13	23.0	16.0	10.0	4.5	---	9.0	15.0	24.0	24.5	---	---	31.0
14	---	16.0	---	5.0	14.0	10.0	16.0	---	---	34.0	29.0	---
15	19.0	12.0	8.5	---	11.5	10.5	---	26.0	25.0	30.0	29.5	30.0
16	20.0	12.0	8.0	---	9.5	11.0	---	---	26.0	30.0	---	28.0
17	---	12.0	9.0	8.0	10.5	---	---	24.0	---	---	---	---
18	20.5	13.0	9.0	9.5	11.0	---	22.0	---	27.0	30.0	30.0	27.0
19	21.0	17.0	9.5	8.5	12.0	16.0	22.0	28.0	28.0	30.0	30.0	29.0
20	---	15.0	---	13.0	13.0	17.0	23.0	25.0	---	---	---	---
21	20.0	15.0	---	9.0	16.0	18.0	22.0	26.5	---	32.0	---	28.0
22	---	20.0	11.0	9.0	8.0	20.0	20.0	25.0	28.0	32.0	30.0	---
23	20.5	---	---	11.0	---	---	21.5	23.0	27.0	32.0	31.0	29.0
24	20.5	---	---	---	7.0	18.0	24.0	23.0	27.0	29.0	31.0	29.0
25	---	13.0	7.0	---	8.0	17.0	23.0	23.0	27.0	27.0	31.0	---
26	---	13.0	7.0	16.0	9.0	13.0	22.0	---	28.0	---	---	---
27	---	12.0	8.5	17.0	13.0	18.0	---	23.0	28.5	---	28.5	30.0
28	20.0	---	---	17.0	13.0	17.0	---	22.0	---	---	29.0	---
29	21.0	---	---	13.0	---	---	22.0	24.0	31.0	---	29.0	29.0
30	---	5.5	---	15.0	---	---	22.0	23.0	31.0	29.0	30.0	29.0
31	20.0	---	11.5	11.0	---	13.0	---	23.0	---	28.0	32.0	---
MONTH	---	---	---	---	10.5	---	---	---	---	---	---	---

07316200 Mineral Creek near Sadler, Tex.

LOCATION.--Lat 33°42'08", long 96°50'51", Grayson County, on right bank at downstream side of bridge on Farm Road 901, 1.4 miles (2.3 km) north of Sadler, and 2.0 miles (3.2 km) upstream from Mustang Creek.

DRAINAGE AREA.--26.0 mi² (67.3 km²).

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

Water quality: Chemical analyses: January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 650.00 ft (198.120 m) above mean sea level.

AVERAGE DISCHARGE.--7 years (1968-75), 12.4 ft³/s (0.351 m³/s), 6.48 in/yr (165 mm/yr), 8,980 acre-ft/yr (11.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,360 ft³/s (66.8 m³/s) Oct. 31 (gage height, 13.97 ft or 4.258 m); no flow for many days.
Period of record: Maximum discharge, 2,360 ft³/s (66.8 m³/s) Oct. 31, 1974 (gage height, 13.97 ft or 4.258 m); no flow at times each year.

Maximum stage since about 1900, about 18 ft (5.5 m) in 1922, from information by local residents.

REMARKS.--Discharge records fair. The city of Whitesboro discharged 173 acre-ft (213,000 m³) of sewage effluent into a tributary above the station during the 1975 water year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	36	2.9	3.6	303	6.4	5.0	4.0	3.4	4.0	.27	0
2	1.3	14	2.6	22	94	5.6	4.0	4.8	2.9	3.7	.31	0
3	1.2	10	2.4	15	78	5.4	3.4	4.9	2.5	20	.31	0
4	1.2	111	2.1	5.5	44	5.5	3.2	4.5	2.2	11	.24	0
5	1.2	20	1.8	4.1	31	5.4	3.0	4.3	2.1	4.6	.21	0
6	1.1	14	1.5	3.3	15	5.4	3.1	4.3	2.0	4.1	.18	0
7	1.1	11	1.5	3.1	11	5.1	9.0	4.1	1.9	3.3	.18	0
8	1.1	9.9	1.7	2.9	10	4.7	453	4.0	15	2.7	.15	0
9	1.1	14	1.8	2.8	8.1	5.3	22	4.0	21	2.4	.15	0
10	1.1	285	4.0	5.0	7.4	6.1	12	3.9	6.2	1.8	.08	.09
11	1.1	34	12	3.7	7.0	5.2	9.9	3.9	2.9	1.5	.03	.03
12	1.1	14	5.2	2.8	6.3	48	8.3	4.4	2.0	1.3	.02	0
13	1.1	9.0	4.0	2.6	6.2	98	7.8	4.3	1.9	1.1	.01	0
14	1.8	6.6	3.4	2.5	6.1	21	7.4	8.0	1.9	1.1	.01	.17
15	1.3	5.4	3.2	2.5	6.0	50	6.5	7.3	1.7	.94	.03	.21
16	1.1	4.6	2.9	2.5	6.1	128	5.9	4.4	1.6	.88	.15	.17
17	1.1	4.1	2.8	2.5	6.0	23	5.7	3.8	1.6	.88	.13	.09
18	1.1	3.6	2.8	2.4	5.8	321	5.5	3.8	1.5	.82	.21	.06
19	1.1	3.4	2.7	2.4	5.5	16	5.0	3.7	1.5	.70	.07	.03
20	1.1	3.3	2.9	2.4	5.4	8.0	5.1	3.6	1.5	.70	.04	.03
21	1.1	3.3	3.0	2.4	5.4	5.8	4.9	3.9	1.5	.65	0	.01
22	1.0	3.2	3.1	2.3	5.7	4.6	5.0	3.7	2.0	.65	.01	.04
23	1.0	3.2	2.9	2.3	7.0	4.3	5.1	22	256	.60	.01	.02
24	1.0	3.2	2.8	2.3	10	3.5	5.1	7.0	153	.82	0	0
25	1.2	3.1	2.6	2.3	8.3	3.2	4.8	4.6	9.2	1.4	0	0
26	1.1	3.1	3.0	2.2	6.3	4.3	4.5	3.7	6.4	.94	.03	0
27	1.1	3.1	3.0	2.3	5.6	225	4.3	20	5.4	.70	.10	0
28	4.5	3.1	3.0	2.2	6.5	303	4.4	59	5.0	.55	.04	0
29	1.9	3.1	3.1	2.2	-----	20	4.3	55	5.0	.50	.02	0
30	260	3.1	3.0	2.2	-----	11	4.2	24	4.1	.44	0	0
31	1,380	-----	4.0	279	-----	5.9	-----	4.9	-----	.35	0	-----
TOTAL	1,677.5	644.4	97.7	395.3	716.7	1,363.7	631.4	297.8	524.9	75.12	2.99	.95
MEAN	54.1	21.5	3.15	12.8	25.6	44.0	21.0	9.61	17.5	2.42	.097	.032
MAX	1,380	285	12	279	303	321	453	59	256	20	.31	.21
MIN	1.0	3.1	1.5	2.2	5.4	3.2	3.0	3.6	1.5	.35	0	0
CFSM	2.08	.83	.12	.49	.98	1.69	.81	.37	.67	.09	.004	.001
IN	2.40	.92	.14	.57	1.03	1.95	.90	.43	.75	.11	.004	.001
AC-FT	3,330	1,280	194	784	1,420	2,700	1,250	591	1,040	149	5.9	1.9
CAL YR 1974	TOTAL 5,149.39	MEAN 14.1	MAX 1,380	MIN 0	CFSM .54	IN 7.37	AC-FT 10,210					
WTR YR 1975	TOTAL 6,428.46	MEAN 17.6	MAX 1,380	MIN 0	CFSM .68	IN 9.20	AC-FT 12,750					

PEAK DISCHARGE (BASE, 1,400 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
10-31	0700	13.97	2,360
4-8	0415	12.74	1,530
6-23	2400	12.87	1,600

RED RIVER BASIN

07316200 Mineral Creek near Sadler, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
DEC. 17...	1250	2.9	13	88	23	86	4.1	224	0	120
APR. 24...	1200	5.2	13	100	27	86	4.8	234	0	180
MAY 28...	1530	47	7.5	25	6.2	18	4.4	76	0	26
JULY 16...	1400	.85	6.9	99	24	110	6.2	310	0	150
AUG. 26...	1115	.02	14	79	19	180	8.5	456	0	88

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC. 17...	120	.3	565	310	130	2.1	1000	7.5	6.5
APR. 24...	130	.3	656	360	170	2.0	1100	7.7	20.0
MAY 28...	27	.3	152	88	26	.8	281	7.0	22.0
JULY 16...	120	.4	669	350	92	2.6	1150	7.8	28.0
AUG. 26...	130	--	743	280	0	4.7	1290	7.8	24.5

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDEO SEDI- MENT (MG/L)	SUS- PENDEO SEDI- MENT DIS- CHARGE (T/DAY)
DEC. 17...	1250	2.9	6.5	5	.04
APR. 24...	1210	5.2	20.0	11	.15

RED RIVER BASIN

07331500 Lake Texoma near Denison, Tex.

LOCATION.--Lat 33°49'05", long 96°34'20", in NE¼ sec. 33, T.8 S., R.7 E., Bryan County, Okla., in control tower of Denison Dam on Red River, 1.2 miles (1.9 km) upstream from Shawnee Creek, 1.8 miles (2.9 km) upstream from Sand Creek, 4.0 miles (6.4 km) northwest of Denison, and at mile 725.9 (1,168.0 km).

DRAINAGE AREA.--39,719 mi² (102,872 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

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

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

EXTREMES.--Current year: Maximum contents, 3,327,000 acre-ft (4.10 km³) Nov. 4 (elevation, 623.15 ft or 189.936 m); minimum, 2,662,000 acre-ft (3.28 km³) Sept. 29, 30 (elevation, 616.18 ft or 187.812 m).

Period of record: Maximum contents, 5,991,300 acre-ft (7.39 km³) June 5, 1957 (elevation, 643.18 ft or 196.041 m); minimum since power pool was first filled, 1,565,100 acre-ft (1.93 km³) Sept. 16, 1964; minimum elevation, 599.96 ft (182.868 m) Mar. 1, 2, 1957.

REMARKS.--The lake is formed by a rolled earthfill dam. Flow was diverted through conduits July 27, 1942; regulated storage began Oct. 31, 1943; power pool was first filled Mar. 15, 1945. Capacity is based on 1962 survey, 5,392,900 acre-ft (6.65 km³) at elevation 640.0 ft (195.07 m), crest of spillway, 2,733,300 acre-ft (3.37 km³) at elevation 617.0 ft (188.06 m), maximum power pool, 1,049,200 acre-ft (1.29 km³) at elevation 590.0 ft (179.83 m), minimum power pool, in Denison pool. Dead storage, 11,000 acre-ft (13.6 hm³) at elevation 610.0 ft (185.93 m) in Cumberland pool. When contents are below 2,167,900 acre-ft (2.67 km³), the lake is divided into two pools by protective levees around the Cumberland oilfield on the Washita River arm with bottom of outlet channel for the upper pool (known as Cumberland pool) at elevation 610.0 ft (185.93 m). At higher elevations the two pools are considered as being at a common level, contents being computed from gage in the Denison pool. Figures given herein represent contents of both pools. The lake is used principally for flood control and power development. A revised capacity table, based on a survey in 1962, has been used since Oct. 1, 1963.

COOPERATION.--Records furnished by Corps of Engineers.

REVISIONS.--WSP 1211: Drainage area.

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

616.0	2,646,000	622.0	3,209,000
618.0	2,822,000	623.0	3,311,000
620.0	3,010,000	624.0	3,416,000

CONTENTS, IN ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2839000	3171000	2813000	2758000	2804000	2859000	2859000	2705000	3099000	2804000	2930000	2738000
2	2817000	3263000	2794000	2762000	2815000	2846000	2846000	2718000	3104000	2795000	2903000	2731000
3	2809000	3320000	2780000	2763000	2825000	2839000	2822000	2740000	3067000	2789000	2870000	2724000
4	2795000	3318000	2768000	2760000	2830000	2826000	2806000	2755000	3007000	2786000	2845000	2718000
5	2793000	3297000	2770000	2762000	2846000	2814000	2794000	2765000	2957000	2782000	2840000	2716000
6	2794000	3261000	2774000	2761000	2859000	2804000	2783000	2770000	2921000	2778000	2837000	2715000
7	2786000	3221000	2764000	2767000	2867000	2792000	2779000	2774000	2906000	2771000	2833000	2716000
8	2778000	3177000	2757000	2769000	2874000	2778000	2807000	2775000	2919000	2775000	2824000	2713000
9	2769000	3155000	2747000	2769000	2866000	2769000	2813000	2773000	2919000	2780000	2815000	2710000
10	2756000	3169000	2743000	2768000	2858000	2766000	2824000	2772000	2928000	2789000	2803000	2704000
11	2750000	3181000	2741000	2765000	2852000	2758000	2825000	2770000	2948000	2795000	2792000	2702000
12	2745000	3174000	2742000	2761000	2840000	2761000	2822000	2766000	2966000	2801000	2778000	2696000
13	2742000	3147000	2739000	2747000	2828000	2768000	2817000	2765000	2969000	2807000	2762000	2696000
14	2747000	3104000	2745000	2744000	2817000	2774000	2810000	2766000	2950000	2807000	2751000	2699000
15	2742000	3068000	2747000	2744000	2804000	2782000	2799000	2761000	2918000	2803000	2742000	2710000
16	2740000	3051000	2746000	2742000	2807000	2793000	2787000	2754000	2888000	2798000	2757000	2709000
17	2741000	3029000	2738000	2740000	2804000	2791000	2775000	2754000	2874000	2793000	2759000	2704000
18	2741000	3006000	2736000	2745000	2801000	2810000	2769000	2753000	2861000	2786000	2755000	2707000
19	2743000	3000000	2738000	2749000	2802000	2818000	2753000	2755000	2856000	2789000	2759000	2706000
20	2744000	2983000	2734000	2744000	2801000	2828000	2737000	2758000	2846000	2793000	2760000	2702000
21	2743000	2971000	2738000	2745000	2802000	2837000	2729000	2765000	2836000	2786000	2762000	2699000
22	2742000	2953000	2739000	2743000	2818000	2836000	2723000	2768000	2827000	2779000	2760000	2694000
23	2740000	2948000	2746000	2740000	2838000	2831000	2720000	2792000	2814000	2773000	2754000	2686000
24	2740000	2931000	2749000	2742000	2849000	2822000	2718000	2835000	2836000	2780000	2748000	2677000
25	2736000	2914000	2746000	2745000	2859000	2809000	2707000	2896000	2850000	2784000	2742000	2670000
26	2741000	2899000	2744000	2746000	2868000	2794000	2691000	2985000	2867000	2785000	2742000	2662000
27	2745000	2882000	2747000	2751000	2869000	2822000	2678000	3051000	2870000	2807000	2748000	2663000
28	2757000	2864000	2749000	2751000	2866000	2859000	2681000	3076000	2865000	2851000	2746000	2663000
29	2766000	2850000	2751000	2749000	---	2873000	2692000	3070000	2836000	2883000	2741000	2662000
30	2844000	2833000	2754000	2749000	---	2878000	2700000	3057000	2811000	2914000	2740000	2663000
31	3079000	---	2758000	2786000	---	2873000	---	3071000	---	2943000	2738000	---
(†)	620.70	618.12	617.28	617.59	618.48	618.56	616.62	620.62	617.88	619.30	617.05	616.20
(*)	+216000	-246000	-75000	+28000	+80000	+7000	-173000	+371000	-260000	+132000	-205000	-75000
MAX	3079000	3320000	2813000	2786000	2874000	2878000	2859000	3076000	3104000	2943000	2930000	2738000
MIN	2736000	2833000	2734000	2740000	2801000	2758000	2678000	2705000	2811000	2771000	2738000	2662000
CAL YR 1974.....	* -32000				MAX	3320000	MIN 2459000					
WTR YR 1975.....	* -200000				MAX	3320000	MIN 2662000					

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

RED RIVER BASIN

199

07331600 Red River at Denison Dam near Denison, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 33°49'08", long 96°33'47", Grayson County, on right bank 1,800 ft (549 m) downstream from Denison Dam powerhouse, 0.4 mile (0.6 km) upstream from Shawnee Creek (spillway flow return), 4.5 miles (7.2 km) north of Denison, and at mile 725.5 (1,167.3 km).

DRAINAGE AREA.--39,720 mi² (102,880 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing. At site used prior to October 1961, drainage area 39,777 mi² (103,022 km²), of which 5,936 mi² (15,374 km²) was probably noncontributing.

PERIOD OF RECORD.--Discharge: October 1923 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1934, published as "near Denison, Tex.," and October 1934 to September 1961, published as "near Colbert, Okla." Gage-height records collected at various sites in this vicinity 1892-93, 1906-28, 1931-49 are contained in reports of the National Weather Service.
Water quality: Chemical analyses: May 1944 to current year. Water temperatures: October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft (152.400 m) above mean sea level. See WSP 1920 for history of changes prior to October 1961.

AVERAGE DISCHARGE.--52 years, 4,851 ft³/s (137 m³/s), 3,515,000 acre-ft/yr (4.33 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 55,600 ft³/s (1,570 m³/s) June 3 (gage height, 20.39 ft or 6.215 m); minimum daily, 77 ft³/s (2.18 m³/s) Oct. 27.

Period of record: Maximum discharge, 201,000 ft³/s (5,690 m³/s) May 21, 1935 (gage height, 31.8 ft or 9.69 m, at site and datum then in use); maximum gage height, 32.0 ft (9.75 m) Apr. 25, 1942 (at site and datum used in 1943); minimum daily discharge, 12 ft³/s (0.34 m³/s) Jan. 10, 1944.

Historic: Flood of May 26, 1908, reached a stage of 45.5 ft (13.87 m) at site and datum used July 29, 1942, to Sept. 30, 1961, from records of the National Weather Service.

Water quality: Current year: Maximum daily specific conductance, 1,560 micromhos Oct. 11, 12, 14; minimum daily, 1,110 micromhos July 29, 30.

Period of record: Maximum daily specific conductance (1944-69, 1972-75), 3,520 micromhos Aug. 14, 1944; minimum daily, 656 micromhos Oct. 16, 1945. Maximum water temperatures (1945-69), 31.0°C July 17, 1969; minimum, 3.0°C Feb. 2-4, 7, 1966.

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

COOPERATION.--Gage-height record and 19 discharge measurements furnished by the Corps of Engineers; records computed by the Geological Survey.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22200	5760	11100	731	4740	10400	16200	95	41000	13000	32000	2470
2	16100	10800	10600	4000	4660	10400	16000	530	48000	10600	31700	5210
3	10600	17900	7920	5260	5030	10400	16100	244	55100	10600	31300	4830
4	10600	32600	7130	5750	8300	10400	13300	3070	50300	6330	25800	5050
5	5580	37700	2960	3850	8460	10500	10600	5380	39400	6280	13300	4510
6	5170	42200	3080	4690	8980	10500	10800	5370	30000	5920	10900	329
7	6530	42100	5940	2880	10700	10400	10900	5330	16400	5950	11000	121
8	6640	38700	4650	2850	10700	10500	11400	5360	16400	1970	11000	2340
9	7000	32000	6070	4540	10700	10600	10800	5360	18900	178	10400	3620
10	7500	25000	6570	4440	10700	5130	10800	5370	17500	2100	10300	3580
11	5250	10900	4070	4520	10700	7490	10800	5390	11300	900	10400	2620
12	5160	15400	2570	5050	10800	4960	10800	5440	15800	111	10500	2370
13	4290	24700	3600	7740	10800	5480	10800	7380	26100	106	10100	2240
14	5170	27100	912	4470	10800	4950	10800	11100	32400	4000	9850	188
15	2900	22500	754	3210	10800	7020	10900	11500	31800	4610	9590	3650
16	2340	16800	2820	2660	4110	8450	10900	11700	27500	4620	4760	6950
17	2430	16700	4940	2660	3960	10800	10900	5960	19000	4630	4630	7310
18	2600	15100	4600	151	4770	10600	10900	6820	14100	5400	6550	6850
19	309	11000	1420	94	746	10500	10900	4980	11300	300	7560	6150
20	84	11000	2760	2240	3200	10500	11100	3810	11300	650	6990	4700
21	2150	11000	149	2650	3190	10500	8220	3630	11300	5400	6030	4660
22	2560	11100	585	2880	3840	10500	5270	4030	11300	4200	6550	4650
23	2800	11000	771	2480	4880	10500	5310	9400	11300	4500	6320	4660
24	2420	11000	1130	2470	7640	10400	5300	20700	11300	2500	4780	4650
25	5010	11000	765	154	10400	10500	7250	27000	17900	3300	5390	4660
26	408	11100	3050	91	10400	10700	10600	33200	29500	7360	3820	4450
27	77	11100	164	960	10400	10900	10700	37500	31400	7260	2680	196
28	736	11100	1150	1760	10400	11600	2740	41900	26600	12000	4550	983
29	2730	11100	1840	2470	---	10800	93	41900	27200	26300	4890	2460
30	5860	11000	1250	2770	---	10600	112	41500	22100	31700	4490	2350
31	6710	---	750	3240	---	12800	---	40900	---	32000	4010	---
TOTAL	159914	566460	106070	93711	214806	299780	291295	411849	733500	224775	322140	108807
MEAN	5159	18880	3422	3023	7672	9670	9710	13290	24450	7251	10390	3627
MAX	22200	42200	11100	7740	10800	12800	16200	41900	55100	32000	32000	7310
MIN	77	5760	149	91	746	4950	93	95	11300	106	2680	121
AC-FT	317200	1124000	210400	185900	426100	594600	577800	816900	1455000	445800	639000	215800
CAL YR 1974 TOTAL	1890723			MEAN 5180	MAX 42200	MIN 70	AC-FT 3750000					
WTR YR 1975 TOTAL	3533107			MEAN 9680	MAX 55100	MIN 77	AC-FT 7008000					

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
15...	1630	2900	.7	85	22	200	6.3	144	0	190	310	--
NOV.												
05...	1500	37700	.8	83	24	190	4.8	154	0	170	300	--
DEC.												
03...	1430	7920	2.5	78	21	160	4.7	131	0	150	250	.2
JAN.												
08...	1500	2850	3.4	75	22	160	5.4	136	0	150	250	.2
FEB.												
25...	1700	10400	4.0	77	22	160	4.9	147	0	160	250	.2
MAR.												
25...	1630	10500	4.2	88	27	170	6.6	162	0	170	290	.3
APR.												
24...	1400	5300	4.6	92	25	170	4.9	170	0	180	260	.2
MAY												
13...	1625	7380	4.9	92	22	160	4.9	174	0	170	250	.3
JUNE												
17...	1630	19000	5.3	82	25	140	4.8	176	0	150	210	.3
JULY												
22...	1500	4200	5.2	72	22	130	5.6	167	0	130	200	.3
AUG.												
05...	1700	13300	5.5	76	22	140	6.1	150	0	140	210	.2
SEP.												
23...	1615	4660	5.6	74	23	130	9.0	146	0	140	200	.3

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.												
15...	.02	.01	--	--	.65	.02	941	886	300	190	5.0	1550
NOV.												
05...	.06	.04	.04	.82	.86	.05	901	849	310	180	4.7	1520
DEC.												
03...	.13	.00	.03	.50	.53	.02	779	731	280	170	4.2	1340
JAN.												
08...	.11	.01	.09	.50	.59	.02	764	733	280	170	4.2	1320
FEB.												
25...	.14	.01	.03	.43	.46	.03	803	752	280	160	4.1	1360
MAR.												
25...	.09	.01	.08	.29	.37	.03	863	836	330	200	4.1	1450
APR.												
24...	.14	.01	.09	.30	.39	.02	859	821	330	190	4.1	1430
MAY												
13...	.13	.01	.08	.05	.13	.02	827	790	320	180	3.9	1410
JUNE												
17...	.18	.01	.05	.53	.58	.03	739	705	310	160	3.5	1230
JULY												
22...	.07	.01	.04	.58	.62	.06	684	647	270	130	3.4	1120
AUG.												
05...	.04	.01	.04	.43	.47	.05	755	675	280	160	3.6	1230
SEP.												
23...	.01	.01	.04	.49	.53	.05	630	654	280	160	3.4	1210

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL PHYTO- PLANK- TON (CELLS PER ML)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.											
15...	7.9	21.0	3	8.2	91	1.2	7200	92	6	2	6.0
NOV.											
05...	7.8	19.0	4	10.1	107	1.3	18000	3000	210	150	--
DEC.											
03...	8.0	13.0	1	9.6	91	1.1	22000	72	0	6	--
JAN.											
08...	7.7	10.0	2	10.8	96	.3	5100	40	0	2	--
FEB.											
25...	7.8	9.0	2	11.8	102	1.1	3900	8	0	5	6.1
MAR.											
25...	8.1	11.0	2	11.5	104	1.3	1500	8	2	0	--
APR.											
24...	7.9	14.5	1	10.8	105	.5	270	15	0	4	--
MAY											
13...	7.7	17.5	2	8.2	85	.8	3700	750	300	160	--
JUNE											
17...	7.6	14.5	4	4.9	48	1.4	2400	210	40	83	4.4
JULY											
22...	7.3	26.0	2	2.1	26	.3	6600	180	34	74	--
AUG.											
05...	7.5	26.0	1	2.0	24	.8	28000	21	6	7	3.4
SEP.											
23...	7.8	24.0	2	8.0	94	1.2	28000	88	2	6	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
OCT. 15...	1630	10	4	2	160	<10	0	0	0	<50
FEB. 25...	1700	<10	2	1	130	10	0	0	0	<50
JUNE 17...	1630	30	2	3	120	<10	0	0	10	<50
AUG. 05...	1700	10	3	3	120	<10	0	10	0	<50

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
OCT. 15...	0	<10	0	260	80	<100	2	0	50
FEB. 25...	2	20	3	160	20	<100	0	10	10
JUNE 17...	0	10	1	350	50	<100	1	0	30
AUG. 05...	0	<10	3	20	10	<100	0	10	160

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 15...	0	.0	.0	0	0	0	1000	50	20
FEB. 25...	0	.0	.0	1	1	0	750	30	10
JUNE 17...	0	.1	.0	3	1	1	1000	80	0
AUG. 05...	140	.0	.0	0	0	0	860	10	10

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

OCT. 15, 1974 TIME 1630

NOV. 5, 1974 TIME 1500

PHYTOPLANKTON 7,200 CELLS/ML

PHYTOPLANKTON 18,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT	ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			CHLOROPHYTA		
..CHLOROPHYCEAE			..CHLOROPHYCEAE		
...CHLOROCOCCALES			...CHLOROCOCCALES		
...COELASTRACEAE			...COELASTRACEAE		
...COELASTRUM	460	6	...COELASTRUM	1,900	11
...OCCYSTACEAE			...HYDRODICTYACEAE		
...ANKISTRODESMUS	86	1	...PEDIASTRUM	490	3
...KIRCHNERIELLA	57	1	...OCCYSTACEAE		
...OCCYSTIS	570	8	...ANKISTRODESMUS	3,000	17
...TETRAEDRON	170	2	...CHODATELLA		0
...SCENEDESMACEAE			...OCCYSTIS	1,400	8
...CRUCIGENIA	230	3	...TETRAEDRON		0
...SCENEDESMUS	1,100	15	...TREUBARIA		0
...TETRASTRUM	110	2	...SCENEDESMACEAE		
CHRYSTOPHYTA			...CRUCIGENIA	1,600	9
..BACILLARIOPHYCEAE			...SCENEDESMUS	240	1
..CENTRALES			CHRYSTOPHYTA		
...COSCINODISCACEAE			..BACILLARIOPHYCEAE		
...CYCLOTELLA	86	1	..CENTRALES		
...MELOSIRA	290	4	...COSCINODISCACEAE		
..PENNALES			...CYCLOTELLA	610	3
...ACHNANTHACEAE			..PENNALES		
...ACHNANTHES	57	1	...ACHNANTHACEAE		
CYANOPHYTA			...COCCONEIS	120	1
..MYXOPHYCEAE			...NAVICULACEAE		
..CHROOCOCCALES			...NAVICULA	240	1
...CHROOCOCCACEAE			CYANOPHYTA		
...AGMENELLUM	460	6	..MYXOPHYCEAE		
...OSCILLATORIALES			..CHROOCOCCALES		
...NOSTOCACEAE			...CHROOCOCCACEAE		
...ANABAENA	340	5	...AGMENELLUM	2,900	16
...OSCILLATORIAEAE			...ANACYSTIS	550	3
...LYNGBYA	3,200	44	...OSCILLATORIALES		
			...NOSTOCACEAE		
			...ANABAENA	970	5
			...OSCILLATORIAEAE		
			...OSCILLATORIA	3,600	20

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

DEC. 3, 1974 TIME 1430

PHYTOPLANKTON 22,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...COELASTRACEAE		
...COELASTRUM	630	3
...OCCYSTACEAE		
...ANKISTRODESMUS		0
...KIRCHNERIELLA		0
...OOCYSTIS	780	4
...TETRAEDRON		0
...SCENEDESMACEAE		
...ACTINASTRUM	630	3
...CRUCIGENIA	1,100	5
...SCENEDESMUS	740	3
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS		0
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...COSCINODISCUS	550	3
..PENNALES		
...ACHNANTHACEAE		
...ACHNANTHES	270	1
...FRAGILARIACEAE		
...SYNEDRA		0
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
...AGMENELLUM	3,800	17
...ANACYSTIS	700	3
...OSCILLATORIALES		
...NOSTOCACEAE		
...ANABAENA	7,700	36
...OSCILLATORIAEAE		
...OSCILLATORIA	4,600	21

JAN. 8, 1975 TIME 1500

PHYTOPLANKTON 5,100 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	110	2
...OOCYSTIS	65	1
...TETRAEDRON	65	1
...SCENEDESMACEAE		
...CRUCIGENIA	390	8
...SCENEDESMUS	180	4
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS		0
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	65	1
..PENNALES		
...ACHNANTHACEAE		
...RHOILOCOSPHENIA		
...EUNOTIACEAE		
...EUNOTIA		0
...FRAGILARIACEAE		
...SYNEDRA	65	1
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
...ANACYSTIS	32	1
...OSCILLATORIALES		
...OSCILLATORIAEAE		
...OSCILLATORIA	4,100	80

FEB. 25, 1975 TIME 1700

PHYTOPLANKTON 3,900 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	280	7
...OOCYSTIS	160	4
...SCENEDESMACEAE		
...CRUCIGENIA	160	4
...SCENEDESMUS	81	2
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	2,600	66
..PENNALES		
...ACHNANTHACEAE		
...ACHNANTHES	41	1
...NITZSCHIAEAE		
...NITZSCHIA	41	1
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
...OSCILLATORIAEAE		
...OSCILLATORIA	530	14

MAR. 25, 1975 TIME 1630

PHYTOPLANKTON 1,500 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	66	5
...OOCYSTIS	89	6
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS	160	11
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...CYMBELLACEAE		
...CYMBELLA	11	1
...FRAGILARIACEAE		
...SYNEDRA	33	2
...GOMPHONEMATACEAE		
...GOMPHONEMA	11	1
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
...AGMENELLUM	350	24
...ANACYSTIS	190	13
...OSCILLATORIALES		
...OSCILLATORIAEAE		
...OSCILLATORIA	550	38

APR. 24, 1975 TIME 1400

PHYTOPLANKTON 270 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	20	7
...SCENEDESMACEAE		
...CRUCIGENIA	80	30
...SCENEDESMUS	40	15
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	20	7
..PENNALES		
...ACHNANTHACEAE		
...ACHNANTHES	10	4
...COCCONEIS	10	4
...RHOILOCOSPHENIA	10	4
...CYMBELLACEAE		
...CYMBELLA	10	4
...FRAGILARIACEAE		
...SYNEDRA	10	4
...GOMPHONEMATACEAE		
...GOMPHONEMA	10	4
...NITZSCHIAEAE		
...NITZSCHIA	50	19

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

MAY 13, 1975 TIME 1625

PHYTOPLANKTON 3,700 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...COELASTRACEAE		
....COELASTRUM	610	17
...OCCYSTACEAE		
....OCCYSTIS	270	7
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	34	1
....MELOSIRA	670	18
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	34	1
....RHODOSPHENIA	67	2
...CYMBELLACEAE		
....CYMBELLA	67	2
...NAVICULACEAE		
....NAVICULA	300	8
...NITZSCHACEAE		
....NITZSCHIA	300	8
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....GOMPHOSPHAERIA	1,300	35
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....PHACUS	34	1

JUNE 17, 1975 TIME 1630

PHYTOPLANKTON 2,400 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...CHARACIACEAE		
....SCHROEDERIA	66	3
...COELASTRACEAE		
....COELASTRUM	460	19
...SCENEDESMACEAE		
....SCENEDESMUS	200	8
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	930	38
....MELOSIRA	230	10
..PENNALES		
...NAVICULACEAE		
....NAVICULA	66	3
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....GOMPHOSPHAERIA	460	19

JULY 22, 1975 TIME 1500

PHYTOPLANKTON 6,700 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM		0
...OCCYSTACEAE		
....ANKISTRODESMUS	82	1
....DICTYOSPHAERIUM		0
....OCCYSTIS	160	2
...SCENEDESMACEAE		
....SCENEDESMUS	820	12
..VOLVOCALES		
...PHACOTACEAE		
....PHACOTUS	41	1
...VOLVOCAEAE		
....PANDORINA		0
...ZYGEMATALES		
...DESMIDIACEAE		
....COSMARUM		0
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....COSCINODISCUS	160	2
....CYCLOTELLA	490	7
..PENNALES		
...FRAGILARIACEAE		
....FRAGILARIA	41	1
...NITZSCHACEAE		
....NITZSCHIA	370	6
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	330	5
....ANACYSTIS	330	5
...OSCILLATORIALES		
....NOSTOCACEAE		
....ANABAENA	980	15
...OSCILLATORIACEAE		
....LYNGBYA	2,500	37
....OSCILLATORIA		0
...RIVULARIACEAE		
....RIVULARIA	370	6
PYRRHOPHYTA		
..DINOPHYCEAE		
...GYMNODINIALES		
....GYMNODINIACEAE		
....GYMNODINIUM	41	1

RED RIVER BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

AUG. 5, 1975 TIME 1700

PHYTOPLANKTON 28,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS		0
...SCENEDESMACEAE		
....CRUCIGENIA	490	2
...SCENEDESMUS		0
...VOLVOCALES		
...VOLVOCAEAE		
....PANDORINA		0
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA		0
...PENNALES		
...NAVICULACEAE		
....NAVICULA		0
...NITZSCHIAEAE		
....NITZSCHIA		0
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA		0
....APHANIZOMENON	4,400	16
....CYLINDROSPERMUM	3,700	13
...OSCILLATORIAEAE		
....LYNGBYA	13,000	46
...OSCILLATORIA	2,200	8
...PHORMIDIUM	4,400	16
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
...EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS		0
PYRRHOPHYTA		
..DINOPHYCEAE		
...PERIDINIALES		
...GLENODINIAEAE		
....GLENODINIUM		0

SEP. 23, 1975 TIME 1615

PHYTOPLANKTON 29,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....SELENASTRUM	240	1
....TETRAEDRON	240	1
...SCENEDESMACEAE		
....SCENEDESMUS	490	2
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	490	2
..ZYGEMATALES		
...DESMIDIACEAE		
....CLOSTERIUM	240	1
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	1,700	6
...PENNALES		
...FRAGILARIACEAE		
....FRAGILARIA	240	1
...NAVICULACEAE		
....NAVICULA	240	1
...NITZSCHIAEAE		
....NITZSCHIA	490	2
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENEILLUM	18,000	62
....ANACYSTIS	980	3
...OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENOPSIS	2,000	7
...OSCILLATORIAEAE		
....OSCILLATORIA	3,700	13

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT.						
15...	1630	2900	21.0	5	39	84
NOV.						
05...	1500	37700	19.0	7	713	76
DEC.						
03...	1430	7920	13.0	4	86	95
JAN.						
08...	1500	2850	10.0	4	31	70
FEB.						
25...	1700	10400	9.0	6	168	94
MAR.						
25...	1630	10500	11.0	3	85	89
APR.						
24...	1400	5300	14.5	4	57	95
MAY						
13...	1625	7380	17.5	14	279	84
JUNE						
17...	1630	19000	14.5	18	923	89
JULY						
22...	1500	4200	26.0	9	102	98
AUG.						
05...	1700	13300	26.0	5	180	82
SEP.						
23...	1615	4660	24.0	10	126	72

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

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1974.....	159914	1530	860	371000	290	125000	180	77700	320
NOV. 1974.....	566460	1470	830	1270000	280	428000	170	260000	310
DEC. 1974.....	106070	1360	760	218000	250	71600	150	43000	290
JAN. 1975.....	93711	1320	740	187000	240	60700	150	38000	290
FEB. 1975.....	214806	1370	770	447000	250	145000	160	92800	290
MAR. 1975.....	299780	1440	810	656000	270	219000	160	130000	300
APR. 1975.....	291295	1460	820	645000	280	220000	170	134000	310
MAY 1975.....	411849	1390	780	867000	260	289000	160	178000	300
JUNE 1975.....	733500	1320	740	1470000	240	475000	150	297000	290
JULY 1975.....	224775	1160	640	388000	200	121000	130	78900	260
AUG. 1975.....	322140	1240	690	600000	220	191000	140	122000	270
SEPT 1975.....	108807	1260	700	206000	230	67600	140	41100	280
TOTAL	3533107	**	**	7320000	**	2410000	**	1490000	**
WTD.AVG.	9679.74	1370	770	**	250	**	160	**	290

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C); WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	1520	1370	1320	1340	1370	1460	1460	1390	1140	1160	1350
2	1510	1520	1360	1310	1340	1370	1460	1460	1400	1140	1160	1360
3	1510	1520	1340	1310	1350	1380	1440	1450	1420	1140	1170	1320
4	1520	1530	1350	1310	1350	1380	1440	1450	1460	1160	1170	1350
5	1530	1520	1350	1310	1350	1400	1440	1440	1410	1180	1200	1310
6	1540	1520	1400	1310	1350	1480	1450	1440	1380	1210	1220	1310
7	1550	1500	1400	1320	1360	1470	1440	1440	1380	1250	1310	1320
8	1540	1510	1380	1320	1360	1450	1450	1430	1390	1270	1290	1320
9	1540	1510	1360	1320	1370	1440	1450	1430	1390	1310	1290	1350
10	1550	1500	1360	1320	1380	1440	1450	1420	1370	1250	1300	1350
11	1560	1460	1370	1330	1370	1440	1450	1420	1340	1290	1300	1320
12	1560	1460	1360	1330	1370	1430	1450	1410	1330	1270	1240	1350
13	1550	1460	1360	1320	1370	1430	1460	1410	1340	1260	1270	1310
14	1560	1440	1350	1320	1360	1430	1460	1420	1300	1250	1270	1280
15	1550	1450	1350	1320	1370	1440	1460	1390	1270	1180	1230	1250
16	1550	1440	1350	1320	1370	1460	1460	1390	1230	1180	1250	1210
17	1550	1420	1360	1270	1360	1480	1540	1400	1260	1170	---	1190
18	1540	1410	1350	1290	1360	1460	1520	1430	1250	1180	---	1190
19	1550	1420	1340	1310	1360	1450	1500	1460	1210	1190	---	1220
20	1540	1400	1340	1300	1370	1450	1480	1440	1220	1200	---	1210
21	1540	1400	1340	1290	1370	1450	1450	1420	1200	1220	---	1200
22	1530	1390	1340	1310	1380	1450	1440	1450	1200	1220	---	1200
23	1530	1400	1340	1300	1380	1450	1450	1420	1190	1220	---	1190
24	1530	1390	1340	1310	1380	1460	1460	1400	1190	1220	---	1200
25	1530	1400	1340	1320	1370	1450	1460	1390	1190	1160	1310	1220
26	1530	1400	1340	1320	1380	1450	1450	1370	1170	1160	1290	1220
27	1530	1390	1330	1320	1370	1450	1450	1350	1160	1160	1310	1230
28	1540	1380	1340	1330	1360	1430	1440	1370	1160	1160	1290	1220
29	1530	1370	1340	1330	---	1440	1460	1370	1150	1110	1310	1230
30	1540	1370	1350	1330	---	1440	1460	1370	1150	1110	1320	1240
31	1530	---	1320	1330	---	1450	---	1380	---	1160	1330	---
MONTH	1540	1450	1350	1310	1360	1440	1460	1420	1200	1200	---	1270

RED RIVER BASIN

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

[illegible]

RED RIVER BASIN

207

07332600 Bois d'Arc Creek near Randolph, Tex.

LOCATION.--Lat 33°28'32", Long 96°12'52", Fannin County, on right bank at downstream side of bridge on State Highway 11, 2.3 miles (3.7 km) upstream from Henson Creek, and 2.4 miles (3.9 km) east of Randolph.

DRAINAGE AREA.--72 mi² (186 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 564.38 ft (172.023 m) above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--12 years (1963-75), 64.7 ft³/s (1.832 m³/s), 12.20 in/yr (310 mm/yr), 46,880 acre-ft/yr (57.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 13,000 ft³/s (368 m³/s) Oct. 31 (gage height, 22.28 ft or 6.791 m); no flow Sept. 6-30.
Period of record: Maximum discharge, 13,000 ft³/s (368 m³/s) Dec. 9, 1971, and Oct. 31, 1974 (gage height, 22.28 ft or 6.791 m);
maximum gage height, 22.31 ft (6.800 m) Dec. 9, 1971; no flow at times most years.
Maximum stage since at least 1922, 24.6 ft (7.50 m) about 1935, from information by State Highway Department and local resident.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	286	52	63	4,520	102	42	11	21	3.0	1.3	.06
2	16	88	50	93	354	55	42	89	15	2.8	1.1	.04
3	15	65	49	117	242	45	42	81	13	2.6	.95	.03
4	13	86	49	54	311	49	42	33	11	2.5	.73	.02
5	12	61	66	42	496	46	41	21	9.5	2.3	.60	.01
6	11	44	412	37	109	44	41	25	9.1	2.3	.51	0
7	11	38	86	35	80	41	61	26	17	2.2	.41	0
8	11	41	53	33	76	38	1,110	15	795	1.9	.33	0
9	11	44	47	32	58	94	88	12	2,920	1.6	.27	0
10	10	3,170	288	60	55	126	57	11	282	2.2	.20	0
11	9.5	196	668	37	52	58	50	10	66	2.9	.15	0
12	9.2	86	99	30	42	72	45	10	40	2.6	.12	0
13	9.1	65	70	28	41	92	39	12	30	2.1	.06	0
14	21	48	61	26	37	73	34	201	26	1.8	.05	0
15	20	42	52	26	36	52	30	133	51	1.7	.03	0
16	13	40	45	26	36	184	25	36	28	1.6	.02	0
17	11	39	42	23	34	74	24	19	17	1.4	1.3	0
18	9.5	37	39	22	31	85	24	15	13	1.4	4.1	0
19	9.0	36	34	20	27	56	18	12	9.5	1.3	19	0
20	8.7	29	33	19	27	49	17	15	8.3	1.2	2.6	0
21	8.3	27	31	17	26	47	16	17	7.2	1.1	3.0	0
22	8.2	26	31	16	64	46	16	12	6.5	.95	2.2	0
23	7.9	44	31	17	108	45	17	14	5.9	.81	1.1	0
24	7.9	615	30	21	110	44	16	20	5.3	1.5	.72	0
25	7.9	61	28	23	73	44	14	13	4.8	3.1	.72	0
26	8.2	49	31	19	42	44	13	10	4.2	2.5	.52	0
27	9.1	41	33	18	36	72	13	9.3	3.8	2.4	.41	0
28	73	36	30	17	968	67	17	28	3.6	3.6	.28	0
29	75	193	33	17	-----	45	14	249	3.4	4.1	.20	0
30	25	96	47	18	-----	44	12	180	3.2	2.7	.14	0
31	6,360	-----	176	2,230	-----	43	-----	39	-----	1.6	.10	-----
TOTAL	6,846.5	5,728	2,796	3,236	8,085	1,976	2,020	1,378.3	4,429.3	65.76	43.22	.16
MEAN	221	191	90.2	104	289	63.7	67.3	44.5	148	2.12	1.39	.005
MAX	6,360	3,170	668	2,230	4,520	184	1,110	249	2,920	4.1	19	.06
MIN	7.9	26	28	16	26	38	12	9.3	3.2	.81	.02	0
CFSM	3.07	2.65	1.25	1.44	4.01	.88	.93	.62	2.06	.03	.02	.0001
IN.	3.54	2.96	1.44	1.67	4.18	1.02	1.04	.71	2.29	.03	.02	0
AC-FT	13,580	11,360	5,550	6,420	16,040	3,920	4,010	2,730	8,790	130	86	.3

CAL YR 1974 TOTAL 30,336.46 MEAN 83.1 MAX 6,360 MIN 0 CFSM 1.15 IN 15.67 AC-FT 60,170
WTR YR 1975 TOTAL 36,604.24 MEAN 100 MAX 6,360 MIN 0 CFSM 1.39 IN 18.91 AC-FT 72,600

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	1100	22.28	13,000	2-4	2330	7.69	1,550
11-10	0700	16.42	7,000	2-28	0600	10.41	2,920
12-10	2330	9.05	2,230	4-8	0500	10.34	2,880
1-31	0800	16.28	6,880	6-9	0300	17.73	8,060
2-1	0400	18.18	8,440				

LOCATION.--Lat 33°51'10", long 95°32'38", Lamar County, on upstream side of dam on Sanders Creek, 2,800 ft (853 m) to right of outlet channel, 2.0 miles (3.2 km) southeast of Chicota, and 4.6 miles (7.4 km) upstream from the Red River.

PERIOD OF RECORD.--Contents: October 1967 to current year. Prior to October 1970, published as Pat Mayse Reservoir.
Water quality: Chemical analyses: October 1969 to current year.

EXTREMES.--Current year: Maximum contents, 163,400 acre-ft (201 hm³) Nov. 12 (elevation, 456.99 ft or 139.291 m); minimum, 119,400 acre-ft (147 hm³) Sept. 30 (elevation, 450.14 ft or 137.203 m).

Period of record: Maximum contents, 208,000 acre-ft (256 hm^3) Dec. 11, 12, 1971 (elevation, 462.87 ft or 141.083 m); minimum since conservation pool was first reached on Apr. 20, 1968, 109,600 acre-ft (135 hm^3) Oct. 20, 21, 1972 (elevation, 448.42 ft or 136.678 m).

REMARKS.--The lake is formed by a rolled earthfill dam about 7,080 ft (2,160 m) long, including an emergency spillway 100 ft (30 m) wide located near the right abutment of dam. The dam was completed and deliberate impoundment began Sept. 28, 1967. The flood-control outlet works consist of an uncontrolled morning-glory type drop-inlet spillway that is connected to a 7.25-foot-diameter (2.21-metre) concrete conduit through the dam. A 24-inch-diameter (610-millimetre) and a 12-inch (305-millimetre) low-flow pipe are provided for additional outlets. The lake was built for flood control, municipal and industrial water supply, recreation, fish and wildlife conservation, and for channel improvement on Sanders Creek. Records furnished by the Corps of Engineers indicate that during the year 7,800 acre-ft (9.62 hm³) was diverted from the lake for municipal and industrial uses by the city of Paris. Any resultant effluent is discharged into Pine Creek below Lake Cook, which is located in another drainage basin. The capacity table is based on a Geological Survey topographic map dated 1949. Data regarding the dam and lake are given in the following table:

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

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

600	456.0	156,500
600	458.0	170,600
200		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139200	151100	142500	132100	143100	133600	132500	129500	133200	133200	125900	122200
2	138100	151100	141500	132200	151400	133100	132000	129700	132800	132600	125700	122200
3	137200	151000	140400	132600	152100	132800	131700	133000	132300	132300	126200	122000
4	136500	151800	139500	132800	152400	132600	131500	133500	131800	131800	126200	121800
5	135800	152600	139800	132600	152400	132600	131200	133300	131400	131300	126000	121700
6	135200	151200	141900	132400	151800	132500	130800	133300	131000	130900	125800	121500
7	134500	149600	142800	132200	150400	132200	130800	133500	132100	130400	125600	121300
8	133900	149000	142000	131800	149000	131800	133000	133500	135800	130200	125400	121300
9	133500	146800	141000	131500	147600	132400	135300	133000	140700	129800	125200	121100
10	133000	157100	140300	131500	146100	133000	135100	132800	148400	129600	125000	121100
11	132600	163300	140600	131500	144800	133500	134800	132400	151500	129300	124900	120800
12	132200	162600	141100	131300	143400	133500	134000	132000	150400	128800	124800	120600
13	131700	160900	140400	131100	142200	133400	134000	131900	148700	128500	124600	120300
14	131700	159100	139600	130800	141200	133500	134000	133300	147100	128200	124400	120200
15	131300	157300	138700	130700	140200	133400	133800	135900	146300	128000	124200	120700
16	131000	155700	137900	130300	139200	134100	133400	137000	145200	127700	124000	120700
17	130700	154100	137200	130100	138400	134100	133000	136600	143700	127400	124000	120800
18	130400	152500	136600	130000	137600	134100	132600	136000	142300	127100	124000	120700
19	130000	151000	135900	129700	136900	134100	132300	135300	141100	126900	124000	120500
20	129700	149400	135300	129600	136300	134200	132000	134500	140100	126600	123900	120500
21	129400	147800	134800	129400	135600	133900	131700	134100	138800	126300	123800	120400
22	129200	146200	134300	129300	135400	133500	131400	133600	138100	126300	123600	120100
23	129000	145700	134000	129100	135200	133300	131300	133100	137100	126200	123500	120000
24	128800	145900	133300	129000	135200	132900	131000	132600	136300	125800	123300	120000
25	128600	146800	132900	129000	135200	132400	130800	132300	135400	125900	123200	119800
26	128500	145500	132700	128800	134800	132300	130500	131600	135200	126100	123000	119800
27	128200	144100	132400	128600	134400	132900	130300	131300	134600	126500	122800	119700
28	128500	142800	132200	128600	134100	133300	130300	131500	134300	126500	122700	119500
29	1286											

CAL YR 1974.....	*	-700	††	7090	MAX	163300	MIN	122700
WTR YR 1975.....	*	-20700	††	7800	MAX	163300	MIN	119400

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial use by city of Paris.

RED RIVER BASIN

209

07335390 Pat Mayse Lake near Chicota, Tex.--Continued

WATER QUALITY DATA

		DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
DATE	TIME								
DEC., 1974									
02...	1630	2.3	19	2.2	5.5	2.8	64	0	11
JULY, 1975									
04...	0900	1.5	21	2.6	6.5	2.4	64	0	16
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
DEC., 1974									
02...	4.4	.1	79	57	4	.3	151	7.5	10.0
JULY, 1975									
04...	7.6	.1	89	63	11	.4	155	7.4	28.0

RED RIVER BASIN

07335400 Sanders Creek near Chicota, Tex.
(Outflow from Pat Mayse Lake)

LOCATION.--Lat 33°51'10", long 95°32'28", Lamar County, on upstream side of Pat Mayse Dam, 2,800 ft (853 m) to right of morning-glory drop inlet, 2.0 miles (3.2 km) southeast of Chicota, and 4.6 miles (7.4 km) upstream from mouth.

DRAINAGE AREA.--175 mi² (453 km²), at Pat Mayse Dam; 184 mi² (477 km²) at former site 2.6 miles (4.2 km) downstream.

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

GAGE.--Water-stage recorder. Datum of gage is 440.00 ft (134.112 m) above mean sea level. Prior to Oct. 1, 1967, at site 2.6 miles (4.2 km) downstream at datum 52.77 ft (16.084 m) lower. Oct. 1, 1967, to Sept. 30, 1970, at datum 10.00 ft (3.048 m) higher.

AVERAGE DISCHARGE.--8 years, 168 ft³/s (4.758 m³/s), 121,700 acre-ft/yr (150 hm³/yr).

EXTREMES.--Current year: Maximum outflow, 914 ft³/s (25.9 m³/s) Nov. 11, 12; maximum gage height, 17.01 ft (5.185 m) Nov. 12; no flow Aug. 14 to Sept. 30.

Period of record: Maximum outflow, 1,060 ft³/s (30.0 m³/s) May 19, 1969 (gage height, 10.20 ft or 3.109 m, datum then in use); maximum gage height, 22.87 ft (6.971 m) Dec. 11, 12, 1971; no flow at times each year.

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503	840	688	157	345	227	182	89	212	212	15	
2	448	874	630	164	847	208	168	88	196	191	13	
3	402	870	570	174	876	190	152	156	178	173	13	
4	362	875	519	187	878	185	144	209	162	159	18	
5	322	878	478	185	879	183	134	214	147	143	16	
6	296	877	587	178	878	178	125	205	135	131	14	
7	270	870	666	167	873	168	121	209	147	117	12	
8	245	861	666	158	867	155	162	215	204	107	9.1	
9	224	851	603	146	858	150	249	206	420	98	6.5	
10	204	873	546	145	844	179	290	193	715	90	5.0	
11	187	908	542	142	813	208	275	179	870	82	3.6	
12	171	913	572	137	755	213	255	165	873	74	2.3	
13	157	909	564	133	682	213	238	150	865	65	1.0	
14	149	904	521	124	615	213	236	185	856	57	.10	
15	142	899	479	119	554	216	230	268	843	52	0	
16	131	894	437	112	504	233	218	349	823	47	0	
17	122	889	398	104	458	241	204	364	772	42	0	
18	114	883	360	101	420	241	192	336	695	37	0	
19	102	876	331	95	382	241	176	310	616	32	0	
20	95	869	304	90	348	243	163	273	550	27	0	
21	87	860	279	85	317	236	152	250	493	25	0	
22	79	847	256	81	298	219	143	230	443	21	0	
23	75	820	243	77	290	211	137	207	398	18	0	
24	71	825	223	74	287	198	131	190	354	15	0	
25	66	839	200	73	287	181	124	176	315	13	0	
26	62	830	187	69	276	164	116	156	290	16	0	
27	58	789	179	65	260	181	109	144	273	19	0	
28	59	717	168	64	243	202	108	139	252	22	0	
29	64	675	162	63	---	205	101	153	242	22	0	
30	61	685	154	60	---	203	94	185	225	20	0	
31	280	---	151	91	---	194	---	222	---	17	0	---
TOTAL	5608	25508	12663	3620	15934	6279	5129	6415	13564	2144	128.60	0
MEAN	181	850	408	117	569	203	171	207	452	69.2	4.15	0
MAX	503	913	688	187	879	243	290	364	873	212	18	0
MIN	58	675	151	60	243	150	94	88	135	13	0	0
AC-FT	11120	50580	25120	7180	31610	12450	10170	12720	26900	4250	255	0
CAL YR 1974 TOTAL	78704.50			MEAN 216	MAX 913	MIN 0	AC-FT 156100					
WTR YR 1975 TOTAL	96984.60			MEAN 266	MAX 913	MIN 0	AC-FT 192400					

RED RIVER BASIN

211

07335500 Red River at Arthur City, Tex.

LOCATION.--Lat 33°52'32", long 95°30'08", in NW¼ sec. 11, T.8 S., R.17 E., Choctaw County, Okla., near right bank on downstream side of pier of bridge on U.S. Highway 271 at Arthur City, 10.6 miles (17.1 km) downstream from Muddy Boggy River, 26.0 miles (41.8 km) upstream from Kiamichi River, and at mile 633.1 (1,018.7 km).

DRAINAGE AREA.--44,531 mi² (115,335 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 380.07 ft (115.845 m) above mean sea level. From 1905-11, nonrecording gage at St. Louis-San Francisco Railway Co. bridge 200 ft (61 m) upstream at same datum. July 1, 1936, to Mar. 24, 1940, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--45 years, 8,330 ft³/s (235.9 m³/s), 6,035,000 acre-ft/yr (7.44 km³/yr).

EXTREMES.--Current year: Maximum discharge, 103,000 ft³/s (2,920 m³/s) Nov. 1 (gage height, 23.93 ft or 7.294 m); minimum, 487 ft³/s (13.8 m³/s) Sept. 10 (gage height, 4.19 ft or 1.277 m).
Period of record: Maximum discharge, about 400,000 ft³/s (11,300 m³/s) May 28, 1908 (gage height, 43.2 ft or 13.17 m), from rating curve extended above 41,000 ft³/s (1,160 m³/s) on basis of records for later years; minimum, 130 ft³/s (3.68 m³/s) Dec. 11, 12, 1956 (gage height, 4.49 ft or 1.369 m).

REMARKS.--Records good. Flow regulated since October 1943 by Lake Texoma (station 07331500) 92.8 miles (149.3 km) above station.

COOPERATION.--Gage-height record and 36 discharge measurements furnished by the Corps of Engineers; records computed by the Geological Survey.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29900	67000	15000	7770	27200	23500	26700	3900	40500	27300	33100	5140
2	25500	67200	14300	8370	41800	22500	29900	3760	40900	18500	32500	4900
3	20500	50200	13700	8390	36000	18600	30300	10500	44800	12900	32100	3830
4	12900	51100	12200	11700	28600	15200	27000	20300	52900	11600	32100	5120
5	11300	61800	10800	12900	27300	14400	22100	17400	49600	10100	30200	5550
6	9820	64100	14700	11700	28000	13900	15700	14800	40500	8010	20400	5490
7	7020	66700	14800	8950	26000	13400	14000	18600	37700	7770	13600	4930
8	6520	62600	13100	8290	24000	13200	17800	17700	25100	7480	12300	2470
9	7160	56200	11400	6560	22600	13100	32400	11700	34500	6570	12100	911
10	7260	61700	8890	6900	20300	15000	30600	8840	52500	4030	11800	1080
11	7410	71700	12100	8620	16800	16100	23500	8040	60700	2560	11300	3120
12	7600	45300	18400	9170	15100	12300	21100	7810	39300	3790	11200	3680
13	6280	33700	15800	8640	14500	13000	19200	7800	28000	3870	11200	3160
14	5590	35700	11500	8460	14100	14100	15600	11000	33000	2320	11100	2880
15	5350	39500	9360	9690	13800	16900	14500	17600	42400	1640	10700	2850
16	6160	36000	6300	7170	13600	17800	14100	21100	42600	2710	10600	2630
17	4830	24900	5080	5790	12200	24000	13800	20000	37800	5550	9900	7190
18	4170	21200	6070	5170	8420	26600	13500	17200	27500	5700	9590	10500
19	4010	20400	7630	5000	8420	24800	13200	10300	20400	5700	8880	9110
20	3900	17100	7180	3270	8480	25100	12900	8170	16300	5930	9290	8150
21	2610	15600	4810	2390	5140	24700	12700	6860	15500	3020	9780	7310
22	1680	15200	5030	3170	5870	23300	12400	5790	13900	1760	8880	6130
23	2050	15000	3570	4210	7990	22200	9050	5210	13100	4340	7940	5730
24	3390	19000	2710	4430	13100	20100	7540	5350	12700	5400	7840	5590
25	3640	19400	2790	4520	17400	16100	7320	12900	12500	5550	7410	5500
26	3380	16800	2960	4260	21100	14200	7200	24800	13200	4320	6190	5450
27	4760	15300	3440	3050	22100	15300	9570	33600	25100	4840	5870	5430
28	2850	14600	4550	2050	23300	21800	13500	39600	35500	8360	5000	5040
29	1730	14600	3570	2120	---	31100	12500	44900	29500	10200	4070	2360
30	2410	15400	2710	2540	---	30000	5690	46200	28400	19200	5060	1130
31	8890	---	4300	7860	---	28000	---	43800	---	30600	5610	---
TOTAL	230570	1115000	268750	203110	523220	600500	505370	525530	966400	251820	407610	142361
MEAN	7438	37170	8669	6552	18690	19370	16850	16950	32210	8123	13150	4745
MAX	29900	71700	18400	12900	41800	31100	32400	46200	60700	30600	33100	10500
MIN	1680	14600	2710	2050	5140	12300	5690	3760	12500	1640	4070	911
AC-FT	457300	2212000	533100	402900	1038000	1191000	1002000	1042000	1917000	499500	808500	282400
CAL YR 1974	TOTAL	3610976	MEAN	9893	MAX	71700	MIN	757	AC-FT	7162000		
WTR YR 1975	TOTAL	5740241	MEAN	15730	MAX	71700	MIN	911	AC-FT	11390000		

RED RIVER BASIN

07336750 Little Pine Creek near Kanawha, Tex.

LOCATION.--Lat 33°50'26", long 95°15'55", Red River County, on right bank at downstream side of bridge on Farm Road 410, 1.6 miles (2.6 km) south of Kanawha, and 2.5 miles (4.0 km) upstream from mouth.

DRAINAGE AREA.--75.4 mi² (195.3 km²).

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

Water quality: Chemical analyses: October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 389.26 ft (118.646 m) above mean sea level.

AVERAGE DISCHARGE.--6 years (1969-75), 90.0 ft³/s (2.549 m³/s), 16.21 in/yr (412 mm/yr), 65,200 acre-ft/yr (80.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,060 ft³/s (172 m³/s) Nov. 1 (gage height, 16.85 ft or 5.136 m); no flow at times.
Period of record: Maximum discharge, 30,200 ft³/s (855 m³/s) Dec. 10, 1971 (gage height, 21.26 ft or 6.480 m), from rating curve extended above 4,400 ft³/s (125 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; no flow at times each year.

Maximum stage since 1948, that of Dec. 10, 1971.

REMARKS.--Discharge records good. No known diversion or return of water in vicinity of gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2.5	3,080	547	190	2,950	9.0	32	3.1	5.5	19	.78			
2	1.6	783	91	92	2,370	6.8	18	4.2	2.8	18	.64			
3	1.3	113	31	152	783	5.2	10	172	1.8	4.6	.41			
4	1.2	190	21	194	584	8.3	6.4	874	1.4	2.0	.59			
5	1.1	513	17	68	550	33	4.7	247	1.0	1.0	.52			
6	1.1	138	1,240	38	464	27	4.0	39	1.2	.87	.31			
7	1.0	29	1,450	27	132	16	3.8	19	1.9	.89	.16			
8	1.0	17	383	22	54	11	177	10	56	.63	.11			
9	.90	12	75	19	36	11	856	6.4	247	.45	.07			
10	.90	671	33	25	25	192	212	4.2	856	.36	.05			
11	.90	2,130	196	44	20	297	48	3.5	594	.41	.02			
12	.80	629	550	33	14	70	24	3.5	90	.27	.01			
13	.80	89	161	19	12	74	15	3.4	23	.14	0			
14	1.0	27	59	14	10	329	83	130	11	.09	0			
15	1.5	14	36	12	9.0	147	161	377	8.3	.07	0			
16	1.2	9.5	27	10	8.3	96	47	194	5.8	.05	0			
17	1.0	11	18	8.5	9.2	252	22	58	5.2	.03	0			
18	.90	12	15	7.8	9.7	129	15	22	4.2	.03	0			
19	.80	13	13	7.8	9.0	92	15	11	3.2	.02	0			
20	.76	11	11	7.0	7.4	43	11	6.2	2.5	.01	0			
21	.72	8.3	9.0	5.2	6.4	22	7.4	5.7	2.4	0	0			
22	.69	7.4	8.0	4.5	7.6	13	4.7	4.7	2.1	0	0			
23	.66	48	7.6	3.7	22	80	3.8	3.5	1.7	0	0			
24	.66	2,750	7.6	4.3	90	387	3.9	3.2	1.2	0	0			
25	.63	1,460	6.6	6.8	113	123	3.1	3.2	1.2	0	0			
26	.60	347	6.2	7.4	54	23	2.8	3.0	1.1	.34	0			
27	.58	65	6.4	7.6	24	163	2.9	3.3	1.0	5.6	0			
28	.56	27	7.0	6.0	13	715	3.5	2.6	1.2	2.4	0			
29	.54	102	11	5.3	-----	653	3.8	12	1.3	1.6	0			
30	.53	744	24	5.3	-----	226	3.1	33	1.5	.99	0			
31	965	-----	109	521	-----	77	-----	16	-----	.85	0	-----		
TOTAL	993.43	14,050.2	5,176.4	1,567.2	8,386.6	4,330.3	1,803.9	2,277.7	1,936.5	60.70	3.67	0		
MEAN	32.0	468	167	50.6	300	140	60.1	73.5	64.6	1.96	.12	0		
MAX	965	3,080	1,450	521	2,950	715	856	874	856	19	.78	0		
MIN	.53	7.4	6.2	3.7	6.4	5.2	2.8	2.6	1.0	0	0	0		
CFSM	.42	6.21	2.21	.67	3.98	1.86	.80	.97	.86	.03	.002	0		
IN.	.49	6.93	2.55	.77	4.14	2.14	.89	1.12	.96	.03	.001	0		
AC-FT	1,970	27,870	10,270	3,110	16,630	8,590	3,580	4,520	3,840	120	7.3	0		
CAL YR 1974	TOTAL	34,749.74	MEAN	95.2	MAX	3,080	MIN	0	CFSM	1.26	IN	17.14	AC-FT	68,930
WTR YR 1975	TOTAL	40,586.60	MEAN	111	MAX	3,080	MIN	0	CFSM	1.47	IN	20.02	AC-FT	80,500

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	0100	16.85	6,060	2-2	0030	16.29	4,630
11-11	0230	15.66	3,140	4-9	0830	14.38	1,080
11-24	1230	16.30	4,650	5-4	1130	14.36	1,080
12- 6	2000	15.56	2,920				

RED RIVER BASIN

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07336750 Little Pine Creek near Kanawha, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 24...	1745	.66	20	26	4.7	20	3.9	60	0	47
DEC. 03...	0910	32	9.4	12	2.8	8.8	2.5	24	0	29
JAN. 15...	1740	12	8.9	23	4.9	21	2.8	36	0	63
FEB. 25...	1400	98	6.1	18	3.8	17	2.3	26	0	57
APR. 08...	1520	184	5.5	15	2.7	14	2.3	30	0	39
MAY 20...	0948	5.9	9.7	17	3.1	14	2.7	40	0	31
JULY 03...	1435	4.3	7.7	20	4.6	17	4.4	40	0	46

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 24...	21	--	172	84	35	.9	292	7.1	16.5
DEC. 03...	11	.0	87	41	22	.6	151	6.9	4.0
JAN. 15...	23	.1	164	78	48	1.0	281	7.1	--
FEB. 25...	19	.2	136	61	39	1.0	236	6.5	11.0
APR. 08...	12	.1	105	49	24	.9	191	6.7	12.5
MAY 20...	13	.1	110	55	22	.8	190	6.8	17.0
JULY 03...	22	.1	142	69	36	.9	244	6.8	29.0

RED RIVER BASIN

07336800 Pecan Bayou near Clarksville, Tex.

LOCATION.--Lat 33°41'07", Long 94°59'41", Red River County, on right bank at downstream side of bridge on Farm Road 1159, 0.2 mile (0.3 km) downstream from Tanyard Bayou, 4.3 miles (6.9 km) upstream from Little White Oak Creek, and 6.0 miles (9.7 km) northeast of Clarksville.

DRAINAGE AREA.--100 mi² (259 km²).

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

Water quality: Chemical analyses: November 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 360.00 ft (109.728 m) above mean sea level. Prior to Oct. 1, 1970, at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE.--13 years, 85.5 ft³/s (2.421 m³/s), 11.61 in/yr (295 mm/yr), 61,940 acre-ft/yr (76.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,210 ft³/s (119 m³/s) Feb. 2 (gage height, 12.59 ft or 3.837 m); no flow for many days.
Period of record: Maximum discharge, 21,300 ft³/s (603 m³/s) Dec. 10, 1971 (gage height, 15.92 ft or 4.852 m); no flow at times.
Maximum stage since at least 1910, about 17 ft (5.2 m), present datum, in 1957, from information by local residents.

REMARKS.--Discharge records good. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	774	705	54	1,800	38	122	17	20	0	.03	
2	13	1,370	338	74	3,150	28	67	21	10	0	.01	
3	7.7	619	160	95	1,420	23	43	450	5.7	.03	0	
4	4.9	248	90	126	777	27	30	521	3.5	0	0	
5	2.8	450	83	126	579	40	22	545	2.0	0	0	
6	1.9	300	1,290	72	477	48	18	250	1.1	0	0	
7	.97	180	1,710	46	323	46	17	67	1.1	0	0	
8	.67	85	918	36	162	36	286	31	1.9	0	0	
9	.40	55	394	29	88	48	448	18	205	0	0	
10	.35	520	155	29	61	199	538	12	211	0	0	
11	.35	1,100	307	30	47	262	212	8.9	133	0	0	
12	.35	850	453	29	38	289	78	6.1	52	0	0	
13	.35	530	475	26	30	374	50	4.1	22	0	0	
14	1.8	250	226	22	25	528	102	11	9.3	0	0	
15	3.5	120	111	19	21	501	142	42	5.8	0	0	
16	1.9	70	71	16	19	308	130	79	4.0	0	0	
17	1.1	65	51	14	19	308	70	82	1.8	0	0	
18	.74	80	39	13	17	438	43	44	1.3	0	0	
19	.44	100	30	12	15	291	30	20	1.1	0	0	
20	.35	85	25	11	13	172	20	11	.74	0	0	
21	.27	60	21	10	11	97	14	66	.56	0	0	
22	.23	35	19	9.2	14	61	10	50	.39	0	0	
23	.17	20	18	8.3	95	47	8.6	23	.23	0	0	
24	.15	650	16	9.2	268	38	7.4	13	.17	0	0	
25	.15	2,250	15	10	268	73	6.1	7.7	.10	0	0	
26	.12	1,500	14	13	171	61	4.5	5.8	.06	0	0	
27	.10	680	13	13	93	50	3.4	9.7	.02	.05	0	
28	26	250	14	12	55	325	4.1	48	0	.23	0	
29	132	140	18	12	-----	528	38	21	0	.67	0	
30	68	800	25	12	-----	746	121	58	0	.25	0	
31	325	-----	40	231	-----	309	-----	38	-----	.14	0	-----
TOTAL	619.76	14,276	7,846	1,218.7	10,056	6,339	2,685.1	2,580.3	693.87	1.37	.04	0
MEAN	20.0	476	253	39.3	359	204	89.5	83.2	23.1	.044	.001	0
MAX	325	2,250	1,710	231	3,150	746	538	545	211	.67	.03	0
MIN	.10	20	13	8.3	11	23	3.4	4.1	0	0	0	0
CFSM	.20	4.76	2.53	.39	3.59	2.04	.90	.83	.23	.0004	0	0
IN.	.23	5.31	2.92	.45	3.74	2.36	1.00	.96	.26	0	0	0
AC-FT	1,230	28,320	15,560	2,420	19,950	12,570	5,330	5,120	1,380	2.7	.08	0

CAL YR 1974 TOTAL 49,578.45 MEAN 136 MAX 2,280 MIN 0 CFSM 1.36 IN 18.44 AC-FT 98,340
WTR YR 1975 TOTAL 46,316.14 MEAN 127 MAX 3,150 MIN 0 CFSM 1.27 IN 17.23 AC-FT 91,870

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE
11-2	0500	10.89	1,740
12-7	1100	11.23	2,100
2-2	0300	12.59	4,210

07336800 Pecan Bayou near Clarksville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT. 24...	1655	.17	7.8	15	2.9	15	3.4	58	0	14
DEC. 03...	1210	181	7.7	4.8	1.6	4.8	2.1	15	0	11
JAN. 16...	1040	16	6.4	15	2.8	15	2.1	34	0	29
FEB. 25...	1600	290	6.3	8.7	2.3	11	1.8	16	0	28
APR. 08...	1815	447	4.6	13	2.5	8.7	2.4	42	0	18
MAY 20...	1255	9.8	5.5	11	2.3	10	2.3	35	0	18

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 24...	15	--	102	49	2	.9	183	7.1	22.0
DEC. 03...	5.5	.0	45	19	6	.5	74	6.8	4.5
JAN. 16...	17	.2	104	49	21	.9	190	7.2	5.5
FEB. 25...	11	.2	77	31	18	.9	133	6.6	11.0
APR. 08...	9.5	.1	80	43	8	.6	137	6.7	12.0
MAY 20...	9.4	.1	76	37	8	.7	138	6.7	18.0

RED RIVER BASIN

07336820 Red River near De Kalb, Tex.

LOCATION.--Lat 33°41'15", long 94°41'39", Bowie, Tex.--McCurtain, Okla. County line, near left bank at downstream side of bridge on U.S. Highway 259, 4.8 miles (7.7 km) upstream from North Mill Creek, 13 miles (21 km) north of De Kalb, and at mile 556.9 (896.1 km).

DRAINAGE AREA.--47,348 mi² (122,631 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

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

Water quality: Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: October 1970 to current year. Water temperatures: January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 302.92 ft (92.330 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 13,900 ft³/s (393.6 m³/s), 10,100,000 acre-ft/yr (12.5 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 96,500 ft³/s (2,730 m³/s) Nov. 2 (gage height, 26.12 ft or 7.961 m, from graph based on gage readings); minimum, 1,180 ft³/s (33.4 m³/s) Sept. 11 (gage height, 8.95 ft or 2.728 m, from graph based on gage readings).

Period of record: Maximum discharge, 189,000 ft³/s (5,350 m³/s) Dec. 11, 1971 (gage height, 31.55 ft or 9.616 m, from graph based on gage readings); minimum, 431 ft³/s (12.2 m³/s) Sept. 4, 5, 1972.

Historic: Maximum stage since 1957, 32.2 ft (9.81 m) in June 1957. Greatest flood since 1936 occurred in February 1938, stage unknown.

Water quality: Current year: Maximum daily specific conductance, 1,410 micromhos Oct. 14; minimum daily, 165 micromhos Dec. 10. Maximum water temperatures, 31.5°C July 10; minimum, 6.0°C Jan. 13, 14.

Period of record: Maximum daily specific conductance, 1,740 micromhos Oct. 16-19, 1972; minimum daily, 132 micromhos Mar. 25, 1968.

Maximum water temperatures, 34.0°C on several days during July and August 1969-70; minimum, 1.0°C Jan. 8, 9, 1968.

REMARKS.--Discharge records good. Flow partly regulated by Lake Texoma (station 07331500) approximately 169 miles (272 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45400	60400	31200	5160	16000	34300	39600	14300	50300	24700	26200	5710
2	39700	93400	28600	9160	54600	32100	41200	9840	47100	24300	31800	5670
3	33900	70200	23200	11400	65700	31500	42700	12600	47300	19500	32300	5610
4	27900	54900	17400	11600	52300	26600	42600	20300	51200	14800	31500	4850
5	19700	59300	14900	15000	42100	20500	39400	26600	58700	12600	31200	4290
6	14800	74500	19800	17900	42400	18000	35000	29000	55300	11400	29300	5520
7	13400	80400	30200	16500	45500	17300	29800	29200	46400	9420	22000	5760
8	10400	79900	29400	12700	44700	16300	25900	30300	42000	8590	15600	5670
9	8490	70800	23900	10000	43000	15600	29400	31300	36200	8050	12400	4490
10	8170	66200	22100	9630	41000	16700	42900	24800	44200	7630	11600	2500
11	8560	79400	23900	11300	38300	18800	42300	19200	62900	5840	11500	1420
12	8630	79000	28900	13000	34600	21300	33300	16600	69500	4430	10900	1950
13	8800	54900	35500	13900	32400	20800	27900	12800	52400	3690	10700	3640
14	8460	46300	28600	14400	31400	24700	26000	11300	39500	4450	10600	3810
15	7440	50900	18000	15000	26200	26900	21600	16000	40900	3770	10500	3460
16	6490	56100	13800	15800	20200	28900	18700	24800	50100	2720	10200	3500
17	7100	52200	9870	13200	18500	31300	18000	29100	56900	1950	10200	3350
18	7120	42400	7320	8130	17200	37300	17600	25900	57000	3180	10300	3890
19	5490	38400	6690	6410	13400	38900	17100	23200	46100	5350	9720	8890
20	4710	37000	7760	5840	11800	37300	16600	17200	35300	5670	9360	9810
21	4350	33800	8080	5290	11700	33600	16200	10300	22800	5740	9190	9600
22	3930	30200	6610	3710	9600	31600	15900	7840	17800	5200	9510	9190
23	2570	31500	5390	3330	7920	29300	15600	6760	16300	2750	9330	8130
24	1800	42500	5420	4250	8640	28300	12600	5950	15000	2220	8780	6860
25	2360	42000	4760	4870	17300	25900	9080	5760	14000	4680	8450	6340
26	3540	34300	4230	4930	28800	21700	7920	8240	13000	5780	8340	6130
27	3730	30700	4210	4640	34100	18800	7500	22600	12700	5860	7630	6020
28	4030	34500	4600	4430	36000	22600	8670	34200	19000	4830	6590	5970
29	5330	34000	4990	2750	---	31400	15400	44100	30900	6100	5760	5910
30	3440	35100	5820	2500	---	38600	19400	52600	30300	8970	5350	4780
31	6000	---	4970	5080	---	37200	---	53200	---	14300	5440	---
TOTAL	335740	1595200	480120	281810	845360	834100	735070	675890	1181100	248470	432250	162720
MEAN	10830	53170	15490	9091	30190	26910	24500	21800	39370	8015	13940	5424
MAX	45400	93400	35500	17900	65700	38900	42900	53200	69500	24700	32300	9810
MIN	1800	30200	4210	2500	7920	15600	7500	5760	12700	1950	5350	1420
AC-FT	665900	3164000	952300	559000	1677000	1654000	1458000	1341000	2343000	492800	857400	322800
CAL YR 1974	TOTAL	5652560	MEAN	15490	MAX	93400	MIN	1130	AC-FT	11210000		
WTR YR 1975	TOTAL	7807830	MEAN	21390	MAX	93400	MIN	1420	AC-FT	15490000		

07336820 Red River near De Kalb, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 09...	1015	7600	1.9	66	17	150	5.0	132	0	130	230
NOV. 19...	0740	35000	4.7	47	11	78	3.6	110	0	76	120
DEC. 04...	0730	17600	4.6	55	14	89	3.3	114	0	89	140
JAN. 16...	1546	16900	6.1	46	11	69	2.8	108	0	65	110
FEB. 25...	0815	14500	5.6	67	16	83	3.5	164	0	76	140
MAR. 08...	0855	1700	5.3	65	18	110	4.4	139	0	110	170
APR. 22...	1500	14800	5.2	79	23	140	4.3	170	0	130	220
MAY 20...	1540	15700	5.7	51	13	68	3.5	114	0	81	110
JUNE 17...	0830	56000	4.7	60	20	110	4.3	138	0	120	180
JULY 02...	1040	29000	2.4	69	23	110	4.5	152	0	130	170
AUG. 20...	1400	8100	8.3	61	18	93	4.5	162	0	91	140
SEP. 29...	0845	5800	4.2	72	23	130	5.4	154	0	130	200
DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 09...	--	.00	.00	.04	.51	.55	.06	665	143	9	230
NOV. 19...	.1	--	--	--	--	--	--	395	--	--	160
DEC. 04...	.2	.18	.00	.54	.21	.75	.09	452	203	62	200
JAN. 16...	.1	--	--	--	--	--	--	363	--	--	160
FEB. 25...	.2	.14	.00	.03	.68	.71	.11	472	268	53	230
MAR. 08...	.2	--	--	--	--	--	--	551	--	--	240
APR. 22...	.2	.18	.01	.01	.66	.67	.11	686	74	24	290
MAY 20...	.2	--	--	--	--	--	--	389	--	--	180
JUNE 17...	.2	.14	.01	.01	.81	.82	.13	568	334	72	230
JULY 02...	.2	--	--	--	--	--	--	584	--	--	270
AUG. 20...	.2	.04	.00	.00	.47	.47	.15	497	145	30	230
SEP. 29...	--	--	--	--	--	--	--	641	--	--	270

RED RIVER BASIN

07336820 Red River near De Kalb, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 09...	130	4.3	1250	6.7	20.5	10	15	9.1	100	1.7	8.4
NOV. 19...	72	2.7	737	7.2	--	--	--	--	--	--	--
DEC. 04...	100	2.8	852	7.3	8.0	20	50	12.2	103	1.4	13
JAN. 16...	72	2.4	671	7.4	5.5	--	--	--	--	--	--
FEB. 25...	99	2.4	855	6.6	7.0	30	65	11.2	92	1.1	6.4
MAR. 08...	120	3.1	1040	7.9	11.0	--	--	--	--	--	--
APR. 22...	150	3.6	1250	7.3	19.0	5	40	9.6	102	1.8	6.1
MAY 20...	87	2.2	738	7.1	17.0	--	--	--	--	--	--
JUNE 17...	120	3.1	1020	7.2	25.5	40	125	8.6	104	.6	8.8
JULY 02...	140	2.9	1060	7.3	28.5	--	--	--	--	--	--
AUG. 20...	94	2.7	958	7.4	29.5	30	60	7.6	99	1.7	8.8
SEP. 29...	150	3.4	1150	8.0	21.5	--	--	--	--	--	--

DATE	TIME	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)
DEC. 04...	0730	80	1	--	1	<10	2	4
APR. 22...	1500	10	1	110	0	10	0	2
JUNE 17...	0830	20	1	100	0	10	1	3
AUG. 20...	1400	0	2	90	0	0	0	2

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (MG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
DEC. 04...	40	1	10	0	<.1	5	550	290
APR. 22...	20	3	10	1	.0	0	630	10
JUNE 17...	50	2	20	0	.0	0	730	0
AUG. 20...	30	0	10	0	.0	0	650	30

RED RIVER BASIN

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07336820 Red River near De Kalb, Tex.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)
DEC. 04...	0730	17400	8.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 22...	1500	14400	19.0	.00	.0	.00	.0	.00	.0	.00	.0
JUNE 17...	0830	56000	25.5	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 20...	1409	8100	29.5	.00	.0	.00	.0	.00	.0	.00	.0

DATE	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)
DEC. 04...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 17...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 20...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
DEC. 04...	0	.0	0	.00	.00	.00	.00	.01	.00	.00
APR. 22...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
JUNE 17...	0	.0	0	.00	.00	.00	.00	.02	.00	.00
AUG. 20...	0	.0	0	.00	.00	.00	.00	.00	.00	.00

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	335740	1140	620	562000	190	172000	130	118000	270
NOV. 1974.....	1595200	638	340	1460000	110	474000	71	306000	170
DEC. 1974.....	480120	589	320	415000	97	126000	65	84300	160
JAN. 1975.....	281810	664	360	274000	110	83700	74	56300	170
FEB. 1975.....	845360	520	280	639000	85	194000	58	132000	140
MAR. 1975.....	834100	735	400	901000	120	270000	82	185000	190
APR. 1975.....	735070	825	450	893000	140	278000	92	183000	210
MAY 1975.....	675890	769	420	766000	130	237000	85	155000	190
JUNE 1975.....	1181100	965	520	1660000	160	510000	110	351000	230
JULY 1975.....	248470	998	540	362000	170	114000	110	73800	240
AUG. 1975.....	432250	1140	620	724000	190	222000	130	152000	270
SEPT 1975.....	162720	1080	580	255000	180	79100	120	52700	260
TOTAL	7807830	**	**	8910000	**	2760000	**	1850000	**
MTD.AVG.	21391.31	782	420	**	130	**	88	**	200

RED RIVER BASIN

07336820 Red River near De Kalb, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	771	508	639	696	436	562	616	893	1080	1060	1080	1150
2	986	293	644	565	385	630	510	683	1140	1060	1110	1190
3	1060	244	657	656	314	657	581	528	1210	1020	1130	1130
4	1250	298	848	431	296	661	671	400	1260	980	1130	1140
5	1240	430	976	326	322	781	719	332	1320	962	1180	1170
6	1240	673	863	530	367	976	762	267	1320	1000	1170	1100
7	1340	755	605	565	438	1030	795	221	1280	976	1120	1220
8	1340	858	408	645	433	1040	769	291	1300	935	1100	1170
9	1250	905	394	645	440	1090	827	420	1130	995	1110	1170
10	1330	995	165	893	508	1190	845	427	940	1000	1180	1180
11	1380	830	495	573	532	1130	535	545	712	1030	1250	1070
12	1350	719	410	602	553	1100	565	633	592	957	1250	1020
13	1380	516	573	687	619	883	712	682	518	926	1230	962
14	1410	496	399	651	656	634	765	876	508	922	1280	1210
15	1290	642	453	583	667	651	804	773	705	893	1280	1190
16	1300	797	441	637	872	601	1040	663	940	873	1280	1140
17	1210	800	551	758	966	504	1100	648	995	760	1280	1140
18	1270	726	648	803	990	533	1110	719	860	727	1190	1130
19	1220	737	644	833	912	494	1140	780	760	823	1160	839
20	1180	763	670	897	764	553	1170	761	756	1080	976	800
21	1140	704	973	901	792	580	1250	761	720	1050	788	850
22	1160	625	1010	882	783	661	1270	971	842	1050	990	1040
23	1200	636	980	797	671	693	1270	961	829	1030	1050	1060
24	1170	572	901	699	702	736	1240	975	883	944	1080	1090
25	1080	553	900	784	880	772	1140	957	923	841	1050	1110
26	986	652	885	966	553	832	1100	995	985	1070	1100	1130
27	1250	659	674	1000	479	962	1130	1300	1040	1020	1110	1130
28	1270	548	640	966	571	1070	1130	1250	1100	990	1100	1150
29	1230	575	674	935	---	857	1290	1250	1150	944	1150	1150
30	1280	546	728	855	---	799	1000	1180	1110	1040	1150	1150
31	1020	---	807	758	---	585	---	1170	---	---	1150	---
MONTH	1210	635	666	726	604	782	929	752	964	965	1130	1100

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	18.0	10.0	11.0	15.5	11.0	11.5	21.5	24.0	28.0	29.0	31.0
2	20.0	18.0	8.0	9.5	13.0	11.0	14.0	21.0	24.0	28.5	29.0	30.0
3	19.5	20.0	8.5	9.0	11.0	11.0	12.0	22.0	24.5	28.5	30.0	30.0
4	19.5	19.0	9.0	8.5	11.0	10.0	13.0	---	25.0	29.0	28.5	30.0
5	19.0	18.0	10.0	8.0	10.0	9.5	13.0	22.5	25.0	30.0	28.5	30.0
6	20.0	16.0	10.5	8.5	7.5	10.5	14.0	23.0	25.5	31.0	29.0	29.0
7	21.0	15.5	10.5	9.5	8.0	12.5	14.5	23.0	25.5	30.0	29.0	27.5
8	21.0	13.5	10.0	10.5	7.5	11.0	14.0	24.0	25.0	30.5	29.0	26.5
9	20.0	15.0	8.5	10.0	8.0	10.5	14.5	24.0	24.5	30.5	29.0	28.0
10	20.0	16.0	8.5	11.5	6.5	10.0	15.0	24.0	25.0	31.5	29.5	28.0
11	20.5	15.0	9.0	9.0	10.0	9.5	15.5	25.5	25.0	30.0	29.5	28.5
12	21.0	14.5	8.0	7.5	9.5	10.5	15.5	25.5	24.0	29.5	30.0	28.0
13	22.0	13.0	9.5	6.0	10.0	9.0	15.5	24.5	24.5	29.5	30.0	23.5
14	22.0	12.0	9.5	6.0	11.0	8.0	15.0	23.5	25.5	28.0	30.0	22.0
15	19.5	12.5	8.5	6.5	11.0	8.5	15.0	23.0	27.0	28.5	30.0	22.0
16	18.0	13.0	9.0	7.5	12.0	8.5	16.0	22.0	27.0	28.0	30.0	21.5
17	18.0	---	8.0	7.5	9.5	8.5	17.0	23.0	27.0	29.0	29.5	23.0
18	18.5	---	9.0	8.0	10.5	10.0	20.0	23.5	27.0	29.5	29.0	23.0
19	---	---	9.0	9.5	9.0	10.5	18.0	24.5	27.5	30.0	28.5	25.5
20	---	---	9.0	6.0	9.5	12.0	18.0	25.5	27.5	30.5	28.5	---
21	17.5	---	10.0	7.5	10.0	15.0	18.5	24.0	27.5	30.5	29.0	---
22	17.0	15.0	10.0	9.0	14.0	18.0	19.5	25.5	28.5	30.0	30.5	22.0
23	17.5	16.5	12.0	8.5	8.0	19.0	19.5	25.5	28.5	30.5	30.0	21.5
24	16.0	15.0	13.5	9.0	8.0	16.5	20.5	25.5	28.0	31.0	30.0	21.0
25	19.0	14.5	---	9.5	8.5	16.0	22.0	25.5	29.0	30.5	29.0	20.5
26	18.5	12.5	9.0	9.5	9.0	15.0	23.0	26.0	28.5	30.0	28.5	20.0
27	18.5	13.0	9.0	11.0	9.5	15.0	24.5	24.5	28.5	30.0	28.5	20.0
28	18.5	12.5	9.5	13.0	10.0	15.0	23.5	23.5	29.0	29.5	29.0	22.0
29	19.0	12.5	10.0	15.0	---	12.5	24.0	23.0	28.5	29.5	29.5	21.5
30	20.0	10.0	11.5	15.0	---	11.0	22.0	23.0	28.0	30.0	---	22.0
31	20.0	---	11.5	16.5	---	11.5	---	22.0	---	---	---	---
MONTH	19.5	15.0	9.5	9.5	10.0	12.0	17.5	24.0	26.5	29.5	29.5	25.0

RED RIVER BASIN

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07337000 Red River at Index, Ark.

LOCATION.--Lat 33°33'07", long 94°02'28", in NW¼SW¼ sec.7, T.14 S., R.28 W., Miller County, near right bank on downstream side of bridge on U.S. Highway 71 at index, 2.2 miles (3.5 km) south of Ogden, 20.6 miles (33.1 km) upstream from Little River, and at mile 485.3 (780.8 km).

DRAINAGE AREA.--48,030 mi² (124,400 km²), of which 5,936 mi² (15,374 km²) is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 246.87 ft (75.246 m) above mean sea level. Prior to Dec. 12, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years, 12,140 ft³/s (344 m³/s), 8,795,000 acre-ft/yr (10.8 km³/yr).

EXTREMES.--Current year: Maximum discharge, 71,200 ft³/s (2,020 m³/s) Nov. 12 (gage height, 19.64 ft or 5.986 m); minimum daily, 2,510 ft³/s (71.1 m³/s) Sept. 13.

Period of record: Maximum discharge, 297,000 ft³/s (8,410 m³/s) Feb. 23, 1938 (gage height, 34.25 ft or 10.439 m); minimum, 378 ft³/s (10.7 m³/s) Nov. 28, 1956.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some regulation by Lake Texoma (station 07331500) 241 miles (388 km) upstream since Oct. 31, 1943 (capacity, 5,392,900 acre-ft or 6.65 km³), by Pat Mayse Lake (station 07335390) since Sept. 28, 1967 (capacity, 352,700 acre-ft or 435 hm³), and by Hugo Lake (Oklahoma) since Jan. 18, 1974 (capacity, 966,700 acre-ft or 1.19 km³).

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40800	18800	38500	7380	7970	28400	30300	16800	38600	30000	14500	4780
2	36000	53200	34500	6970	30100	26900	32300	15200	35300	25000	24500	4970
3	32100	63800	30800	9890	55900	25600	33200	18200	33800	25000	29200	5400
4	27700	49800	25700	12900	55500	24700	34400	24400	34500	19000	29300	5230
5	23700	43600	20900	13500	41800	21400	33600	26500	38000	14000	28400	4960
6	18600	51100	21500	14900	35000	18100	30700	26300	42000	13000	28000	4650
7	15300	60500	30800	16400	35600	16800	27400	26000	38600	11000	25900	4680
8	13600	63400	35000	15400	37100	16400	24700	25500	33900	9500	20500	5190
9	11200	64300	30300	13100	36400	15800	24200	25900	32200	8500	15800	5210
10	9300	60000	25100	11100	35100	15800	28500	26700	29700	7200	13100	5080
11	8530	63500	23600	10400	32900	17400	35400	22500	35100	6700	12200	4100
12	8660	69600	25000	11300	30500	20100	32500	17800	46800	11000	11800	2980
13	8730	64600	28500	12500	27900	22600	26900	15500	46900	4000	11400	2510
14	8840	46500	30500	13300	26600	23400	24700	13700	38700	3400	11000	3120
15	8910	41300	24400	13700	26000	24100	23500	12400	33000	4400	10900	3920
16	8050	45000	17400	14000	22800	23900	20300	14200	34300	4000	10800	4010
17	7310	49200	14200	14300	19600	24700	17900	21500	39700	3200	10700	3830
18	7270	45400	11500	13300	18300	26900	17100	24200	43500	3100	10700	3780
19	7540	38600	9020	10000	17300	30900	16600	22200	40100	4000	10800	3740
20	6620	35900	7900	7860	14800	31100	16100	19800	35900	5300	10100	5590
21	5740	35100	8420	6970	13200	28100	15500	16800	30800	5500	9580	8270
22	5310	32700	8930	6420	13000	25300	15200	13600	24600	5600	8960	8220
23	5080	31500	8200	5400	11900	24100	14800	10700	20400	5000	8980	7520
24	4470	40100	6890	4730	10200	23400	14400	9890	18500	4000	9140	6890
25	3770	52700	6730	4880	10300	23100	13100	8510	17100	3400	8580	6140
26	3490	46600	6020	5380	16600	20400	11200	7780	16000	4700	7950	5570
27	4050	37400	5590	5590	24800	19400	10200	8840	15000	5600	7690	5330
28	4880	35200	5550	5620	28000	20000	9820	19200	14000	6000	7290	5210
29	6420	36000	5720	5420	---	25300	10000	27800	31000	5400	6500	5140
30	7060	38900	6140	4860	---	30800	13200	35100	32000	7000	5930	5110
31	7630	---	7310	4440	---	32300	---	38400	---	10000	5300	---
TOTAL	366660	1414300	560620	301910	735170	727200	657720	611920	970000	268100	425500	151130
MEAN	11830	47140	18080	9739	26260	23460	21920	19740	32330	8648	13730	5038
MAX	40800	69600	38500	16400	55900	32300	35400	38400	46900	30000	29300	8270
MIN	3490	18800	5550	4440	7970	15800	9820	7780	14000	3100	5300	2510
AC-FT	727300	2805000	1112000	598800	1458000	1442000	1305000	1214000	1924000	531800	844000	299800
CAL YR 1974 TOTAL	5498640		MEAN 15060		MAX 69600	MIN 2040	AC-FT 10910000					
WTR YR 1975 TOTAL	7190230		MEAN 19700		MAX 69600	MIN 2510	AC-FT 14260000					

NOTE.--No gage-height record June 27 to July 31.

RED RIVER BASIN

07342500 South Sulphur River near Cooper, Tex.

LOCATION.--Lat 33°21'20", long 95°35'39", Hopkins-Delta County line, on left bank of cut channel at downstream side of bridge on State Highways 19 and 154, 1.0 mile (1.6 km) downstream from Big Creek, 1.0 mile (1.6 km) upstream from Brushy Creek, 4.5 miles (7.2 km) downstream from Doctors Creek, and 5.6 miles (9.0 km) southeast of Cooper.

DRAINAGE AREA.--527 mi² (1,365 km²).

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

Water quality: Chemical analyses: October 1958 to September 1966, October 1967 to current year. Water temperatures: October 1958 to September 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 371.91 ft (113.358 m) above mean sea level. Prior to Oct. 1, 1970, at datum 3.00 ft (0.914 m) higher. May 9, 1942, to Nov. 8, 1949, nonrecording gage, and Nov. 9, 1949, to May 13, 1955, water-stage recorder at site 700 ft (213 m) to right of present gage.

AVERAGE DISCHARGE.--33 years, 417 ft³/s (11.81 m³/s), 10.75 in/yr (273 mm/yr), 302,100 acre-ft/yr (372 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 23,800 ft³/s (674 m³/s) Feb. 2 (gage height, 25.68 ft or 7.827 m); minimum, 0.24 ft³/s (0.007 m³/s) July 24 (gage height, 2.99 ft or 0.911 m).

Period of record: Maximum discharge, 42,500 ft³/s (1,200 m³/s) Dec. 10, 1971 (gage height, 26.15 ft or 7.971 m, from floodmark in gage well); no flow at times.

Water quality: Current year: Maximum daily specific conductance, 971 micromhos Dec. 31; minimum daily, 113 micromhos Aug. 22.

Maximum water temperatures, 28.0°C July 9, 10, 23, 31; minimum, 4.0°C on several days during January, February, and March.

Period of record: Maximum daily specific conductance, 4,710 micromhos Aug. 14, 1973; minimum daily, 92 micromhos Dec. 11, 1960.

Maximum water temperatures, 36.0°C Aug. 6, 1960, Aug. 10, 1962; minimum, freezing point on Jan. 31, 1966, Jan. 11-13, 1973.

REMARKS.--Discharge records good. Small diversions upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	10,500	3,720	918	10,900	2,020	183	18	5,140	21	11	.78
2	24	11,100	2,280	751	22,100	3,060	110	699	1,510	12	5.0	.90
3	17	6,470	263	829	13,700	698	70	5,020	177	7.2	2.8	.85
4	11	3,480	148	1,160	6,810	337	47	6,690	135	5.2	4.5	.55
5	7.4	1,980	98	451	4,730	189	37	5,100	114	30	1.8	.28
6	5.4	1,490	3,080	197	4,260	118	31	1,140	99	21	2.3	.39
7	4.5	308	4,730	120	3,900	85	91	215	719	9.2	1.1	.73
8	3.6	126	4,770	80	1,090	61	3,460	530	1,230	5.8	.61	.60
9	3.0	66	1,540	55	292	94	6,070	443	3,910	4.0	.80	.52
10	2.4	2,220	220	74	225	1,320	5,750	165	5,270	2.8	.98	.44
11	1.9	6,160	2,480	571	195	1,550	2,950	119	7,270	2.3	1.1	.40
12	1.6	8,030	3,940	399	171	1,570	306	81	5,200	1.8	.90	.63
13	1.6	4,940	4,410	166	151	3,520	219	54	2,260	1.8	.88	.99
14	2.7	1,790	1,340	80	136	4,390	1,360	610	267	1.4	.81	1.0
15	79	173	262	42	126	3,690	1,270	2,480	968	1.1	.82	.72
16	120	97	178	31	117	640	335	3,550	2,910	.92	.93	.61
17	63	164	128	23	100	383	166	3,050	4,220	.81	.70	.83
18	20	120	93	19	70	389	107	363	873	.66	6.7	1.1
19	9.1	64	65	17	53	496	76	142	178	.54	11	1.1
20	6.5	32	44	14	41	240	55	125	166	.42	3.5	1.0
21	4.1	21	32	12	35	139	41	195	116	.39	5.6	.89
22	2.9	14	26	11	32	90	32	101	101	.64	49	1.3
23	2.1	10	22	9.8	40	70	25	56	93	.65	2.3	1.1
24	1.7	2,140	19	10	237	56	21	41	79	.50	.65	.68
25	1.4	3,190	18	9.4	406	42	19	33	176	61	.61	.45
26	1.4	2,900	15	10	210	50	19	23	162	82	.66	.53
27	1.4	363	13	12	118	1,030	17	16	127	217	.65	1.1
28	7.9	105	13	11	494	2,070	22	67	216	165	.66	1.2
29	480	866	16	10	-----	1,720	21	1,510	75	134	.79	1.1
30	319	3,390	25	9.4	-----	913	18	2,970	52	83	.75	1.2
31	3,570	-----	292	2,270	-----	396	-----	4,890	-----	27	.75	-----
TOTAL	4,412.6	72,309	34,280	8,371.6	70,739	31,426	22,928	40,496	43,813	901.13	120.65	23.97
MEAN	155	2,410	1,106	270	2,526	1,014	764	1,306	1,460	29.1	3.89	.80
MAX	3,570	11,100	4,770	2,270	22,100	4,390	6,070	6,690	7,270	217	49	1.3
MIN	1.4	10	13	9.4	32	42	17	16	52	.39	.61	.28
CFSM	.29	4.57	2.10	.51	4.79	1.92	1.45	2.48	2.77	.06	.007	.002
IN.	.34	5.10	2.42	.59	4.99	2.22	1.62	2.86	3.09	.06	.008	.001
AC-FT	9,550	143,400	67,990	16,610	140,300	62,330	45,480	80,320	86,900	1,790	239	48
CAL YR 1974	TOTAL	301,989.97	MEAN	827	MAX	18,000	MIN	.16	CFSM	1.57	IN	21.32
WTR YR 1975	TOTAL	330,220.95	MEAN	905	MAX	22,100	MIN	.28	CFSM	1.72	IN	23.31
AC-FT	599,000	AC-FT	655,000									

PEAK DISCHARGE (BASE, 8,000 FT³/S)

DATE	TIME	G. HT.	DISCHARGE
11-1	2100	22.83	13,700
11-11	2330	21.08	8,940
2-2	0900	25.68	23,800

07342500 South Sulphur River near Cooper, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 20...	1025	6.6	11	44	4.5	50	5.6	196	0	42
NOV. 30...	0820	3700	8.2	23	2.1	11	3.1	80	0	19
DEC. 02...	1240	1920	8.2	22	2.2	8.8	3.5	76	0	15
JAN. 15...	1558	39	7.8	56	6.0	28	2.8	186	0	43
FEB. 24...	1600	283	7.5	89	13	56	1.9	306	0	92
MAR. 31...	0740	390	7.6	31	4.4	15	2.9	110	0	27
MAY 19...	1700	135	9.7	40	4.3	16	3.9	132	0	32
JUNE 30...	0755	65	9.3	36	2.9	27	3.7	116	0	20
JULY 31...	0700	30	7.1	31	3.0	21	3.7	107	0	27
AUG. 12...	0910	1.2	8.9	44	5.5	23	3.9	158	0	26
SEP. 15...	1300	.62	9.5	47	6.3	20	3.7	172	0	24

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 20...	26	.2	280	130	0	1.9	486	7.8	17.0
NOV. 30...	8.3	.2	114	66	0	.6	207	6.6	5.0
DEC. 02...	8.3	.1	106	64	2	.5	244	6.9	4.0
JAN. 15...	21	.2	257	160	12	1.0	459	7.3	5.5
FEB. 24...	45	.2	455	280	25	1.5	797	7.4	7.0
MAR. 31...	10	.1	152	96	5	.7	275	6.8	8.0
MAY 19...	9.4	.2	181	120	9	.6	305	6.9	18.0
JUNE 30...	33	.3	189	100	7	1.2	358	7.1	25.0
JULY 31...	11	.3	157	90	2	1.0	285	6.8	28.0
AUG. 12...	16	--	205	130	3	.9	372	7.4	26.5
SEP. 15...	18	--	213	140	2	.7	388	7.6	21.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	4812.59	195	110	1430	5.1	66	18	234	69
NOV. 1974.....	72309	186	100	19500	4.3	840	17	3320	66
DEC. 1974.....	34280	215	120	11100	6.9	639	20	1850	76
JAN. 1975.....	8371.59	408	230	5200	24	542	37	836	150
FEB. 1975.....	70739	167	90	17200	2.6	497	15	2860	59
MAR. 1975.....	31426	274	150	12700	12	1020	25	2120	98
APR. 1975.....	22928	232	130	8050	8.3	514	21	1300	83
MAY 1975.....	40496	226	120	13100	7.8	853	21	2300	80
JUNE 1975.....	43813	198	110	13000	5.4	639	18	2130	70
JULY 1975.....	901.13	413	230	560	24	58	38	92	150
AUG. 1975.....	120.65	261	140	46	11	3.6	24	7.8	93
SEPT 1975.....	23.97	403	230	15	23	1.5	37	2.4	150
TOTAL	330220.8	**	**	102000	**	5670	**	17100	**
WTD.AVG.	904.71	209	110	**	6.4	**	19	**	74

RED RIVER BASIN

07342500 South Sulphur River near Cooper, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	127	197	464	162	295	299	767	193	277	296	268
2	311	155	201	414	127	254	347	320	241	294	297	274
3	324	185	265	367	130	277	398	193	271	312	297	274
4	334	190	303	301	165	308	439	177	278	337	300	276
5	346	268	340	319	202	379	473	222	282	352	307	279
6	356	265	209	336	211	435	505	232	283	404	317	285
7	364	280	189	365	213	475	538	299	237	376	355	289
8	374	296	206	401	204	502	252	303	259	393	355	301
9	380	315	203	435	266	543	202	338	189	416	355	309
10	392	210	296	462	288	282	196	341	200	436	365	317
11	400	180	185	471	306	317	227	328	172	456	373	330
12	410	169	185	378	319	294	310	323	197	478	375	343
13	421	185	201	375	343	234	347	339	205	500	379	352
14	426	193	259	405	352	211	231	217	246	521	386	373
15	392	263	300	448	358	221	233	322	232	541	396	387
16	312	301	350	476	370	274	290	233	174	564	406	394
17	391	288	396	509	376	361	424	255	171	585	418	406
18	431	340	437	544	410	371	445	281	224	610	427	416
19	462	406	501	556	478	398	466	298	245	627	447	413
20	489	432	470	577	544	409	485	309	245	644	482	411
21	523	454	537	607	590	418	510	268	228	658	485	411
22	554	483	567	637	638	474	547	262	228	673	113	413
23	583	520	594	654	680	526	580	307	233	687	218	427
24	609	255	622	676	739	556	611	356	231	699	248	444
25	628	223	650	694	656	601	638	387	226	642	268	464
26	642	248	673	716	553	630	666	424	242	620	280	488
27	658	277	699	751	478	463	695	457	458	496	281	515
28	624	293	724	777	418	251	710	420	437	332	269	547
29	500	250	769	798	---	282	736	232	229	305	258	569
30	255	207	842	811	---	258	742	228	258	269	258	586
31	127	---	971	450	---	275	---	197	---	285	264	---
MONTH	429	275	430	522	378	373	451	311	244	477	331	385

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	19.0	4.0	10.0	11.0	12.0	11.0	20.0	21.0	26.0	27.0	27.0
2	18.0	20.0	4.0	9.0	10.0	13.0	14.0	21.0	22.0	26.0	27.0	26.0
3	18.0	21.0	4.0	8.0	10.0	13.0	12.0	20.0	23.0	26.0	27.0	26.0
4	17.0	20.0	4.0	6.0	10.0	8.0	12.0	20.0	24.0	26.0	27.0	26.0
5	19.0	17.0	6.0	5.0	10.0	8.0	13.0	21.0	25.0	27.0	27.0	26.0
6	19.0	15.0	10.0	6.0	6.0	10.0	14.0	22.0	26.0	27.0	26.0	25.0
7	20.0	15.0	11.0	7.0	4.0	12.0	15.0	23.0	25.0	27.0	26.0	24.0
8	19.0	14.0	10.0	8.0	5.0	11.0	12.0	24.0	24.0	25.0	26.0	23.0
9	19.0	14.0	7.0	8.0	5.0	12.0	14.0	23.0	22.0	28.0	27.0	24.0
10	19.0	15.0	7.0	10.0	6.0	8.0	16.0	20.0	23.0	28.0	26.0	23.0
11	20.0	14.0	5.0	9.0	8.0	9.0	15.0	20.0	24.0	26.0	26.0	25.0
12	20.0	13.0	5.0	8.0	9.0	10.0	15.0	22.0	23.0	26.0	26.0	25.0
13	20.0	12.0	6.0	5.0	10.0	10.0	15.0	23.0	24.0	25.0	27.0	22.0
14	21.0	13.0	8.0	4.0	10.0	5.0	12.0	17.0	25.0	25.0	27.0	20.0
15	17.0	10.0	7.0	5.0	13.0	7.0	13.0	20.0	25.0	25.0	27.0	20.0
16	15.0	11.0	7.0	5.0	14.0	8.0	15.0	20.0	25.0	25.0	27.0	20.0
17	16.0	10.0	6.0	6.0	10.0	8.0	18.0	20.0	26.0	25.0	27.0	21.0
18	16.0	10.0	7.0	7.0	9.0	10.0	19.0	21.0	26.0	27.0	26.0	22.0
19	17.0	12.0	7.0	8.0	8.0	12.0	18.0	23.0	27.0	27.0	27.0	24.0
20	18.0	12.0	6.0	6.0	7.0	14.0	18.0	24.0	27.0	27.0	27.0	21.0
21	15.0	12.0	6.0	6.0	10.0	16.0	18.0	22.0	27.0	27.0	27.0	21.0
22	15.0	12.0	7.0	9.0	12.0	17.0	19.0	23.0	27.0	27.0	25.0	19.0
23	16.0	15.0	10.0	7.0	8.0	19.0	20.0	24.0	27.0	28.0	26.0	18.0
24	17.0	14.0	11.0	8.0	6.0	17.0	21.0	23.0	27.0	27.0	27.0	17.0
25	18.0	11.0	9.0	8.0	7.0	16.0	22.0	23.0	27.0	27.0	26.0	17.0
26	18.0	10.0	8.0	8.0	8.0	16.0	23.0	24.0	26.0	25.0	26.0	16.0
27	17.0	10.0	8.0	9.0	8.0	14.0	23.0	24.0	25.0	26.0	25.0	16.0
28	18.0	9.0	8.0	11.0	10.0	15.0	23.0	23.0	26.0	27.0	26.0	17.0
29	18.0	10.0	9.0	13.0	---	13.0	22.0	21.0	26.0	27.0	26.0	18.0
30	20.0	5.0	10.0	13.0	---	8.0	21.0	21.0	25.0	27.0	26.0	19.0
31	20.0	---	10.0	15.0	---	8.0	---	21.0	---	28.0	26.0	---
MONTH	18.0	13.0	7.5	8.0	8.5	11.5	17.0	21.5	25.0	26.5	26.5	21.5

RED RIVER BASIN

225

07343000 North Sulphur River near Cooper, Tex.

LOCATION.--Lat 33°28'25", long 95°35'15", Delta-Lamar County line, near center of span at downstream side of downstream bridge on State Highways 19 and U.S. Highway 380 (revised), 2.3 miles (3.7 km) upstream from Auds Creek, 5.5 miles (8.8 km) upstream from Hickory Creek, 8.7 miles (14.0 km) northeast of Cooper, and at mile 15.6 (25.1 km).

DRAINAGE AREA.--276 mi² (715 km²).

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

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 372.42 ft (113.51 m) above mean sea level (levels by Corps of Engineers). Prior to Nov. 8, 1949, nonrecording gage, Nov. 8, 1949, to May 21, 1960, water-stage recorder at site 50 ft (15 m) upstream at datum 9.00 ft (2.743 m) higher, and May 22, 1960, to Sept. 30, 1970, at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE.--26 years, 252 ft³/s (7.137 m³/s), 12.40 in/yr (315 mm/yr), 182,600 acre-ft/yr (225 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 36,000 ft³/s (1,020 m³/s) Oct. 31 (gage height, 28.31 ft or 8.629 m); minimum daily, 0.03 ft³/s (0.001 m³/s) Sept. 6.

Period of record: Maximum discharge, 90,600 ft³/s (2,570 m³/s) Oct. 19, 1971 (gage height, 36.16 ft or 11.022 m, from floodmarks); no flow at times most years.

Historic: Maximum stage since at least 1915, that of Oct. 19, 1971. Flood of May 2, 1944, reached a stage of 35.6 ft (10.85 m), present datum, and flood in 1932 reached about same stage, from information by Corps of Engineers and local residents.

Water quality: Current year: Maximum daily specific conductance, 1,850 micromhos Sept. 30; minimum daily, 215 micromhos Oct. 31. Maximum water temperatures, 35.0°C Aug. 20, 22; minimum, 2.0°C Dec. 1, Feb. 7.

Period of record: Maximum daily specific conductance (1968-75), 2,290 micromhos Sept. 17, 1969; minimum daily, 191 micromhos Oct. 12, Dec. 10, 1971. Maximum water temperatures, 35.0°C June 22, 1970, Aug. 20, 22, 1975; minimum, freezing point on several days during winter months.

REMARKS.--Discharge records good. In 1928-29, the channel was rectified for a distance of 28 miles (45 km) upstream and 18 miles (29 km) downstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	1,070	143	184	14,800	170	72	35	69	22	4.1	.25
2	24	224	98	306	1,270	83	62	42	50	11	2.6	.13
3	21	138	81	568	1,290	230	53	1,150	40	7.4	1.8	.13
4	20	1,740	71	111	7,180	621	50	188	33	5.3	2.0	.10
5	17	305	159	67	3,370	148	50	78	29	4.5	1.3	.10
6	15	131	3,790	53	282	102	50	57	26	4.1	.95	.03
7	13	96	326	45	155	86	158	514	1,220	51	.65	.43
8	15	98	114	44	135	70	4,670	88	1,830	231	.65	4.5
9	14	93	69	40	111	699	325	53	4,030	18	.52	1.8
10	11	12,400	114	266	93	1,360	136	39	6,730	8.8	.42	1.5
11	9.2	850	1,320	100	86	178	101	150	260	7.7	.42	1.3
12	8.1	228	237	51	76	281	80	176	97	6.7	.52	.79
13	7.1	145	110	25	64	959	84	57	62	5.3	.33	.95
14	9.6	110	80	33	63	347	342	4,950	49	3.7	.33	.52
15	33	91	65	37	59	145	115	1,870	1,230	2.3	.33	.52
16	23	86	52	37	59	585	78	226	134	2.0	.25	.52
17	13	85	44	33	59	248	64	75	54	1.8	.25	.52
18	9.8	85	40	31	55	251	60	51	35	1.8	3.0	.42
19	7.1	85	36	32	49	146	55	37	25	1.5	4.5	.09
20	4.5	76	33	28	45	95	46	29	41	1.3	30	.05
21	3.1	67	30	25	44	77	43	31	23	1.1	10	.07
22	3.3	64	28	24	48	74	43	30	39	.95	1.3	.07
23	2.3	87	28	22	216	71	43	23	27	.95	1.3	.07
24	2.1	2,900	28	23	294	59	43	21	13	1.1	1.3	.05
25	1.8	273	27	30	129	51	42	21	11	99	1.3	.07
26	1.8	135	24	29	89	251	39	18	11	271	1.3	.07
27	1.8	99	32	24	71	568	36	423	22	199	.95	.07
28	17	80	33	22	630	404	34	869	11	779	.79	.07
29	54	1,610	40	23	-----	165	39	5,060	24	40	.79	.10
30	35	626	91	22	-----	115	39	824	50	14	.52	.10
31	15,000	-----	501	6,220	-----	88	-----	131	-----	5.8	.42	-----
TOTAL	15,428.6	24,077	7,844	8,555	30,826	8,727	7,052	17,316	16,275	1,809.10	74.89	57.96
MEAN	498	803	253	276	1,101	282	235	559	543	58.4	2.42	1.93
MAX	15,000	12,400	3,790	6,220	14,800	1,360	4,670	5,060	6,730	779	30	43
MIN	1.8	64	24	22	44	51	34	18	11	.95	.25	.03
CFSM	1.80	2.91	.92	1.00	3.99	1.02	.85	2.03	1.97	.21	.009	.007
IN.	2.08	3.25	1.06	1.15	4.15	1.18	.95	2.33	2.19	.24	.01	.007
AC-FT	30,600	47,760	15,560	16,970	61,140	17,310	13,990	34,350	32,280	3,590	149	115

CAL YR 1974	TOTAL	110,385.86	MEAN	302	MAX	15,000	MIN	0	CFSM	1.09	IN	14.88	AC-FT	219,000
WTR YR 1975	TOTAL	138,042.55	MEAN	378	MAX	15,000	MIN	.03	CFSM	1.37	IN	18.61	AC-FT	273,800

PEAK DISCHARGE (BASE, 20,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	1230	28.31	36,000	5-29	1615	21.10	20,200
11-10	1000	26.63	31,300	6-10	0300	21.74	21,400
2-1	1200	26.04	30,000				

RED RIVER BASIN

07343000 North Sulphur River near Cooper, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
31...	1450	28500	7.4	32	2.1	7.9	2.3	98	0	23
NOV.										
30...	1300	305	7.7	44	3.4	17	3.1	138	0	40
DEC.										
02...	1528	95	7.9	81	5.6	32	3.0	227	0	80
JAN.										
31...	0845	12500	7.5	49	2.6	18	1.9	144	0	42
FEB.										
28...	0850	94	5.3	87	8.7	50	3.2	250	0	120
MAR.										
31...	0830	88	6.8	100	7.9	46	2.6	276	0	100
APR.										
08...	0931	19700	9.0	55	3.8	17	1.8	164	0	41
MAY										
19...	1900	32	9.2	71	7.0	44	3.0	180	0	100
JUNE										
30...	0855	89	5.7	42	2.4	27	2.3	114	0	52
JULY										
31...	0920	4.0	9.3	50	4.5	36	2.9	135	0	85
AUG.										
12...	1630	.54	9.1	84	12	100	3.2	140	0	220

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
31...	3.6	--	127	89	8	.4	225	8.0	18.0
NOV.									
30...	12	.2	195	120	11	.7	344	7.9	3.0
DEC.									
02...	23	.3	345	230	39	.9	576	8.0	5.0
JAN.									
31...	11	.6	204	130	15	.7	337	7.7	15.0
FEB.									
28...	35	.5	433	250	48	1.4	723	8.1	10.0
MAR.									
31...	33	.3	433	280	56	1.2	728	8.3	9.0
APR.									
08...	6.7	.4	216	150	18	.6	353	7.7	11.0
MAY									
19...	29	.4	352	210	58	1.3	595	7.7	18.5
JUNE									
30...	20	.4	208	110	21	1.1	375	7.8	25.0
JULY									
31...	25	.5	280	140	33	1.3	468	7.9	28.0
AUG.									
12...	93	--	590	260	140	2.7	974	7.6	36.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	15428.59	231	140	5830	6.9	287	24	1000	110
NOV. 1974.....	24077	305	180	11700	9.1	592	34	2210	130
DEC. 1974.....	7844	390	230	4870	12	254	59	1250	150
JAN. 1975.....	8555	403	240	5540	12	277	63	1460	150
FEB. 1975.....	30826	317	190	15800	9.5	791	37	3080	130
MAR. 1975.....	8727	460	270	6360	19	448	81	1910	170
APR. 1975.....	7052	459	270	5140	19	362	80	1520	170
MAY 1975.....	17316	347	210	9820	10	468	46	2150	140
JUNE 1975.....	16275	315	190	8350	9.4	413	37	1630	130
JULY 1975.....	1809.09	461	280	1370	19	93	81	396	170
AUG. 1975.....	74.89	917	550	111	75	15	220	44	290
SEPT 1975.....	57.96	1566	940	147	150	24	410	64	460
TOTAL	138042.43	**	**	75000	**	4020	**	16700	**
WTD.AVG.	378.2	337	200	**	11	**	45	**	130

RED RIVER BASIN

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07343000 North Sulphur River near Cooper, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	294	426	534	217	467	799	921	536	565	520	1400
2	660	396	538	587	303	577	746	966	605	607	573	1430
3	683	496	625	423	378	665	804	544	625	641	656	1440
4	733	378	691	501	378	413	831	477	631	705	726	1510
5	730	395	735	602	303	491	856	574	653	762	750	1470
6	745	478	290	639	429	597	890	402	689	822	825	1490
7	825	555	375	651	554	676	500	448	335	887	859	1540
8	851	608	506	691	663	709	352	500	366	357	904	1540
9	807	615	592	691	653	400	387	553	288	372	942	1600
10	816	242	671	619	762	300	565	635	252	473	950	1650
11	828	322	289	605	765	420	651	691	395	554	1020	1650
12	857	453	388	651	780	485	698	381	502	607	1020	1650
13	885	547	523	713	804	400	679	574	590	656	1080	1650
14	933	588	605	728	769	422	595	288	613	688	1100	1690
15	791	630	667	737	782	536	608	380	450	744	1160	1690
16	788	645	728	730	788	425	679	378	367	799	1160	1690
17	829	685	744	777	780	475	720	467	461	863	1200	1720
18	851	701	793	773	811	567	758	552	544	919	1240	1720
19	864	691	799	780	844	628	753	585	603	974	665	1780
20	871	671	798	792	844	709	801	622	457	1020	904	1760
21	888	751	829	781	854	757	837	659	587	1080	983	1760
22	949	733	833	801	871	757	847	659	697	1090	1080	1760
23	953	790	824	834	747	797	876	687	603	1140	1140	1760
24	1000	300	839	828	483	806	897	732	676	1180	1220	1780
25	987	370	844	859	520	814	890	759	729	1250	1240	1780
26	1010	475	844	830	607	500	900	786	782	428	1260	1780
27	1010	568	857	833	677	490	890	806	788	360	1290	1800
28	996	638	829	848	723	438	926	322	802	382	1290	1800
29	645	300	829	851	---	538	962	250	756	363	1350	1800
30	860	320	817	859	---	622	954	301	376	420	1350	1850
31	215	---	500	331	---	728	---	455	---	468	1390	---
MONTH	823	521	665	706	646	568	755	560	559	715	1030	1660

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	18.0	2.0	8.0	10.0	13.0	12.0	22.0	20.0	27.0	27.0	26.0
2	18.0	19.0	3.0	7.0	10.0	12.0	15.0	20.0	24.0	28.0	28.0	27.0
3	17.0	20.0	4.0	5.0	9.0	10.0	15.0	18.0	24.0	26.0	28.0	32.0
4	18.0	18.0	5.0	4.0	9.0	5.0	10.0	18.0	24.0	26.0	26.0	30.0
5	18.0	12.0	8.0	5.0	9.0	5.0	12.0	21.0	25.0	28.0	26.0	30.0
6	20.0	12.0	9.0	5.0	4.0	9.0	13.0	22.0	26.0	28.0	26.0	30.0
7	20.0	13.0	10.0	9.0	2.0	12.0	14.0	24.0	21.0	26.0	27.0	25.0
8	19.0	11.0	7.0	10.0	4.0	10.0	11.0	25.0	21.0	25.0	25.0	24.0
9	19.0	15.0	3.0	9.0	5.0	9.0	13.0	26.0	21.0	29.0	27.0	29.0
10	19.0	14.0	5.0	9.0	5.0	6.0	16.0	24.0	21.0	28.0	26.0	29.0
11	20.0	13.0	5.0	5.0	10.0	8.0	15.0	25.0	22.0	26.0	27.0	28.0
12	20.0	11.0	4.0	4.0	---	10.0	14.0	20.0	21.0	25.0	27.0	28.0
13	20.0	11.0	9.0	4.0	9.0	6.0	15.0	25.0	25.0	25.0	30.0	18.0
14	22.0	10.0	9.0	5.0	10.0	4.0	11.0	23.0	26.0	26.0	27.0	19.0
15	19.0	9.0	7.0	4.0	14.0	7.0	15.0	19.0	23.0	25.0	30.0	20.0
16	20.0	9.0	8.0	6.0	9.0	8.0	18.0	18.0	25.0	25.0	27.0	18.0
17	18.0	9.0	5.0	7.0	6.0	9.0	19.0	20.0	25.0	25.0	26.0	25.0
18	17.0	10.0	6.0	7.0	9.0	12.0	20.0	23.0	26.0	29.0	25.0	30.0
19	18.0	17.0	9.0	9.0	7.0	12.0	16.0	29.0	26.0	26.0	31.0	25.0
20	16.0	13.0	6.0	6.0	7.0	15.0	17.0	23.0	24.0	26.0	35.0	25.0
21	15.0	11.0	7.0	5.0	10.0	13.0	16.0	21.0	26.0	27.0	32.0	20.0
22	17.0	12.0	8.0	7.0	14.0	18.0	18.0	24.0	28.0	23.0	35.0	15.0
23	19.0	17.0	13.0	6.0	6.0	20.0	19.0	25.0	29.0	28.0	27.0	19.0
24	19.0	10.0	8.0	9.0	4.0	17.0	20.0	22.0	26.0	27.0	30.0	17.0
25	18.0	10.0	7.0	8.0	---	14.0	23.0	22.0	25.0	27.0	30.0	17.0
26	18.0	8.0	5.0	9.0	9.0	11.0	24.0	25.0	27.0	25.0	30.0	16.0
27	18.0	9.0	5.0	9.0	9.0	15.0	22.0	24.0	25.0	27.0	30.0	17.0
28	18.0	8.0	7.0	15.0	10.0	16.0	21.0	20.0	26.0	26.0	26.0	19.0
29	18.0	10.0	10.0	14.0	---	7.0	22.0	21.0	26.0	31.0	30.0	19.0
30	21.0	3.0	10.0	15.0	---	8.0	20.0	21.0	25.0	29.0	26.0	20.0
31	18.0	---	10.0	15.0	---	9.0	---	21.0	---	28.0	30.0	---
MONTH	18.5	12.0	7.0	7.5	8.0	10.5	16.5	22.5	24.5	26.5	28.5	23.0

RED RIVER BASIN

07343200 Sulphur River near Talco, Tex.

LOCATION.--Lat 33°23'11", long 95°07'57", Red River-Titus County line, on right bank at downstream side of pier of bridge on U.S. Highway 271, 2.2 miles (3.5 km) northwest of Talco, 3.2 miles (5.1 km) downstream from Mustang Creek, and at mile 162 (261 km).

DRAINAGE AREA.--1,365 mi² (3,535 km²).

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

Water quality: Chemical analyses: October 1966 to current year. Chemical and biochemical analyses: October 1967 to current year.

Pesticide analyses: January 1969 to current year. Water temperatures: October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 290.82 ft (88.642 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 1,520 ft³/s (43.05 m³/s), 15.12 in/yr (384 mm/yr), 1,101,000 acre-ft/yr (1.36 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 40,800 ft³/s (1,160 m³/s) Nov. 1 (gage height, 25.79 ft or 7.861 m); minimum, 1.4 ft³/s (0.040 m³/s) Sept. 5.

Period of record: Maximum discharge, 77,000 ft³/s (2,180 m³/s) Dec. 11, 1971 (gage height, 29.40 ft or 8.961 m, from flood mark); no flow at times in 1957, 1964-65, 1970.

Historic: Floods in 1908 and 1914 each reached a stage of 27.5 ft (8.38 m), and flood in 1945 reached a stage of 26.5 ft (8.08 m), from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 922 micromhos Aug. 28; minimum daily, 167 micromhos Feb. 4. Maximum water temperatures, 38.0°C Aug. 15; minimum, 5.0°C Dec. 1-3, Feb. 8.

Period of record: Maximum daily specific conductance, 1,230 micromhos Aug. 18, 1972; minimum daily, 100 micromhos Sept. 11, 1974.

Maximum water temperatures, 38.0°C Aug. 15, 1975; minimum, freezing point Jan. 7, 8, 10, 12, 13, 1970.

REMARKS.--Discharge records good. At end of year, flow from 17.7 mi² (45.8 km²) above this station was partly controlled by 13 floodwater-retarding structures with a combined capacity of 6,960 acre-ft (8.58 hm³) below the flood-spillway crests, of which 1,030 acre-ft (1.27 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. No known diversion above the station during the 1975 water year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	471	27,700	9,590	970	24,200	1,180	846	121	3,350	256	128	4.4
2	161	27,000	6,080	1,140	37,100	1,520	405	293	4,040	177	84	3.8
3	97	15,100	3,260	1,730	27,600	1,780	251	5,990	2,380	115	60	3.0
4	72	13,500	800	1,930	23,200	2,320	177	13,200	444	84	50	2.9
5	56	11,700	349	1,330	15,500	2,130	132	10,500	192	66	49	1.9
6	46	7,050	3,950	706	10,800	808	121	8,100	146	54	42	2.7
7	38	2,760	13,600	352	6,660	426	128	3,070	408	57	38	2.6
8	31	935	9,720	237	4,650	283	1,540	991	2,630	133	35	2.2
9	26	510	7,630	191	2,070	225	6,050	627	7,160	278	27	2.2
10	24	2,360	3,470	173	615	2,560	6,260	539	13,500	110	22	1.9
11	22	20,600	3,200	440	425	4,140	5,930	249	14,800	66	16	3.2
12	20	14,600	8,910	578	635	2,690	4,260	353	9,880	51	10	5.6
13	19	10,500	5,810	479	571	4,510	1,030	316	8,500	42	7.8	5.4
14	20	10,100	4,430	250	354	6,890	1,590	2,360	4,980	34	6.0	1.6
15	28A	6,530	2,210	171	231	5,510	3,140	11,200	1,600	29	5.6	2.6
16	397	1,370	648	137	199	3,760	1,690	10,100	4,720	24	3.8	3.8
17	181	524	385	117	185	2,360	665	5,450	3,300	21	3.3	2.4
18	111	440	258	105	173	831	319	2,740	2,900	19	4.2	3.8
19	69	327	203	97	151	1,170	219	930	1,460	18	39	3.3
20	46	242	165	92	129	844	169	348	402	16	95	4.0
21	33	182	140	86	113	373	134	385	319	14	62	6.9
22	24	140	124	80	106	270	111	417	219	9.3	43	7.8
23	19	119	112	76	214	216	96	268	197	4.6	30	7.5
24	16	4,810	107	72	1,190	252	88	173	207	14	49	6.6
25	14	13,800	103	73	1,180	273	84	132	177	44	38	6.2
26	13	9,160	96	78	714	180	79	112	193	192	24	6.4
27	12	5,370	89	82	410	355	73	91	302	474	19	6.2
28	37	1,680	92	77	266	4,330	81	737	341	1,090	17	3.8
29	1,160	790	97	74	-----	5,730	159	1,310	446	1,610	11	2.9
30	1,900	7,240	110	73	-----	4,370	169	6,420	248	385	9.5	2.2
31	2,300	-----	233	1,180	-----	2,210	-----	5,840	-----	205	7.3	-----
TOTAL	7,723	217,139	85,971	13,176	159,641	64,496	35,996	93,362	89,441	5,691.9	1,035.5	119.8
MEAN	249	7,238	2,773	425	5,701	2,081	1,200	3,012	2,981	184	33.4	3.99
MAX	2,300	27,700	13,600	1,930	37,100	6,890	6,260	13,200	14,800	1,610	128	7.8
MIN	12	119	89	72	106	180	73	91	146	4.6	3.3	1.6
CFSM	.18	5.30	2.03	.31	4.18	1.52	.88	2.21	2.18	.13	.02	.003
IN.	.21	5.92	2.34	.36	4.35	1.76	.98	2.54	2.44	.16	.03	.003
AC-FT	15,320	430,700	170,500	26,130	316,600	127,900	71,400	185,200	177,400	11,290	2,050	238

CAL YR 1974 TOTAL 715,461.73 MEAN 1,960 MAX 27,700 MIN .08 CFSM 1.44 IN 19.50 AC-FT 1,419,000
WTR YR 1975 TOTAL 773,792.20 MEAN 2,120 MAX 37,100 MIN 1.6 CFSM 1.55 IN 21.09 AC-FT 1,535,000

PEAK DISCHARGE (BASE, 15,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-1	2100	25.79	40,800	12-7	0700	23.47	15,100
11-11	1630	24.38	25,800	2-2	1100	25.68	39,700
11-25	0700	23.49	15,400				

07343200 Sulphur River near Talco, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
DATE	TIME											
OCT. 08...	1700	33	11	66	4.8	33	3.9	194	0	58	23	
NOV. 14...	0715	7000	9.7	29	2.2	7.3	3.9	100	0	12	5.1	
DEC. 03...	1430	3400	7.8	29	2.7	10	2.8	90	0	21	8.6	
JAN. 17...	1325	116	7.4	77	6.4	38	3.7	222	0	80	39	
FEB. 24...	1620	1800	5.9	56	5.5	31	5.2	162	0	59	25	
MAR. 18...	1000	1400	6.2	49	3.6	20	2.7	146	0	41	14	
APR. 22...	1730	130	6.8	76	7.6	37	3.5	234	0	78	30	
MAY 21...	1530	417	9.5	48	3.8	19	3.2	154	0	33	13	
JUNE 16...	1730	4000	6.3	29	2.7	14	3.1	97	0	19	12	
JULY 01...	1335	233	7.7	57	4.7	34	3.1	157	0	66	29	
AUG. 20...	1625	60	9.6	59	5.1	37	3.8	176	0	66	30	
SEP. 03...	1800	3.0	8.7	100	9.0	70	3.9	249	0	140	63	
		DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
DATE												
OCT. 08...	--	.00	.00	.06	.72	.78	.11	295	57	4	190	
NOV. 14...	.2	--	--	--	--	--	--	119	--	--	81	
DEC. 03...	.2	.16	.01	.04	.83	.87	.30	127	224	37	84	
JAN. 17...	.1	--	--	--	--	--	--	361	--	--	220	
FEB. 24...	.2	.18	.01	.05	.84	.89	.14	269	462	78	160	
MAR. 18...	.2	--	--	--	--	--	--	209	--	--	140	
APR. 22...	.2	.07	.01	.02	.95	.97	.08	355	62	25	220	
MAY 21...	.3	--	--	--	--	--	--	206	--	--	140	
JUNE 16...	.2	.61	.02	.08	2.3	2.4	.37	135	1290	292	84	
JULY 01...	.4	--	--	--	--	--	--	279	--	--	160	
AUG. 20...	.3	.10	.01	.00	.91	.91	.14	298	100	45	170	
SEP. 03...	.5	--	--	--	--	--	--	518	--	--	290	
		NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
DATE												
OCT. 08...	25	1.1	530	6.7	21.0	5	25	7.0	78	1.8	7.7	
NOV. 14...	0	.4	204	7.8	13.0	--	--	--	--	--	--	
DEC. 03...	10	.5	233	7.0	6.5	70	95	16.1	130	2.9	16	
JAN. 17...	37	1.1	583	7.7	5.5	--	--	--	--	--	--	
FEB. 24...	30	1.1	481	6.5	8.0	40	150	11.3	95	2.1	13	
MAR. 18...	17	.7	355	8.1	11.0	--	--	--	--	--	--	
APR. 22...	30	1.1	632	7.4	21.0	30	30	8.0	89	3.1	9.6	
MAY 21...	9	.7	358	7.5	17.0	--	--	--	--	--	--	
JUNE 16...	4	.7	239	6.9	26.0	140	350	7.0	85	2.6	17	
JULY 01...	33	1.2	479	7.5	29.0	--	--	--	--	--	--	
AUG. 20...	25	1.2	531	7.1	29.5	30	50	6.4	83	2.1	7.1	
SEP. 03...	83	1.8	842	8.2	30.0	--	--	--	--	--	--	

RED RIVER BASIN

07343200 Sulphur River near Talco, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)				
DATE	TIME											
DEC. 03...	1430	150	10	--	1	<10	1	2				
APR. 22...	1730	10	4	60	0	10	0	2				
JUNE 16...	1730	20	1	50	0	10	2	2				
AUG. 20...	1625	30	2	60	0	0	0	2				
DATE	TIME	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRONTIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)			
DEC. 03...	40	9	0	0	<.1	3	240	140				
APR. 22...	10	1	10	0	.0	2	840	10				
JUNE 16...	30	1	0	0	.0	0	350	10				
AUG. 20...	30	1	10	20	.0	1	630	20				
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)	
DEC. 03...	1430	3400	6.5	.00	.0	.00	3.2	.00	4.8	.00	11	
APR. 22...	1730	130	21.0	.00	.0	.00	3.3	.00	15	.00	4.6	
JUNE 16...	1730	4000	26.0	.00	.0	.00	12	.02	31	.00	9.7	
AUG. 20...	1625	60	29.5	.00	.0	.00	8.6	.00	28	.00	4.4	
DATE	TIME	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)
DEC. 03...	.00	.3	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
APR. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
JUNE 16...	.01	.7	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
AUG. 20...	.00	1.0	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
DATE	TIME	TOTAL CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DIA- ZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
DEC. 03...	0	.0	0	.00	.00	.00	.00	.01	.00	.00		
APR. 22...	0	.0	0	.00	.00	.00	.00	.09	.00	.00		
JUNE 16...	0	.0	0	.00	.00	.00	.00	.06	.00	.07		
AUG. 20...	0	.0	6	.00	.00	.00	.00	.02	.00	.00		

07343200 Sulphur River near Talco, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	7723	319	180	3750	12	250	31	646	120
NOV. 1974.....	217139	226	130	76200	4.1	2400	16	9380	87
DEC. 1974.....	85971	236	130	30200	4.9	1140	18	4180	90
JAN. 1975.....	13176	488	280	9960	25	889	59	2100	170
FEB. 1975.....	159641	225	120	51700	4.0	1720	16	6900	87
MAR. 1975.....	64496	311	180	31300	11	1920	30	5220	120
APR. 1975.....	35996	292	160	15600	9.4	914	27	2620	110
MAY 1975.....	93362	270	150	37800	7.6	1920	23	5800	100
JUNE 1975.....	89441	250	140	33800	6.0	1450	20	4830	95
JULY 1975.....	5691.89	396	220	3380	18	277	44	676	140
AUG. 1975.....	1035.49	517	290	811	27	76	64	179	180
SEPT 1975.....	119.8	854	490	158	54	18	120	39	300
TOTAL	773792	**	**	295000	**	13000	**	42600	**
WTD.AVG.	2119.98	252	140	**	6.2	**	20	**	96

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	253	199	661	255	614	331	567	213	459	348	858
2	357	178	204	649	235	337	368	528	222	469	354	849
3	381	179	217	455	175	282	426	242	267	457	385	849
4	404	194	255	404	167	310	474	237	313	455	448	849
5	428	277	324	365	202	320	516	204	352	461	423	849
6	461	255	295	356	237	324	568	232	385	473	427	811
7	494	287	232	404	234	363	610	233	376	489	439	825
8	504	300	192	447	239	409	452	348	333	524	439	840
9	545	325	208	489	250	466	278	341	284	442	433	797
10	567	323	217	535	341	487	223	348	258	457	452	878
11	469	240	257	575	389	314	216	376	244	431	477	840
12	608	212	271	590	210	345	242	424	221	420	498	853
13	625	198	219	489	320	259	298	413	226	445	509	835
14	649	200	219	463	374	271	350	381	228	473	537	882
15	642	224	239	483	477	234	316	301	292	516	546	882
16	308	274	308	528	317	232	280	304	259	528	560	815
17	394	321	358	568	555	348	324	280	217	548	582	795
18	446	369	438	621	583	355	385	280	208	568	574	885
19	453	380	493	655	609	379	455	307	265	573	415	882
20	496	421	546	679	629	394	513	357	314	607	544	823
21	521	475	595	736	655	443	581	360	333	624	566	849
22	531	506	627	726	647	473	608	333	352	631	647	882
23	545	549	664	774	667	522	639	357	364	649	689	882
24	569	347	688	764	514	559	674	386	377	696	709	892
25	597	193	716	769	392	616	697	424	446	643	780	872
26	628	206	747	803	493	522	731	477	407	479	878	847
27	657	236	772	803	558	559	776	503	308	668	896	859
28	663	238	783	812	547	232	781	566	274	326	922	829
29	331	287	791	835	---	364	735	307	312	293	893	837
30	218	283	810	811	---	240	616	249	400	319	893	852
31	289	---	806	300	---	252	---	252	---	337	865	---
MONTH	487	291	442	598	403	382	482	352	302	499	585	850

RED RIVER BASIN

07343200 Sulphur River near Talco, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	5.0	12.0	14.0	14.0	13.0	24.0	23.0	28.0	29.0	26.5
2	20.0	20.0	5.0	10.0	12.0	13.0	14.5	22.0	24.0	28.0	27.0	29.0
3	21.0	21.0	5.0	9.0	11.0	14.0	14.0	20.0	25.0	29.0	28.0	30.0
4	19.0	20.0	6.0	9.0	10.5	11.0	13.0	20.0	27.0	29.0	28.0	28.0
5	19.5	17.0	7.0	7.0	10.5	7.0	14.0	21.5	25.0	29.0	29.0	27.0
6	20.5	16.0	9.0	8.0	8.0	9.5	15.0	23.0	29.0	30.0	29.5	25.0
7	21.0	15.0	11.0	8.5	5.5	12.0	15.5	23.0	28.0	31.0	28.0	24.0
8	20.0	14.5	10.0	9.0	5.0	12.0	14.5	26.0	23.5	32.0	30.0	26.0
9	24.0	15.0	7.0	9.5	6.0	12.0	13.5	24.0	23.0	30.0	28.0	25.0
10	22.0	15.5	7.0	11.0	8.0	12.0	15.0	25.0	24.0	29.5	29.0	28.0
11	22.0	15.0	8.0	10.0	9.0	11.0	15.5	25.0	24.0	30.5	29.5	27.0
12	20.0	13.0	5.5	10.0	10.0	10.5	15.0	25.5	22.0	28.5	31.0	25.0
13	20.5	14.0	8.0	8.0	10.5	10.0	16.0	26.0	25.5	30.5	36.0	21.0
14	21.0	13.0	8.0	6.0	10.5	6.0	15.0	21.0	25.0	29.5	28.0	20.0
15	18.0	12.0	8.0	6.0	12.0	7.0	13.0	19.5	25.5	29.0	38.0	21.0
16	16.0	12.0	8.0	7.0	12.0	8.0	18.0	21.0	26.5	28.0	28.0	24.0
17	15.5	12.0	8.0	6.0	10.5	10.0	18.5	21.0	26.5	29.5	30.0	24.5
18	17.0	11.5	7.0	7.0	10.5	11.0	20.5	22.0	28.0	30.5	30.0	25.0
19	17.0	11.0	8.0	9.0	9.0	13.0	18.5	25.0	29.0	28.0	28.0	24.0
20	17.0	13.0	8.0	7.0	10.0	15.0	19.0	23.0	30.0	31.0	29.0	23.0
21	16.0	12.0	7.0	7.0	11.0	16.0	22.0	24.5	28.0	31.0	28.0	23.0
22	16.0	13.0	9.0	8.5	13.0	17.0	20.5	26.0	29.0	32.0	28.5	23.0
23	17.0	15.0	10.0	7.0	10.0	19.0	22.0	26.0	30.0	33.0	28.0	24.0
24	17.0	15.0	12.0	8.0	8.0	19.0	24.0	25.0	29.0	32.0	28.0	23.5
25	17.0	11.0	10.0	9.0	7.0	17.0	22.0	25.0	28.5	29.0	27.0	23.0
26	15.5	10.5	10.0	9.0	9.0	17.0	24.0	27.0	26.5	37.0	29.0	24.0
27	16.0	10.0	10.0	10.0	10.0	17.0	24.0	27.0	29.5	30.0	28.5	23.0
28	18.0	10.0	9.0	12.0	11.0	16.0	24.5	26.0	28.0	28.0	28.5	23.0
29	18.5	11.0	9.5	11.5	---	13.0	25.0	23.0	29.0	30.0	29.0	26.0
30	20.0	7.0	11.5	14.0	---	10.0	24.0	21.0	30.0	30.0	27.0	24.0
31	20.0	---	11.0	16.0	---	9.5	---	22.0	---	29.0	28.0	---
MONTH	19.0	14.0	8.5	9.0	10.0	12.5	18.0	23.5	26.5	30.0	29.0	24.5

07343480 White Oak Creek near Mount Vernon, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 33°16'25", long 95°14'19", Franklin County, at bridge on State Highway 37, 6.0 miles (9.7 km) north of Mount Vernon, and at mile 49.0 (78.8 km).

DRAINAGE AREA.--434 mi² (1,124 km²).

PERIOD OF RECORD.--Occasional discharge measurements and water-quality data: February 1965 to September 1966, October 1968 to September 1975 (discontinued).

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 23...	1620	23	8.3	14	6.1	15	6.8	50	0	27
DEC. 05...	1155	221	9.5	11	5.1	16	4.1	32	0	35
JAN. 17...	1030	62	11	26	12	41	2.8	62	0	92
FEB. 26...	1845	450	6.6	15	5.8	19	4.5	37	0	41
APR. 09...	1620	1930	5.3	9.5	4.2	11	3.7	32	0	25
MAY 22...	1055	897	6.4	9.6	3.3	11	4.4	30	0	23
JULY 01...	1005	116	7.8	13	5.2	15	4.4	42	0	28
AUG. 16...	1600	3.0	8.0	11	5.0	14	6.5	38	0	30

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 23...	17	--	119	60	19	.8	209	7.1	17.0
DEC. 05...	17	.1	114	48	22	1.0	196	6.8	6.0
JAN. 17...	49	.1	264	110	63	1.7	463	7.4	5.5
FEB. 26...	27	.1	137	61	31	1.1	247	6.8	8.0
APR. 09...	12	.1	87	41	15	.7	149	6.6	13.5
MAY 22...	14	.1	87	38	13	.8	156	6.7	16.0
JULY 01...	16	.1	110	54	19	.9	208	6.8	25.5
AUG. 16...	15	.2	108	48	17	.9	191	7.4	28.0

RED RIVER BASIN

07343500 White Oak Creek near Talco, Tex.

LOCATION.--Lat 33°19'20", long 95°05'33", Titus County, near center of main channel on downstream side of bridge on U.S. Highway 271, 0.8 mile (1.3 km) downstream from Lewis Creek, 2.4 miles (3.9 km) upstream from Ripley Creek, 2.7 miles (4.3 km) south of Talco, and at mile 38.4 (61.8 km).

DRAINAGE AREA.--494 mi² (1,279 km²).

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

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 286.45 ft (87.310 m) above mean sea level.

AVERAGE DISCHARGE.--25 years (1950-75), 460 ft³/s (13.03 m³/s), 12.65 in/yr (321 mm/yr), 333,300 acre-ft/yr (411 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 23,700 ft³/s (671 m³/s) Feb. 3 (gage height, 18.99 ft or 5.788 m); minimum daily, 0.04 ft³/s (0.001 m³/s) Sept. 30.

Period of record: Maximum discharge, 48,000 ft³/s (1,360 m³/s) Dec. 11, 1971 (gage height, 21.20 ft or 6.462 m), from rating curve extended above 23,000 ft³/s (651 m³/s); no flow at times in 1954, 1956, 1964-65, and 1969-73.

Historic: Maximum stage since at least 1870, 22.9 ft (6.98 m) Mar. 31, 1945, from floodmarks and from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 613 micromhos Jan. 29; minimum daily, 65 micromhos Feb. 4. Maximum water temperatures, 37.0°C July 18, Aug. 3, 15; minimum, 5.0°C Dec. 2, 3.

Period of record: Maximum daily specific conductance, 1,220 micromhos June 15, 1972; minimum daily, 33 micromhos May 16, 1969. Maximum water temperatures, 37.0°C July 18, Aug. 3, 15, 1975; minimum, freezing point on Jan. 8, 1968, Jan. 10, 13, 14, 1970.

REMARKS.--Discharge records good. Several small diversions above station for municipal supply. Records furnished by the cities of Sulphur Springs and Mount Vernon show that during the year, 1,368 acre-ft (1.69 hm³) and 230 acre-ft (284,000 m³), respectively, were discharged into tributaries above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	385	2,840	2,160	341	2,910	537	1,280	405	917	147	72	5.2		
2	170	10,400	1,980	370	18,300	816	1,040	763	299	176	34	3.7		
3	120	11,900	1,770	609	20,400	871	432	3,530	154	111	15	2.8		
4	94	5,620	1,670	841	13,400	1,070	201	9,950	149	64	8.6	2.4		
5	76	3,600	1,230	846	6,860	1,040	154	8,220	110	46	5.9	1.6		
6	62	2,590	1,290	660	4,470	788	128	4,640	68	51	4.8	1.5		
7	53	1,640	2,040	348	3,630	395	117	3,090	64	60	1.9	1.4		
8	47	684	3,050	181	2,770	232	422	1,820	125	45	1.8	.96		
9	42	270	3,830	133	1,910	179	1,050	547	943	35	2.8	.74		
10	37	702	3,080	142	1,060	364	1,530	203	1,770	28	1.4	.57		
11	34	1,890	2,480	181	521	736	1,860	146	2,240	24	4.4	.57		
12	31	2,550	2,090	208	315	1,030	2,220	123	5,460	21	147	3.0		
13	28	3,160	1,910	221	229	1,820	1,790	107	2,250	17	154	3.7		
14	49	3,200	1,750	175	180	2,860	1,050	233	1,170	14	59	3.7		
15	366	2,440	1,760	118	154	3,920	863	765	387	12	15	3.7		
16	700	1,690	1,520	89	144	3,480	914	1,410	427	11	7.3	4.2		
17	679	886	896	70	175	2,690	813	1,800	516	9.1	4.4	4.4		
18	500	358	527	60	184	2,140	533	2,200	586	7.8	4.8	3.5		
19	238	267	452	53	139	1,440	248	1,890	711	6.1	3.3	2.5		
20	99	219	540	48	111	866	178	959	595	5.2	23	2.0		
21	62	177	553	46	92	571	154	528	381	4.0	82	1.4		
22	48	145	254	42	85	322	132	770	213	1.6	48	1.0		
23	39	119	114	37	117	219	111	811	140	1.6	66	.63		
24	33	1,310	81	35	335	182	100	429	121	1.4	206	.52		
25	29	4,450	78	34	688	158	89	207	112	5.2	146	.38		
26	25	10,600	87	35	738	138	78	149	177	19	56	.26		
27	22	6,390	95	41	599	152	73	164	346	81	28	.19		
28	93	3,930	81	44	293	539	118	314	249	144	18	.16		
29	685	2,900	79	42	-----	1,230	251	1,450	467	124	28	.06		
30	876	2,600	85	38	-----	1,510	476	2,490	299	214	16	.04		
31	1,260	-----	203	342	-----	1,390	-----	1,660	-----	185	8.6	-----		
TOTAL	6,982	89,527	37,735	6,430	80,809	33,685	18,405	51,773	21,446	1,671.0	1,273.0	56.78		
MEAN	225	2,984	1,217	207	2,886	1,087	614	1,670	715	53.9	41.1	1.89		
MAX	1,260	11,900	3,830	846	20,400	3,920	2,220	9,950	5,460	214	206	5.2		
MIN	22	119	78	34	85	138	73	107	64	1.4	1.4	.04		
CFSM	.46	6.04	2.46	.42	5.84	2.20	1.24	3.38	1.45	.11	.08	.004		
IN-	.53	6.74	2.84	.48	6.09	2.54	1.39	3.90	1.61	.13	.10	.004		
AC-FT	13,850	177,600	74,850	12,750	160,300	66,810	36,510	102,700	42,540	3,310	2,520	113		
CAL YR 1974	TOTAL 293,792.63		MEAN 805		MAX 11,900		MIN .63		CFSM 1.63		IN 22.12		AC-FT 582,700	
WTR YR 1975	TOTAL 349,792.78		MEAN 958		MAX 20,400		MIN .04		CFSM 1.94		IN 26.34		AC-FT 693,800	

PEAK DISCHARGE (BASE, 9,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-2	2000	18.34	16,500	2-3	0200	18.99	23,700
11-26	0700	17.87	11,800	5-4	1500	17.90	12,100

07343500 White Oak Creek near Talco, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 24...	0950	35	9.6	12	4.9	15	6.8	46	0	26
NOV. 30...	0820	2150	6.4	5.6	2.3	5.3	4.5	24	0	10
DEC. 05...	1545	1050	6.7	4.5	2.9	8.4	4.2	22	0	16
JAN. 17...	1335	67	10	22	10	38	4.5	59	0	76
FEB. 28...	0920	225	6.8	14	6.8	20	4.7	40	0	41
MAR. 31...	0825	11400	5.7	11	3.8	12	3.6	36	0	23
APR. 10...	1420	1540	5.4	11	4.0	11	3.6	33	0	23
MAY 21...	1720	603	6.9	9.8	4.1	12	3.7	36	0	21
JUNE 01...	1845	730	7.0	9.5	2.9	11	4.2	33	0	19
JULY 03...	1000	113	7.2	11	4.4	14	3.4	34	0	31
AUG. 15...	1835	12	.2	8.5	2.1	9.7	5.4	30	0	20
SEP. 17...	1700	4.2	8.2	14	6.4	21	5.0	62	0	29

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 24...	18	--	115	50	12	.9	202	7.0	16.0
NOV. 30...	8.2	.1	54	23	4	.5	89	6.9	8.0
DEC. 05...	12	.1	66	23	5	.8	120	6.9	5.0
JAN. 17...	43	.1	233	96	48	1.7	405	7.2	5.5
FEB. 28...	27	.3	140	63	30	1.1	253	6.9	11.0
MAR. 31...	13	.1	90	43	14	.8	158	7.1	10.5
APR. 10...	12	.1	86	44	17	.7	152	6.6	12.0
MAY 21...	12	.1	87	41	12	.8	152	6.7	17.0
JUNE 01...	14	.1	84	36	9	.8	146	7.1	23.0
JULY 03...	15	.3	103	46	18	.9	178	6.8	28.0
AUG. 15...	11	--	72	30	5	.8	140	6.7	29.0
SEP. 17...	22	1.4	138	61	10	1.2	246	7.3	22.5

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	6982	148	82	1550	13	245	22	415	37
NOV. 1974.....	89527	87	47	11400	6.4	1550	11	2660	23
DEC. 1974.....	37735	112	62	6320	9.1	927	15	1530	29
JAN. 1975.....	6430	312	180	3120	31	538	53	920	74
FEB. 1975.....	80809	98	53	11600	7.6	1660	13	2840	25
MAR. 1975.....	33685	160	89	8090	14	1270	24	2180	40
APR. 1975.....	18405	184	100	4970	17	845	29	1440	45
MAY 1975.....	51773	114	63	8810	9.3	1300	16	2240	29
JUNE 1975.....	21446	135	75	4340	12	695	20	1160	34
JULY 1975.....	1671	287	160	722	28	126	49	221	69
AUG. 1975.....	1273	201	110	378	19	65	32	110	49
SEPT 1975.....	56.78	212	120	18	20	3.1	34	5.2	51
TOTAL	349792.48	**	**	61300	**	9220	**	15700	**
WTD.AVG.	958.34	118	65	**	9.8	**	17	**	30

RED RIVER BASIN

07343500 White Oak Creek near Talco, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C); WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	79	111	373	141	212	140	248	146	216	159	172
2	147	80	107	392	89	220	143	265	178	226	169	178
3	151	73	102	338	82	185	178	93	219	174	184	182
4	154	74	108	240	65	191	223	86	239	203	197	185
5	154	83	113	217	69	209	253	81	253	229	210	188
6	159	103	117	215	81	173	276	91	282	273	219	192
7	166	124	100	219	95	206	300	105	308	291	219	197
8	168	155	94	236	99	248	347	140	301	308	225	203
9	174	177	86	266	112	284	253	167	173	314	227	208
10	181	153	91	303	148	267	159	225	118	300	234	210
11	185	104	93	317	180	272	137	253	108	307	243	216
12	188	98	111	366	328	207	129	290	96	314	256	221
13	194	91	114	388	243	149	130	311	117	329	257	232
14	201	91	108	410	264	114	158	236	129	349	134	249
15	132	97	110	398	286	97	243	288	160	377	134	261
16	154	101	115	398	516	101	170	132	212	380	145	258
17	152	118	134	403	322	109	181	120	184	388	156	239
18	152	153	151	414	355	121	195	120	130	388	167	227
19	161	179	158	430	386	153	217	136	133	388	181	200
20	171	216	127	450	373	195	255	156	137	395	196	205
21	182	237	125	471	388	234	286	143	150	402	271	205
22	191	260	161	489	405	240	293	157	181	409	167	189
23	199	275	208	511	413	271	305	156	205	413	303	178
24	203	126	246	523	394	305	321	188	223	417	215	171
25	208	90	286	534	326	321	326	210	248	410	113	167
26	216	72	337	550	277	340	344	245	270	457	139	155
27	223	77	391	567	239	353	369	308	134	402	152	155
28	224	75	470	588	253	290	391	291	219	489	160	147
29	82	79	461	613	---	226	271	86	197	425	170	147
30	164	89	480	605	---	178	374	84	223	311	165	147
31	143	---	400	349	---	158	---	115	---	104	171	---
MONTH	172	124	188	406	247	214	246	178	189	335	192	196

TEMPERATURE (DEG. C) OF WATER; WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	18.0	6.5	11.0	14.0	12.0	14.0	23.0	23.0	26.5	30.0	27.0
2	18.0	20.0	5.0	10.0	12.0	12.0	14.5	21.0	23.5	28.0	26.5	28.5
3	19.0	21.0	5.0	9.0	11.5	10.0	14.0	20.0	25.0	27.0	37.0	30.0
4	17.0	20.0	6.0	8.0	11.0	10.0	13.0	20.0	25.0	27.0	30.0	28.5
5	18.0	16.5	7.0	8.0	10.5	7.0	14.0	23.0	24.5	28.0	29.0	28.0
6	19.0	16.5	9.0	7.0	7.0	10.0	14.0	23.5	28.5	30.0	30.5	26.0
7	20.0	15.0	11.0	9.0	6.0	12.0	15.0	24.0	27.0	30.0	28.0	25.0
8	19.5	14.0	10.0	9.0	6.0	11.0	14.5	25.0	25.5	30.0	33.0	27.0
9	22.0	15.0	8.0	9.0	6.0	12.0	14.0	24.0	24.0	31.0	28.0	26.5
10	22.0	15.0	6.5	10.5	9.0	11.0	16.0	24.0	24.5	29.5	27.0	27.0
11	21.0	15.0	7.0	10.0	9.5	10.0	16.0	24.0	25.0	31.0	30.0	28.0
12	19.5	14.0	6.0	9.0	9.0	10.5	14.0	25.0	23.0	28.0	29.0	25.5
13	20.0	14.0	9.0	6.5	10.0	10.0	15.5	25.0	24.5	30.0	35.5	26.0
14	19.0	14.0	9.0	6.0	10.0	6.5	15.0	22.0	24.0	31.0	28.0	21.0
15	17.0	11.0	8.5	6.0	12.0	8.0	13.5	21.0	24.5	30.5	37.0	22.0
16	16.0	11.0	8.0	7.0	12.0	9.0	17.0	21.0	26.0	26.5	28.0	23.0
17	15.5	12.0	7.0	7.0	10.0	10.5	18.0	21.0	27.0	30.0	31.0	24.0
18	16.0	11.5	8.0	7.0	10.0	11.5	19.5	21.5	22.0	37.0	29.0	24.5
19	16.0	12.0	8.0	9.0	9.0	13.5	17.0	24.0	28.0	28.0	33.0	23.5
20	16.0	13.0	8.0	6.5	9.5	14.5	18.0	26.0	28.0	30.0	31.0	22.0
21	16.0	12.0	7.0	6.0	11.0	16.0	20.0	23.5	26.5	31.5	27.0	23.0
22	15.0	13.0	9.0	8.0	13.0	16.5	19.0	23.5	28.0	34.0	27.0	22.0
23	16.0	15.0	10.0	7.0	10.0	18.5	21.0	24.5	29.0	34.5	27.0	23.0
24	16.0	14.0	12.0	8.0	8.0	18.0	24.0	23.5	28.0	31.0	26.0	24.0
25	17.0	12.0	10.0	8.0	7.0	16.0	21.0	24.0	27.0	32.0	26.0	23.0
26	17.0	10.0	10.0	9.0	9.0	16.0	23.0	25.5	26.0	36.0	28.0	23.5
27	16.0	10.0	9.0	10.0	9.5	17.0	24.0	25.0	27.0	29.0	28.0	23.0
28	18.0	10.0	9.0	12.0	11.0	17.0	24.0	24.0	27.0	29.0	27.0	25.5
29	19.0	11.0	10.0	11.5	---	13.0	23.0	22.0	26.5	31.0	29.0	25.0
30	20.0	8.0	12.0	14.0	---	10.0	22.0	22.0	28.0	31.0	28.0	25.0
31	20.0	---	12.0	16.0	---	10.5	---	21.5	---	30.0	28.0	---
MONTH	18.0	14.0	8.5	9.0	9.5	12.0	17.5	23.0	26.0	30.5	29.5	25.0

[illegible]

07344200 Wright Patman Lake near Texarkana, Tex.

LOCATION.--Lat 33°18'16", long 94°09'38", Bowie-Cass County line, in intake structure of Texarkana Dam on the Sulphur River, 0.5 mile (0.8 km) upstream from U.S. Highway 59, 10 miles (16 km) southwest of Texarkana, and at mile 44.5 (71.6 km).

DRAINAGE AREA.--3,443 mi² (8,917 km²).

PERIOD OF RECORD.--Contents: July 1953 to current year. Published as Texarkana Reservoir prior to October 1970 and as Lake Texarkana from October 1970 to September 1972.

Water quality: Chemical analyses: March 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). July 19 to Dec. 31, 1953, nonrecording gage at site about 125 ft (38 m) upstream at datum 200 ft (61.0 m) higher.

EXTREMES.--Current year: Maximum contents, 770,500 acre-ft (950 hm³) Feb. 11 (elevation, 237.22 ft or 72.305 m); minimum, 155,600 acre-ft (192 hm³) Jan. 26 (elevation, 220.49 ft or 67.205 m).

Period of record: Maximum contents, 1,912,100 acre-ft (2.36 km³) May 9, 1966 (elevation, 252.64 ft or 77.005 m); minimum since first appreciable storage and after deliberate impoundment began, 137,500 acre-ft (170 hm³) Sept. 5, 1958.

REMARKS.--The lake is formed by a rolled earthfill dam 18,500 ft (5,640 m) long, including a 200-foot (61-metre) uncontrolled spillway and a 1-mile (1.6-kilometre) long dike. Temporary impoundment of water began July 2, 1953, and deliberate impoundment began June 27, 1956. The dam was completed in December 1957. The flood-control outlet works consist of two 20.0-foot-diameter (6.1-metre) conduits controlled by four 10.0- by 20.0-foot (3.0- by 6.1-metre) electrically driven broome-type gates. Flow discharging over the spillway passes into an outlet channel and then to the Sulphur River. The lake was built for flood control and conservation. The capacity table is based on a 1948 survey. At end of year, flow from 34.3 mi² (88.8 km²) above this station was partly controlled by 24 floodwater-retarding structures with a combined capacity of 13,870 acre-ft (17.1 hm³) below the flood-spillway crests, of which 2,700 acre-ft (3.33 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	286.0	---
Crest of spillway.....	259.5	2,654,300
Top of conservation pool.....	220.0	145,300
Lowest gated outlets (invert).....	200.0	2,600

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

REVISIONS (WATER YEARS).--WSP 1561: 1957(M). WSP 1711: 1959(M).

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

220.0	145,300	228.0	364,100	234.0	607,900
222.0	189,300	230.0	437,300	236.0	706,200
224.0	240,200	232.0	518,400	238.0	813,200
226.0	298,500				

CONTENTS, IN ACRE-Feet, AT 0700, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297000	205800	430900	361000	168000	518000	270800	268200	372600	344400	316800	292900
2	295700	205800	448400	341700	190500	502900	257600	269900	371500	343700	320800	291200
3	294500	199000	460300	332700	217800	482200	244100	291800	371200	343100	320000	291800
4	294800	193800	466700	318100	248600	469200	231600	322600	371500	341400	319400	289400
5	295700	197700	468700	302300	300400	455000	223800	343700	372900	340400	318400	288500
6	296700	193800	479600	287900	409400	441600	212300	373300	375400	340000	317200	289100
7	288700	212600	493300	273500	528000	428100	210600	394600	377200	339800	315900	287300
8	277300	249800	504200	258400	620800	413100	218000	416100	376500	337000	314000	286400
9	273400	281500	511300	243000	690000	397500	221100	442000	379300	336000	313400	286100
10	266000	309600	513400	230600	730700	390300	219800	467600	377900	334400	312400	285200
11	253500	334100	518900	215200	753800	374300	219000	479300	373300	334400	310800	284900
12	241600	356100	526700	197300	765640	364800	221700	489200	366900	331700	309200	284900
13	234100	370300	538500	185600	767300	360300	226100	488800	366600	330400	307600	282200
14	228800	374900	547300	178000	764600	362700	235900	483900	367600	327100	306700	281000
15	226900	376400	556500	173900	757500	358300	244400	478100	368700	325800	304800	281000
16	225100	382100	557000	170100	747000	354500	252200	465600	364800	324500	303500	280700
17	222700	396400	557000	166700	737500	351500	259300	456100	369400	322900	303200	280400
18	219600	409400	554800	164900	720200	351500	265800	441600	379600	321300	304200	279800
19	214900	417700	551700	161700	693500	355600	270800	427000	387500	321300	303200	278900
20	215900	423000	547300	159600	674900	362000	264400	413800	383900	320700	302000	276800
21	213100	423700	540200	158700	653500	368700	265300	403400	387100	319700	302300	275900
22	209300	421400	529300	158700	638500	371900	269600	392800	378900	317800	300700	275600
23	205400	415000	515500	158700	624600	369700	267300	388900	370100	316200	298800	274700
24	201400	413900	500400	158900	606500	368300	265600	385700	366900	314900	298200	273800
25	198500	409400	483700	159200	586700	359600	262700	385700	361700	314900	297000	272000
26	195000	406400	465100	157000	568000	346400	264400	383900	355900	316200	295400	271100
27	189200	404100	450800	157000	551500	335700	263000	388200	351800	315900	297600	269600
28	183600	398600	432100	157400	535800	322300	262800	383200	350100	315900	295400	268400
29	190600	396800	415100	158700	---	310500	265800	381100	346800	314600	296600	267900
30	188700	410500	397200	157700	---	297600	268200	377900	346100	314300	294800	267000
31	187800	---	382100	158700	---	283400	---	375400	---	314000	293600	---
(†)	221.87	229.20	228.42	220.64	232.40	225.50	224.99	228.32	227.47	226.49	225.84	224.95
(*)	-119500	+222700	-28400	-220220	+377060	-252420	-15200	+107230	-29290	-32120	-20380	-26600
(††)	2870	2750	2790	2870	2580	2290	1930	1980	2140	2490	2680	2590
MAX	297000	423700	557000	361000	767300	518000	270800	489200	387500	344400	320000	292900
MIN	183600	193800	382100	157000	168000	283400	210600	268200	346100	314000	293600	267000

CAL YR 1974..... * +40210 †† 33310 MAX 699800 MIN 159600
WTR YR 1975..... * -37800 †† 29960 MAX 767300 MIN 157000

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial uses.

RED RIVER BASIN

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07344200 Wright Patman Lake near Texarkana, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
AUG., 1975										
04...	1130	6.8	29	3.1	11	3.4	96	0	14	
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
AUG., 1975										
04...	9.4	.1	124	85	6	.5	220	7.5	29.0	

07344482 Big Cypress Creek near Winnsboro, Tex.

LOCATION.--Lat 33°01'24", long 95°16'12", Franklin County, on left bank at downstream side of bridge on State Highway 37, 0.3 mile (0.5 km) downstream from Glade Branch, 1.8 miles (2.9 km) upstream from Little Cypress Creek, 4.7 miles (7.6 km) north of Winnsboro, and at mile 146.5 (235.7 km).

DRAINAGE AREA.--27.2 mi² (70.4 km²).

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 375.83 ft (114.553 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,320 ft³/s (122 m³/s) Nov. 24 (gage height, 12.39 ft or 3.776 m); minimum, 1.3 ft³/s (0.037 m³/s) July 31, Aug. 3.

Period of record: Maximum discharge, 4,320 ft³/s (122 m³/s) Nov. 24, 1974 (gage height, 12.39 ft or 3.776 m); no flow Aug. 24, 1974.

REMARKS.--Records good. Flow affected slightly by Lake Franklin located upstream on Glade Branch.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	288	36	31	1,230	47	12	26	7.9	3.4	1.5	2.6
2	2.6	31	21	48	1,040	21	9.9	627	6.7	3.9	1.5	2.6
3	2.5	17	16	125	638	15	7.1	304	6.2	4.4	1.7	2.5
4	2.6	263	14	38	179	21	6.6	68	6.2	4.2	3.4	2.4
5	2.7	78	16	27	130	18	6.4	24	6.1	3.8	2.3	2.3
6	2.5	21	461	22	98	16	6.2	16	5.8	3.2	1.7	2.4
7	2.8	14	80	21	37	15	12	21	17	3.0	1.5	2.2
8	3.1	14	26	21	28	10	246	14	15	2.6	1.8	2.1
9	3.1	13	17	20	25	15	258	9.0	17	2.3	206	2.4
10	3.1	666	19	51	20	93	60	6.6	8.6	2.4	29	2.8
11	2.8	229	304	27	21	55	32	5.7	6.7	2.5	5.4	3.0
12	2.5	33	66	28	18	255	18	5.7	6.2	2.3	4.2	3.4
13	2.5	19	35	22	15	533	40	4.9	5.8	2.0	3.7	3.2
14	15	13	30	19	15	119	121	33	5.7	2.0	3.6	2.5
15	28	11	27	17	14	36	31	71	15	2.1	3.4	2.7
16	7.3	11	23	15	16	81	17	65	8.2	2.1	3.2	3.4
17	3.5	13	21	15	30	44	12	12	6.0	2.1	18	3.3
18	3.1	13	21	15	20	78	13	6.6	5.4	2.3	61	3.3
19	2.6	13	19	15	15	34	7.1	4.9	4.8	2.1	11	3.5
20	2.3	10	18	13	12	22	6.0	160	4.5	1.9	5.1	4.3
21	2.3	9.2	17	13	11	18	5.3	373	4.5	1.7	3.9	3.2
22	2.5	9.2	17	11	19	15	5.3	23	13	1.5	3.5	3.3
23	3.0	29	17	11	35	15	5.9	11	4.9	1.6	3.3	3.0
24	3.2	1,670	26	14	35	11	5.8	23	4.3	1.6	3.3	3.2
25	3.6	114	84	17	19	8.0	4.6	82	5.9	4.0	3.7	3.3
26	3.9	32	32	14	15	13	4.5	12	5.8	2.9	3.2	3.7
27	4.1	20	28	13	12	34	4.0	8.2	5.4	2.1	3.3	4.0
28	79	16	25	12	81	80	26	25	5.2	1.8	3.2	4.6
29	63	90	28	12	-----	71	23	109	9.7	1.6	3.3	5.1
30	14	250	34	11	-----	22	182	33	4.0	1.5	3.0	5.6
31	540	-----	50	24	-----	16	-----	11	-----	1.4	2.9	-----
TOTAL	816.3	4,009.4	1,628	742	3,828	1,831.0	1,187.7	2,194.6	227.5	76.3	405.6	95.9
MEAN	26.3	134	52.5	23.9	137	59.1	39.6	70.8	7.58	2.46	13.1	3.20
MAX	540	1,670	461	125	1,230	533	258	627	17	4.4	206	5.6
MIN	2.3	9.2	14	11	11	8.0	4.0	4.9	4.0	1.4	1.5	2.1
CFSM	.97	4.93	1.93	.88	5.04	2.17	1.46	2.60	.28	.09	.48	.12
IN.	1.12	5.49	2.23	1.02	5.24	2.51	1.62	3.00	.31	.10	.55	.13
AC-FT	1,620	7,950	3,230	1,470	7,590	3,630	2,360	4,350	451	151	805	190

CAL YR 1974 TOTAL - MEAN - MAX - MIN - CFSM - IN - AC-FT -
WTR YR 1975 TOTAL 17,042.3 MEAN 46.7 MAX 1,670 MIN 1.4 CFSM 1.72 IN 23.32 AC-FT 33,800

PEAK DISCHARGE (BASE, 900 FT³/S).--1974: Apr. 22 (1200) 4,260 ft³/s (12.37 ft); Aug. 30 (1800) 1,000 ft³/s (10.60 ft); Sept. 10 (1930) 978 ft³/s (10.58 ft); Sept. 21 (0800) 1,120 ft³/s (10.69 ft).
1975: Oct. 31 (1830) 1,400 ft³/s (10.98 ft); Nov. 10 (1530) 1,430 ft³/s (10.99 ft); Nov. 24 (0500) 4,320 ft³/s (12.39 ft); Feb. 1 (0430) 2,120 ft³/s (11.38 ft); May 2 (1730) 1,960 ft³/s (11.29 ft); May 21 (0130) 951 ft³/s (10.56 ft).

07344484 Lake Cypress Springs near Newsome, Tex.

LOCATION.--Lat 33°03'45", long 95°08'20", Franklin County, on steel tower 100 ft (30 m) upstream from left end of dam, 2.2 miles (3.5 km) upstream from Brushy Creek, and 5.9 miles (9.5 km) north of Newsome.

DRAINAGE AREA.--75.0 mi² (194.2 km²).

PERIOD OF RECORD.--Contents: October 1973 to current year.

Water quality: Chemical analyses: October 1974 to current year.

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

EXTREMES.--Current year: Maximum contents, 83,770 acre-ft (103 hm³) Feb. 2 (elevation, 381.00 ft or 116.129 m); minimum, 71,260 acre-ft (87.9 hm³) Sept. 30 (elevation, 377.53 ft or 115.071 m).

Period of record: Maximum contents, 83,770 acre-ft (103 hm³) Feb. 2, 1975 (elevation, 381.00 ft or 116.129 m); minimum, 70,890 acre-ft (87.4 hm³) Oct. 11, 1973 (elevation, 377.42 ft or 115.038 m).

REMARKS.--The lake is formed by a rolled earthfill dam 5,230 ft (1,590 m) long. Deliberate impoundment began July 7, 1970, and the dam was completed Feb. 15, 1971. The emergency spillway is an excavated channel through natural ground 1,000 ft (305 m) wide located to the left of left end of dam. The service spillway is a rectangular 23- by 23-foot (7- by 7-metre) drop inlet located near the right end of dam. The low-flow outlet works consist of an 18-inch-diameter (457-millimetre) concrete pipe that has duplicate valve controls and discharges into the service spillway conduit. Records furnished by Franklin County Water District show that during the year, 273 acre-ft (0.337 hm³) was released through outlet works. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	397.0	-
Crest of spillway.....	385.0	100,400
Crest of spillway.....	378.0	72,850
Lowest gated outlet (invert).....	317.75	0

COOPERATION.--The capacity table, furnished by the Franklin County Water District, was based on data prepared by Wisenbaker, Fix, and Associates, Consulting Engineers. Records of diversions furnished by Franklin County Water District.

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

377.0	69,490	380.0	79,980
378.0	72,850	381.0	83,770
379.0	76,340		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74,720	76,980	76,800	74,720	83,580	74,960	75,070	75,980	75,630	73,990	72,610	72,610
2	74,470	76,550	76,380	75,070	83,770	74,930	74,790	78,720	75,520	73,950	72,540	72,610
3	74,300	76,160	76,020	75,210	82,810	74,820	74,720	79,130	75,380	73,920	72,820	72,540
4	74,120	76,480	75,700	75,100	81,670	74,860	74,610	78,430	75,240	73,850	72,750	72,440
5	73,950	76,230	76,090	75,030	80,580	74,790	74,470	77,880	75,140	73,810	72,710	72,410
6	73,920	75,840	76,840	74,930	79,350	74,750	74,330	77,340	75,070	73,780	72,710	72,370
7	73,810	75,490	76,700	74,820	78,500	74,750	74,610	77,230	75,100	73,710	72,710	72,270
8	73,710	75,240	76,300	74,790	77,780	74,580	75,350	76,880	75,310	73,670	72,750	72,200
9	73,670	75,070	75,950	74,720	77,160	74,750	76,130	76,480	75,350	73,600	73,540	72,170
10	73,640	78,280	76,090	74,930	76,660	74,930	76,130	76,090	75,240	73,570	73,540	72,130
11	73,540	78,070	76,450	74,820	76,300	75,140	75,880	75,910	75,170	73,500	73,500	72,070
12	73,540	77,380	76,230	74,790	76,060	76,020	75,600	75,700	74,540	73,430	73,500	72,070
13	73,500	76,840	75,950	74,750	75,740	77,670	75,770	75,420	74,440	73,360	73,470	71,930
14	73,500	76,380	75,770	74,650	75,490	77,410	75,950	75,840	74,330	73,330	73,470	71,860
15	74,020	75,880	75,520	74,580	75,310	76,980	75,740	76,160	74,580	73,260	73,430	71,830
16	73,950	75,630	75,280	74,510	75,240	76,950	75,600	76,270	74,510	73,230	73,400	71,830
17	73,880	75,420	75,100	74,470	75,140	76,700	75,350	76,060	74,400	73,190	73,780	71,830
18	73,850	75,140	75,030	74,440	75,030	76,660	75,280	75,840	74,330	73,160	76,300	71,830
19	73,670	75,070	75,000	74,370	74,890	76,380	75,070	75,630	74,230	73,120	75,810	71,830
20	73,600	74,860	74,960	74,300	74,750	76,090	74,890	76,800	74,190	73,060	74,060	71,760
21	73,500	74,680	74,930	74,260	74,680	75,840	74,750	77,340	74,120	73,020	73,060	71,730
22	73,500	74,540	74,890	74,230	74,860	75,630	74,650	76,980	74,060	72,990	72,710	71,660
23	73,470	76,410	74,960	74,190	74,820	75,450	74,540	76,700	73,990	72,950	72,680	71,590
24	73,430	80,990	75,450	74,260	74,790	75,280	74,470	76,590	73,950	72,850	72,780	71,520
25	73,740	79,900	75,000	74,230	74,720	75,100	74,440	76,520	74,090	72,880	72,820	71,460
26	73,740	78,870	74,680	74,190	74,650	75,140	74,370	76,270	74,090	72,850	72,850	71,420
27	73,360	77,990	74,650	74,190	74,610	75,240	74,260	76,160	74,090	72,820	72,750	71,360
28	74,000	77,340	74,650	74,190	74,860	75,600	74,680	76,060	74,120	72,780	72,750	71,320
29	74,120	77,560	74,650	74,230	-----	75,560	75,560	76,230	74,090	72,710	72,710	71,290
30	74,090	77,380	74,790	74,190	-----	75,380	75,980	76,130	74,060	72,680	72,680	71,260
31	76,660	-----	74,820	78,250	-----	75,170	-----	75,910	-----	72,610	72,640	-----
(†)	379.09	379.29	378.57	379.53	378.58	378.67	378.90	378.88	378.35	377.93	377.94	377.53
(*)	+1,730	+720	-2,560	+3,430	-3,390	+310	+810	-70	-1,850	-1,450	+30	-1,380
(††)	15	15	15	15	15	15	29	29	29	32	55	234
MAX	76,660	80,990	76,840	78,250	83,770	77,670	76,130	79,130	75,630	73,990	76,300	72,610
MIN	73,360	74,540	74,650	74,190	74,610	74,580	74,260	75,420	73,950	72,610	72,540	71,260

CAL YR 1974..... + -700 †† 219 MAX 82,280 MIN 71,420
WTR YR 1975..... + -3,670 †† 498 MAX 83,770 MIN 71,260

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal, commercial, and recreational use.

RED RIVER BASIN

07344484 Lake Cypress Springs near Newsome, Tex.--Continued

WATER QUALITY DATA

		DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
DATE	TIME								
JULY, 1975									
01...	0755	2.0	8.3	3.9	8.8	3.0	32	0	15
AUG.									
06...	0915	2.2	7.8	4.5	8.9	3.3	32	0	15
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY, 1975									
01...	14	.1	71	37	11	.6	136	6.9	28.0
AUG.									
06...	13	.1	71	38	12	.6	138	7.6	26.0

07344500 Big Cypress Creek near Pittsburg, Tex.

LOCATION.--Lat 33°01'15", long 94°52'55", Camp-Titus County line, near center of stream at downstream side of bridge on State Highway 11, 0.5 mile (0.8 km) upstream from Louisiana & Arkansas Railway Co. bridge, 1.4 miles (2.3 km) upstream from Williamson Creek, 5.2 miles (8.4 km) east of Pittsburg, and at mile 110.0 (177.0 km).

DRAINAGE AREA.--366 mi² (948 km²).

PERIOD OF RECORD.--Discharge: March 1943 to January 1963 (published as Cypress Creek near Pittsburg), October 1967 to current year.

Gage-height records collected at this site September 1963 to December 1967 are published in reports by Corps of Engineers.

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 247.49 ft (75.435 m) above mean sea level. Prior to Nov. 12, 1954, water-stage recorder at site 1,900 ft (579 m) downstream at present datum.

AVERAGE DISCHARGE.--27 years (1943-62, 1967-75), 345 ft³/s (9.770 m³/s), 12.80 in/yr (325 mm/yr), 250,000 acre-ft/yr (308 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 9,660 ft³/s (274 m³/s) Feb. 2 (gage height, 17.30 ft or 5.273 m); minimum, 5.2 ft³/s (0.15 m³/s) Sept. 24.

Period of record: Maximum discharge, 58,500 ft³/s (1,660 m³/s) Mar. 30, 1945 (gage height, 28.3 ft or 8.63 m, from floodmark and adjusted to present site on basis of record for flood of Apr. 27, 1958), from rating curve extended above 20,000 ft³/s (566 m³/s); no flow Aug. 20 to Oct. 3, 1954, July 19 to Nov. 4, 1956.

Historic: Maximum stage since at least 1895, that of Mar. 30, 1945; flood in January 1938 reached a stage of about 25 ft (7.6 m), present site, adjusted as explained above, from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 714 micromhos Sept. 22; minimum daily, 100 micromhos May 3. Maximum water temperatures, 29.0°C on several days during June and July.

Period of record: Maximum daily specific conductance (1968-69, 1971-75), 941 micromhos Sept. 1, 1972; minimum daily, 69 micromhos July 30, 1969. Maximum water temperatures, 32.0°C Aug. 20, 1969; minimum, 3.0°C Jan. 12, 1973.

REMARKS.--Discharge records good. Small diversions upstream for municipal water supply. Flow from 111 mi² (287 km²) above this station is partly controlled by Lake Cypress Springs and Monticello Reservoir with a capacity of 112,900 acre-ft (139 hm³). Construction began during the year on Fort Sherman Dam located on Big Cypress Creek between Lake Cypress Springs and this station. No storage in the lake has started. Records furnished by the city of Mount Pleasant show that 1,180 acre-ft (1.45 hm³) of sewage effluent was returned to a tributary above the station. Records furnished by the city of Pittsburg show that 113 acre-ft (0.139 hm³) was returned to a tributary below the station.

REVISIONS.--WSP 1211: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	629	3,720	1,920	659	3,660	380	771	1,030	730	218	15	10
2	473	2,830	1,600	723	8,860	504	603	1,250	598	127	15	8.9
3	312	1,610	1,090	768	6,470	514	445	5,460	409	115	14	12
4	204	1,290	892	838	4,870	677	321	3,910	197	116	12	10
5	151	1,130	752	814	2,690	846	254	1,860	143	78	14	9.0
6	136	1,050	1,160	665	2,000	828	212	1,320	121	55	18	8.2
7	128	950	2,800	587	1,440	668	186	1,250	157	46	16	7.6
8	111	811	2,060	546	1,120	480	334	1,230	206	40	14	7.0
9	84	688	1,340	543	950	309	760	1,270	557	37	12	6.1
10	73	857	1,030	564	821	491	992	897	1,040	33	13	5.7
11	66	4,330	958	617	722	808	1,120	631	1,140	31	12	7.2
12	63	3,160	1,040	661	658	1,450	1,020	443	752	29	9.7	7.4
13	59	1,730	1,080	623	593	2,940	895	309	489	28	9.7	7.1
14	56	1,200	900	550	531	3,220	957	368	245	25	10	7.3
15	91	948	823	475	477	2,040	982	556	132	22	9.3	7.0
16	154	795	786	415	431	1,520	905	682	133	22	8.4	6.2
17	148	685	750	360	398	1,350	799	656	144	20	9.8	5.7
18	138	609	685	307	363	1,460	722	628	132	19	9.8	7.5
19	129	538	619	274	319	1,590	575	533	105	18	9.0	7.9
20	101	471	513	246	288	1,330	398	517	84	17	9.2	7.6
21	78	405	417	228	260	1,110	274	1,220	68	15	9.6	7.4
22	66	349	352	207	247	932	212	1,540	60	20	11	6.8
23	54	297	296	195	261	764	178	1,260	55	18	11	5.8
24	52	965	267	186	275	620	158	1,010	51	15	12	5.4
25	50	6,290	359	189	276	486	144	1,130	62	71	11	6.4
26	49	3,330	546	196	252	385	133	1,400	68	125	9.4	6.5
27	47	1,750	638	190	229	420	121	1,160	69	33	8.8	6.4
28	125	1,240	610	187	238	1,120	158	748	100	21	15	7.0
29	539	1,040	558	178	-----	1,090	358	728	102	17	15	8.3
30	693	1,290	502	168	-----	1,140	732	860	204	16	15	8.7
31	1,190	-----	564	263	-----	1,020	-----	874	-----	16	13	-----
TOTAL	6,249	46,358	27,907	13,422	39,699	32,492	15,719	36,730	8,353	1,463	370.7	224.1
MEAN	202	1,545	900	433	1,418	1,048	524	1,185	278	47.2	12.0	7.47
MAX	1,190	6,290	2,800	838	8,860	3,220	1,120	5,460	1,140	218	18	12
MIN	47	297	267	168	229	309	121	309	51	15	8.4	5.4
CFSM	.55	4.22	2.46	1.18	3.87	2.86	1.43	3.24	.76	.13	.03	.02
IN.	.64	4.71	2.84	1.36	4.03	3.30	1.60	3.73	.85	.15	.04	.02
AC-FT	12,390	91,950	55,350	26,620	78,740	64,450	31,180	72,850	16,570	2,900	735	445

CAL YR 1974 TOTAL 195,898.0 MEAN 537 MAX 11,200 MIN 4.4 CFSM 1.47 IN 19.91 AC-FT 388,600
WTR YR 1975 TOTAL 228,986.8 MEAN 627 MAX 8,860 MIN 5.4 CFSM 1.71 IN 23.27 AC-FT 454,200

RED RIVER BASIN

07344500 Big Cypress Creek near Pittsburg, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 31...	1405	970	8.5	9.3	3.7	11	4.9	15	0	30
NOV. 30...	1650	1170	7.2	7.9	3.6	9.7	3.8	28	0	17
DEC. 05...	0915	742	7.7	9.4	4.3	12	3.7	29	0	21
JAN. 08...	1125	542	7.9	11	5.6	16	3.8	31	0	31
FEB. 28...	1450	235	10	12	6.8	20	3.6	30	0	36
MAR. 31...	1730	720	6.6	11	5.0	15	3.2	32	0	28
APR. 02...	1330	786	7.2	10	5.3	16	2.9	33	0	27
MAY 13...	1250	327	7.8	11	5.2	14	2.9	36	0	22
JUNE 25...	1525	70	14	11	4.5	20	3.7	34	0	25
JULY 31...	2357	12	16	17	7.0	38	5.9	49	0	41
AUG. 05...	1355	16	18	22	7.6	56	6.5	62	0	39
SEP. 16...	0903	6.5	18	23	7.0	72	10	58	0	33

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 31...	19	--	94	38	26	.8	166	6.5	18.0
NOV. 30...	16	.1	79	35	12	.7	138	7.2	9.0
DEC. 05...	20	.1	93	41	17	.8	164	6.8	6.0
JAN. 08...	24	.3	115	51	25	1.0	204	7.1	11.0
FEB. 28...	29	.3	132	54	33	1.1	232	7.2	13.0
MAR. 31...	22	.1	107	48	22	.9	195	7.3	18.0
APR. 02...	21	.2	106	47	20	1.0	190	6.9	16.0
MAY 13...	21	.2	102	49	19	.9	184	7.0	23.0
JUNE 25...	29	.5	124	46	18	1.3	224	6.9	27.0
JULY 31...	54	1.3	204	71	31	2.0	375	7.5	28.0
AUG. 05...	76	--	256	86	35	2.6	470	7.2	26.0
SEP. 16...	98	5.2	295	86	39	3.4	609	7.0	20.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	6249	222	120	2020	28	472	32	540	49
NOV. 1974.....	46358	133	73	9140	16	2000	19	2380	32
DEC. 1974.....	27907	167	92	6930	20	1510	24	1810	39
JAN. 1975.....	13422	227	130	4710	29	1050	32	1160	50
FEB. 1975.....	39699	136	75	8040	17	1820	19	2040	33
MAR. 1975.....	32492	170	94	8250	21	1840	24	2110	39
APR. 1975.....	15719	201	110	4670	24	1020	29	1230	45
MAY 1975.....	36730	149	82	8130	18	1790	21	2080	35
JUNE 1975.....	8353	191	110	2480	23	519	27	609	43
JULY 1975.....	1463	247	140	553	33	130	35	138	54
AUG. 1975.....	370.7	457	250	250	73	73	50	50	78
SEPT 1975.....	224.1	545	300	182	90	54	53	32	85
TOTAL	228986.72	**	**	55400	**	12300	**	14200	**
WTD.AVG.	627.36	162	90	**	20	**	23	**	38

RED RIVER BASIN

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07344500 Big Cypress Creek near Pittsburg, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	366	118	146	241	120	275	197	187	185	195	377	450
2	190	126	161	225	105	251	196	170	184	205	400	440
3	198	137	151	211	112	240	205	100	198	166	420	422
4	207	137	161	208	130	228	208	145	198	175	468	422
5	216	153	166	203	136	253	214	137	206	209	470	430
6	218	172	127	204	138	240	223	145	217	228	482	435
7	219	176	127	200	141	224	230	151	198	223	381	440
8	220	181	140	204	147	242	210	171	243	219	361	445
9	234	186	144	210	155	241	244	179	153	228	361	453
10	256	138	146	209	162	231	200	182	157	306	400	475
11	274	112	145	207	167	207	192	182	179	262	440	491
12	259	127	165	200	177	153	188	181	187	289	467	489
13	276	123	160	231	182	125	184	184	193	313	381	530
14	287	135	165	223	187	117	181	195	205	313	400	577
15	247	143	170	290	195	119	196	222	217	310	405	582
16	283	156	176	230	201	128	193	111	224	326	415	606
17	258	169	182	236	206	144	187	196	229	326	430	620
18	236	182	205	243	214	156	184	182	224	346	450	603
19	225	195	194	247	213	149	198	168	213	368	470	590
20	216	204	198	255	214	157	204	144	215	390	519	642
21	231	210	207	268	215	166	204	132	220	424	531	651
22	232	216	216	247	223	170	220	133	225	455	547	714
23	238	216	216	251	235	184	209	154	231	435	526	642
24	262	142	225	264	259	193	217	156	226	409	521	630
25	272	110	224	275	245	200	224	139	224	268	492	651
26	272	108	248	283	235	215	228	124	224	259	500	642
27	278	123	231	274	233	209	226	150	243	274	500	615
28	225	133	229	274	232	185	215	176	255	290	514	639
29	195	143	224	271	---	195	255	181	268	330	531	642
30	185	138	229	273	---	190	220	174	206	351	575	660
31	165	---	237	250	---	195	---	187	---	375	469	---
MONTH	240	154	184	239	185	193	208	163	212	299	458	554

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	19.0	8.0	9.0	13.0	13.0	16.0	20.0	---	29.0	28.0	28.0
2	18.0	21.0	6.0	---	---	13.0	16.0	---	27.0	29.0	---	28.0
3	19.0	20.0	7.0	9.0	10.5	---	14.0	20.0	27.0	29.0	28.0	28.0
4	---	18.0	7.0	7.0	12.0	---	14.0	21.0	28.0	29.0	28.0	28.0
5	19.0	16.0	7.0	7.0	11.0	14.0	15.0	21.0	28.0	28.0	28.0	28.0
6	---	15.0	7.0	8.5	9.0	---	16.0	---	27.0	28.0	28.0	---
7	---	14.0	8.0	9.0	7.0	15.0	---	21.0	27.0	---	28.0	27.0
8	19.5	---	7.0	---	8.0	15.0	16.0	21.0	27.0	29.0	28.0	---
9	20.0	14.0	---	9.0	7.0	13.0	16.0	23.0	26.0	29.0	28.0	28.0
10	20.0	14.0	8.0	---	7.0	11.0	---	25.0	28.0	29.0	---	---
11	20.0	14.0	8.0	---	12.0	10.0	---	23.0	29.0	29.0	28.0	27.0
12	19.0	14.0	8.0	---	12.0	10.0	17.0	24.0	29.0	28.0	28.0	26.0
13	19.0	14.0	9.0	---	12.0	---	15.0	25.0	28.0	28.0	28.0	26.0
14	19.0	---	---	---	12.0	10.0	16.0	---	---	28.0	---	26.0
15	18.0	13.0	---	---	---	11.0	17.0	25.0	27.0	29.0	---	26.0
16	17.0	12.0	9.0	---	12.0	11.0	17.0	26.0	27.0	29.0	---	26.0
17	17.0	10.0	7.0	---	12.0	13.0	---	26.0	27.0	29.0	---	---
18	17.0	10.0	8.0	8.0	12.0	12.0	18.0	---	28.0	28.0	28.0	26.0
19	---	9.0	8.0	8.0	11.0	13.0	18.0	27.0	28.5	---	28.0	26.0
20	17.0	9.0	8.0	7.0	---	14.0	18.0	24.0	28.0	29.0	28.0	26.0
21	17.0	---	7.0	8.0	11.0	15.0	18.0	24.0	---	28.0	28.0	25.0
22	17.0	13.0	---	8.0	---	15.0	19.0	25.0	---	29.0	28.0	23.0
23	17.0	13.0	---	8.0	---	18.0	19.0	25.0	29.0	---	28.0	21.0
24	18.0	12.0	---	8.0	11.0	18.0	20.0	25.0	29.0	29.0	28.0	20.0
25	18.0	10.0	9.0	---	11.0	18.0	20.0	25.0	27.0	28.0	28.0	20.0
26	18.0	10.0	8.0	9.0	11.0	---	20.0	26.0	27.0	28.0	28.0	20.0
27	18.0	11.0	8.0	11.0	13.0	18.0	20.0	25.0	29.0	28.0	28.0	19.0
28	---	11.0	8.0	12.0	13.0	---	21.0	26.0	---	28.0	28.0	19.0
29	18.0	11.0	8.5	12.0	---	---	20.0	---	27.0	---	28.0	19.0
30	18.0	9.0	9.0	12.0	---	---	19.0	26.0	27.0	28.0	28.0	19.0
31	18.0	---	8.0	---	---	18.0	---	26.0	---	28.0	28.0	---
MONTH	18.0	13.0	8.0	---	11.0	---	17.5	24.0	27.5	28.5	28.0	24.5

RED RIVER BASIN

07345000 Boggy Creek near Daingerfield, Tex.

LOCATION.--Lat 33°02'10", long 94°47'15", Morris County, on right bank at downstream side of bridge on State Highway 11, 0.4 mile (0.6 km) upstream from Louisiana & Arkansas Railway Co. bridge, 3.8 miles (6.1 km) west of Daingerfield, and 9 miles (14 km) upstream from mouth.

DRAINAGE AREA.--72 mi² (186 km²).

PERIOD OF RECORD.--March 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 258.41 ft (78.763 m) above mean sea level. Prior to Oct. 1, 1954, at site 1,700 ft (518 m) downstream at same datum.

AVERAGE DISCHARGE.--32 years, 80.9 ft³/s (2.291 m³/s), 15.26 in/yr (388 mm/yr), 58,610 acre-ft/yr (72.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,250 ft³/s (92.0 m³/s) Feb. 2 (gage height, 11.98 ft or 3.652 m); no flow Aug. 13-23, Sept. 8-30.

Period of record: Maximum discharge, 28,900 ft³/s (818 m³/s) Apr. 27, 1958 (gage height, 17.80 ft or 5.425 m), from rating curve extended above 13,000 ft³/s (368 m³/s); no flow at times most years.

Maximum stage since at least 1900, that of Apr. 27, 1958; flood in January 1938 reached a stage of 17.5 ft (5.33 m), adjusted to present site, from information by local residents.

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

REVISIONS (WATER YEARS).--WSP 1211: Drainage area. WSP 1561: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	2,090	490	182	1,880	126	150	229	53	39	1.5	.24
2	43	727	324	177	2,630	123	130	378	38	19	1.2	10
3	37	351	208	203	1,800	98	114	2,150	31	14	1.0	3.5
4	31	277	133	268	851	148	97	1,030	27	11	.85	1.2
5	27	262	111	239	500	212	87	468	24	9.1	.66	.52
6	24	254	359	148	492	204	81	262	20	7.3	.57	.19
7	22	202	1,170	111	337	132	78	220	28	5.9	.44	.05
8	22	135	455	103	233	100	123	454	52	4.7	.27	0
9	22	112	267	98	163	85	207	300	129	3.8	.17	0
10	22	246	175	104	129	148	249	157	118	3.5	.10	0
11	20	1,390	191	131	117	228	197	101	69	3.1	.04	0
12	19	645	287	146	110	554	143	70	39	2.8	.01	0
13	17	325	304	135	100	866	129	53	28	2.4	0	0
14	18	212	216	131	91	1,050	202	91	22	1.9	0	0
15	43	131	149	116	86	433	246	129	28	1.7	0	0
16	55	103	129	106	92	294	208	133	30	1.3	0	0
17	42	98	114	95	107	261	140	106	24	1.1	0	0
18	29	99	102	87	103	326	115	65	18	1.0	0	0
19	23	99	95	84	88	543	99	43	14	.91	0	0
20	19	96	88	79	74	307	80	57	12	.73	0	0
21	18	88	81	71	66	205	65	206	10	.76	0	0
22	15	77	76	64	74	157	56	399	9.1	.77	0	0
23	13	69	73	60	109	142	54	228	8.4	3.7	0	0
24	14	192	74	59	129	135	54	101	8.6	4.2	.67	0
25	15	929	98	66	115	120	49	65	10	2.2	.45	0
26	15	486	121	71	87	104	44	52	11	19	.29	0
27	15	272	118	65	72	129	39	44	12	23	2.2	0
28	120	172	105	58	83	195	102	47	24	7.0	1.2	0
29	584	128	108	56	-----	494	182	73	21	3.5	.61	0
30	588	211	117	57	-----	318	224	101	38	2.4	.56	0
31	570	-----	155	112	-----	210	-----	87	-----	1.9	.41	-----
TOTAL	2,558	10,478	6,493	3,482	10,718	8,447	3,744	7,899	956.1	202.67	13.20	15.70
MEAN	82.5	349	209	112	383	272	125	255	31.9	6.54	.43	.52
MAX	588	2,090	1,170	268	2,630	1,050	249	2,150	129	39	2.2	10
MIN	13	69	73	56	66	85	39	43	8.4	.73	0	0
CFSM	1.15	4.85	2.90	1.56	5.32	3.78	1.74	3.54	.44	.09	.006	.007
IN.	1.32	5.41	3.35	1.80	5.54	4.36	1.93	4.08	.49	.10	.006	.008
AC-FT	5,070	20,780	12,880	6,910	21,260	16,750	7,430	15,670	1,900	402	26	31
CAL YR 1974	TOTAL	51,551.15	MEAN	141	MAX	6,950	MIN	0	CFSM	1.96	IN	26.63
WTR YR 1975	TOTAL	55,006.67	MEAN	151	MAX	2,630	MIN	0	CFSM	2.10	IN	28.42
									AC-FT	102,300		
										109,100		

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	0900	11.83	2,960	2- 2	0600	11.98	3,250
11-11	1000	11.14	1,890	3-14	0300	10.74	1,410
11-25	1000	10.57	1,240	5- 3	0500	11.97	3,230
12- 7	0400	10.93	1,630				

07345500 Ellison Creek Reservoir near Lone Star, Tex.

LOCATION.--Lat 32°55'16", long 94°43'17", Morris County, at pumphouse of Lone Star Steel Co., on left bank 1,700 ft (518 m) upstream from Ellison Creek Dam, 0.6 mile (1.0 km) upstream from Big Cypress Creek, and 1.4 miles (2.3 km) southwest of Lone Star.

DRAINAGE AREA.--37.0 mi² (95.8 km²).

PERIOD OF RECORD.--Contents: January 1943 to September 1962 (published as "near Daingerfield"), January 1974 to current year.
Water quality: Chemical analyses: October 1969 to September 1974.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 22, 1943, staff gage at site just upstream from dam at datum 200 ft (61.0 m) lower.

EXTREMES.--Current year: Maximum contents, 26,680 acre-ft (32.9 hm³) Nov. 1 (elevation, 269.41 ft or 82.116 m); minimum, 20,190 acre-ft (24.9 hm³) Sept. 30 (elevation, 264.97 ft or 80.763 m).
Period of record: Maximum contents, 31,240 acre-ft (38.5 hm³) Apr. 26, 1958 (elevation, 272.11 ft or 82.939 m); minimum since lake first filled in May 1944, 16,640 acre-ft (20.5 hm³) Jan. 3, 1957 (elevation, 262.07 ft or 79.879 m).

REMARKS.--The lake is formed by a rolled earthfill dam, 4,000 ft (1,200 m) long with an uncontrolled concrete spillway 300 ft (91 m) long at the left end of dam. Deliberate impoundment began Jan. 14, 1943, and the dam was completed in April 1943. Another spillway is cut through natural ground near the right end of dam. In addition, there is a relief dam, approximately 125 ft (38 m) long, located near the reservoir pumphouse that can be breached if the other spillways are unable to release sufficient floodwater. There is a 36-inch-diameter (914-millimetre) conduit through the dam that is used for pumping water from Big Cypress Creek into the reservoir and can also be used to discharge water from the reservoir into Big Cypress Creek. The dam is owned by Lone Star Steel Co. Area capacity curves are based on a survey made in 1942. Records furnished by the company show that during the current year, the city of Lone Star diverted 196 acre-ft (0.242 hm³) from the reservoir. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	280.1	-
Design flood.....	275.1	36,600
Crest of spillway.....	273.1	33,000
Crest of concrete spillway.....	268.1	24,700
Lowest gated outlet (invert).....	235.1	196

COOPERATION.--Capacity table, area-capacity curves, and records of diversions furnished by Lone Star Steel Co.

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

264.0	18,980	268.0	24,470
265.0	20,230	269.0	26,020
266.0	21,540	270.0	27,620
267.0	22,970		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24,420	26,310	24,690	23,260	25,570	24,520	23,780	24,500	23,960	24,370	23,360	21,710
2	24,440	25,080	24,490	23,390	26,120	24,440	23,810	25,260	23,920	24,260	23,270	21,670
3	24,460	24,950	24,400	23,570	25,540	24,610	23,800	25,150	23,860	24,260	23,180	21,640
4	24,350	24,940	24,290	23,570	25,150	24,620	23,740	24,830	23,800	24,290	23,120	21,580
5	24,310	24,870	24,190	23,590	25,010	24,690	23,750	24,670	23,720	24,280	23,090	21,530
6	24,130	24,590	24,610	23,630	24,720	24,350	23,750	24,620	23,650	24,260	23,020	21,470
7	24,020	24,490	24,760	23,540	24,660	24,230	23,740	24,410	23,650	24,260	22,930	21,430
8	23,980	24,370	24,660	23,600	24,530	24,170	23,800	24,370	23,830	24,260	22,850	21,360
9	23,930	24,420	24,590	23,530	24,410	24,340	24,050	24,470	24,860	24,260	22,810	21,350
10	23,860	25,060	24,590	23,680	24,400	24,460	24,230	24,310	24,900	24,250	22,750	21,300
11	23,810	25,030	24,700	23,680	24,260	24,400	24,310	24,230	24,500	24,230	22,670	21,230
12	23,750	24,900	24,700	23,840	24,110	24,490	24,280	23,980	24,400	24,220	22,600	21,150
13	23,720	24,720	24,670	23,800	23,960	25,080	24,580	23,840	24,350	24,200	22,510	21,080
14	23,810	24,440	24,580	23,840	23,810	24,950	24,620	24,250	24,320	24,160	22,440	21,010
15	23,770	24,340	24,490	23,860	23,800	24,750	24,490	24,610	24,310	24,130	22,370	20,970
16	23,720	24,380	24,350	23,900	23,840	24,760	24,340	24,520	24,320	24,100	22,280	20,920
17	23,690	24,440	24,290	23,840	23,860	24,670	24,190	24,440	24,310	24,160	22,280	20,840
18	23,630	24,410	24,130	23,870	23,980	24,750	24,130	24,280	24,320	24,010	22,230	20,790
19	23,570	24,320	23,900	23,890	23,990	24,640	24,130	24,070	24,230	23,960	22,180	20,750
20	23,510	24,290	23,770	23,810	24,020	24,520	24,130	24,720	24,170	23,930	22,130	20,680
21	23,470	24,470	23,570	23,620	23,990	24,370	24,100	24,970	24,170	23,900	22,070	20,670
22	23,420	24,380	23,470	23,380	24,110	24,290	24,040	24,720	24,080	23,870	22,020	20,590
23	23,390	24,350	23,270	23,260	24,220	24,280	24,040	24,590	24,130	23,800	21,960	20,540
24	23,350	25,510	23,210	23,110	24,350	24,160	23,980	24,420	24,140	23,750	21,930	20,490
25	23,300	25,150	23,020	22,880	24,290	24,020	23,930	24,220	24,170	23,890	21,900	20,440
26	23,290	24,950	22,870	22,720	24,310	23,960	23,950	24,080	24,200	23,770	21,920	20,410
27	23,210	24,760	22,820	22,630	24,320	23,890	23,830	23,960	24,260	23,680	21,920	20,360
28	24,530	24,670	22,790	22,700	24,440	24,070	24,010	23,950	24,620	23,620	21,880	20,310
29	25,000	24,830	22,820	22,630	-----	23,990	24,320	23,980	24,700	23,590	21,850	20,260
30	24,690	24,720	22,960	22,610	-----	23,840	24,470	24,010	24,560	23,510	21,790	20,190
31	25,350	-----	23,140	23,450	-----	23,780	-----	23,980	-----	23,450	21,740	-----
(†)	268.57	268.16	267.11	267.32	267.98	267.54	268.00	267.67	268.06	267.32	266.14	264.97
(‡)	+790	-630	-1,580	+310	+990	-660	+690	-490	+580	-1,110	-1,710	-1,550
(††)	11,460	11,310	11,710	11,420	10,550	11,400	11,110	11,700	11,270	11,630	11,800	11,010
MAX	25,350	26,310	24,760	23,900	26,120	25,080	24,620	25,260	24,900	24,370	23,360	21,710
MIN	23,210	24,290	22,790	22,610	23,800	23,780	23,740	23,840	23,650	23,450	21,740	20,190
CAL YR 1974.....	†	-200			††	132,490		MAX	26,550		MIN	21,810
WTR YR 1975.....	†	-4,370			††	136,370		MAX	26,310		MIN	20,190

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Diversions, in acre-feet, for industrial use by Lone Star Steel Company.

RED RIVER BASIN

07345900 Lake O' the Pines near Jefferson, Tex.

LOCATION.--Lat 32°45'04", long 94°29'59", Marion County, in intake structure of Ferrell's Bridge Dam on Big Cypress Creek, on Farm Road 726, 9.0 miles (14.5 km) west of Jefferson, and at mile 80.1 (128.9 km).

DRAINAGE AREA.--850 mi² (2,202 km²).

PERIOD OF RECORD.--Contents: August 1957 to current year.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Nov. 12, 1957, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 378,500 acre-ft (467 hm³) Feb. 9 (elevation, 234.40 ft or 71.445 m); minimum, 254,900 acre-ft (314 hm³) Oct. 21 (elevation, 228.50 ft or 69.647 m).

Period of record: Maximum contents, 694,360 acre-ft (856 hm³) May 5, 1966 (elevation, 245.41 ft or 74.801 m); minimum since December 1959, 219,700 acre-ft (271 hm³) Nov. 16, 1963 (elevation, 226.54 ft or 69.049 m).

REMARKS.--The lake is formed by a rolled earthfill dam 10,600 ft (3,230 m) long, including a 200-foot (61-metre) concrete spillway. Impoundment of water began Aug. 21, 1957, and the dam was completed June 25, 1958. Official operation began Dec. 11, 1959. The flood-control outlet works consist of two 10.0-foot-diameter (3.0-metre) conduits that are controlled by two 8.0- by 12.5-foot (2.4- by 3.8-metre) electrically driven broome-type gates. The low-flow outlet works consist of one controlled 14-inch (356-millimetre) pipe. Flow over the spillway is discharged into a 2,000 ft (610 m) channel and then into Cypress Creek. The capacity table is based on a survey made in 1950. The lake was built for flood control, conservation, and water supply. During the current year, 834 acre-ft (1.03 hm³) was diverted from lake for municipal use and 2,390 acre-ft (2.95 hm³) was diverted by Southwestern Electric Power Co. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	277.0	-
Crest of spillway.....	249.5	842,100
Top of conservation pool.....	228.5	254,900
Crest of intake to wet well (14-inch).....	202.5	5,760
Lowest gated outlet (invert).....	200.0	2,860

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

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

228.0	245,600	234.0	369,130
230.0	263,680	235.0	392,680
232.0	324,770		

CONTENTS, IN ACRE-FEET, AT 0700, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300800	282300	315800	264700	261400	313800	286900	264700	290300	286900	279400	275100
2	297400	289900	313500	262400	269300	310100	285300	263900	288500	285300	279200	274700
3	293300	300400	312600	266200	304700	305700	282700	269700	288300	285900	279200	274300
4	249300	308000	312600	265200	338800	304700	278600	278000	287900	285900	280200	273700
5	284100	308900	311600	264900	359800	301400	274700	295500	287300	284900	280200	273500
6	279900	309300	312900	265200	371200	298200	270800	303200	286900	284500	279800	274100
7	275200	308000	314100	264900	373600	295900	266400	306100	288300	283700	279400	273400
8	270000	307200	313900	266000	375000	293500	263100	305500	287100	283300	279200	272600
9	266300	304900	317900	263900	377300	288700	263100	304000	289900	283100	279600	272200
10	263200	302700	319400	264500	374500	288500	262800	305100	292700	283100	278600	272000
11	261700	303100	321100	264100	373300	283900	262400	303800	295900	283500	278600	271600
12	260400	306200	320900	264100	371700	282700	261300	301800	296500	282700	278200	271400
13	258500	313700	319800	262800	368400	282700	260500	297900	295900	282500	278000	270400
14	257800	319400	318600	262200	365500	284500	264700	297300	293900	281500	277800	270100
15	259500	318800	317700	261300	362300	293300	265800	296500	291700	281500	277200	269500
16	259100	317100	316200	260700	360000	301800	266600	301200	291100	281300	277000	268500
17	259100	316600	313500	260500	358000	305700	264700	298600	287500	281100	276600	268100
18	258700	314800	310300	261100	354800	308200	264300	295500	285900	280700	277200	267200
19	258300	312000	308000	261100	351200	309400	264500	292100	285700	280300	277000	267400
20	257800	309900	305500	261100	346700	309700	263000	288300	285900	280200	276600	267600
21	257400	306200	301800	259800	342800	310100	261300	292300	285500	280000	276400	266200
22	257800	302000	298400	259800	339100	310500	259000	292700	285300	279800	276400	266600
23	258000	298200	294300	261100	337300	308800	258600	294300	285100	279600	275900	266000
24	258300	300200	291700	259200	333000	307600	258100	295300	285300	279400	275900	265400
25	258700	299000	288500	259000	328400	305300	257500	296300	285300	280000	276100	264900
26	258900	298600	283500	258400	324600	301400	257100	296300	285500	279800	275500	263900
27	258900	309100	279900	258600	320300	298800	257000	293700	285500	279800	275900	261800
28	258700	312900	276000	258800	316600	297300	257000	293300	287900	280000	275900	259400
29	266900	314100	272700	259400	---	295100	258600	293300	288100	280000	275700	257500
30	268200	317100	269400	259400	---	291900	263000	293700	287700	279800	275300	256600
31	270400	---	267400	258600	---	288700	---	293100	---	279600	275300	---
(†)	229.20	231.51	229.05	228.70	231.61	230.25	228.93	230.47	230.20	229.79	229.57	228.59
(*)	-32500	+46700	-49700	-6610	+57920	-27860	-25740	+30160	-5420	-8130	-4270	-18720
(††)	63	61	60	62	51	59	63	69	72	710	1029	923
MAX	300800	319400	321100	266200	377300	313800	286900	306100	296500	286900	280200	275100
MIN	257400	282900	267400	258400	261400	282700	257000	263900	289100	279400	275300	256600

CAL YR 1974..... † -3500 †† 2500 MAX 352110 MIN 255510
WTR YR 1975..... † -43800 †† 3220 MAX 377300 MIN 256600

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial uses.

RED RIVER BASIN

249

07345900 Lake O' the Pines near Jefferson, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
FEB. 07...	1050	8.9	6.9	2.8	7.6	3.4	21	0
JUNE 04...	1010	3.0	7.7	3.3	9.1	2.7	22	0
SEP. 03...	1145	7.8	8.2	2.6	9.1	3.1	34	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
FEB. 07...	20	13	.1	.04	.03	.00	73	29	12
JUNE 04...	16	11	.1	.00	.00	.01	64	33	15
SEP. 03...	12	12	.1	.00	.00	.02	72	31	3

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
FEB. 07...	.6	117	6.7	10.0	10.0	88	210	0
JUNE 04...	.7	125	6.7	26.5	7.8	95	70	220
SEP. 03...	.7	121	8.1	31.0	8.2	109	60	90

RED RIVER BASIN

07346045 Black Cypress Bayou at Jefferson, Tex.

LOCATION.--Lat 32°46'40", long 94°21'26", Marion County, near center of channel at downstream side of bridge on U.S. Highway 59, 1.1 miles (1.8 km) north of Jefferson, 2.0 miles (3.2 km) upstream from Texas and Pacific Railway bridge, and at mile 5.2 (8.4 km).

DRAINAGE AREA.--365 mi² (945 km²).

PERIOD OF RECORD.--Discharge: September 1968 to current year. May 1938 to September 1955 (daily gage heights) and November 1956 to August 1968 (daily gage heights and discharge measurements) published by Corps of Engineers as "Black Cypress Creek at Jefferson". September 1964 to August 1968 operated as low-flow partial-record station only.

Water quality: Chemical analyses: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 171.47 ft (52.264 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--7 years, 383 ft³/s (10.85 m³/s), 14.25 in/yr (362 mm/yr), 277,500 acre-ft/yr (342 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,420 ft³/s (182 m³/s) Feb. 5 (gage height, 17.39 ft or 5.300 m); minimum, 4.4 ft³/s (0.12 m³/s) Sept. 30 (gage height, 3.78 ft or 1.152 m).

Period of record: Maximum discharge, 7,120 ft³/s (202 m³/s) Apr. 25, 1974 (gage height, 17.69 ft or 5.392 m); no flow at times most years.

Maximum stage since 1938, 22.42 ft (6.834 m) Apr. 29, 1958, from records of Corps of Engineers.

REMARKS.--Discharge records good. No known regulation or diversion in vicinity of gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	604	474	1330	515	519	758	447	387	417	277	70	23
2	685	880	1070	553	770	738	453	435	372	257	60	23
3	687	2750	924	639	1640	714	454	671	358	235	54	20
4	609	4040	841	667	4760	707	461	1020	346	219	54	16
5	522	3740	783	698	6290	779	457	1900	329	203	48	14
6	422	2810	889	730	5280	750	442	2730	302	187	40	13
7	317	1980	959	740	3970	764	417	2770	268	169	35	17
8	244	1490	920	658	2950	791	399	2500	236	145	35	17
9	191	1190	958	671	2170	800	424	2210	246	125	46	13
10	160	1040	1140	652	1700	855	445	1760	321	120	49	12
11	141	1010	1440	628	1450	861	412	1380	425	102	40	14
12	124	952	1440	616	1260	852	389	1220	693	86	33	14
13	122	881	1220	598	1080	972	388	1120	973	75	29	14
14	122	913	1050	585	956	1170	453	1040	913	67	27	14
15	137	1180	935	581	861	1320	559	1330	871	61	24	13
16	143	1400	845	587	815	1640	630	1870	757	54	22	12
17	143	1300	793	591	782	1910	652	1370	593	49	19	11
18	141	1100	759	589	741	1850	643	1100	449	45	18	11
19	149	924	714	576	712	1550	622	975	348	42	17	11
20	158	775	669	555	718	1260	602	900	295	39	16	10
21	160	677	649	528	744	1070	557	957	260	36	16	9.1
22	155	649	632	504	756	964	483	425	231	34	15	9.4
23	147	636	603	476	753	907	431	846	223	32	16	9.0
24	136	644	559	453	728	861	391	809	214	30	18	8.4
25	126	668	521	435	687	773	354	885	192	35	21	7.6
26	117	688	489	417	660	680	322	443	198	29	20	7.7
27	109	849	469	400	667	645	291	806	190	30	21	6.7
28	156	1390	452	383	707	598	270	745	228	43	22	6.5
29	260	1690	447	369	---	553	284	650	262	79	22	5.8
30	300	1600	456	359	---	512	346	585	280	90	20	5.0
31	342	---	488	364	---	483	---	498	---	81	21	---
TOTAL	7834	40320	25444	17117	45126	29087	13478	37297	11789	3076	948	367.2
MEAN	253	1344	821	552	1612	938	449	1203	393	99.2	30.6	12.2
MAX	687	4040	1440	740	6290	1910	652	2770	973	277	70	23
MIN	109	474	447	359	514	483	270	387	190	29	15	5.0
CFS-M	69	3.68	2.25	1.51	4.42	2.57	1.23	3.30	1.08	.27	.08	.03
IN.	4.50	9.11	2.59	1.74	4.60	2.96	1.37	3.80	1.20	.31	.10	.04
AC-FT	15540	79970	50470	33950	89510	57690	26730	73940	23380	6100	1880	728

CAL YR 1974 TOTAL 224513.6 MEAN 615 MAX 6950 MIN 6.3 CFS-M 1.68 IN 22.88 AC-FT 445300
 WTR YR 1975 TOTAL 231883.2 MEAN 635 MAX 6290 MIN 5.0 CFS-M 1.74 IN 23.63 AC-FT 459900

PEAK DISCHARGE (BASE, 4,000 FT³/S).--Nov. 4 (1800) 4,190 ft³/s (16.26 ft); Feb. 5 (0400) 6,420 ft³/s (17.39 ft).

07346045 Black Cypress Bayou at Jefferson, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 07...	1400	298	24	4.0	1.4	5.0	1.7	14	0	6.3
JAN. 08...	1400	718	14	4.0	1.5	3.8	.8	12	0	6.4
APR. 01...	1230	463	11	3.8	.9	3.9	1.5	17	0	3.8
MAY 13...	1140	1180	12	3.4	1.1	3.0	1.8	14	0	4.6
JUNE 24...	1015	226	17	4.0	2.0	3.8	2.8	17	0	5.6
AUG. 05...	1045	51	19	3.8	1.6	4.3	2.0	15	0	6.9
SEP. 16...	1420	12	18	6.6	1.4	4.0	2.4	28	0	3.9

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 07...	5.9	--	55	16	4	.5	56	7.0	14.5
JAN. 08...	6.1	.2	43	10	6	.4	51	6.9	--
APR. 01...	5.0	.0	38	13	0	.5	55	6.6	12.5
MAY 13...	4.1	.1	37	14	3	.3	50	6.4	21.5
JUNE 24...	5.1	.1	49	18	4	.4	53	6.5	25.0
AUG. 05...	5.9	1.1	52	16	4	.5	65	6.4	26.5
SEP. 16...	5.9	.2	56	22	0	.4	61	6.7	29.0

RED RIVER BASIN

07346050 Little Cypress Creek near Ore City, Tex.

LOCATION.--Lat 32°40'21", long 94°45'03", Gregg-Upshur County line, on right bank at downstream side of bridge on U.S. Highway 259, 4 miles (6 km) downstream from Clear Creek, 9 miles (14 km) south of Ore City, and 12 miles (19 km) north of Longview.

DRAINAGE AREA.--383 mi² (992 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 232.67 ft (70.918 m) above mean sea level.

AVERAGE DISCHARGE.--12 years (1963-75), 293 ft³/s (8.298 m³/s), 10.39 in/yr (264 mm/yr), 212,300 acre-ft/yr (262 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,950 ft³/s (197 m³/s) Feb. 4 (gage height, 13.59 ft or 4.142 m); minimum, 4.8 ft³/s (0.14 m³/s) Sept. 30.

Period of record: Maximum discharge, 23,500 ft³/s (666 m³/s) Apr. 24, 1966 (gage height, 20.20 ft or 6.157 m); no flow at times. Maximum stage since at least 1902 occurred in March 1945; maximum stage since 1945, that of Apr. 24, 1966. The flood in April 1958 reached a stage of 19.4 ft (5.91 m), or 1.3 ft (0.40 m) lower than the flood of March 1945 at a point 6 miles (10 km) upstream, from information by local resident.

REMARKS.--Records good except those for Nov. 28 to Dec. 21 and Aug. 27 to Sept. 14, which are fair. No known diversion above station. During the water year, the city of Gilmer discharged 3,260 acre-ft (4.02 hm³) of sewage effluent into tributaries above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	515	3,670	1,400	620	455	415	499	779	491	314	44	22
2	440	2,930	1,800	687	1,450	397	601	853	453	333	40	17
3	375	3,030	1,400	887	5,300	380	662	1,270	390	302	44	13
4	316	2,570	1,100	985	6,600	440	613	1,310	328	258	45	11
5	248	2,100	1,050	949	4,420	497	532	1,560	256	220	54	9.0
6	184	1,710	1,300	949	2,820	501	460	1,500	201	186	42	7.5
7	138	1,430	1,350	925	1,970	487	401	1,180	162	144	32	6.0
8	113	1,290	1,200	823	1,550	476	393	977	154	108	26	7.0
9	98	1,120	1,100	719	1,290	459	477	814	376	91	26	8.0
10	93	993	1,400	670	1,070	503	688	719	660	80	21	7.5
11	89	1,020	1,500	642	906	546	778	580	868	73	23	11
12	85	1,090	1,300	654	787	571	728	484	868	67	20	13
13	81	1,630	1,050	682	690	746	694	449	839	64	17	15
14	81	1,970	950	682	615	898	818	444	721	59	13	12
15	92	1,670	860	665	562	1,290	960	642	598	56	11	8.9
16	102	1,380	770	654	537	2,310	1,020	1,090	505	52	9.1	9.1
17	101	1,170	700	640	556	1,640	1,070	965	401	48	7.7	9.3
18	109	989	650	610	564	1,360	1,020	743	328	45	7.0	9.1
19	109	910	610	577	541	1,190	913	675	311	43	12	9.1
20	102	790	580	537	541	1,040	782	654	251	42	14	9.1
21	92	680	540	493	539	961	663	857	173	40	13	9.3
22	83	580	503	459	519	906	551	953	130	39	19	9.1
23	78	505	464	427	517	835	462	781	115	36	19	8.9
24	73	658	433	399	476	762	390	829	104	35	17	8.7
25	72	1,190	406	387	440	680	331	1,070	114	34	19	8.7
26	71	1,580	385	367	422	606	290	1,030	132	33	16	8.3
27	70	2,180	378	344	418	569	262	904	123	32	14	11
28	127	1,800	380	331	420	546	257	682	186	32	13	10
29	584	1,400	399	325	-----	507	411	620	345	32	11	7.9
30	1,210	1,200	451	322	-----	487	578	580	339	30	16	5.8
31	1,700	-----	548	319	-----	474	-----	527	-----	28	25	-----
TOTAL	7,631	45,235	26,957	18,730	36,975	23,479	18,304	26,421	10,921	2,956	689.8	301.3
MEAN	246	1,508	870	604	1,321	757	610	852	364	95.4	22.3	10.0
MAX	1,700	3,670	1,800	985	6,600	2,310	1,070	1,560	868	333	54	22
MIN	70	505	378	319	418	380	257	444	104	28	7.0	5.8
CFSM	.64	3.94	2.27	1.58	3.45	1.98	1.59	2.22	.95	.25	.06	.03
IN.	.74	4.39	2.62	1.82	3.59	2.28	1.78	2.57	1.06	.29	.07	.03
AC-FT	15,140	89,720	53,470	37,150	73,340	46,570	36,310	52,410	21,660	5,860	1,370	598

CAL YR 1974 TOTAL 191,871.7 MEAN 526 MAX 4,590 MIN 2.3 CFSM 1.37 IN 18.64 AC-FT 380,600
WTR YR 1975 TOTAL 218,600.1 MEAN 599 MAX 6,600 MIN 5.8 CFSM 1.56 IN 21.23 AC-FT 433,600

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	0700	12.42	4,270	2- 4	0600	13.59	6,950
11-14	0300	10.84	2,030	3-16	0930	11.13	2,370
11-27	0900	11.02	2,250				

07346070 Little Cypress Creek near Jefferson, Tex.

LOCATION.--Lat 32°42'46", long 94°20'44", Harrison-Marion County line, near center of channel at downstream side of bridge on U.S. Highway 59, 0.3 mile (0.5 km) downstream from Texas and Pacific Railway Co. bridge, 3.3 miles (5.3 km) downstream from Grays Creek, 3.5 miles (5.6 km) south of Jefferson, and 6.8 miles (10.9 km) upstream from mouth.

DRAINAGE AREA.--675 mi² (1,748 km²).

PERIOD OF RECORD.--Discharge: June 1946 to current year (monthly discharge only for June 1946 to September 1963, published in WSP 1920).
Water quality: Chemical and biochemical analyses: October 1967 to current year. Pesticide analyses: January 1968 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 174.60 ft (53.218 m) above mean sea level. Prior to Sept. 19, 1947, nonrecording gage at upstream side of bridge at same datum.

AVERAGE DISCHARGE.--29 years, 547 ft³/s (15.49 m³/s), 11.00 in/yr (279 mm/yr), 396,300 acre-ft/yr (489 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 7,550 ft³/s (214 m³/s) Feb. 6 (gage height, 15.08 ft or 4.596 m); minimum, 6.1 ft³/s (0.17 m³/s) Sept. 30 (gage height, 2.47 ft or 0.753 m).

Period of record: Maximum discharge, 35,500 ft³/s (1,010 m³/s) Apr. 26, 1966 (gage height, 22.28 ft or 6.791 m); no flow at times.

Historic: Maximum stage since May 1944, that of Apr. 26, 1966; flood in May 1944 reached a stage of 21.1 ft (6.43 m).

Water quality: Current year: Maximum daily specific conductance, 483 micromhos Aug. 30; minimum daily, 68 micromhos May 21. Maximum water temperatures, 29.5°C Sept. 3, 4; minimum, 5.0°C Jan. 13.

Period of record: Maximum daily specific conductance, 1,350 micromhos Nov. 9, 1969; minimum daily, 39 micromhos Apr. 20, 1973.

Maximum water temperatures, 30.5°C Aug. 6, 8, 1970; minimum, 1.5°C Jan. 9, 10, 1970.

REMARKS.--Discharge records good. For record of discharges into tributaries above this station, see Little Cypress Creek near Ore City (station 07346050). No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	600	2,290	740	1,120	733	816	725	1,100	346	46	31
2	781	670	2,540	756	2,410	686	756	731	915	373	49	31
3	739	809	2,410	942	4,820	660	702	1,230	777	414	46	26
4	692	1,990	2,120	1,110	5,190	771	656	2,180	690	440	46	22
5	640	3,530	1,830	1,180	5,670	776	631	2,240	620	431	55	18
6	583	3,690	1,910	1,290	7,280	737	628	1,950	563	402	84	15
7	524	3,490	2,070	1,350	6,950	705	656	1,850	531	366	102	13
8	459	3,100	1,920	1,260	5,550	681	690	1,870	505	321	71	14
9	397	2,620	1,780	1,290	4,170	672	800	2,000	568	273	72	15
10	322	2,270	1,700	1,280	3,100	705	994	1,960	521	230	90	16
11	246	2,090	1,750	1,280	2,410	730	995	1,690	446	187	69	20
12	193	1,910	1,780	1,280	1,950	743	1,010	1,460	442	153	57	22
13	163	1,740	1,720	1,250	1,660	836	1,040	1,250	496	132	49	23
14	151	1,640	1,750	1,200	1,480	1,090	1,300	1,060	578	117	42	22
15	192	1,500	1,890	1,130	1,320	1,200	1,470	1,150	740	104	39	19
16	225	1,360	1,860	1,070	1,250	1,280	1,440	1,840	878	94	35	17
17	275	1,420	1,710	1,020	1,190	1,340	1,400	2,780	908	88	30	16
18	290	1,830	1,560	974	1,100	1,440	1,300	2,420	878	82	36	16
19	255	2,090	1,420	935	1,000	2,010	1,220	2,250	780	75	33	16
20	207	1,990	1,290	898	916	2,480	1,180	1,800	664	70	26	15
21	179	1,800	1,190	861	859	2,310	1,170	2,380	551	66	22	14
22	167	1,620	1,120	822	811	1,960	1,140	2,780	476	62	17	13
23	159	1,440	1,030	790	781	1,680	1,060	2,170	445	58	16	13
24	150	1,420	953	759	761	1,520	942	1,900	371	56	18	12
25	141	1,630	915	734	742	1,370	809	1,630	357	66	19	11
26	133	1,650	855	705	737	1,250	719	1,430	388	59	27	9.8
27	127	1,530	800	670	741	1,200	631	1,230	403	53	37	9.1
28	196	1,510	765	639	750	1,190	560	1,220	362	52	37	8.2
29	514	1,520	731	612	-----	1,130	563	1,350	368	63	34	7.1
30	466	1,780	719	588	-----	957	626	1,400	355	51	30	6.2
31	462	-----	731	586	-----	899	-----	1,290	-----	46	29	-----
TOTAL	10,853	56,279	47,109	30,001	66,718	35,741	27,894	53,616	17,676	5,330	1,363	490.4
MEAN	350	1,876	1,520	968	2,383	1,153	930	1,730	589	172	44.0	16.3
MAX	825	3,690	2,540	1,350	7,280	2,480	1,470	2,820	1,100	440	102	31
MIN	127	600	719	586	737	660	560	725	355	46	16	6.2
CFSM	.52	2.78	2.25	1.43	3.53	1.71	1.38	2.56	.87	.25	.07	.02
IN.	.60	3.10	2.60	1.65	3.68	1.97	1.54	2.95	.97	.29	.08	.03
AC-FT	21,530	111,600	93,440	59,510	132,300	70,890	55,330	106,300	35,060	10,570	2,700	973
CAL YR 1974	TOTAL 345,281.7	MEAN 946	MAX 9,300	MIN 8.3	CFSM 1.40	IN 19.03	AC-FT 684,900					
WTR YR 1975	TOTAL 353,070.4	MEAN 967	MAX 7,280	MIN 6.2	CFSM 1.43	IN 19.46	AC-FT 700,300					

RED RIVER BASIN

07346070 Little Cypress Creek near Jefferson, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		INSTAN- TANEOUS DIS- CHARGE	DIS- SOLVED SILICA (SiO2)	DIS- SOLVED CAL- CIUM (CA)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA)	DIS- SOLVED PO- TAS- SIUM (K)	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	DIS- SOLVED SULFATE (SO4)	DIS- SOLVED CHLO- RIDE (CL)	
DATE	TIME	(CFS)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	
OCT. 09...	1230	3000	20	13	2.8	25	2.9	13	0	28	44	
NOV. 22...	1215	1570	15	4.7	1.9	13	3.3	8	0	13	20	
DEC. 04...	1045	2100	13	7.6	1.9	8.8	2.4	7	0	13	15	
JAN. 08...	1030	1250	16	6.1	2.0	14	3.1	8	0	19	22	
FEB. 25...	1115	780	15	6.2	2.6	16	1.8	12	0	20	25	
MAR. 31...	1645	920	13	6.7	3.0	17	2.6	18	0	16	26	
APR. 22...	1200	1150	11	6.4	2.3	13	2.7	18	0	15	19	
MAY 13...	1545	1380	14	6.1	2.0	11	2.9	17	0	12	16	
JUNE 17...	1120	910	13	5.3	1.9	12	2.6	12	0	14	18	
JULY 05...	1730	426	18	6.5	2.3	20	2.9	14	0	15	31	
AUG. 20...	1140	26	24	7.4	3.1	39	4.4	28	0	14	65	
SEP. 17...	0930	17	21	5.3	2.7	25	3.6	25	0	15	31	
		DIS- SOLVED FLUO- RIDE (F)	TOTAL NITRATE (N)	TOTAL NITRITE (N)	AMMONIA NITRO- GEN (N)	TOTAL ORGANIC NITRO- GEN (N)	TOTAL KJEL- DAHL NITRO- GEN (N)	TOTAL PHOS- PHORUS (P)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS)	TOTAL NON- FILT- RABLE RESIDUE	VOL. NON- FILT- RABLE RESIDUE	HARD- NESS (CA+MG)
DATE		(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
OCT. 09...	--	.05	.00	.07	.74	.81	.10	142	22	2	44	
NOV. 22...	.1	--	--	--	--	--	--	75	--	--	20	
DEC. 04...	.1	.51	.00	.04	.23	.27	.09	66	29	3	27	
JAN. 08...	.1	--	--	--	--	--	--	86	--	--	23	
FEB. 25...	.0	.01	.00	.02	.41	.43	.03	93	16	6	26	
MAR. 31...	.1	--	--	--	--	--	--	93	--	--	29	
APR. 22...	.1	.08	.00	.04	.92	.96	.09	79	31	22	26	
MAY 13...	.1	--	--	--	--	--	--	72	--	--	23	
JUNE 17...	.1	.15	.01	.04	.96	1.0	.09	73	52	21	21	
JULY 05...	.1	--	--	--	--	--	--	103	--	--	26	
AUG. 20...	.1	.18	.01	.00	.57	.57	.13	171	113	29	32	
SEP. 17...	--	--	--	--	--	--	--	116	--	--	24	
		NON- CAR- BONATE HARD- NESS	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C)
DATE		(MG/L)			(UNITS)	(DEG C)	(UNITS)	(JTU)	(MG/L)		(MG/L)	(MG/L)
OCT. 09...	33	1.6	231	6.6	19.0	70	15	7.9	84	1.0	13	
NOV. 22...	13	1.3	123	5.8	13.0	--	--	--	--	--	--	
DEC. 04...	21	.7	101	6.0	8.0	30	20	12.2	103	1.1	12	
JAN. 08...	17	1.3	142	6.6	9.0	--	--	--	--	--	--	
FEB. 25...	16	1.4	154	6.8	9.0	100	15	10.2	88	.6	7.4	
MAR. 31...	14	1.4	160	6.2	13.0	--	--	--	--	--	--	
APR. 22...	11	1.1	139	6.9	18.5	120	25	7.4	79	1.5	11	
MAY 13...	10	1.0	125	6.2	22.5	--	--	--	--	--	--	
JUNE 17...	11	1.1	122	6.5	25.5	160	40	7.4	89	1.2	8.3	
JULY 05...	14	1.7	183	6.2	26.5	--	--	--	--	--	--	
AUG. 20...	9	3.0	312	6.7	28.0	100	50	4.8	61	1.4	11	
SEP. 17...	4	2.2	195	6.5	29.0	--	--	--	--	--	--	

RED RIVER BASIN

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07346070 Little Cypress Creek near Jefferson, Tex.--Continued

WATER QUALITY DATA. WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)				
DATE	TIME											
DEC. 04...	1045	110	1	--	1	<10	2	2				
APR. 22...	1200	20	0	20	0	10	0	2				
JUNE 17...	1120	20	0	40	0	10	1	2				
AUG. 20...	1140	40	3	60	0	0	0	3				
		DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)			
DATE	TIME											
DEC. 04...	220	11	10	0	<.1	3	80	480				
APR. 22...	430	3	10	3	.0	0	150	30				
JUNE 17...	260	2	20	90	.0	0	160	50				
AUG. 20...	140	2	10	10	.0	2	370	20				
		INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	
DEC. 04...	1045	2100	8.0	.00	.0	.00	1.2	.00	.9	.00	.0	
APR. 22...	1200	1150	18.5	.00	.0	.00	8.4	.00	3.2	.00	5.6	
JUNE 17...	1120	910	25.5	.00	.0	.00	.0	.00	.0	.00	.0	
AUG. 20...	1140	28	28.0	.00	.0	.00	4.2	.00	.0	.00	.0	
		TOTAL DIELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)
DEC. 04...	.90	.1	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
APR. 22...	.90	1.1	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
JUNE 17...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
AUG. 20...	.00	1.8	.00	.0	.00	.0	.00	.0	.00	.0	.0	.0
		TOTAL CHLOR-DANE IN BOTTOM MATERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	TOTAL DIBAZINON (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
DEC. 04...	0	.0	0	.00	.00	.00	.00	.00	.00	.00	.00	
APR. 22...	7	.0	58	.00	.00	.00	.00	.00	.00	.00	.00	
JUNE 17...	0	.0	0	.00	.00	.00	.00	.00	.00	.00	.04	
AUG. 20...	8	.0	27	.00	.00	.00	.00	.00	.02	.00	.02	

RED RIVER BASIN

07346070 Little Cypress Creek near Jefferson, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	10853	216	120	3520	41	1200	21	615	32
NOV. 1974.....	56279	105	61	9270	9.8	1490	13	1980	20
DEC. 1974.....	47109	120	69	8780	14	1780	14	1780	21
JAN. 1975.....	30001	154	88	7130	24	1940	17	1380	25
FEB. 1975.....	66718	95	55	9910	7	1260	13	2340	19
MAR. 1975.....	35741	139	79	7620	19	1830	16	1540	24
APR. 1975.....	27894	144	82	6180	21	1580	16	1210	24
MAY 1975.....	53616	100	58	8400	8.4	1220	13	1880	19
JUNE 1975.....	17676	157	89	4250	25	1190	17	811	26
JULY 1975.....	5330	232	130	1870	46	662	22	317	34
AUG. 1975.....	1363	285	160	589	61	224	26	96	40
SEPT 1975.....	490.4	251	140	185	51	68	24	32	36
TOTAL	353070.24	**	**	67700	**	14400	**	14000	**
WTD.AVG.	967.32	124	71	**	15	**	15	**	22

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	141	115	165	179	162	165	138	130	225	364	232
2	164	158	94	160	113	160	168	159	135	262	383	245
3	161	143	95	145	71	165	166	97	142	195	384	319
4	164	99	101	147	72	161	160	96	149	185	359	321
5	175	79	106	140	83	169	152	100	151	183	334	280
6	178	76	105	135	77	174	146	107	160	183	343	274
7	190	79	104	140	71	180	146	109	165	188	343	278
8	205	82	115	138	71	199	148	110	175	201	304	278
9	228	91	121	138	76	186	152	106	165	213	213	273
10	237	94	128	136	83	182	141	107	168	224	150	265
11	250	98	127	135	88	174	146	109	180	213	185	262
12	293	101	120	135	96	165	151	114	200	218	218	256
13	334	110	118	136	105	155	149	120	192	235	200	204
14	352	113	119	138	114	146	129	129	156	242	182	195
15	330	123	116	143	125	139	119	125	132	256	186	207
16	306	129	110	151	129	135	120	93	119	277	208	205
17	265	127	116	157	133	133	124	86	117	289	211	195
18	229	115	118	155	137	142	143	76	120	295	225	281
19	385	107	121	153	143	123	141	92	152	287	296	343
20	355	108	123	154	150	113	136	95	174	297	302	294
21	322	112	126	159	159	110	134	68	174	298	292	250
22	301	123	130	163	159	114	136	73	157	317	256	244
23	302	126	134	171	154	115	137	83	157	354	258	225
24	294	135	139	177	153	117	140	91	191	384	243	209
25	296	115	143	182	151	128	146	102	182	379	235	212
26	279	117	152	187	162	133	165	104	173	375	262	219
27	278	122	155	191	168	136	175	107	173	370	307	222
28	250	120	160	196	174	139	184	112	191	384	400	220
29	154	126	166	202	---	138	174	112	236	379	480	222
30	177	100	163	198	---	146	166	115	258	361	483	226
31	160	---	163	201	---	160	---	117	---	365	294	---
MONTH	251	112	126	159	121	148	149	105	166	279	287	249

07346070 Little Cypress Creek near Jefferson, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	19.5	10.0	10.5	15.0	---	14.5	21.0	21.5	26.0	27.0	28.0
2	19.0	20.5	8.0	10.0	12.0	13.0	15.0	20.0	22.0	26.0	27.0	28.5
3	18.0	20.0	7.0	9.0	11.0	12.5	14.5	---	---	26.0	27.5	29.5
4	18.5	19.0	7.0	8.5	11.0	10.0	15.0	20.0	22.0	26.0	27.5	29.5
5	18.5	18.0	7.0	---	11.0	8.0	15.0	20.0	22.0	26.5	28.0	29.0
6	18.0	17.5	8.0	8.0	9.0	11.0	16.0	20.5	---	26.5	28.0	29.0
7	19.0	---	8.5	9.0	9.0	13.0	16.0	20.5	24.0	26.5	27.0	29.0
8	19.0	15.0	8.0	10.0	9.0	13.5	---	21.0	---	27.0	26.5	28.0
9	20.0	14.5	8.0	10.0	9.0	12.5	16.5	21.0	---	---	26.0	27.5
10	20.0	14.0	8.0	9.5	8.0	12.0	18.0	---	---	26.5	26.0	27.0
11	20.0	15.0	7.5	---	9.0	11.0	---	21.5	---	26.5	---	27.0
12	20.0	14.5	7.5	7.0	10.0	12.0	16.5	21.5	---	26.5	27.0	26.0
13	20.0	14.5	7.5	5.0	12.0	---	15.0	21.0	23.5	27.0	---	24.5
14	20.0	14.0	7.5	6.5	11.5	10.5	13.5	21.0	24.0	26.5	26.5	24.5
15	---	12.5	7.5	7.0	12.0	9.5	---	20.0	25.0	26.0	26.5	22.5
16	19.0	11.0	7.5	7.5	12.0	9.5	15.5	21.0	25.0	26.5	27.5	21.0
17	---	10.5	7.5	7.5	---	9.5	17.0	20.0	25.5	26.5	28.5	---
18	17.0	---	7.5	8.0	12.0	12.0	18.5	21.0	25.5	26.0	27.5	24.0
19	16.0	13.0	---	9.0	11.5	13.5	19.0	21.0	26.0	26.0	27.0	25.0
20	---	14.0	7.5	8.5	---	14.5	19.0	---	26.5	27.0	27.0	25.0
21	16.0	14.0	7.5	8.5	12.0	15.0	18.0	22.0	26.0	28.0	27.0	23.0
22	16.0	13.5	---	8.0	12.0	15.5	18.0	23.0	25.0	28.5	27.0	22.0
23	17.0	15.0	7.5	8.5	11.5	18.0	18.0	22.0	25.0	28.0	27.0	---
24	17.0	---	7.5	8.5	9.0	17.5	19.0	---	---	28.0	27.0	20.0
25	17.0	13.0	7.0	9.0	8.0	17.5	21.0	23.5	---	28.0	28.0	20.0
26	17.5	11.5	7.5	9.5	11.0	17.0	23.0	23.5	24.5	---	28.5	20.0
27	17.0	11.5	8.0	10.0	---	16.0	23.5	23.0	25.5	28.0	29.0	20.0
28	---	11.0	---	12.5	11.0	17.0	23.0	23.0	26.0	28.0	---	20.0
29	18.5	11.0	9.0	15.0	---	15.0	21.5	23.0	26.0	28.0	28.5	19.0
30	19.5	10.5	10.5	16.0	---	13.0	20.0	23.0	25.0	27.5	28.5	20.0
31	18.0	---	11.0	17.0	---	13.0	---	23.5	---	27.5	28.5	---
MONTH	18.5	14.5	8.0	9.5	10.5	13.0	18.0	21.5	---	27.0	27.5	24.5

RED RIVER BASIN

07346140 Frazier Creek near Linden, Tex.

LOCATION.--Lat 33°03'16", Long 94°17'22", Cass County, on right bank at downstream side of bridge on U.S. Highway 59, 1.6 miles (2.6 km) upstream from Colley Creek, 3.7 miles (6.0 km) upstream from Johns Creek, and 5.5 miles (8.8 km) northeast of Linden.

DRAINAGE AREA.--48.0 mi² (124.3 km²).

PERIOD OF RECORD.--August 1958 to June 1961 (low-flow partial-record only), November 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 228.7 ft (69.71 m) above mean sea level (State Highway Department bridge plans).

AVERAGE DISCHARGE.--10 years (1965-75), 45.7 ft³/s (1.294 m³/s), 12.93 in/yr (328 mm/yr), 33,110 acre-ft/yr (40.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,920 ft³/s (82.7 m³/s) May 6 (gage height, 11.12 ft or 3.389 m); minimum, 1.1 ft³/s (0.031 m³/s) Sept. 30.

Period of record: Maximum discharge, 5,010 ft³/s (142 m³/s) Apr. 22, 1974 (gage height, 12.51 ft or 3.813 m); no flow at times in 1964-73.

Maximum stage since at least 1945, 15.6 ft (4.75 m) Apr. 26, 27, 1958, from information by State Highway Department.

REMARKS.--Records good. No known diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	921	228	149	791	98	58	198	37	16	7.8	4.5
2	24	393	149	104	1,680	83	55	367	30	23	9.5	3.7
3	21	183	99	185	1,470	72	91	1,360	26	23	10	3.1
4	20	128	81	222	647	115	45	661	24	24	49	2.6
5	19	190	73	134	357	139	43	303	22	21	30	2.2
6	17	214	170	91	268	102	42	1,240	20	15	14	4.7
7	17	120	454	77	197	86	41	502	24	12	11	9.0
8	17	86	235	72	147	75	62	310	33	11	19	6.0
9	18	85	135	67	127	68	87	222	115	9.7	14	4.1
10	18	118	98	83	113	117	100	160	230	9.0	11	3.3
11	16	369	137	119	106	162	81	114	85	9.3	8.9	3.2
12	15	317	194	102	100	150	58	83	46	9.1	7.4	2.7
13	14	158	147	107	89	353	58	66	34	7.5	6.3	2.6
14	15	98	102	89	85	653	142	68	33	6.5	5.5	2.8
15	30	73	99	83	83	300	178	106	57	6.0	4.8	2.4
16	39	63	90	79	97	206	102	120	49	6.0	4.5	2.8
17	23	84	72	67	140	185	66	89	32	5.9	4.2	3.9
18	19	130	66	62	152	176	58	56	27	5.5	17	4.1
19	17	126	63	61	103	204	49	46	23	5.2	9.7	3.7
20	16	93	60	56	84	168	38	52	20	5.2	12	3.0
21	14	78	56	50	78	112	34	135	19	4.2	38	2.5
22	14	63	53	47	77	93	32	149	18	5.9	20	2.0
23	14	57	53	44	91	85	32	67	21	7.4	11	2.1
24	14	221	54	45	118	80	32	48	25	5.7	8.5	1.9
25	15	627	59	51	93	67	29	43	48	58	7.5	1.7
26	15	265	58	48	76	61	26	42	38	63	7.1	1.6
27	15	149	62	42	70	88	24	36	25	23	8.5	1.5
28	43	104	63	41	77	108	36	39	20	14	8.6	1.4
29	177	94	71	41	-----	105	99	88	18	12	7.1	1.2
30	268	159	94	41	-----	80	167	97	16	10	5.8	1.2
31	140	-----	135	65	-----	64	-----	55	-----	8.5	5.1	-----
TOTAL	1,132	5,766	3,510	2,524	7,516	4,455	1,925	6,922	1,215	441.6	382.8	91.5
MEAN	36.5	192	113	81.4	268	144	64.2	223	40.5	14.2	12.3	3.05
MAX	268	921	454	222	1,680	653	178	1,360	230	63	49	9.0
MIN	14	57	53	41	70	61	24	36	16	4.2	4.2	1.2
CFSM	.76	4.00	2.35	1.70	5.58	3.00	1.34	4.65	.84	.30	.26	.06
IN.	.88	4.47	2.72	1.96	5.82	3.45	1.49	5.36	.94	.34	.30	.07
AC-FT	2,250	11,440	6,960	5,010	14,910	8,840	3,820	13,730	2,410	876	759	181

CAL YR 1974 TOTAL 31,296.17 MEAN 85.7 MAX 3,500 MIN .06 CFSM 1.79 IN 24.25 AC-FT 62,080
WTR YR 1975 TOTAL 38,880.90 MEAN 98.3 MAX 1,680 MIN 1.2 CFSM 2.05 IN 27.81 AC-FT 71,170

PEAK DISCHARGE (BASE, 700 FT²/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	1000	10.24	1,720	3-14	0600	9.28	787
11-25	0630	9.27	779	5- 3	0830	10.25	1,740
2- 2	0800	10.47	2,000	5- 6	1200	11.12	2,920

SABINE RIVER BASIN

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08017200 Cowleech Fork Sabine River at Greenville, Tex.

LOCATION.--Lat 33°07'56", long 96°04'40", Hunt County, on right bank at downstream side of downstream bridge on Interstate Highway 30 (U.S. Highway 67), 0.3 mile (0.5 km) downstream from Horse Creek, 0.9 mile (1.4 km) downstream from Louisiana and Arkansas Railroad Co. bridge, 1.8 miles (2.9 km) east of Greenville, and at mile 558.3 (898.3 km).

DRAINAGE AREA.--77.7 mi² (201.2 km²).

PERIOD OF RECORD.--February 1959 to current year. Prior to October 1963, published as Sabine River at Greenville.

GAGE.--Water-stage recorder. Datum of gage is 485.07 ft (147.849 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 65.5 ft³/s (1.855 m³/s), 11.45 in/yr (291 mm/yr), 47,450 acre-ft/yr (58.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,620 ft³/s (131 m³/s) Oct. 31 (gage height, 16.71 ft or 5.093 m); minimum daily, 0.19 ft³/s (0.005 m³/s) Aug. 7.

Period of record: Maximum discharge, 10,800 ft³/s (306 m³/s) May 7, 1969 (gage height, 17.95 ft or 5.471 m); no flow at times in 1964, 1969-70, 1972-73.

Maximum stage since 1895, 22 ft (6.7 m) in May 1935, from information by local resident and city engineer of Greenville. Flood of July 3, 1913, reached a stage of 20 ft (6.1 m), from information by local resident.

REMARKS.--Records good except those below 100 ft³/s (2.83 m³/s), which are fair. During the current water year, the city of Greenville reported that 4,240 acre-ft (5.23 hm³) was diverted from city lakes upstream from station and 317 acre-ft (0.391 hm³) was diverted from Lake Tawakoni for municipal uses; 2,690 acre-ft (3.32 hm³) of sewage effluent was returned to a tributary downstream from station. Extreme low flow is largely sustained by returned water from water treatment plant upstream.

REVISIONS (WATER YEARS).--WSP 1732: Drainage area. WSP 2122: 1960, 1963-65.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.790	24	81	3,050	76	14	2.3	8.3	.50	.44	.21
2	1.7	38	9.7	88	1,600	19	11	1,120	3.6	.60	.33	.23
3	1.6	8.3	7.2	216	395	11	6.9	703	2.4	26	.31	.23
4	1.4	217	5.7	32	390	10	7.9	26	1.5	67	.28	.26
5	1.5	72	6.9	13	591	10	6.9	7.6	1.4	3.5	.26	.24
6	1.8	8.2	615	8.0	143	11	6.4	11	1.1	2.0	.22	.45
7	1.3	4.2	101	6.5	38	9.7	50	494	21	1.3	.19	.65
8	1.0	3.1	20	6.4	23	8.9	1,450	34	139	1.2	.26	.50
9	1.2	2.7	8.6	6.2	17	16	330	6.9	1,310	15	.81	.40
10	1.3	1,670	34	67	12	220	22	4.1	1,670	8.9	.44	.35
11	1.6	1,210	930	30	12	39	9.8	2.8	440	2.1	.38	.36
12	1.4	39	101	9.5	11	131	7.0	2.1	20	1.0	.60	.40
13	1.2	15	26	6.0	11	302	15	2.2	8.2	.64	.80	.36
14	4.9	9.9	14	5.1	9.4	66	72	583	5.6	.60	.60	.38
15	3.6	8.3	9.1	4.4	9.0	21	20	243	4.2	.57	.50	.38
16	2.8	7.4	6.9	4.2	8.9	14	8.1	74	3.1	.95	.40	.47
17	2.1	7.1	5.7	4.2	9.0	11	6.3	6.9	2.5	1.0	.45	.47
18	1.7	6.8	5.1	3.9	10	14	5.1	4.9	2.3	.81	1.5	.86
19	1.3	6.4	4.6	3.8	9.6	6.4	4.5	3.0	1.9	.95	1.0	.47
20	1.2	6.1	4.4	3.8	9.3	3.5	4.0	4.0	1.6	.81	.80	.64
21	1.1	5.7	4.1	4.3	9.0	2.4	3.5	3.6	1.5	.86	.65	.33
22	1.3	5.6	4.2	3.8	11	2.2	3.5	3.4	1.5	.68	.50	.41
23	1.0	6.3	4.1	3.9	31	2.1	3.7	4.6	1.5	.60	.40	.31
24	.96	318	4.1	4.4	136	2.1	3.7	3.6	1.9	.86	.35	.22
25	1.1	39	4.0	3.7	32	2.0	3.0	2.8	3.9	.38	.30	.36
26	1.3	9.7	4.3	3.6	17	6.5	2.5	2.4	3.3	7.6	.25	.38
27	1.2	6.7	4.4	3.6	12	14	2.5	2.4	1.7	1.6	.25	.47
28	2.7	5.3	4.3	4.0	81	157	2.4	653	.90	1.8	.22	.36
29	2.7	268	5.0	4.1	-----	50	2.4	597	.64	2.2	.22	.33
30	3.9	378	30	3.5	-----	32	2.8	1,170	.57	1.3	.20	.44
31	1,680	-----	229	8.2	-----	19	-----	59	-----	.81	.21	-----
TOTAL	1,733.76	6,171.8	2,236.4	1,499.9	6,646.6	1,288.8	2,088.9	5,836.6	3,665.11	191.74	14.12	11.92
MEAN	55.9	206	72.1	48.4	239	41.6	69.6	188	122	6.19	.46	.40
MAX	1,680	1,790	930	862	3,050	302	1,450	1,170	1,670	67	1.5	.86
MIN	.96	2.7	4.0	3.5	8.9	2.0	2.4	2.1	.57	.50	.19	.21
CFSM	.72	2.65	.93	.62	3.08	.54	.90	2.42	1.57	.08	.006	.005
IN.	.83	2.95	1.07	.72	3.20	.62	1.00	2.79	1.75	.09	.006	.005
AC-FT	3,440	12,240	4,440	2,980	13,260	2,560	4,140	11,580	7,270	380	28	24

CAL YR 1974 TOTAL 36,390.09 MEAN 99.7 MAX 4,960 MIN .19 CFSM 1.28 IN 17.42 AC-FT 72,180
WTR YR 1975 TOTAL 31,425.65 MEAN 86.1 MAX 3,050 MIN .19 CFSM 1.11 IN 15.05 AC-FT 62,330

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	2130	16.71	4,620	4-8	1445	15.58	2,000
11-10	2215	16.11	3,090	5-2	1815	15.83	2,480
2-1	0100	16.42	3,810	6-10	1930	15.66	2,150

NOTE.--No gage-height record Aug. 13 to Sept. 14.

SABINE RIVER BASIN

08017300 South Fork Sabine River near Quinlan, Tex.

LOCATION.--Lat 32°53'52", long 96°15'11", Hunt County, on right bank at downstream side of bridge on Farm Road 1565, 2.4 miles (3.9 km) upstream from Dry Creek, 6.2 miles (10.0 km) upstream from Bearpen Creek, and 7 miles (11 km) southwest of Quinlan.

DRAINAGE AREA.--78.7 mi² (203.8 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 461.40 ft (140.635 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 68.5 ft³/s (1.940 m³/s), 11.82 in/yr (300 mm/yr), 49,630 acre-ft/yr (61.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,870 ft³/s (251 m³/s) Feb. 1 (gage height, 16.40 ft or 4.999 m); no flow for many days.

Period of record: Maximum discharge, 14,500 ft³/s (411 m³/s) May 7, 1969 (gage height, 16.93 ft or 5.160 m); no flow at times each year.

Maximum stage since at least 1890, 21 ft (6.4 m) July 29, 1902, from information by local resident. Flood of Apr. 27, 1957, reached a stage of 17.76 ft (5.413 m), from floodmarks.

REMARKS.--Records good except those below 600 ft³/s (17.0 m³/s), which are fair. Recording rain gage located at station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2,250	21	101	5,100	4.2	8.0	.14	16	2.0	.46	
2	.71	143	9.0	139	1,690	3.0	4.6	298	9.5	.85	.26	
3	.47	29	4.9	300	703	3.6	3.2	299	7.0	.45	.12	
4	.25	150	3.1	52	518	2.6	2.8	24	5.6	30	.07	
5	.14	89	2.4	21	618	2.3	2.7	9.1	4.8	5.2	.05	
6	.09	22	321	12	116	2.2	2.7	34	4.3	1.6	.04	
7	.06	13	76	8.2	33	2.0	161	798	8.7	.57	.03	
8	.02	10	19	6.8	22	2.0	1,530	75	40	.22	.02	
9	0	7.7	8.2	5.3	15	2.0	311	12	1,140	.08	.02	
10	0	2,580	46	122	11	5.5	30	6.9	1,960	.05	.01	
11	0	1,090	1,000	47	8.5	7.2	11	3.8	245	.04	0	
12	0	82	136	17	6.4	65	5.3	1.9	19	.07	0	
13	0	20	32	5.4	5.0	419	17	.75	7.1	.26	0	
14	9.1	10	18	3.8	4.1	126	211	127	3.5	.05	0	
15	37	5.4	13	2.9	3.7	29	29	206	2.0	.01	0	
16	4.9	4.2	8.7	2.2	3.4	17	8.8	44	1.3	0	0	
17	1.5	3.8	6.0	1.8	3.0	14	5.0	7.1	.59	0	0	
18	.58	2.8	4.6	1.5	2.6	45	3.4	3.2	.16	0	0	
19	.21	2.2	3.6	1.6	2.1	21	2.6	1.5	.08	0	0	
20	.05	1.5	2.8	.95	1.7	8.4	2.0	4.6	.07	0	0	
21	.19	.89	2.2	.66	1.4	4.3	1.9	30	.04	0	0	
22	.08	.62	1.9	.59	5.9	3.0	1.1	6.1	.01	0	0	
23	.02	.63	2.0	.46	42	2.2	.81	4.1	.01	0	0	
24	0	130	2.4	.66	113	1.5	.54	148	.02	0	0	
25	0	36	2.1	1.5	32	.91	.32	90	.09	429	0	
26	.05	11	2.1	.97	14	14	.22	11	.81	454	0	
27	.12	5.3	3.6	.78	7.3	48	.14	3.3	.29	20	0	
28	21	2.9	3.2	.68	5.2	166	.16	682	.04	6.3	0	
29	64	83	5.3	.78	-----	82	.19	726	128	3.1	0	
30	12	150	8.4	1.1	-----	71	.16	803	8.2	1.5	0	
31	4,160	-----	199	410	-----	19	-----	69	-----	.78	0	-----
TOTAL	4,313.84	6,935.94	1,967.5	1,269.63	9,087.3	1,192.91	2,356.64	4,528.49	3,612.21	956.13	1.08	0
MEAN	139	231	63.5	41.0	325	38.5	78.6	146	120	30.8	.035	0
MAX	4,160	2,580	1,000	410	5,100	419	1,530	803	1,960	454	.46	0
MIN	0	.62	1.9	.46	1.4	.91	.14	.14	.01	0	0	0
CFSM	1.77	2.94	.81	.52	4.13	.49	1.00	1.86	1.52	.39	.0004	0
IN.	2.04	3.28	.93	.60	4.30	.56	1.11	2.14	1.71	.45	0	0
AC-FT	8,560	13,760	3,900	2,520	18,020	2,370	4,670	8,980	7,160	1,900	2.1	0

CAL YR 1974 TOTAL 48,873.86 MEAN 134 MAX 4,450 MIN 0 CFSM 1.70 IN 23.10 AC-FT 96,940
WTR YR 1975 TOTAL 36,221.67 MEAN 99.2 MAX 5,100 MIN 0 CFSM 1.26 IN 17.12 AC-FT 71,850

PEAK DISCHARGE (BASE, 1,800 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	1530	16.15	7,380	4-8	0930	15.53	3,450
11-10	1400	15.72	4,640	6-10	0715	15.50	3,310
2-1	1415	16.40	8,870				

08017400 Lake Tawakoni near Wills Point, Tex.

LOCATION.--Lat 32°48'40", Long 95°54'56", Reins-Van Zandt County line, in stairwell at left end of spillway of Iron Bridge Dam on Sabine River, 750 ft (229 m) upstream from bridge on Farm Road 47, 3 miles (5 km) upstream from McBee Creek, 9.0 miles (14.5 km) northeast of Wills Point, and at mile 514.5 (827.8 km).

DRAINAGE AREA.--756 mi² (1,958 km²).

PERIOD OF RECORD.--Contents: October 1960 to current year.
Water quality: Chemical analyses: October 1969 to current year.

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

EXTREMES.--Current year: Maximum contents, 1,041,000 acre-ft (1.28 km³) Feb. 3 (elevation, 440.32 ft or 134.210 m); minimum, 887,400 acre-ft (1.09 km³) Sept. 29, 30 (elevation, 436.13 ft or 132.932 m).
Period of record: Maximum contents, 1,130,000 acre-ft (1.39 km³) May 1, 1966 (elevation, 442.58 ft or 134.900 m); minimum since lake first filled in May 1965, 802,700 acre-ft (990 hm³) Oct. 21, 1972 (elevation, 433.65 ft or 132.177 m).

REMARKS.--Lake is formed by a rolled earthfill dam 29,560 ft (9,010 m) long, including a 480-foot (146-metre) uncontrolled concrete gravity spillway with ogee weir section. Outlet works consist of two 4- by 6-foot (1.2- by 1.8-metre) sluice gates and two 20-inch (508-millimetre) steel pipes controlled by service valves. Closure of earthen dam began July 1, 1960, and deliberate impoundment of water began Oct. 7, 1960. Capacity table is based on 1956 survey. Records furnished by Sabine River Authority show that during year the city of Dallas diverted 19,180 acre-ft (23.6 hm³) of water for municipal use in the Trinity River basin and that 17 other users in the Sabine River basin diverted a total of 1,910 acre-ft (2.36 hm³). Lake built for water conservation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	454.0	-
Design flood.....	446.2	1,290,000
Crest of spillway.....	437.5	936,200
Lowest intake to wet well (invert).....	416.5	342,700
Lowest gated outlet (invert).....	378.0	0

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

436.0	882,800	439.0	991,200
437.0	918,200	440.0	1,029,000
438.0	954,300	441.0	1,068,000

CONTENTS, IN THOUSANDS OF AC-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	463.2	1.013	966.9	951.8	1.007	952.2	955.4	948.9	967.6	946.4	930.8	911.8
2	459.9	1.013	963.6	953.6	1.039	950.7	955.4	958.0	965.4	945.6	930.5	911.4
3	958.0	1.006	961.7	956.5	1.040	950.0	951.8	972.0	962.8	945.3	930.5	910.7
4	456.2	1.001	959.1	955.4	1.032	949.3	950.7	973.9	960.6	944.6	929.0	909.3
5	455.1	996.9	962.1	954.7	1.029	948.2	949.6	971.3	959.1	943.5	928.3	908.3
6	954.0	989.4	969.8	953.6	1.021	948.2	948.5	969.1	957.3	941.7	927.2	907.6
7	452.5	985.0	971.3	952.9	1.011	948.9	952.9	969.1	957.6	940.6	926.5	906.5
8	451.4	980.9	969.1	951.0	1.009	946.4	970.6	970.2	959.9	940.2	925.8	905.4
9	950.3	977.6	965.0	958.8	997.3	946.4	982.8	967.2	967.6	939.5	924.7	904.7
10	946.9	958.3	968.0	952.9	990.1	947.5	980.9	965.4	976.8	939.1	923.6	904.0
11	948.2	1.004	974.6	952.9	985.7	946.7	977.2	963.2	985.7	938.1	922.9	903.0
12	947.5	1.002	978.3	951.4	981.3	952.2	973.2	960.6	983.1	937.0	922.1	903.3
13	946.4	998.0	975.7	949.6	977.2	958.8	971.7	959.9	978.3	935.5	921.1	901.2
14	954.7	987.9	974.3	949.6	973.9	960.2	972.8	962.4	974.3	934.1	920.3	899.8
15	951.4	982.8	971.3	949.3	972.8	959.9	970.9	963.2	975.4	934.1	920.0	900.1
16	949.6	979.4	968.4	948.9	969.5	959.5	968.0	961.3	971.7	933.4	919.6	898.4
17	948.9	976.1	964.7	948.5	966.5	957.3	964.7	959.5	968.0	932.6	921.4	898.0
18	948.2	972.8	965.0	948.2	965.0	957.6	964.3	958.0	965.4	931.9	920.3	898.0
19	946.4	971.7	961.7	948.2	961.3	956.5	962.4	956.5	962.4	931.2	920.3	898.0
20	945.3	967.2	959.9	944.6	958.8	955.1	960.2	957.3	961.0	930.5	919.3	896.2
21	943.4	964.7	958.0	944.9	958.0	954.3	958.4	957.3	958.8	929.7	918.9	895.9
22	943.1	961.7	956.2	944.9	955.1	954.0	956.5	955.8	956.9	929.0	918.5	894.8
23	943.1	971.7	956.9	944.2	957.3	953.2	955.4	956.5	955.4	927.6	917.1	893.0
24	942.8	972.8	957.3	944.9	955.4	951.8	954.7	956.9	953.2	927.2	916.0	892.7
25	942.4	970.6	953.6	944.2	954.3	949.5	954.0	955.4	954.0	929.4	915.0	890.9
26	942.0	968.7	952.9	943.5	953.2	952.2	952.5	954.3	953.2	931.9	915.7	889.9
27	940.9	966.1	951.4	943.5	952.2	950.9	951.4	955.4	951.8	934.4	915.0	888.4
28	947.4	963.6	950.7	943.8	952.5	961.7	952.5	959.9	950.7	933.4	914.3	887.7
29	947.5	969.1	950.7	944.2	-----	960.2	951.8	965.4	949.6	933.0	913.6	887.4
30	948.9	969.5	951.1	943.5	-----	958.0	951.4	970.2	948.5	932.3	913.2	887.4
31	945.7	-----	952.2	943.6	-----	956.2	-----	970.2	-----	931.2	912.5	-----
(†)	438.85	438.42	437.94	437.98	437.95	438.05	437.92	438.43	437.84	437.36	436.84	436.13
(*)	+20.3	-15.9	-17.6	+1.4	-1.1	+3.7	-4.8	+18.8	-21.7	-17.3	-18.7	-25.1
(††)	2.20	1.17	1.17	.555	.408	.792	2.43	1.84	2.42	2.33	2.55	4.25
MAX	985.7	1,013	978.3	958.8	1,040	961.7	982.8	973.9	985.7	946.4	930.8	911.8
MIN	940.9	961.7	950.7	943.5	952.2	946.4	948.5	948.9	948.5	927.2	912.5	887.4

CAL YR 1974..... * -2.9 †† 35.34 MAX 1,013 MIN 910.0
WTR YR 1975..... * -78.0 †† 21.10 MAX 1,040 MIN 887.4

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Divisions, in acre-feet, for municipal use.

NOTE.--All figures expressed in thousands.

SABINE RIVER BASIN

08017400 Lake Tawakoni near Willis Point, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
JULY, 1975									
01...	0840	.7	25	2.9	9.4	3.2	88	0	16

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHDS)	PH (UNITS)	TEMPERATURE (DEG C)
JULY, 1975									
01...	6.9	.3	108	74	2	.5	195	7.9	26.5

08017410 Sabine River near Wills Point, Tex.

LOCATION.--Lat 32°48'34", long 95°54'46", Van Zandt County, on right bank at downstream side of bridge on Farm Road 47, 750 ft (229 m) downstream from Iron Bridge Dam which forms Lake Tawakoni, 3.0 miles (4.8 km) upstream from McBee Creek, 9.0 miles (14.5 km) northeast of Wills Point, and at mile 514.3 (827.5 km).

DRAINAGE AREA.--756 mi² (1,958 km²).

PERIOD OF RECORD.--Discharge: October 1970 to current year.

Water quality: Chemical and biochemical analyses: July 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft (112.776 m) above mean sea level.

AVERAGE DISCHARGE.--5 years, 556 ft³/s (15.75 m³/s), 402,800 acre-ft/yr (497 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,220 ft³/s (204 m³/s) Feb. 3 (gage height, 16.76 ft or 5.108 m); no flow Sept. 26-29.

Period of record: Maximum discharge, 13,600 ft³/s (385 m³/s) Dec. 11, 1971 (gage height, 18.5 ft or 5.64 m, from graph based on gage readings); no flow in October 1971-72, April 1974, and September 1975.

Maximum discharge since construction of Iron Bridge Dam in 1960, about 21,000 ft³/s (595 m³/s) May 1, 1966, from theoretical rating curve of flow over dam 750 ft (229 m) upstream.

REMARKS.--Discharge records good. Flow regulated by Lake Tawakoni (see station 08017400).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	977	4,170	1,420	554	1,840	462	607	442	1,360	314	4.3	.21
2	880	5,280	1,060	484	5,940	434	811	513	1,110	267	26	4.0
3	781	4,840	900	671	7,130	379	637	974	963	241	8.8	.21
4	677	4,410	825	644	6,680	379	394	1,620	869	232	13	.21
5	602	3,810	763	583	6,130	318	344	1,570	804	296	22	1.2
6	551	3,370	1,080	556	5,500	300	310	1,370	736	323	.84	.49
7	571	2,920	1,500	515	4,680	484	330	1,210	724	195	.99	.28
8	490	2,510	1,550	526	3,970	370	1,000	1,290	783	117	1.2	.28
9	423	2,120	1,950	455	3,570	220	2,030	1,230	935	89	.86	4.2
10	371	2,520	2,290	624	3,020	363	2,240	1,030	1,500	114	.63	.32
11	326	3,670	1,650	521	2,730	254	2,000	926	2,570	135	.61	.28
12	294	4,220	1,890	820	2,380	481	1,670	862	2,850	106	.69	18
13	255	3,710	2,010	477	1,990	895	1,430	766	2,460	73	4.6	.18
14	477	3,330	1,790	369	1,710	818	1,500	865	1,960	51	.16	.06
15	730	2,720	1,540	332	1,550	757	1,430	937	2,000	53	.15	.07
16	440	2,340	1,350	327	1,410	765	1,200	905	1,730	49	1.2	3.4
17	345	2,060	1,050	297	1,070	715	1,040	833	1,400	49	1.6	.06
18	307	1,740	992	288	1,080	778	976	748	1,110	48	.66	.06
19	321	1,550	901	625	928	661	942	680	964	48	4.1	4.4
20	224	1,360	859	390	779	589	810	706	895	53	.25	1.9
21	181	1,060	756	194	712	540	736	786	820	56	.41	5.2
22	157	939	675	241	833	522	677	699	748	65	.23	11
23	142	968	637	196	1,010	494	610	642	658	69	.21	19
24	131	2,340	753	183	761	488	565	686	576	83	.21	7.1
25	132	1,660	686	202	586	408	537	663	521	82	.21	.57
26	124	1,340	514	179	538	353	485	610	518	68	3.7	0
27	108	1,200	467	169	495	506	432	549	484	81	.25	0
28	192	985	440	174	464	878	460	624	432	99	.21	0
29	296	1,410	416	187	-----	1,050	444	1,040	380	78	.21	0
30	306	1,630	417	170	-----	825	444	1,290	357	81	.21	3.5
31	1,970	-----	524	367	-----	670	-----	1,600	-----	70	.21	-----
TOTAL	13,781	76,182	33,655	12,320	69,486	17,156	27,151	28,666	33,217	3,685	98.70	86.18
MEAN	445	2,539	1,086	397	2,482	553	905	925	1,107	119	3.16	2.87
MAX	1,970	5,280	2,290	820	7,130	1,050	2,240	1,620	2,850	323	26	19
MIN	108	939	416	169	464	220	310	442	357	48	.15	0
AC-FT	27,330	151,100	66,750	24,440	137,800	34,030	53,850	56,860	65,890	7,310	196	171
CAL YR 1974	TOTAL	300,583.00	MEAN	824	MAX	5,280	MIN	0	AC-FT	596,200		
WTR YR 1975	TOTAL	315,483.88	MEAN	864	MAX	7,130	MIN	0	AC-FT	625,800		

08017410 Sabine River near Mills Point, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 18...	1530	305	1.6	23	2.5	9.0	3.4	82	3	12	5.2	--
NOV. 07...	1500	2700	1.8	24	2.4	8.8	3.3	89	0	12	5.6	--
DEC. 05...	1430	770	3.0	23	2.1	9.7	3.1	86	0	12	6.6	.2
JAN. 09...	1115	430	1.6	22	2.2	8.2	3.8	88	0	12	6.0	.2
FEB. 28...	1015	455	.7	24	2.0	8.0	2.5	86	0	13	6.8	.6
MAR. 28...	0930	750	.5	23	2.7	8.3	3.8	88	0	13	6.5	.3
APR. 23...	1320	590	.9	24	1.9	8.8	3.2	83	0	13	5.7	.2
MAY 14...	1100	860	.3	23	2.0	9.6	3.5	84	0	12	7.2	.2
JUNE 18...	1000	1070	1.0	25	2.7	9.6	3.4	87	0	14	6.5	.2
JULY 23...	1000	68	4.0	26	3.0	10	3.4	98	0	13	7.4	.2
AUG. 06...	1100	.6	1.9	26	2.3	11	3.2	96	0	16	7.2	.2
SEP. 24...	1020	.8	2.1	28	3.0	11	3.0	109	0	15	7.5	.3
DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 18...	.03	.00	.13	.40	.53	.03	100	4	0	68	0	.5
NOV. 07...	.11	.00	.03	.42	.45	.03	102	12	4	70	0	.5
DEC. 05...	.13	.00	.09	.21	.30	.11	101	6	0	66	0	.5
JAN. 09...	.08	.01	.06	.73	.79	.03	99	12	0	64	0	.4
FEB. 28...	.05	.00	.10	.44	.54	.06	100	18	1	68	0	.4
MAR. 28...	.12	.00	.09	.63	.72	.02	101	24	4	69	0	.4
APR. 23...	.33	.01	.04	.52	.56	.04	99	30	5	68	0	.5
MAY 14...	.20	.00	.04	.26	.30	.01	99	11	2	66	0	.5
JUNE 18...	.48	.00	.01	.66	.67	.01	106	11	0	74	2	.5
JULY 23...	.04	.01	.27	.54	.81	.25	115	28	4	77	0	.5
AUG. 06...	.03	.01	.04	.48	.52	.12	118	5	2	75	0	.6
SEP. 24...	.00	.01	.04	.48	.52	.06	124	4	0	82	0	.5

08017410 Sabine River near Mills Point, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT. 18...	190	8.3	24.0	0	1	8.5	100	1.6	5.3	0	.0
NOV. 07...	190	7.4	18.5	10	6	8.9	95	.8	--	0	.4
DEC. 05...	187	7.5	10.0	5	4	10.0	88	.8	4.7	3	.6
JAN. 09...	188	7.2	10.0	5	6	10.7	95	.9	6.3	1	.2
FEB. 28...	185	7.5	10.5	10	9	11.1	99	1.2	6.8	1	.0
MAR. 28...	185	7.4	13.0	5	10	9.8	92	1.8	5.5	4	.0
APR. 23...	187	6.9	15.0	15	20	9.7	95	.4	4.3	10	.0
MAY 14...	188	7.2	20.5	5	6	8.8	97	1.1	.8	5	.0
JUNE 18...	190	7.4	24.5	0	6	8.2	98	1.4	6.6	3	.0
JULY 23...	204	6.6	23.5	5	15	8.2	95	1.2	7.2	4	.0
AUG. 06...	212	8.3	28.5	5	2	8.2	105	1.7	3.8	3	.0
SEP. 24...	219	7.6	19.5	0	2	9.1	98	1.4	4.6	2	.0

DATE	TIME	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)
OCT. 18...	1530	0	2	40	0	0	0	0
FEB. 28...	1015	10	0	40	0	0	1	2
JUNE 18...	1000	30	1	30	0	10	0	6
AUG. 06...	1100	30	8	30	0	0	0	10

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (MG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 18...	20	2	0	0	.0	2	200	40
FEB. 28...	20	2	10	0	.2	3	210	0
JUNE 18...	20	0	0	0	.1	1	240	10
AUG. 06...	20	0	0	0	.0	0	260	0

SABINE RIVER BASIN

08018200 Grand Saline Creek near Grand Saline, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 32°40'20", long 95°36'36", Van Zandt County, at bridge on U.S. Highway 80, 0.3 mile (0.5 km) downstream from Texas and Pacific Railway Co. bridge, 1.7 miles (2.7 km) upstream from mouth, and 5.5 miles (8.8 km) east of Grand Saline.

DRAINAGE AREA.--91.4 mi² (236.7 km²).

PERIOD OF RECORD.--Occasional discharge measurements: September 1964 to January 1968, October 1973 to current year. Operated as a daily discharge station January 1968 to September 1973. Occasional water-quality data: February 1968 to current year. Water temperatures: February 1968 to September 1973.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.										
11...	1200	.52	14	51	21	360	6.8	70	0	160
FEB.										
25...	1340	.83	15	39	20	130	4.3	34	0	150
JUNE										
23...	--	100	--	--	--	--	--	--	--	--
27...	1110	7.0	16	42	20	120	4.3	66	0	130
AUG.										
13...	1311	.27	12	94	39	360	6.5	164	0	310
SEP.										
16...	1410	.48	7.2	110	21	2400	8.0	50	0	260

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT.									
11...	550	--	1200	210	160	11	2120	7.3	14.5
FEB.									
25...	200	.2	575	180	150	4.2	1050	6.8	8.5
JUNE									
23...	--	--	--	--	--	--	--	--	--
27...	190	.2	555	190	130	3.8	995	7.0	28.5
AUG.									
13...	550	--	1450	400	260	7.9	2450	7.4	30.5
SEP.									
16...	3700	.3	6530	360	320	55	11300	7.0	28.0

SABINE RIVER BASIN

267

08018500 Sabine River near Mineola, Tex.

LOCATION (revised).--Lat 32°36'46", long 95°29'08", Smith County on right bank 75 ft (23 m) downstream from bridge on U.S. Highway 69, 3.5 miles (5.6 km) south of Mineola, 4.5 miles (7.2 km) upstream from Missouri Pacific Railway Lines bridge, 16.2 miles (26.1 km) upstream from Lake Fork Creek, and at mile 461.1 (741.9 km).

DRAINAGE AREA.--1,357 mi² (3,515 km²).

PERIOD OF RECORD.--Discharge: May 1939 to September 1959, October 1967 to current year. Gage-height records collected at this site since July 1946 are contained in reports published by the National Weather Service.

Water quality: Chemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE (revised).--Water-stage recorder. Datum of gage is 304.16 ft (92.708 m) above mean sea level. May 12, 1939, to Dec. 11, 1955, at site 55 ft (17 m) upstream from downstream side of bridge; Dec. 12, 1955, to Dec. 12, 1959, at downstream side of bridge; Oct. 1, 1967, to Sept. 12, 1968, nonrecording gage at downstream side of bridge. All gages at present datum.

AVERAGE DISCHARGE.--20 years (1939-59) prior to regulation by Lake Tawakoni, 1,054 ft³/s (29.85 m³/s), 763,600 acre-ft/yr (942 hm³/yr); 8 years (1967-75) regulated, 1,158 ft³/s (32.79 m³/s), 839,000 acre-ft/yr (1,030 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 14,200 ft³/s (402 m³/s) Feb. 4 (gage height, 18.57 ft or 5.660 m); minimum, 3.7 ft³/s (0.10 m³/s) Sept. 8-10.

Period of record: Maximum discharge, 76,000 ft³/s (2,150 m³/s) Apr. 1, 1945 (gage height, 24.00 ft or 7.315 m); maximum gage height, 24.37 ft (7.428 m) June 8, 1943; no flow at times.

Historic: Maximum stage since at least 1890, that of June 8, 1943.

Water quality: Current year: Maximum daily specific conductance, 6,510 micromhos Sept. 29; minimum daily, 104 micromhos Nov. 4.

Maximum water temperatures, 28.0°C on many days during July and August; minimum, 5.0°C Dec. 3, Jan. 13, 14.

Period of record: Maximum daily specific conductance, 11,400 micromhos June 3, 1971; minimum daily, 70 micromhos Dec. 12, 1971.

Maximum water temperatures, 29.0°C on several days during summer months; minimum, 2.0°C Jan. 7, 10, 1968, Jan. 9, 1970, Jan. 12, 1973.

REMARKS.--Discharge records good. Flow is partly regulated by Lake Tawakoni (station 08017400) located 53 miles (85 km) upstream since October 1960 and by Lake Holbrook (capacity, 7,990 acre-ft or 9.85 hm³) on a tributary stream since September 1962.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1460	788	3390	780	513	901	1650	2090	1750	934	61	6.8
2	1400	1490	2710	808	1620	671	1630	1860	2030	935	61	6.6
3	1350	2680	2510	1080	4300	542	1360	1900	2010	631	62	5.6
4	1260	5820	2420	1240	12200	499	1110	2070	1840	488	54	4.9
5	1140	7190	2300	1230	13200	452	992	2290	1680	430	42	4.6
6	985	6840	2320	1210	10100	416	832	2340	1480	299	36	4.4
7	794	6720	2460	1140	8580	346	572	2210	1330	251	26	4.0
8	588	6550	2450	952	7890	352	1080	2070	1260	268	19	3.8
9	455	6070	2380	806	7190	374	2470	1960	1300	229	18	3.7
10	400	6550	2460	770	6550	474	3520	1840	1350	133	19	3.9
11	349	6230	2670	798	6020	572	4980	1700	1420	92	16	4.2
12	300	5570	2900	881	5290	723	5480	1590	1480	79	12	17
13	258	4570	2940	1020	4730	1530	4940	1500	1490	104	8.8	27
14	229	4530	3050	1050	4150	3040	4530	1430	1630	88	7.1	24
15	230	4570	3150	1020	3680	3520	4220	1550	2410	72	6.0	20
16	283	4650	3060	870	3360	3680	3740	1900	3430	62	5.0	17
17	474	4530	2550	644	3010	3640	3440	2180	3440	50	4.3	13
18	588	4040	2210	464	2690	3380	3090	2270	4810	48	4.1	11
19	459	3570	1920	383	2360	2800	2640	2160	4570	45	4.3	12
20	311	3080	1790	348	2110	2240	2200	2120	3870	42	4.5	13
21	249	2560	1450	379	1880	1850	1450	3130	3020	41	28	10
22	204	2170	1150	479	1700	1470	1600	2680	2160	39	29	8.3
23	153	1820	1020	370	1500	1210	1360	2140	1640	38	15	7.4
24	102	3440	1040	270	1360	941	1170	2090	1310	38	12	6.7
25	94	7890	1000	243	1340	760	953	1920	1070	40	18	6.2
26	89	12700	1100	222	1420	629	766	1550	841	44	15	6.0
27	101	12200	1230	221	1410	574	636	1380	707	50	12	6.0
28	137	9400	1120	211	1210	581	620	1260	739	53	9.1	9.9
29	137	6440	1000	195	---	822	746	1060	830	50	7.7	14
30	145	4220	912	190	---	1190	1630	981	838	54	7.7	13
31	298	---	887	201	---	1470	---	1300	---	64	7.4	---
TOTAL	15022	158878	63549	20475	121363	41709	65807	58521	57735	5791	631.0	294.0
MEAN	485	5296	2050	660	4334	1345	2194	1888	1925	187	20.4	9.80
MAX	1460	12700	3390	1240	13200	3680	5480	3130	4810	935	62	27
MIN	89	788	887	190	513	352	572	981	707	38	4.1	3.7
AC-FT	29800	315100	126000	40610	240700	82730	130500	116100	114500	11490	1250	583
CAL YR 1974 TOTAL	524724.3			MEAN 1438	MAX 12700	MIN 4.0	AC-FT 1041000					
WTH YR 1975 TOTAL	609775.0			MEAN 1671	MAX 13200	MIN 3.7	AC-FT 1209000					

08018500 Sabine River near Mineola, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
18...	1415	630	3.8	22	2.9	28	4.1	79	0	18	35	--
NOV.												
07...	1330	4010	8.3	14	2.7	8.4	4.1	57	0	12	8.3	--
DEC.												
05...	1330	2130	6.5	19	3.1	13	3.1	59	0	21	15	.1
JAN.												
09...	1300	802	5.7	23	4.9	21	4.0	68	0	35	30	.2
FEB.												
24...	1145	1210	4.1	26	5.9	23	3.8	70	0	42	31	.2
MAR.												
28...	1230	563	4.0	25	5.8	23	4.5	72	0	40	34	.3
APR.												
23...	1430	1370	2.4	24	3.7	16	3.6	78	0	23	17	.1
MAY												
14...	1330	1620	2.0	23	3.2	14	3.7	81	0	19	13	.2
JUNE												
18...	1200	5620	3.9	17	2.8	16	3.9	52	0	17	21	.1
JULY												
23...	1120	38	6.6	30	6.2	31	3.8	96	0	39	42	.2
AUG.												
06...	1230	36	6.2	26	4.5	18	3.5	87	0	24	21	.2
SEP.												
24...	1200	6.6	12	81	19	560	6.0	77	0	110	950	.4

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
18...	.03	.00	.13	.59	.72	.11	153	56	10	67	2	1.5
NOV.												
07...	.01	.00	.05	.51	.56	.12	86	9	4	46	0	.5
DEC.												
05...	.03	.00	.05	.39	.44	.08	110	20	2	60	12	.7
JAN.												
09...	.05	.02	.05	.72	.77	.05	157	39	2	78	22	1.0
FEB.												
28...	.06	.00	.05	.60	.65	.07	171	54	0	89	32	1.1
MAR.												
28...	.11	.00	.24	.24	.48	.02	172	68	7	86	27	1.1
APR.												
23...	.17	.01	.04	.63	.67	.05	128	73	9	75	11	.8
MAY												
14...	.14	.00	.02	.38	.40	.05	118	60	8	71	4	.7
JUNE												
18...	.07	.01	.02	.70	.72	.08	108	27	4	54	12	.9
JULY												
23...	.01	.01	.04	.77	.81	.09	206	90	6	100	22	1.3
AUG.												
06...	.00	.00	.00	.68	.68	.05	147	90	20	84	12	.9
SEP.												
24...	.00	.01	.00	.65	.65	.14	1780	74	8	280	220	15

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.											
18...	288	6.9	19.0	5	30	7.6	81	1.8	9.5	2	.0
NOV.											
07...	146	6.5	15.0	50	5	6.4	63	1.6	9.8	4	.0
DEC.											
05...	201	7.1	8.5	20	15	9.2	78	.8	6.8	0	.1
JAN.											
09...	285	7.1	11.0	20	20	9.9	89	1.1	8.9	1	.1
FEB.											
28...	307	7.0	12.0	10	25	9.8	91	1.5	8.5	0	.1
MAR.											
28...	316	6.9	16.5	10	35	8.0	82	1.8	6.9	7	.1
APR.											
23...	236	6.8	18.5	0	30	7.9	84	1.0	22	13	.0
MAY											
14...	222	6.8	22.0	5	30	7.8	89	1.5	8.3	18	.0
JUNE											
18...	192	6.7	26.5	30	15	5.0	61	2.4	7.8	6	.1
JULY											
23...	375	7.1	28.5	0	40	5.7	73	1.2	9.5	7	.0
AUG.											
06...	268	7.1	27.0	10	40	5.9	73	1.7	4.8	3	.0
SEP.											
24...	3510	6.8	18.5	25	35	6.9	74	3.6	8.0	1	.1

08018500 Sabine River near Mineola, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
OCT. 18...	1415	30	2	40	0	0	0	8
FEB. 28...	1145	<10	1	40	0	0	3	2
JUNE 18...	1200	50	2	40	0	0	0	20
AUG. 06...	1230	20	0	30	0	0	0	6

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 18...	50	3	0	0	.0	3	190	30
FEB. 28...	50	1	10	60	.0	1	220	6
JUNE 18...	70	0	0	10	.0	9	150	10
AUG. 06...	10	0	0	0	.0	0	270	0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	15022	221	120	4870	22	892	22	892	63
NOV. 1974.....	158878	164	92	39500	14	6010	15	6430	48
DEC. 1974.....	63549	224	120	20600	22	3770	22	3770	64
JAN. 1975.....	20475	342	180	9950	40	2210	35	1930	96
FEB. 1975.....	121363	202	110	36000	19	6230	20	6550	58
MAR. 1975.....	41709	279	150	16900	30	3380	28	3150	79
APR. 1975.....	65807	229	130	23100	23	4090	23	4090	65
MAY 1975.....	58521	232	130	20500	24	3790	23	3630	66
JUNE 1975.....	57735	206	110	17100	20	3120	20	3120	59
JULY 1975.....	5791	300	160	2500	33	516	31	405	85
AUG. 1975.....	630.99	288	160	273	32	54	29	49	81
SEPT 1975.....	294	1520	850	675	390	310	80	64	130
TOTAL	609774.72	**	**	192000	**	34400	**	34200	**
WTD.AVG.	1670.62	213	120	**	21	**	21	**	61

SABINE RIVER BASIN

08018500 Sabine River near Mineola, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) + WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	398	212	417	283	303	262	309	172	363	257	314
2	204	207	227	428	284	332	267	309	178	251	257	320
3	204	124	209	346	216	317	292	257	185	285	260	304
4	206	104	206	363	183	317	277	245	201	293	260	325
5	206	115	205	335	153	330	234	210	203	258	272	343
6	211	150	201	297	162	357	282	203	207	285	271	350
7	214	169	236	285	186	364	295	211	214	307	288	354
8	212	180	240	282	188	364	306	209	211	265	297	354
9	209	192	222	287	190	351	320	212	228	257	333	361
10	205	190	201	293	193	334	237	216	269	277	384	357
11	210	175	199	363	197	426	183	218	258	293	394	366
12	214	221	220	369	201	447	170	216	241	318	367	394
13	214	234	216	362	204	369	195	222	229	357	360	403
14	211	207	199	343	211	286	205	222	206	309	358	356
15	211	191	188	293	215	239	215	238	177	309	361	530
16	254	191	195	306	217	238	226	264	193	299	363	553
17	231	194	205	317	217	229	232	279	190	324	361	502
18	299	198	206	330	218	236	227	308	190	347	352	459
19	295	201	214	339	222	260	222	233	188	347	349	662
20	270	204	217	355	236	263	221	228	197	443	358	442
21	245	207	224	355	242	255	228	169	206	420	332	440
22	233	207	235	267	246	259	232	211	205	394	257	2220
23	244	207	240	328	271	271	241	226	211	382	260	2800
24	247	152	253	384	322	279	251	207	215	368	285	3440
25	253	134	263	393	353	287	258	218	215	359	250	3750
26	263	147	341	420	323	279	260	245	218	342	311	3830
27	266	112	315	440	320	279	265	254	228	405	265	3930
28	205	116	312	469	312	312	260	243	229	327	296	6490
29	236	124	318	473	---	396	263	251	268	293	299	6510
30	294	173	327	490	---	305	284	271	354	285	292	4980
31	242	---	341	502	---	295	---	141	---	277	297	---
MONTH	233	181	238	362	234	309	247	234	216	324	311	1550

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	19.0	7.0	7.0	12.0	11.0	11.0	19.0	22.0	25.0	27.0	27.0
2	20.0	20.0	6.0	10.0	11.0	9.0	13.0	20.0	23.0	26.0	27.0	27.0
3	18.0	20.0	5.0	9.0	12.0	9.0	12.0	19.0	---	27.0	26.0	26.0
4	19.0	20.0	6.0	9.0	11.0	10.0	11.0	20.0	23.0	25.0	26.0	---
5	20.0	17.0	7.0	7.0	12.0	---	13.0	20.0	24.0	26.0	26.0	26.5
6	20.0	18.0	10.0	7.0	8.0	11.0	13.0	23.0	25.0	26.0	25.0	26.0
7	20.0	19.0	11.0	8.0	8.0	13.0	13.0	22.0	24.0	27.0	26.0	25.0
8	---	14.0	10.0	9.0	7.0	12.0	14.0	22.0	25.0	28.0	26.0	24.0
9	21.0	18.0	9.0	9.0	8.0	13.0	15.0	22.0	23.0	27.0	27.0	26.0
10	20.0	17.0	8.0	12.0	6.0	12.0	15.0	24.0	24.0	28.0	28.0	25.0
11	21.0	14.0	8.0	8.0	11.0	12.0	15.0	23.0	24.0	27.0	26.0	25.0
12	20.0	16.0	8.0	8.0	10.0	12.0	11.0	21.0	23.0	26.0	23.0	25.0
13	21.0	14.0	9.0	5.0	10.0	9.0	15.0	20.0	22.0	26.0	27.0	22.0
14	21.0	13.0	9.0	5.0	11.0	12.0	---	22.0	25.0	26.0	28.0	22.0
15	19.0	12.0	8.0	9.0	12.0	11.0	15.0	21.0	24.0	25.0	28.0	21.0
16	17.0	12.0	8.0	12.0	12.0	10.0	15.0	20.0	25.0	25.0	28.0	24.0
17	17.0	12.0	8.0	10.0	10.0	12.0	16.0	20.0	---	25.0	28.0	22.0
18	16.0	12.0	8.0	12.0	10.0	13.0	16.0	20.0	---	26.0	27.0	23.0
19	18.0	14.0	8.0	11.0	9.0	14.0	15.0	22.0	26.0	27.0	27.0	24.0
20	18.0	13.0	9.0	8.0	11.0	13.0	17.0	24.0	26.0	27.0	28.0	23.0
21	18.0	13.0	9.0	8.0	10.0	15.0	16.0	22.0	26.0	---	26.0	---
22	17.0	14.0	10.0	8.0	12.0	16.0	17.0	23.0	25.0	28.0	26.0	20.0
23	19.0	14.0	12.0	8.0	9.0	23.0	16.0	24.0	26.0	28.0	---	20.0
24	18.0	14.0	13.0	10.0	11.0	15.0	20.0	24.0	26.0	28.0	27.0	18.0
25	19.0	12.0	10.0	10.0	8.0	14.0	16.0	23.0	25.0	26.0	25.0	18.0
26	19.0	10.0	8.0	---	10.0	14.0	---	24.0	25.0	27.0	26.0	20.0
27	18.0	10.0	9.0	---	---	15.0	21.0	24.0	25.0	27.0	26.0	17.0
28	19.0	10.0	10.0	13.0	---	11.0	20.0	23.0	25.0	27.0	26.0	18.0
29	20.0	12.0	10.0	14.0	---	13.0	19.0	23.0	26.0	28.0	26.0	19.0
30	20.0	---	10.0	15.0	---	10.0	19.0	22.0	25.0	28.0	26.0	19.0
31	20.0	---	10.0	11.0	---	11.0	---	21.0	---	28.0	27.0	---
MONTH	19.0	14.5	9.0	9.5	10.0	12.5	15.5	22.0	24.5	26.5	26.5	22.5

SABINE RIVER BASIN

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08018950 Dry Creek near Quitman, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 32°47'52", long 95°27'50", Wood County, at bridge on State Highways 154 and 182, 0.8 mile (1.3 km) west of Quitman, and 2.5 miles (4.0 km) upstream from mouth.

DRAINAGE AREA.--63.6 mi² (164.7 km²).

PERIOD OF RECORD.--Occasional discharge measurements and water-quality data: October 1967 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)
OCT. 26...	0830	4.3	18	29	12	100	5.5	18	0	54
DEC. 06...	1205	608	15	29	12	57	3.9	7	0	110
JAN. 09...	1515	46	12	24	9.6	66	3.7	6	0	66
FEB. 20...	1140	24	15	32	12	110	3.6	7	0	79
APR. 03...	1100	33	9.3	20	8.8	57	3.2	13	0	54
MAY 14...	1210	271	6.1	15	6.0	46	4.2	10	0	34
JUNE 26...	1615	12	18	34	14	120	4.0	23	0	73
AUG. 06...	--	2.8	9.7	21	7.8	65	4.0	32	0	35
SEP. 17...	1527	5.6	11	14	5.8	31	4.0	35	0	29

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 26...	190	--	417	120	110	3.9	810	7.2	17.0
DEC. 06...	97	.1	327	120	120	2.2	575	5.7	8.0
JAN. 09...	120	.2	305	99	93	2.9	610	6.4	10.0
FEB. 20...	210	.1	465	130	120	4.2	853	6.2	17.0
APR. 03...	99	.1	258	86	76	2.7	496	6.5	14.0
MAY 14...	88	.1	204	62	54	2.5	414	5.9	24.0
JUNE 26...	220	.2	495	140	120	4.4	925	6.5	26.5
AUG. 06...	110	--	268	85	58	3.1	541	7.4	27.0
SEP. 17...	48	.2	160	59	30	1.8	302	7.5	22.0

SABINE RIVER BASIN

08019000 Lake Fork Creek near Quitman, Tex.

LOCATION.--Lat 32°45'45", Long 95°27'48", Wood County, near center of main channel at downstream side of bridge on State Highway 37, 0.3 mile (0.5 km) downstream from Dry Creek, 2.4 miles (3.9 km) south of Quitman, and 23.4 miles (37.7 km) upstream from mouth.

DRAINAGE AREA.--585 mi² (1,515 km²).

PERIOD OF RECORD.--Discharge: June 1924 to April 1926, February 1939 to current year. Discharge for some high-water periods in 1925-26 published in WSP 1342. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1961, published as Lake Fork Sabine River near Quitman.

Water quality: Chemical analyses: December 1961 to June 1965, November 1967 to current year. Water temperatures: December 1967 to current year.

GAGE.--Nonrecording gage read twice daily, more often during floods. Datum of gage is 317.42 ft (96.750 m) above mean sea level. June 27, 1924, to Apr. 30, 1926, nonrecording gage at site 1,000 ft (305 m) downstream at same datum.

AVERAGE DISCHARGE.--37 years (1924-25, 1939-75), 447 ft³/s (12.66 m³/s), 10.38 in/yr (264 mm/yr), 323,900 acre-ft/yr (399 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 20,500 ft³/s (581 m³/s) Feb. 3 (gage height, 21.02 ft or 6.407 m, from graph); minimum daily, 12 ft³/s (0.34 m³/s) Sept. 30.

Period of record: Maximum discharge, 75,600 ft³/s (2,140 m³/s) Mar. 30, 1945 (gage height, 29.85 ft or 9.098 m, from floodmark), from rating curve extended above 49,000 ft³/s (1,390 m³/s); no flow at times most years.

Historic: Maximum stage since at least 1890, that of Mar. 30, 1945. Flood in July 1895 reached a stage of about 25.9 ft (7.89 m), from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 800 micromhos Jan. 26; minimum daily, 76 micromhos Feb. 4. Maximum water temperatures, 26.0°C on many days during July and August.

Period of record: Maximum daily specific conductance (1967-75), 2,800 micromhos Oct. 5, 1972; minimum daily, 37 micromhos Dec. 11, 1971. Maximum water temperatures, 29.0°C on several days during summer months in 1969, July 29, 1972; minimum, 2.0°C Jan. 10, 1970.

REMARKS.--Discharge records good. No large diversion above station. At end of year, flow from 51.8 mi² (134 km²) above this station was partly controlled by 18 floodwater-retarding structures with a combined capacity of 19,550 acre-ft (24.1 hm³) below the flood-spillway crests, of which 1,850 acre-ft (2.28 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by the city of Quitman during the current year indicate that 257 acre-ft (0.317 hm³) of sewage effluent was returned to a tributary above station. During the year, construction began on Lake Fork Creek Reservoir (capacity, 675,800 acre-ft or 833 hm³) located about 5 miles (8 km) upstream from station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	1890	1990	596	1110	319	1210	556	2570	513	26	18
2	75	12100	2240	721	12600	486	883	681	1790	277	24	16
3	51	7840	2530	852	16600	515	483	1530	815	122	23	15
4	15	3860	2060	1000	10200	395	255	2770	242	162	22	15
5	27	2960	1260	1070	5970	292	196	4240	123	113	21	15
6	26	2230	1240	1060	3570	264	163	3190	94	57	19	14
7	24	2180	1670	806	2670	241	209	2350	222	51	18	18
8	21	1740	2270	617	2380	214	585	1520	576	46	18	20
9	18	1490	3460	323	1740	200	1920	822	874	42	21	18
10	17	1790	2580	375	1320	234	4200	443	1080	38	22	17
11	16	3600	2180	515	1030	566	3730	320	1050	36	30	17
12	15	2920	2040	568	802	840	2650	217	1070	35	99	18
13	14	4340	2040	576	654	2070	2090	183	1110	32	43	19
14	19	3080	2580	455	508	3170	1560	266	934	30	27	17
15	71	2300	1930	355	386	3860	1420	983	991	28	21	15
16	196	1530	1660	294	326	3190	1330	1520	1220	27	19	15
17	401	981	957	262	300	2190	1310	1810	1460	27	18	14
18	643	567	613	245	269	1240	1070	1810	1870	26	16	14
19	723	354	446	234	249	1470	568	1270	2330	25	15	14
20	313	286	308	224	232	1120	336	979	1440	23	14	14
21	89	242	242	215	195	899	266	1340	689	23	51	13
22	58	193	229	202	180	600	225	1530	211	22	35	14
23	42	192	218	183	222	371	201	1340	143	21	35	13
24	38	2880	246	174	317	283	186	1210	115	21	31	14
25	32	14300	449	185	446	236	173	703	113	21	34	14
26	27	9310	639	194	561	223	166	399	149	36	25	13
27	26	4180	507	217	407	257	156	290	111	114	26	14
28	28	2920	436	208	280	324	177	250	134	117	28	14
29	60	2230	372	191	---	668	321	333	203	58	20	13
30	117	1970	388	187	---	863	443	762	281	39	18	12
31	510	---	436	231	---	1060	---	1760	---	30	19	---
TOTAL	3883	96455	40216	13335	65524	28660	28482	37377	24010	2212	838	457
MEAN	125	3215	1297	430	2340	925	949	1206	800	71.4	27.0	15.2
MAX	723	14300	3460	1070	16600	3860	4200	4240	2570	513	99	20
MIN	14	192	218	174	180	200	156	183	94	21	14	12
CFSM	.21	5.50	2.22	.74	4.00	1.58	1.62	2.06	1.37	.12	.05	.03
IN.	.25	6.13	2.56	.85	4.17	1.82	1.81	2.38	1.53	.14	.05	.03
AC-FT	7700	191300	79770	26450	130000	56850	56490	74140	47620	4390	1660	906

CAL YR 1974	TOTAL	294106.3	MEAN	806	MAX	14300	MIN	1.0	CFSM	1.38	IN	18.70	AC-FT	583400
WTR YR 1975	TOTAL	341449.0	MEAN	935	MAX	16600	MIN	12	CFSM	1.60	IN	21.71	AC-FT	677300

PEAK DISCHARGE (BASE, 6,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
11- 2	1700	19.94	15,900
11-25	1700	20.00	16,200
2- 3	0400	21.02	20,500

08019000 Lake Fork Creek near Quitman, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 25...	1620	32	14	19	8.0	36	6.3	39	0	46
NOV. 30...	0800	1700	8.8	11	4.7	22	4.5	21	0	26
DEC. 06...	1335	1180	11	16	6.6	40	4.0	16	0	43
JAN. 09...	1740	226	13	24	10	49	4.7	34	0	78
FEB. 20...	1325	252	13	28	12	55	3.4	35	0	88
MAR. 31...	0800	890	7.5	19	7.3	29	3.8	40	0	52
APR. 03...	1243	527	9.7	19	8.1	32	3.3	40	0	51
MAY 14...	1439	379	11	19	7.2	50	4.1	24	0	48
JUNE 30...	0800	200	14	20	9.3	37	5.1	44	0	48
JULY 31...	0800	30	14	24	8.7	40	5.3	56	0	59
AUG. 31...	0800	20	10	23	9.0	50	5.8	40	0	39
SEP. 18...	0807	14	11	15	6.4	31	4.2	42	0	30

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 25...	56	--	205	80	48	1.7	378	6.9	18.0
NOV. 30...	43	.1	130	47	30	1.4	235	6.9	8.0
DEC. 06...	75	.1	204	67	54	2.1	380	6.4	9.5
JAN. 09...	79	.1	275	100	73	2.1	493	7.0	--
FEB. 20...	88	.2	305	120	91	2.2	558	7.1	18.0
MAR. 31...	41	.1	179	78	45	1.4	326	7.1	14.0
APR. 03...	48	.1	191	81	48	1.6	354	7.0	15.0
MAY 14...	82	.1	233	77	57	2.5	446	6.4	23.0
JUNE 30...	59	.1	214	88	52	1.7	384	7.2	24.0
JULY 31...	58	.2	237	96	50	1.8	429	7.4	26.0
AUG. 31...	88	--	245	95	62	2.2	456	6.8	24.0
SEP. 18...	49	.3	168	64	29	1.7	310	7.1	21.5

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	3883	278	150	1570	42	440	31	325	61
NOV. 1974.....	96455	154	83	21600	17	4430	16	4170	35
DEC. 1974.....	40216	261	140	15200	39	4230	29	3150	57
JAN. 1975.....	13335	547	300	10800	97	3490	64	2300	120
FEB. 1975.....	65524	139	75	13300	14	2480	15	2650	32
MAR. 1975.....	28660	312	170	13200	49	3790	35	2710	68
APR. 1975.....	28482	294	160	12300	45	3460	33	2540	64
MAY 1975.....	37377	258	140	14100	38	3830	29	2930	57
JUNE 1975.....	24010	223	120	7780	31	2010	25	1620	49
JULY 1975.....	2212	354	190	1130	58	346	40	239	77
AUG. 1975.....	838	356	190	430	58	131	41	93	77
SEPT 1975.....	457	340	180	222	55	68	39	48	74
TOTAL	341449	**	**	112000	**	28700	**	22800	**
WTD.AVG.	935.48	224	120	**	31	**	25	**	50

SABINE RIVER BASIN

08019000 Lake Fork Creek near Quitman, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	295	239	622	250	620	288	643	147	216	425	448
2	297	116	228	595	92	493	288	549	164	258	417	409
3	313	277	181	603	82	503	345	293	225	331	412	386
4	325	91	172	422	76	463	395	259	325	326	399	370
5	337	120	263	422	95	497	446	141	380	347	383	355
6	333	133	317	367	121	499	492	139	418	381	383	348
7	360	150	323	387	140	508	522	158	441	415	502	335
8	375	237	245	442	160	521	556	253	439	435	551	314
9	413	204	162	494	170	551	372	298	373	460	452	323
10	454	226	144	518	195	584	208	336	318	485	409	307
11	466	227	167	563	247	505	168	381	290	491	390	305
12	481	186	231	566	264	479	165	402	235	489	386	306
13	478	156	229	577	307	384	202	435	200	489	264	306
14	484	274	167	552	330	226	348	463	199	489	264	310
15	700	149	242	542	349	193	341	331	216	489	277	310
16	307	171	243	556	378	154	323	341	256	485	289	308
17	226	224	358	574	441	162	292	270	165	487	298	307
18	188	338	358	601	529	202	312	242	165	485	303	308
19	194	380	458	634	563	303	365	245	138	480	311	310
20	240	444	460	663	556	309	405	281	149	485	312	313
21	278	473	523	683	556	338	439	241	241	487	291	310
22	318	496	523	703	565	360	475	256	284	478	293	308
23	329	527	523	703	751	404	506	253	369	470	301	314
24	357	165	568	725	751	455	533	221	338	470	310	417
25	378	83	585	741	664	505	582	321	383	442	305	420
26	414	83	537	800	627	521	588	354	407	442	341	390
27	414	85	513	773	528	549	602	378	562	524	335	361
28	434	101	625	766	513	583	602	409	497	423	398	342
29	531	133	612	784	---	566	711	603	432	371	359	337
30	763	235	720	757	---	439	575	448	384	400	404	344
31	265	---	623	756	---	326	---	205	---	429	459	---
MONTH	378	226	372	609	368	426	415	327	305	434	362	341

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	22.0	8.0	11.0	10.0	11.0	15.0	21.0	22.0	24.0	26.0	23.0
2	23.0	17.0	8.0	10.0	10.0	14.0	15.0	21.0	22.0	24.0	26.0	23.0
3	23.0	14.0	8.0	10.0	10.0	13.0	15.0	21.0	22.0	24.0	26.0	23.0
4	23.0	14.0	8.0	10.0	10.0	13.0	15.0	21.0	22.0	24.0	26.0	23.0
5	23.0	14.0	8.0	---	9.0	13.0	15.0	21.0	22.0	25.0	26.0	23.0
6	22.0	14.0	8.0	---	8.0	13.0	16.0	21.0	22.0	25.0	26.0	23.0
7	22.0	14.0	8.0	---	8.0	14.0	15.0	21.0	22.0	25.0	26.0	23.0
8	21.0	14.0	---	---	8.0	14.0	17.0	21.0	22.0	25.0	26.0	22.0
9	21.0	14.0	---	---	10.0	12.0	17.0	21.0	22.0	25.0	26.0	22.0
10	21.0	14.0	---	---	10.0	12.0	17.0	21.0	20.0	25.0	24.0	22.0
11	21.0	13.0	---	---	10.0	12.0	18.0	19.0	22.0	25.0	24.0	21.0
12	21.0	13.0	---	---	9.0	13.0	18.0	19.0	22.0	25.0	24.0	20.0
13	19.0	13.0	---	---	9.0	13.0	20.0	19.0	22.0	25.0	24.0	19.0
14	17.0	13.0	---	---	9.0	13.0	19.0	19.0	22.0	26.0	24.0	19.0
15	17.0	13.0	---	---	9.0	13.0	19.0	20.0	22.0	26.0	24.0	19.0
16	17.0	11.0	---	---	9.0	12.0	20.0	20.0	22.0	26.0	24.0	19.0
17	17.0	---	---	---	10.0	12.0	20.0	20.0	22.0	26.0	25.0	18.0
18	16.0	11.0	---	---	9.0	13.0	20.0	21.0	22.0	26.0	25.0	18.0
19	16.0	11.0	---	---	9.0	13.0	20.0	22.0	23.0	26.0	25.0	18.0
20	16.0	10.0	---	9.0	9.0	13.0	20.0	22.0	23.0	26.0	25.0	18.0
21	15.0	10.0	---	---	9.0	13.0	20.0	22.0	24.0	26.0	25.0	18.0
22	15.0	9.0	---	9.0	9.0	13.0	20.0	22.0	24.0	26.0	25.0	18.0
23	15.0	9.0	---	9.0	---	13.0	21.0	22.0	24.0	26.0	25.0	18.0
24	15.0	9.0	---	9.0	---	13.0	21.0	22.0	24.0	26.0	24.0	18.0
25	15.0	---	---	9.0	10.0	14.0	21.0	21.0	24.0	26.0	24.0	18.0
26	15.0	9.0	---	9.0	10.0	13.0	21.0	21.0	24.0	26.0	24.0	17.0
27	16.0	9.0	---	9.0	10.0	13.0	20.0	21.0	24.0	26.0	23.0	17.0
28	15.0	9.0	---	9.0	10.0	14.0	20.0	21.0	24.0	26.0	23.0	17.0
29	15.0	---	---	9.0	---	14.0	21.0	22.0	24.0	26.0	23.0	17.0
30	15.0	8.0	---	9.0	---	14.0	21.0	22.0	24.0	26.0	23.0	17.0
31	15.0	---	---	9.0	---	14.0	---	22.0	---	26.0	24.0	---
MONTH	18.5	12.5	---	---	9.5	13.0	18.5	21.0	22.5	25.5	24.5	19.5

SABINE RIVER BASIN

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08019300 Lake Winnsboro near Winnsboro, Tex.

LOCATION.--Lat 32°53'11", long 95°20'37", Wood County, near left end of dam on Big Sandy Creek, 0.8 mile (1.3 km) upstream from bridge on State Highway 37, 2.5 miles (4.0 km) upstream from Indian Creek, and 5.8 miles (9.3 km) southwest of Winnsboro.

DRAINAGE AREA.--27.1 mi² (70.2 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Jan. 19, 1963, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 11,640 acre-ft (14.4 hm³) Feb. 5 (elevation, 422.92 ft or 128.906 m); minimum, 7,060 acre-ft (8.70 hm³) Sept. 25 (elevation, 417.64 ft or 127.297 m).

Period of record: Maximum contents, 11,640 acre-ft (14.4 hm³) Feb. 5, 1975 (elevation, 422.92 ft or 128.906 m); minimum since first appreciable storage, 2,430 acre-ft (3.00 hm³) Jan. 19, 20, 1965 (elevation, 409.79 ft or 124.904 m).

REMARKS.--The lake is formed by a rolled earthfill dam 2,500 ft (762 m) long. Storage began June 11, 1962, and the dam was completed in August 1962. The dam was built by Wood County for flood control and recreation. The spillway is an uncontrolled 20-foot (6-metre) square drop inlet at crest elevation of 419.0 ft (127.71 m). The crest was raised in April 1966 from elevation 417 to 419 ft (127.1 to 127.7 m). The other spillway is a 300-foot-wide (91-metre) cut channel through natural ground near right end of dam. The capacity curve is based on 1960 Geological Survey topographic maps. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	437.0	-
Design flood.....	433.0	22,500
Crest of spillway.....	427.0	16,270
Crest of drop inlet (top of conservation pool).....	419.0	8,110
Lowest gated outlet (invert).....	392.2	0

COOPERATION.--Capacity curve furnished by Wisenbaker, Fix and Associates, Consulting Engineers for Wood County.

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

417.0	6,590	421.0	9,820
419.0	8,110	423.0	11,720

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,220	8,820	8,600	8,390	9,310	8,350	8,370	8,740	8,740	8,140	7,600	7,560
2	8,200	8,670	8,520	8,420	10,600	8,320	8,330	8,730	8,430	8,130	7,570	7,560
3	9,180	8,530	8,440	8,500	11,230	8,300	8,280	9,320	8,390	8,130	7,570	7,540
4	8,160	8,640	8,390	8,480	11,590	8,310	8,270	9,060	8,370	8,230	7,560	7,500
5	8,150	8,620	8,440	8,440	11,620	8,310	8,260	8,890	8,500	8,140	7,560	7,500
6	8,130	8,520	8,810	8,390	11,400	8,310	8,260	8,760	8,490	8,150	7,550	7,670
7	8,110	8,440	8,730	8,380	10,920	8,300	8,300	8,710	8,580	8,140	7,600	7,490
8	8,110	8,430	8,640	8,350	10,340	8,280	8,580	8,620	8,500	8,090	7,540	7,440
9	8,100	8,410	8,530	8,350	9,720	8,300	8,880	8,570	8,320	8,040	7,720	7,430
10	8,100	9,450	8,510	8,470	9,410	8,330	8,770	8,520	8,280	8,020	7,710	7,390
11	8,100	9,350	8,660	8,520	9,160	8,440	8,640	8,490	8,240	7,990	7,700	7,430
12	8,070	9,220	8,630	8,550	8,930	8,730	8,550	8,480	8,250	7,980	7,680	7,400
13	8,090	9,060	8,580	8,410	8,700	9,200	8,580	8,570	8,220	7,990	7,650	7,400
14	8,220	8,900	8,550	8,340	8,520	8,950	8,680	8,670	8,340	7,940	7,630	7,460
15	8,210	8,710	8,450	8,310	8,340	8,740	8,610	8,880	8,430	7,910	7,620	7,340
16	8,190	8,510	8,440	8,300	8,230	8,700	8,540	8,900	8,370	7,860	7,640	7,400
17	8,190	8,330	8,380	8,260	8,180	8,640	8,480	8,890	8,340	7,900	7,640	7,440
18	8,180	8,230	8,340	8,280	8,170	8,640	8,450	8,890	8,310	7,940	7,680	7,390
19	8,160	8,220	8,330	8,230	8,180	8,580	8,390	8,870	8,300	7,850	7,740	7,500
20	8,140	10,180	8,300	8,190	8,230	8,500	8,360	9,450	8,280	7,890	7,740	7,430
21	8,130	10,000	8,290	8,190	8,250	8,480	8,340	9,660	8,230	7,890	7,740	7,060
22	8,130	9,680	8,290	8,220	8,330	8,440	8,320	9,800	8,210	7,890	7,720	7,080
23	8,120	9,300	8,270	8,210	8,500	8,410	8,300	9,590	8,170	7,900	7,700	7,070
24	8,110	9,070	8,320	8,190	8,420	8,360	8,300	9,380	8,130	7,740	7,680	7,080
25	8,100	8,930	8,450	8,190	8,270	8,340	8,280	9,310	8,110	7,700	7,680	7,060
26	8,090	8,810	8,450	8,230	8,260	8,360	8,270	9,210	8,060	7,710	7,570	7,080
27	8,100	8,710	8,440	8,210	8,240	8,390	8,260	9,020	7,990	7,750	7,570	7,130
28	8,150	8,580	8,430	8,190	8,320	8,440	8,350	8,930	7,980	7,700	7,560	7,160
29	8,220	8,660	8,390	8,250	-----	8,450	8,540	8,940	8,060	7,730	7,600	7,120
30	8,220	8,710	8,390	8,250	-----	8,390	8,870	9,040	8,140	7,680	7,600	7,120
31	8,830	-----	8,400	8,590	-----	8,380	-----	8,890	-----	7,660	7,570	-----
(†)	419.87	419.73	419.36	419.59	419.26	419.33	419.92	419.94	419.04	418.43	418.32	417.72
(*)	+580	-120	-310	+190	-210	+60	+490	+20	-750	-480	-90	-450
MAX	8,830	10,180	8,810	8,590	11,620	9,200	8,880	9,800	8,740	8,230	7,740	7,670
MIN	8,070	8,220	8,270	8,190	8,170	8,280	8,260	8,480	7,980	7,660	7,540	7,060

CAL YR 1974..... * +180

WTR YR 1975..... * -1,130

MAX 10,180

MAX 11,620

MIN 7,490

MIN 7,060

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

08019500 Big Sandy Creek near Big Sandy, Tex.

LOCATION.--Lat 32°36'12", long 95°05'32", Upshur County, on left bank at downstream side of bridge on State Highway 155, 0.5 mile (0.8 km) upstream from St. Louis Southwestern Railway Lines bridge, 1.6 miles (2.6 km) northeast of Big Sandy, and 6.5 miles (10.5 km) upstream from mouth.

DRAINAGE AREA.--231 mi² (598 km²).

PERIOD OF RECORD.--Discharge: February 1939 to current year.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 278.38 ft (84.850 m) above mean sea level. Prior to Oct. 5, 1940, nonrecording gage, and Oct. 5, 1940, to Nov. 26, 1951, water-stage recorder at site 1.3 miles (2.1 km) upstream at datum 3.00 ft (0.914 m) higher.

AVERAGE DISCHARGE.--36 years, 185 ft³/s (5.239 m³/s), 134,000 acre-ft/yr (165 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,710 ft³/s (105 m³/s) Nov. 26 (gage height, 15.52 ft or 4.730 m); maximum gage height, 15.58 ft (4.749 m) Feb. 4; minimum discharge, 22 ft³/s (0.62 m³/s) Sept. 10-12.

Period of record: Maximum discharge, 24,000 ft³/s (680 m³/s) Mar. 31, 1945 (gage height, 24.1 ft or 7.35 m, present site and datum, from floodmark), from rating curve extended above 13,000 ft³/s (368 m³/s); minimum, 5.0 ft³/s (0.14 m³/s) Aug. 15, 1956.

Maximum stage since at least 1875, that of Mar. 31, 1945, from information by local residents.

REMARKS.--Discharge records good. Flow partly regulated by Lake Winnsboro (station 08019300) since June 1962.

REVISIONS (WATER YEARS).--WSP 1732: 1941(M), 1945-46, 1956, drainage area. WSP 1922: 1944(M), 1945-46.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	825	753	434	378	218	481	428	247	230	30	27
2	215	833	689	425	662	204	408	391	225	193	34	26
3	190	905	727	517	1,300	191	337	600	220	195	52	25
4	162	1,170	738	519	2,930	224	283	895	205	175	64	25
5	137	1,030	639	479	2,860	258	249	1,350	180	156	52	28
6	119	778	636	477	1,780	248	227	1,210	155	132	47	30
7	105	598	623	475	1,220	226	214	890	142	109	38	29
8	94	507	697	425	975	221	234	679	164	104	36	27
9	83	446	873	363	799	226	305	529	279	93	38	23
10	73	513	884	330	650	250	295	430	356	79	38	22
11	69	805	770	312	542	239	378	360	458	73	39	22
12	66	793	662	328	461	241	605	311	418	68	46	22
13	64	1,530	593	346	381	376	610	259	362	68	52	29
14	64	1,440	613	339	322	877	725	231	274	61	55	49
15	73	958	681	347	280	1,480	636	289	302	50	45	39
16	75	716	613	335	280	1,620	617	432	408	46	38	33
17	76	584	517	319	327	1,080	686	731	300	46	32	34
18	89	503	448	295	270	836	586	813	291	48	30	33
19	114	430	402	278	232	716	458	672	288	48	29	30
20	130	372	360	252	213	700	382	560	230	46	27	29
21	124	321	319	234	211	713	314	577	161	45	41	28
22	99	284	289	221	212	641	255	468	126	40	39	30
23	87	258	267	212	216	511	226	631	112	37	36	30
24	79	566	253	208	209	413	205	997	97	36	34	27
25	66	811	254	210	197	321	187	802	86	35	32	27
26	63	2,610	252	203	196	275	175	591	88	31	32	26
27	61	2,890	251	195	214	253	161	465	115	29	30	27
28	130	1,280	269	193	218	251	186	486	191	31	31	26
29	212	933	354	196	-----	255	257	538	268	35	30	26
30	206	836	405	196	-----	446	373	386	305	31	29	26
31	353	-----	439	196	-----	552	-----	304	-----	29	28	-----
TOTAL	3,710	26,525	16,270	9,859	18,535	15,062	11,055	18,305	7,053	2,399	1,184	855
MEAN	120	884	525	318	662	486	369	590	235	77.4	38.2	28.5
MAX	353	2,890	884	519	2,930	1,620	725	1,350	458	230	64	49
MIN	61	258	251	193	196	191	161	231	86	29	27	22
AC-FT	7,360	52,610	32,270	19,560	36,760	29,880	21,930	36,310	13,990	4,760	2,350	1,700

CAL YR 1974 TOTAL 118,040 MEAN 323 MAX 3,000 MIN 24 AC-FT 234,100
WTR YR 1975 TOTAL 130,812 MEAN 358 MAX 2,930 MIN 22 AC-FT 259,500

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-13	1800	13.27	1,850	2-4	2000	15.58	3,280
11-26	2200	15.52	3,710	3-16	0200	13.56	1,810

08019500 Big Sandy Creek near Big Sandy, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 10...	1600	71	16	7.6	2.7	15	2.8	20	0	9.4
JAN. 07...	1320	452	13	8.5	3.9	15	2.9	10	0	31
FEB. 18...	1225	27	12	7.4	3.6	14	2.6	20	0	21
APR. 01...	1035	489	10	8.0	3.8	15	3.0	17	0	25
MAY 12...	1020	300	13	9.1	3.8	13	3.1	23	0	18
JUNE 23...	1545	114	16	7.9	2.6	15	2.5	25	0	13
AUG. 04...	1357	69	14	5.5	1.6	15	2.7	18	0	9.6
SEP. 17...	1315	34	15	7.0	1.8	19	2.4	12	0	4.8

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 10...	27	--	90	30	14	1.2	151	6.7	13.5
JAN. 07...	26	.2	105	37	29	1.1	186	7.0	10.5
FEB. 18...	23	.4	94	33	17	1.1	162	6.5	19.0
APR. 01...	22	.1	95	36	22	1.1	164	6.5	12.0
MAY 12...	23	.1	94	38	20	.9	168	6.6	22.0
JUNE 23...	27	.2	97	30	10	1.2	160	7.7	29.0
AUG. 04...	26	--	83	20	5	1.4	140	7.1	27.0
SEP. 17...	35	.1	91	25	15	1.7	161	6.9	20.0

SABINE RIVER BASIN

08020000 Sabine River near Gladewater, Tex.

LOCATION.--Lat 32°31'37", long 94°57'36", Gregg County, on right bank 46 ft (14 m) downstream from bridge on U.S. Highway 271, 0.4 mile (0.6 km) downstream from Glade Creek, 1.2 miles (1.9 km) southwest of Gladewater, and at mile 397.5 (639.6 km).

DRAINAGE AREA.--2,791 mi² (7,229 km²).

PERIOD OF RECORD.--Discharge: October 1932 to current year.

Water quality: Chemical and biochemical analyses: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 243.85 ft (74.325 m) above mean sea level (Texas Reclamation Department bench mark based on Geological Survey datum). Prior to Oct. 13, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years (1932-60) prior to regulation by Lake Tawakoni, 2,012 ft³/s (56.98 m³/s), 1,458,000 acre-ft/yr (1.80 km³/yr); 15 years (1960-75) regulated, 1,835 ft³/s (51.97 m³/s), 1,329,000 acre-ft/yr (1.64 km³/yr).

EXTREMES.--Current year: Maximum discharge, 23,400 ft³/s (663 m³/s) Feb. 8 (gage height, 35.77 ft or 10.903 m); minimum, 82 ft³/s (2.32 m³/s) Sept. 30.

Period of record: Maximum discharge, 138,000 ft³/s (3,910 m³/s) Apr. 2, 1945 (gage height, 44.16 ft or 13.460 m, from floodmark), from rating curve extended above 91,000 ft³/s (2,580 m³/s); minimum, 5.6 ft³/s (0.16 m³/s) Aug. 16, 1939.

Maximum stage since at least 1892, that of Apr. 2, 1945. Flood in May 1914 reached a stage of about 41.7 ft (12.71 m), discharge, 85,900 ft³/s (2,430 m³/s), from information by local resident.

REMARKS.--Discharge records good. Flow is partly regulated by Lake Tawakoni (station 08017400) and five smaller reservoirs, with a combined capacity of 975,500 acre-ft (1,200 hm³). Many diversions above station for oilfield operations and municipal supply. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08019000.

REVISIONS (WATER YEARS).--WRD 1973: 1972. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3550	4840	17700	3140	1920	2630	2540	3290	3170	1910	219	125
2	3370	4630	16200	3130	4090	2570	2660	3980	2760	1720	200	115
3	3170	4600	14300	3320	5970	2390	2780	4160	2740	1740	246	106
4	2930	4490	12600	3400	6310	2200	2890	4380	2810	1790	238	100
5	2640	4570	11000	3390	7420	2120	2950	4480	3030	1660	234	96
6	2340	5420	9880	3360	13200	2080	2890	4640	3270	1420	221	94
7	2070	5980	8990	3330	21600	1990	2420	4750	3350	1200	193	94
8	1810	6490	8170	3350	23200	1820	2240	4760	3240	992	162	106
9	1540	6640	7610	3350	21500	1660	2360	4660	4120	826	150	112
10	1230	7310	7220	3340	19100	1650	2700	5020	4020	762	157	107
11	1010	8140	7060	3220	17100	1700	2940	5080	3920	714	149	104
12	865	8820	6860	3110	15300	1770	3500	5040	3750	593	141	100
13	769	9250	6670	3040	13900	2280	4360	4840	3560	495	145	108
14	702	9500	6570	2980	12600	3110	5460	4070	3380	418	145	157
15	682	9600	6530	2930	11500	3720	6030	4160	3390	374	147	191
16	678	9440	6490	2880	10400	4460	6490	4400	3690	352	155	180
17	717	9290	6440	2810	9510	5050	6570	4390	3960	310	145	162
18	757	9080	6370	2680	8740	5610	6940	4360	4130	281	128	145
19	978	8830	6290	2470	7770	5620	7020	4310	4260	265	118	133
20	1180	8460	6210	2050	7000	6030	6900	4590	4400	240	114	127
21	1290	8080	6080	1840	6300	6350	6620	4890	4540	225	257	118
22	1280	7690	5870	1630	5230	6520	6260	5160	4710	214	402	108
23	1060	7260	5570	1520	4680	6500	5360	5280	4860	203	263	103
24	794	7130	4700	1520	4080	6290	4560	5370	4950	189	289	98
25	608	7050	4060	1480	3540	5920	3720	5580	4920	189	293	95
26	506	6830	3520	1370	3100	4790	2940	5580	4650	193	236	91
27	458	6840	3060	1260	2800	3840	2320	5430	3580	186	216	90
28	816	8320	2970	1200	2720	3090	2090	5200	3090	180	212	85
29	2220	13300	2830	1180	---	2660	2180	5070	2410	179	145	84
30	2160	17300	2890	1170	---	2550	3090	4830	2120	203	142	83
31	3230	---	3080	1170	---	2460	---	3730	---	238	136	---
TOTAL	47410	235180	223790	76620	270580	111430	121780	145680	110750	20261	5998	3417
MEAN	1529	7839	7219	2472	9664	3595	4059	4699	3692	654	193	114
MAX	3550	17300	17700	3400	23200	6520	7020	5580	4950	1910	402	191
MIN	458	4490	2830	1170	1920	1650	2090	3290	2120	179	114	83
AC-FT	94040	466500	443900	152000	536700	221000	241600	289000	219700	40190	11900	6780
CAL YR 1974 TOTAL	1180394			MEAN 3234	MAX 17700	MIN 75	AC-FT 2341000					
WTR YR 1975 TOTAL	1372896			MEAN 3761	MAX 23200	MIN 83	AC-FT 2723000					

SABINE RIVER BASIN

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08020000 Sabine River near Gladewater, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)		DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 08...	1415	1920	6.1	-		3.1	13	3.0	73	0	14	14
DEC. 03...	1215	14200	6.3			1.8	7.4	3.4	20	0	13	12
FEB. 24...	1430	4550	6.1	19		4.4	17	3.0	56	0	26	23
APR. 23...	1210	5710	5.6	17		4.2	17	3.4	51	0	24	22
JUNE 16...	1513	4900	6.8	13		2.9	14	3.6	40	0	18	19
AUG. 19...	1350	110	17	14		4.6	23	3.2	42	0	25	37
DATE		DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 08...	--	.05	.00	.06	.63	.69	.13	109	62	0	63	
DEC. 03...	.1	.02	.00	.03	.36	.39	.13	61	26	10	25	
FEB. 24...	.1	.04	.00	.05	.46	.51	.04	126	19	2	66	
APR. 23...	.1	.06	.00	.03	.87	.90	.07	118	45	38	60	
JUNE 16...	.1	.15	.01	.01	.63	.64	.09	97	73	23	44	
AUG. 19...	.2	.01	.01	.00	.67	.67	.05	145	105	81	54	
DATE		NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	HIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	
OCT. 08...	3	.7	204	6.6	20.5	20	25	8.0	88	1.1		
DEC. 03...	8	.6	109	6.3	9.0	70	20	12.5	108	1.3		
FEB. 24...	20	.9	232	6.6	10.6	40	20	9.5	83	.6		
APR. 23...	18	1.0	221	6.9	19.5	50	15	7.1	76	2.0		
JUNE 16...	12	.9	183	6.7	26.0	80	45	7.2	88	1.3		
AUG. 19...	19	1.4	266	6.9	30.0	30	30	7.8	103	1.6		

SABINE RIVER BASIN

08020200 Prairie Creek near Gladewater, Tex.

LOCATION (revised).--Lat 32°28'48", long 94°57'10", Gregg County, on downstream side of bridge on State Highway 135, 0.7 mile (1.1 km) upstream from Little Caney Creek, 3.5 miles (5.6 km) upstream from mouth, and 3.9 miles (6.3 km) south of Gladewater.

DRAINAGE AREA.--48.9 mi² (126.7 km²).

PERIOD OF RECORD.--Discharge: January 1968 to current year.

Water quality: Chemical analyses: February 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 280.95 ft (85.634 m) above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--7 years, 37.1 ft³/s (1.051 m³/s), 10.30 in/yr (262 mm/yr), 26,880 acre-ft/yr (33.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,570 ft³/s (44.5 m³/s) Feb. 3 (gage height, 9.05 ft or 2.758 m); minimum, 0.82 ft³/s (0.023 m³/s) Sept. 9, 12, 30.

Period of record: Maximum discharge, 4,030 ft³/s (114 m³/s) May 10, 1968 (gage height, 9.91 ft or 3.021 m); no flow at times.

Maximum stage since 1938, 14.8 ft (4.51 m) Apr. 25, 1966, from information by State Highway Department.

REMARKS.--Discharge records good. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	596	152	98	90	39	31	275	35	57	3.2	1.7
2	17	234	85	86	347	36	30	138	27	25	3.2	1.5
3	16	117	60	148	1130	34	28	138	24	24	3.7	1.3
4	15	78	50	172	444	41	25	88	22	21	12	1.1
5	14	82	46	87	303	46	25	53	20	17	8.9	.99
6	14	72	77	63	174	39	25	44	19	15	4.8	.92
7	14	51	150	56	105	37	25	42	20	13	3.8	.89
8	13	53	107	54	84	35	40	32	32	14	3.3	.94
9	12	53	62	51	76	32	55	27	161	23	4.0	.88
10	12	63	51	57	67	45	48	27	318	15	9.4	.89
11	11	122	84	63	62	42	52	22	154	14	7.1	.91
12	10	133	142	67	57	41	46	21	52	12	4.7	.90
13	10	70	91	95	49	58	46	19	34	11	3.7	1.0
14	11	49	63	72	46	78	170	17	27	9.8	3.1	1.4
15	45	39	61	60	45	59	197	65	99	8.9	2.8	1.2
16	56	38	59	53	58	54	66	352	218	8.5	2.4	1.1
17	25	51	49	49	96	67	43	275	87	8.3	2.1	1.2
18	19	80	45	48	88	74	38	60	36	8.0	1.9	1.2
19	17	67	43	47	57	93	32	33	27	6.9	1.9	1.3
20	15	53	41	44	46	58	26	68	24	6.5	1.8	1.2
21	15	42	39	40	42	45	24	441	23	6.0	1.7	1.8
22	14	37	38	39	44	41	23	332	21	5.6	4.5	1.8
23	13	35	38	38	59	40	24	86	20	5.3	5.0	1.5
24	13	89	39	38	62	48	24	46	18	5.0	3.6	1.3
25	13	243	42	44	48	37	22	67	19	5.3	3.9	1.2
26	13	151	40	41	40	33	19	48	30	6.0	3.8	1.0
27	12	70	42	38	39	42	17	32	47	5.4	3.8	1.0
28	44	53	44	37	41	45	29	32	29	4.0	3.0	.98
29	167	50	46	37	---	45	76	81	23	3.7	2.6	.94
30	192	104	58	37	---	37	138	138	58	3.4	2.1	.84
31	158	---	93	40	---	32	---	58	---	3.2	1.9	---
TOTAL	1018	2975	2037	1899	3799	1453	1444	3157	1724	370.8	123.7	34.88
MEAN	32.8	99.2	65.7	61.3	136	46.9	48.1	102	57.5	12.0	3.99	1.16
MAX	192	596	152	172	1130	93	197	441	318	57	12	1.8
MIN	10	35	38	37	39	32	17	17	18	3.2	1.7	.84
CFSM	.67	2.03	1.34	1.25	2.78	.96	.98	2.09	1.18	.25	.08	.02
IN.	.77	2.26	1.55	1.44	2.89	1.11	1.10	2.40	1.31	.28	.09	.03
AC-FT	2020	5900	4040	3770	7540	2880	2860	6260	3420	735	245	69

CAL YR 1974	TOTAL	17958.53	MEAN	49.2	MAX	596	MIN	.95	CFSM	1.01	IN	13.66	AC-FT	35620
WTR YR 1975	TOTAL	20035.38	MEAN	54.9	MAX	1130	MIN	.84	CFSM	1.12	IN	15.24	AC-FT	39740

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE
11- 1	0400	8.78	899
2- 3	0430	9.05	1,570
5-21	1200	8.39	733

08020200 Prairie Creek near Gladewater, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 10...	1400	12	32	7.0	2.7	15	2.1	18	0	8.7
NOV. 20...	1445	52	22	7.0	3.0	12	2.4	20	0	11
JAN. 07...	1030	59	20	6.0	2.7	12	1.6	16	0	11
MAY 12...	1645	21	22	6.4	2.9	13	1.9	21	0	9.8
JUNE 24...	1200	18	24	6.1	2.4	12	1.8	22	0	9.3
AUG. 04...	1833	20	26	6.7	2.1	14	2.6	18	0	9.6
SEP. 16...	1312	1.1	23	4.4	2.5	7.0	2.3	24	0	5.0

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 10...	28	--	104	29	14	1.2	156	7.0	14.5
NOV. 20...	23	.1	90	30	13	1.0	138	6.7	16.5
JAN. 07...	22	.2	83	26	13	1.0	129	7.2	10.5
MAY 12...	22	.1	88	28	11	1.1	130	6.8	21.0
JUNE 24...	19	.1	86	25	7	1.0	121	6.8	25.0
AUG. 04...	26	--	96	25	11	1.2	144	7.1	25.5
SEP. 16...	10	.1	66	21	2	.7	87	6.9	21.0

SABINE RIVER BASIN

08020700 Rabbit Creek at Kilgore, Tex.

LOCATION.--Lat 32°23'17", long 94°54'11", Gregg County, near center of channel on downstream side of bridge on State Highway 31 at Kilgore, 0.4 mile (0.6 km) upstream from Big Caney Creek, 4.4 miles (7.1 km) upstream from Peavine Creek, and 14 miles (23 km) upstream from mouth.

DRAINAGE AREA.--75.8 mi² (196.3 km²).

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

Water quality: Chemical analyses: March 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 299.80 ft (91.38 m) above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--12 years, 54.8 ft³/s (1.552 m³/s), 9.82 in/yr (249 mm/yr), 39,700 acre-ft/yr (49.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,070 ft³/s (144 m³/s) Feb. 3 (gage height, 13.34 ft or 4.066 m); minimum, 0.68 ft³/s (0.019 m³/s) Sept. 16.

Period of record: Maximum discharge, 15,200 ft³/s (430 m³/s) Apr. 24, 1966 (gage height, 16.40 ft or 4.999 m); no flow at times in 1964, 1967-68, 1972.

Maximum stage since at least 1943, 19.6 ft (5.97 m) July 11, 1945, from information by local resident and State Highway Department.

REMARKS.--Discharge records good. Small diversions for oilfield operations upstream from station. Low flow is partly sustained by effluents from oilfield operations.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	1,260	88	122	505	62	49	417	54	47	8.2	2.2
2	19	555	65	192	1,540	57	48	133	43	41	7.9	1.9
3	13	133	58	467	2,850	54	42	113	38	42	18	1.4
4	12	107	54	296	710	102	40	77	35	32	23	1.1
5	14	119	57	118	435	81	40	63	32	27	12	1.1
6	18	74	279	93	218	66	40	62	30	23	8.1	1.1
7	12	58	208	84	139	64	39	55	29	20	6.2	1.5
8	9.8	63	91	84	119	56	72	46	45	18	5.0	1.2
9	16	61	68	75	107	52	73	40	173	131	6.4	1.0
10	16	118	68	108	94	57	60	36	219	64	17	1.1
11	20	276	248	93	93	54	51	33	70	31	13	1.1
12	16	141	166	131	84	61	44	34	46	24	7.7	1.0
13	15	70	90	117	76	142	90	31	35	20	5.5	1.2
14	20	57	83	88	74	129	289	34	31	18	4.5	1.1
15	64	48	93	78	73	73	127	181	278	15	3.7	.82
16	31	46	74	72	115	91	65	324	187	14	3.1	.70
17	22	69	64	68	115	85	53	108	58	14	2.8	1.3
18	19	84	61	68	84	183	51	51	39	14	2.4	1.8
19	17	62	60	68	70	121	44	41	37	13	2.1	1.4
20	18	53	57	60	65	74	39	144	33	12	2.0	2.4
21	15	45	55	57	63	64	36	713	28	11	4.0	5.1
22	15	43	54	55	70	62	35	442	27	11	15	2.2
23	15	42	55	54	82	60	37	92	26	10	7.7	2.0
24	15	325	57	56	74	59	37	90	24	10	8.1	1.7
25	16	347	57	65	63	50	34	161	31	11	7.8	1.4
26	16	119	55	57	59	49	32	66	46	11	7.1	1.4
27	15	72	66	53	66	74	29	50	94	9.3	6.7	1.5
28	84	60	64	52	66	70	70	117	35	8.2	7.1	1.5
29	395	67	67	53	-----	67	141	260	44	17	4.6	1.5
30	310	152	117	52	-----	55	497	180	81	9.4	3.3	1.3
31	206	-----	172	123	-----	50	-----	78	-----	8.2	2.8	-----
TOTAL	1,492.8	4,726	2,851	3,159	8,109	2,324	2,304	4,272	1,948	736.1	232.8	46.02
MEAN	48.2	158	92.0	102	290	75.0	76.8	138	64.9	23.7	7.51	1.53
MAX	395	1,260	279	467	2,850	183	497	713	278	131	23	5.1
MIN	9.8	42	54	52	59	49	29	31	24	8.2	2.0	.70
CFSM	.64	2.08	1.21	1.35	3.83	.99	1.01	1.82	.86	.31	.10	.02
IN.	.73	2.32	1.40	1.55	3.98	1.14	1.13	2.10	.96	.36	.11	.02
AC-FT	2,960	9,370	5,650	6,270	16,080	4,610	4,570	8,470	3,860	1,460	462	91

CAL YR 1974 TOTAL 30,767.29 MEAN 84.3 MAX 1,260 MIN .55 CFSM 1.11 IN 15.10 AC-FT 61,030
WTR YR 1975 TOTAL 32,200.72 MEAN 88.2 MAX 2,850 MIN .70 CFSM 1.16 IN 15.80 AC-FT 63,870

PEAK DISCHARGE (BASE, 800 FT³/S).--Nov. 1 (1200) 1,890 ft³/s (11.44 ft); Feb. 3 (0300) 5,070 ft³/s (13.34 ft).

08020700 Rabbit Creek at Kilgore, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 20...	1140	56	26	16	6.6	96	2.9	16	0	15
JAN. 07...	1000	86	22	14	6.6	90	2.6	12	0	17
APR. 03...	1400	46	24	13	6.5	93	2.3	14	0	15
MAY 15...	1600	165	16	17	6.9	110	2.9	14	0	19
JUNE 24...	1000	33	29	34	15	750	5.9	28	0	17
AUG. 05...	0858	14	22	9.4	4.8	60	3.8	16	0	15
SEP. 16...	1607	.68	23	34	13	550	5.0	56	0	15

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 20...	180	.1	350	67	54	5.1	668	6.7	12.5
JAN. 07...	170	.2	228	62	52	5.0	650	6.6	9.0
APR. 03...	160	.1	321	59	48	5.3	620	6.6	13.0
MAY 15...	210	.2	389	71	59	5.7	771	6.1	22.0
JUNE 24...	1200	.2	2070	150	120	27	4040	6.4	28.5
AUG. 05...	99	.2	222	43	30	4.0	429	7.3	25.0
SEP. 16...	870	.3	1540	140	93	20	2860	7.6	21.0

SABINE RIVER BASIN

08021500 Lake Cherokee near Longview, Tex.

LOCATION.--Lat 32°22'36", long 94°38'30", Gregg-Rusk County line, on left wingwall of intake structure of electric generating plant of Southwestern Electric Power Co., 2.3 miles (3.7 km) upstream from dam on Cherokee Bayou, 10 miles (16 km) upstream from Sabine River, and 10.3 miles (16.6 km) southeast of Longview.

DRAINAGE AREA.--158 mi² (409 km²).

PERIOD OF RECORD.--Contents: April 1951 to current year.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level.

EXTREMES (at 0800).--Current year: Maximum contents observed, 52,350 acre-ft (64.5 hm³) Feb. 3 (elevation, 281.4 ft or 85.77 m); minimum observed, 43,640 acre-ft (53.8 hm³) Sept. 18, 19, 24-30 (elevation, 279.2 ft or 85.10 m).

Period of record: Maximum contents observed, 71,170 acre-ft (87.8 hm³) May 3, 1959 (elevation, 285.5 ft or 87.02 m); minimum observed, 34,620 acre-ft (42.7 hm³) Oct. 16-18, 31, 1956, Aug. 9, 18-21, Aug. 31 to Sept. 8, 11-18, 1958 (elevation, 276.6 ft or 84.31 m).

REMARKS.--The lake is formed by a rolled earthfill dam 4,000 ft (1,220 m) long. An uncontrolled concrete spillway 828 ft (252 m) long is located at left end of dam. An emergency spillway, 160-foot (49-metre) wide, is cut in natural ground at right end of dam. Storage began in October 1948 and dam was completed Nov. 19, 1948. Lake was built for recreational purposes, to supply cooling water for generating plant of Southwestern Electric Power Co., and for municipal use by city of Longview. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	295.0	-
Top of design flood pool.....	291.0	-
Crest of spillway.....	287.7	-
Crest of spillway (top of conservation pool).....	280.0	46,700
Lowest gated outlet (invert).....	260.0	4,510

COOPERATION.--Elevation record furnished by Southwestern Electric Power Co. Record of diversions furnished by city of Longview. Capacity curve data from "Report of Sedimentation of Lake Cherokee, Gregg & Rusk Counties, Apr. 4 to May 13, 1960", by Soil Conservation Service.

REVISIONS.--WSP 1732: Drainage area.

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

279.0	42,900	281.0	50,700
280.0	46,700	282.0	54,900

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47,480	48,670	47,880	47,880	47,880	47,480	47,480	49,070	47,880	47,100	45,540	45,150
2	47,480	48,670	47,880	47,880	49,470	47,480	47,480	48,670	47,880	47,480	45,540	45,150
3	47,100	48,270	47,880	47,880	52,350	47,480	47,480	48,270	47,480	47,480	45,540	45,150
4	47,100	48,270	47,880	47,880	50,700	47,480	47,480	48,270	47,480	47,480	45,540	45,150
5	47,100	47,880	47,880	47,880	49,470	47,480	47,480	48,270	47,480	47,480	45,540	44,770
6	46,700	47,880	47,880	47,880	48,670	47,480	47,480	47,880	47,480	47,100	45,540	44,770
7	46,700	47,880	47,880	47,880	48,270	47,480	47,480	47,880	47,480	47,100	45,540	44,770
8	46,320	47,880	47,880	47,880	48,270	46,700	47,880	47,480	47,100	47,480	45,540	44,770
9	46,700	47,880	48,270	47,880	47,880	46,700	47,880	47,480	47,100	47,480	45,920	44,770
10	47,100	47,880	47,880	47,880	47,880	47,100	47,880	47,480	47,480	47,480	45,920	44,770
11	47,100	47,880	48,270	47,880	47,880	47,100	47,880	47,480	47,480	47,480	45,920	44,770
12	47,100	47,880	47,880	47,880	47,880	47,480	47,880	47,480	47,480	47,100	45,920	44,770
13	47,100	47,880	47,880	47,880	47,880	47,480	48,270	47,480	47,480	46,700	45,920	44,770
14	46,700	47,880	48,270	47,880	47,880	47,480	47,880	47,880	47,480	46,700	45,920	44,390
15	46,700	47,880	48,270	47,880	47,480	47,480	47,880	48,270	47,480	46,700	45,920	44,390
16	46,700	47,880	48,270	47,880	47,480	47,480	47,880	48,270	47,480	46,700	45,920	44,390
17	46,700	47,880	47,880	47,880	47,480	47,480	47,880	48,270	47,480	46,700	45,920	44,010
18	46,700	47,880	47,880	47,880	47,880	47,480	47,880	48,270	47,480	46,700	45,920	43,640
19	46,700	47,880	47,880	47,880	47,880	47,480	47,880	47,880	47,480	46,700	45,920	43,640
20	46,700	47,880	47,480	47,880	47,880	47,880	47,480	49,470	47,480	45,920	45,920	44,010
21	46,700	47,880	47,480	47,880	47,480	47,880	47,480	49,470	47,100	45,920	45,920	44,010
22	46,700	47,880	47,480	47,880	47,480	47,880	47,480	49,070	47,100	45,920	45,920	44,010
23	46,700	47,480	47,480	47,880	47,480	47,880	47,480	48,670	47,100	45,920	45,540	44,010
24	46,700	48,270	47,880	47,480	47,480	47,880	47,480	48,270	47,100	45,920	45,540	43,640
25	46,700	48,270	47,880	47,480	47,480	47,880	47,480	48,270	47,100	45,920	45,150	43,640
26	46,700	48,270	47,880	47,480	47,880	47,880	47,480	47,880	47,100	45,920	45,150	43,640
27	46,700	48,270	47,880	47,480	47,480	47,880	47,480	47,880	47,100	45,920	45,150	43,640
28	46,700	48,270	47,880	47,480	47,480	47,880	47,480	47,880	47,100	45,920	45,150	43,640
29	46,700	48,270	47,880	47,480	-----	47,880	48,670	47,880	47,100	45,920	45,150	43,640
30	46,700	47,880	47,880	47,480	-----	47,880	49,470	47,880	47,100	45,920	45,150	43,640
31	46,700	-----	47,880	47,480	-----	47,480	-----	47,880	-----	45,540	45,150	-----
(+)	280.0	280.3	280.3	280.2	280.2	280.2	280.7	280.3	280.1	279.7	279.6	279.2
(+)	-780	+1,180	0	-400	0	0	+1,990	-1,590	-780	-1,560	-390	-1,510
(+)	981	956	1,015	1,059	932	1,039	1,073	1,085	1,176	1,683	1,511	1,372
MAX	47,480	48,670	48,270	47,880	52,350	47,880	49,470	47,480	47,880	47,480	45,920	45,150
MIN	46,320	47,480	47,480	47,480	47,480	46,700	47,480	47,480	47,100	45,540	45,150	43,640

CAL YR 1974..... * +1,180

WTR YR 1975..... * -3,840

†† 9,670

†† 13,882

MAX 49,880

MAX 52,350

MIN 41,430

MIN 43,640

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by city of Longview.

SABINE RIVER BASIN

285

08021500 Lake Cherokee near Longview, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
JAN., 1975 10...	1530	12	6.9	3.0	15	2.1	12	0	14

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
JAN., 1975 10...	30	.3	89	30	20	1.2	159	7.0

08022000 Sabine River near Tatum, Tex.

LOCATION.--Lat 32°22'11", long 94°27'28", Panola County, near right bank on downstream side of pier of bridge on State Highway 43, 5.1 miles (8.2 km) northeast of Tatum, 5.2 miles (8.4 km) upstream from Potters Creek, 5.6 miles (9.0 km) downstream from Cherokee Bayou, and at mile 339.4 (546.1 km).

DRAINAGE AREA.--3,493 mi² (9,047 km²).

PERIOD OF RECORD.--Discharge: October 1938 to current year. Monthly discharge only for October 1938 to January 1939, published in WSP 1312.

Water quality: Chemical analyses: February 1952 to current year. Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: March 1968 to current year. Water temperatures: February 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 204.18 ft (62.234 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 21, 1945, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--22 years (1938-60) prior to regulation by Lake Tawakoni, 2,663 ft³/s (75.42 m³/s), 1,929,000 acre-ft/yr (2.38 km³/yr); 15 years (1960-75) regulated, 2,381 ft³/s (67.43 m³/s), 1,725,000 acre-ft/yr (2.13 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 18,200 ft³/s (515 m³/s) Feb. 13 (gage height, 25.81 ft or 7.867 m); minimum observed, 119 ft³/s (3.37 m³/s) Sept. 29, 30.

Period of record: Maximum discharge, 123,000 ft³/s (3,480 m³/s) Apr. 4, 1945 (gage height, 33.80 ft or 10.302 m, from graph based on gage readings), from rating curve extended above 66,000 ft³/s (1,870 m³/s) on basis of partly estimated measurement of 88,900 ft³/s (2,520 m³/s); minimum observed, 2.4 ft³/s (0.068 m³/s) Aug. 11, 12, 1964.

Historic: Maximum stage since at least 1884, that of Apr. 4, 1945. Flood in May 1884 reached a stage of about 32 ft (9.8 m), from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 616 micromhos Aug. 16; minimum daily, 134 micromhos Dec. 2, 3. Maximum water temperatures, 33.0°C Aug. 14; minimum, 6.0°C Jan. 4, 5, 10-12.

Period of record: Maximum daily specific conductance, 3,040 micromhos Jan. 13, 1966; minimum daily, 82 micromhos Dec. 24, 1971. Maximum water temperatures (1952-62, 1964-75), 38.0°C July 8, 1969; minimum, 2.0°C Jan. 12, 13, 1962.

REMARKS.--Discharge records fair. Flow is partly regulated by Lake Tawakoni (station 08017400) located 175 miles (282 km) upstream and six small reservoirs, combined capacity, 1,022,000 acre-ft (1.26 km³). Several diversions above station and below Lake Tawakoni for oilfield operation, municipal, and industrial uses. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lake Fork Creek near Quitman (station 08019000).

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4210	4300	9650	4510	3880	3940	3000	5200	5690	3470	324	141
2	4100	5350	9860	4580	7240	3400	2700	5660	5200	2650	327	141
3	3890	6040	10700	5130	11600	3180	2610	6220	4460	2170	351	144
4	3620	6280	11600	5620	15200	3030	2610	6250	3830	2000	471	147
5	3330	6350	12400	5670	15300	2880	2620	5740	2730	1920	497	146
6	3070	6190	13400	5410	12700	2710	2620	5380	2690	1810	402	137
7	2800	5920	14200	5070	11800	2520	2590	5120	2900	1610	361	128
8	2520	5770	14400	4920	11100	2350	2540	4910	2960	1390	335	126
9	2240	5830	14200	4700	11100	2120	2470	4770	3140	1190	314	126
10	1930	6110	13700	4670	12100	1940	2430	4680	3530	1020	297	123
11	1600	6770	13300	4770	13500	1910	2630	4630	3900	941	286	123
12	1300	7320	12800	4770	15700	1950	2880	4640	4050	815	274	122
13	1090	7740	12300	4750	17900	2090	3080	4640	3960	691	262	140
14	977	8040	11700	4660	18000	2860	3620	4980	3770	573	230	146
15	974	8330	11100	4450	17200	3210	4360	5470	3660	520	214	147
16	1100	8600	10500	4310	15800	3360	4750	6420	3780	473	209	164
17	1020	8980	9870	4210	14900	3630	4990	6920	3940	451	206	208
18	950	9420	9350	4080	14100	4130	5220	6590	3950	440	192	213
19	926	9770	8920	3920	13400	4630	5490	5930	3940	432	183	208
20	968	9970	8580	3520	12700	4940	5790	5350	3920	423	183	209
21	1100	10100	8270	2980	12000	5140	6020	7270	3950	404	197	211
22	1250	10000	8010	2690	11200	5370	6260	8400	4010	369	254	181
23	1330	9940	7810	2450	10200	5610	6400	8230	4090	337	345	140
24	1150	10200	7610	2260	9260	5800	6450	7770	4190	329	343	144
25	1080	10800	7400	2160	8180	6060	6350	7140	4330	306	314	147
26	923	11000	7120	2120	7120	6130	5990	6720	4520	308	327	144
27	759	10900	6690	2050	5890	6300	5440	6500	4620	301	326	140
28	759	10600	6090	1920	4890	6320	4580	6390	4690	301	260	124
29	1630	10200	5290	1810	---	5870	3760	6210	4550	299	244	119
30	2950	9800	4620	1710	---	4960	4350	6040	4080	297	244	119
31	3500	---	4420	1760	---	3770	---	5940	---	301	225	---
TOTAL	59046	246620	305860	117630	333960	122110	124600	186110	119030	28541	8997	4508
MEAN	1905	8221	9866	3795	11930	3939	4153	6004	3968	921	290	150
MAX	4210	11000	14400	5670	18000	6320	6450	8400	5690	3470	497	213
MIN	759	4300	4420	1710	3880	1910	2430	4630	2690	297	183	119
AC-FT	117100	489200	606700	233300	662400	242200	247100	369100	236100	56610	17850	8940
CAL YR 1974	TOTAL	1585279	MEAN	4343	MAX	14400	MIN	102	AC-FT	3144000		
WTR YR 1975	TOTAL	1657012	MEAN	4540	MAX	18000	MIN	119	AC-FT	3287000		

08022000 Sabine River near Tatum, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
09...	1335	2220	7.3	20	3.1	18	3.4	66	0	15	22
NOV.											
25...	0800	7900	8.9	13	3.7	16	4.0	46	0	18	25
DEC.											
04...	1230	8980	6.7	10	2.5	11	3.5	23	0	15	19
JAN.											
19...	0800	3600	13	17	5.5	31	2.4	33	0	38	50
FEB.											
25...	1230	7200	6.4	16	3.8	20	3.3	48	0	22	29
MAR.											
05...	0800	3400	11	18	6.0	32	3.1	34	0	40	49
APR.											
22...	1000	5550	5.7	14	3.6	17	3.4	39	0	24	24
MAY											
15...	1155	4400	8.1	14	4.4	19	3.7	44	0	22	28
JUNE											
17...	1345	3900	8.3	13	4.5	28	3.2	35	0	21	43
JULY											
21...	0800	340	16	18	4.9	56	3.3	57	0	26	83
AUG.											
19...	1700	200	18	19	5.6	79	3.9	62	0	32	110
SEP.											
18...	1100	217	15	17	6.3	80	4.6	61	0	40	97

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL- NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA/MG) (MG/L)
OCT.											
09...	--	.05	.00	.06	.62	.68	.10	121	52	5	63
NOV.											
25...	.1	--	--	--	--	--	--	111	--	--	48
DEC.											
04...	.1	.02	.00	.05	.58	.63	.11	80	43	20	35
JAN.											
19...	.1	--	--	--	--	--	--	173	--	--	65
FEB.											
25...	.1	.03	.00	.07	.49	.56	.06	124	17	7	56
MAR.											
05...	.1	--	--	--	--	--	--	176	--	--	70
APR.											
22...	.1	.02	.01	.07	.87	.94	.08	111	28	8	50
MAY											
15...	.2	--	--	--	--	--	--	121	--	--	53
JUNE											
17...	.1	.22	.01	.04	.95	.99	.11	139	64	25	51
JULY											
21...	.2	--	--	--	--	--	--	235	--	--	65
AUG.											
19...	.3	.03	.00	.00	.86	.86	.25	299	15	4	71
SEP.											
18...	--	--	--	--	--	--	--	290	--	--	68

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.											
09...	9	1.0	233	6.7	21.5	5	25	7.9	89	1.8	8.1
NOV.											
25...	10	1.0	185	6.6	11.0	--	--	--	--	--	--
DEC.											
04...	17	.8	137	6.3	9.5	60	20	10.9	96	1.3	12
JAN.											
19...	38	1.7	321	6.8	9.0	--	--	--	--	--	--
FEB.											
25...	16	1.2	235	6.5	10.5	40	15	9.4	84	.5	7.9
MAR.											
05...	42	1.7	327	6.9	11.0	--	--	--	--	--	--
APR.											
22...	18	1.0	211	7.0	18.5	50	20	7.6	81	2.4	5.6
MAY											
15...	17	1.1	215	6.1	22.0	--	--	--	--	--	--
JUNE											
17...	23	1.7	268	6.5	26.5	80	50	6.8	83	1.0	8.5
JULY											
21...	18	3.0	439	6.9	29.0	--	--	--	--	--	--
AUG.											
19...	20	4.1	581	6.8	32.0	30	8	5.3	72	7.6	20
SEP.											
18...	18	4.2	551	6.6	31.0	--	--	--	--	--	--

SABINE RIVER BASIN

08022000 Sabine River near Tatum, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
DATE	TIME							
DEC. 04...	1230	120	1	60	1	<10	2	10
APR. 22...	1000	<10	1	40	0	0	0	2
JUNE 17...	1345	40	0	50	0	10	2	3
AUG. 19...	1700	40	2	90	0	0	0	3

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC. 14...	130	1	0	30	.2	4	100	170
APR. 22...	80	2	0	5	.1	0	170	30
JUNE 17...	250	1	10	0	.0	0	290	110
AUG. 19...	30	4	20	10	.0	1	540	50

		INSTAN- TANEOUS DIS- CHARGE	TEMPER- ATURE (DEG C)	TOTAL ALORIN (UG/L)	ALORIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)
DATE	TIME	(CFS)									
DEC. 04...	1230	8980	9.5	.00	.0	.00	.0	.00	.0	.00	.0
APR. 22...	1000	5550	18.5	.00	.0	.00	.0	.00	.9	.00	.0
JUNE 17...	1345	3900	26.5	.00	.0	.00	.8	.00	.0	.00	2.6
AUG. 19...	1700	200	32.0	.00	.0	.00	.0	.00	.0	.00	.0

DATE	TOTAL DIELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)
DEC. 04...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JUNE 17...	.00	.2	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 19...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0

DATE	CHLOR-DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
DEC. 04...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
APR. 22...	3	.0	0	.00	.00	.00	.00	.00	.00	.00
JUNE 17...	1	.0		.00	.00	.00	.00	.05	.03	.02
AUG. 19...	2	.0			.00	.00	.00	.00	.00	.00

08022000 Sabine River near Tatum, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	59046	241	130	20700	35	5580	23	3670	48
NOV. 1974.....	246620	170	96	63900	21	14000	18	12000	43
DEC. 1974.....	305860	186	100	82600	24	19800	19	15700	44
JAN. 1975.....	117630	288	160	50800	45	14300	26	8260	51
FEB. 1975.....	333960	177	99	89300	23	20700	18	16200	43
MAR. 1975.....	122110	274	150	49500	42	13800	25	8240	50
APR. 1975.....	124600	250	140	47100	37	12400	23	7740	49
MAY 1975.....	186110	199	110	55300	27	13600	20	10000	45
JUNE 1975.....	119030	220	120	38600	31	9960	21	6750	46
JULY 1975.....	28541	322	180	13900	52	4010	28	2160	54
AUG. 1975.....	8997	488	260	6320	85	2060	40	972	65
SEPT 1975.....	4508	464	250	3040	80	974	38	463	64
TOTAL	1657012	**	**	521000	**	131000	**	92200	**
WTD.AVG.	4539.76	211	120	**	29	**	21	**	46

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	264	142	313	334	308	323	226	207	250	555	327
2	194	158	134	263	240	347	334	193	230	358	559	472
3	212	139	134	265	145	344	297	206	262	221	563	427
4	208	140	155	279	136	331	286	198	212	219	450	430
5	205	158	146	222	153	327	345	193	224	265	531	426
6	274	187	161	240	156	324	291	245	202	279	445	444
7	226	204	162	275	162	331	306	226	237	335	458	459
8	285	147	154	310	192	321	324	212	202	336	557	421
9	234	153	147	281	139	332	310	226	209	312	472	452
10	221	143	179	285	171	305	290	231	257	331	482	502
11	229	141	197	287	144	337	274	215	235	269	492	510
12	254	153	169	308	167	348	264	204	254	438	527	552
13	276	147	195	269	139	314	196	193	209	312	408	547
14	279	149	174	300	138	300	252	206	202	337	500	549
15	280	145	198	294	146	281	205	199	182	399	421	476
16	295	160	202	261	152	289	308	203	247	389	616	523
17	281	156	196	279	176	261	251	190	215	472	579	575
18	406	153	202	321	166	223	215	156	200	444	463	527
19	275	172	200	321	193	232	208	181	227	356	454	427
20	348	180	208	320	190	237	197	190	204	449	452	423
21	260	192	202	299	200	222	191	198	181	439	448	465
22	285	180	223	303	215	227	215	172	216	446	564	402
23	276	194	197	302	208	218	224	206	232	457	502	419
24	276	184	259	310	222	237	238	186	204	373	480	410
25	331	185	210	319	236	312	232	182	210	488	436	386
26	298	184	199	309	243	222	238	178	206	483	448	504
27	254	167	248	304	340	240	245	199	209	464	571	406
28	169	187	234	330	264	257	245	186	248	450	386	472
29	285	160	293	314	---	287	262	194	205	437	396	531
30	304	191	294	319	---	272	262	198	260	411	396	452
31	146	---	274	302	---	291	---	217	---	424	442	---
MONTH	260	169	196	294	192	286	261	200	220	376	486	464

SABINE RIVER BASIN

08022000 Sabine River near Tatum, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	27.0	9.0	7.0	---	13.0	12.0	21.0	26.0	32.0	29.0	29.0
2	24.0	26.0	10.0	8.0	9.0	14.0	---	20.0	25.0	32.0	30.0	29.0
3	---	28.0	8.0	7.0	8.0	13.0	14.0	22.0	27.0	30.0	30.0	30.0
4	25.0	26.0	9.0	6.0	10.0	14.0	15.0	20.0	24.0	29.0	30.0	30.0
5	24.0	25.0	7.0	6.0	11.0	11.0	14.0	22.0	25.0	29.0	31.0	31.0
6	26.0	25.0	8.0	7.0	9.0	13.0	15.0	21.0	27.0	28.0	30.0	28.0
7	28.0	24.0	7.0	7.0	9.0	13.0	15.0	20.0	28.0	30.0	32.0	29.0
8	26.0	24.0	7.0	7.0	9.0	14.0	14.0	21.0	26.0	29.0	32.0	29.0
9	26.0	25.0	8.0	8.0	11.0	14.0	---	22.0	25.0	30.0	30.0	30.0
10	27.0	23.0	9.0	6.0	10.0	12.0	13.0	23.0	25.0	29.0	---	29.0
11	27.0	26.0	10.0	6.0	10.0	13.0	14.0	---	27.0	30.0	32.0	28.0
12	28.0	19.0	7.0	6.0	9.0	13.0	15.0	22.0	28.0	29.0	31.0	30.0
13	27.0	14.0	7.0	7.0	8.0	11.0	14.0	22.0	27.0	30.0	32.0	29.0
14	27.0	15.0	8.0	7.0	11.0	12.0	15.0	21.0	27.0	29.0	33.0	30.0
15	26.0	15.0	11.0	7.0	11.0	14.0	16.0	23.0	28.0	30.0	32.0	29.0
16	27.0	18.0	9.0	8.0	10.0	13.0	12.0	24.0	27.0	30.0	31.0	29.0
17	26.0	---	9.0	7.0	11.0	14.0	14.0	24.0	29.0	29.0	32.0	28.0
18	28.0	19.0	8.0	8.0	10.0	14.0	13.0	22.0	28.0	29.0	30.0	28.0
19	27.0	19.0	8.0	9.0	12.0	15.0	---	24.0	30.0	31.0	29.0	29.0
20	26.0	14.0	8.0	8.0	11.0	15.0	14.0	---	30.0	31.0	---	29.0
21	25.0	13.0	9.0	9.0	11.0	14.0	16.0	23.0	30.0	29.0	30.0	26.0
22	26.0	13.0	7.0	8.0	10.0	14.0	14.0	24.0	29.0	32.0	31.0	25.0
23	27.0	14.0	8.0	8.0	11.0	14.0	19.0	24.0	30.0	32.0	30.0	26.0
24	26.0	12.0	8.0	---	12.0	16.0	19.0	23.0	29.0	31.0	---	27.0
25	27.0	11.0	---	7.0	8.0	14.0	19.0	26.0	31.0	29.0	30.0	27.0
26	29.0	---	---	9.0	12.0	14.0	---	---	30.0	30.0	30.0	28.0
27	28.0	12.0	9.0	11.0	13.0	14.0	19.0	25.0	31.0	31.0	31.0	29.0
28	29.0	13.0	---	8.0	13.0	14.0	18.0	26.0	30.0	---	29.0	26.0
29	27.0	12.0	9.0	9.0	---	15.0	18.0	24.0	31.0	32.0	30.0	29.0
30	27.0	9.0	9.0	9.0	---	13.0	19.0	26.0	32.0	32.0	29.0	28.0
31	25.0	---	---	11.0	---	12.0	---	23.0	---	32.0	29.0	---
MONTH	26.5	18.5	8.5	7.5	10.5	13.5	15.5	23.0	28.0	30.0	30.5	28.5

08022060 Martin Lake near Tatum, Tex.

LOCATION.--Lat 32°16'30", long 94°33'06", Rusk County, near left end of Martin Dam, 3.5 miles (5.6 km) southwest of Tatum, and at mile 20.0 (32.2 km).

DRAINAGE AREA.--130 mi² (337 km²).

PERIOD OF RECORD.--Contents: April 1974 to current year.

Water quality: Chemical analyses: October 1974 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level.

EXTREMES (at 2400).--April to September 1974: Maximum contents during period, 12,500 acre-ft (15.4 hm³) Sept. 30 (elevation, 285.48 ft or 87.014 m); minimum, 380 acre-ft (0.469 hm³) Apr. 10 (elevation, 270.13 ft or 82.336 m).

Water year 1975: Maximum contents, 75,400 acre-ft (93.0 hm³) July 12 (elevation, 305.57 ft or 93.138 m, from graph); minimum, 12,600 acre-ft (15.5 hm³) Oct. 1-11 (elevation, 285.50 ft or 87.020 m).

Period of record: Maximum contents, 75,400 acre-ft (93.0 hm³) July 12, 1975 (elevation, 305.57 ft or 93.138 m, from graph); minimum since first appreciable storage, 70,600 acre-ft (87.0 hm³) May 5, 1975 (elevation, 304.58 ft or 92.836 m).

REMARKS.--The lake is formed by a rolled earthfill dam 8,500 ft (2,591 m) long, including a 1,000-foot (305-metre) uncontrolled emergency spillway. Deliberate impoundment began in April 1974. The uncontrolled emergency spillway is an excavated channel cut through natural ground and located at the left end of the dam. The controlled spillway is a concrete ogee design with four 14- x 40-foot-wide (4 x 12-metre) tainter gates located near the left end of the dam. The low-flow outlet works consist of a 3- x 5-foot (1- x 2-metre) conduit with a sluice gate located in one of the gate piers. In addition, there is an 8-inch (203-millimetre) pipe with sluice gate. The area and capacity tables are based on an aerial survey made in October 1971. There are no known diversions. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	321.5	---
Crest of uncontrolled spillway.....	312.0	111,500
Top of gates.....	308.0	87,960
Top of conservation pool.....	306.0	77,500
Crest of gated spillway.....	294.0	31,040
Lowest gated outlet (invert).....	284.0	10,320

COOPERATION.--Gage readings furnished by Texas Utilities Services Inc. Area and capacity tables furnished by Forrest and Cotton, Consulting Engineers, for Texas Utilities Services, Inc.

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

270.0	355	286.0	13,380	298.0	43,620
274.0	1,420	290.0	21,040	302.0	59,040
278.0	3,790	294.0	31,040	305.6	75,510
282.0	7,720				

CONTENTS, IN ACRE-FEET, AT 2400, APRIL TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	2200	5260	5860	5360	6000
2							---	2200	5260	5850	5360	6040
3							---	2200	5310	5840	5360	6120
4							---	2280	5360	5830	5370	6230
5							---	2540	5360	5810	5380	6310
6							---	2890	5360	5770	5380	6430
7							---	3300	5360	5760	5400	6530
8							---	3710	5360	5750	5420	6630
9							---	3050	5550	5740	5430	6840
10							380	4110	5750	5730	5440	7190
11							490	4230	5810	5700	5450	7540
12							700	4330	5850	5670	5450	7900
13							960	4390	5900	5660	5450	8320
14							1130	4450	5950	5650	5470	8830
15							1230	4500	5950	5650	5510	9360
16							1310	4530	5950	5620	5530	9900
17							1360	4530	5990	5560	5550	10300
18							1380	4560	6050	5550	5570	10600
19							1400	4610	6050	5550	5600	10800
20							1470	4620	6030	5550	5630	10900
21							1570	4620	6020	5460	5650	11200
22							1660	4660	6010	5450	5660	11500
23							1730	4760	5980	5450	5680	11700
24							1860	4800	5970	5460	5710	11800
25							1930	4840	5950	5500	5730	12100
26							1940	4940	5950	5540	5760	12200
27							1980	5020	5930	5520	5800	12300
28							1980	5130	5920	5440	5850	12400
29							1990	5170	5900	5380	5880	12400
30							2090	5170	5870	5360	5930	12500
31							---	5220	---	5360	5960	---
(†)							275.41	279.66	280.32	279.80	280.41	285.48
(*)							-	+3130	+650	-510	+600	+6540
MAX							-	5220	6050	5860	5960	12500
MIN							-	2200	5260	5360	5360	6000

WTR YR 1974..... * - MAX - MIN -

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

NOTE.--Elevation record obtained from graph drawn through plotted once-daily intermittent readings of staff gage.

08022060 Martin Lake near Tatum, Tex.--Continued

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,600	17,500	28,900	37,900	49,800	57,800	65,600	72,600	73,100	73,900	74,800	73,600
2	12,600	18,300	29,200	38,500	52,300	58,000	65,600	71,600	72,100	74,100	74,900	73,500
3	12,600	18,700	29,500	39,500	52,500	58,200	65,600	71,000	71,700	74,300	74,900	73,300
4	12,600	19,100	29,600	40,700	52,100	58,600	65,600	70,700	71,800	74,300	74,900	73,200
5	12,600	19,300	29,900	41,200	52,200	58,800	65,700	70,700	71,900	74,300	74,900	73,200
6	12,600	19,400	30,800	41,400	51,700	59,000	65,700	71,100	72,100	74,200	74,900	73,200
7	12,600	19,700	31,900	41,900	51,400	59,200	65,800	71,200	72,400	74,000	74,900	73,200
8	12,600	20,000	32,200	42,300	51,700	59,300	66,000	71,200	72,700	74,300	74,800	73,100
9	12,600	20,400	32,400	42,900	52,100	59,400	67,000	71,200	73,100	75,000	74,800	73,100
10	12,600	20,700	32,600	43,600	52,300	59,500	67,800	71,300	73,200	75,300	74,700	73,100
11	12,600	21,000	32,800	44,600	52,400	59,500	68,200	71,400	72,800	75,300	74,700	73,000
12	12,600	22,300	33,100	45,200	52,500	60,000	68,500	71,500	71,900	75,400	74,900	72,900
13	12,700	22,400	33,500	45,500	52,700	60,500	68,900	71,600	71,600	75,300	74,600	72,800
14	12,700	22,300	33,900	45,100	53,300	60,900	69,000	71,700	71,700	75,100	74,500	72,700
15	12,700	22,100	34,300	44,800	53,800	61,200	70,400	71,800	72,000	75,100	74,500	72,600
16	12,900	22,300	34,800	44,600	54,500	61,300	70,700	72,100	72,100	75,000	74,400	72,600
17	13,000	22,500	35,300	44,200	55,300	61,600	70,700	72,500	72,200	75,000	74,400	72,600
18	13,100	22,800	35,500	44,200	55,900	61,700	70,700	72,700	72,300	74,900	74,300	72,500
19	13,100	23,300	35,700	44,400	56,200	61,900	70,700	72,600	72,400	74,800	74,300	72,500
20	13,000	23,600	35,900	44,600	56,300	62,000	70,700	73,000	72,400	74,800	74,300	72,400
21	13,000	24,200	36,000	45,000	56,400	62,200	70,700	74,000	72,300	74,700	74,300	72,300
22	13,000	24,600	36,100	45,100	56,500	62,400	70,900	72,300	72,100	74,700	74,200	72,200
23	13,100	25,000	36,100	45,300	56,700	62,500	71,200	71,800	72,100	74,700	74,200	72,200
24	13,100	25,500	36,100	45,500	56,900	62,700	71,200	71,800	72,300	74,700	74,100	72,100
25	13,200	26,800	36,100	45,600	57,200	62,800	71,200	71,900	72,500	74,700	74,100	72,100
26	13,300	28,000	36,200	45,700	57,400	63,400	71,200	72,100	72,600	74,700	74,000	72,000
27	13,600	28,100	36,400	45,800	57,600	64,200	71,400	72,200	72,800	74,500	74,000	72,000
28	14,100	28,200	36,600	46,000	57,700	64,700	71,600	72,500	73,100	74,800	73,900	72,000
29	14,800	28,300	36,800	46,100	-----	65,100	72,500	73,200	73,400	74,800	73,900	71,900
30	15,800	28,600	37,100	46,500	-----	65,400	73,600	73,800	73,600	74,800	73,700	71,800
31	16,700	-----	37,400	47,600	-----	65,600	-----	73,600	-----	74,800	73,600	-----
(†)	287.89	293.10	296.13	299.12	301.68	303.50	305.20	305.22	305.22	305.45	305.21	304.84
(*)	+4,200	+11,900	+8,800	+10,200	+10,100	+7,900	+8,000	0	0	+1,200	-1,200	-1,800
MAX	16,700	28,600	37,400	47,600	57,700	65,600	73,600	74,000	73,600	75,400	74,900	73,600
MIN	12,600	17,500	28,900	37,900	49,800	57,800	65,600	70,700	71,600	73,900	73,600	71,600
CAL YR 1974.....	*			-		MAX	-		MIN	-		
WTR YR 1975.....	*		+59,300			MAX	75,400		MIN	12,600		

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

NOTE.--Elevation record obtained from graph drawn through plotted once-daily intermittent readings of staff gage.

08022060 Martin Lake near Tatum, Tex.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
DATE	TIME								
JUNE 25...	1550	4.1	9.8	5.5	14	3.0	48	0	19
AUG. 06...	1500	5.0	9.5	6.3	14	3.0	47	0	18
	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)
DATE									
JUNE 25...	17	.1	96	47	8	.9	178	7.0	27.0
AUG. 06...	16	.1	95	50	11	.9	176	7.7	27.0

SABINE RIVER BASIN

08022070 Martin Creek near Tatum, Tex.

LOCATION.--Lat 32°17'47", long 94°29'36", Panola County, on left bank at downstream side of bridge on State Highway 149, 100 ft (30 m) upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.7 miles (2.7 km) upstream from Hogan Creek, 2.0 miles (3.2 km) south-east of Tatum, 5.0 miles (8.0 km) downstream from Martin Lake, and at mile 15.0 (24.1 km).

DRAINAGE AREA.--148 mi² (383 km²).

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 240.26 ft (73.231 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,700 ft³/s (48.1 m³/s) Feb. 3 (gage height, 13.72 ft or 4.182 m); minimum, 2.4 ft³/s (0.068 m³/s) Sept. 4.

Period of record: Maximum discharge, 1,700 ft³/s (48.1 m³/s) Feb. 3, 1975 (gage height, 13.72 ft or 4.182 m); minimum, 0.30 ft³/s (0.008 m³/s) July 20-24, 1974.

Maximum stage since at least 1948, 18.15 ft (5.532 m) April 1969. The flood in April 1957 reached a stage of 13.95 ft (4.252 m), from information by Texas Highway Department.

REMARKS.--Records good. Flow is largely regulated by Martin Lake located 5 miles (8 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	135	29	28	415	19	15	1160	283	12	13	2.8
2	5.9	42	23	55	923	17	14	872	287	11	7.1	2.8
3	6.1	26	19	215	1660	16	13	755	76	9.2	8.0	2.6
4	5.9	32	18	69	1520	48	13	720	14	8.1	6.8	2.5
5	5.8	42	18	36	786	30	13	715	13	7.5	6.0	2.6
6	5.8	25	178	29	656	21	12	358	13	6.9	5.5	8.0
7	5.4	18	89	51	636	20	12	42	13	6.3	5.1	5.1
8	4.0	26	36	98	241	17	15	20	15	6.6	8.6	3.8
9	5.3	24	27	41	34	16	74	16	57	12	8.8	3.6
10	5.7	65	23	98	26	19	42	14	367	8.0	5.9	3.4
11	5.5	107	86	61	24	17	18	13	661	7.2	5.5	3.3
12	5.2	36	49	53	21	17	14	12	651	6.5	5.1	3.3
13	5.0	24	32	51	20	62	22	11	255	6.0	5.0	3.2
14	6.2	18	28	248	19	48	61	30	17	5.8	4.6	3.0
15	22	15	35	347	25	24	24	32	40	5.7	4.4	3.0
16	10	16	28	327	108	23	17	57	20	5.7	4.2	3.1
17	5.6	44	23	318	46	21	15	21	13	5.7	4.1	3.3
18	4.1	41	21	134	28	46	14	15	12	5.8	4.0	3.4
19	5.0	29	20	33	22	30	12	13	11	5.6	3.8	3.2
20	5.6	23	19	26	19	20	11	42	10	5.3	3.8	3.0
21	5.7	18	17	23	18	17	10	916	9.6	5.2	3.8	3.1
22	5.6	16	17	23	20	17	9.9	1100	8.9	5.2	3.9	3.0
23	5.6	15	17	19	20	16	10	720	8.1	5.0	3.8	3.0
24	5.7	187	18	19	18	16	11	151	9.8	4.7	3.9	2.9
25	5.8	234	18	23	16	14	9.6	20	18	4.5	4.2	2.9
26	6.3	46	18	19	16	13	8.9	15	15	4.2	3.6	2.8
27	6.0	29	22	17	17	78	8.0	15	11	3.8	3.5	2.8
28	49	23	22	17	18	36	19	21	29	5.6	3.4	2.8
29	311	23	22	18	---	23	33	25	14	19	3.1	2.8
30	61	44	25	16	---	18	341	24	15	7.7	3.0	2.7
31	59	---	30	17	---	16	---	166	---	7.0	2.9	---
TOTAL	649.1	1423	1027	2529	7372	795	891.4	8091	2986.4	218.8	156.4	97.8
MEAN	20.9	47.4	33.1	81.6	263	25.6	29.7	261	98.9	7.06	5.05	3.26
MAX	311	234	178	347	1660	78	341	1160	661	19	13	8.0
MIN	4.0	15	17	16	16	13	8.0	11	8.1	3.8	2.9	2.5
AC-FT	1290	2820	2040	5020	14620	1580	1770	16050	5880	434	310	194

CAL YR 1974 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1975 TOTAL 26216.9 MEAN 71.8 MAX 1660 MIN 2.5 AC-FT 52000

SABINE RIVER BASIN

295

08022200 Murvaul Lake near Gary, Tex.

LOCATION.--Lat 32°02'04", long 94°25'15", Panola County, at outlet structure of Murvaul Lake Dam on Murvaul Bayou, 3.0 miles (4.8 km) west of Gary, and 9.0 miles (14.5 km) southwest of Carthage.

DRAINAGE AREA.--115 mi² (298 km²).

PERIOD OF RECORD.--Contents: December 1957 to current year.
Water quality: Chemical analyses: October 1969 to September 1974.

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

EXTREMES.--Current year: Maximum contents, 54,250 acre-ft (66.9 hm³) Feb. 3 (elevation, 267.35 ft or 81.488 m); minimum, 44,030 acre-ft (54.3 hm³) Sept. 30 (elevation, 264.84 ft or 80.723 m).
Period of record: Maximum contents, 58,050 acre-ft (71.6 hm³) Mar. 30, 1965 (elevation, 268.24 ft or 81.760 m); minimum since lake first filled in 1958, 26,670 acre-ft (32.9 hm³) about Sept. 19, 1958 (elevation, 259.9 ft or 79.22 m).

REMARKS.--The lake is formed by a rolled earthfill dam 8,300 ft (2,530 m) long. Spillway is an uncontrolled concrete flat-crested weir section 270 ft (82 m) long at right end of dam, designed to discharge 26,700 ft³/s (756 m³/s) under a 10-foot (3-metre) head. Storage began in November 1957 and dam completed in June 1958. Outlet works consist of an outlet tower and a 36-inch-diameter (914-millimetre) pipe through the dam with flow controlled by a valve in control tower. The pipe terminates in a tee at downstream side of dam with one branch discharging below the dam and the other branch connected to a pipeline for municipal supply. The lake is the property of Panola County Fresh Water Supply District No. 1, Carthage, and was built to impound water for municipal and industrial use. The capacity table is based on a survey made in 1955. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	280.0	-
Top of design flood pool.....	275.0	91,520
Crest of spillway.....	265.3	45,840
Invert of lowest sluice gate.....	235.0	25

COOPERATION.--Capacity table and records of diversions furnished by Panola County Fresh Water Supply District No. 1.

REVISIONS.--WSP 1732: Drainage area.

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

264.0	40,790	267.0	52,780
265.0	44,650	268.0	57,020
266.0	48,660		

CONTENTS, IN ACHE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46,520	49,810	47,640	47,440	53,540	47,000	47,480	48,950	46,680	47,440	45,480	45,320
2	46,440	49,520	47,480	48,820	53,620	46,880	47,400	48,500	46,640	47,320	46,000	45,240
3	46,360	48,910	47,360	50,140	53,960	47,040	47,160	48,290	46,600	47,240	46,480	45,120
4	46,360	48,410	47,240	49,770	52,820	47,240	46,960	48,540	46,520	47,160	46,480	45,120
5	46,280	48,090	47,280	49,110	51,320	47,400	46,920	48,410	46,480	47,000	46,440	45,080
6	46,240	47,680	48,660	48,620	50,010	47,360	46,880	48,170	46,480	46,880	46,440	45,200
7	46,200	47,600	48,990	49,070	49,150	47,320	46,800	47,640	46,360	46,760	46,360	45,160
8	46,240	47,520	48,580	49,110	48,620	47,160	46,960	47,720	46,400	46,800	46,440	45,080
9	46,200	47,400	48,170	48,910	48,170	47,200	47,600	47,520	47,520	46,800	46,400	45,040
10	46,120	48,820	48,090	49,810	47,920	47,040	47,840	47,360	46,090	46,760	46,360	45,000
11	46,120	49,320	48,250	49,480	47,760	47,040	47,680	47,280	47,960	46,640	46,320	44,920
12	46,080	48,910	48,290	49,110	47,560	47,040	47,480	47,160	47,680	46,560	46,240	44,770
13	46,040	48,370	48,040	48,700	47,440	47,520	48,330	47,000	47,440	46,480	46,200	44,650
14	46,640	48,000	47,880	48,330	47,320	47,520	49,280	47,440	47,240	46,360	46,160	44,530
15	46,760	47,640	47,680	48,040	47,680	47,440	48,030	47,640	47,200	46,360	46,080	44,490
16	46,720	47,560	47,520	47,840	48,000	47,400	48,540	47,680	47,080	46,320	46,040	44,770
17	46,680	47,640	47,360	47,680	47,960	47,440	48,210	47,600	46,920	46,240	45,960	44,730
18	46,640	47,640	47,240	47,560	47,840	48,460	48,000	47,480	46,720	46,240	45,880	44,650
19	46,520	47,600	47,160	47,440	47,720	48,500	47,760	47,320	46,680	46,160	45,840	44,650
20	46,440	47,440	47,120	47,320	47,520	48,210	47,480	47,160	46,600	46,120	45,760	44,570
21	46,360	47,320	47,000	47,200	47,400	48,000	47,360	47,200	46,600	46,040	45,840	44,530
22	46,360	47,200	46,960	47,120	47,480	47,760	47,320	47,080	46,520	46,000	45,720	44,460
23	46,320	47,160	46,960	47,080	47,240	47,640	47,240	46,960	46,440	45,880	45,680	44,380
24	46,280	48,500	47,000	47,080	47,080	47,440	47,200	46,920	46,520	45,840	45,640	44,340
25	46,280	49,150	46,840	47,080	47,040	47,280	47,160	46,840	46,720	45,720	45,600	44,260
26	46,240	48,740	46,840	47,040	47,000	47,320	47,040	46,760	47,280	45,680	45,560	44,220
27	46,200	48,250	46,880	47,040	47,000	47,480	46,960	46,760	47,240	45,520	45,520	44,140
28	46,160	47,920	46,880	47,000	46,960	47,880	47,320	46,800	47,280	45,680	45,480	44,100
29	50,100	47,920	46,880	47,000	-----	48,040	47,680	46,880	47,280	45,600	45,480	44,060
30	49,440	47,800	47,000	46,960	-----	47,840	48,860	46,880	47,360	45,560	45,400	44,030
31	49,280	-----	47,040	47,640	-----	47,680	-----	46,760	-----	45,480	-----	-----
(†)	266.15	265.79	265.60	265.75	265.58	265.76	266.05	265.53	265.68	265.21	265.18	264.84
(*)	+2,720	-1,480	-760	+600	-680	+720	+1,180	-2,100	+600	-1,880	-120	-1,330
(††)	49	42	32	51	40	50	49	56	52	68	54	58
MAX	50,100	49,810	48,990	50,140	53,960	48,500	49,280	48,950	48,090	47,440	46,480	45,320
MIN	46,040	47,160	46,840	46,960	46,960	46,880	46,800	46,760	46,360	45,360	45,360	44,030

CAL YR 1974..... * -640 †† 645 MAX 57,360 MIN 41,820
MTR YR 1975..... * -2,530 †† 601 MAX 53,960 MIN 44,030

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by city of Carthage.

SABINE RIVER BASIN

08022300 Murvaul Bayou near Gary, Tex.

LOCATION.--Lat 32°02'54", long 94°22'31", Panola County, near center of main channel on downstream side of bridge on Farm Road 10, 0.3 mile (0.5 km) downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.0 mile (1.6 km) downstream from Indian Creek, 1.5 miles (2.4 km) north of Gary, and 3 miles (5 km) downstream from Murvaul Lake.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 217.82 ft (66.392 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 85.2 ft³/s (2.413 m³/s), 61,730 acre-ft/yr (76.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,540 ft³/s (43.6 m³/s) Feb. 2 (gage height, 10.82 ft or 3.298 m); no flow Sept. 2-5, 29, 30. Period of record: Maximum discharge, 3,590 ft³/s (102 m³/s) Mar. 18, 1969 (gage height, 11.57 ft or 3.527 m); no flow at times in 1967-75.

Maximum stage since at least 1928, about 14.5 ft (4.42 m) in July 1933, from information by local resident.

REMARKS.--Records good. Discharge largely regulated by Murvaul Lake (station 08022200).

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	648	215	125	580	39	122	331	17	77	.19	.01
2	9.7	624	158	330	1380	38	105	344	11	87	.19	0
3	6.4	491	118	559	1520	30	89	275	8.7	66	3.5	0
4	4.6	413	93	599	1350	71	54	264	6.8	54	14	0
5	3.4	328	77	510	983	94	42	256	6.8	43	6.5	0
6	2.5	217	328	425	728	89	36	237	5.7	34	4.7	4.6
7	2.3	144	405	453	539	89	31	189	5.3	26	3.2	.65
8	2.0	126	410	514	422	74	28	170	4.0	19	4.2	.28
9	1.9	113	344	426	334	52	101	125	4.8	29	3.6	.11
10	1.7	246	252	775	273	52	138	88	89	26	2.8	.08
11	1.3	510	307	586	186	45	132	65	156	20	1.6	.07
12	1.1	450	313	506	151	44	103	53	142	13	1.3	.07
13	1.1	391	278	444	113	101	128	40	98	9.6	.72	.06
14	1.2	287	226	367	92	140	422	264	67	6.1	.54	.05
15	21	191	185	285	106	106	414	157	55	3.5	.39	.03
16	30	134	148	219	289	94	368	205	49	3.0	.30	.06
17	24	139	119	153	217	86	268	120	38	2.7	.24	.23
18	19	147	95	141	215	251	188	81	29	2.0	.16	.13
19	16	137	80	134	152	323	142	58	22	1.5	.15	.08
20	11	125	69	120	117	282	96	44	18	1.2	.13	.12
21	7.4	101	61	84	94	217	.65	49	15	1.0	.11	.08
22	5.2	80	51	70	84	168	49	44	12	.84	.08	.08
23	3.9	63	41	61	110	130	42	34	8.9	.68	.07	.08
24	3.6	214	42	56	88	111	37	28	6.7	.58	.07	.07
25	3.3	402	43	59	57	84	33	25	10	.42	.07	.06
26	2.8	421	31	53	45	59	29	22	36	.32	.07	.05
27	2.4	375	46	49	42	132	24	18	127	.26	.07	.03
28	75	284	48	46	41	129	26	17	69	.28	.05	.01
29	468	207	49	45	---	284	68	20	64	.32	.03	0
30	544	253	57	43	---	238	243	24	89	.28	.01	0
31	504	---	71	40	---	162	---	24	---	.20	.01	---
TOTAL	1791.8	8261	4760	8277	10308	3814	3623	3671	1270.7	528.78	49.05	7.09
MEAN	57.8	275	154	267	368	123	121	118	42.4	17.1	1.58	.24
MAX	544	648	410	775	1520	323	422	344	156	87	14	4.6
MIN	1.1	63	31	40	41	30	24	17	4.0	.20	.01	0
AC-FT	3550	16390	9440	16420	20450	7570	7190	7280	2520	1050	97	14
CAL YR 1974	TOTAL	48271.13	MEAN	132	MAX	2320	MIN	0	AC-FT	95750		
WTR YR 1975	TOTAL	46361.42	MEAN	127	MAX	1520	MIN	0	AC-FT	91960		

SABINE RIVER BASIN

297

08022500 Sabine River at Logansport, La.

LOCATION.--Lat 31°58'20", long 94°00'22", De Soto Parish, La.--Shelby County, Tex. State line at Logansport, just upstream from bridge on U.S. Highway 84, 3 miles (5 km) upstream from Bayou Castor, 111 miles (179 km) upstream from Toledo Bend Dam, and at mile 267.1 (429.8 km).

DRAINAGE AREA.--7,178 mi² (18,591 km²), see station 08025350.

PERIOD OF RECORD.--Gage-height record March 1968 to current year. Discharge record July 1903 to February 1968.

GAGE.--Water-stage recorder. Datum of gage is 147.72 ft (45.025 m) above mean sea level. July 1, 1903, to Sept. 30, 1956, nonrecording gage. Oct. 1, 1956, to Jan. 16, 1964, water-stage recorder 4,600 ft (1,400 m) upstream. Jan. 16, 1964, to Dec. 10, 1968, water-stage recorder 4,700 ft (1,430 m) upstream. All gages to present datum except prior to Dec. 31, 1906, when datum was 2.00 ft (0.610 m) lower.

AVERAGE DISCHARGE.--64 years (1903-67), 3,208 ft³/s (90.85 m³/s), 2,324,000 acre-ft/yr (2.87 km³/yr).

EXTREMES.--Current year: Maximum gage height, 28.83 ft (8.787 m) Feb. 8; minimum, 19.98 ft (6.090 m) Sept. 30.

Period of gage-height record 1968-74: Maximum gage height, 32.50 ft (9.906 m) Apr. 20, 1969; minimum since initial filling of Toledo Bend Reservoir in June 1968, 18.40 ft (5.608 m) Oct. 19, 1972.

Period of discharge record 1903-67: Maximum discharge, 92,000 ft³/s (2,610 m³/s) Apr. 8, 1945 (gage height, 44.07 ft or 13.433 m, from floodmark); minimum, 16 ft³/s (0.453 m³/s) Sept. 26-28, Oct. 3, 4, 1939.

Maximum stage since at least 1884, that of Apr. 8, 1945. Flood in May 1884 reached a stage of 39.4 ft (12.01 m), present site and datum.

REMARKS.--Gage height records good. Station discontinued as daily streamflow station on Mar. 1, 1968, due to backwater from storage in Toledo Bend Reservoir (station 08025350). Eight major reservoirs, with a combined capacity of 1,068,000 acre-ft (1.32 km³), largely regulate the flow. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lake Fork Creek near Quitman (station 08019000). Numerous diversions above station for oilfield operations, municipal, and industrial uses.

REVISIONS (WATER YEARS).--WSP 1312: 1903-6 (monthly and annual means). WSP 1732: 1929(M), 1933(M).

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.14	22.96	26.20	25.08	23.50	25.73	24.55	24.32	25.55	25.28	23.71	21.75
2	21.12	23.31	26.15	25.04	24.35	25.32	24.02	24.50	25.45	25.20	23.57	21.57
3	21.20	23.52	26.05	25.06	25.27	25.00	23.63	24.95	25.38	24.98	23.56	21.57
4	21.19	23.54	25.96	25.25	26.20	24.80	23.34	25.56	25.26	24.68	23.62	21.41
5	21.15	23.68	26.04	25.37	27.12	24.81	23.07	26.02	25.14	24.50	23.52	21.36
6	21.10	23.71	26.34	25.39	28.00	24.74	22.88	26.31	24.88	24.38	23.48	21.24
7	21.03	23.71	26.47	25.46	28.64	24.35	22.85	26.49	24.79	24.23	23.52	21.28
8	21.00	23.74	26.61	25.50	28.80	24.29	22.72	26.57	24.88	24.24	23.42	21.23
9	20.96	23.77	26.67	25.70	28.47	24.37	22.62	26.30	24.97	24.27	23.38	21.19
10	20.93	24.07	26.87	25.95	28.07	23.83	22.63	25.87	25.08	24.31	23.31	21.20
11	20.92	24.30	27.13	26.04	27.57	23.82	22.57	25.48	25.15	24.20	23.26	21.10
12	20.90	24.60	27.32	26.17	27.10	23.59	22.62	25.21	25.21	24.26	23.14	20.84
13	20.89	24.75	27.37	26.30	26.85	23.66	22.73	25.11	25.27	24.26	23.08	20.92
14	20.83	24.70	27.53	26.23	26.75	24.08	23.13	25.15	25.38	24.29	22.99	20.98
15	20.87	24.88	27.53	25.93	27.00	24.20	23.46	25.18	25.19	24.19	22.88	20.93
16	20.97	24.92	27.39	25.59	27.57	24.15	23.65	25.32	25.26	24.08	22.97	20.99
17	20.98	25.12	27.25	25.30	28.02	24.28	23.75	25.42	25.13	24.12	22.87	20.93
18	20.97	25.24	27.02	25.08	28.15	24.39	23.81	25.48	25.03	24.13	22.79	20.92
19	20.93	25.30	26.75	24.88	28.30	24.58	23.50	25.58	25.02	24.17	22.65	20.70
20	20.96	25.32	26.55	24.90	28.36	24.69	23.50	25.75	25.19	24.03	22.54	20.64
21	20.96	25.38	26.33	24.87	28.20	24.61	23.52	25.60	25.30	23.99	22.38	20.49
22	21.00	25.49	26.14	24.57	27.95	24.54	23.55	25.56	25.29	23.97	22.56	20.56
23	21.01	25.51	25.93	24.40	27.62	24.49	23.68	25.54	25.31	24.03	22.43	20.45
24	21.01	25.73	25.80	24.22	27.35	24.31	23.70	25.83	25.23	23.95	22.44	20.40
25	21.00	25.92	25.67	24.10	27.10	24.32	23.67	26.16	25.25	23.96	22.33	20.31
26	20.98	26.05	23.58	24.05	26.79	24.61	23.76	26.25	25.22	23.92	22.18	20.24
27	21.03	26.02	25.53	23.94	26.45	24.79	23.88	26.28	25.16	23.81	22.15	20.22
28	21.60	26.20	25.48	23.80	26.13	24.69	23.89	26.14	25.01	23.81	22.01	20.18
29	21.87	26.17	25.42	23.63	-----	24.51	24.07	26.05	25.14	23.70	21.91	20.09
30	22.26	26.17	25.40	23.50	-----	24.61	24.23	25.90	25.24	23.63	22.03	19.98
31	22.65	-----	25.30	23.46	-----	24.68	-----	25.70	-----	23.55	21.85	-----
MAX	22.65	26.20	27.53	26.30	28.80	25.73	24.55	26.57	25.55	25.28	23.71	21.75
MIN	20.83	22.96	23.58	23.46	23.50	23.59	22.57	24.32	24.79	23.55	21.85	19.98
CAL YR 1974	MAX	31.30	MIN	20.04								
WTR YR 1975	MAX	28.80	MIN	19.98								

08023200 Tenaha Creek near Shelbyville, Tex.

LOCATION.--Lat 31°45'56", long 94°05'02", Shelby County, near center of span at downstream side of bridge on State Highway 87, 0.5 mile (0.8 km) northwest of Shelbyville, 4.2 miles (6.8 km) downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 5.0 miles (8.0 km) upstream from Beauchamp Creek.

DRAINAGE AREA.--97.8 mi² (253 km²).

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

GAGE.--Water-stage recorder. Prior to May 9, 1963, nonrecording gage at same site and datum. Datum of gage is 205.71 ft (62.700 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 79.6 ft³/s (2.254 m³/s), 11.05 in/yr (281 mm/yr), 57,670 acre-ft/yr (71.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,500 ft³/s (70.8 m³/s) Feb. 16 (gage height, 10.41 ft or 3.173 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 30.
Period of record: Maximum discharge, 15,200 ft³/s (430 m³/s) Mar. 11, 1953 (gage height, 13.85 ft or 4.221 m); no flow at times.
Maximum stage since at least 1884, 15.0 ft (4.57 m) Nov. 23, 1940, from information by local residents.

REMARKS.--Records good. The city of Center reported that during the year they diverted 1,490 acre-ft (1.84 hm³) upstream from gage and returned 1,380 acre-ft (1.70 hm³) as sewage effluent 1.0 mile (1.6 km) downstream from gage.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	400	170	195	491	57	53	887	60	33	9.4	5.4
2	2.5	410	87	147	1,590	55	47	421	38	30	9.0	3.9
3	2.3	140	57	275	908	50	39	459	30	168	12	2.7
4	2.2	67	44	368	1,140	115	32	1,550	27	164	11	2.6
5	2.1	70	40	238	964	156	30	1,040	27	50	8.6	3.1
6	2.5	32	507	113	565	96	29	700	83	31	7.7	6.2
7	2.7	22	838	112	183	77	27	315	48	26	6.8	23
8	2.5	79	706	211	106	63	32	674	29	23	6.1	11
9	2.2	124	203	203	93	52	61	506	96	41	7.9	11
10	2.4	159	80	452	80	52	167	126	276	49	8.7	11
11	2.4	626	195	702	76	49	129	80	292	25	6.9	6.1
12	3.0	311	274	448	73	49	40	66	343	22	5.5	4.4
13	3.7	118	156	276	62	164	30	54	101	22	4.9	3.3
14	3.6	53	108	172	57	204	239	74	43	21	4.3	3.0
15	3.5	34	575	114	121	112	165	83	40	21	4.0	2.8
16	4.6	31	429	91	1,790	74	66	87	49	18	3.6	5.0
17	4.5	312	149	79	1,180	67	43	70	34	11	3.4	21
18	3.7	756	86	248	539	259	37	47	26	11	3.5	8.9
19	3.3	257	73	365	165	348	32	38	23	11	3.0	5.2
20	3.7	99	66	186	107	165	27	33	25	10	2.6	5.8
21	4.0	62	56	103	90	82	23	31	21	9.3	2.4	7.5
22	4.1	44	48	82	85	68	19	28	64	9.3	2.3	5.7
23	3.3	37	47	73	103	63	21	25	40	16	2.3	4.9
24	2.9	131	56	66	101	67	22	118	25	18	2.8	3.6
25	2.8	432	242	69	78	51	19	429	35	13	4.2	2.7
26	2.8	371	143	68	68	42	17	335	114	9.9	4.6	2.3
27	3.4	167	131	59	63	130	15	64	215	8.8	15	2.3
28	5.5	69	139	53	60	400	16	76	296	7.4	19	2.5
29	62	52	190	49	-----	363	167	178	93	6.2	8.8	2.5
30	65	173	245	46	-----	144	499	293	37	11	6.2	1.9
31	47	-----	285	44	-----	72	-----	175	-----	13	5.0	-----
TOTAL	263.4	5,643	6,425	5,707	10,938	3,746	2,143	9,062	2,630	908.9	201.5	181.3
MEAN	8.50	188	207	184	391	121	71.4	292	87.7	29.3	6.50	6.04
MAX	65	756	838	702	1,790	400	499	1,550	343	168	19	23
MIN	2.1	22	40	44	57	42	15	25	21	6.2	2.3	1.9
AC-FT	522	11,190	12,740	11,320	21,700	7,430	4,250	17,970	5,220	1,800	400	360

CAL YR 1974 TOTAL 39,025.75 MEAN 107 MAX 3,230 MIN .35 AC-FT 77,410
WTR YR 1975 TOTAL 47,849.10 MEAN 131 MAX 1,790 MIN 1.9 AC-FT 94,910

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
2-2	0100	10.38	2,440	5-4	1100	10.17	2,040
2-16	0900	10.41	2,500	5-8	1900	9.53	1,040
5-1	0500	9.50	1,010				

SABINE RIVER BASIN

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08025307 Mill Creek near Burkeville, Tex.

LOCATION.--Lat 30°09'23", long 93°40'35", Newton County, 500 ft (150 m) downstream from Mitchell Creek, 3.5 miles (5.6 km) east of State Highway 87, and 11 miles (18 km) north of Burkeville.

DRAINAGE AREA.--17.6 mi² (45.6 km²).

PERIOD OF RECORD.--Discharge: April 1974 to current year (periodic discharge measurements only). From June 1974 to September 1975, daily discharge withheld from publication pending definition of stage-discharge relationship.

Water quality: Chemical, biochemical, and pesticide analyses: April 1974 to current year (periodic samples). Water temperatures: April 1974 to current year (periodic observations).

GAGE.--Water-stage recorder. Datum of gage is 166.45 ft (50.719 m) above mean sea level (Shine and Associates, Consulting Engineers bench mark).

EXTREMES.--Maximum and minimum discharge not determined.

REMARKS.--Publication of daily discharge records for the current year were withheld pending definition of stage-discharge relationship.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT. 23...	1100	8.4	16	2.9	.3	3.1	.9	6	0	2.6	4.9	--
NOV. 13...	1030	21	18	2.3	.9	4.2	1.1	5	0	4.0	7.6	--
DEC. 10...	1515	26	18	2.0	.4	3.7	1.2	3	0	3.5	5.5	.0
JAN. 08...	1400	33	18	1.6	.6	3.7	1.0	4	0	4.4	6.7	.0
FEB. 26...	0815	26	17	2.5	.5	3.3	.9	6	0	3.4	5.3	.0
MAR. 13...	1130	600	7.4	1.8	.9	1.8	1.1	2	0	3.8	5.5	.0
18...	1530	90	14	2.5	.6	2.9	1.0	4	0	5.0	5.0	.2
MAY 13...	0915	32	17	2.0	.1	2.7	1.0	2	0	3.2	4.2	.2
JUNE 04...	1010	15	17	2.2	.4	3.0	.9	2	0	6.8	4.2	.0
JULY 09...	0900	35	16	2.4	.6	2.8	1.1	7	0	2.7	4.2	.0
AUG. 06...	0930	34	18	2.2	.4	3.1	1.1	6	0	3.3	4.0	.0
SEP. 10...	0930	11	17	1.9	.2	2.9	1.3	6	0	7.7	43	.0
DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJEL-DAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	VOL. NON-FILTERABLE RESIDUE (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO
OCT. 23...	.07	.00	.01	.30	.31	.02	34	16	9	9	4	.5
NOV. 13...	.10	.00	.03	.17	.20	.00	41	15	3	9	5	.6
DEC. 10...	.12	.00	.07	.69	.76	.03	36	28	12	7	4	.6
JAN. 08...	.10	.01	.29	.25	.54	.01	36	15	3	7	3	.6
FEB. 26...	.11	.00	.06	.43	.49	.00	36	9	4	8	3	.5
MAR. 13...	--	--	--	--	--	--	23	--	--	8	7	.3
18...	.05	.00	.01	.27	.28	.01	34	66	21	9	5	.4
MAY 13...	.04	.00	.01	.13	.14	.02	32	27	8	5	4	.5
JUNE 04...	.07	.01	.00	.20	.20	.01	36	23	13	7	6	.5
JULY 09...	.12	.01	.04	.87	.91	.03	33	148	25	8	3	.4
AUG. 06...	.11	.01	.00	.30	.30	.01	35	47	32	7	2	.5
SEP. 10...	.15	.01	.00	.32	.32	.00	77	17	3	6	1	.5

SABINE RIVER BASIN

08025307 Mill Creek near Burkeville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT. 23...	36	7.4	15.5	20	8	11.9	118	.8	5.2	1	.0
NOV. 13...	43	7.2	12.5	30	15	12.3	115	1.1	6.7	1	.0
DEC. 10...	41	6.7	9.0	30	10	9.6	83	.5	4.5	3	.0
JAN. 08...	41	7.2	15.5	40	15	9.6	95	.5	5.4	--	.0
FEB. 26...	38	7.1	11.0	40	10	10.2	92	.5	4.2	3	.1
MAR. 13...	37	5.1	13.5	--	--	--	--	--	--	--	--
18...	32	7.2	14.0	70	40	9.4	90	.9	6.8	4	.0
MAY 13...	39	7.0	19.0	50	10	8.2	87	.9	2.8	2	.0
JUNE 04...	35	7.0	20.0	40	15	6.3	68	.7	4.4	5	.0
JULY 09...	33	7.0	22.5	160	75	8.2	93	1.0	8.7	14	.0
AUG. 06...	36	6.5	23.5	40	25	8.3	97	.7	4.8	6	.0
SEP. 10...	37	7.2	24.5	40	15	8.7	104	.5	4.6	9	.0

DATE	TIME	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)
OCT. 23...	1100	80	0	40	<1	0	0	3
NOV. 13...	1030	70	3	30	1	0	0	0
DEC. 10...	1515	50	0	8	0	0	0	4
JAN. 08...	1400	90	1	10	0	0	0	3
FEB. 26...	0815	40	0	20	0	0	2	2
MAR. 18...	1530	160	2	30	0	0	0	3
MAY 13...	0915	30	1	20	0	0	0	2
JUNE 04...	1010	20	1	30	0	10	2	0
JULY 09...	0900	60	1	4	1	0	0	2
AUG. 06...	0930	40	0	20	0	0	0	0
SEP. 10...	0930	10	0	40	0	10	0	1

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (M) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 23...	40	18	0	0	.0	1	20	110
NOV. 13...	80	6	0	0	.0	2	0	120
DEC. 10...	40	2	0	10	.0	7	30	40
JAN. 08...	90	8	0	20	.0	0	30	100
FEB. 26...	40	2	0	0	.0	3	50	30
MAR. 18...	90	4	0	30	.0	0	40	90
MAY 13...	90	1	10	10	.1	1	50	20
JUNE 04...	90	2	0	10	.0	0	30	10
JULY 09...	90	3	0	0	.0	0	30	40
AUG. 06...	60	0	0	0	.0	0	50	10
SEP. 10...	40	0	0	0	.0	0	40	10

SABINE RIVER BASIN

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08025307 Mill Creek near Burkeville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)
OCT. 23...	1100	8.4	15.5	.00	.00	.00	.00	.00	.00	.00	.00
FEB. 26...	0815	26	11.0	.00	.00	.00	.00	.00	.00	.00	.00
MAR. 13...	1130	600	13.5	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 04...	1010	15	20.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 06...	0930	34	23.5	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL LINDANE (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL PCB (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
OCT. 23...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
FEB. 26...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
MAR. 13...	.00	.0	.0	.00	.00	.00	.00	--	--	--
JUNE 04...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00
AUG. 06...	.00	.0	.0	.00	.00	.00	.00	.00	.00	.00

SABINE RIVER BASIN

08025350 Toledo Bend Reservoir near Burkeville, Tex.

LOCATION.--Lat 31°10'25", long 93°33'57", Newton County, in powerhouse at right end of Toledo Bend Dam, 15 miles (24 km) northeast of Burkeville, and at mile 156.5 (251.8 km).

DRAINAGE AREA.--7,178 mi² (18,591 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sabine River Authority). Prior to July 20, 1967, nonrecording gage read once daily at same site and datum. July 20, 1967, to June 30, 1973, recording gage at south end of spillway 1.6 miles (2.6 km) north of present site and at same datum.

EXTREMES.--Current year: Maximum contents, 4,660,000 acre-ft (5.75 km³) Feb. 18 (elevation, 173.00 ft or 52.730 m); minimum, 3,753,000 acre-ft (4.63 km³) Sept. 30 (elevation, 167.78 ft or 51.139 m).

Period of record: Maximum contents, 4,739,000 acre-ft (5.84 km³) Mar. 21, 1969 (elevation, 173.42 ft or 52.858 m); minimum since initial filling of reservoir in June 1968, 3,517,000 acre-ft (4.34 km³) Oct. 22, 1972 (elevation, 166.29 ft or 50.685 m).

REMARKS.--Reservoir is formed by a rolled earthfill dam 11,243 ft (3,427 m) long, including dikes. Closure at embankment completed and deliberate impoundment was begun Oct. 3, 1966. Reservoir is operated for hydro-electric power generation and water conservation. A gate controlled, gravity concrete, ogee weir is located near the left abutment of the dam. Net opening of 440 ft (134 m) is controlled by eleven 40- by 28-foot (12- by 9-metre) tainter gates. A low-flow release sluiceway is located in an enlarged gate pier near the center of the spillway structure. This sluiceway is a single 8.33- by 12-foot (2.54- by 4-metre) concrete conduit controlled by a single gate. Two 20-inch-diameter (508-millimetre) conduits are provided which bypass the sluice gate. Water for turbines is admitted through four 16.75- by 29-foot (5.11- by 9-metre) penstocks and controlled by vertically operated caterpillar-type gates. The capacity table is based on Geological Survey 15-minute quadrangle sheets, scale 1:62,500 with 20-foot (6-metre) contour intervals. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Lake Fork Creek near Quitman (station 08019000). For statement regarding regulation by upstream reservoirs, see Sabine River near Logansport (station 08022500). Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	185.0	-
Design flood.....	175.3	5,102,000
Top of gates.....	173.0	4,660,000
Top of power drawdown storage.....	172.0	4,476,000
Top of power head storage.....	162.2	2,922,000
Crest of spillway (controlled).....	145.0	1,162,000
Lowest gated outlet (invert).....	100.0	4,090

COOPERATION.--Capacity table furnished by Sabine River Authority.

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

167.7	3,740,000	172.0	4,476,000
169.0	3,953,000	173.0	4,660,000
170.0	4,123,000		

CONTENTS, IN THOUSANDS OF ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,824	4,058	4,522	4,513	4,351	4,476	4,236	4,271	4,550	4,531	4,361	4,041
2	3,828	4,079	4,513	4,522	4,369	4,467	4,280	4,306	4,540	4,513	4,354	4,028
3	3,828	4,089	4,504	4,522	4,395	4,458	4,236	4,412	4,504	4,513	4,358	4,009
4	3,828	4,161	4,494	4,504	4,422	4,467	4,201	4,494	4,504	4,505	4,369	3,987
5	3,838	4,151	4,485	4,485	4,485	4,440	4,184	4,559	4,513	4,491	4,369	3,982
6	3,851	4,172	4,531	4,467	4,513	4,431	4,158	4,596	4,522	4,476	4,351	3,984
7	3,862	4,193	4,550	4,467	4,494	4,440	4,132	4,642	4,531	4,458	4,342	3,977
8	3,861	4,203	4,550	4,467	4,504	4,404	4,115	4,686	4,531	4,458	4,333	3,962
9	3,867	4,207	4,540	4,431	4,531	4,378	4,123	4,623	4,559	4,458	4,315	3,945
10	3,871	4,262	4,550	4,494	4,522	4,378	4,132	4,586	4,577	4,476	4,315	3,930
11	3,874	4,283	4,568	4,531	4,559	4,333	4,123	4,559	4,577	4,476	4,304	3,917
12	3,880	4,301	4,568	4,559	4,550	4,369	4,115	4,539	4,568	4,485	4,288	3,912
13	3,877	4,315	4,568	4,522	4,531	4,404	4,123	4,522	4,550	4,485	4,271	3,912
14	3,899	4,351	4,623	4,531	4,522	4,369	4,140	4,528	4,540	4,480	4,254	3,904
15	3,913	4,351	4,623	4,522	4,614	4,360	4,140	4,535	4,522	4,472	4,241	3,887
16	3,900	4,394	4,614	4,531	4,651	4,360	4,123	4,522	4,504	4,462	4,224	3,884
17	3,900	4,440	4,586	4,513	4,632	4,342	4,115	4,513	4,504	4,449	4,210	3,887
18	3,904	4,458	4,623	4,522	4,660	4,387	4,149	4,494	4,494	4,440	4,201	3,864
19	3,907	4,467	4,586	4,577	4,605	4,369	4,158	4,476	4,504	4,440	4,189	3,859
20	3,913	4,485	4,568	4,504	4,540	4,351	4,149	4,485	4,504	4,440	4,175	3,866
21	3,907	4,465	4,550	4,494	4,531	4,342	4,167	4,504	4,504	4,431	4,154	3,871
22	3,904	4,440	4,531	4,485	4,586	4,333	4,158	4,504	4,494	4,422	4,140	3,867
23	3,907	4,467	4,522	4,467	4,559	4,342	4,158	4,516	4,494	4,422	4,123	3,838
24	3,910	4,513	4,586	4,460	4,540	4,333	4,158	4,522	4,487	4,413	4,106	3,814
25	3,917	4,494	4,568	4,422	4,522	4,297	4,158	4,531	4,487	4,404	4,113	3,801
26	3,917	4,485	4,568	4,387	4,513	4,262	4,167	4,535	4,504	4,404	4,106	3,783
27	3,913	4,504	4,559	4,369	4,504	4,262	4,175	4,540	4,504	4,404	4,092	3,772
28	3,953	4,485	4,550	4,351	4,485	4,297	4,201	4,550	4,513	4,397	4,081	3,775
29	3,980	4,550	4,550	4,342	-----	4,297	4,210	4,550	4,522	4,395	4,064	3,769
30	3,984	4,540	4,550	4,324	-----	4,271	4,262	4,581	4,531	4,390	4,055	3,753
31	4,021	-----	4,577	4,306	-----	4,245	-----	4,572	-----	4,378	4,055	-----
(†)	169.40	172.35	172.55	171.05	172.05	170.70	170.80	172.52	172.30	171.45	169.60	167.78
(*)	+203.0	+519.0	+37.0	-271.0	+179.0	-240.0	+17.0	+310.0	-41.0	-153.0	-323.0	-302.0
MAX	4,021	4,550	4,623	4,577	4,660	4,476	4,280	4,636	4,577	4,531	4,369	4,041
MIN	3,824	4,058	4,485	4,306	4,351	4,245	4,115	4,271	4,487	4,378	4,055	3,753

CAL YR 1974..... * -20.0 MAX 4,686 MIN 3,766

WTR YR 1975..... * -65.0 MAX 4,660 MIN 3,753

† Elevation, in feet, at end of month.

* Change in contents, in thousands of acre-feet.

NOTE.--All figures expressed in thousands.

08025360 Sabine River at Toledo Bend Reservoir near Burkeville, Tex.

LOCATION (revised).--Lat 31°10'25", Long 93°33'57", Newton County, in powerhouse at right end of Toledo Bend Dam, 10 miles (16 km) upstream from Sabine River near Burkeville gage, and at mile 156.5 (251.8 km).

DRAINAGE AREA.--7,178 mi² (18,591 km²).

PERIOD OF RECORD.--Discharge: October 1971 to current year.

Water quality: Chemical and biochemical analyses: October 1967 to current year.

GAGE.--Water-stage recorders. Datum of gages is at mean sea level (levels by Sabine River Authority).

EXTREMES.--Current year: Maximum daily discharge, 39,300 ft³/s (1,110 m³/s) May 9; minimum daily, 70 ft³/s (1.98 m³/s) estimated for many days.

Period of record: Maximum daily discharge, 67,000 ft³/s (1,900 m³/s) Jan. 28, 1974; minimum daily, 30 ft³/s (0.85 m³/s) estimated Oct. 1-4, 1972.

REMARKS.--Discharges above 16,000 ft³/s (453 m³/s) are result of tainter gate operations and are based on tainter gate rating. Discharges below 16,000 ft³/s (453 m³/s) are based upon scroll case differential pressure-discharge relationships during turbine release periods, estimates of turbine leakage during non-turbine release periods, and low-flow sluiceway discharge based on discharge measurements.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	100	14,500	20,400	11,100	17,400	14,900	7,320	14,400	8,620	6,930	6,690
2	120	100	14,200	21,300	10,900	15,600	14,800	7,040	14,400	13,600	70	6,910
3	100	100	14,200	21,400	12,300	15,700	12,400	2,190	14,700	13,100	70	6,980
4	100	100	13,800	20,900	15,200	9,210	14,600	15,400	13,300	10,500	70	6,960
5	100	100	14,100	20,800	15,600	15,000	14,700	16,500	3,570	10,200	4,760	7,200
6	100	300	13,800	21,500	15,600	13,400	14,400	16,300	2,900	10,400	4,810	70
7	100	680	14,000	17,200	15,400	14,600	14,200	22,500	70	9,770	4,890	70
8	100	130	14,000	15,400	15,200	14,300	14,500	37,400	70	4,730	4,750	6,460
9	100	130	14,000	15,400	15,200	14,800	14,600	39,300	2,880	4,830	4,890	6,260
10	100	130	14,000	14,800	15,300	14,800	11,900	38,800	9,200	4,650	70	6,270
11	100	390	14,000	14,500	15,300	14,200	7,010	28,000	14,800	4,720	7,120	6,190
12	100	130	14,000	14,600	15,200	15,000	7,410	20,400	15,100	70	7,160	6,310
13	100	130	14,600	15,200	15,000	14,600	6,930	15,300	14,700	70	4,910	70
14	100	270	14,300	15,600	15,100	14,800	7,280	15,300	14,400	4,870	7,140	70
15	100	410	20,000	15,500	16,000	14,200	7,210	14,800	14,200	4,820	6,800	6,210
16	100	130	27,500	15,600	30,200	14,300	6,950	14,900	12,100	4,670	7,540	6,270
17	100	130	27,800	15,600	38,000	14,000	7,630	15,000	6,790	4,750	70	6,350
18	100	7,460	20,900	15,200	37,100	14,200	8,300	15,000	6,550	4,730	7,300	6,450
19	100	8,370	21,800	15,100	32,700	14,100	7,340	13,200	6,850	70	7,170	6,330
20	100	8,860	24,200	15,800	36,200	14,400	6,820	4,660	6,670	70	6,980	70
21	100	13,800	20,000	15,700	29,200	14,200	7,690	5,000	7,050	4,730	7,100	70
22	100	11,400	16,900	15,500	24,400	14,600	7,670	5,870	6,730	4,860	2,530	70
23	320	7,250	14,400	15,600	21,800	14,200	7,440	7,980	7,040	4,820	6,930	6,380
24	370	9,580	14,600	15,600	21,500	14,500	7,640	10,600	6,930	4,860	70	6,250
25	100	14,000	17,300	14,800	21,200	14,800	7,460	10,600	6,390	4,530	4,270	5,940
26	100	12,300	21,000	14,700	21,200	14,800	70	11,700	6,260	70	7,120	6,200
27	100	10,700	21,300	14,700	21,000	14,600	70	14,800	7,130	70	7,150	70
28	1,290	10,400	20,500	14,700	21,300	14,500	7,390	15,300	6,810	4,570	5,680	70
29	100	10,200	20,700	13,600	-----	14,700	7,220	15,300	7,100	4,680	7,170	6,230
30	100	11,300	21,400	12,100	-----	14,800	7,020	15,500	7,060	4,170	1,140	5,970
31	100	-----	21,400	12,200	-----	14,800	-----	15,000	-----	4,490	300	-----
TOTAL	5,120	139,080	549,200	501,000	574,200	449,110	273,550	486,960	256,150	161,090	142,960	135,440
MEAN	165	4,636	17,720	16,160	20,510	14,490	9,118	15,710	8,538	5,196	4,612	4,515
MAX	1,290	14,000	27,800	21,500	38,000	17,400	14,900	39,300	15,100	13,600	7,540	7,200
MIN	100	100	13,800	12,100	10,900	9,210	70	2,190	70	70	70	70
AC-FT	10,160	275,900	1,089M	993,700	1,139M	890,800	542,600	965,900	508,100	319,500	283,600	268,600
CAL YR 1974	TOTAL	3,104,380	MEAN	8,505	MAX	67,000	MIN	100	AC-FT	6,158,000		
WTR YR 1975	TOTAL	3,673,860	MEAN	10,070	MAX	39,300	MIN	70	AC-FT	7,287,000		

SABINE RIVER BASIN

08025360 Sabine River at Toledo Bend Reservoir near Burkeville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 23...	1300	6.2	9.0	2.4	13	2.5	32	0	13
DEC. 10...	1630	6.3	8.4	2.5	13	2.8	28	0	12
FEB. 11...	1545	6.2	10	3.1	17	3.3	33	0	19
APR. 09...	1000	7.4	7.3	3.0	13	1.8	21	0	17
JUNE 03...	1835	6.2	7.5	3.1	12	2.2	18	0	16
AUG. 05...	1800	17	7.0	2.8	12	2.3	20	0	15

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 23...	17	--	.00	.00	.03	.41	.44	.02	79
DEC. 10...	19	.1	.20	.00	.07	.45	.52	.02	78
FEB. 11...	21	.1	.25	.00	.02	.41	.43	.01	96
APR. 09...	20	.1	.15	.00	.05	.36	.41	.01	80
JUNE 03...	18	.1	.03	.00	.01	.47	.48	.01	74
AUG. 05...	17	.2	.00	.01	.00	.38	.38	.02	83

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT. 23...	32	6	1.0	146	6.8	22.5	9.5	108	1.0
DEC. 10...	31	8	1.0	152	6.8	14.0	7.8	75	1.2
FEB. 11...	38	11	1.2	186	6.5	14.0	8.8	85	.4
APR. 09...	31	13	1.0	149	7.0	15.0	9.2	90	1.2
JUNE 03...	32	17	.9	141	6.9	24.5	7.4	88	.8
AUG. 05...	29	13	1.0	136	6.8	28.0	6.8	86	.9

08026000 Sabine River below Toledo Bend near Burkeville, Tex.

LOCATION.--Lat 31°03'50", Long 93°31'10", Newton County, Tex.--Vernon Parish, La. State line, near left edge of low-water channel at downstream side of bridge on State Highway 63, about 200 ft (61 m) downstream from Pearl Creek, 10 miles (16 km) northeast of Burkeville, 16 miles (26 km) downstream from Bayou Toro, and at mile 139.7 (224.8 km).

DRAINAGE AREA.--7,482 mi² (19,378 km²).

PERIOD OF RECORD.--Discharge: September 1955 to current year.

Water quality: Chemical and biochemical analyses: May 1968 to current year. Pesticide analyses: October 1972 to current year.

Water temperatures: May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 70.59 ft (21.516 m) above mean sea level. Prior to Aug. 23, 1958, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years (1955-66) prior to completion of Toledo Bend Reservoir, 4,653 ft³/s (131.8 m³/s), 3,371,000 acre-ft/yr (4.16 km³/yr); 9 years (1966-75) regulated, 5,407 ft³/s (153.1 m³/s), 3,917,000 acre-ft/yr (4.83 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 39,700 ft³/s (1,120 m³/s) Feb. 18 (gage height, 29.17 ft or 8.891 m); minimum daily, 167 ft³/s (4.73 m³/s) Oct. 27.

Period of record: Maximum discharge, 80,600 ft³/s (2,280 m³/s) Jan. 29, 1974 (gage height, 34.20 ft or 10.424 m); minimum daily, 38 ft³/s (1.08 m³/s) Sept. 14, 15, 1967.

Historic: Maximum stage since at least 1860, 35.9 ft (10.94 m) in May 1884, from information by local resident. Flood of Apr. 15, 1945, reached a stage of 35.8 ft (10.91 m), and flood of May 23, 1953, reached a stage of 35.3 ft (10.76 m), from floodmarks.

Water quality: Current year: Maximum daily specific conductance, 175 micromhos Feb. 20; minimum daily, 41 micromhos May 3. Maximum water temperatures, 32.0°C Aug. 20.

Period of record: Maximum daily specific conductance, 352 micromhos Mar. 15, 16, 1973; minimum daily, 35 micromhos Dec. 30, 1969. Maximum water temperatures, 32.0°C Aug. 20, 1975; minimum, 5.0°C Jan. 8, 10, 1970.

REMARKS.--Discharge records fair. Flow regulated by Toledo Bend Reservoir (station 08025350) 16.8 miles (27.0 km) upstream (capacity, 4,660,000 acre-ft or 5.75 km³).

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,760	592	13,400	21,200	11,700	19,700	15,200	7,900	16,300	8,600	6,610	3,610
2	355	625	14,000	21,000	12,500	16,600	15,100	7,930	15,200	13,800	3,920	6,730
3	249	444	13,900	22,000	13,800	16,200	13,600	6,820	15,200	14,600	915	7,020
4	224	344	13,800	22,000	18,000	14,200	13,700	18,400	15,100	12,300	672	6,920
5	214	536	13,900	21,400	18,600	15,600	14,900	23,000	6,610	11,200	3,580	7,120
6	206	472	15,200	21,000	17,500	15,100	14,800	21,400	3,940	10,800	5,100	3,530
7	200	667	16,400	19,400	16,400	14,800	14,500	20,700	2,120	10,600	4,970	494
8	196	588	15,100	16,700	15,700	14,800	14,800	30,000	869	7,000	4,960	3,070
9	194	339	14,400	16,200	15,700	15,300	15,400	36,700	2,230	6,500	4,930	6,050
10	193	361	14,200	17,300	15,600	15,400	14,900	39,100	5,570	6,500	3,060	5,970
11	189	1,010	14,300	17,400	15,500	14,700	9,130	38,100	17,400	6,500	4,110	5,980
12	187	938	14,500	16,600	15,400	15,500	8,160	30,700	18,300	3,000	7,020	6,030
13	186	576	14,900	16,300	15,200	16,500	7,730	21,600	17,400	700	5,450	3,310
14	197	394	14,700	16,000	15,100	18,500	7,820	17,800	15,600	4,500	6,570	459
15	684	480	17,100	15,900	15,400	17,400	8,130	16,400	15,300	5,200	6,880	3,040
16	447	406	23,500	15,800	24,300	16,200	7,890	15,900	14,800	5,000	7,430	6,200
17	288	572	25,700	15,700	34,500	15,100	7,670	15,800	8,440	5,100	4,040	7,640
18	249	4,430	24,400	15,600	38,900	17,100	7,760	15,500	7,510	5,200	4,090	6,430
19	221	8,880	17,700	15,600	36,800	17,000	7,660	15,200	7,410	3,130	6,970	6,170
20	206	8,610	23,600	15,900	36,500	16,100	7,270	15,840	7,320	667	7,010	3,350
21	195	13,400	20,900	15,900	34,200	15,700	8,380	5,460	7,420	2,380	7,090	477
22	189	13,400	18,700	15,600	30,400	15,300	9,350	6,080	7,160	5,150	4,540	349
23	230	7,580	15,500	15,600	25,400	14,800	8,080	7,400	7,310	5,610	5,270	3,040
24	411	7,440	15,200	15,700	23,100	14,900	7,510	10,800	7,510	5,440	3,450	5,840
25	266	13,700	17,100	15,100	21,800	15,100	7,770	12,000	7,090	5,130	2,190	5,660
26	174	13,600	21,000	14,900	21,300	15,100	3,870	12,800	6,840	2,950	6,350	5,900
27	167	10,300	22,600	14,800	21,000	15,100	803	15,300	7,860	643	7,130	3,280
28	807	10,000	22,600	14,700	20,800	14,800	4,490	15,900	9,050	2,310	5,880	411
29	2,220	9,800	22,800	14,500	-----	15,000	7,060	16,700	8,350	4,870	7,100	3,000
30	1,270	10,000	22,600	12,100	-----	15,100	8,050	18,200	9,310	4,710	4,050	5,650
31	704	-----	22,300	12,100	-----	15,100	-----	17,500	-----	4,810	1,140	-----
TOTAL	13,277	140,484	556,000	520,000	601,100	487,800	291,483	543,830	290,719	184,900	152,477	132,730
MEAN	429	4,683	17,940	16,770	21,470	15,740	9,716	17,540	9,691	5,965	4,919	4,424
MAX	2,220	13,700	25,700	22,000	38,900	19,700	15,400	39,100	18,300	14,600	7,430	7,640
MIN	167	339	13,400	12,100	11,700	14,200	803	5,460	869	643	672	349
AC-FT	24,330	278,700	1,103M	1,031M	1,192M	967,600	578,200	1,079M	576,600	366,700	302,400	263,300
CAL YR 1974	TOTAL 3,226,658		MEAN 8,840		MAX 77,900		MIN 167		AC-FT 6,400,000			
WTR YR 1975	TOTAL 3,914,800		MEAN 10,730		MAX 39,100		MIN 167		AC-FT 7,765,000			

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
13...	0840	170	15	10	2.0	14	3.2	36	0	10	16
17...	1430	270	--	--	--	--	--	--	--	7.2	15
21...	1635	190	--	--	--	--	--	--	--	6.4	18
23...	1345	170	15	7.3	1.7	13	2.8	31	0	11	15
29...	1710	2250	--	--	--	--	--	--	--	4.8	9.4
NOV.											
02...	1745	500	13	4.5	1.1	7.5	2.4	10	0	9.2	11
04...	1200	420	--	--	--	--	--	--	--	12	22
12...	1645	750	--	--	--	--	--	--	--	8.4	15
19...	1635	11300	--	--	--	--	--	--	--	11	24
DEC.											
08...	0532	15000	6.3	7.8	3.5	14	3.0	26	0	15	19
10...	1715	15000	6.5	8.4	2.4	14	2.6	28	0	12	19
11...	0936	14500	--	--	--	--	--	--	--	12	25
21...	1330	21000	--	--	--	--	--	--	--	12	26
24...	1720	24500	--	--	--	--	--	--	--	13	26
FEB.											
11...	1645	16200	6.6	9.9	3.0	16	3.0	31	0	17	25
13...	1300	16500	6.9	8.0	3.2	16	1.7	29	0	14	24
22...	1345	30800	--	--	--	--	--	--	--	16	28
25...	1615	22000	--	--	--	--	--	--	--	16	28
28...	1400	22600	--	--	--	--	--	--	--	17	29
MAR.											
02...	0810	17000	7.8	8.6	3.1	17	3.2	22	0	16	26
04...	1355	14900	--	--	--	--	--	--	--	18	25
16...	0900	18200	--	--	--	--	--	--	--	14	21
27...	0900	15600	--	--	--	--	--	--	--	25	23
APR.											
01...	1405	15500	--	--	--	--	--	--	--	18	22
08...	1415	15000	--	--	--	--	--	--	--	15	21
09...	1115	16000	7.8	8.3	3.0	13	3.1	20	0	16	19
15...	1445	7800	--	--	--	--	--	--	--	12	19
23...	1305	7100	--	--	--	--	--	--	--	12	15
MAY											
01...	0805	16000	8.1	5.0	2.3	8.1	2.0	11	0	12	12
07...	1115	17500	--	--	--	--	--	--	--	18	19
14...	1345	18000	--	--	--	--	--	--	--	18	20
21...	1100	2900	--	--	--	--	--	--	--	15	19
JUNE											
03...	1730	18000	6.3	7.9	2.3	12	2.8	19	0	16	18
08...	0800	850	--	--	--	--	--	--	--	18	21
14...	1615	15000	--	--	--	--	--	--	--	17	22
21...	0700	4800	--	--	--	--	--	--	--	16	21
29...	1335	29000	--	--	--	--	--	--	--	8.8	12
JULY											
01...	1635	14500	6.8	7.4	2.8	12	2.3	18	0	15	17
14...	0900	4500	--	--	--	--	--	--	--	16	22
22...	1830	2000	--	--	--	--	--	--	--	14	18
30...	1715	3300	--	--	--	--	--	--	--	13	17
AUG.											
05...	1645	3800	9.5	2.9	.8	3.7	1.3	8	0	6.1	6.1
07...	0745	3400	--	--	--	--	--	--	--	15	18
14...	1730	9600	--	--	--	--	--	--	--	18	21
21...	1145	4000	--	--	--	--	--	--	--	16	19
29...	1720	8600	--	--	--	--	--	--	--	17	23
SEP.											
07...	1425	450	11	6.9	2.3	10	2.0	22	0	11	15
14...	1600	400	--	--	--	--	--	--	--	14	19
23...	1800	6800	--	--	--	--	--	--	--	17	23
30...	2030	8600	--	--	--	--	--	--	--	18	22

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.											
13...	.1	--	--	--	--	--	--	88	--	--	33
17...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
23...	--	.03	.00	.05	.39	.44	.09	83	31	17	25
29...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
02...	.0	--	--	--	--	--	--	54	--	--	16
08...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
08...	.1	--	--	--	--	--	--	82	--	--	34
10...	.1	.17	.00	.07	.52	.59	.03	79	14	3	31
11...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
11...	.1	.25	.00	.07	.46	.53	.16	96	16	1	37
13...	.1	--	--	--	--	--	--	88	--	--	33
22...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
02...	.1	--	--	--	--	--	--	93	--	--	34
08...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
APR.											
01...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
09...	.1	.15	.00	.01	.39	.40	.02	81	21	8	33
15...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	.1	--	--	--	--	--	--	55	--	--	22
07...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
03...	.1	.03	.00	.00	.46	.46	.03	75	18	10	29
08...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JULY											
01...	.1	--	--	--	--	--	--	72	--	--	30
14...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
05...	.0	.06	.01	.01	.95	.96	.12	35	220	162	11
07...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
07...	--	--	--	--	--	--	--	69	--	--	27
14...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

SABINE RIVER BASIN

08026000 Sabine River below Toledo Bend near Burkeville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.											
13...	4	1.1	143	6.8	23.0	40	--	--	--	--	--
17...	--	--	103	--	19.0	120	--	--	--	--	--
21...	--	--	133	--	20.0	70	--	--	--	--	--
23...	0	1.1	136	6.7	20.5	80	15	10.8	119	1.5	9.0
29...	--	--	58	--	20.0	140	--	--	--	--	--
NOV.											
02...	8	.8	83	6.5	22.0	140	--	--	--	--	--
08...	--	--	138	--	18.0	40	--	--	--	--	--
12...	--	--	92	--	16.0	140	--	--	--	--	--
19...	--	--	139	--	17.0	40	--	--	--	--	--
DEC.											
08...	13	1.0	142	6.9	14.0	30	--	--	--	--	--
10...	8	1.1	149	6.4	13.5	20	10	7.7	73	.5	6.9
11...	--	--	147	--	15.0	30	--	--	--	--	--
21...	--	--	156	--	15.0	40	--	--	--	--	--
24...	--	--	155	--	15.0	30	--	--	--	--	--
FEB.											
11...	12	1.1	177	6.6	14.0	20	8	9.6	92	.6	11
13...	9	1.2	172	7.2	13.5	40	--	--	--	--	--
22...	--	--	172	--	14.0	40	--	--	--	--	--
25...	--	--	169	--	13.0	50	--	--	--	--	--
28...	--	--	172	--	13.0	40	--	--	--	--	--
MAR.											
02...	16	1.3	168	7.2	13.0	40	--	--	--	--	--
08...	--	--	161	--	13.5	45	--	--	--	--	--
18...	--	--	124	--	14.0	60	--	--	--	--	--
27...	--	--	152	--	15.0	50	--	--	--	--	--
APR.											
01...	--	--	145	--	14.5	50	--	--	--	--	--
08...	--	--	133	--	15.0	50	--	--	--	--	--
09...	17	1.0	145	7.1	15.5	50	6	8.8	87	1.1	7.0
15...	--	--	131	--	16.5	70	--	--	--	--	--
23...	--	--	100	--	18.0	60	--	--	--	--	--
MAY											
01...	13	.8	94	6.9	18.5	110	--	--	--	--	--
07...	--	--	131	--	20.0	70	--	--	--	--	--
14...	--	--	136	--	23.0	50	--	--	--	--	--
21...	--	--	122	--	23.0	50	--	--	--	--	--
JUNE											
03...	14	1.0	139	6.9	24.5	30	4	6.9	82	.8	7.3
08...	--	--	122	--	25.5	50	--	--	--	--	--
14...	--	--	134	--	26.0	40	--	--	--	--	--
21...	--	--	123	--	24.0	40	--	--	--	--	--
29...	--	--	71	--	25.5	200	--	--	--	--	--
JULY											
01...	15	1.0	134	6.9	28.0	40	--	--	--	--	--
14...	--	--	141	--	26.0	30	--	--	--	--	--
22...	--	--	127	--	26.0	70	--	--	--	--	--
30...	--	--	115	--	28.0	60	--	--	--	--	--
AUG.											
05...	4	.5	46	6.5	26.0	140	150	6.4	78	2.4	13
07...	--	--	123	--	28.0	40	--	--	--	--	--
14...	--	--	140	--	27.5	20	--	--	--	--	--
21...	--	--	134	--	29.0	30	--	--	--	--	--
29...	--	--	145	--	28.5	40	--	--	--	--	--
SEP.											
07...	9	.8	125	7.1	26.5	40	--	--	--	--	--
14...	--	--	138	--	28.0	40	--	--	--	--	--
23...	--	--	156	--	24.5	40	--	--	--	--	--
30...	--	--	150	--	23.0	30	--	--	--	--	--

SABINE RIVER BASIN

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08026000 Sabine River below Toledo Bend near Burkeville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)			
DATE	TIME										
OCT. 23...	1345	70	1	50	0	0	0	2			
FEB. 11...	1645	40	0	40	0	0	0	2			
APR. 09...	1115	20	0	60	0	0	0	2			
AUG. 05...	1645	70	2	40	0	0	0	5			
DATE		DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)		
OCT. 23...	600	7	0	630	.0	0	110	140			
FEB. 11...	150	6	0	0	.0	1	170	50			
APR. 09...	180	6	10	10	.0	2	120	40			
AUG. 05...	110	0	0	40	.0	0	70	30			
DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)
OCT. 23...	1345	170	20.5	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 11...	1645	16200	14.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 09...	1115	16000	15.5	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 05...	1645	3800	26.0	.00	.0	.00	.0	.00	.0	.00	.0
DATE	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)
OCT. 23...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 11...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 09...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 05...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
DATE	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
OCT. 23...	0	.0	0	.00	.00	.00	.00	.00	.00	.00	
FEB. 11...	0	.0	0	.00	.00	.00	.00	.00	.00	.00	
APR. 09...	0	.0	0	.00	.00	.00	.00	.00	.00	.00	
AUG. 05...	0	.0	0	.00	.00	.00	.00	.00	.00	.00	

08026000 Sabine River below Toledo Bend near Burkeville, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	13277	106	63	2260	14	502	11	394	22
NOV. 1974.....	140484	137	79	30000	18	6830	13	4930	29
DEC. 1974.....	556000	149	85	128000	19	28500	14	21000	31
JAN. 1975.....	520000	159	90	126000	20	28100	14	19700	33
FEB. 1975.....	601100	169	95	154000	22	35700	15	24300	35
MAR. 1975.....	487800	151	86	113000	19	25000	14	18400	32
APR. 1975.....	291483	135	78	61400	17	13400	13	10200	28
MAY 1975.....	543830	130	75	110000	17	25000	12	17600	27
JUNE 1975.....	290719	121	71	55700	15	11800	12	9420	25
JULY 1975.....	184900	126	73	36400	16	7990	12	5990	26
AUG. 1975.....	152477	134	77	31700	17	7000	13	5350	28
SEPT 1975.....	132730	147	84	30100	19	6810	14	5020	31
TOTAL	3914800	**	**	879000	**	197000	**	142000	**
WTD.AVG.	10725.47	146	83	**	19	**	13	**	30

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	90	141	153	164	171	145	100	134	134	124	145
2	139	83	143	152	162	168	146	149	136	137	115	146
3	140	96	143	153	163	171	142	41	138	138	98	147
4	141	99	142	155	165	150	147	95	141	138	76	146
5	142	105	141	155	166	164	147	110	90	140	126	147
6	140	115	143	154	168	164	144	123	134	128	97	139
7	140	125	142	156	167	162	145	131	126	129	123	125
8	141	138	142	157	168	161	133	132	122	130	114	140
9	142	142	145	155	170	162	139	136	100	128	123	148
10	142	140	147	158	171	160	142	139	85	120	127	148
11	143	111	147	160	170	158	90	138	119	65	139	148
12	142	92	148	159	172	159	89	134	116	96	137	149
13	143	101	150	159	172	138	128	138	127	68	129	144
14	145	115	149	160	171	137	136	136	134	141	140	138
15	82	110	150	159	169	137	131	138	121	135	139	143
16	84	120	149	161	167	144	108	138	120	132	139	147
17	103	130	151	162	168	149	141	136	76	138	140	143
18	117	140	150	164	166	124	140	137	120	137	140	146
19	124	139	153	163	167	135	148	139	133	130	140	149
20	128	140	152	163	175	145	146	91	126	140	141	139
21	133	135	156	165	173	145	135	122	123	130	134	123
22	137	136	158	164	172	149	129	129	130	127	132	145
23	140	138	157	163	165	145	100	143	133	110	140	156
24	144	140	155	164	168	148	142	141	139	87	128	149
25	142	140	152	166	169	151	139	124	128	124	146	151
26	141	139	150	163	171	153	129	116	128	124	145	150
27	136	141	150	164	172	152	117	141	129	105	145	150
28	100	140	151	160	172	151	135	138	80	120	145	137
29	58	142	152	163	---	147	148	134	71	125	145	150
30	57	140	152	164	---	148	103	127	90	110	137	150
31	75	---	153	162	---	147	---	127	---	120	130	---
MONTH	125	124	149	160	169	151	132	127	118	122	130	145

SABINE RIVER BASIN

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08026000 Sabine River below Toledo Bend near Burkeville, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	13.5	14.5	18.5	24.0	28.0	28.5	28.5
2	---	22.0	---	---	---	13.0	15.0	19.0	---	27.0	27.5	---
3	---	22.0	---	---	---	12.0	15.0	21.0	24.5	26.5	28.5	27.0
4	---	21.0	---	---	---	12.0	15.0	19.5	24.5	25.0	26.0	27.5
5	---	---	---	---	---	12.0	15.0	---	25.0	29.0	26.0	28.0
6	---	---	---	---	---	13.0	15.0	20.0	24.0	27.5	26.0	28.0
7	---	---	---	---	---	14.0	15.0	20.0	25.0	---	28.0	26.5
8	---	18.0	14.0	---	---	13.5	15.0	20.5	25.5	28.5	27.5	---
9	---	---	11.5	---	---	13.0	15.0	21.0	---	27.0	28.5	27.0
10	---	---	12.0	---	---	---	15.5	21.0	23.0	27.0	28.0	27.0
11	---	17.0	15.0	---	---	15.0	17.0	21.5	24.0	25.0	27.5	29.0
12	---	16.0	---	---	---	15.0	16.5	22.0	24.5	26.0	27.5	28.0
13	23.0	15.0	15.0	---	13.5	14.0	16.5	24.0	26.0	28.0	29.5	27.0
14	22.0	---	13.5	---	---	13.5	15.5	23.0	26.0	26.0	27.5	28.0
15	19.0	---	---	---	---	13.0	16.5	23.0	24.5	---	28.5	---
16	17.0	---	---	---	---	14.0	17.0	23.0	---	27.0	28.0	25.5
17	19.0	---	---	---	---	14.0	17.0	24.0	25.5	29.0	---	26.0
18	20.0	---	---	---	---	14.0	18.0	24.0	23.0	27.0	29.0	---
19	20.0	17.0	---	---	14.0	14.0	17.5	---	22.0	29.0	28.5	26.5
20	19.5	---	12.0	---	14.0	15.0	17.5	24.0	22.0	---	32.0	26.0
21	20.0	---	15.0	---	14.0	15.0	---	23.0	24.0	---	29.0	26.0
22	22.0	---	15.0	---	14.0	15.5	17.5	24.0	25.5	26.0	28.5	23.0
23	---	---	18.0	---	13.5	15.0	18.0	24.0	26.0	---	27.0	24.5
24	23.0	---	15.0	---	13.0	---	19.0	23.5	26.0	27.0	28.0	19.5
25	---	---	---	---	13.0	---	19.0	22.0	25.5	28.0	25.0	23.5
26	21.0	---	---	---	13.0	15.0	19.0	22.5	25.5	28.0	26.0	24.0
27	20.0	---	12.0	---	13.0	15.0	21.0	25.0	25.5	30.0	26.5	---
28	---	---	---	---	13.0	15.0	---	23.5	---	---	---	23.0
29	20.0	---	---	---	---	15.0	19.0	23.5	25.5	27.0	28.5	---
30	22.0	---	---	---	---	14.5	20.0	22.5	---	28.0	29.0	23.0
31	---	---	---	---	---	14.0	---	23.0	---	---	29.5	---
MONTH	---	---	---	---	---	14.0	17.0	22.5	24.5	---	28.0	26.0

COLOR (PLATINUM-COBALT UNITS) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	40	50	110	40	40	40	30
2	---	140	---	---	---	40	50	50	---	40	50	---
3	---	140	---	---	---	40	60	280	40	40	100	30
4	---	130	---	---	---	40	50	120	40	40	100	30
5	---	---	---	---	---	40	60	---	120	30	70	30
6	---	---	---	---	---	50	50	70	50	50	80	40
7	---	---	---	---	---	50	50	70	40	---	40	40
8	---	40	30	---	---	45	50	70	50	40	70	---
9	---	---	40	---	---	50	50	70	---	40	60	30
10	---	---	30	---	---	---	50	60	120	60	40	20
11	---	140	30	---	---	50	200	40	60	140	20	20
12	---	140	30	---	---	50	200	50	70	110	40	20
13	40	140	30	---	40	70	70	40	40	120	40	30
14	60	---	30	---	---	70	60	50	40	30	20	40
15	70	---	---	---	---	70	70	40	40	50	20	---
16	100	---	---	---	---	50	50	40	---	50	30	50
17	120	---	---	---	---	50	60	40	80	30	---	40
18	130	---	---	---	---	60	50	40	50	30	30	---
19	120	40	---	---	50	60	50	---	40	40	20	30
20	70	---	30	---	40	50	50	50	50	---	30	40
21	70	---	40	---	40	50	---	50	40	---	30	50
22	80	---	40	---	40	50	70	60	40	70	40	40
23	---	---	30	---	50	60	60	40	50	---	40	40
24	60	---	30	---	40	---	60	40	40	120	40	40
25	---	---	---	---	50	---	60	50	40	40	50	40
26	30	---	40	---	40	50	50	100	40	40	40	40
27	20	---	40	---	50	50	70	50	40	70	40	---
28	---	---	---	---	40	50	60	50	---	---	---	20
29	140	---	---	---	---	60	120	40	200	60	40	---
30	140	---	---	---	---	60	120	60	---	60	40	30
31	---	---	---	---	---	50	---	50	---	---	30	---
MONTH	---	---	---	---	---	50	70	65	60	55	44	34

SABINE RIVER BASIN

0802850U Sabine River near Bon Wier, Tex.

LOCATION.--Lat 30°44'49", Long 93°36'30", Beauregard Parish, La.-Newton County, Tex. State line, near left bank at downstream side of bridge on U.S. Highway 190, 0.7 mile (1.1 km) upstream from Quicksand Creek, 0.8 mile (1.3 km) upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.0 miles (3.2 km) east of Bon Wier, 2.4 miles (3.9 km) upstream from Caney Creek, and at mile 97.7 (157.2 km).

DRAINAGE AREA.--8,229 mi² (21,313 km²).

PERIOD OF RECORD.--Discharge: October 1923 to current year. Monthly discharge only for some periods, published in WSP 1312. Gage-height records collected in this vicinity since 1913 are contained in reports of the National Weather Service.

Water quality: Chemical analyses: January 1970 to current year. Water temperatures: January 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 46.42 ft (14.149 m) above mean sea level. Prior to July 8, 1931, nonrecording gage at site 0.8 mile (1.3 km) downstream at same datum. July 8, 1931, to Oct. 15, 1958, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--43 years (1923-66) prior to completion of Toledo Bend Reservoir, 6,846 ft³/s (193.9 m³/s), 4,960,000 acre-ft/yr (6.12 km³/yr); 9 years (1966-75) regulated, 6,437 ft³/s (182.3 m³/s), 4,664,000 acre-ft/yr (5.75 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 41,900 ft³/s (1,190 m³/s) May 12 (gage height, 21.45 ft or 6.538 m); minimum daily, 579 ft³/s (14.7 m³/s) Oct. 14.

Period of record: Maximum discharge, 115,000 ft³/s (3,260 m³/s) May 19, 1953 (gage height, 25.70 ft or 7.833 m); minimum daily, 134 ft³/s (3.79 m³/s) Nov. 9, 1966.

Historic: Maximum stage since at least 1833, 30.5 ft (9.30 m) Apr. 23 or 24, 1913, from information by Gulf, Colorado, and Santa Fe Railway Co. and local residents. Flood in May 1884 reached a stage of 26 ft (7.9 m). Floods occurring about 1844 and 1860 were higher than flood in May 1884, from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 201 micromhos Sept. 30; minimum daily, 60 micromhos Aug. 6. Maximum water temperatures, 31.0°C July 16, 21; minimum, 11.0°C Jan. 13, 14, 23, 24.

Period of record: Maximum daily specific conductance, 385 micromhos Aug. 24, 1970; minimum daily, 36 micromhos May 1, 1973. Maximum water temperatures, 31.0°C July 16, 21, 1975; minimum, 6.0°C Jan. 11-13, 1973.

REMARKS.--Discharge records fair. Flow regulated by Toledo Bend Reservoir (station 08025350) located 58.8 miles (94.6 km) upstream.

REVISIONS (WATER YEARS).--WSP 1342: 1953. WSP 1442: 1924, 1926-27(M), 1929(M), 1939. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,200	1,750	11,600	27,300	13,500	22,700	16,300	14,400	22,700	12,900	6,740	1,710
2	1,860	1,710	13,800	25,100	13,200	21,400	16,200	14,300	19,700	13,700	9,190	4,720
3	909	1,650	14,200	24,400	13,200	18,800	16,000	13,200	17,600	16,500	6,950	6,840
4	789	1,420	14,300	25,300	17,400	17,700	14,400	13,400	16,700	16,400	3,800	7,120
5	648	1,250	14,200	25,100	23,400	16,300	15,000	26,300	14,200	14,200	3,730	7,220
6	614	1,250	14,800	24,200	23,500	17,700	15,800	32,600	7,550	12,900	7,650	7,420
7	591	1,190	18,600	23,500	21,600	17,000	15,600	33,400	5,090	12,200	7,990	3,380
8	573	1,310	19,400	22,300	19,500	16,200	15,500	32,700	2,600	10,900	6,910	1,350
9	560	1,400	17,700	20,200	17,800	16,100	16,700	35,100	2,090	7,100	6,440	4,040
10	556	1,140	16,800	20,400	17,400	16,500	17,700	37,100	6,260	6,920	6,210	6,360
11	547	1,780	16,100	24,100	17,100	16,400	15,000	39,800	16,400	8,180	3,650	6,400
12	535	2,830	16,000	23,500	17,400	15,900	11,300	41,400	21,000	9,560	5,920	6,360
13	526	2,290	15,800	22,400	17,600	16,800	10,100	37,700	21,300	5,830	7,830	6,440
14	519	1,520	15,900	21,700	17,200	20,500	9,830	30,800	20,300	2,870	6,440	2,830
15	732	1,220	16,900	20,300	16,900	22,000	11,200	23,400	18,600	4,650	7,680	1,120
16	1,380	1,190	20,800	18,900	19,000	21,000	10,700	19,800	17,900	5,950	7,730	4,000
17	1,100	1,250	24,900	18,200	26,300	19,400	9,630	18,000	15,000	5,930	8,230	6,200
18	801	1,520	26,900	18,200	32,100	21,300	9,200	17,200	10,100	5,830	5,100	7,800
19	687	7,200	24,800	18,500	35,500	23,700	8,900	16,500	8,770	5,760	6,040	7,200
20	620	12,500	21,800	18,300	36,500	22,500	8,620	14,100	8,440	3,180	7,500	6,600
21	579	13,300	23,900	18,200	36,300	21,200	8,660	7,780	8,190	1,630	7,460	3,500
22	555	15,200	22,700	17,900	35,400	19,300	12,400	6,320	8,440	4,280	7,550	1,000
23	543	12,900	20,000	17,400	33,500	17,700	13,100	6,690	8,660	8,540	4,910	900
24	542	9,080	17,400	17,200	30,300	16,600	11,700	8,890	9,000	9,140	6,230	4,000
25	698	11,200	18,500	17,200	26,900	16,600	10,200	12,500	8,710	8,270	3,360	5,800
26	670	15,100	21,900	16,700	24,700	16,600	9,260	14,200	8,080	7,360	3,750	5,800
27	533	13,900	25,900	16,300	23,500	16,500	4,370	14,900	7,840	3,970	6,980	5,800
28	522	11,700	28,400	15,900	22,900	16,300	2,050	16,600	9,890	1,820	7,540	3,000
29	1,700	11,000	29,200	15,800	-----	16,000	6,090	19,400	11,300	4,090	6,530	1,200
30	3,260	10,600	28,900	14,700	-----	16,200	8,810	24,200	11,800	6,000	7,340	5,000
31	2,030	-----	28,400	13,600	-----	16,300	-----	24,800	-----	6,050	4,080	-----
TOTAL	28,299	171,350	620,500	622,800	649,600	569,200	350,320	667,480	364,210	242,610	197,460	141,110
MEAN	913	5,712	20,020	20,090	23,200	18,360	11,680	21,530	12,140	7,826	6,370	4,704
MAX	3,260	15,200	29,200	27,300	36,500	23,700	17,700	41,400	22,700	16,500	9,190	7,800
MIN	519	1,140	11,600	13,600	13,200	15,900	2,050	6,320	2,090	1,630	3,360	900
AC-FT	56,130	339,900	1,231M	1,235M	1,288M	1,129M	694,900	1,324M	722,400	481,200	391,700	279,900

CAL YR 1974 TOTAL 3,763,879 MEAN 10,310 MAX 77,100 MIN 519 AC-FT 7,466,000

WTR YR 1975 TOTAL 4,624,939 MEAN 12,670 MAX 41,400 MIN 519 AC-FT 9,174,000

SABINE RIVER BASIN

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08028500 Sabine River near Bon Wier, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT.							
07...	1600	420	6.4	18	145	25.0	40
15...	1710	960	4.4	15	124	21.0	40
24...	1650	460	12	16	172	22.0	70
31...	1545	2250	5.4	9.4	78	23.0	140
NOV.							
07...	0800	1250	7.6	14	93	17.0	80
14...	0905	1650	7.6	16	100	15.0	90
22...	0755	13800	11	22	134	16.5	40
30...	0900	10000	9.6	24	143	14.0	40
DEC.							
08...	1040	20000	12	22	123	13.0	50
16...	1700	22000	12	23	135	13.0	50
24...	0805	18000	13	25	151	15.0	40
30...	1305	29000	10	23	129	14.0	50
JAN.							
07...	1440	23000	13	28	160	13.0	40
14...	1715	21500	11	23	143	11.0	50
21...	1800	18000	14	28	165	12.0	40
28...	1605	16000	10	31	174	14.0	50
FEB.							
01...	1020	13500	14	30	179	15.0	40
07...	1725	20500	10	25	157	13.0	60
14...	1900	17000	14	29	172	14.0	40
21...	0750	36000	14	28	169	13.0	60
MAR.							
01...	1320	23000	18	26	171	14.5	40
08...	0910	16500	19	25	160	14.0	45
15...	0930	22500	16	19	125	13.0	110
23...	0850	16200	17	21	142	17.0	50
APR.							
07...	1635	15800	15	22	155	17.0	50
14...	1700	10000	15	22	136	16.5	70
21...	1650	9000	15	20	144	18.0	60
28...	1715	1700	12	16	123	24.0	80
MAY							
01...	1720	16000	12	14	102	21.0	80
08...	1630	33000	12	15	108	22.0	100
15...	1800	23000	17	19	132	23.0	50
22...	1445	7400	19	20	143	26.0	70
JUNE							
07...	0945	5700	11	19	138	26.0	60
14...	0800	21000	14	17	117	26.5	40
21...	0810	9000	18	22	135	25.0	40
29...	0715	12000	14	16	104	27.0	70
JULY							
07...	1900	11300	17	20	135	29.0	40
14...	1650	2600	6.0	12	93	28.0	120
21...	1925	1200	22	20	163	31.0	60
28...	1735	1500	14	16	123	25.0	70
AUG.							
07...	0655	8000	5.4	13	99	29.0	100
14...	0935	6300	16	18	129	29.0	40
21...	1910	7200	18	20	142	30.0	40
28...	1725	8000	15	21	147	27.0	40
SEP.							
08...	0605	1050	18	20	149	29.0	40
15...	0630	1000	18	22	157	27.0	50
22...	1158	1050	18	20	147	24.0	60
29...	1600	860	26	24	186	25.0	70

SABINE RIVER BASIN

08028500 Sabine River near Bon Wier, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	142	146	138	174	171	147	102	115	68	109	141
2	140	102	147	144	179	166	147	114	125	71	122	141
3	146	102	148	148	171	168	147	111	132	128	92	145
4	147	114	148	146	160	169	140	87	136	127	96	145
5	144	145	149	151	143	160	148	90	139	114	95	145
6	147	79	147	156	148	159	142	82	134	122	60	142
7	145	93	133	160	157	160	155	95	138	135	99	144
8	140	111	123	154	165	160	146	108	137	137	119	149
9	140	109	130	156	164	162	142	120	139	120	128	147
10	136	125	136	157	172	162	136	122	106	132	129	145
11	134	112	139	128	173	158	130	127	85	104	124	146
12	134	85	140	131	170	159	103	129	136	112	133	148
13	141	94	141	135	170	157	112	130	111	107	134	148
14	136	100	145	143	172	132	136	133	117	93	129	147
15	124	100	143	154	172	125	127	132	121	90	136	157
16	109	108	135	160	169	131	134	133	126	124	134	147
17	94	112	144	164	153	139	131	136	118	134	136	131
18	99	100	147	166	145	121	143	138	119	134	137	93
19	120	105	142	160	156	118	118	141	129	139	135	141
20	133	102	149	163	163	123	142	140	136	153	138	145
21	139	98	150	165	169	124	144	113	135	163	142	142
22	151	134	152	167	169	137	111	143	134	123	142	147
23	164	134	153	171	166	142	116	148	132	93	143	159
24	172	117	151	172	162	144	121	146	125	101	141	165
25	151	133	140	174	165	147	139	144	130	94	152	145
26	155	139	132	171	166	149	134	132	125	115	132	149
27	167	141	133	174	169	151	140	120	127	119	146	147
28	181	138	131	174	169	153	123	139	134	123	147	159
29	183	141	126	174	---	151	146	134	104	112	143	186
30	116	143	129	156	---	148	143	115	120	122	142	201
31	78	---	132	178	---	147	---	115	---	125	138	---
MONTH	139	114	141	158	165	148	135	123	126	117	128	148

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	22.0	13.0	14.0	15.0	14.5	16.0	21.0	24.0	26.0	26.0	30.0
2	25.0	23.0	14.0	15.0	14.0	14.0	17.0	22.0	24.0	27.0	29.0	30.0
3	24.5	23.5	14.0	13.0	14.0	13.0	15.0	22.0	25.0	---	26.0	29.0
4	24.0	22.0	14.0	12.0	15.0	12.0	16.0	22.0	26.0	27.0	26.5	30.0
5	24.5	20.0	14.0	13.0	15.0	13.0	15.5	22.0	26.0	27.0	28.0	28.5
6	22.0	18.0	15.0	13.0	13.0	14.0	15.5	23.0	26.0	28.0	28.0	28.0
7	25.0	17.0	14.0	13.0	13.0	16.0	17.0	25.0	26.0	29.0	29.0	28.0
8	25.0	17.0	13.0	15.0	12.0	14.0	16.0	22.0	26.0	30.0	29.0	29.0
9	25.5	16.0	13.0	14.0	13.0	14.0	18.0	22.0	27.0	29.0	29.0	28.0
10	25.5	18.0	12.0	14.0	13.0	15.0	17.0	22.0	25.0	29.0	28.0	30.0
11	25.0	18.0	12.0	13.0	14.0	15.0	18.0	22.0	24.0	30.0	30.0	30.0
12	25.0	16.0	13.0	12.0	13.5	16.0	17.0	24.0	25.0	28.0	30.0	30.0
13	23.0	14.5	13.0	11.0	13.5	14.0	17.0	23.0	25.0	28.0	30.0	27.0
14	25.0	15.0	14.0	11.0	14.0	15.0	16.5	24.0	26.5	28.0	29.0	25.0
15	21.0	13.0	14.0	12.0	13.5	13.0	18.0	23.0	26.0	27.0	30.0	27.0
16	20.0	14.0	13.0	12.0	14.0	14.0	18.5	24.0	25.5	31.0	29.0	28.0
17	21.0	14.0	12.5	13.0	14.0	14.0	19.0	23.5	26.0	30.0	29.0	26.0
18	22.0	16.0	13.0	13.0	14.0	15.0	20.0	25.0	26.0	29.0	29.0	26.0
19	22.0	18.0	13.0	14.0	13.0	15.0	19.0	25.0	26.0	28.0	29.5	28.0
20	22.0	17.5	14.0	12.0	13.0	16.0	18.5	25.0	24.0	28.0	29.5	26.0
21	20.5	16.0	12.0	12.0	13.0	15.0	18.0	25.0	25.0	31.0	30.0	25.0
22	21.0	16.5	12.0	12.0	15.0	17.0	18.0	26.0	26.5	30.0	30.0	24.0
23	22.0	18.0	14.0	11.0	13.0	17.0	20.0	25.0	27.0	28.0	28.5	24.5
24	22.0	18.0	15.0	11.0	13.0	17.0	20.0	25.0	27.0	28.0	28.0	22.0
25	21.0	15.0	13.5	12.5	13.0	17.5	22.0	24.0	26.5	28.0	27.5	23.0
26	21.0	16.0	13.0	12.0	14.0	15.0	22.0	24.0	27.0	29.0	27.5	22.0
27	22.0	15.0	13.0	14.0	13.0	16.0	22.0	24.0	27.0	28.0	26.0	22.0
28	21.0	15.0	13.0	14.0	14.0	17.0	24.0	24.5	28.0	25.0	27.0	21.0
29	22.0	15.0	14.0	15.0	---	15.0	21.0	24.5	27.0	29.0	29.0	25.0
30	21.0	14.0	14.0	15.0	---	14.0	20.0	28.0	27.0	30.0	28.0	22.0
31	23.0	---	15.0	15.0	---	15.0	---	23.0	---	25.0	27.0	---
MONTH	23.0	17.0	13.5	13.0	13.5	15.0	18.5	23.5	26.0	28.5	28.5	26.5

SABINE RIVER BASIN

315

08028500 Sabine River near Bon Wier, Tex.--Continued

COLOR (PLATINUM-COBALT UNITS) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975.
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	140	40	40	40	40	60	80	70	180	80	50
2	30	120	40	50	40	50	60	80	60	140	50	40
3	30	100	40	40	40	40	60	80	40	50	100	30
4	30	100	40	40	40	50	60	120	40	40	120	40
5	40	90	40	50	70	50	60	120	40	60	120	40
6	40	80	40	60	60	50	60	120	50	50	200	40
7	40	80	60	40	60	50	50	100	60	40	100	30
8	40	80	50	40	50	45	55	100	50	40	60	40
9	30	80	40	40	40	50	60	100	60	70	50	70
10	40	90	40	40	40	50	60	70	80	60	40	50
11	40	90	40	70	40	50	60	60	70	100	60	40
12	40	80	40	-	50	50	120	50	60	70	40	40
13	40	80	40		40	55	100	40	60	70	40	40
14	40	90	30		40	70	70	50	40	120	40	40
15	40	80	30		40	110	70	50	40	130	40	50
16	60	80	50	4	50	70	60	40	40	60	40	50
17	70	100	40	40	80	60	70	40	40	40	40	50
18	80	80	40	40	100	80	60	60	50	50	40	80
19	80	70	40	50	80	80	120	50	50	40	40	50
20	70	90	30	50	60	70	70	50	50	60	40	40
21	70	100	30	40		70	60	80	40	60	40	40
22	40	40	40	40		60	100	70	50	60	40	60
23	80	40	40	40		50	100	50	50	60	40	70
24	70	80	40	40	4	50	70	50	40	70	40	70
25	60	40	40	40	40	50	70	50	50	80	50	50
26	60	40	50	50	40		70	50	40	50	50	40
27	60	30	50	50	40		70	70	50	60	40	40
28	70	40	50	50	40		80	50	50	70	40	40
29	70	40	60	40	---		60	50	70	70	50	70
30	120	40	50	50	---	6	80	70	70	50	40	80
31	140	---	50	40	---	60	---	70	---	40	40	---
MONTH	55	75	42	46	50	55	70	70	50	70	60	49

SABINE RIVER BASIN

08029500 Big Cow Creek near Newton, Tex.

LOCATION.--Lat 30°49'08", long 93°47'07", Newton County, near center of span at downstream side of bridge on State Highway 87, 2.6 (4.2 km) southwest of Newton, 5.0 miles (8.0 km) downstream from Melhones Creek, and 8.0 miles (12.9 km) upstream from White Oak L.

DRAINAGE AREA.--128 mi² (332 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 134.69 ft (41.054 m) above mean sea level (levels by Topographic Division). Prior to Dec. 19, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--23 years, 109 ft³/s (3.087 m³/s), 11.56 in/yr (294 mm/yr), 78,970 acre-ft/yr (97.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,250 ft³/s (120 m³/s) June 10 (gage height, 16.21 ft or 4.941 m); minimum, 48 ft³/s (1.36 m³/s) Oct. 14.

Period of record: Maximum discharge, 20,200 ft³/s (572 m³/s) Apr. 29, 1953 (gage height, 19.45 ft or 5.928 m); minimum daily, 10 ft³/s (0.28 m³/s) July 7, 8, 21-23, 1971.

Maximum stage since at least 1907, 27.5 ft (8.38 m) in April 1922, from information by local resident.

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

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	300	130	265	126	109	114	632	221	192	157	179
2	52	540	111	202	206	107	112	306	142	191	478	109
3	51	340	104	300	281	105	109	166	120	153	321	87
4	50	180	100	500	707	119	102	436	109	130	152	80
5	50	126	98	300	834	174	99	905	106	120	710	90
6	49	116	330	202	325	145	99	683	111	113	633	115
7	49	105	600	187	186	121	97	239	110	105	193	95
8	49	118	186	236	157	111	132	639	96	98	134	86
9	49	120	176	202	145	102	310	644	413	109	119	89
10	50	125	145	408	139	104	270	259	2,940	130	112	91
11	50	167	200	663	148	108	172	167	1,730	180	105	139
12	50	194	267	435	293	107	159	156	807	617	101	126
13	49	131	190	281	187	376	121	151	342	337	97	86
14	48	107	300	206	146	976	384	138	223	148	93	80
15	195	98	670	179	190	425	508	144	180	123	89	76
16	182	105	522	157	275	202	210	138	182	116	86	123
17	118	150	226	152	270	198	139	131	178	109	83	272
18	78	182	162	230	186	996	124	117	143	107	82	140
19	60	532	148	470	145	1,010	115	106	129	113	80	93
20	55	464	148	293	126	288	104	101	134	136	79	77
21	56	163	140	186	121	187	254	99	214	152	77	71
22	54	122	130	160	120	166	644	98	133	109	94	66
23	54	115	125	154	145	152	379	94	124	122	106	62
24	54	180	150	146	160	145	179	152	138	132	100	61
25	54	428	400	178	129	136	137	609	152	139	121	60
26	54	267	800	174	118	120	118	362	164	104	118	59
27	54	148	700	145	112	118	107	188	419	95	126	58
28	84	125	500	134	111	122	100	197	275	104	116	58
29	270	120	350	130	-----	127	110	694	284	99	92	58
30	549	134	556	126	-----	132	351	703	209	140	85	57
31	239	-----	542	122	-----	127	-----	403	-----	141	119	-----
TOTAL	2,820	6,002	9,206	7,523	6,088	7,415	5,859	9,857	10,528	4,664	5,058	2,843
MEAN	91.0	200	297	243	217	239	195	318	351	150	163	94.8
MAX	549	540	800	663	834	1,010	644	905	2,940	617	710	272
MIN	48	98	98	122	111	102	97	94	96	95	77	57
CFSM	.71	1.56	2.32	1.90	1.70	1.87	1.52	2.48	2.74	1.17	1.27	.74
IN.	.82	1.74	2.68	2.19	1.77	2.15	1.70	2.86	3.06	1.36	1.47	.83
AC-FT	5,590	11,900	18,260	14,920	12,080	14,710	11,620	19,550	20,880	9,250	10,030	5,640

CAL YR 1974 TOTAL 72,310 MEAN 198 MAX 3,760 MIN 46 CFSM 1.55 IN 21.02 AC-FT 143,400
WTR YR 1975 TOTAL 77,863 MEAN 213 MAX 2,940 MIN 48 CFSM 1.66 IN 22.63 AC-FT 154,400

PEAK DISCHARGE (BASE, 1,100 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
2-5	0200	14.60	1,170
3-18	2400	14.90	1,480
6-10	0700	16.21	4,250

SABINE RIVER BASIN

317

08030000 Cypress Creek near Buna, Tex.

LOCATION.--Lat 30°25'52", long 93°54'28", Jasper County, near center of span at downstream side of bridge on Farm Road 253, 0.3 mile (0.5 km) downstream from Boggy Creek, 3.2 miles (5.1 km) east of Buna, and 9.5 miles (15.3 km) upstream from Little Cypress Creek.

DRAINAGE AREA.--69.2 mi² (179.2 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 46.16 ft (14.070 m) above mean sea level. Prior to Oct. 23, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--23 years, 68.5 ft³/s (1.940 m³/s), 13.44 in/yr (341 mm/yr), 49,630 acre-ft/yr (61.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,760 ft³/s (49.8 m³/s) May 30 (gage height, 10.53 ft or 3.210 m); no flow Oct. 1-31.

Period of record: Maximum discharge, 7,100 ft³/s (201 m³/s) Sept. 18, 1963 (gage height, 13.28 ft or 4.048 m); no flow at times.

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

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		46	7.0	153	12	5.1	5.0	1,040	662	262	138	1.3
2		30	5.5	87	32	4.1	4.2	552	359	114	91	.73
3		14	4.4	133	67	3.4	3.1	209	92	54	87	.48
4		8.6	3.6	206	210	24	2.3	61	24	98	68	.38
5		5.9	2.9	184	372	115	1.8	27	13	33	129	.50
6		6.8	30	133	244	58	1.4	17	17	13	117	1.2
7		3.7	348	201	146	32	.93	12	13	7.4	79	5.1
8		2.8	429	619	68	21	40	497	7.0	4.8	31	2.0
9		2.1	416	361	38	13	121	473	29	3.2	14	.82
10		3.2	214	456	27	8.1	55	182	403	2.3	11	.45
11		9.6	93	691	20	5.9	41	69	529	2.1	13	.30
12		23	110	479	59	5.1	29	77	327	2.6	8.8	.20
13		19	77	417	72	102	16	71	225	2.1	6.9	.13
14		11	51	238	39	395	406	43	125	1.4	3.5	.08
15		5.7	349	130	24	250	646	137	37	1.1	1.9	.05
16		3.2	354	79	30	119	226	216	55	6.1	1.2	.13
17		19	185	55	88	57	74	79	47	6.9	4.7	2.0
18		67	90	88	88	419	32	30	16	4.1	2.9	7.2
19		166	47	297	44	460	19	13	7.7	3.0	1.1	2.9
20		276	31	255	24	298	11	7.5	4.5	2.4	.81	1.5
21		268	22	174	15	231	9.0	4.8	2.9	2.1	1.0	2.2
22		129	16	96	10	104	166	3.3	2.1	1.9	.60	1.4
23		54	12	59	19	41	119	2.4	1.5	2.5	.41	.76
24		27	23	42	45	24	66	1.7	1.2	18	.36	.42
25		96	172	44	23	16	30	1.3	1.1	16	1.4	.24
26		70	402	47	13	10	15	1.0	41	27	3.4	.50
27		41	664	37	8.6	6.7	8.5	1.2	370	21	8.1	2.2
28		22	740	27	6.3	4.9	4.7	95	631	11	6.2	1.3
29		14	581	20	-----	4.3	3.3	1,130	366	22	5.0	.79
30		9.3	415	16	-----	5.1	191	1,610	405	13	4.0	.61
31		-----	271	13	-----	6.3	-----	1,070	-----	102	2.2	-----
TOTAL	0	1,452.9	6,165.4	5,837	1,843.9	2,848.0	2,347.23	7,733.2	4,814.0	860.0	842.48	37.87
MEAN	0	48.4	199	188	65.9	91.9	78.2	249	160	27.7	27.2	1.26
MAX	0	276	740	691	372	460	646	1,610	662	262	138	7.2
MIN	0	2.1	2.9	13	6.3	3.4	.93	1.0	1.1	1.1	.36	.05
CFSM	0	.70	2.88	2.72	.95	1.33	1.13	3.60	2.31	.40	.39	.02
IN.	0	.78	3.31	3.14	.99	1.53	1.26	4.16	2.59	.46	.45	.02
AC-FT	0	2,880	12,230	11,580	3,860	5,650	4,660	15,340	9,550	1,710	1,670	75

CAL YR 1974 TOTAL 26,685.00 MEAN 73.1 MAX 2,080 MIN 0 CFSM 1.06 IN 14.35 AC-FT 52,930
WTR YR 1975 TOTAL 34,781.98 MEAN 95.3 MAX 1,610 MIN 0 CFSM 1.38 IN 18.70 AC-FT 68,990

PEAK DISCHARGE (BASE, 1,000 FT³/S).--May 1 (0700) 1,200 ft³/s (9.96 ft); May 30 (0200) 1,760 ft³/s (10.53 ft).

SABINE RIVER BASIN

08030500 Sabine River near Ruliff, Tex.
(Radiochemical and national stream-quality accounting network)

LOCATION.--Lat 30°18'13", long 93°44'37", Calcasieu Parish, La.-Newton County, Tex. State line, at downstream side of bridge on Texas State Highway 12, 2.4 miles (3.9 km) north of Ruliff, 4.2 miles (6.8 km) upstream from the Kansas City Southern Railway Co. bridge, 4.5 miles (7.2 km) downstream from Cypress Creek, and at mile 40.2 (64.7 km).

DRAINAGE AREA.--9,329 mi² (24,162 km²).

PERIOD OF RECORD.--Discharge: October 1924 to current year.

Water quality: Chemical analyses: October 1945 to September 1946, October 1947 to current year. Chemical and biochemical analyses: October 1967 to current year. Pesticide analyses: January 1968 to current year. Water temperatures: October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4.08 ft (1.244 m) above mean sea level. Prior to Mar. 1, 1941, nonrecording gage at Kansas City Southern Railway Co. bridge, 4.2 miles (6.8 km) downstream and at datum 2.02 ft (0.616 m) lower. Mar. 1, 1941, to Dec. 8, 1948, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--42 years (1924-66) prior to completion of Toledo Bend Reservoir, 8,422 ft³/s (238.5 m³/s), 6,102,000 acre-ft/yr (7.52 km³/yr); 9 years (1966-75) regulated, 7,969 ft³/s (225.7 m³/s), 5,774,000 acre-ft/yr (7.12 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 40,700 ft³/s (1,150 m³/s) May 14 (gage height, 15.33 ft or 4.673 m); minimum daily, 774 ft³/s (21.9 m³/s) Oct. 14.

Period of record: Maximum discharge, 121,000 ft³/s (3,430 m³/s) May 22, 1953 (gage height, 19.98 ft or 6.090 m); minimum, 270 ft³/s (7.65 m³/s) Sept. 27-30, Oct. 1-3, 17-20, 1956.

Historic: Maximum stage since at least 1835, 22.2 ft (6.77 m) in May or June 1884 (adjusted to present site and datum on basis of slope of flood of June 8, 9, 1950); flood of Apr. 26-29, 1913, reached a stage of 19.5 ft (5.94 m), present site and datum, from information by local resident.

Water quality: Current year: Maximum daily specific conductance, 165 micromhos Jan. 31, Feb. 17; minimum daily, 63 micromhos Aug. 8. Maximum water temperatures, 31.0°C July 24; minimum, 9.0°C Jan. 13-16.

Period of record: Maximum daily specific conductance, 779 micromhos Aug. 31, 1966; minimum daily, 28 micromhos Sept. 19, 1963.

Maximum water temperatures, 36.0°C Aug. 14, 1962; minimum, 1.0°C Jan. 28, 1948.

REMARKS.--Discharge records fair. Flow is partly regulated by Toledo Bend Reservoir (station 08025350) 116.3 miles (187.1 km) upstream.

REVISIONS (WATER YEARS).--WSP 1282: 1941(M), 1942. WSP 1442: 1925-29, 1937-39, 1943. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,460	3,600	14,600	32,100	17,500	25,200	17,100	9,520	24,200	12,400	7,260	7,060
2	2,550	3,210	13,600	30,800	17,200	24,100	17,100	11,500	25,700	12,800	9,910	5,380
3	2,740	2,910	12,700	29,800	17,000	23,500	17,100	14,400	24,100	13,000	10,600	4,130
4	1,940	3,020	12,700	27,400	16,900	22,600	17,100	16,000	21,400	13,400	11,000	5,160
5	1,310	3,090	13,300	26,200	16,900	21,600	17,100	16,300	18,300	13,800	11,100	6,430
6	1,100	2,610	14,300	26,200	17,800	20,200	16,900	16,200	16,700	14,400	9,670	7,130
7	1,000	2,200	15,100	29,100	19,500	19,200	16,600	18,000	15,500	14,400	8,580	7,350
8	926	2,120	15,800	31,400	21,500	18,500	17,600	24,700	14,400	14,000	9,070	7,180
9	888	2,160	17,200	29,100	22,200	18,400	18,200	33,000	14,600	13,300	9,660	5,370
10	850	2,260	19,200	28,000	21,500	18,200	17,900	34,800	13,400	12,400	9,380	4,000
11	822	2,400	20,500	27,200	20,500	17,800	17,800	36,100	10,300	11,000	8,700	5,030
12	807	2,700	19,600	25,800	19,500	17,600	17,900	38,000	11,400	9,760	7,930	5,860
13	792	3,440	18,300	26,000	18,900	17,400	18,400	39,300	14,400	9,300	6,690	6,370
14	774	3,740	17,500	26,700	18,600	17,500	18,400	40,600	18,600	9,300	6,710	6,550
15	786	3,150	17,800	25,700	18,900	18,500	18,200	39,500	20,700	8,400	7,260	6,280
16	816	2,500	17,700	23,400	19,000	19,600	16,900	35,300	19,700	6,800	7,470	4,320
17	1,230	2,120	17,700	22,200	19,000	22,100	15,900	28,600	18,500	6,480	7,650	3,440
18	1,620	2,010	17,900	20,800	19,100	22,600	14,800	22,900	17,400	6,730	7,830	5,380
19	1,400	2,220	20,800	20,100	21,500	22,600	13,800	19,800	16,200	6,860	7,750	6,950
20	1,130	4,410	24,400	19,700	26,800	22,900	12,500	18,400	14,500	6,860	6,850	7,950
21	1,000	7,360	26,500	20,200	33,400	24,700	11,600	17,400	12,900	6,380	6,740	8,160
22	909	9,760	25,400	20,300	37,300	25,500	11,200	16,100	11,400	4,600	7,190	7,620
23	864	11,900	24,900	20,300	38,400	24,400	11,200	13,900	11,000	3,910	7,750	5,190
24	822	14,100	24,900	19,700	38,000	22,100	12,100	11,200	10,600	5,570	7,860	2,860
25	798	15,500	24,700	19,000	35,900	20,300	13,300	9,940	10,400	7,200	7,320	2,780
26	813	15,400	24,400	18,500	32,800	19,200	13,700	9,760	10,600	8,490	6,840	4,460
27	920	14,200	24,200	17,800	29,400	18,600	13,200	10,200	11,200	9,210	5,610	5,420
28	895	14,200	26,200	17,800	26,700	18,000	11,900	11,700	11,600	9,080	5,810	5,870
29	920	15,000	29,600	17,800	-----	17,800	9,000	14,800	11,700	7,310	6,710	5,680
30	1,140	15,600	32,500	17,600	-----	17,500	7,820	18,000	12,200	5,590	7,280	3,810
31	2,920	-----	33,400	17,400	-----	17,200	-----	21,000	-----	6,240	7,270	-----
TOTAL	38,942	188,890	637,400	734,100	661,700	635,400	452,320	666,920	463,600	288,970	247,450	169,170
MEAN	1,256	6,296	20,560	23,680	23,630	20,500	15,080	21,510	15,450	9,322	7,982	5,639
MAX	3,460	15,600	33,400	32,100	38,400	25,500	18,400	40,600	25,700	14,400	11,100	8,160
MIN	774	2,010	12,700	17,400	16,900	17,200	7,820	9,520	10,300	3,910	5,610	2,780
AC-FT	77,240	374,700	1,264M	1,456M	1,312M	1,260M	897,200	1,323M	919,600	573,200	490,800	335,500

CAL YR 1974 TOTAL 4,268,862 MEAN 11,700 MAX 84,000 MIN 774 AC-FT 8,467,000

WTR YR 1975 TOTAL 5,184,862 MEAN 14,210 MAX 40,600 MIN 774 AC-FT 10,280,000

SABINE RIVER BASIN

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08030500 Sabine River near Ruliff, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
01...	0702	3700	7.4	8.0	2.2	12	2.6	23	0	13
08...	0700	850	--	--	--	--	--	--	--	7.2
14...	0608	760	--	--	--	--	--	--	--	3.2
22...	0705	890	--	--	--	--	--	--	--	4.0
23...	1645	857	15	7.5	1.3	12	2.1	28	0	10
NOV.										
07...	0650	2200	11	5.0	1.0	10	2.2	17	0	12
13...	1330	4450	11	4.5	1.1	11	2.4	16	0	11
15...	0640	3100	--	--	--	--	--	--	--	7.2
22...	0700	8500	--	--	--	--	--	--	--	7.6
30...	0610	15500	--	--	--	--	--	--	--	12
DEC.										
07...	0630	16200	6.4	7.5	2.8	13	3.4	23	0	13
11...	0945	18000	7.0	6.6	1.7	11	2.2	19	0	11
14...	0635	22500	--	--	--	--	--	--	--	11
21...	0605	25500	--	--	--	--	--	--	--	12
30...	0700	33000	--	--	--	--	--	--	--	10
JAN.										
07...	0644	26000	5.8	7.5	2.9	13	3.1	24	0	12
08...	1700	29000	6.4	7.3	2.1	11	2.5	22	0	10
14...	0645	27000	--	--	--	--	--	--	--	9.6
21...	0657	21000	--	--	--	--	--	--	--	12
29...	0655	18500	--	--	--	--	--	--	--	13
FEB.										
07...	0700	18000	6.8	7.7	3.0	13	1.5	24	0	11
12...	0900	16000	6.5	8.5	2.7	15	2.5	28	0	15
14...	0700	17800	--	--	--	--	--	--	--	13
21...	0700	29000	--	--	--	--	--	--	--	8.8
28...	0645	25000	--	--	--	--	--	--	--	15
MAR.										
07...	0700	18500	--	--	--	--	--	--	--	17
14...	0700	17000	--	--	--	--	--	--	--	16
19...	0830	20000	7.8	5.0	2.2	12	2.6	18	0	13
21...	0700	22000	--	--	--	--	--	--	--	13
28...	0700	17500	--	--	--	--	--	--	--	13
APR.										
08...	0645	16500	--	--	--	--	--	--	--	13
09...	1420	17500	7.3	7.1	2.8	12	1.6	21	0	15
15...	0645	17200	--	--	--	--	--	--	--	14
22...	0645	12000	--	--	--	--	--	--	--	18
29...	0640	10200	--	--	--	--	--	--	--	14
MAY										
07...	0638	16750	--	--	--	--	--	--	--	9.2
13...	1330	38000	5.0	5.9	2.0	10	2.4	15	0	14
14...	0643	40520	--	--	--	--	--	--	--	16
21...	0643	17330	--	--	--	--	--	--	--	18
28...	0640	11250	--	--	--	--	--	--	--	13
JUNE										
01...	0648	23750	--	--	--	--	--	--	--	12
04...	1345	19000	6.4	5.7	2.2	9.9	1.8	14	0	12
08...	0617	14350	--	--	--	--	--	--	--	14
14...	0613	18350	--	--	--	--	--	--	--	10
21...	0650	14100	--	--	--	--	--	--	--	14
JULY										
07...	0643	15000	--	--	--	--	--	--	--	10
09...	1245	13700	7.4	6.2	3.2	11	2.0	19	0	14
14...	0644	10400	--	--	--	--	--	--	--	10
21...	0643	6900	--	--	--	--	--	--	--	23
21...	1715	--	--	--	--	--	--	--	--	--
28...	0644	10300	--	--	--	--	--	--	--	13
AUG.										
06...	1300	8400	8.3	4.3	1.2	7.1	1.4	13	0	9.4
07...	0611	8460	--	--	--	--	--	--	--	6.0
14...	0642	6680	--	--	--	--	--	--	--	15
21...	0640	6590	--	--	--	--	--	--	--	16
28...	0640	5440	--	--	--	--	--	--	--	22
SEP.										
07...	0700	7360	--	--	--	--	--	--	--	15
10...	1315	4010	10	7.0	3.0	12	2.0	24	0	11
14...	0645	6560	--	--	--	--	--	--	--	17
21...	0703	7720	--	--	--	--	--	--	--	16
29...	0645	6000	--	--	--	--	--	--	--	18

SABINE RIVER BASIN

08030500 Sabine River near Ruliff, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.									
01...	16	.1	--	--	--	--	--	--	--
08...	20	--	--	--	--	--	--	--	--
14...	18	--	--	--	--	--	--	--	--
22...	14	--	--	--	--	--	--	--	--
23...	11	--	.01	.00	--	.76	.87	.05	91
NOV.									
07...	11	.0	--	--	--	--	--	--	--
13...	11	--	.06	.00	.01	1.1	1.2	.07	77
15...	14	--	--	--	--	--	--	--	--
22...	20	--	--	--	--	--	--	--	--
30...	22	--	--	--	--	--	--	--	--
DEC.									
07...	19	.1	--	--	--	--	--	--	--
11...	16	.1	.08	.00	.1	.43	.61	.06	82
14...	23	--	--	--	--	--	--	--	--
21...	25	--	--	--	--	--	--	--	--
30...	21	--	--	--	--	--	--	--	--
JAN.									
07...	19	.1	--	--	--	--	--	--	--
08...	18	.0	.12	.01	.08	.68	.76	.07	84
14...	20	--	--	--	--	--	--	--	--
21...	25	--	--	--	--	--	--	--	--
29...	29	--	--	--	--	--	--	--	--
FEB.									
07...	20	.1	--	--	--	--	--	--	--
12...	22	.1	.18	.00	.03	.62	.65	.01	105
14...	27	--	--	--	--	--	--	--	--
21...	25	--	--	--	--	--	--	--	--
28...	26	--	--	--	--	--	--	--	--
MAR.									
07...	25	--	--	--	--	--	--	--	--
14...	23	--	--	--	--	--	--	--	--
19...	16	.1	.11	.00	.02	.38	.40	.04	88
21...	18	--	--	--	--	--	--	--	--
28...	21	--	--	--	--	--	--	--	--
APR.									
08...	21	--	--	--	--	--	--	--	--
09...	19	.1	.14	.00	.03	.53	.56	.04	81
15...	17	--	--	--	--	--	--	--	--
22...	19	--	--	--	--	--	--	--	--
29...	18	--	--	--	--	--	--	--	--
MAY									
07...	13	--	--	--	--	--	--	--	--
13...	15	.0	.11	.00	.03	.60	.63	.03	75
14...	16	--	--	--	--	--	--	--	--
21...	20	--	--	--	--	--	--	--	--
28...	19	--	--	--	--	--	--	--	--
JUNE									
01...	15	--	--	--	--	--	--	--	--
04...	13	.1	.04	.00	.01	.64	.65	.04	77
08...	18	--	--	--	--	--	--	--	--
14...	13	--	--	--	--	--	--	--	--
21...	18	--	--	--	--	--	--	--	--
JULY									
07...	18	--	--	--	--	--	--	--	--
09...	15	.1	.02	.01	.03	.47	.50	.04	81
14...	12	--	--	--	--	--	--	--	--
21...	19	--	--	--	--	--	--	--	--
21...	--	--	.02	.00	.02	.38	.40	.03	--
28...	17	--	--	--	--	--	--	--	--
AUG.									
06...	9.2	.1	.09	.01	.04	1.1	1.1	.03	72
07...	10	--	--	--	--	--	--	--	--
14...	17	--	--	--	--	--	--	--	--
21...	19	--	--	--	--	--	--	--	--
28...	19	--	--	--	--	--	--	--	--
SEP.									
07...	20	--	--	--	--	--	--	--	--
16...	16	.1	.04	.00	.03	.64	.67	.04	79
14...	20	--	--	--	--	--	--	--	--
21...	18	--	--	--	--	--	--	--	--
29...	21	--	--	--	--	--	--	--	--

SABINE RIVER BASIN

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08030500 Sabine River near Ruliff, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
01...	73	--	--	29	10	1.0	136	6.7	24.0
08...	--	--	--	--	--	--	155	--	24.0
14...	--	--	--	--	--	--	141	--	24.0
22...	--	--	--	--	--	--	96	--	19.0
23...	74	43	15	24	1	1.1	119	6.7	22.5
NOV.									
07...	61	--	--	17	3	1.1	95	6.3	18.0
13...	60	86	40	16	3	1.2	98	6.8	17.5
15...	--	--	--	--	--	--	82	--	14.0
22...	--	--	--	--	--	--	102	--	18.0
30...	--	--	--	--	--	--	132	--	15.0
DEC.									
07...	77	--	--	30	11	1.0	141	6.7	13.0
11...	65	48	21	23	8	1.0	119	6.6	10.5
14...	--	--	--	--	--	--	128	--	11.0
21...	--	--	--	--	--	--	138	--	12.0
30...	--	--	--	--	--	--	108	--	14.0
JAN.									
07...	75	--	--	31	11	1.0	137	7.1	13.0
08...	68	24	4	27	9	.9	121	6.9	14.5
14...	--	--	--	--	--	--	113	--	9.0
21...	--	--	--	--	--	--	144	--	12.0
29...	--	--	--	--	--	--	162	--	16.0
FEB.									
07...	75	--	--	32	12	1.0	141	6.8	14.0
12...	86	15	9	33	10	1.1	156	7.0	12.5
14...	--	--	--	--	--	--	162	--	13.0
21...	--	--	--	--	--	--	148	--	14.0
28...	--	--	--	--	--	--	159	--	13.0
MAR.									
07...	--	--	--	--	--	--	157	--	11.0
14...	--	--	--	--	--	--	157	--	17.0
19...	68	87	36	22	7	1.1	128	7.0	15.0
21...	--	--	--	--	--	--	115	--	14.0
28...	--	--	--	--	--	--	141	--	17.0
APR.									
08...	--	--	--	--	--	--	142	--	17.0
09...	76	44	16	29	12	1.0	139	7.1	17.5
15...	--	--	--	--	--	--	117	--	14.0
22...	--	--	--	--	--	--	134	--	18.0
29...	--	--	--	--	--	--	123	--	22.0
MAY									
07...	--	--	--	--	--	--	88	--	24.0
13...	62	53	9	23	11	.9	117	6.7	22.5
14...	--	--	--	--	--	--	115	--	23.0
21...	--	--	--	--	--	--	129	--	26.0
28...	--	--	--	--	--	--	129	--	26.0
JUNE									
01...	--	--	--	--	--	--	94	--	24.0
04...	58	189	167	23	12	.9	106	6.6	24.5
08...	--	--	--	--	--	--	119	--	26.0
14...	--	--	--	--	--	--	80	--	26.0
21...	--	--	--	--	--	--	114	--	26.0
JULY									
07...	--	--	--	--	--	--	117	--	26.0
09...	68	66	3	29	13	.9	124	6.6	29.5
14...	--	--	--	--	--	--	86	--	29.0
21...	--	--	--	--	--	--	131	--	30.0
21...	--	--	--	--	--	--	--	--	29.5
28...	--	--	--	--	--	--	105	--	28.0
AUG.									
06...	48	140	3	16	5	.8	75	6.4	27.0
07...	--	--	--	--	--	--	76	--	26.0
14...	--	--	--	--	--	--	123	--	28.0
21...	--	--	--	--	--	--	134	--	29.0
28...	--	--	--	--	--	--	152	--	27.0
SEP.									
07...	--	--	--	--	--	--	142	--	28.0
10...	73	57	10	30	10	1.0	133	6.7	27.5
14...	--	--	--	--	--	--	141	--	27.0
21...	--	--	--	--	--	--	123	--	25.0
29...	--	--	--	--	--	--	147	--	22.0

SABINE RIVER BASIN

08030500 Sabine River near Ruliff, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	COLOR (PLAT- INUM- COBAL T UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.									
01...	30	--	--	--	--	--	--	--	--
08...	40	--	--	--	--	--	--	--	--
14...	40	--	--	--	--	--	--	--	--
22...	70	--	--	--	--	--	--	--	--
23...	80	20	9.4	107	1.6	150	60	29	10
NOV.									
07...	80	--	--	--	--	--	--	--	--
13...	40	45	10.2	106	1.8	1800	450	820	10
15...	90	--	--	--	--	--	--	--	--
22...	80	--	--	--	--	--	--	--	--
30...	50	--	--	--	--	--	--	--	--
DEC.									
07...	60	--	--	--	--	--	--	--	--
11...	50	20	7.9	71	1.0	3100	270	350	12
14...	40	--	--	--	--	--	--	--	--
21...	50	--	--	--	--	--	--	--	--
30...	70	--	--	--	--	--	--	--	--
JAN.									
07...	60	--	--	--	--	--	--	--	--
08...	60	20	10.0	97	1.2	1400	820	110	9.0
14...	100	--	--	--	--	--	--	--	--
21...	60	--	--	--	--	--	--	--	--
29...	55	--	--	--	--	--	--	--	--
FEB.									
07...	100	--	--	--	--	--	--	--	--
12...	20	15	9.0	84	.7	190	97	78	8.8
14...	60	--	--	--	--	--	--	--	--
21...	100	--	--	--	--	--	--	--	--
28...	70	--	--	--	--	--	--	--	--
MAR.									
07...	80	--	--	--	--	--	--	--	--
14...	70	--	--	--	--	--	--	--	--
19...	60	50	8.5	83	1.2	620	130	130	10
21...	80	--	--	--	--	--	--	--	--
28...	70	--	--	--	--	--	--	--	--
APR.									
08...	70	--	--	--	--	--	--	--	--
09...	60	20	8.9	93	1.0	1400	310	2000	6.9
15...	80	--	--	--	--	--	--	--	--
22...	70	--	--	--	--	--	--	--	--
29...	80	--	--	--	--	--	--	--	--
MAY									
07...	120	--	--	--	--	--	--	--	--
13...	70	30	6.9	78	1.4	7100	110	130	6.4
14...	70	--	--	--	--	--	--	--	--
21...	60	--	--	--	--	--	--	--	--
28...	70	--	--	--	--	--	--	--	--
JUNE									
01...	70	--	--	--	--	--	--	--	--
04...	60	20	6.8	81	1.1	550	207	50	9.9
08...	70	--	--	--	--	--	--	--	--
14...	100	--	--	--	--	--	--	--	--
21...	80	--	--	--	--	--	--	--	--
JULY									
07...	70	--	--	--	--	--	--	--	--
09...	70	25	6.5	84	1.0	400	210	62	7.2
14...	110	--	--	--	--	--	--	--	--
21...	50	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
28...	70	--	--	--	--	--	--	--	--
AUG.									
06...	120	45	6.4	79	1.3	2100	130	150	11
07...	140	--	--	--	--	--	--	--	--
14...	60	--	--	--	--	--	--	--	--
21...	50	--	--	--	--	--	--	--	--
28...	60	--	--	--	--	--	--	--	--
SEP.									
07...	30	--	--	--	--	--	--	--	--
10...	60	35	6.2	78	1.0	1800	64	78	13
14...	50	--	--	--	--	--	--	--	--
21...	70	--	--	--	--	--	--	--	--
29...	40	--	--	--	--	--	--	--	--

SABINE RIVER BASIN

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08030500 Sabine River near Ruliff, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS-SOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)		
DATE	TIME											
OCT. 23...	1645	100	2	2	50	<10	0	0	0	<50		
FEB. 12...	0900	30	0	0	40	20	0	0	10	<50		
APR. 09...	1420	20	0	0	30	10	0	0	10	<50		
AUG. 06...	1300	40	1	1	50	<10	0	0	0	<50		
		DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)		
DATE												
OCT. 23...		1	<10	0	1700	250	<100	8	0	400		
FEB. 12...		0	<10	2	960	10	100	4	0	70		
APR. 09...		0	<10	4	1300	120	<100	1	10	90		
AUG. 06...		0	<10	2	1800	140	<100	0	10	130		
		DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DIS-SOLVED SELENIUM (SE) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)		
DATE												
OCT. 23...		380	.0	.0	1	0	0	100	190	120		
FEB. 12...		10	.1	.1	1	0	0	130	10	100		
APR. 09...		20	.0	.0	0	0	0	120	30	30		
AUG. 06...		20	.0	.0	11	0	0	70	20	30		
		INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DOT (UG/L)	DOT IN BOTTOM MATERIAL (UG/KG)	
DATE	TIME											
OCT. 23...	1645	857	22.5	.00	.0	.00	.0	.00	.0	.00	.0	
FEB. 12...	0900	16000	12.5	.00	.0	.00	.0	.00	.0	.00	.0	
APR. 09...	1420	17500	17.5	.00	.0	.00	.0	.00	.0	.00	.0	
AUG. 06...	1300	8400	27.0	.00	.0	.00	.0	.00	.0	.00	.0	
		TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)
DATE												
OCT. 23...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
FEB. 12...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
APR. 09...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 06...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
		CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
DATE												
OCT. 23...		0	.0	0	.00	.00	.00	.00	.08	.00	.00	
FEB. 12...		0	.0	0	.00	.00	.00	.00	.00	.00	.00	
APR. 09...		0	.0	0	.00	.00	.00	.00	.00	.00	.00	
AUG. 06...		0	.0	0	.00	.00	.00	.00	.00	.00	.01	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
NOV. 13	21	15	14	0.3	0.4	2600	Polyethylene strip
JAN. 08	28	1.5	.8	3.9	.6	180	
MAR. 19	36	93	84	32	3.1	280	
AUG. 06	28	3.5	2.7	1.7	.4	460	

OCT. 23, 1974 TIME 1645

DEC. 11, 1974 TIME 0945

PHYTOPLANKTON 3,400 CELLS/ML

PHYTOPLANKTON 240 CELLS/ML

__ORGANISM__NAME__	CELLS/ML	PER_CENT	__ORGANISM__NAME__	CELLS/ML	PER_CENT
CHLOROPHYTA			CHRYSOPHYTA		
..CHLOROPHYCEAE			..BACILLARIOPHYCEAE		
...CHLOROCOCCALES			...CENTRALES		
...OCCYSTACEAE			...COSCINODISCACEAE		
....OCCYSTIS	890	26	....MELOSIRA	25	11
....TETRAEDRON	44	1	..PENNALES		
..VOLVOCALES			...CYMBELLACEAE		
...CHLAMYDOMONADACEAE			...CYMBELLA	13	5
....CHLAMYDOMONAS	1,300	39	...FRAGILARIACEAE		
..ZYGNEMATALES			....SYNEDRA	13	5
...ZYGNEMATAACEAE			...NAVICULACEAE		
....MOUGEOTIA	180	5	...NAVICULA	63	26
CHRYSOPHYTA			...NITZSCHIA	63	26
..BACILLARIOPHYCEAE			..NITZSCHIA		
...CENTRALES			CYANOPHYTA		
...COSCINODISCACEAE			..MYXOPHYCEAE		
....CYCLOTELLA	660	20	...CHROOCOCCALES		
..PENNALES			...CHROOCOCCACEAE		
...FRAGILARIACEAE			....ANACYSTIS	51	21
....SYNEDRA	270	8	EUGLENOPHYTA		
			..EUGLENOPHYCEAE		
			...EUGLENALES		
			...EUGLENACEAE		
			....TRACHELOMONAS	13	5

NOV. 13, 1974 TIME 1330

PHYTOPLANKTON 960 CELLS/ML

__ORGANISM__NAME__	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	200	20
..PENNALES		
...CYMBELLACEAE		
....CYMBELLA	22	2
...GOMPHONEMACEAE		
....GOMPHONEMA	22	2
...NAVICULACEAE		
....GYROSIGMA	22	2
...NAVICULA	130	14
...NITZSCHIA		
....NITZSCHIA	280	30
...SURIPELLACEAE		
....SURIPELLA	22	2
...TABELLARIACEAE		
....TABELLARIA	150	16
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....OSCILLATORIAACEAE		
....LYNGBYA	110	11

JAN. 8, 1975 TIME 1700

PHYTOPLANKTON 840 CELLS/ML

__ORGANISM__NAME__	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	11	1
...SCENEDESMACEAE		
....SCENEDESMUS	44	5
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	44	5
..PENNALES		
...NAVICULACEAE		
...NAVICULA	11	1
...NITZSCHIA		
....NITZSCHIA	44	5
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
....NOSTOCACEAE		
....ANABAENA	88	10
...OSCILLATORIAACEAE		
....LYNGBYA	600	71

08030500 Sabine River near Ruliff, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

FEB. 12, 1975 TIME 0900

PHYTOPLANKTON 410 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	34	8
....MELOSIRA	190	47
..PENNIALES		
...EUNOTIACEAE		
....EUNOTIA	11	3
...FRAGILARIACEAE		
....SYNEDRA	57	14
...NAVICULACEAE		
....NAVICULA	23	6
...NITZSCHIAEAE		
....NITZSCHIA	68	17
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	23	6

MAR. 19, 1975 TIME 0830

PHYTOPLANKTON 450 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...COELASTRACEAE		
....COELASTRUM	74	16
...OCCYSTACEAE		
....TETRAEDRON	11	2
...SCENEDESMACEAE		
....SCENEDESMUS	53	12
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	160	35
....MELOSIRA	42	9
..PENNIALES		
...Cymbellaceae		
....CYMBELLA	11	2
...FRAGILARIACEAE		
....SYNEDRA	32	7
...GOMPHONEMACEAE		
....GOMPHONEMA	11	2
...NAVICULACEAE		
....NAVICULA	53	12
....PINNULARIA	11	2

APR. 9, 1975 TIME 1420

PHYTOPLANKTON 1,200 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	180	16
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	130	11
....MELOSIRA	420	36
..PENNIALES		
...GOMPHONEMACEAE		
....GOMPHONEMA	26	2
...NITZSCHIAEAE		
....NITZSCHIA	240	20
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	180	16

MAY 13, 1975 TIME 1330

PHYTOPLANKTON 700 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	17	2
...SCENEDESMACEAE		
....SCENEDESMUS	67	10
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....MELOSIRA	280	40
..PENNIALES		
...GOMPHONEMACEAE		
....GOMPHONEMA	17	2
...NAVICULACEAE		
....NAVICULA	33	5
...NITZSCHIAEAE		
....NITZSCHIA	83	12
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	200	29

JUNE 4, 1975 TIME 1345

PHYTOPLANKTON 17,000 CELLS/ML

ORGANISM__NAME_____	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...CHARACIACEAE		
....SCHROEDERIA	100	1
...OCCYSTACEAE		
....ANKISTRODESMUS	300	2
....SELENASTRUM	100	1
....TETRAEDRON	100	1
...SCENEDESMACEAE		
....SCENEDESMUS	200	1
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	100	1
....MELOSIRA	400	2
..PENNIALES		
...NAVICULACEAE		
....NAVICULA	200	1
...NITZSCHIAEAE		
....NITZSCHIA	100	1
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	16,000	90
EUGLENOPHYTA		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	100	1
PYRRHOPHYTA		
..DINOPHYCEAE		
...PERIDINIALES		
...GLENODINIACEAE		
....GLENODINIUM	100	1

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

AUG. 6, 1975 TIME 1300

PHYTOPLANKTON 27 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS		0
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCAEAE		
....MELOSIRA	11	40
...PENNALES		
...EUNOTIACEAE		
....EUNOTIA		0
...FRAGILARIACEAE		
....SYNEDRA		0
...NITZSCHIAEAE		
....NITZSCHIA	11	40
...SURIPELLACEAE		
....SURIPELLA	5	20
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
...OSCILLATORIAEAE		
....OSCILLATORIA		0
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
...EUGLENALES		
...EUGLENACEAE		
....EUGLENA		0
....TRACHELOMONAS		0

SEP. 10, 1975 TIME 1315

PHYTOPLANKTON 490 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	9	2
....PACHYCLADON	9	2
...SCENEDESMACEAE		
...SCENEDESMUS	37	8
...ZYGNEMATALES		
...DESMIDIACEAE		
....SPONDYLIUM	19	4
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...PENNALES		
....ACHNANTHACEAE		
....ACHNANTHES	9	2
...FRAGILARIACEAE		
....SYNEDRA		0
...GOMPHONEMACEAE		
....GOMPHONEMA	9	2
...NAVICULACEAE		
....NAVICULA	28	6
...NITZSCHIAEAE		
....NITZSCHIA	84	17
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	190	38
...OSCILLATORIALES		
...OSCILLATORIAEAE		
....OSCILLATORIA	75	15
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
...EUGLENALES		
...EUGLENACEAE		
....EUGLENA	19	4
....TRACHELOMONAS	9	2

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT. 23...	1645	857	22.5	24	56	100
NOV. 13...	1330	4450	17.5	54	649	94
DEC. 11...	0945	18000	10.5	55	2670	49
JAN. 08...	1700	29000	14.5	20	1570	66
FEB. 12...	0900	16000	12.5	31	1340	41
MAR. 19...	0830	20000	15.0	24	1300	76
APR. 09...	1420	17500	17.5	40	1890	42
MAY 13...	1330	38000	22.5	27	2770	94
JUNE 04...	1345	19000	24.5	39	2000	64
JULY 09...	1245	13700	29.5	60	2220	64
AUG. 06...	1300	8400	27.0	68	1540	71
SEP. 10...	1315	4010	27.5	34	368	92

SABINE RIVER BASIN

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08030500 Sabine River near Ruliff, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	38942	134	73	7680	16	1680	13	1370	29
NOV. 1974.....	188890	113	62	31600	13	6630	11	5610	25
DEC. 1974.....	637400	130	71	122000	15	25800	13	22400	29
JAN. 1975.....	734100	133	72	143000	16	31700	13	25800	29
FEB. 1975.....	661700	155	84	150000	18	32200	15	26800	34
MAR. 1975.....	635400	143	78	134000	17	29200	14	24000	31
APR. 1975.....	452320	129	70	85500	15	18300	13	15900	28
MAY 1975.....	666920	110	60	108000	13	23400	11	19800	24
JUNE 1975.....	463600	104	57	71300	12	15000	10	12500	23
JULY 1975.....	288970	112	61	47600	13	10100	11	8580	25
AUG. 1975.....	247450	113	62	41400	13	8690	11	7350	25
SEPT 1975.....	169170	135	74	33800	16	7310	13	5940	30
TOTAL	5184862	**	**	976000	**	210000	**	176000	**
WTD.AVG.	14205.09	128	70	**	15	**	13	**	28

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	103	132	110	164	161	145	120	94	103	113	137
2	138	87	136	113	163	162	145	114	93	102	99	133
3	141	75	140	118	164	164	145	87	94	99	86	131
4	140	79	142	123	164	164	143	89	102	104	95	133
5	148	95	143	133	158	159	143	95	113	113	76	137
6	153	84	143	136	150	160	140	91	121	117	75	138
7	156	95	141	137	141	157	143	88	120	117	76	142
8	155	86	137	129	139	155	142	86	119	121	63	137
9	154	81	127	122	140	156	139	84	119	124	83	129
10	149	91	120	128	144	157	140	97	111	124	99	125
11	147	100	118	122	151	162	137	98	92	122	108	137
12	147	93	121	125	157	159	134	105	64	129	112	141
13	145	97	126	119	160	159	131	110	71	100	105	140
14	141	82	128	113	162	157	125	115	80	86	123	141
15	138	82	131	115	159	155	117	118	89	105	130	141
16	134	86	130	120	163	140	108	120	96	103	126	138
17	131	92	131	129	165	131	106	124	104	94	132	135
18	119	94	128	137	160	127	110	119	102	123	131	135
19	96	99	131	143	153	127	117	123	112	129	132	124
20	93	91	135	146	148	125	131	125	108	133	127	113
21	97	112	138	144	148	115	133	129	114	131	134	123
22	96	102	137	143	151	109	134	129	125	124	134	133
23	112	115	142	145	155	111	134	122	124	133	138	131
24	126	124	143	150	159	118	111	130	120	131	136	128
25	128	120	144	153	160	127	107	134	116	94	133	143
26	131	120	142	158	159	133	108	144	119	96	135	135
27	134	127	134	159	159	137	117	133	115	96	129	144
28	142	130	120	160	159	141	125	129	112	105	152	146
29	149	130	114	162	---	143	123	125	106	106	141	147
30	134	132	108	164	---	145	120	112	106	104	136	149
31	139	---	109	165	---	146	---	99	---	111	134	---
MONTH	134	100	131	136	156	144	128	113	105	112	116	136

SABINE RIVER BASIN

08030500 Sabine River near Ruliff, Tex.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	22.0	12.0	14.0	17.0	16.0	14.0	19.0	24.0	25.0	27.0	27.0
2	24.0	22.0	12.0	14.0	17.0	15.0	16.0	19.0	24.0	26.0	27.0	27.0
3	24.0	23.0	12.0	14.0	16.0	14.0	17.0	24.0	24.0	26.0	27.0	27.0
4	22.0	23.0	11.0	12.0	14.0	12.0	16.0	23.0	26.0	26.0	27.0	28.0
5	24.0	20.0	12.0	11.0	14.0	11.0	14.0	24.0	26.0	26.0	26.0	28.0
6	23.0	19.0	13.0	11.0	14.0	11.0	16.0	24.0	26.0	26.0	28.0	28.0
7	23.0	18.0	13.0	13.0	14.0	11.0	16.0	24.0	---	26.0	26.0	28.0
8	24.0	---	12.0	14.0	11.0	14.0	17.0	23.0	26.0	27.0	26.0	27.0
9	23.0	16.0	11.0	14.0	12.0	13.0	18.0	24.0	26.0	27.0	27.0	27.0
10	23.0	17.0	11.0	14.0	11.0	21.0	17.0	24.0	25.0	27.0	27.0	27.0
11	23.0	16.0	11.0	13.0	13.0	21.0	17.0	23.0	26.0	28.0	27.0	27.0
12	23.0	16.0	11.0	12.0	12.0	18.0	16.0	23.0	26.0	29.0	28.0	28.0
13	24.0	15.0	11.0	9.0	13.0	18.0	16.0	23.0	26.0	29.0	27.0	27.0
14	24.0	16.0	11.0	9.0	13.0	17.0	16.0	23.0	26.0	29.0	28.0	27.0
15	24.0	14.0	13.0	9.0	14.0	13.0	14.0	23.0	26.0	29.0	29.0	26.0
16	19.0	14.0	13.0	9.0	16.0	14.0	15.0	23.0	26.0	28.0	29.0	25.0
17	24.0	15.0	13.0	12.0	13.0	14.0	14.0	23.0	26.0	29.0	29.0	26.0
18	19.0	16.0	12.0	12.0	14.0	14.0	15.0	24.0	26.0	30.0	29.0	26.0
19	19.0	18.0	11.0	14.0	14.0	14.0	19.0	24.0	26.0	---	28.0	26.0
20	19.0	17.0	11.0	11.0	14.0	14.0	19.0	25.0	26.0	---	28.0	25.0
21	19.0	17.0	12.0	12.0	14.0	14.0	18.0	26.0	26.0	30.0	29.0	25.0
22	19.0	18.0	12.0	13.0	17.0	18.0	18.0	23.0	26.0	30.0	29.0	24.0
23	19.0	17.0	12.0	14.0	14.0	18.0	18.0	24.0	26.0	30.0	29.0	24.0
24	19.0	17.0	15.0	12.0	12.0	18.0	18.0	24.0	26.0	31.0	28.0	22.0
25	19.0	16.0	14.0	12.0	12.0	17.0	18.0	26.0	26.0	29.0	28.0	22.0
26	19.0	14.0	13.0	12.0	12.0	17.0	22.0	26.0	26.0	29.0	28.0	22.0
27	20.0	14.0	12.0	14.0	12.0	17.0	22.0	26.0	26.0	28.0	27.0	23.0
28	21.0	14.0	12.0	16.0	13.0	17.0	22.0	26.0	26.0	28.0	27.0	22.0
29	21.0	14.0	14.0	16.0	---	17.0	22.0	26.0	25.0	28.0	27.0	22.0
30	23.0	15.0	14.0	16.0	---	13.0	22.0	24.0	26.0	28.0	27.0	22.0
31	22.0	---	14.0	16.0	---	13.0	---	24.0	---	27.0	28.0	---
MONTH	21.5	17.0	12.5	12.5	13.5	15.5	17.5	24.0	25.5	28.0	27.5	25.5

COLOR (PLATINUM-COBALT UNITS) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	100	40	70	60	60	70	140	70	80	70	40
2	40	100	50	70	50	65	60	140	100	100	70	50
3	30	130	50	70	50	70	80	140	100	120	80	60
4	30	100	60	65	60	120	80	120	80	80	70	60
5	50	120	60	60	60	70	70	120	70	80	60	40
6	50	120	50	70	100	120	70	140	60	70	140	40
7	40	80	60	60	100	80	60	120	---	70	140	30
8	40	---	40	70	100	80	70	140	70	60	140	40
9	40	80	50	65	80	70	80	120	70	60	100	50
10	60	80	50	70	80	60	80	120	50	70	80	70
11	40	70	50	60	70	70	60	80	100	70	70	60
12	50	80	50	70	80	60	70	80	120	70	60	40
13	45	90	50	90	60	80	70	70	120	80	70	40
14	40	80	40	100	60	70	80	70	100	110	60	50
15	40	90	50	80	60	60	80	70	80	70	40	50
16	60	80	40	80	60	70	80	70	80	100	50	50
17	50	80	40	70	60	70	80	60	60	120	50	70
18	60	80	50	70	70	70	80	60	60	100	40	60
19	60	80	50	60	100	70	80	70	60	50	50	60
20	60	90	50	60	120	70	70	60	70	50	60	70
21	80	80	50	60	100	80	70	60	80	50	50	70
22	70	80	50	60	80	80	70	60	70	70	50	70
23	70	60	50	60	60	120	70	70	60	80	40	70
24	80	80	40	70	60	120	80	70	70	70	50	80
25	70	60	40	60	70	100	80	70	70	70	50	100
26	80	50	40	50	60	100	80	60	70	80	50	80
27	70	50	50	50	70	80	80	70	70	80	60	70
28	70	50	70	50	70	70	80	70	80	70	60	40
29	70	50	---	55	---	70	80	70	80	70	60	40
30	70	50	70	50	---	70	80	70	70	80	60	40
31	80	---	60	60	---	---	---	70	---	80	50	---
MONTH	55	80	50	65	70	80	75	90	75	75	65	55

SABINE RIVER BASIN

329

08031000 Cow Bayou near Mauriceville, Tex.

LOCATION.--Lat 30°11'10", long 93°54'30", Orange County, near center of span at downstream side of bridge on State Highway 12, 0.4 mile (0.6 km) upstream from Kansas City Southern Railway Co. bridge, and 2.7 miles (4.3 km) southwest of Mauriceville.

DRAINAGE AREA.--83.3 mi² (215.7 km²).

PERIOD OF RECORD.--March 1952 to current year (October 1956 to September 1957, monthly discharge only).

GAGE.--Water-stage recorder. Datum of gage is 4.73 ft (1.442 m) above mean sea level. Prior to Oct. 23, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--23 years, 96.6 ft³/s (2.736 m³/s), 15.75 in/yr (400 mm/yr), 69,990 acre-ft/yr (86.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,060 ft³/s (58.3 m³/s) June 10 (gage height, 15.77 ft or 4.807 m); minimum, 0.05 ft³/s (0.001 m³/s) Oct. 18-22.

Period of record: Maximum discharge, 4,600 ft³/s (130 m³/s) Sept. 19, 1963 (gage height, 18.15 ft or 5.532 m); no flow at times. Maximum stage since at least 1940, 18.16 ft (5.535 m) Oct. 28, 1970.

REMARKS.--Records fair. No large diversion above station. Base flow is partly sustained by springs.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	2.3	38	406	17	11	7.7	481	999	200	100	31
2	.08	2.1	28	319	22	9.2	6.6	391	1,040	250	153	20
3	.08	1.4	21	281	34	7.9	5.6	434	980	300	245	13
4	.10	.48	15	227	260	30	4.8	446	822	320	451	37
5	.11	.63	12	170	249	43	3.8	394	525	300	643	228
6	.11	.25	16	128	212	35	3.1	303	282	250	649	375
7	.11	.11	23	468	188	38	2.5	214	152	150	469	392
8	.11	.22	20	883	161	40	.99	275	62	70	461	408
9	.11	.15	21	830	131	37	243	226	719	40	445	404
10	.09	.12	26	870	102	35	297	184	2,020	25	316	348
11	.06	.25	43	937	77	32	422	205	1,780	15	269	263
12	.06	.17	49	942	60	27	353	242	1,420	10	227	173
13	.07	.16	47	894	45	34	260	226	1,120	8.0	165	92
14	.06	.15	53	772	35	53	550	194	869	12	83	54
15	.17	.10	221	586	26	73	659	156	551	25	45	30
16	.09	6.7	147	413	47	93	625	127	283	35	32	20
17	.06	.74	122	297	106	95	610	89	141	31	29	26
18	.05	.53	129	353	87	116	545	86	43	17	17	23
19	.05	.47	145	269	74	124	415	103	15	10	10	17
20	.05	111	134	143	53	136	291	112	13	8.6	7.0	13
21	.05	102	111	96	36	144	205	97	28	7.5	5.7	9.9
22	.05	.98	85	71	27	143	152	63	25	7.2	5.3	8.0
23	.06	119	65	53	25	126	108	36	28	39	5.9	6.7
24	.06	137	53	57	21	93	83	19	79	125	18	5.1
25	.06	143	82	76	17	63	61	13	73	178	30	3.6
26	.06	115	310	56	14	42	39	8.9	145	184	60	2.7
27	.06	.91	484	43	12	28	23	5.9	154	152	104	1.8
28	.33	.79	509	33	12	20	15	148	137	147	102	1.3
29	2.2	.65	531	27	-----	15	12	750	120	143	75	.86
30	1.5	.51	523	22	-----	12	249	848	150	110	58	.59
31	1.1	-----	484	18	-----	9.6	-----	933	-----	92	46	-----
TOTAL	7.23	1,576.5	4,547	10,740	2,150	1,764.7	6,350.1	7,809.8	14,775	3,261.3	5,325.9	3,007.55
MEAN	.23	52.6	147	346	76.8	56.9	212	252	493	105	172	100
MAX	2.2	143	531	942	260	144	659	933	2,020	320	649	408
MIN	.05	1.4	12	18	12	7.9	2.5	5.9	13	7.2	5.3	.59
CFSM	.003	.63	1.76	4.15	.92	.68	2.55	3.03	5.92	1.26	2.06	1.20
IN.	.003	.70	2.03	4.80	.96	.79	2.84	3.49	6.60	1.46	2.38	1.34
AC-FT	14	3,130	9,020	21,300	4,260	3,500	12,600	15,490	29,310	6,470	10,560	5,970

CAL YR 1974	TOTAL	29,774.55	MEAN	81.6	MAX	1,240	MIN	.05	CFSM	.98	IN	13.30	AC-FT	59,060
WTR YR 1975	TOTAL	61,315.08	MEAN	168	MAX	2,020	MIN	.05	CFSM	2.02	IN	27.38	AC-FT	121,600

PEAK DISCHARGE (BASE, 900 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
1-12	1300	12.13	946
6-2	0900	12.56	1,040
6-10	0500	15.77	2,060

NECHES RIVER BASIN

08031200 Kickapoo Creek near Brownsboro, Tex.

LOCATION.--Lat 32°18'34", long 95°36'19", Henderson County, on left bank 94 ft (29 m) downstream from bridge on Farm Road 314 and 1.0 mile (1.6 km) northeast of Brownsboro.

DRAINAGE AREA.--232 mi² (601 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 358.62 ft (109.307 m) above mean sea level.

AVERAGE DISCHARGE.--13 years, 143 ft³/s (4.050 m³/s), 8.37 in/yr (213 mm/yr), 103,600 acre-ft/yr (128 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,700 ft³/s (76.5 m³/s) Nov. 26 (gage height, 11.06 ft or 3.371 m); minimum, 0.01 ft³/s (0.0003 m³/s) Aug. 21, Sept. 10-12.
 Period of record: Maximum discharge, 14,800 ft³/s (419 m³/s) Apr. 27, 1966 (gage height, 14.79 ft or 4.508 m); maximum gage height, 15.34 ft (4.676 m) May 11, 1968; no flow for many days.
 Maximum stage since 1935, 16.4 ft (5.00 m) in 1936 or 1937, from information by local residents.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	894	385	297	114	152	127	1,420	291	28	2.7	.96
2	29	994	312	286	323	127	116	1,330	327	22	2.2	.59
3	27	1,080	264	370	1,180	110	100	1,020	264	19	2.4	.32
4	25	748	252	420	2,320	102	88	642	170	16	3.2	.16
5	24	535	248	423	2,010	98	80	518	100	16	3.7	.10
6	23	415	260	451	1,190	95	74	442	70	16	2.0	.06
7	23	310	325	373	735	93	73	335	56	16	1.2	.05
8	22	254	296	293	528	93	185	244	55	16	.96	.03
9	22	219	431	238	398	92	428	170	57	12	.76	.02
10	21	274	530	204	308	92	671	117	55	9.3	.61	.02
11	21	612	562	191	248	92	806	88	53	9.6	.53	.01
12	20	748	612	233	195	92	735	72	53	15	.52	.04
13	20	978	628	361	158	177	570	62	48	12	.42	.06
14	19	684	724	400	136	422	694	59	41	9.5	.35	.19
15	57	480	569	429	124	557	618	89	337	8.4	.43	.82
16	78	351	428	393	127	861	585	164	687	8.0	.48	1.8
17	68	266	327	314	145	687	559	287	407	8.1	.35	3.0
18	61	193	259	255	145	535	428	460	248	7.9	.17	6.4
19	58	132	204	207	134	527	305	414	193	6.5	.07	13
20	51	100	159	166	127	482	218	325	149	5.4	.03	15
21	37	85	129	140	122	406	145	519	97	4.7	.10	11
22	30	77	114	125	117	320	106	556	59	5.3	.61	8.4
23	27	72	103	116	112	248	85	772	62	6.3	1.7	5.5
24	24	533	97	108	119	186	75	864	46	11	2.5	3.2
25	22	1,160	105	105	125	141	69	717	33	9.0	3.1	1.7
26	21	2,490	166	103	133	118	65	595	29	5.3	2.5	1.0
27	21	1,570	189	102	153	110	62	523	32	4.5	2.0	.54
28	23	840	232	101	165	199	66	465	31	4.3	1.8	.29
29	55	560	282	101	-----	237	138	385	33	4.0	2.2	.23
30	89	447	294	99	-----	193	882	301	35	3.6	1.8	.20
31	159	-----	293	97	-----	144	-----	267	-----	3.3	1.3	-----
TOTAL	1,210	18,094	9,779	7,501	11,691	7,788	9,153	14,222	4,118	322.0	42.69	74.69
MEAN	39.0	603	315	242	418	251	305	459	137	10.4	1.38	2.49
MAX	159	2,490	724	451	2,320	861	882	1,420	687	28	3.7	15
MIN	19	72	97	97	112	92	62	59	29	3.3	.03	.01
CFSM	.17	2.60	1.36	1.04	1.80	1.08	1.31	1.98	.59	.04	.006	.01
IN.	.19	2.90	1.57	1.20	1.87	1.25	1.47	2.28	.66	.05	.006	.01
AC-FT	2,400	35,890	19,400	14,880	23,190	15,450	18,150	28,210	8,170	639	85	148

CAL YR 1974 TOTAL 65,575.17 MEAN 180 MAX 2,490 MIN 19 CFSM .78 IN 10.51 AC-FT 130,100
 WTR YR 1975 TOTAL 83,995.38 MEAN 230 MAX 2,490 MIN .01 CFSM .99 IN 13.47 AC-FT 166,600

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
about							
11-3	0400	9.50	1,150	11-26	1000	11.06	2,700
11-13	0200	9.45	1,040	2-4	1700	11.03	2,660
				5-1	0300	9.93	1,390

NECHES RIVER BASIN

331

08031290 Lake Athens near Athens, Tex.

LOCATION.--Lat 32°12'15", long 95°43'30", Henderson County, at upstream side of dam on Flat Creek, 5 miles (8 km) downstream from Underwood Lake, 8 miles (13 km) east of Athens, and 18 miles (29 km) upstream from Neches River.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1972, published as Flat Creek Reservoir.

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

EXTREMES.--Current year: Maximum contents, 33,950 acre-ft (41.9 hm³) Oct. 31, Nov. 1 (elevation, 440.75 ft or 134.341 m); minimum, 31,500 acre-ft (38.8 hm³) Sept. 30 (elevation, 439.14 ft or 133.850 m).
Period of record: Maximum contents, 36,500 acre-ft (45.0 hm³) May 10, 1968 (elevation, 442.37 ft or 134.834 m); minimum since operating level was reached (May 7, 1968), 30,400 acre-ft (37.5 hm³) Sept. 22, 1971 (elevation, 438.40 ft or 133.624 m).

REMARKS.--The lake is formed by a rolled earthfill dam 3,000 ft (910 m) long. Deliberate impoundment began Nov. 1, 1962, and the dam was completed in May 1963. The emergency spillway is an uncontrolled 300-foot-wide (91-metre) cut through natural ground located about 500 ft (150 m) to the left of left end of dam. The service spillway is an uncontrolled 6- by 6-foot (2- by 2-metre) square drop inlet. The outlet works consist of a controlled 18-inch-diameter (457-millimetre) concrete conduit that extends through the dam. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	453 +	-
Crest of spillway.....	446.0	42,600
Crest of spillway.....	440.0	32,790
Lowest gated outlet (invert of 18-inch conduit).....	396.5	100

COOPERATION.--The area and capacity tables were furnished by the city of Athens.

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

439.0	31,290
440.0	32,790
441.0	34,340

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33,070	33,920	33,620	33,440	33,410	33,330	33,410	33,610	33,480	33,020	32,460	31,920
2	33,060	33,790	33,560	33,500	33,320	33,360	33,360	33,560	33,420	33,010	32,400	31,880
3	33,060	33,700	33,500	33,500	33,880	33,290	33,350	33,520	33,380	33,020	32,510	31,880
4	33,010	33,670	33,450	33,450	33,950	33,290	33,320	33,470	33,350	33,040	32,510	31,880
5	33,010	33,590	33,440	33,440	33,720	33,320	33,300	33,440	33,330	33,020	32,480	31,940
6	32,990	33,520	33,440	33,410	33,650	33,350	33,300	33,440	33,290	32,990	32,420	31,940
7	32,990	33,470	33,420	33,410	33,590	33,350	33,410	33,410	33,250	32,960	32,420	31,910
8	32,960	33,440	33,410	33,380	33,530	33,330	33,590	33,380	33,290	32,930	32,420	31,880
9	32,960	33,420	33,410	33,380	33,470	33,330	33,640	33,330	33,250	32,930	32,370	31,860
10	32,950	33,720	33,480	33,390	33,440	33,330	33,610	33,320	33,250	32,870	32,370	31,840
11	32,950	33,700	33,560	33,410	33,410	33,320	33,590	33,300	33,220	32,870	32,340	31,810
12	32,930	33,670	33,550	33,470	33,410	33,330	33,550	33,290	33,210	32,870	32,310	31,800
13	32,930	33,640	33,520	33,470	33,410	33,500	33,720	33,270	33,210	32,840	32,270	31,780
14	33,020	33,590	33,480	33,440	33,390	33,530	33,720	33,300	33,130	32,840	32,250	31,770
15	33,010	33,560	33,440	33,410	33,380	33,480	33,670	33,330	33,360	32,790	32,210	31,750
16	33,010	33,530	33,410	33,390	33,420	33,500	33,590	33,330	33,350	32,790	32,190	31,740
17	32,990	33,500	33,380	33,360	33,410	33,500	33,550	33,300	33,330	32,760	32,190	31,720
18	32,980	33,470	33,380	33,360	33,410	33,500	33,560	33,350	33,290	32,720	32,160	31,690
19	32,980	33,440	33,360	33,300	33,380	33,530	33,500	33,320	33,220	32,720	32,100	31,680
20	32,950	33,410	33,350	33,300	33,360	33,480	33,470	33,500	33,190	32,720	32,070	31,660
21	32,930	33,390	33,330	33,290	33,350	33,480	33,440	33,500	33,150	32,720	32,100	31,650
22	32,930	33,380	33,330	33,290	33,330	33,450	33,380	33,470	33,150	32,720	32,070	31,630
23	32,920	33,360	33,330	33,270	33,330	33,470	33,390	33,720	33,100	32,690	32,070	31,620
24	32,900	33,610	33,350	33,290	33,330	33,440	33,380	33,790	33,070	32,630	32,070	31,600
25	32,900	33,870	33,330	33,300	33,330	33,410	33,380	33,750	33,070	32,630	32,030	31,590
26	32,920	33,870	33,330	33,300	33,330	33,380	33,360	33,670	33,060	32,600	32,040	31,570
27	32,920	33,840	33,330	33,300	33,330	33,530	33,360	33,680	33,060	32,570	32,010	31,560
28	33,150	33,790	33,350	33,300	33,330	33,530	33,480	33,680	33,070	32,550	32,010	31,540
29	33,180	33,750	33,350	33,320	-----	33,440	33,560	33,670	33,150	32,510	31,970	31,530
30	33,160	33,680	33,410	33,330	-----	33,450	33,620	33,620	33,060	32,490	31,940	31,500
31	33,950	-----	33,440	33,330	-----	33,440	-----	33,530	-----	32,460	31,920	-----
(†)	440.75	440.58	440.42	440.35	440.35	440.42	440.54	440.48	440.17	439.78	439.42	439.14
(*)	+870	-270	-240	-110	0	+110	+180	-90	-470	-600	-540	-420
(††)	80.3	53.9	41.7	31.5	31.9	9.0	0	25.1	95.0	145	151	145
MAX	33,950	33,920	33,620	33,500	33,880	33,530	33,720	33,790	33,480	33,040	32,510	31,940
MIN	32,900	33,360	33,330	33,270	33,330	33,290	33,300	33,270	33,060	32,460	31,920	31,500

CAL YR 1974..... * +100 †† 1,010 MAX 33,710 MIN 31,440
WTR YR 1975..... * -1,580 †† 809 MAX 33,950 MIN 31,500

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by city of Athens.

NOTE.--No elevation record Nov. 12 to Dec. 16, and Sept. 10-30.

NECHES RIVER BASIN

08031400 Lake Palestine near Frankston, Tex.

LOCATION.--Lat 32°03'12", long 95°26'12", Anderson-Cherokee County line, in outlet tower near right bank, 140 ft (43 m) upstream from Blackburn Crossing Dam on Neches River, 5 miles (8 km) east of Frankston, 11 miles (18 km) upstream from gage Neches River near Neches, at mile 354.0 (569.6 km).

DRAINAGE AREA.--839 mi² (2,173 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 20, 1962, nonrecording gage read once daily.

EXTREMES.--Current year: Maximum contents, 458,700 acre-ft (566 hm³) Feb. 6 (elevation, 346.77 ft or 105.695 m); minimum, 390,000 acre-ft (481 hm³) Sept. 29, 30 (elevation, 344.13 ft or 104.891 m).

Period of record: Maximum contents, 501,300 acre-ft (618 hm³) June 7, 1973 (elevation, 348.29 ft or 106.159 m); minimum since first appreciable storage, 11,450 acre-ft (14.1 hm³) Nov. 28, 1970 (elevation, 310.00 ft or 94.488 m).

REMARKS.--The lake is formed by a rolled earthfill dam 5,720 ft (1,740 m) long, including a 500-foot-wide (150-metre) uncontrolled emergency spillway located near the left end of dam. Deliberate impoundment began May 1, 1962, and the dam was completed June 13, 1962. The outlet works consist of a multi-gated concrete tower that is connected to a 8.5-foot-diameter (2.6-metre) concrete conduit through the dam. The low-flow outlet consist of two 3.0-foot (0.9-metre) iron pipes that are connected to the tower structure for low-flow releases. The enlargement of lake began Sept. 26, 1969, and was completed on Mar. 3, 1971. Water is used for municipal and industrial purposes in the Palestine area. Diversion point is located downstream from Neches River near Neches (station 08032000). There are no large diversions above station. The capacity table is based on Geological Survey topographic maps dated 1946 and 1948-49. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	364.0	-
Design flood.....	355.3	726,000
Crest of spillway (top of conservation pool).....	345.0	412,000
Lowest gated outlet (invert).....	298.0	550

COOPERATION.--The capacity table furnished by the Upper Neches River Municipal Water Authority.

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

344.0	386,700	346.0	437,900
345.0	411,800	347.0	464,900

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	419,100	439,300	436,600	427,500	424,900	422,800	423,300	437,900	434,200	421,200	407,300	396,000
2	418,100	440,600	434,200	429,300	442,000	422,000	424,300	441,400	431,600	420,900	406,300	395,700
3	417,000	440,100	432,700	430,100	449,500	421,700	421,200	442,200	429,300	420,900	407,500	395,500
4	415,700	440,900	430,900	429,500	455,500	421,500	420,400	441,400	427,700	420,400	407,300	394,500
5	415,700	438,700	430,900	429,800	458,400	420,200	420,200	440,100	426,900	419,400	407,000	396,000
6	415,700	436,600	431,900	429,500	455,500	419,900	419,100	437,900	425,600	418,100	404,300	397,500
7	415,700	435,000	430,900	429,300	450,300	421,700	420,900	436,100	424,900	417,000	405,500	396,700
8	414,700	433,500	430,600	429,000	448,200	420,200	421,500	434,200	424,900	416,200	405,000	396,000
9	414,400	431,400	428,800	429,000	443,600	418,800	424,100	432,700	425,400	415,700	404,500	395,700
10	413,900	434,500	430,600	429,000	439,800	419,600	426,200	430,300	424,900	416,000	404,000	395,000
11	413,400	434,800	431,900	429,000	438,700	419,600	428,500	428,800	424,600	414,700	403,000	394,700
12	413,400	435,000	432,200	430,100	435,800	421,700	428,500	427,500	423,300	413,900	402,800	395,500
13	413,100	435,000	432,400	429,000	433,200	421,700	431,900	425,900	421,500	413,600	402,500	394,200
14	416,800	434,000	433,500	429,000	431,400	421,700	433,200	426,400	418,600	412,600	401,800	393,500
15	414,400	432,700	433,200	429,500	431,400	423,500	433,700	430,600	436,300	412,300	401,300	392,700
16	413,900	432,200	432,200	429,500	430,900	426,400	432,700	431,100	437,900	411,800	400,500	394,700
17	413,900	431,100	430,600	429,000	429,500	427,700	431,400	430,900	438,700	411,000	400,300	394,000
18	413,900	429,300	430,600	428,200	430,100	429,300	434,000	429,300	437,400	410,300	399,800	393,000
19	413,600	429,000	428,500	428,800	427,700	429,300	431,600	428,200	436,100	410,300	399,300	395,000
20	413,400	426,900	428,000	426,200	426,200	428,800	429,800	431,100	433,500	410,000	399,300	394,500
21	412,800	425,400	426,900	425,600	425,600	428,800	428,200	431,400	431,400	410,000	399,300	394,200
22	412,600	424,100	425,600	425,100	427,500	428,800	426,400	433,500	429,300	409,500	399,000	393,700
23	412,300	423,500	425,600	424,300	424,600	429,000	425,600	435,300	428,000	408,800	398,200	392,500
24	412,300	430,100	426,900	424,100	423,500	428,200	424,100	436,900	426,200	409,300	398,000	393,200
25	412,300	432,700	424,900	423,800	423,300	426,700	423,500	436,100	424,900	409,300	398,000	391,700
26	412,100	437,100	424,100	423,300	423,500	424,900	422,000	435,600	424,100	409,000	398,000	391,000
27	411,600	440,100	423,800	422,500	423,000	425,400	422,200	434,200	423,500	408,800	398,000	390,500
28	418,300	439,500	423,500	422,200	422,800	428,200	425,100	440,600	423,000	408,500	397,500	390,500
29	418,300	442,500	423,800	422,200	-----	426,400	428,500	440,600	422,500	408,300	397,200	390,000
30	418,300	438,700	425,400	421,000	-----	424,100	435,000	440,100	422,000	407,800	396,700	390,000
31	436,900	-----	428,000	423,800	-----	423,000	-----	436,600	-----	407,500	396,500	-----
(†)	345.96	346.03	345.62	345.46	345.42	345.43	345.89	345.95	345.39	344.83	344.39	344.13
(*)	+16,700	+1,800	-10,700	-4,200	-1,000	+200	+12,000	+1,600	-14,600	-11,000	-6,500	-6,500
MAX	436,900	442,500	436,600	430,100	458,400	429,300	435,000	442,200	438,700	421,200	407,500	397,500
MIN	411,600	423,500	423,600	421,700	422,800	418,800	419,100	425,900	418,600	407,500	396,500	390,000
CAL YR 1974.....	* -2,100			MAX	442,200	MIN	390,000					
WTR YR 1975.....	* -30,200			MAX	458,400	MIN	390,000					

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

08032000 Neches River near Neches, Tex.

LOCATION.--Lat 31°53'32", long 95°25'50", Anderson-Cherokee County line, on left bank downstream from bridge on U.S. Highway 79, 1.0 mile (1.6 km) downstream from Missouri Pacific Railroad Co. bridge, 1.4 miles (2.3 km) downstream from Walnut Creek, 4.4 miles (7.1 km) northeast of Neches, and at mile 333.2 (536.1 km).

DRAINAGE AREA.--1,145 mi² (2,966 km²).

PERIOD OF RECORD.--Discharge: February 1939 to current year.

Water quality: Chemical analyses: December 1969 to current year.

GAGE.--Water-stage recorder and Conductance Monitor System. Datum of gage is 264.06 ft (80.486 m) above mean sea level. Prior to Oct. 27, 1945, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--22 years (1939-61) unregulated, 804 ft³/s (22.77 m³/s), 582,500 acre-ft/yr (718 hm³/yr); 14 years (1961-75) regulated, 665 ft³/s (18.83 m³/s), 481,800 acre-ft/yr (594 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 6,940 ft³/s (197 m³/s) Nov. 1 (gage height, 15.89 ft or 4.843 m); minimum daily, 67 ft³/s (1.90 m³/s) Aug. 21.

Period of record: Maximum discharge, 45,500 ft³/s (1,290 m³/s) Apr. 2, 1945 (gage height, 22.07 ft or 6.727 m); no flow Oct. 3-5, 1939.

Historic: Flood in May 1908, stage 24.3 ft (7.41 m), was the highest since flood in May 1884, which was probably higher.

Water quality: Period of record: Maximum daily specific conductance (1973-74), 706 micromhos Aug. 30, 1974; minimum, 106 micromhos Sept. 14, 1974.

REMARKS.--Discharge records good. Some regulation by Lake Palestine (station 08031400) 11 miles (18 km) upstream and by Lake Athens (station 08031290) 50 miles (80 km) upstream (capacity, 100,200 acre-ft or 124 hm³). No large diversion above station. Specific conductance is recorded continuously at this station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	887	5,870	3,140	1,210	981	1,050	1,180	1,460	2,000	934	96	79
2	768	5,640	3,140	1,310	1,110	1,020	1,120	1,670	1,900	880	91	76
3	665	4,530	2,840	1,520	2,990	991	1,010	2,010	1,800	822	92	74
4	571	3,820	2,560	1,640	5,480	976	941	2,560	1,650	802	117	72
5	490	3,440	2,300	1,700	5,440	986	944	2,730	1,520	807	109	72
6	414	3,210	2,180	1,660	5,470	985	809	2,970	1,340	767	103	82
7	396	2,870	2,040	1,590	5,520	950	809	2,710	1,230	677	92	115
8	390	2,670	1,970	1,560	5,040	925	805	2,390	1,150	573	82	98
9	381	2,450	1,930	1,520	4,260	921	905	2,140	1,100	497	80	86
10	353	2,300	1,870	1,520	3,830	871	1,020	1,890	1,080	445	82	83
11	331	2,230	1,880	1,500	3,400	837	1,080	1,690	1,050	414	91	83
12	294	2,190	1,940	1,530	2,870	828	1,140	1,560	1,020	409	86	83
13	281	2,220	2,040	1,570	2,590	830	1,190	1,430	991	410	81	84
14	271	2,130	2,080	1,630	2,320	850	1,280	1,300	924	366	77	85
15	403	2,010	2,080	1,600	2,040	850	1,440	1,310	822	305	75	80
16	579	1,970	2,050	1,650	1,850	920	1,590	1,560	879	262	73	95
17	500	1,840	2,010	1,500	1,790	1,030	1,660	1,680	1,130	235	71	153
18	401	1,800	1,960	1,490	1,760	1,170	1,660	1,650	1,470	210	71	136
19	354	1,710	1,860	1,460	1,650	1,290	1,600	1,560	1,770	179	70	116
20	334	1,570	1,740	1,440	1,580	1,410	1,570	1,460	1,860	159	68	105
21	311	1,470	1,620	1,450	1,490	1,450	1,540	1,370	1,820	144	67	100
22	274	1,390	1,530	1,370	1,360	1,430	1,470	1,330	1,740	133	78	97
23	256	1,300	1,430	1,270	1,270	1,400	1,350	1,380	1,570	125	96	95
24	244	1,380	1,320	1,210	1,260	1,360	1,260	1,460	1,430	114	81	94
25	239	1,860	1,250	1,170	1,260	1,370	1,170	1,580	1,290	108	79	93
26	242	2,360	1,240	1,120	1,200	1,370	1,090	1,730	1,200	110	89	92
27	241	2,420	1,230	1,090	1,130	1,320	1,010	1,810	1,120	108	95	91
28	247	2,460	1,190	1,040	1,080	1,200	971	1,830	1,070	100	100	90
29	1,270	2,680	1,150	1,010	-----	1,160	1,170	1,800	1,040	100	96	89
30	2,440	2,930	1,130	973	-----	1,150	1,340	1,900	994	103	86	88
31	2,690	-----	1,160	956	-----	1,150	-----	2,000	-----	97	81	-----
TOTAL	17,624	76,770	57,860	43,159	72,021	34,070	36,124	55,920	39,960	11,395	2,655	2,786
MEAN	569	2,559	1,866	1,392	2,572	1,099	1,204	1,804	1,332	368	85.6	92.9
MAX	2,690	5,870	3,140	1,700	5,520	1,450	1,660	2,970	2,000	934	117	153
MIN	249	1,300	1,130	956	951	829	805	1,300	822	97	67	72
AC-FT	34,960	152,300	114,800	85,610	142,900	67,580	71,650	110,900	79,260	22,600	5,270	5,530
CAL YR 1974	TOTAL	401,636	MEAN	1,100	MAX	5,870	MIN	48	AC-FT	796,600		
HYR YR 1975	TOTAL	456,344	MEAN	1,234	MAX	5,870	MIN	67	AC-FT	893,300		

NECHES RIVER BASIN

08032000 Neches River near Neches, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)
OCT.					
02...	1430	752	43	200	21.5
23...	1515	251	37	213	19.5
NOV.					
14...	1050	2150	26	180	16.0
DEC.					
05...	0930	2250	26	179	9.5
18...	1610	2030	21	173	11.0
FEB.					
03...	1700	4100	24	132	11.0
MAR.					
06...	1515	1000	29	180	13.0
18...	1440	1200	28	182	15.0
JUNE					
05...	0900	1550	26	193	--
18...	1005	1470	26	186	26.5
JULY					
15...	1000	332	33	206	26.0
AUG.					
28...	1200	95	32	622	28.0
SEP.					
18...	1300	.38	35	212	24.5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	211	202	129	100	183	177	189	178	---	---	183	175
2	211	197	129	107	183	176	190	175	---	---	181	180
3	206	197	150	131	180	178	184	174	---	---	180	180
4	206	198	163	152	180	178	185	173	---	---	192	180
5	215	201	175	136	182	178	176	173	---	---	192	180
6	213	201	178	169	178	175	185	174	---	---	183	180
7	209	201	177	173	178	175	180	174	---	---	189	183
8	209	199	180	174	180	175	177	172	---	---	189	178
9	215	200	181	174	179	176	176	174	---	---	182	180
10	218	200	179	174	178	175	178	174	---	---	192	180
11	208	199	181	175	177	172	178	173	---	---	195	184
12	212	200	179	172	177	171	176	174	175	172	191	176
13	213	201	184	174	175	171	184	171	178	173	190	185
14	247	202	182	175	176	173	183	170	178	175	191	182
15	579	203	186	175	177	173	176	173	177	170	184	182
16	203	190	183	177	177	171	174	173	170	168	196	180
17	204	189	175	177	183	171	---	---	175	170	194	176
18	208	200	180	177	177	173	---	---	175	174	189	175
19	212	198	180	176	177	173	---	---	174	174	178	167
20	208	194	183	176	180	173	---	---	176	174	170	164
21	207	192	185	178	179	174	---	---	177	171	177	165
22	209	195	184	179	185	174	---	---	177	173	171	163
23	208	199	185	181	178	175	---	---	176	175	182	163
24	213	200	197	180	187	178	---	---	176	176	170	158
25	224	200	186	165	183	180	---	---	179	174	173	168
26	248	212	168	164	182	179	---	---	183	178	169	160
27	222	202	178	167	195	178	---	---	182	179	171	158
28	233	180	179	174	190	184	---	---	181	180	174	171
29	248	79	186	175	185	183	---	---	---	---	174	174
30	100	79	186	175	186	182	---	---	---	---	174	173
31	128	111	---	---	197	181	---	---	---	---	173	171
MONTH	579	79	197	100	197	171	---	---	---	---	196	158

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C); WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

[illegible]

NECHES RIVER BASIN

08032500 Neches River near Alto, Tex.

LOCATION.--Lat 31°34'45", long 95°09'55", Houston-Cherokee County line, near left bank on downstream side of pier of bridge on State Highway 21, 600 ft (180 m) downstream from Bowles Creek, 7.5 miles (12.1 km) southwest of Alto, and at mile 273.9 (440.7 km).

DRAINAGE AREA.--1,945 mi² (5,038 km²).

PERIOD OF RECORD.--Discharge: January 1944 to current year.

Water quality: Chemical analyses: October 1959 to current year. Biochemical analyses: October 1967 to current year. Water temperatures: October 1959 to September 1969.

GAGE.--Water-stage recorder. Datum of gage is 198.29 ft (60.439 m) above mean sea level.

AVERAGE DISCHARGE.--17 years (1944-61) unregulated, 1,272 ft³/s (36.02 m³/s), 921,600 acre-ft/yr (1,140 hm³/yr); 14 years (1961-75) regulated, 1,024 ft³/s (29.00 m³/s), 741,900 acre-ft/yr (915 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,260 ft³/s (177 m³/s) Feb. 10 (gage height, 17.99 ft or 5.483 m); minimum daily, 94 ft³/s (2.66 m³/s) Sept. 8.

Period of record: Maximum discharge, 42,800 ft³/s (1,210 m³/s) Apr. 4, 1945 (gage height, 26.85 ft or 8.184 m); minimum, 0.1 ft³/s (0.003 m³/s) Sept. 27, 28, 1954.

Maximum stage since at least 1861, 28.2 ft (8.60 m) in May 1884, from information by local residents (discharge, about 50,000 ft³/s or 1,420 m³/s).

REMARKS.--Discharge records good. Flow partly regulated since 1962 by Lake Athens (station 08031290) and Lake Palestine (station 08031400); minor regulation by Lake Jacksonville since 1957; combined capacity, 130,700 acre-ft (161 hm³). During the current year, Upper Neches River Municipal Water Authority diverted 2,238 acre-ft (2.76 hm³) from stream at Rocky Point Crossing 50 miles (80 km) upstream for municipal and industrial uses in the Palestine area.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	1,200	2,570	1,760	2,310	1,780	1,650	2,300	2,370	2,050	207	120
2	1,340	1,660	2,600	1,920	3,090	1,700	1,600	2,620	2,360	2,020	215	113
3	1,190	1,880	2,640	2,180	3,470	1,620	1,570	2,720	2,340	1,920	257	106
4	1,060	2,140	2,720	2,390	3,800	1,610	1,540	2,900	2,340	1,720	235	101
5	928	2,670	2,870	2,350	3,930	1,650	1,480	3,070	2,360	1,580	252	100
6	795	3,460	3,110	2,230	3,960	1,600	1,410	3,220	2,350	1,380	226	98
7	680	4,070	3,290	2,170	4,540	1,550	1,350	3,290	2,280	1,190	211	96
8	587	4,330	3,280	2,200	5,620	1,510	1,350	3,680	2,150	1,060	192	94
9	522	4,320	3,170	2,210	6,150	1,460	1,530	4,490	2,010	964	181	104
10	485	4,180	3,010	2,240	6,180	1,410	1,880	4,330	2,090	865	172	115
11	463	4,020	2,950	2,290	6,000	1,360	2,030	3,960	2,210	771	156	115
12	444	3,820	2,980	2,250	5,670	1,330	1,900	3,610	2,140	742	150	109
13	422	3,580	2,840	2,210	5,230	1,320	1,760	3,310	1,990	678	144	108
14	405	3,400	2,690	2,160	4,800	1,330	1,830	2,980	1,790	652	141	106
15	501	3,230	2,580	2,120	4,510	1,340	1,960	2,730	1,550	597	135	103
16	573	3,060	2,520	2,100	4,640	1,340	1,900	2,600	1,410	546	127	114
17	528	2,970	2,470	2,090	4,490	1,390	1,840	2,760	1,350	497	121	153
18	545	2,820	2,420	2,070	4,040	1,490	1,820	2,920	1,240	447	121	172
19	591	2,670	2,390	2,060	3,540	1,570	1,840	2,730	1,150	404	113	157
20	572	2,540	2,350	2,030	3,180	1,590	1,870	2,540	1,200	372	107	175
21	509	2,440	2,310	1,980	2,870	1,610	1,880	2,470	1,350	343	103	170
22	453	2,340	2,260	1,930	2,610	1,650	1,890	2,520	1,510	316	100	151
23	418	2,240	2,210	1,900	2,440	1,700	1,890	2,870	1,650	296	100	138
24	392	2,250	2,150	1,890	2,310	1,750	1,880	2,830	1,750	326	105	126
25	366	2,400	2,080	1,860	2,170	1,780	1,850	2,490	1,790	284	121	121
26	346	2,450	2,010	1,810	2,050	1,780	1,780	2,240	1,820	245	154	119
27	332	2,340	1,930	1,750	1,940	1,840	1,690	2,040	1,950	223	149	113
28	342	2,320	1,860	1,670	1,850	1,850	1,610	1,950	1,970	207	142	109
29	447	2,380	1,770	1,600	-----	1,820	1,760	2,030	1,920	216	134	110
30	511	2,480	1,730	1,540	-----	1,770	2,080	2,180	1,930	212	129	109
31	593	-----	1,730	1,510	-----	1,720	-----	2,310	-----	208	127	-----
TOTAL	18,830	85,660	77,490	62,490	107,390	49,220	52,420	88,690	56,320	23,331	4,827	3,625
MEAN	607	2,855	2,500	2,016	3,835	1,588	1,747	2,861	1,877	753	156	121
MAX	1,490	4,330	3,290	2,390	6,180	1,850	2,080	4,490	2,370	2,050	257	175
MIN	332	1,200	1,730	1,510	1,850	1,320	1,350	1,950	1,150	207	100	94
AC-FT	37,350	169,900	153,700	123,900	213,000	97,630	104,000	175,900	111,700	46,280	9,570	7,190
CAL YR 1974	TOTAL	573,072	MEAN	1,570	MAX	9,850	MIN	65	AC-FT	1,137,000		
WTR YR 1975	TOTAL	630,293	MEAN	1,727	MAX	6,180	MIN	94	AC-FT	1,250,000		

NECHES RIVER BASIN

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08032500 Neches River near Alto, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 08...	1100	600	12	12	4.0	18	3.2	32	0	17
DEC. 03...	0915	2650	12	8.1	3.4	15	3.6	27	0	16
FEB. 24...	1215	2400	6.1	9.1	4.5	15	3.1	28	0	19
APR. 24...	1400	1950	6.1	10	4.3	16	3.7	28	0	21
JUNE 16...	1300	1450	11	9.9	5.0	17	3.4	32	0	20
AUG. 19...	1100	103	17	9.4	4.8	21	3.3	46	0	15
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 08...	27	--	--	.13	.00	.07	.69	.76	.04	109
DEC. 03...	24		.1	.06	.00	.12	.54	.66	.04	96
FEB. 24...	25		.1	.06	.00	.01	.50	.51	.03	96
APR. 24...	25		.1	.08	.00	.02	.59	.61	.05	100
JUNE 16...	27		.1	.20	.01	.02	.83	.85	.10	109
AUG. 19...	32		.1	.14	.01	.00	.34	.34	.04	125
DATE		HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT. 08...		46	20	1.2	206	6.7	20.0	8.5	92	1.1
DEC. 03...		34	12	1.1	172	6.4	8.0	16.0	134	.9
FEB. 24...		41	18	1.0	178	6.9	10.0	9.5	84	.9
APR. 24...		43	20	1.1	194	6.9	19.5	8.3	89	1.3
JUNE 16...		45	19	1.1	199	6.5	26.5	7.4	90	1.2
AUG. 19...		43	6	1.4	226	6.8	29.0	6.6	85	.7

LOCATION.--Lat 31°07'59", long 94°48'35", Angelina-Polk County line, near center of main span on downstream side of downstream bridge on U.S. Highway 59, 700 ft (210 m) downstream from Texas and New Orleans Railroad Co. bridge, 2.9 miles (4.7 km) downstream from Alabama Creek, 3.8 miles (6.1 km) south of Diboll, and at mile 203.5 (327.4 km).

PERIOD OF RECORD.--Discharge: October 1923 to September 1925, March 1939 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 134.46 ft (40.983 m) above mean sea level. Prior to July 10, 1925, nonrecording gage at site 630 ft (192 m) upstream; July 10 to Aug. 31, 1925, and Mar. 30, 1939, to Sept. 24, 1943, nonrecording gage at site 500 ft (150 m) upstream; Sept. 25, 1943, to Aug. 16, 1973, nonrecording gage at site 70 ft (21 m) upstream; all at present datum.

EXTREMES.--Discharge: Current year: Maximum discharge, 12,100 ft³/s (343 m³/s) Feb. 17 (gage height, 15.04 ft or 4.584 m); minimum daily, 109 ft³/s (3.09 m³/s) Sept. 10.

Historic: Maximum stage since at least 1874, 21 ft (6.4 m) in May 1884 (discharge, about 110,000 ft³/s or 3,120 m³/s, from rating curve extended above 40,000 ft³/s or 1,130 m³/s); flood in 1900 reached a stage of 19.9 ft or 6.07 m (discharge, about 80,000 ft³/s or 270 m³/s); from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 275 micromhos Aug. 28; minimum daily, 120 micromhos Feb. 6.

Maximum water temperatures, 32.0°C Aug. 18, 19, Sept. 7, 8, 10; minimum, 8.0°C on several days during January. Period of record: Maximum daily specific conductance, 614 micromhos May 2, 1971; minimum daily, 85 micromhos Jan. 27, 1974. Maximum water temperatures, 38.0°C Aug. 31, Sept. 6, 1970; minimum, 3.0°C Jan. 21, 1970.

REMARKS.--Discharge records good. No large diversion above station. For regulation by upstream reservoirs, see Neches River near Alto (station 08032500).

REVISIONS (WATER YEARS),--WSP 1242: 1950. WSP 1732: Drainage area.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,810	1,910	3,280	3,160	2,260	2,950	2,840	3,160	2,920	2,270	325	165
2	1,819	2,840	3,210	3,180	2,610	2,790	2,710	3,110	2,640	2,270	351	155
3	1,788	2,540	3,080	3,270	2,970	2,620	2,500	2,940	2,390	2,460	354	148
4	1,750	2,170	2,960	3,450	5,120	2,530	2,300	3,760	2,280	2,720	377	143
5	1,700	1,830	2,900	3,480	7,870	2,470	2,170	7,090	2,260	2,820	416	138
6	1,610	1,670	3,040	3,360	8,350	2,380	2,050	6,510	2,290	2,750	435	128
7	1,480	1,650	3,120	3,200	7,520	2,300	1,940	5,240	2,320	2,620	392	120
8	1,300	1,800	3,180	3,070	6,350	2,220	1,940	5,910	2,330	2,410	390	115
9	1,120	2,010	3,170	3,050	5,430	2,160	2,020	5,800	2,700	2,190	340	111
10	953	2,330	3,180	3,140	4,790	2,120	1,990	4,570	3,920	1,920	304	109
11	798	3,620	3,590	3,420	4,490	2,060	1,950	4,180	3,670	1,760	276	110
12	690	3,920	3,900	3,580	4,400	2,000	1,880	4,100	3,910	1,570	254	116
13	625	3,700	3,930	3,250	4,840	1,940	1,890	4,160	3,880	1,390	234	125
14	586	3,643	3,930	3,180	5,450	1,900	2,440	4,150	3,330	1,200	215	129
15	599	3,750	4,650	3,090	5,990	1,880	2,850	4,080	2,940	1,080	200	127
16	620	3,860	4,520	3,000	8,120	1,860	2,900	3,990	2,840	968	189	129
17	619	4,370	4,100	2,980	11,400	1,850	2,660	3,820	2,590	886	180	131
18	652	4,450	3,690	3,310	10,900	2,150	2,450	3,670	2,350	813	170	128
19	665	4,640	3,470	4,230	8,960	2,410	2,300	3,480	2,160	744	162	137
20	651	4,260	3,280	3,880	7,320	2,300	2,220	3,260	1,980	682	152	163
21	655	3,950	3,190	3,250	6,080	2,140	2,160	3,080	1,770	603	149	186
22	667	3,730	3,070	3,000	5,270	2,060	2,120	2,920	1,680	538	147	187
23	654	3,540	3,020	2,820	4,570	2,040	2,080	2,820	1,520	525	134	190
24	613	3,670	3,000	2,680	4,110	2,030	2,050	2,770	1,450	567	125	191
25	567	4,410	3,040	2,550	3,770	2,000	2,030	2,740	1,640	558	129	181
26	526	4,230	2,910	2,450	3,530	2,000	2,020	2,750	2,020	498	134	165
27	496	3,890	2,880	2,350	3,290	2,730	2,010	2,710	2,250	453	137	150
28	485	3,670	2,840	2,320	3,100	3,850	2,020	2,690	2,270	425	152	139
29	719	3,480	2,820	2,280	-----	3,580	2,140	2,790	2,320	404	172	133
30	726	3,350	2,920	2,240	-----	3,170	2,410	2,880	2,310	346	180	128
31	818	-----	3,030	2,190	-----	2,970	-----	3,000	-----	322	175	-----
TOTAL	28,743	98,920	102,900	94,410	158,860	73,460	67,040	118,220	74,930	40,762	7,350	4,277
MEAN	927	3,297	3,319									

CAL YR 1974	TOTAL 779,885	MEAN 2,137	MAX 17,000	MIN 92	AC-FT 1,547,000
WTR YR 1975	TOTAL 869,872	MEAN 2,383	MAX 11,400	MIN 109	AC-FT 1,725,000

08033000 Neches River near Diboll, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 07...	1700	1440	12	13	4.0	18	3.1	28	0	19
NOV. 20...	1810	4000	12	7.3	3.0	15	3.9	21	0	19
DEC. 02...	1645	3300	12	10	3.3	16	3.7	24	0	21
JAN. 13...	1815	3100	10	10	4.4	18	2.8	22	0	29
FEB. 24...	1030	3900	7.3	8.4	3.8	14	2.7	22	0	21
MAR. 18...	1130	2320	9.1	12	5.0	21	3.1	25	0	37
APR. 08...	1015	1900	5.3	10	4.2	17	3.4	30	0	22
MAY 11...	1745	4000	10	9.7	3.1	14	3.3	26	0	20
JUNE 03...	0930	2300	8.7	9.6	3.9	16	3.0	32	0	18
JULY 02...	1900	2180	8.9	11	3.9	16	3.3	28	0	22
AUG. 18...	1310	225	18	10	5.1	27	3.4	54	0	17
SEP. 15...	1920	127	13	11	5.0	27	3.6	56	0	17

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT. 07...	28	--	.12	.00	.07	.89	.96	.06	111
NOV. 20...	23	.1	--	--	--	--	--	--	94
DEC. 02...	26	.1	.03	.00	.03	.35	.38	.07	104
JAN. 13...	27	.1	--	--	--	--	--	--	112
FEB. 24...	21	.1	.02	.00	.03	.64	.67	.04	89
MAR. 18...	28	.0	--	--	--	--	--	--	128
APR. 08...	26	.1	.04	.01	.07	.30	.37	.07	103
MAY 11...	18	.1	--	--	--	--	--	--	91
JUNE 03...	24	.1	.14	.00	.04	1.2	1.2	.10	99
JULY 02...	21	.1	--	--	--	--	--	--	100
AUG. 18...	33	.1	.11	.01	.00	.67	.67	.13	140
SEP. 15...	35	--	--	--	--	--	--	--	139

NECHES RIVER BASIN

08033000 Neches River near Diboll, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT. 07...	49	26	1.1	202	6.8	20.5	8.4	92	1.1
NOV. 20...	31	13	1.2	167	6.4	13.0	--	--	--
DEC. 02...	39	19	1.1	183	6.5	9.5	13.8	121	1.4
JAN. 13...	43	25	1.2	199	6.4	8.0	--	--	--
FEB. 24...	37	19	1.0	168	6.7	9.5	9.4	82	1.5
MAR. 18...	51	30	1.3	237	6.1	14.5	--	--	--
APR. 08...	42	18	1.1	201	7.0	17.0	8.0	82	.6
MAY 11...	37	16	1.0	166	6.6	17.0	--	--	--
JUNE 03...	40	14	1.1	185	6.8	23.0	6.2	71	1.1
JULY 02...	44	21	1.1	185	6.3	25.5	--	--	--
AUG. 18...	46	2	1.7	244	6.7	30.0	4.4	58	2.1
SEP. 15...	48	2	1.7	252	7.1	29.0	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	28743	202	110	8540	27	2100	19	1470	43
NOV. 1974.....	98920	160	87	23200	21	5610	19	5070	36
DEC. 1974.....	102900	189	100	27800	25	6950	19	5280	41
JAN. 1975.....	94410	199	110	28000	27	6880	19	4840	42
FEB. 1975.....	158860	151	82	35200	20	8580	19	8150	35
MAR. 1975.....	73460	208	110	21600	28	5550	19	3770	44
APR. 1975.....	67040	209	110	19900	28	5070	19	3440	44
MAY 1975.....	118220	174	94	30000	23	7340	19	6060	39
JUNE 1975.....	74930	201	110	22300	27	5460	19	3840	42
JULY 1975.....	40762	194	100	11000	26	2860	19	2090	41
AUG. 1975.....	7350	242	130	2580	32	635	19	377	49
SEPT 1975.....	4277	240	130	1500	32	370	19	219	48
TOTAL	869872	**	**	232000	**	57400	**	44600	**
WTD.AVG.	2383.21	183	99	**	24	**	19	**	40

NECHES RIVER BASIN

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08033000 Neches River near Diboll, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	126	188	201	205	189	201	194	204	181	268	252
2	183	185	182	202	194	192	203	202	219	185	225	250
3	188	181	178	205	180	194	204	203	202	178	216	252
4	191	178	185	203	125	193	206	195	204	165	212	255
5	194	165	189	200	123	202	210	140	207	160	206	260
6	202	152	191	201	120	214	214	142	200	164	217	265
7	204	145	186	199	125	216	215	159	185	171	235	256
8	206	133	185	197	129	228	218	155	172	180	253	258
9	208	135	187	198	135	217	220	158	174	186	250	265
10	209	138	193	196	139	210	224	165	201	193	253	268
11	212	139	190	195	143	207	223	166	199	200	251	265
12	211	135	188	197	148	212	225	164	190	205	250	269
13	213	132	181	199	145	218	224	169	192	210	236	267
14	214	139	173	199	155	222	200	170	195	213	240	252
15	224	145	177	198	170	228	195	175	194	217	242	252
16	223	152	181	197	193	233	190	182	193	220	245	251
17	222	164	179	199	160	237	196	191	203	217	247	242
18	213	162	191	197	143	225	201	189	205	214	248	248
19	210	169	190	202	140	215	202	194	204	219	249	240
20	215	167	188	201	139	220	204	189	220	223	255	230
21	220	169	191	203	140	227	208	185	230	226	264	223
22	216	172	190	195	153	220	207	179	234	235	263	221
23	218	175	188	197	174	212	210	184	216	244	247	215
24	217	173	195	201	177	209	212	187	223	235	244	217
25	220	172	197	195	181	195	215	183	213	241	248	220
26	226	170	199	201	183	187	216	177	208	247	255	218
27	235	169	201	205	185	188	217	178	206	245	270	216
28	243	172	200	200	186	192	220	179	205	249	275	214
29	175	175	204	194	---	195	215	185	202	253	254	220
30	160	179	205	200	---	199	202	191	191	260	256	225
31	132	---	206	208	---	200	---	192	---	265	262	---
MONTH	206	159	190	200	157	210	210	178	203	213	246	243

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	19.0	10.0	9.0	21.0	14.0	---	21.0	23.0	27.0	29.0	31.0
2	21.0	19.0	10.0	9.0	21.0	15.0	15.0	22.0	23.0	26.0	29.0	30.0
3	22.0	19.0	9.0	8.0	20.0	16.0	15.0	22.0	24.0	26.0	29.0	31.0
4	20.0	18.0	9.0	9.0	20.0	15.0	15.0	22.0	24.0	25.0	29.0	30.0
5	20.0	19.0	10.0	8.0	19.0	12.0	16.0	27.0	24.0	25.0	29.0	30.0
6	22.0	18.0	9.0	8.0	18.0	12.0	---	23.0	---	26.0	30.0	30.0
7	22.0	18.0	11.0	---	11.0	12.0	17.0	15.0	---	26.0	30.0	32.0
8	21.0	17.0	10.0	9.0	11.0	12.0	17.0	15.0	24.0	28.0	30.0	32.0
9	21.0	17.0	9.0	9.0	12.0	12.0	19.0	17.0	23.0	28.0	30.0	22.0
10	21.0	15.0	9.0	9.0	12.0	13.0	20.0	17.0	22.0	28.0	---	32.0
11	22.0	15.0	9.0	8.0	12.0	13.0	20.0	17.0	23.0	29.0	30.0	29.0
12	22.0	14.0	9.0	8.0	15.0	14.0	21.0	23.0	24.0	29.0	30.0	29.0
13	22.0	14.0	11.0	8.0	15.0	13.0	17.0	23.0	25.0	29.0	30.0	29.0
14	22.0	14.0	12.0	8.0	15.0	14.0	17.0	25.0	25.0	29.0	30.5	29.0
15	20.0	13.0	12.0	8.0	14.0	14.0	17.0	24.0	26.0	29.0	---	29.0
16	21.0	12.5	12.0	9.0	14.0	14.0	19.0	23.0	26.0	30.0	---	29.0
17	21.0	13.0	12.0	9.0	14.0	14.0	15.0	25.0	26.0	30.0	30.0	29.0
18	21.0	13.0	12.0	9.0	14.0	16.0	17.0	26.0	26.0	30.0	32.0	28.0
19	22.0	15.0	12.0	---	---	16.0	22.0	26.0	26.0	30.0	32.0	28.0
20	21.0	13.0	11.0	8.0	15.0	17.0	23.0	26.0	---	31.0	31.0	28.0
21	22.0	13.0	11.0	8.0	14.0	17.0	23.0	26.0	25.0	31.0	30.0	24.0
22	22.0	13.0	11.0	8.0	14.0	17.0	23.0	26.0	25.0	---	30.0	24.0
23	22.0	17.0	11.0	8.0	13.0	17.0	22.0	26.0	26.0	31.0	30.0	24.0
24	22.0	16.0	10.0	9.0	13.0	17.0	22.0	25.0	25.0	29.0	31.0	25.0
25	22.0	14.0	9.0	9.0	13.0	19.0	21.0	25.0	25.0	28.0	31.0	25.0
26	20.0	13.0	10.0	10.0	14.0	19.0	21.0	25.0	26.0	30.0	31.0	26.0
27	20.0	13.0	9.0	13.0	14.0	19.0	22.0	---	26.0	30.0	30.0	---
28	20.0	13.0	11.0	17.0	14.0	20.0	21.0	24.0	26.0	30.0	30.0	27.0
29	20.0	12.0	10.0	20.0	---	20.0	22.0	24.0	27.0	30.0	30.0	27.0
30	19.0	10.0	10.0	21.0	---	20.0	22.0	23.0	27.0	30.0	30.0	---
31	19.0	---	9.0	21.0	---	15.0	---	23.0	---	30.0	30.0	---
MONTH	21.0	15.0	10.5	10.0	15.0	15.5	19.5	23.0	25.0	28.5	30.0	28.0

NECHES RIVER BASIN

08033300 Piney Creek near Groveton, Tex.

LOCATION.--Lat 31°08'25", long 95°05'11", Trinity County, on left bank at downstream side of bridge on State Highway 94, 6.3 miles (10.1 km) northeast of Groveton, and 7.3 miles (11.7 km) upstream from Caney Creek.

DRAINAGE AREA.--79.0 mi² (204.6 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 251.40 ft (76.627 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 32.0 ft³/s (0.906 m³/s), 5.50 in/yr (140 mm/yr), 23,180 acre-ft/yr (28.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,430 ft³/s (68.8 m³/s) Feb. 16 (gage height, 13.61 ft or 4.148 m); no flow Sept. 24-30.
Period of record: Maximum discharge, 5,890 ft³/s (167 m³/s) Mar. 24, 1973 (gage height, 15.43 ft or 4.703 m); no flow at times.
Maximum stage since at least 1921, 17 ft (5.2 m) in May 1942, from information by local residents.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	273	49	61	48	9.0	19	265	19	184	2.5	.16
2	.27	115	24	103	176	8.2	14	77	8.8	218	85	.16
3	.14	28	14	351	369	7.1	9.7	30	6.0	55	48	.16
4	.07	11	8.8	278	900	35	7.2	704	4.8	25	15	.37
5	.05	5.4	6.6	90	889	33	6.0	1,040	4.1	13	18	.39
6	.04	4.1	26	40	620	17	5.3	779	3.7	7.6	12	.43
7	.04	3.2	53	24	231	13	4.9	430	3.3	5.3	5.1	.16
8	.04	19	36	19	55	9.7	5.9	368	3.0	4.1	82	.10
9	.03	45	18	15	35	7.7	20	472	7.8	3.4	18	.08
10	.03	72	11	77	26	8.0	23	436	472	2.9	2.8	.07
11	.03	181	152	85	21	8.7	13	129	422	3.2	1.4	.11
12	.03	61	133	56	18	7.7	20	60	95	4.2	.86	.10
13	.03	21	51	82	15	9.3	16	44	31	4.4	.64	.07
14	.63	9.6	31	42	12	13	74	26	16	3.0	.49	.07
15	.82	5.2	79	25	43	9.3	102	18	10	2.4	.40	.06
16	2.4	3.7	54	18	1,480	9.5	35	14	7.6	2.1	.34	.16
17	1.4	67	28	15	1,080	12	17	11	6.0	2.1	.32	.11
18	.63	114	18	168	782	59	10	9.1	4.7	19	.27	.06
19	.21	33	14	120	285	31	8.0	7.6	3.9	10	.25	.04
20	.10	25	11	49	55	25	7.0	6.5	3.3	7.0	.23	.02
21	.05	13	8.2	26	35	16	5.8	5.7	3.0	2.8	.23	.01
22	.04	7.3	6.7	18	27	10	4.1	5.1	3.0	2.1	.21	.01
23	.04	4.6	5.9	13	22	8.0	3.7	4.6	2.6	2.0	.21	.01
24	.04	169	5.5	10	18	6.8	3.5	4.4	2.5	2.2	.19	0
25	.03	389	5.1	9.6	15	5.3	3.3	51	16	1.9	.25	0
26	.03	148	4.7	8.7	13	6.8	3.1	261	103	1.7	.40	0
27	.03	50	4.5	7.5	11	243	2.8	51	164	1.6	.27	0
28	43	22	8.0	6.6	10	95	5.0	13	111	1.8	.19	0
29	76	13	26	6.0	-----	63	60	10	30	7.6	.18	0
30	27	49	95	5.5	-----	105	240	280	28	6.9	.16	0
31	71	-----	129	5.1	-----	36	-----	60	-----	3.4	.16	-----
TOTAL	224.67	1,961.1	1,116.0	1,834.0	7,291	927.1	748.3	5,672.0	1,595.1	609.7	296.05	2.91
MEAN	7.25	65.4	36.0	59.2	260	29.9	24.9	183	53.2	19.7	9.59	.097
MAX	76	389	152	351	1,480	243	240	1,040	472	218	85	.43
MIN	.03	3.2	4.5	5.1	10	5.3	2.8	4.4	2.5	1.6	.16	0
CFSM	.09	.83	.46	.75	3.29	.38	.32	2.32	.67	.25	.12	.001
IN.	.11	.92	.53	.86	3.43	.44	.35	2.67	.75	.29	.14	.001
AC-FT	446	3,890	2,210	3,640	14,460	1,840	1,480	11,250	3,160	1,210	587	5.8

CAL YR 1974 TOTAL 15,968.02 MEAN 43.7 MAX 2,300 MIN 0 CFSM .55 IN 7.52 AC-FT 31,670
WTR YR 1975 TOTAL 22,277.93 MEAN 61.0 MAX 1,480 MIN 0 CFSM .77 IN 10.49 AC-FT 44,190

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2- 4	2300	12.65	1,070	5- 4	2400	12.86	1,270
2-16	1500	13.61	2,430	6-10	2200	11.50	611

08033500 Neches River near Rockland, Tex.

LOCATION.--Lat 31°01'29", long 94°23'55", Tyler County, on downstream side of bridge at U.S. Highway 69, 2,200 ft (671 m) upstream from abandoned ferry crossing, 0.8 mile (1.3 km) upstream from Texas and New Orleans Railway Co. bridge, 1.2 miles (1.9 km) north of Rockland, 3.2 miles (5.1 km) downstream from Billams Creek, and 32.4 miles (52.1 km) upstream from Angelina River.

DRAINAGE AREA.--3,636 mi² (9,417 km²). Prior to May 23, 1973, 3,637 mi² (9,420 km²).

PERIOD OF RECORD.--Discharge: July 1903 to current year. Monthly discharge only for some periods, published in WSP 1312.

Water quality: Chemical analyses: October 1945 to September 1947. Chemical and biochemical analyses: December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 91.41 ft (27.862 m) above mean sea level. Prior to May 23, 1973, nonrecording gage located 2,200 ft (671 m) downstream at same datum.

AVERAGE DISCHARGE.--58 years (1903-61) unregulated, 2,362 ft³/s (66.89 m³/s), 1,711,000 acre-ft/yr (2.11 km³/yr); 14 years (1961-75) regulated, 1,940 ft³/s (54.94 m³/s), 1,406,000 acre-ft/yr (1.73 km³/yr).

EXTREMES.--Current year: Maximum discharge, 12,100 ft³/s (343 m³/s) May 11 (gage height, 19.27 ft or 5.873 m); minimum daily, 164 ft³/s (4.64 m³/s) Sept. 30.

Period of record: Maximum discharge, 49,800 ft³/s (1,410 m³/s) May 6, 1944 (gage height, 32.04 ft or 9.766 m, present site); minimum observed during period of daily records, 1.6 ft³/s (0.045 m³/s) Sept. 28-30, Oct. 1, 2, 1956.

Historical flood information begins with flood in May 1884 which reached a stage of 35.0 ft (10.67 m), present site, from information by local resident (discharge, about 62,000 ft³/s or 1,760 m³/s).

REMARKS.--Discharge records fair. No large diversion above station. For regulation by upstream reservoirs, see Neches River near Alto (station 08032500).

REVISIONS (WATER YEARS).--WSP 878: 1926-27. WSP 1342: 1922(M), 1935. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1,780	3,470	5,270	5,560	3,730	4,510	4,040	3,860	3,260	3,000	740	243		
2	1,780	3,790	4,910	5,190	6,150	4,070	3,840	4,270	3,210	2,980	995	231		
3	1,760	4,370	4,560	5,710	5,240	3,710	3,500	4,130	3,120	2,950	1,030	217		
4	1,760	5,320	4,210	5,800	7,430	3,520	3,150	5,840	3,000	2,930	767	205		
5	1,740	6,090	3,850	5,690	7,850	3,460	2,830	7,030	2,860	3,170	1,410	203		
6	1,710	5,800	4,700	5,470	8,130	3,280	2,570	7,940	2,650	3,270	1,630	194		
7	1,660	4,750	4,900	5,330	8,490	3,120	2,370	8,670	2,460	3,200	1,220	187		
8	1,590	3,870	4,620	5,320	8,850	2,930	2,470	9,910	2,380	3,080	924	176		
9	1,470	3,320	4,400	5,020	9,290	2,760	2,960	10,400	2,730	2,860	948	178		
10	1,310	3,160	4,380	5,500	9,410	2,640	2,840	11,500	3,420	2,620	731	187		
11	1,120	4,460	4,500	5,860	9,040	2,530	2,770	12,000	3,380	2,730	651	205		
12	932	4,690	4,630	5,830	8,320	2,440	2,700	11,200	3,470	2,570	599	201		
13	782	5,170	4,750	5,690	7,430	2,870	2,580	9,850	3,580	2,210	554	269		
14	613	5,280	4,820	5,370	6,570	2,850	3,650	8,450	4,220	1,890	480	261		
15	717	5,210	5,630	5,020	5,850	2,620	4,490	7,180	4,380	1,570	392	219		
16	635	5,060	6,030	4,670	5,790	2,470	4,650	6,400	4,740	1,410	312	198		
17	641	5,010	6,340	4,300	6,240	2,490	4,510	5,700	4,360	1,450	273	175		
18	639	4,920	6,410	6,040	7,870	3,600	4,280	5,180	3,800	1,230	250	171		
19	653	5,250	6,120	6,600	9,370	3,530	3,930	4,760	3,140	1,040	233	171		
20	675	5,720	5,570	6,610	10,500	3,460	3,370	4,400	2,800	927	224	167		
21	666	5,810	4,930	6,770	11,000	3,350	2,900	4,160	2,670	839	214	173		
22	647	5,660	4,340	6,610	10,800	3,190	2,910	3,870	2,200	861	208	194		
23	649	5,330	3,930	6,440	10,400	2,970	2,580	3,620	2,020	1,280	218	209		
24	646	5,730	3,860	6,050	9,530	2,660	2,380	3,590	1,780	1,370	280	212		
25	615	6,410	5,720	5,520	8,410	2,390	2,250	3,430	1,660	1,250	298	213		
26	564	6,170	6,120	4,870	7,270	2,260	2,160	3,360	2,110	1,090	279	212		
27	514	6,280	6,710	4,120	6,140	2,190	2,100	3,030	2,740	906	378	202		
28	582	6,060	6,670	3,470	5,170	2,270	2,060	3,120	2,940	690	293	188		
29	1,340	5,720	6,280	3,110	-----	2,730	2,200	3,320	2,740	677	261	174		
30	1,180	5,580	6,100	2,890	-----	3,340	3,280	3,220	2,780	703	255	164		
31	1,580	-----	5,800	2,750	-----	3,840	-----	3,220	-----	870	251	-----		
TOTAL	33,020	153,460	161,060	163,180	220,270	94,050	92,320	186,610	90,600	57,623	17,298	5,999		
MEAN	1,065	5,115	5,195	5,264	7,867	3,034	3,077	6,020	3,020	1,859	558	200		
MAX	1,780	6,410	6,710	6,770	11,000	4,510	4,650	12,000	4,740	3,270	1,630	269		
MIN	514	3,160	3,850	2,750	3,730	2,190	2,060	3,030	1,660	677	208	164		
CFSM	.29	1.41	1.43	1.45	2.16	.83	.85	1.66	.83	.51	.15	.06		
IN.	.34	1.57	1.65	1.67	2.25	.96	.94	1.91	.93	.59	.18	.06		
AC=FT	65,500	304,400	319,500	323,700	436,900	186,500	183,100	370,100	179,700	114,300	34,310	11,900		
CAL YR 1974	TOTAL	1,169,419	MEAN	3,205	MAX	27,500	MIN	108	CFSM	.88	IN	11.97	AC=FT	2,320,000
WTR YR 1975	TOTAL	1,275,490	MEAN	3,494	MAX	12,000	MIN	164	CFSM	.96	IN	13.05	AC=FT	2,530,000

NECHES RIVER BASIN

08033500 Neches River near Rockland, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV. 12...	1730	4900	10	5.8	2.0	9.3	2.9	10	0	15	12	--
JAN. 08...	1030	5400	14	9.7	3.1	16	3.0	26	0	25	24	.0
MAR. 18...	1135	4000	--	13	3.5	15	2.8	27	0	--	--	.3
MAY 12...	1730	10800	8.8	7.0	1.8	8.4	2.7	20	0	12	11	.1
JULY 08...	1445	3000	9.8	8.2	3.3	13	3.1	22	0	18	18	.1
SEP. 09...	1330	215	14	13	4.1	29	3.9	53	0	15	36	.1

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
NOV. 12...	.01	.00	.03	.88	.91	.12	63	125	31	23	15
JAN. 08...	.00	.01	.09	.75	.84	.06	108	48	8	37	16
MAR. 18...	.06	.00	.04	.67	.71	.06	--	140	33	47	25
MAY 12...	.10	.01	.09	.66	.75	.07	62	33	1	25	8
JULY 08...	.10	.01	.04	.68	.72	.02	85	71	8	34	16
SEP. 09...	.13	.01	.08	.86	.86	.08	141	58	7	49	6

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- NUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)
NOV. 12...	.9	106	6.7	15.0	120	55	7.8	76	2.3	19	3
JAN. 08...	1.1	182	6.3	13.0	120	30	9.2	87	1.3	17	--
MAR. 18...	1.0	183	7.0	14.0	80	65	8.6	83	.8	11	5
MAY 12...	.7	108	6.5	23.0	100	25	6.9	79	2.4	22	8
JULY 08...	1.0	163	6.6	27.5	160	40	5.6	70	.7	10	5
SEP. 09...	1.8	268	6.6	28.0	100	40	7.4	94	1.2	11	4

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
NOV. 12...	1730	160	4	60	1	0	0	1
MAR. 18...	1135	60	2	40	0	0	4	4
JULY 08...	1445	10	2	30	1	0	0	1

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 12...	280	11	0	20	.4	8	40	190
MAR. 18...	150	3	10	40	.1	1	110	110
JULY 08...	120	4	10	0	.0	0	100	40

NECHES RIVER BASIN

345

08033600 Bowles Creek near Selman City, Tex.
(Reconnaissance partial-record station)

LOCATION.--Lat 32°11'41", long 94°58'36", Rusk County, at bridge on State Highway 64 and 1.5 miles (2.4 km) west of Selman City.

DRAINAGE AREA.--14.5 mi² (37.6 km²).

PERIOD OF RECORD.--Occasional discharge measurements and water-quality data: November 1967 to current year.

DISCHARGE AND WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 03...	1855	3.6	31	21	8.5	230	2.8	2	0	13
NOV. 13...	1025	11	27	17	7.2	150	3.4	4	0	19
DEC. 18...	--	9.9	--	--	--	--	--	--	--	--
FEB. 05...	1400	35	19	13	4.8	110	3.1	6	0	22
MAR. 20...	1035	12	25	14	6.9	120	3.2	2	0	21
MAY 07...	0940	10	27	15	7.1	130	3.4	1	0	20
JUNE 19...	0925	4.7	30	16	6.7	120	3.7	5	0	15
JULY 31...	1550	2.2	28	15	6.7	150	3.4	2	0	10
SEP. 11...	1130	.59	18	240	69	4900	25	56	0	15

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 03...	400	--	707	87	86	11	1380	5.2	22.0
NOV. 13...	270	.1	496	72	69	7.7	976	5.8	9.5
DEC. 18...	--	--	--	--	--	--	--	--	--
FEB. 05...	190	.1	365	52	47	6.6	725	6.1	11.5
MAR. 20...	220	.2	411	63	62	6.6	817	5.1	12.0
MAY 07...	230	.1	433	67	66	6.9	835	5.4	22.5
JUNE 19...	230	.1	424	68	63	6.4	846	5.5	25.5
JULY 31...	260	.1	474	65	63	8.1	1000	5.4	27.0
SEP. 11...	8300	.2	13600	880	840	72	24100	6.1	25.5

NECHES RIVER BASIN

08033900 East Fork Angelina River near Cushing, Tex.

LOCATION.--Lat 31°51'36", long 94°49'23", Rusk County, near left bank on downstream side of bridge on Farm Road 225, 0.1 mile (0.2 km) downstream from Everett Branch, 0.9 mile (1.4 km) upstream from Reagan Branch, 3.5 miles (5.6 km) north of Cushing, and 8 miles (13 km) upstream from Angelina River.

DRAINAGE AREA.--158 mi² (409 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 275.29 ft (83.908 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 105 ft³/s (2.974 m³/s), 9.02 in/yr (229 mm/yr), 76,070 acre-ft/yr (93.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,130 ft³/s (117 m³/s) May 4 (gage height, 10.87 ft or 3.313 m); minimum, 14 ft³/s (0.40 m³/s) Aug. 21, 22.

Period of record: Maximum discharge, 11,100 ft³/s (314 m³/s) July 23, 1968 (gage height, 11.66 ft or 3.554 m), from rating curve extended above 4,600 ft³/s (130 m³/s); minimum, 0.7 ft³/s (0.020 m³/s) Aug. 14, 1964.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	394	205	162	1,150	112	113	577	64	290	21	22
2	33	379	156	288	2,080	109	105	510	54	254	28	20
3	31	315	128	496	1,400	101	94	517	49	165	171	19
4	29	171	113	604	1,340	148	84	2,430	46	106	89	17
5	28	120	107	524	1,030	225	80	1,200	44	84	48	16
6	28	100	310	277	703	185	78	741	44	71	38	17
7	27	89	441	202	443	141	75	441	42	62	33	26
8	26	199	446	302	276	123	83	234	42	58	37	22
9	29	226	269	291	228	107	144	181	198	81	32	20
10	29	252	162	331	201	106	206	143	1,750	82	36	20
11	27	432	285	368	191	104	173	123	984	63	32	19
12	26	513	336	346	181	103	100	115	504	57	29	18
13	25	359	286	283	161	133	142	103	151	51	26	17
14	29	162	193	232	152	204	415	96	95	45	22	16
15	69	113	167	188	155	145	407	141	103	40	21	15
16	85	102	152	165	327	121	246	260	143	40	19	24
17	51	200	132	152	389	118	134	224	96	55	18	50
18	39	319	120	146	280	235	113	122	71	42	17	34
19	32	256	116	150	191	302	97	92	60	45	16	27
20	28	176	111	138	159	231	83	82	62	40	15	25
21	26	132	104	123	146	144	74	108	59	33	15	34
22	24	109	98	116	145	127	71	92	51	29	33	29
23	24	99	96	111	152	119	72	76	48	29	38	26
24	25	271	99	108	143	110	72	68	52	28	30	22
25	25	470	101	118	128	96	67	71	85	26	39	21
26	25	481	96	114	120	90	62	72	85	24	68	20
27	24	319	105	105	116	181	57	64	200	21	59	19
28	92	165	113	101	114	197	75	109	252	20	44	18
29	390	136	111	99	-----	177	203	101	236	25	33	17
30	780	192	124	96	-----	166	646	101	266	27	27	17
31	576	-----	144	173	-----	135	-----	81	-----	25	24	-----
TOTAL	2,718	7,251	5,426	6,909	12,101	4,595	4,371	9,275	5,936	2,018	1,158	667
MEAN	87.7	242	175	223	432	148	146	299	198	65.1	37.4	22.2
MAX	780	513	446	604	2,080	302	646	2,430	1,750	290	171	50
MIN	24	89	96	96	114	90	57	64	42	20	15	15
CFSM	.56	1.53	1.11	1.41	2.73	.94	.92	1.89	1.25	.41	.24	.14
IN.	.64	1.71	1.28	1.63	2.85	1.08	1.03	2.18	1.40	.48	.27	.16
AC-FT	5,390	14,380	10,760	13,700	24,000	9,110	8,670	18,400	11,770	4,000	2,300	1,320

CAL YR 1974 TOTAL 53,589.8 MEAN 147 MAX 3,240 MIN 6.0 CFSM .93 IN 12.62 AC-FT 106,300
WTR YR 1975 TOTAL 62,425.0 MEAN 171 MAX 2,430 MIN 15 CFSM 1.08 IN 14.70 AC-FT 123,800

PEAK DISCHARGE (BASE, 900 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-30	1300	9.67	924	5-4	1000	10.87	4,130
2-2	0300	10.45	2,550	6-10	1100	10.59	3,010

LOCATION.--Lat 32°14'30", long 95°10'33", Smith County, at city of Tyler pumphouse, 2.0 miles (3.2 km) north of Whitehouse Dam on Prairie Creek, 3.0 miles (4.8 km) northwest of Mud Creek Dam on Mud Creek, and 3.2 miles (5.1 km) northeast of Whitehouse.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (city of Tyler bench mark). Prior to May 3, 1949, nonrecording gage at dam. May 3, 1949, to July 11, 1951, nonrecording gage at pumphouse. July 12, 1951, to Feb. 1, 1968, water-stage recorder at intake tower in lake 660 ft (201 m) south of pumphouse. All gages at same datum.

EXTREMES.—Current year: Maximum contents, 87,340 acre-ft (108 hm³) Feb. 3 (elevation, 376.71 ft or 114.821 m); minimum, 74,510 acre-ft (91.9 hm³) Sept. 30 (elevation, 374.04 ft or 114.007 m).

Period of record: Maximum contents, 87,340 acre-ft (108 hm³) Feb. 3, 1975 (elevation, 376.71 ft or 114.821 m); maximum elevation, 378.3 ft (115.31 m) Apr. 24, 1966, prior to joining of lakes; minimum contents since joining of lakes, 65,300 acre-ft (80.5 hm³) Nov. 17, 1971 (elevation, 371.96 ft or 113.373 m).

REMARKS.--Originally Lake Tyler was formed by Whitehouse Dam. Deliberate impoundment began Jan. 8, 1949, and the dam was completed May 13, 1949. The construction of Mud Creek Dam began Feb. 11, 1966, with deliberate impoundment beginning Nov. 22, 1966, and final completion of dam in January 1967. Whitehouse Dam is a rolled earthfill dam 4,708 ft (1,435 m) long with an uncontrolled concrete spillway 200 ft (61 m) wide located 800 ft (240 m) from left end of dam. Mud Creek Dam is a rolled earthfill dam 4,700 ft (1,400 m) long with an uncontrolled concrete spillway 300 ft (90 m) wide located near center of dam. On May 29, 1968, the lakes were joined through an interconnecting canal. A 20-inch (508-millimetre) conduit through the embankment of Mud Creek Dam serves as a low-flow service outlet. Water is used for municipal supply for the cities of Tyler, Troop, and Whitehouse. The dam is owned and operated by the city of Tyler. Capacity tables based on surveys made in 1948-49 and 1966-67. Data regarding the dams and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	390.0	-
Design flood.....	386.0	-
Crest of spillways.....	375.4	80,900
Bottom of Interconnecting canal between lakes.....	355.0	14,480
Lowest gated outlet (invert at Mud Creek dam).....	346.75	-

COOPERATION.--Capacity tables were furnished by the city of Tyler.

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

374.0	74,330	376.0	83,820
375.0	79,000	377.0	88,800

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81,020	84,120	81,410	81,990	82,710	81,460	81,310	82,370	81,510	81,020	78,910	76,880
2	80,930	83,150	81,410	82,370	87,290	81,460	81,220	82,280	81,360	81,070	78,810	76,830
3	80,830	82,570	81,410	82,420	85,800	81,460	81,070	82,130	81,220	81,070	78,910	76,640
4	80,780	82,330	81,360	82,180	84,460	81,510	81,070	81,890	81,170	80,980	78,910	76,550
5	80,740	82,040	81,360	82,040	83,430	81,510	81,020	81,800	81,170	80,930	78,810	76,360
6	80,740	81,750	81,460	81,890	82,710	81,510	81,020	81,550	81,070	80,780	78,760	76,270
7	80,740	81,600	81,840	81,840	82,370	81,510	81,020	81,510	81,070	80,780	78,670	76,130
8	80,740	81,550	81,890	81,700	82,180	81,460	81,020	81,360	81,410	80,690	78,530	75,990
9	80,740	81,510	81,890	81,650	81,990	81,410	81,410	81,270	81,700	80,690	78,760	75,900
10	80,690	82,040	81,940	81,750	81,890	81,410	81,750	81,120	81,550	80,590	78,720	75,810
11	80,690	81,990	81,990	81,700	81,840	81,410	81,800	81,070	81,360	80,490	78,670	75,670
12	80,640	81,890	81,940	81,750	81,750	81,410	81,840	81,070	81,270	80,450	78,530	75,580
13	80,640	81,460	81,840	81,700	81,700	81,550	81,890	81,070	81,120	80,350	78,390	75,390
14	80,630	81,510	81,550	81,650	81,650	81,600	81,890	80,980	80,980	80,250	78,290	75,250
15	80,780	81,550	81,600	81,600	81,750	81,550	81,840	82,230	82,130	80,110	78,200	75,120
16	80,780	81,550	81,550	81,600	81,940	81,700	81,800	82,180	81,840	80,060	78,100	75,210
17	80,780	81,550	81,510	81,550	81,890	81,750	81,750	81,940	81,600	80,010	77,960	75,160
18	80,740	81,650	81,510	81,550	81,800	81,940	81,550	81,750	81,410	79,870	77,820	75,070
19	80,690	81,650	81,460	81,460	81,700	81,890	81,460	81,550	81,360	79,770	77,730	74,980
20	80,640	81,410	81,410	81,410	81,600	81,750	81,410	82,570	81,270	79,720	77,580	75,490
21	80,540	81,270	81,360	81,410	81,600	81,550	81,360	82,860	81,070	79,630	77,490	75,390
22	80,490	81,120	81,410	81,410	81,650	81,410	81,310	82,370	80,980	79,530	77,440	75,300
23	80,490	82,080	81,460	81,410	81,600	81,310	81,270	82,040	80,930	79,430	77,440	75,160
24	80,490	81,990	81,410	81,410	81,600	81,120	81,120	81,890	80,830	79,530	77,440	75,020
25	80,490	81,890	81,310	81,460	81,550	81,310	81,120	81,750	80,780	79,580	77,400	74,930
26	80,490	81,840	81,310	81,410	81,510	81,360	81,070	81,550	80,830	79,480	77,400	74,840
27	80,490	81,700	81,360	81,460	81,510	81,510	81,070	81,650	80,930	79,340	77,350	74,790
28	83,050	81,600	81,410	81,460	81,510	81,700	81,020	82,080	80,930	79,290	77,300	74,700
29	82,950	81,510	81,460	81,460	-----	81,550	82,520	82,180	80,930	79,240	77,210	74,610
30	82,370	81,410	81,890	81,460	-----	81,460	82,470	81,940	81,020	79,140	77,060	74,510
31	84,910	-----	81,990	82,080	-----	81,410	-----	81,650	-----	79,050	76,970	-----
(+)	376.22	375.50	375.62	375.64	375.52	375.50	375.72	375.55	375.42	375.01	374.57	374.04
(*)	+3,770	-3,500	+580	+90	-570	-100	+1,060	-820	-630	-1,970	-2,080	-2,460
(††)	923	831	835	850	767	849	857	904	920	1,213	1,366	1,106
MAX	84,910	84,120	81,990	82,420	87,290	81,940	82,520	82,860	82,130	81,070	78,910	76,880
MIN	80,490	81,120	81,310	81,410	81,510	81,120	81,020	80,980	80,780	79,050	76,970	74,510

CAL YR 1974.....	*	+750	††	12,401	MAX	84,360	MIN	74,100
WTR YR 1975.....	*	-6,630	††	11,421	MAX	87,290	MIN	74,510

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, by city of Tyler.

NECHES RIVER BASIN

08034500 Mud Creek near Jacksonville, Tex.

LOCATION.--Lat 31°58'35", long 95°09'38", Cherokee County, on right bank on downstream side of pile bent of bridge on U.S. Highway 79, 0.6 mile (1.0 km) downstream from Caney Creek, 3.9 miles (6.3 km) downstream from another Caney Creek, 4 miles (6 km) downstream from Missouri Pacific Railroad Co. bridge, 6.9 miles (11.1 km) east of Jacksonville, and 25.9 miles (41.7 km) upstream from mouth.

DRAINAGE AREA.--376 mi² (974 km²).

PERIOD OF RECORD.--May 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 271.64 ft (82.796 m) above mean sea level.

AVERAGE DISCHARGE.--9 years (1939-48) prior to regulation by Lake Tyler, 383 ft³/s (10.85 m³/s), 277,500 acre-ft/yr (342 hm³/yr); 27 years (1948-75) regulated, 220 ft³/s (6.230 m³/s), 159,400 acre-ft/yr (197 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,300 ft³/s (207 m³/s) Feb. 4 (gage height, 10.39 ft or 3.167 m); minimum daily, 10 ft³/s (0.28 m³/s) Sept. 29, 30.

Period of record: Maximum discharge, 27,500 ft³/s (779 m³/s) Apr. 25, 1966 (gage height, 15.20 ft or 4.633 m); no flow at times.

Maximum stage since May 1884, 20 ft (6.1 m) in May 1908 and December 1913; flood in May 1884 was higher (stage unknown), from information by local residents.

REMARKS.--Records good. Some regulation by Lake Tyler (station 08034000), capacity 80,900 acre-ft (99.7 hm³). Several diversions above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	3,440	572	428	822	383	300	570	726	222	36	15
2	157	3,830	519	472	1,300	358	226	539	640	240	34	13
3	114	3,140	508	636	4,370	322	191	613	532	227	34	13
4	102	1,900	517	693	6,680	363	185	717	328	231	47	12
5	44	1,240	512	626	4,210	427	168	624	177	193	71	12
6	74	911	583	631	2,480	387	145	525	135	152	79	12
7	68	756	627	582	1,550	370	142	413	120	109	49	12
8	65	703	531	531	1,060	341	153	304	120	83	29	18
9	65	670	545	484	828	303	440	246	332	68	23	22
10	64	661	566	476	715	295	472	196	1,020	61	22	18
11	61	751	631	465	656	271	358	166	532	64	22	16
12	58	690	632	463	613	260	371	152	335	59	22	15
13	54	653	568	488	570	295	413	141	310	61	21	15
14	54	695	579	475	532	455	542	131	280	53	19	15
15	107	699	604	476	503	450	468	484	429	47	19	15
16	127	647	577	475	543	467	462	787	637	44	18	16
17	149	572	524	456	527	473	516	522	550	44	17	19
18	124	464	476	425	509	497	528	492	544	44	16	18
19	92	401	443	390	525	554	431	543	578	40	15	19
20	72	388	413	355	541	550	280	551	509	37	15	16
21	72	380	368	328	536	561	221	642	235	35	14	15
22	64	371	325	317	490	533	186	608	146	33	15	16
23	56	347	295	279	448	455	162	535	120	33	19	20
24	52	691	280	257	438	371	151	636	103	37	22	16
25	52	1,240	281	257	433	315	145	656	99	43	21	13
26	53	746	281	260	434	290	136	570	125	64	21	12
27	52	724	297	265	410	287	130	445	129	73	19	11
28	72	777	313	263	392	273	172	578	106	52	18	11
29	436	713	301	249	-----	281	504	636	110	41	17	10
30	814	640	310	235	-----	295	630	540	159	50	17	10
31	2,210	-----	393	238	-----	316	-----	566	-----	44	15	-----
TOTAL	5,904	29,920	14,371	12,977	33,115	11,798	9,228	15,128	10,166	2,584	806	445
MEAN	190	997	464	419	1,183	381	308	488	339	83.4	26.0	14.8
MAX	2,210	3,830	632	693	6,680	561	630	787	1,020	240	79	22
MIN	52	347	280	235	392	260	130	131	99	33	14	10
AC-FT	11,710	59,350	28,500	25,740	65,680	23,400	18,300	30,010	20,160	5,130	1,600	883

CAL YR 1974 TOTAL 133,122.3 MEAN 365 MAX 3,830 MIN 5.0 AC-FT 264,000
WTR YR 1975 TOTAL 146,442.0 MEAN 401 MAX 6,680 MIN 10 AC-FT 290,500

PEAK DISCHARGE (BASE, 2,000 FT³/S).--Nov. 2 (1700) 4,410 ft³/s (9.33 ft); Feb. 4 (0700) 7,300 ft³/s (10.39 ft).

NECHES RIVER BASIN

349

08036500 Angelina River near Alto, Tex.

LOCATION.--Lat 31°40'10", long 94°57'24", Nacogdoches-Cherokee County line, near center of rectified channel at downstream side of pier of bridge on State Highway 21, 0.4 mile (0.6 km) upstream from Allen Creek, 1.5 miles (2.4 km) upstream from Bingham Creek, 7.5 miles (12.1 km) east of Alto, and at mile 149.3 (240.2 km).

DRAINAGE AREA.--1,276 mi² (3,305 km²).

PERIOD OF RECORD.--May to August 1940 (discharge measurements only), September 1940 to March 1949 (fragmentary for 1941-42, 1944-49), February 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 204.30 ft (62.271 m) above mean sea level. May 9, 1940, to Mar. 31, 1949, nonrecording gage on bridge at natural channel 1,400 ft (427 m) to right at same datum. Feb. 18 to Sept. 15, 1959, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--17 years (1942-43, 1959-75), 784 ft³/s (22.20 m³/s), 568,000 acre-ft/yr (700 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 11,800 ft³/s (334 m³/s) Feb. 6 (gage height, 19.06 ft or 5.809 m); minimum daily, 53 ft³/s (1.50 m³/s) Sept. 8, 9.

Period of record: Maximum discharge, 30,600 ft³/s (867 m³/s) Apr. 28, 1966 (gage height, 21.51 ft or 6.556 m), but may have been higher during period of no gage-height record in November 1940; minimum, 2.0 ft³/s (0.057 m³/s) Aug. 14, 15, 1964.

Maximum stage since at least 1905, about 22 ft (6.7 m) in May 1908, from information by local residents. Flood in 1932 reached a stage of 21.5 ft (6.55 m), and flood in May 1958 reached a stage of 20.3 ft (6.19 m), from floodmarks and information by local residents.

REMARKS.--Records good. No large diversion above station. Flow partly regulated since May 1957 by Striker Creek Reservoir 35.5 miles (57.1 km) upstream and Lake Tyler 69.9 miles (112.5 km) upstream since January 1949 (capacity, 107,900 acre-ft or 133 hm³). Recording rain gage located at station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	791	601	2,140	1,040	1,870	1,120	1,190	1,310	1,300	818	239	77
2	617	892	2,170	1,190	1,940	1,070	1,090	1,500	1,210	805	204	71
3	514	1,270	2,090	1,350	2,200	1,030	907	1,770	1,110	955	195	67
4	461	1,740	1,970	1,460	3,330	990	766	2,120	1,020	877	212	63
5	412	2,400	1,830	1,530	6,080	966	696	2,840	1,010	789	240	60
6	331	2,990	1,780	1,670	10,900	1,030	633	3,730	990	677	244	57
7	253	3,310	1,640	1,880	11,200	1,120	577	4,240	887	583	191	54
8	267	3,400	1,460	2,100	9,460	1,180	558	4,220	750	521	185	53
9	183	3,160	1,400	2,250	7,710	1,190	650	3,870	650	582	211	53
10	166	2,880	1,470	2,380	6,530	1,160	927	3,260	571	601	173	56
11	156	2,580	1,640	2,360	4,970	1,100	1,070	2,700	720	465	166	57
12	150	2,240	1,750	2,310	4,040	1,030	1,240	2,120	1,150	357	212	57
13	145	2,030	1,770	2,210	3,300	1,010	1,440	1,560	1,640	297	244	58
14	143	1,930	1,790	2,110	2,850	1,010	1,660	1,050	1,960	265	189	58
15	246	1,890	1,860	2,030	2,420	990	1,690	890	2,080	237	127	57
16	317	1,860	1,900	1,930	2,320	938	1,660	1,110	2,020	216	105	63
17	445	1,800	1,880	1,800	2,040	984	1,690	1,730	1,840	196	94	78
18	519	1,650	1,800	1,650	1,850	1,090	1,760	2,290	1,720	195	87	74
19	485	1,470	1,700	1,500	1,760	1,130	1,780	2,600	1,680	211	80	85
20	365	1,310	1,590	1,380	1,730	1,190	1,670	2,640	1,620	190	75	96
21	287	1,230	1,480	1,280	1,710	1,300	1,440	2,650	1,460	173	71	85
22	245	1,260	1,380	1,190	1,650	1,450	1,140	2,520	1,150	161	70	89
23	205	1,140	1,260	1,090	1,540	1,500	882	2,350	892	148	66	108
24	180	1,120	1,090	1,010	1,440	1,460	770	2,230	733	137	66	112
25	171	1,110	921	955	1,350	1,320	798	2,130	588	134	90	110
26	262	1,050	809	913	1,290	1,120	810	2,000	494	146	102	107
27	305	1,160	761	883	1,230	1,090	767	1,800	515	145	106	106
28	364	1,410	740	859	1,180	1,060	614	1,640	504	157	117	103
29	467	1,700	752	839	-----	1,070	631	1,570	577	158	118	100
30	468	1,970	861	818	-----	1,130	1,120	1,500	681	151	100	97
31	501	-----	961	837	-----	1,180	-----	1,400	-----	179	87	-----
TOTAL	10,341	54,693	46,645	46,804	99,890	35,008	32,626	67,340	33,522	11,526	4,466	2,311
MEAN	335	1,623	1,505	1,510	3,156	1,129	1,088	2,237	1,117	372	144	77.0
MAX	791	3,400	2,170	2,380	11,200	1,500	1,780	4,240	2,080	955	244	112
MIN	143	801	740	818	1,180	934	558	890	494	134	66	53
AC-FT	26,490	108,506	92,520	92,840	198,100	69,440	64,710	137,500	66,490	22,860	8,860	4,580
(+)	3.12	3.87	2.04	4.14	2.57	2.82	3.85	2.40	6.82	2.12	1.98	2.65

CAL YR 1974 TOTAL 413,443 MEAN 1,133 MAX 11,600 MIN 34 AC-FT 820,100 + 38.05
 WTR YR 1975 TOTAL 447,212 MEAN 1,225 MAX 11,200 MIN 53 AC-FT 897,000 + 38.38

+ Rainfall, in inches.

LOCATION.--Lat 31°27'26", long 94°43'34", Angelina-Nacogdoches County line, near right bank at downstream side of bridge on U.S. Highway 59, 200 ft (61 m) upstream from Procella Creek, 1.5 miles (2.4 km) downstream from Bayou Loco, 1.5 miles (2.4 km) upstream from Southern Pacific Lines bridge, 8 miles (13 km) north of Lufkin, and at mile 109.5 (176.2 km).

PERIOD OF RECORD.--Discharge: October 1923 to September 1934, July 1939 to current year.

Water quality: Chemical and biochemical analyses: October 1954 to current year. Water temperatures: October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 164.72 ft (50.207 m) above mean sea level. Oct. 29, 1923, to Jan. 17, 1926, nonrecording gage at Southern Pacific Lines bridge 1.5 miles (2.4 km) downstream at datum 1.39 ft (0.424 m) lower; Jan. 18, 1926, to Sept. 30, 1934, nonrecording gage at Lufkin-Nacogdoches highway bridge 1,400 ft (427 m) upstream at present datum.

AVERAGE DISCHARGE.--20 years (1923-34, 1939-48) unregulated, 1,438 ft³/s (40.72 m³/s), 1,042,000 acre-ft/yr (1.28 km³/yr); 27 years (1948-75) regulated, 1,008 ft³/s (28.55 m³/s), 730,300 acre-ft/yr (900 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 10,800 ft³/s (306 m³/s) Feb. 9 (gage height, 12.95 ft or 3.947 m); minimum daily, 64 ft³/s (1.81 m³/s) Sept. 11.

Period of record: Maximum discharge, 38,200 ft³/s (1,080 m³/s) Feb. 24, 1932; maximum gage height, 18.55 ft (5.654 m) May 7, 1944; minimum discharge, 0.8 ft³/s (0.023 m³/s) Oct. 29, 30, 1956.

Historic: Flood in May 1884 reached a stage of 26.5 ft (8.08 m) and is the highest since at least that date, and flood in May 1908 reached a stage of 25.0 ft (7.62 m); from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 262 micromhos Oct. 30; minimum daily, 71 micromhos Feb. 2. Maximum water temperatures, 28.0°C on several days during July, August, and September; minimum 5.0°C Jan. 13, 14.

Period of record: Maximum daily specific conductance, 1,090 micromhos Nov. 10, 11, 1963; minimum daily, 38 micromhos Sept. 21, 1958, May 2, 1962. Maximum water temperatures, 32.0°C on several days during July 1966; minimum, freezing point Jan. 11, 12, 1962.

REMARKS.--Discharge records good. No large diversion above station. For statement regarding regulation of flow, see Angelina River near Alto (station 08036500).

REVISIONS (WATER YEARS).--WSP 718: 1924, 1926. WSP 1312: 1924(M). WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	993	1,240	1,990	1,410	5,350	1,730	1,670	1,480	1,770	814	291	128
2	973	1,650	2,150	1,450	4,910	1,630	1,630	1,600	1,600	1,000	345	111
3	863	1,760	2,370	1,880	7,250	1,530	1,560	1,870	1,450	1,210	331	98
4	715	1,540	2,440	2,260	5,980	1,580	1,450	2,480	1,330	1,160	323	88
5	586	1,550	2,570	2,270	4,800	1,710	1,280	3,450	1,230	1,150	270	81
6	562	1,630	2,960	2,260	4,190	1,690	1,110	3,540	1,120	1,060	279	75
7	432	1,820	3,070	2,220	4,020	1,570	993	3,380	1,070	936	288	78
8	354	2,290	2,930	2,280	6,760	1,480	963	4,110	1,010	811	275	70
9	291	2,700	2,800	2,400	10,600	1,470	987	4,930	986	680	244	65
10	245	3,230	2,530	2,920	10,400	1,520	1,020	4,830	2,000	665	253	69
11	216	3,910	2,430	3,090	9,080	1,510	1,140	4,810	2,750	692	245	64
12	197	4,110	2,390	3,090	7,560	1,480	1,240	4,660	2,140	680	202	66
13	182	3,940	2,390	3,160	6,450	1,500	1,330	4,180	1,570	570	197	66
14	173	3,660	2,440	3,130	5,620	1,610	1,570	3,680	1,500	458	239	67
15	192	3,220	2,490	3,060	5,290	1,570	1,780	3,190	1,680	364	251	67
16	252	2,930	2,440	3,000	8,700	1,470	1,980	2,420	1,920	343	216	70
17	301	3,020	2,390	2,870	6,190	1,360	2,050	1,720	2,030	316	166	105
18	354	3,100	2,380	2,880	4,900	1,470	2,020	1,540	2,050	292	136	102
19	437	3,120	2,390	2,880	3,980	1,600	1,950	1,650	2,000	277	120	105
20	488	3,020	2,380	2,650	3,340	1,650	1,960	1,870	1,960	272	108	103
21	474	2,760	2,310	2,370	2,920	1,610	1,980	2,130	1,840	264	99	116
22	393	2,260	2,220	2,110	2,670	1,570	1,990	2,310	1,730	252	94	138
23	333	1,900	2,100	1,880	2,470	1,600	1,860	2,430	1,650	322	99	122
24	288	1,860	1,950	1,710	2,340	1,670	1,580	2,500	1,430	351	97	106
25	251	2,160	1,760	1,600	2,210	1,700	1,260	2,510	1,180	282	102	110
26	228	2,320	1,590	1,490	2,070	1,750	1,060	2,510	1,190	236	143	111
27	234	2,170	1,400	1,400	1,920	2,640	995	2,420	1,100	210	184	112
28	313	1,900	1,250	1,310	1,820	2,300	1,000	2,290	1,020	205	159	109
29	511	1,710	1,170	1,240	-----	1,930	1,500	2,220	951	244	149	105
30	774	1,810	1,370	1,190	-----	1,870	1,620	2,330	884	259	149	101
31	898	-----	1,450	1,140	-----	1,830	-----	2,050	-----	263	144	-----
TOTAL	13,447	74,170	68,580	68,600	148,690	51,600	44,528	87,090	46,141	16,638	6,218	2,806
MEAN	434	2,472	2,212	2,213	5,310	1,665	1,484	2,809	1,538	537	201	93.5
MAX	993	4,110	3,070	3,160	10,600	2,640	2,050	4,930	2,750	1,210	345	138
MIN	173	1,240	1,170	1,140	1,820	1,360	963	1,480	884	205	94	64
AC-FT	26,670	147,100	136,000	136,100	294,900	102,300	88,320	172,700	91,520	33,000	12,330	5,570
CAL YR 1974	TOTAL 547,323 MEAN 1,500 MAX 13,500 MIN 34 AC-FT 1,086,000											
WTR YR 1975	TOTAL 628,508 MEAN 1,722 MAX 10,600 MIN 64 AC-FT 1,247,000											

08037000 Angelina River near Lufkin, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
22...	1015	370	16	9.9	2.9	15	2.5	14	0	26
NOV.										
12...	1000	3600	13	6.7	3.2	18	3.4	8	0	19
DEC.										
09...	1530	2700	16	8.3	3.9	20	2.6	10	0	29
JAN.										
07...	0930	2000	16	9.3	5.2	18	2.7	17	0	42
FEB.										
10...	1350	6600	10	7.2	3.6	20	2.8	8	0	28
MAR.										
17...	1215	1350	14	8.4	5.3	14	--	20	0	29
APR.										
08...	1140	950	14	8.4	4.9	18	2.2	27	0	28
MAY										
12...	1030	4400	11	7.7	3.2	14	2.9	21	0	22
JUNE										
03...	1045	1500	14	8.2	4.8	13	2.2	32	0	16
JULY										
08...	0950	820	17	7.9	4.3	13	2.3	28	0	19
AUG.										
05...	1030	300	17	7.8	3.8	16	3.0	34	0	18
SEP.										
09...	1015	68	17	8.3	3.7	17	3.2	39	0	13

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.										
22...	20	--	.84	.00	.04	.03	.12	99	37	25
NOV.										
12...	31	--	.65	.00	.06	.00	.06	99	30	23
DEC.										
09...	32	.1	.41	.00	.11	.01	.06	117	37	29
JAN.										
07...	26	.0	.61	.01	.19	.01	.09	128	45	31
FEB.										
10...	33	.1	.67	.00	.04	.02	.03	109	33	26
MAR.										
17...	26	.2	.34	.00	.03	.08	.06	111	43	26
APR.										
08...	22	.1	.61	.01	.04	.13	.10	111	41	19
MAY										
12...	20	.1	.53	.01	.07	.10	.06	92	32	15
JUNE										
03...	18	.1	.89	.01	.02	.16	.11	92	40	14
JULY										
08...	15	.1	1.3	.01	.04	.18	.07	93	37	14
AUG.										
05...	19	.1	.87	.04	.04	.37	.12	101	35	7
SEP.										
09...	20	.2	.88	.01	.03	.20	.11	102	36	4

NECHES RIVER BASIN

08037000 Angellina River near Lufkin, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 22...	1.1	162	6.5	16.5	8.4	86	--	--	--
NOV. 12...	1.4	185	6.8	14.5	7.4	72	1.8	400	0
DEC. 09...	1.4	213	6.8	9.5	11.9	104	--	--	--
JAN. 07...	1.2	215	6.2	12.0	11.8	109	.9	430	0
FEB. 10...	1.5	190	6.8	9.5	11.4	100	--	--	--
MAR. 17...	1.2	201	6.7	13.0	9.5	90	1.0	--	--
APR. 08...	1.2	192	6.9	16.0	7.6	76	--	--	--
MAY 12...	1.1	161	6.7	23.5	6.7	78	1.8	730	30
JUNE 03...	.9	159	6.8	22.5	6.3	72	--	--	--
JULY 08...	.9	155	6.6	26.5	5.9	72	1.2	590	100
AUG. 05...	1.2	168	6.8	27.0	5.7	70	--	--	--
SEPT. 09...	1.2	175	6.7	27.0	6.2	77	1.3	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	13447	191	110	3990	25	908	24	871	37
NOV. 1974.....	74170	183	110	22000	23	4610	23	4610	36
DEC. 1974.....	68580	209	120	22200	29	5370	26	4810	40
JAN. 1975.....	68600	217	120	22200	31	5740	27	5000	41
FEB. 1975.....	148690	147	85	34100	15	6020	19	7630	31
MAR. 1975.....	51600	203	120	16700	28	3900	26	3620	39
APR. 1975.....	44528	215	120	14400	30	3610	27	3250	40
MAY 1975.....	87090	164	95	22300	19	4470	21	4940	33
JUNE 1975.....	46141	159	92	11500	18	2240	21	2620	32
JULY 1975.....	16638	169	98	4400	20	898	22	988	34
AUG. 1975.....	6218	163	94	1580	19	319	21	353	33
SEPT 1975.....	2806	162	94	712	18	136	21	159	33
TOTAL	628508	**	**	176000	**	38200	**	38900	**
MTD.AVG.	1721.94	180	100	**	23	**	23	**	36

NECHES RIVER BASIN

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08037000 Angelina River near Lufkin, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	246	197	199	100	190	224	208	200	157	160	153
2	211	220	194	241	71	193	228	171	172	149	159	166
3	190	184	200	229	93	194	235	169	172	139	148	172
4	177	197	185	230	113	203	233	180	154	192	169	168
5	172	151	150	233	127	197	219	171	156	178	162	168
6	169	132	217	218	133	188	205	171	159	153	156	168
7	163	169	216	214	151	181	199	179	142	154	154	164
8	166	179	217	212	149	183	196	161	137	155	166	170
9	169	150	213	209	197	199	200	145	144	159	170	166
10	173	131	206	200	201	203	149	140	130	164	159	167
11	175	188	203	202	178	209	182	151	116	165	158	167
12	181	198	204	207	161	214	196	162	126	197	172	168
13	182	177	203	216	149	212	222	171	166	227	165	167
14	185	177	205	226	145	216	237	179	183	210	167	168
15	187	179	210	224	147	209	233	171	164	189	166	170
16	187	197	220	221	109	204	218	172	155	177	161	167
17	182	199	224	213	127	204	195	168	142	176	155	163
18	173	195	222	212	139	197	203	157	147	179	153	162
19	168	188	210	215	150	201	210	114	177	176	150	159
20	165	184	224	213	160	197	210	113	194	180	154	153
21	163	179	223	218	172	195	217	135	182	175	158	151
22	160	178	226	215	175	203	220	153	185	174	163	156
23	171	179	226	213	178	231	214	159	181	170	165	154
24	184	199	231	216	185	240	199	154	166	162	167	147
25	179	207	233	219	187	217	199	160	159	160	179	152
26	179	207	220	220	186	239	195	177	150	157	185	151
27	183	209	209	222	185	183	216	195	149	169	178	146
28	176	137	201	223	186	197	250	156	153	171	167	152
29	188	195	203	223	---	193	247	174	154	178	163	154
30	262	204	204	224	---	193	238	187	150	159	166	229
31	259	---	197	225	---	209	---	203	---	171	166	---
MONTH	183	184	209	218	152	203	214	165	159	172	163	163

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	21.0	6.0	12.0	20.0	15.0	14.0	22.0	22.0	25.0	28.0	27.0
2	18.0	20.0	6.0	12.0	17.0	14.0	16.0	21.5	21.0	25.0	28.0	27.0
3	18.0	22.0	7.0	13.0	13.0	13.0	10.5	23.0	22.0	25.0	28.0	27.0
4	18.0	21.0	7.0	11.0	12.5	10.0	12.0	21.5	24.0	25.0	27.0	28.0
5	19.0	16.0	8.0	13.0	13.0	10.0	13.0	22.0	25.0	25.0	26.0	25.0
6	20.0	16.0	11.0	10.0	12.0	12.0	15.0	23.0	25.0	25.0	26.0	25.0
7	18.0	15.0	11.0	12.0	7.0	17.0	15.0	24.0	25.0	26.0	27.0	25.0
8	19.0	14.0	11.0	15.0	7.0	12.0	16.0	23.0	26.0	27.0	25.0	25.0
9	20.0	15.0	7.0	12.0	9.0	11.0	17.0	23.0	26.0	27.0	25.0	25.0
10	20.0	16.0	8.0	9.0	10.0	16.0	18.0	23.0	25.0	28.0	25.5	26.0
11	20.0	15.0	8.0	10.0	13.0	15.0	17.0	23.0	25.0	27.0	27.0	26.0
12	19.0	14.0	9.0	9.0	12.0	17.0	15.0	22.0	24.0	25.0	27.0	23.0
13	20.0	12.0	9.0	5.0	10.0	14.0	15.0	22.0	25.0	25.0	27.0	23.0
14	20.0	13.0	10.0	5.0	11.0	10.0	15.0	22.0	26.0	25.0	28.0	21.0
15	18.0	11.0	10.0	7.0	16.0	12.0	---	22.0	25.0	26.0	28.0	22.0
16	16.0	12.0	8.0	10.0	16.0	17.0	16.0	21.0	26.0	25.5	28.0	24.0
17	16.0	13.0	7.0	10.0	11.0	13.0	20.0	21.0	26.0	26.0	28.0	24.0
18	17.5	13.0	10.0	11.0	12.0	14.0	20.0	23.0	26.5	27.0	27.0	24.0
19	17.0	16.0	9.0	14.0	12.0	12.0	19.0	22.0	27.0	27.0	27.0	25.0
20	16.5	16.0	9.0	9.0	10.0	14.0	20.0	23.0	26.0	27.0	27.0	24.0
21	16.0	12.0	10.0	10.0	15.0	17.0	19.0	24.0	25.0	27.0	28.0	23.0
22	15.0	13.0	10.0	12.0	15.0	19.0	19.0	25.0	25.0	28.0	28.0	20.0
23	17.0	17.0	13.0	10.0	10.0	21.0	19.0	24.0	25.0	26.0	28.0	20.0
24	17.0	13.0	15.0	12.0	7.0	17.0	20.5	24.0	25.0	26.0	27.5	18.0
25	18.0	12.0	15.0	11.0	7.0	17.0	22.0	24.0	25.0	27.0	27.0	18.0
26	16.0	12.0	10.0	10.0	12.0	17.0	22.5	25.0	25.0	28.0	26.0	19.0
27	16.0	11.0	10.0	14.0	13.0	19.0	23.0	25.0	25.0	28.0	26.0	19.0
28	18.0	13.0	12.0	18.0	14.0	20.0	24.0	24.0	25.0	28.0	26.0	18.0
29	19.0	13.0	14.0	16.0	---	15.0	21.0	24.0	25.0	28.0	26.0	18.0
30	21.0	7.0	16.0	18.0	---	14.0	22.0	23.0	25.0	28.0	26.0	18.0
31	22.0	---	16.0	20.0	---	12.0	---	22.0	---	27.0	27.0	---
MONTH	18.0	14.5	10.0	11.5	12.0	14.5	18.0	23.0	25.0	26.5	27.0	23.0

NECHES RIVER BASIN

08037050 Bayou LaNana at Nacogdoches, Tex.

LOCATION.--Lat 31°36'58", long 94°38'28", Nacogdoches County, on right bank at downstream side of bridge on Farm Road 1878 in Nacogdoches and 14.5 miles (23.3 km) upstream from mouth.

DRAINAGE AREA.--31.3 mi² (81.1 km²).

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

GAGE.--Water-stage recorder. Prior to July 1974, concrete control. Datum of gage is 264.23 ft (80.537 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 29.7 ft³/s (0.841 m³/s), 12.89 in/yr (327 mm/yr), 21,520 acre-ft/yr (26.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,000 ft³/s (255 m³/s) Feb. 1 (gage height, 19.85 ft or 6.050 m), from rating curve extended above 2,800 ft³/s (79.3 m³/s) on basis of indirect measurement; minimum, 0.84 ft³/s (0.024 m³/s) Sept. 15, 16.

Period of record: Maximum discharge, 9,000 ft³/s (255 m³/s) Feb. 1, 1975 (gage height, 19.85 ft or 6.050 m), from rating curve extended above 2,800 ft³/s (79.3 m³/s) on basis of indirect measurement; no flow at times.

Maximum stage since at least 1956, that of Feb. 1, 1975. Flood in April 1957 reached a stage of 19.6 ft (5.97 m), from information furnished by Texas Highway Department and local resident.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	500	39	39	3,420	30	38	33	16	16	7.3	1.1
2	4.5	111	32	88	411	28	33	54	15	15	6.6	1.0
3	4.0	38	29	171	398	26	27	150	15	14	4.5	.96
4	3.6	32	26	63	471	72	25	239	15	13	3.4	.94
5	3.4	31	31	44	110	37	23	114	14	12	2.9	1.1
6	2.9	24	215	36	72	31	22	55	14	11	2.6	2.7
7	2.6	31	67	65	57	30	23	90	14	10	2.4	1.3
8	2.4	84	46	66	52	24	39	177	13	13	2.2	1.1
9	2.2	49	37	45	47	23	97	45	815	11	6.3	1.1
10	1.8	323	40	312	44	23	41	31	292	10	2.2	1.0
11	1.6	187	98	69	44	21	29	27	57	9.0	2.1	1.0
12	1.5	55	50	86	38	24	23	24	32	8.0	2.1	1.1
13	1.5	41	40	61	35	10	42	20	23	7.0	1.9	1.5
14	7.4	35	40	48	34	41	102	22	19	6.5	1.9	1.0
15	13	30	42	42	442	28	40	26	38	6.0	1.8	.93
16	5.4	35	33	37	666	27	29	20	22	5.5	1.7	7.6
17	3.3	236	29	37	90	27	25	17	17	5.2	1.7	1.6
18	2.6	73	28	75	65	92	22	16	16	4.9	1.7	1.3
19	2.1	53	26	54	51	43	22	16	32	4.6	1.6	1.2
20	1.8	41	24	38	46	35	20	16	34	4.4	1.5	6.3
21	1.5	33	22	34	44	30	20	16	15	4.2	1.8	1.8
22	1.4	30	22	30	44	29	20	15	15	12	1.7	3.2
23	1.5	28	22	28	42	28	19	15	15	7.1	5.7	1.5
24	1.5	180	23	30	36	24	19	16	23	5.5	3.0	1.4
25	1.5	71	21	32	32	21	19	18	28	4.8	14	1.3
26	1.4	46	21	27	30	45	18	16	27	4.0	6.9	1.3
27	1.4	37	22	25	31	119	18	42	20	3.8	3.1	1.3
28	68	32	24	23	31	67	52	18	31	9.3	1.6	1.2
29	122	35	25	23	-----	111	48	21	35	5.2	1.4	1.3
30	18	64	58	22	-----	73	99	18	19	4.0	1.3	1.3
31	119	-----	43	607	-----	46	-----	16	-----	3.8	1.2	-----
TOTAL	410.0	2,565	1,275	2,357	6,883	1,365	1,054	1,403	1,741	249.8	100.1	51.43
MEAN	13.2	85.5	41.1	76.0	246	44.0	35.1	45.3	58.0	8.06	3.23	1.71
MAX	122	500	215	607	3,420	119	102	239	815	16	14	7.6
MIN	1.4	24	21	22	30	21	18	15	13	3.8	1.2	.93
CFSM	.42	2.73	1.31	2.43	7.86	1.41	1.12	1.45	1.85	.26	.10	.05
IN.	.49	3.05	1.52	2.80	8.18	1.62	1.25	1.67	2.07	.30	.12	.06
AC-FT	813	5,090	2,530	4,680	13,650	2,710	2,090	2,780	3,450	495	199	102

CAL YR 1974 TOTAL 12,525.41 MEAN 34.3 MAX 1,440 MIN 0 CFMS 1.10 IN 14.89 AC-FT 24,840
WTR YR 1975 TOTAL 19,454.31 MEAN 53.3 MAX 3,420 MIN .93 CFMS 1.70 IN 23.12 AC-FT 38,590

PEAK DISCHARGE (BASE, 1,100 FT³/S)

DATE	TIME	G.HT.	DISCHARGE
2- 1	0015	19.85	9,000
2-16	0100	14.94	1,620
6- 9	1400	13.33	1,230

NECHES RIVER BASIN

355

08037080 Bayou LaNana near Nacogdoches, Tex.

LOCATION.--Lat 31°31'10", long 94°39'21", Nacogdoches County, at bridge on county road, 2.6 miles (4.2 km) upstream from Southern Pacific Lines bridge, 5 miles (8 km) upstream from Black Bayou, and 6 miles (10 km) south of Nacogdoches.

PERIOD OF RECORD.--Periodic chemical analyses: June 1964 to current year. Biochemical analyses: October 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 22...	1110	15	13	4.9	52	5.4	64	0	71	21
NOV. 12...	1115	15	10	5.1	13	3.4	20	0	37	14
DEC. 09...	1615	16	11	6.2	16	2.6	15	0	52	15
JAN. 07...	1045	17	11	6.0	17	3.2	19	0	46	16
FEB. 10...	1310	15	9.6	5.2	11	2.3	20	0	38	12
MAR. 17...	1320	13	10	5.9	15	2.8	26	0	43	14
APR. 08...	1245	13	11	4.9	15	3.0	37	0	33	13
MAY 12...	1130	7.0	10	5.3	14	2.7	34	0	34	11
JUNE 03...	1145	11	12	5.2	25	3.2	42	0	43	16
JULY 08...	1045	17	12	4.9	24	3.5	38	0	47	14
AUG. 05...	1115	16	11	4.2	28	5.2	74	0	21	16
SEP. 09...	1100	16	11	3.0	49	6.7	112	0	23	21

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 22...	--	2.2	.00	.40	.05	2.0	214	53	0
NOV. 12...	--	.71	.03	.49	.92	.79	107	46	30
DEC. 09...	.1	.39	.03	.61	1.1	.31	126	53	41
JAN. 07...	.1	.58	.03	.82	.97	1.0	126	52	37
FEB. 10...	.1	.56	.05	.64	.95	.25	103	45	29
MAR. 17...	.2	.50	.04	.60	1.1	.46	117	49	28
APR. 08...	.1	.90	.06	.30	1.4	.50	111	48	17
MAY 12...	.1	.52	.11	.58	.99	.28	101	47	19
JUNE 03...	.2	1.0	.30	.38	1.6	.49	136	51	17
JULY 08...	.2	1.1	.14	.45	1.5	.36	141	50	19
AUG. 05...	.2	2.6	.49	1.6	1.9	1.4	138	45	0
SEP. 09...	.2	2.8	.50	2.0	2.0	2.7	185	40	0

NECHES RIVER BASIN

08037080 Bayou LaNana near Nacogdoches, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	DIS- SOLVED IRON (PPM)	DIS- SOLVED MANGANESE (PPM)
OCT. 22...	3.1	393	6.7	16.5	7.3	74	--	--	--
NOV. 12...	.8	192	6.6	15.0	8.2	80	3.0	60	40
DEC. 09...	1.0	226	6.0	8.5	10.7	91	--	--	--
JAN. 07...	1.0	218	6.0	12.0	12.0	111	2.0	40	60
FEB. 10...	.7	174	6.8	9.0	10.4	90	--	--	--
MAR. 17...	.9	203	6.9	14.5	8.5	83	2.6	20	40
APR. 08...	.9	201	6.9	17.0	7.2	74	--	--	--
MAY 12...	.9	192	6.6	21.0	7.1	79	4.5	90	5
JUNE 03...	1.5	252	6.8	23.5	6.0	70	--	--	--
JULY 08...	1.5	251	6.6	27.0	6.0	74	3.0	40	0
AUG. 05...	1.8	247	6.8	26.0	3.5	43	--	--	--
SEP. 09...	3.4	353	6.6	25.5	4.2	51	8.6	--	--

08037200 Paper Mill Creek near Herty, Tex.

LOCATION.--Lat 31°23'32", long 94°39'46", Angelina County, at bridge on county road, 2.0 miles (3.2 km) upstream from Mill Creek, and 2.3 miles (3.7 km) northeast of Herty.

PERIOD OF RECORD.--Periodic chemical analyses: June 1964 to current year. Biochemical analyses: October 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 22...	1245	15	56	3.4	300	8.3	279	0	180	250
NOV. 12...	1245	14	43	3.9	250	7.0	248	0	160	200
DEC. 10...	1015	15	47	3.8	320	9.6	334	0	210	260
JAN. 07...	1200	14	79	4.3	250	7.4	255	0	160	300
FEB. 10...	1430	13	40	3.9	330	9.0	165	0	210	330
MAR. 17...	1430	--	42	4.9	330	11	254	0	--	--
APR. 08...	1345	13	59	4.3	270	7.2	292	0	150	280
MAY 12...	1230	13	56	4.5	300	7.0	182	0	200	330
JUNE 03...	1245	14	56	4.8	300	7.3	218	0	200	310
JULY 08...	1150	16	34	3.3	300	7.2	132	0	200	320
AUG. 05...	1205	15	46	3.8	320	10	207	0	180	320
SEP. 09...	1145	15	68	4.0	330	8.4	252	0	210	360

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 22...	--	2.2	.06	.34	.00	.21	950	150	0
NOV. 12...	--	2.1	.05	2.0	.00	.18	801	120	0
DEC. 10...	.4	3.4	.03	.25	.07	.20	1030	130	0
JAN. 07...	.1	2.4	.05	.00	.00	.21	942	220	6
FEB. 10...	.2	2.5	.01	.89	.03	.14	1020	120	0
MAR. 17...	.1	2.2	.01	.83	.02	.15	--	130	0
APR. 08...	.1	1.5	.01	1.2	.02	.17	928	170	0
MAY 12...	.2	2.7	.03	2.3	.62	.10	1000	140	9
JUNE 03...	.2	2.9	.05	1.5	.00	.11	1000	160	0
JULY 08...	.2	2.4	.05	1.5	.82	.12	948	99	0
AUG. 05...	.2	2.2	.03	2.6	.80	.03	997	130	0
SEP. 09...	.2	1.6	.01	1.6	.65	.18	1120	170	0

NECHES RIVER BASIN

08037200 Paper Mill Creek near Herty, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 22...	11	1690	6.9	35.0	5.2	73	--	--	--
NOV. 12...	9.8	1440	6.9	13.0	4.6	43	32	600	580
DEC. 10...	12	1750	6.7	30.0	4.7	62	--	--	--
JAN. 07...	7.4	1670	7.0	30.5	7.6	100	20	880	550
FEB. 10...	13	1800	6.7	30.0	6.0	79	--	--	--
MAR. 17...	13	1770	7.4	30.5	5.3	70	16	350	690
APR. 08...	9.1	1690	7.3	31.0	4.2	56	--	--	--
MAY 12...	10	1740	7.1	35.5	5.4	77	16	1100	710
JUNE 03...	10	1750	7.1	37.5	5.0	74	--	--	--
JULY 08...	13	1720	6.9	37.0	5.3	77	11	980	950
AUG. 05...	12	1620	7.2	37.0	5.0	72	--	--	--
SEP. 09...	11	2060	7.1	37.5	4.7	69	14	--	--

08037250 Angelina River below Paper Mill Creek near Herty, Tex.

LOCATION.--Lat 31°26'22", long 94°37'11", Angelina County, at end of county road, 1.5 miles (2.4 km) downstream from Paper Mill Creek, and 7 miles (11 km) northeast of Herty.

PERIOD OF RECORD.--Periodic chemical analyses: June 1954 to current year. Biochemical analyses: October 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCU3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT. 22...	1330	16	14	3.2	58	3.9	52	0	49	57
NOV. 12...	1305	11	13	3.3	40	4.6	46	0	43	44
DEC. 10...	0900	19	13	3.9	44	3.1	34	0	41	49
JAN. 07...	1415	15	14	4.8	41	3.6	39	0	45	55
FEB. 25...	1515	14	14	5.3	46	2.9	36	0	43	57
MAR. 17...	1515	13	11	4.8	42	3.1	40	0	42	49
MAY 12...	1330	11	18	4.4	110	7.9	76	0	70	120
JUNE 03...	1340	14	11	4.6	34	2.5	43	0	28	38
JULY 08...	1300	16	11	4.7	42	3.7	46	0	34	46
AUG. 05...	1245	9.8	13	4.1	57	4.1	57	0	41	64
SEP. 09...	1245	16	20	4.0	110	5.3	118	0	66	110

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT. 22...	--	.57	.00	.04	.05	.14	227	48	5
NOV. 12...	--	.75	.01	.13	.06	.12	182	46	8
DEC. 10...	.1	.61	.01	.11	.04	.10	186	49	21
JAN. 07...	.0	.94	.03	.05	.00	.12	198	55	23
FEB. 25...	.1	.72	.01	.02	.02	.06	200	57	27
MAR. 17...	.1	.51	.01	.08	.07	.10	186	47	14
MAY 12...	.1	.44	.04	.86	.65	.12	381	63	1
JUNE 03...	.1	1.2	.01	.13	.18	.12	153	46	11
JULY 08...	.1	.97	.02	.13	.17	.11	182	47	9
AUG. 05...	.2	1.4	.06	.27	.52	.21	221	49	3
SEP. 09...	.2	1.5	.05	.31	.44	.19	390	66	0

NECHES RIVER BASIN

08037250 Angellna River below Paper Mill Creek near Herty, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 22...	3.6	410	6.7	17.5	7.6	79	--	--	--
NOV. 12...	2.6	338	6.8	15.0	6.8	67	3.3	560	0
DEC. 10...	2.8	358	6.2	8.0	8.2	69	--	--	--
JAN. 07...	2.4	367	6.5	13.0	7.4	70	2.1	440	60
FEB. 25...	2.7	366	6.5	15.0	7.8	76	--	--	--
MAR. 17...	2.7	342	6.7	14.5	9.2	89	1.8	970	70
MAY 12...	6.0	711	6.6	22.0	6.4	73	4.4	1000	830
JUNE 03...	2.2	293	6.7	23.0	6.9	79	--	--	--
JULY 08...	2.7	341	6.4	27.0	5.6	69	2.7	1200	250
AUG. 05...	3.5	417	6.8	27.5	4.0	50	--	--	--
SEP. 09...	5.9	758	6.7	27.0	4.1	51	4.2	--	--

NECHES RIVER BASIN

361

08037330 Angelina River near Etoile, Tex.

LOCATION.--Lat 31°22'24", long 94°28'27", Nacogdoches County, at bridge on State Highway 103 and 2.3 miles (3.7 km) west of Etoile.

PERIOD OF RECORD.--Periodic chemical analyses: June 1964 to current year. Biochemical analyses: October 1967 to September 1975 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 22...	1420	17	11	3.2	35	2.6	16	0	42	40
NOV. 12...	1430	12	6.8	3.0	17	3.3	10	0	28	21
DEC. 10...	1100	14	8.9	3.3	27	3.1	18	0	32	38
JAN. 07...	1700	15	9.6	4.6	24	3.7	22	0	36	31
FEB. 11...	0900	11	7.2	3.2	15	2.6	16	0	25	22
MAR. 18...	0815	--	8.9	4.7	20	2.9	25	0	--	--
APR. 08...	1440	10	8.8	4.7	19	2.5	28	0	28	28
MAY 12...	1500	12	7.7	3.1	16	2.7	28	0	22	18

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT. 22...	--	.96	.00	.04	.06	.13	159	41	28
NOV. 12...	--	.84	.00	.03	.01	.10	97	29	21
DEC. 10...	.1	.43	.00	.09	.01	.08	135	36	21
JAN. 07...	.0	.53	.01	.13	.04	.04	135	43	25
FEB. 11...	.1	.54	.00	.11	.07	.04	94	31	18
MAR. 18...	.3	.36	.00	.04	.07	.05	--	42	21
APR. 08...	.1	.18	.01	.04	.12	.06	115	41	18
MAY 12...	.6	.58	.01	.11	.13	.07	97	32	9

DATE	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT. 22...	2.4	291	6.6	20.5	6.1	67	--	--	--
NOV. 12...	1.4	172	6.5	15.5	6.4	63	1.8	540	10
DEC. 10...	2.0	252	6.6	9.5	7.8	68	--	--	--
JAN. 07...	1.6	236	6.3	13.5	8.6	82	.9	370	10
FEB. 11...	1.2	174	6.8	10.5	7.6	68	--	--	--
MAR. 18...	1.4	210	6.7	13.0	6.9	65	1.1	660	20
APR. 08...	1.3	229	6.9	17.0	7.0	72	--	--	--
MAY 12...	1.2	173	6.4	25.0	2.7	32	2.5	690	50

NECHES RIVER BASIN

08038000 Attoyac Bayou near Chireno, Tex.

LOCATION.--Lat 31°30'15", long 94°18'15", Macogdoches-San Augustine County line, near right bank on downstream side of pier of bridge on State Highway 21, 2.2 miles (3.5 km) upstream from Amaladeros Creek, 2.8 miles (4.5 km) east of Chireno, 5.4 miles (8.7 km) downstream from Arenoso Creek, and 41 miles (66 km) upstream from mouth.

DRAINAGE AREA.--503 mi² (1,303 km²).

PERIOD OF RECORD.--January 1924 to September 1925, July 1939 to November 1954, and October 1955 to current year. Monthly discharge only for some periods, published in WSP 1312 and 1732.

GAGE.--Water-stage recorder. Datum of gage is 169.58 ft (51.688 m) above mean sea level. Jan. 24, 1924, to Aug. 29, 1925, and Sept. 6, 1957, to Oct. 27, 1958, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 445 ft³/s (12.60 m³/s), 12.02 in/yr (305 mm/yr), 322,400 acre-ft/yr (398 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,930 ft³/s (253 m³/s) Feb. 2 (gage height, 19.82 ft or 6.041 m); minimum, 57 ft³/s (1.61 m³/s) Aug. 21, 22.

Period of record: Maximum discharge, 31,900 ft³/s (903 m³/s) Nov. 24, 1940 (gage height, 25.97 ft or 7.916 m); minimum, 0.8 ft³/s (0.023 m³/s) Aug. 26, 27, 1956.

Maximum stage since at least 1865, 29.9 ft (9.11 m) June 29, 1902, from information by local residents. Flood in July 1933 reached a stage of 25.2 ft (7.68 m), from information by local residents.

REMARKS.--Records good. At end of year, flow from 18.5 mi² (47.9 km²) above this station was partly controlled by four floodwater-retarding structures with a combined capacity of 6,130 acre-ft (7.56 hm³) below the flood-spillway crests, of which 334 acre-ft (0.412 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	1,250	1,120	845	455	498	1,290	1,290	362	900	136	89
2	99	1,760	1,050	848	5,360	477	1,160	1,660	293	869	144	81
3	88	1,450	867	917	6,600	454	1,000	2,190	244	602	171	77
4	81	1,310	676	963	4,770	530	812	2,310	212	375	204	70
5	76	1,180	523	981	4,020	660	540	2,050	192	361	240	69
6	73	1,290	846	996	3,270	656	404	2,440	209	273	156	78
7	71	1,370	1,020	1,060	2,490	642	357	2,740	211	217	131	150
8	69	1,340	1,080	1,200	2,060	619	355	2,380	211	183	112	193
9	69	1,200	1,080	1,300	1,780	551	415	2,150	225	196	107	162
10	70	1,060	1,160	1,420	1,570	488	443	1,950	346	201	124	136
11	70	1,240	1,370	1,530	1,400	450	576	1,770	574	205	115	114
12	68	1,250	1,470	1,570	1,260	428	647	1,600	685	188	102	125
13	65	1,180	1,400	1,680	1,080	497	539	1,420	768	163	90	121
14	63	1,050	1,340	2,080	819	619	706	1,270	822	147	82	111
15	67	1,010	1,640	1,880	775	683	771	956	862	130	77	87
16	83	1,060	1,550	1,660	1,810	716	700	690	700	120	73	75
17	88	1,210	1,410	1,460	3,160	739	679	653	387	114	69	123
18	95	1,340	1,210	1,490	3,530	853	673	587	292	127	66	128
19	97	1,360	922	1,450	2,490	867	633	497	230	129	63	105
20	84	1,220	629	1,300	2,040	844	465	406	201	109	61	97
21	73	1,060	499	1,090	1,760	847	344	342	183	100	59	109
22	68	944	440	887	1,530	859	298	300	166	130	70	119
23	65	951	406	702	1,360	828	278	270	274	266	104	143
24	64	953	453	570	1,150	705	267	257	387	203	100	112
25	64	997	609	518	849	552	259	325	408	149	130	87
26	64	978	753	494	648	452	245	394	482	134	152	77
27	65	944	633	475	569	437	227	341	782	108	195	74
28	70	942	577	454	527	662	225	337	873	127	195	68
29	199	472	624	427	-----	869	565	511	865	190	192	65
30	310	1,060	782	405	-----	1,180	1,180	511	893	230	143	64
31	425	-----	821	387	-----	1,340	-----	437	-----	186	110	-----
TOTAL	3,060	35,001	29,160	33,039	59,132	21,002	17,053	35,034	13,339	7,441	3,773	3,109
MEAN	98.7	1,167	941	1,066	2,112	677	568	1,130	445	240	122	104
MAX	425	1,760	1,640	2,080	6,600	1,340	1,290	2,740	893	900	240	193
MIN	63	942	406	387	455	428	225	257	166	100	59	64
CFSM	120	2,32	1,87	2,12	4,20	1,35	1,13	2,25	88	148	24	21
IN	223	2,59	2,16	2,44	4,37	1,55	1,26	2,59	99	55	28	23
AC-FT	6,070	69,420	57,840	65,530	117,300	41,660	33,820	69,490	26,460	14,760	7,480	6,170

CAL YR 1974 TOTAL 206,858 MEAN 567 MAX 9,900 MIN 33 CFSM 1.13 IN 15.30 AC-FT 410,300
WTR YR 1975 TOTAL 260,143 MEAN 713 MAX 6,600 MIN 59 CFSM 1.42 IN 19.24 AC-FT 516,000

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
2-2	1800	19.82	8,930	5-2	2200	17.07	2,800
2-17	2100	18.02	4,410	5-7	0300	17.16	2,920

08038100 Attoyac Bayou near Etoile, Tex.

LOCATION.--Lat 31°23'02", long 94°19'20", Nacogdoches County, at State Highway 103 bridge, 6.5 miles (10.5 km) east of Etoile, and 8 miles (13 km) south of Chireno.

PERIOD OF RECORD.--Chemical analyses: October 1965 to current year. Biochemical analyses: October 1967 to September 1975 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT. 22...	1500	24	0	10	.34	.00	.04	.09
NOV. 12...	1530	19	0	10	.41	.00	.05	.01
DEC. 10...	1145	14	0	12	.35	.00	.05	.03
JAN. 08...	0730	25	0	14	.76	.01	.04	.11
FEB. 11...	0930	19	0	11	.64	.01	.03	.03
MAR. 18...	0920	26	0	15	.34	.00	.03	.11
APR. 08...	1530	30	0	19	.47	.00	.04	.11
MAY 12...	1545	26	0	14	.54	.01	.07	.14

DATE	TOTAL PHOSPHORUS (P) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT. 22...	.08	100	6.9	18.5	8.8	94	--	--
NOV. 12...	.09	117	6.6	15.5	5.6	55	460	10
DEC. 10...	.07	125	6.9	8.5	7.7	65	--	--
JAN. 08...	.17	164	6.1	11.5	8.2	75	580	10
FEB. 11...	.33	105	6.6	10.5	9.2	82	--	--
MAR. 18...	.05	178	6.9	13.0	7.3	69	--	--
APR. 08...	.10	167	6.8	17.0	7.2	74	--	--
MAY 12...	.06	113	6.5	23.0	4.4	51	730	50

NECHES RIVER BASIN

08038490 Sam Rayburn Reservoir near Zavalla, Tex.

LOCATION.--Lat 31°13'26", long 94°19'29", Angelina County, at bridge on State Highway 147 and approximately 8 miles (13 km) northeast of Zavalla.

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1967 to September 1975 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT. 22...	1600	30	0	22	.81	.00	.08	.01
NOV. 12...	1630	28	0	15	.65	.00	.06	.08
DEC. 10...	1230	23	0	20	.33	.00	.04	.12
JAN. 08...	0900	20	0	23	.55	.01	.06	.13
FEB. 11...	1015	16	0	25	.61	.01	.05	.10
MAR. 18...	1045	12	0	22	.39	.00	.04	.06
APR. 08...	1630	16	0	21	.66	.01	.03	.10
MAY 12...	1650	17	0	24	1.3	.00	.11	.11

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 22...	.08	172	6.6	21.5	6.6	74	--	--
NOV. 12...	.02	168	6.7	17.5	7.8	81	10	0
DEC. 10...	.03	176	6.8	11.5	8.5	77	--	--
JAN. 08...	.03	185	6.8	12.5	9.4	88	230	0
FEB. 11...	.00	172	6.7	14.0	9.1	88	--	--
MAR. 18...	.05	156	7.2	13.0	9.0	85	370	0
APR. 08...	.04	153	7.1	16.0	6.4	64	--	--
MAY 12...	.24	157	6.9	24.5	7.5	89	640	150

NECHES RIVER BASIN

365

08039100 Ayish Bayou near San Augustine, Tex.

LOCATION.--Lat 31°23'46", long 94°09'03", San Augustine County, near center of span at downstream side of pier of bridge on State Highway 103, 3.0 miles (4.8 km) upstream from Turkey Creek, and 9.5 miles (15.3 km) south of San Augustine.

DRAINAGE AREA.--89.0 mi² (230.5 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 190.22 ft (57.979 m) above mean sea level. Prior to June 2, 1959, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years, 82.2 ft³/s (2,328 m³/s), 12.54 in/yr (319 mm/yr), 59,550 acre-ft/yr (73.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,800 ft³/s (136 m³/s) May 4 (gage height, 13.86 ft or 4.225 m); minimum, 4.2 ft³/s (0.12 m³/s) Oct. 8, 9.

Period of record: Maximum discharge, 13,200 ft³/s (374 m³/s) Apr. 9, 1968 (gage height, 16.82 ft or 5.127 m); no flow at times. Maximum discharge since October 1957, 15,900 ft³/s (450 m³/s) Sept. 21 or 22, 1958 (gage height, 17.5 ft or 5.33 m, from flood-marks).

REMARKS.--Records fair. No known diversion above station. Recording rain gage located at station.

REVISIONS (WATER YEARS).--WSP 1922: 1959(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP				
1	9.8	528	139	307	189	108	73	230	79	381	39	11				
2	7.9	1,460	101	238	327	102	71	117	63	154	50	8.7				
3	7.3	480	86	452	318	92	65	2,290	54	79	56	6.7				
4	6.4	139	76	576	763	241	57	2,900	48	62	147	6.2				
5	6.0	98	72	288	793	283	55	1,250	45	52	53	5.7				
6	5.0	75	294	211	335	162	53	905	42	43	34	8.7				
7	4.7	64	596	184	208	132	51	441	41	36	27	23				
8	4.4	109	249	208	172	111	59	1,640	63	31	22	16				
9	4.5	171	137	165	156	98	115	1,020	52	46	21	17				
10	5.2	214	111	356	138	122	76	483	65	110	20	13				
11	5.4	781	304	793	135	106	59	245	83	192	18	9.4				
12	4.9	447	340	338	131	100	51	184	62	75	16	17				
13	4.6	163	181	332	112	240	48	148	46	47	15	11				
14	4.4	112	256	239	105	303	251	293	37	36	13	8.0				
15	5.8	86	965	187	125	162	182	305	33	31	12	6.8				
16	8.4	76	772	162	1,480	128	92	270	45	32	11	9.6				
17	9.2	259	249	148	872	137	69	180	36	27	10	45				
18	8.3	300	163	509	304	460	62	120	29	27	9.5	30				
19	6.8	178	151	923	201	375	55	96	25	35	8.6	20				
20	5.9	128	132	388	159	185	48	84	84	22	7.5	14				
21	5.0	101	111	221	140	142	42	75	56	19	7.7	12				
22	4.6	84	99	180	147	129	43	68	75	26	7.3	12				
23	4.7	74	94	168	292	121	46	61	52	367	7.1	11				
24	4.6	138	205	150	251	143	43	60	58	156	7.9	11				
25	4.7	422	1,010	149	154	112	38	291	84	65	16	10				
26	4.7	233	677	135	128	92	34	256	261	45	28	8.7				
27	4.4	133	379	122	128	87	30	167	376	35	19	8.1				
28	10	104	318	114	118	91	32	289	148	31	15	7.3				
29	108	91	294	108	-----	96	284	155	83	110	13	6.7				
30	84	146	572	104	-----	94	325	134	98	60	12	6.4				
31	79	-----	671	99	-----	78	-----	108	-----	40	10	-----				
TOTAL	439.0	7,394	9,804	8,554	8,381	4,832	2,509	14,865	2,323	2,472	732.6	380.0				
MEAN	14.2	246	316	276	299	156	83.6	480	77.4	79.7	23.6	12.7				
MAX	108	1,460	1,010	923	1,480	460	325	2,900	376	381	147	45				
MIN	4.4	64	72	99	105	78	30	60	25	19	7.1	5.7				
CFSM	1.16	2.76	3.55	3.10	3.36	1.75	.94	5.39	.87	.90	.27	.14				
IN.	.18	3.69	4.10	3.58	3.50	2.02	1.05	6.21	.97	1.03	.31	.16				
AC-FT	871	14,676	14,450	16,970	16,620	9,580	4,980	29,480	4,610	4,900	1,450	754				
(††)	4.70	7.28	4.12	.29	1.58	3.18	4.11	7.98	5.71	3.57	4.74	1.97				
CAL YR 1974	TOTAL	56,214.6	MEAN	154	MAX	3,200	MIN	1.4	CFSM	1.73	IN	23.50	AC-FT	111,500	††	52.08
WTR YR 1975	TOTAL	62,685.6	MEAN	172	MAX	2,900	MIN	4.4	CFSM	1.93	IN	26.20	AC-FT	124,300	††	49.23

PEAK DISCHARGE (BASE, 1,500 FT³/S, REVISED)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11- 2	0700	12.79	2,680	5-4	1000	13.86	4,800
2-16	1100	12.93	2,930	5-8	1400	12.90	2,870

†† Rainfall, in inches.

NECHES RIVER BASIN

08039300 Sam Rayburn Reservoir near Jasper, Tex.

LOCATION.--Lat 31°03'38", long 94°06'21", Jasper County, in the powerhouse-intake structure of Sam Rayburn Dam on the Angelina River, 10 miles (16 km) northwest of Jasper, and 25.2 miles (40.5 km) upstream from mouth.

DRAINAGE AREA.--3,449 mi² (8,933 km²).

PERIOD OF RECORD.--Contents: January 1965 to current year.

Water quality: Chemical analyses: October 1964 to current year. Biochemical analyses: November 1967 to current year.

GAGE.--Stevens type AP recording transmitter. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Apr. 20, 1965, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 3,270,000 acre-ft (4.03 km³) Feb. 23 (elevation, 167.52 ft or 51.060 m); minimum, 2,156,000 acre-ft (2.66 km³) Oct. 14 (elevation, 157.33 ft or 47.954 m).

Period of record: Maximum contents, 3,881,000 acre-ft (4.79 km³) Feb. 7, 1974 (elevation, 172.17 ft or 52.477 m); minimum since conservation storage was reached in 1968, 2,156,000 acre-ft (2.66 km³) Oct. 14, 1974 (elevation, 157.33 ft or 47.954 m).

REMARKS.--The reservoir is formed by a rolled earthfill dam 19,430 ft (5,920 m) long, including spillway and dikes. The dam was completed and deliberate impoundment began Mar. 29, 1965. The emergency spillway is an uncontrolled broad-crested weir 2,200 ft (670 m) wide on right bank 7,000 ft (2,100 m) to right of outlet works designed to discharge 125,300 ft³/s (3,550 m³/s) at maximum flood design. The flood-control outlet works consist of two 10- by 20-foot (3- by 6-metre) rectangular concrete-lined conduits controlled by two 10- by 20-foot (3- by 6-metre) tractor-type service gates and one 10- by 20-foot (3- by 6-metre) tractor-type emergency gate. Water for turbines is admitted through four 18- by 26-foot (5- by 8-metre) penstocks and controlled by two wheeled-leaf type headgates. The reservoir is operated for flood control and power generation. The area-capacity tables are based on topographic maps prepared by the Corps of Engineers and detailed sedimentation ranges established in 1961 and dated February 1965. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08038000. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	190.0	-
Design flood.....	183.0	5,610,000
Crest of spillway.....	176.0	4,442,400
Top of flood-control pool.....	173.0	3,997,600
Top of conservation pool (power pool).....	164.0	2,852,600
Top of power head and sediment pool.....	149.0	1,452,000
Lowest gated outlet (invert).....	105.0	21,940

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

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

156.0	2,032,000	164.0	2,853,000
158.0	2,221,000	166.0	3,085,000
160.0	2,421,000	168.0	3,329,000
162.0	2,631,000		

CONTENTS, IN THOUSANDS OF ACRE-Feet, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,170	2,273	2,639	2,935	2,928	3,169	2,918	2,917	2,943	2,886	2,669	2,339
2	2,167	2,294	2,641	2,956	2,967	3,129	2,928	2,921	2,936	2,886	2,662	2,328
3	2,167	2,308	2,644	2,978	3,021	3,109	2,910	2,969	2,926	2,878	2,651	2,317
4	2,168	2,330	2,645	2,984	3,084	3,095	2,905	3,025	2,921	2,874	2,646	2,311
5	2,169	2,333	2,652	2,982	3,121	3,080	2,900	3,055	2,915	2,868	2,639	2,307
6	2,172	2,339	2,690	2,970	3,139	3,067	2,896	3,064	2,906	2,859	2,626	2,297
7	2,173	2,351	2,703	2,967	3,129	3,062	2,881	3,104	2,903	2,850	2,616	2,286
8	2,174	2,354	2,718	2,961	3,129	3,040	2,905	3,098	2,895	2,846	2,602	2,277
9	2,174	2,359	2,707	2,952	3,138	3,024	2,917	3,110	2,887	2,833	2,586	2,268
10	2,172	2,393	2,707	2,970	3,153	3,015	2,923	3,122	2,903	2,828	2,576	2,260
11	2,172	2,415	2,698	2,980	3,185	2,995	2,921	3,135	2,915	2,833	2,563	2,250
12	2,172	2,419	2,688	2,986	3,181	2,993	2,910	3,125	2,920	2,827	2,550	2,247
13	2,160	2,428	2,680	2,990	3,174	2,993	2,910	3,121	2,923	2,819	2,535	2,242
14	2,160	2,439	2,698	2,989	3,167	2,967	2,928	3,120	2,923	2,809	2,520	2,239
15	2,176	2,445	2,706	2,986	3,195	2,951	2,928	3,119	2,932	2,802	2,508	2,239
16	2,170	2,462	2,721	2,980	3,233	2,948	2,923	3,108	2,935	2,792	2,493	2,240
17	2,170	2,489	2,730	2,980	3,241	2,951	2,917	3,093	2,930	2,782	2,481	2,239
18	2,166	2,500	2,746	2,994	3,252	2,965	2,923	3,062	2,920	2,779	2,472	2,236
19	2,169	2,510	2,752	3,022	3,241	2,962	2,919	3,041	2,913	2,777	2,465	2,230
20	2,166	2,520	2,762	3,006	3,234	2,958	2,911	3,020	2,902	2,769	2,455	2,232
21	2,166	2,528	2,767	3,000	3,231	2,956	2,920	3,008	2,898	2,753	2,457	2,234
22	2,165	2,533	2,771	2,997	3,250	2,956	2,914	2,995	2,889	2,758	2,443	2,229
23	2,167	2,545	2,780	2,978	3,255	2,960	2,907	2,980	2,884	2,745	2,433	2,225
24	2,167	2,580	2,822	2,964	3,249	2,955	2,910	2,963	2,884	2,735	2,426	2,223
25	2,167	2,587	2,834	2,951	3,234	2,938	2,903	2,967	2,884	2,731	2,418	2,219
26	2,168	2,594	2,855	2,934	3,225	2,917	2,895	2,958	2,882	2,716	2,407	2,213
27	2,163	2,603	2,869	2,923	3,211	2,923	2,887	2,947	2,894	2,706	2,397	2,201
28	2,193	2,608	2,884	2,907	3,193	2,936	2,887	2,947	2,891	2,700	2,379	2,190
29	2,202	2,629	2,899	2,900	-----	2,940	2,902	2,950	2,890	2,689	2,370	2,180
30	2,202	2,639	2,916	2,888	-----	2,923	2,910	2,956	2,898	2,681	2,359	2,171
31	2,226	-----	2,935	2,880	-----	2,921	-----	2,950	-----	2,669	2,349	-----
(†)	163.84	164.29	167.25	171.29	168.92	164.57	163.97	163.23	161.57	159.63	158.05	157.52
(*)	+210	+51	+351	+522	-313	-528	-69	-83	-181	-202	-157	-51
MAX	2,835	3,002	3,237	3,759	3,881	3,427	2,982	2,845	2,763	2,577	2,376	2,230
MIN	2,553	2,838	2,894	3,104	3,446	2,918	2,849	2,753	2,583	2,383	2,223	2,173
CAL YR 1974.....	+ 693			MAX	3,292	MIN	2,553					
WTR YR 1975.....	+ 450			MAX	3,881	MIN	2,173					

† Elevation, in feet, at end of month.

* Change in contents, in thousands of acre-feet.

NOTE.--All figures expressed in thousands.

NECHES RIVER BASIN

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08039300 Sam Rayburn Reservoir near Jasper, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.										
22...	1730	--	--	--	--	--	27	0	--	18
NOV.										
13...	0800	--	--	--	--	--	26	0	--	15
DEC.										
10...	1330	--	--	--	--	--	24	0	--	18
JAN.										
08...	1140	--	--	--	--	--	25	0	--	16
FEB.										
10...	0800	5.8	5.9	2.5	12	2.5	24	0	19	15
11...	1225	--	--	--	--	--	23	0	--	22
MAR.										
18...	1315	--	--	--	--	--	20	0	--	22
APR.										
08...	1730	--	--	--	--	--	20	0	--	23
MAY										
12...	1900	--	--	--	--	--	17	0	--	19
AUG.										
26...	1000	7.8	5.8	3.4	13	2.4	24	0	18	16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.										
22...	--	.07	.07	.00	.08	.48	.56	.02	--	--
NOV.										
13...	--	.14	.14	.00	.01	.46	.47	.01	--	--
DEC.										
10...	--	.11	.11	.00	.08	.45	.53	.04	--	--
JAN.										
08...	--	.09	.10	.01	.01	.51	.52	.42	--	--
FEB.										
10...	.1	--	.08	--	.03	--	--	.02	75	25
11...	--	.07	.08	.01	.04	.34	.38	.00	--	--
MAR.										
18...	--	.06	--	.00	.02	.27	.29	.02	--	--
APR.										
08...	--	.13	.13	.00	.01	.24	.25	.02	--	--
MAY										
12...	--	.10	.10	.00	.07	.29	.36	.02	--	--
AUG.										
26...	.1	--	.01	--	.00	--	--	.00	79	28

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHMS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT.									
22...	--	--	147	6.9	22.5	7.6	86	--	--
NOV.									
13...	--	--	145	6.5	15.5	9.7	96	10	0
DEC.									
10...	--	--	144	6.6	13.5	8.4	80	--	--
JAN.									
08...	--	--	141	6.7	13.5	9.7	92	40	10
FEB.									
10...	5	1.0	130	6.8	11.5	10.7	97	50	20
11...	--	--	142	6.9	15.9	9.7	95	--	--
MAR.									
18...	--	--	151	7.2	15.0	9.6	94	120	0
APR.									
08...	--	--	150	7.2	18.0	10.0	105	--	--
MAY									
12...	--	--	140	6.7	23.0	8.6	99	270	10
AUG.									
26...	9	1.1	143	6.9	29.0	5.7	73	150	60

NECHES RIVER BASIN

08039400 Angelina River below Sam Rayburn Dam near Jasper, Tex.

LOCATION.--Lat 31°03'30", long 94°06'20", Jasper County, immediately below Sam Rayburn Dam, 7.6 miles (12.2 km) upstream from gaging station at Horger, and 10 miles (16 km) northwest of Jasper.

DRAINAGE AREA.--3,449 mi² (8,933 km²).

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1963 to current year. Water temperatures: October 1963 to current year.

EXTREMES.--Current year: Maximum daily specific conductance, 189 micromhos Dec. 22; minimum daily, 131 micromhos Feb. 9, 25. Maximum water temperatures, 27.0°C Aug. 31, Sept. 1, 6; minimum, 10.0°C Jan. 14, 15, Feb. 12.
Period of record: Maximum daily specific conductance, 350 micromhos Sept. 21, 1969; minimum daily, 60 micromhos June 21, 1973. Maximum water temperatures, 30.0°C Sept. 28, 1972; minimum, 6.0° Jan. 1, 1974.

REMARKS.--Discharge records are not available for most of year because of backwater from Dam B Reservoir.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
23...	0830	9.1	9.0	2.8	17	2.6	30	0	16	20	--
NOV.											
13...	0815	9.2	7.5	2.9	18	2.6	32	0	16	22	--
DEC.											
10...	1345	7.9	7.0	2.5	12	2.5	23	0	15	16	.1
JAN.											
08...	1150	6.0	6.9	2.9	13	2.7	24	0	16	15	.0
FEB.											
11...	1210	5.4	6.5	2.9	13	3.7	23	0	20	18	.1
MAR.											
18...	1330	6.0	7.1	2.8	13	2.8	17	0	20	17	.2
APR.											
08...	1745	--	--	--	--	--	--	--	--	--	--
MAY											
12...	1930	6.8	6.2	2.4	13	2.6	18	0	22	17	.1
JUNE											
03...	1545	7.3	6.7	3.3	13	2.2	18	0	20	16	.1
JULY											
08...	1620	7.9	7.8	2.1	13	2.2	18	0	19	15	.1
AUG.											
05...	1500	7.9	6.4	3.5	13	2.5	16	0	19	17	.1
SEP.											
09...	1530	8.3	6.5	3.3	13	2.6	22	0	17	15	.1
DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.											
23...	.01	.00	.06	.64	.70	.03	91	16	15	34	9
NOV.											
13...	.13	.00	.03	.72	.75	.03	94	13	9	31	5
DEC.											
10...	.05	.00	.05	.37	.42	.02	74	30	15	28	9
JAN.											
08...	.08	.00	.04	.49	.53	.01	74	13	4	29	9
FEB.											
11...	.08	.01	.09	.53	.62	.00	81	21	11	28	9
MAR.											
18...	.07	.00	.01	.22	.23	.03	78	16	12	29	15
APR.											
08...	.08	.01	.04	.33	.37	.03	--	--	--	--	--
MAY											
12...	.10	.00	.03	.46	.49	.03	79	15	2	25	11
JUNE											
03...	.09	.00	.01	.51	.52	.03	77	8	7	30	16
JULY											
08...	.06	.01	.07	.27	.34	.01	76	25	16	28	13
AUG.											
05...	.02	.01	.04	.53	.57	.03	77	13	4	30	17
SEP.											
09...	.01	.01	.03	.83	.86	.01	77	14	7	30	12

08039400 Angelina River below Sam Rayburn Dam near Jasper, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 23...	1.3	168	6.5	21.5	5	4	9.5	10	--	--
NOV. 13...	1.4	179	6.6	18.5	20	6	10.8	115	1.6	6.0
DEC. 10...	1.0	142	6.6	13.5	40	15	8.4	80	--	--
JAN. 08...	1.0	140	6.8	13.5	10	4	9.7	92	.4	6.2
FEB. 11...	1.1	144	7.0	13.0	30	6	9.4	89	--	--
MAR. 18...	1.0	150	7.3	14.5	40	15	9.6	93	1.0	5.0
APR. 08...	--	164	7.0	19.5	--	--	8.4	90	--	--
MAY 12...	1.1	144	6.8	23.0	50	10	8.0	92	1.3	7.2
JUNE 03...	1.0	142	6.7	24.0	50	9	6.4	75	--	--
JULY 08...	1.1	144	7.0	28.0	50	5	6.0	76	.6	--
AUG. 05...	1.0	143	6.6	27.0	20	6	4.4	54	--	--
SEP. 09...	1.0	149	6.6	28.0	20	4	5.0	63	.7	10

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
NOV. 13...	0815	10	2	90	1	0	2	1
JAN. 08...	1150	--	--	--	--	--	--	--
MAR. 18...	1330	30	4	40	0	0	0	3
MAY 12...	1930	--	--	--	--	--	--	--
JULY 08...	1620	10	1	0	1	0	1	2
SEP. 09...	1530	10	1	50	0	0	0	1

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV. 13...	40	3	0	0	.0	0	90	30
JAN. 08...	40	--	--	0	--	--	--	--
MAR. 18...	50	1	0	10	.0	0	80	90
MAY 12...	240	--	--	5	--	--	--	--
JULY 08...	140	1	10	140	.0	1	90	40
SEP. 09...	50	0	0	390	.0	1	110	20

NECHES RIVER BASIN

08039400 Angelina River below Sam Rayburn Dam near Jasper, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	156	162	---	141	139	166	155	138	159	154	142
2	152	159	155	152	154	139	161	155	159	157	140	157
3	161	162	162	149	160	141	164	146	159	157	139	157
4	159	158	156	168	162	140	152	139	159	157	139	153
5	162	185	159	164	161	141	---	154	155	155	138	160
6	164	187	153	139	136	139	---	157	162	138	138	144
7	159	177	155	139	141	139	148	160	162	150	138	142
8	161	187	152	138	139	147	164	138	---	159	140	160
9	173	184	155	139	131	150	161	139	160	158	140	155
10	175	187	138	138	132	145	166	146	154	160	142	160
11	166	181	137	164	141	146	167	140	160	150	152	158
12	141	164	138	150	135	145	149	140	162	155	155	160
13	140	176	138	138	139	138	144	140	163	159	157	158
14	156	176	137	138	139	140	138	140	168	159	153	160
15	158	176	143	136	137	144	156	135	161	162	151	158
16	156	139	151	---	134	145	157	135	168	155	145	158
17	158	---	152	135	136	145	158	136	163	155	140	162
18	158	184	153	137	139	150	165	136	154	155	145	162
19	160	141	149	146	139	145	145	136	143	157	159	162
20	138	153	149	149	139	145	140	137	141	139	157	155
21	156	159	---	142	140	172	153	137	---	151	157	168
22	159	159	189	140	143	149	156	137	159	153	159	175
23	160	156	166	138	156	141	160	138	159	147	144	164
24	157	---	158	139	156	157	162	---	159	159	148	162
25	159	150	---	141	131	145	165	---	161	139	156	160
26	157	156	163	142	135	139	148	---	154	139	157	168
27	160	156	149	146	136	145	146	142	159	141	156	142
28	162	---	147	144	136	161	174	140	---	156	156	142
29	154	152	150	139	---	---	157	161	139	156	154	142
30	153	156	150	139	---	149	156	140	159	153	---	142
31	157	---	152	143	---	138	---	138	---	153	142	---
MONTH	158	166	152	144	142	145	156	143	157	153	148	156

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	20.5	13.5	---	11.5	13.0	14.0	16.0	21.0	20.5	22.0	27.0
2	21.5	20.5	13.5	11.5	12.0	13.5	14.0	16.0	19.5	21.5	21.0	22.0
3	21.5	20.5	13.0	11.5	11.5	11.5	14.0	16.0	19.5	21.0	26.5	22.0
4	21.0	20.0	13.0	11.0	11.5	11.5	14.0	20.0	19.5	21.0	25.0	24.0
5	21.0	19.5	13.5	10.5	11.0	11.0	---	18.0	22.0	21.0	25.5	21.0
6	21.0	19.5	15.5	11.0	12.0	11.0	---	18.5	19.0	26.5	26.5	27.0
7	21.0	19.0	14.5	11.0	11.5	11.5	13.5	18.5	21.0	22.0	26.5	26.5
8	21.5	19.0	14.0	11.0	11.5	13.0	14.0	19.5	---	22.0	25.5	22.0
9	21.5	19.0	14.0	11.5	13.0	12.0	14.5	19.5	18.5	24.5	25.5	20.5
10	21.5	19.0	13.5	11.5	11.5	12.0	14.5	19.0	18.5	23.0	25.5	19.0
11	21.0	18.5	10.5	11.0	12.0	12.0	14.5	20.5	18.0	23.0	24.0	19.5
12	21.0	18.0	11.0	11.0	10.0	12.0	14.5	20.5	17.0	22.0	22.0	20.0
13	21.0	18.0	12.0	10.5	11.5	13.0	15.0	20.5	17.0	20.5	23.0	19.5
14	21.5	18.0	13.0	10.0	11.5	12.0	14.5	20.5	21.0	19.0	23.5	21.0
15	21.0	17.0	12.0	10.0	11.0	12.0	14.5	21.0	20.5	20.0	24.0	---
16	21.0	16.5	11.0	---	11.0	12.0	15.0	21.5	19.0	21.5	24.0	18.5
17	20.5	---	11.0	10.5	12.0	13.0	15.0	21.5	18.5	22.0	26.5	18.5
18	20.5	16.5	11.5	11.0	12.0	13.0	15.5	21.5	19.0	21.0	25.5	18.5
19	22.0	16.5	11.5	11.0	11.5	13.0	15.5	21.0	20.5	21.0	22.0	20.0
20	21.5	17.0	11.5	10.5	11.0	12.0	16.5	21.0	23.5	20.0	21.0	18.5
21	20.5	16.5	---	10.5	11.5	15.5	15.5	21.0	---	23.0	22.0	19.0
22	20.5	16.5	13.0	10.5	12.0	15.5	15.5	21.0	21.0	22.0	19.0	19.5
23	20.5	17.0	12.0	10.5	11.0	13.5	15.5	21.0	19.0	21.0	22.0	21.0
24	20.5	---	13.0	11.0	11.5	13.0	15.5	---	20.0	21.0	25.5	21.0
25	20.0	15.5	---	10.5	11.0	13.5	15.5	---	20.0	25.5	19.0	20.0
26	20.5	15.5	12.0	11.0	11.0	13.5	17.0	---	21.0	21.0	20.0	19.0
27	21.0	15.5	11.0	11.0	11.0	15.0	16.5	22.0	21.0	26.5	23.5	22.0
28	20.5	---	11.5	11.0	11.5	15.5	16.0	22.0	---	23.0	22.0	22.0
29	20.0	15.0	---	11.5	---	---	16.0	20.0	25.5	23.0	23.5	21.5
30	20.5	14.0	12.0	11.5	---	12.0	16.0	21.0	20.0	23.0	---	21.5
31	20.5	---	12.0	11.5	---	13.5	---	21.5	---	23.5	27.0	---
MONTH	21.0	17.5	12.5	11.0	11.5	13.0	15.0	20.0	20.0	22.0	23.5	21.0

NECHES RIVER BASIN

371

08040000 B. A. Steinhagen Lake at Town Bluff, Tex.

LOCATION.--Lat 30°47'43", long 94°10'48", Tyler County, near right bank 70 ft (21 m) upstream from outlet structure of Town Bluff Dam on Neches River, 0.4 mile (0.6 km) north of Town Bluff, and at mile 113.7 (182.9 km).

DRAINAGE AREA.--7,573 mi² (19,614 km²).

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1967, published as Dam B Reservoir at Town Bluff.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 25, 1954, at site 490 ft (149 m) upstream at same datum.

EXTREMES.--Current year: Maximum contents, 100,900 acre-ft (124 hm³) Jan. 19 (elevation, 83.47 ft or 25.442 m); minimum, 14,960 acre-ft (18.4 hm³) Sept. 27 (elevation, 73.37 ft or 22.363 m).
Period of record: Maximum contents, 128,400 acre-ft (158 hm³) May 22, 1953 (elevation, 85.21 ft or 25.972 m); no storage Sept. 18 to Oct. 13, 1954.

REMARKS.--The lake is formed by a rolled earthfill dam with concrete spillway sections. The total length of dam is 6,698 ft (2,042 m), including a concrete spillway and nonoverflow section. Deliberate impoundment of water began Apr. 16, 1951, and the dam was completed in June 1951. The uncontrolled emergency spillway is 6,100-foot (1,860-metre) long. A 326-foot-long (99-metre) gated service spillway with six 40- by 35-foot (12- by 11-metre) tainter gates is located near right end of dam. The capacity of the spillways at maximum flood design is 218,300 ft³/s (6,180 m³/s). The capacity curve was based on a survey made in 1945. Water is used for industrial, municipal, and irrigation supplies. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam (nonoverflow).....	95.0	-
Design flood.....	93.0	306,400
Crest of uncontrolled spillway (top of tainter gates).....	85.0	124,700
Top of conservation pool.....	83.0	94,200
Bottom of tainter gates (sill).....	50.0	0

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey. The area-capacity curves were furnished by the Corps of Engineers.

REVISIONS.--WSP 1732: Drainage area.

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

73.0	13,640	79.0	50,090
74.0	17,510	80.0	59,320
76.0	27,960	82.0	81,280
78.0	41,830	84.0	108,700

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75.470	86.850	81.790	56.830	92.080	65.400	83.260	92.220	81.400	81.890	80.300	67.300
2	76.050	88.410	78.370	61.910	88.890	67.520	86.810	84.390	69.020	80.180	81.030	69.240
3	75.470	82.180	76.870	70.490	77.070	72.680	85.150	77.940	72.800	82.010	83.760	70.560
4	75.240	77.450	76.400	76.630	73.820	78.620	83.760	82.510	75.430	82.260	84.770	72.230
5	75.470	76.050	74.310	78.950	70.780	78.380	81.890	88.370	79.820	80.910	89.160	69.460
6	75.590	76.290	80.000	83.870	70.890	74.280	81.400	86.040	82.510	79.820	89.160	71.110
7	75.470	75.130	78.370	86.980	70.780	72.460	80.660	84.520	84.520	80.060	87.070	71.110
8	75.470	73.270	73.850	89.190	79.820	71.330	76.370	89.820	86.040	80.540	83.510	73.020
9	75.590	70.950	72.920	88.800	87.330	72.800	75.320	93.350	94.250	79.700	80.300	73.940
10	75.130	71.990	81.270	93.990	87.850	74.280	78.260	83.510	96.740	79.700	78.620	73.020
11	74.310	79.190	87.110	90.750	86.690	74.280	82.510	76.020	87.070	80.420	77.780	72.340
12	71.990	80.690	89.190	84.910	79.700	76.950	86.690	80.790	79.450	81.270	77.070	74.970
13	74.710	82.180	89.450	81.270	78.260	83.510	91.140	80.940	77.190	77.540	75.780	66.980
14	80.690	84.260	93.080	77.100	77.190	84.640	91.810	90.080	77.540	73.820	76.480	62.110
15	79.530	85.560	93.860	73.500	78.620	80.660	90.480	89.160	80.180	72.800	79.700	60.710
16	77.450	87.500	81.660	76.170	80.660	80.540	90.480	83.260	80.660	77.070	84.140	59.620
17	74.890	87.760	64.160	79.190	81.150	78.620	86.810	76.000	84.770	79.700	87.330	58.260
18	73.040	88.930	58.120	89.970	83.260	83.130	85.150	71.550	88.760	81.030	86.170	56.730
19	70.370	91.270	46.950	96.420	86.040	83.890	83.260	76.840	92.220	76.370	80.060	56.360
20	68.020	88.670	39.690	87.240	89.550	82.630	50.660	84.390	98.430	74.740	78.260	53.670
21	65.640	83.740	33.360	89.060	91.950	81.400	91.400	95.660	92.890	78.620	75.200	45.030
22	63.150	80.690	30.890	86.720	88.890	80.060	80.790	83.380	86.810	81.270	73.360	38.780
23	60.940	79.190	30.300	83.220	75.320	77.430	78.020	77.450	81.270	87.200	75.780	31.760
24	58.590	81.920	29.910	40.110	67.520	74.620	78.140	80.300	81.150	80.660	80.660	25.030
25	56.370	84.390	33.490	79.530	69.570	79.820	79.450	85.910	80.660	88.240	80.790	18.850
26	57.970	85.560	37.410	79.530	71.220	84.520	91.520	88.370	81.890	82.880	86.940	15.810
27	51.470	85.820	38.960	78.610	69.890	90.480	82.510	88.760	82.510	80.420	93.300	23.640
28	61.390	85.040	41.610	77.790	66.450	87.460	83.760	89.680	84.640	80.910	94.110	31.300
29	76.250	85.820	43.730	78.610	-----	83.760	85.660	86.560	87.460	80.790	89.160	38.930
30	71.070	81.610	48.440	75.940	-----	80.060	92.620	81.400	86.040	80.540	81.890	46.180
31	75.010	-----	54.340	79.420	-----	80.790	-----	71.890	-----	80.910	72.120	-----
(†)	81.46	82.18	79.46	81.84	80.70	81.96	82.88	81.20	82.38	81.97	81.22	78.54
(*)	+6,890	+8,600	-29,270	+25,080	-12,970	+14,340	+11,830	-20,730	+14,150	-5,130	-8,790	-25,940
MAX	80,690	91,270	93,860	96,420	92,080	90,480	92,620	95,350	98,430	88,760	94,110	74,970
MIN	51.470	70,950	29,910	56,830	66,450	75,400	75,320	71,560	69,020	72,800	72,120	15,810
CAL YR 1974.....	* +4,250				MAX 94,680				MIN 27,850			
WTR YR 1975.....	* -21,940				MAX 98,430				MIN 15,810			

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

08040500 Neches River at Town Bluff, Tex.

LOCATION.--Lat 30°47'36", long 94°10'28", Jasper-Tyler County line, on left bank 0.3 mile (0.5 km) downstream from Town Bluff Dam, 0.5 mile (0.8 km) northeast of Town Bluff, 2.5 miles (4.0 km) upstream from Walnut Run, 8 miles (13 km) downstream from Wolf Creek, and at mile 113.4 (182.5 km).

DRAINAGE AREA.--7,573 mi² (19,614 km²).

PERIOD OF RECORD.--March 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 21, 1953, water-stage recorder, and May 21, 1953, to Dec. 3, 1954, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--13 years (1951-64) prior to regulation by Sam Rayburn Reservoir, 4,406 ft³/s (124.8 m³/s), 3,192,000 acre-ft/yr (3.94 km³/yr); 11 years (1964-75) regulated, 4,661 ft³/s (132.0 m³/s), 3,377,000 acre-ft/yr (4.16 km³/yr).

EXTREMES.--Current year: Maximum discharge, 18,800 ft³/s (532 m³/s) Mar. 5 (elevation, 69.14 ft or 21.074 m); minimum daily, 1,650 ft³/s (46.7 m³/s) Oct. 9.

Period of record: Maximum discharge, 90,900 ft³/s (2,570 m³/s) May 21, 22, 1953 (elevation, 82.85 ft or 25.253 m); no flow at times due to regulation of B. A. Steinhagen Lake.

Flood of May 1884, stage about 86.8 ft or 26.46 m (discharge about 120,000 ft³/s or 3,400 m³/s), is the highest since at least that date, from information by Corps of Engineers.

REMARKS.--Records fair. Flow regulated by B. A. Steinhagen Lake 0.3 mile (0.5 km) upstream (see preceding page) and by Sam Rayburn Reservoir (station 08039300) 37.9 miles (61.0 km) upstream. Some diversions above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,910	2,710	7,150	5,790	8,750	17,700	7,640	8,660	11,900	10,200	6,920	8,410
2	2,050	5,880	7,140	5,230	13,600	17,600	7,630	10,400	8,520	9,590	7,050	5,680
3	2,060	8,320	6,710	4,390	15,800	17,700	7,940	10,200	6,770	8,170	7,000	4,780
4	2,000	8,220	5,550	5,010	15,100	17,900	8,450	10,200	6,740	8,120	6,940	4,760
5	1,930	7,480	5,490	7,780	14,900	18,400	8,480	12,200	6,740	8,080	7,210	4,770
6	1,920	6,600	6,540	11,300	14,600	18,200	8,030	14,800	6,740	8,050	7,630	4,750
7	1,910	6,540	9,160	13,600	14,400	16,200	7,380	16,200	6,740	8,040	8,910	4,750
8	1,820	6,270	8,780	14,700	14,400	14,500	7,230	16,800	6,740	8,030	8,920	4,760
9	1,650	5,580	8,530	14,800	14,600	12,900	5,530	17,800	8,850	8,030	8,930	4,760
10	1,780	4,660	9,270	15,100	14,700	12,600	3,000	18,600	14,400	8,020	8,120	4,760
11	1,970	4,150	11,900	15,300	15,200	12,600	3,990	18,300	13,500	8,030	7,010	4,760
12	1,960	5,120	13,800	14,600	16,800	12,600	6,080	18,200	9,970	8,050	6,950	4,750
13	1,950	5,090	14,700	13,500	17,900	12,800	6,170	18,400	6,120	8,020	6,930	4,750
14	1,970	5,050	14,800	13,200	18,100	13,700	6,860	18,600	4,800	7,750	6,510	3,720
15	1,990	5,060	15,100	13,000	18,100	15,000	8,750	18,600	4,700	6,710	5,390	1,910
16	1,990	5,380	14,800	13,000	18,200	14,200	9,390	18,600	5,280	4,930	5,370	1,900
17	1,970	6,320	13,300	13,100	18,300	11,500	10,100	18,300	5,760	5,190	5,390	1,930
18	1,950	7,080	12,800	13,500	18,400	10,000	10,800	18,100	6,830	5,880	5,810	1,920
19	1,930	7,420	12,500	14,300	18,400	9,750	9,720	17,100	9,460	5,900	6,850	2,580
20	1,930	8,150	11,300	14,500	18,500	9,270	9,590	15,500	10,900	5,370	6,120	3,940
21	1,930	8,710	8,820	14,700	18,600	9,130	9,650	15,400	11,000	4,830	4,310	3,910
22	1,920	8,200	7,640	16,800	18,600	9,080	9,930	15,400	10,900	4,810	3,960	3,780
23	1,920	7,170	5,290	18,300	18,500	9,020	9,760	15,200	9,300	4,840	3,670	3,410
24	1,920	7,110	5,160	18,400	18,000	8,980	8,490	14,400	7,690	5,640	3,690	3,160
25	1,910	7,340	5,200	17,900	17,800	8,970	6,460	13,200	7,570	7,700	3,720	2,840
26	1,900	7,290	5,960	16,700	17,800	9,020	6,360	13,200	7,660	9,070	3,740	2,320
27	1,900	7,210	8,020	15,800	17,800	9,110	6,350	13,100	7,740	8,200	3,760	2,150
28	1,940	7,170	8,230	14,900	17,800	9,130	6,340	13,300	7,720	6,900	4,840	2,200
29	2,460	7,150	8,480	13,900	-----	9,060	6,560	13,500	7,680	6,960	8,160	2,110
30	2,200	7,140	8,260	12,000	-----	9,020	7,060	13,900	8,620	6,940	9,710	1,970
31	2,060	-----	6,250	9,210	-----	8,430	-----	13,600	-----	6,930	9,710	-----
TOTAL	61,700	195,570	286,630	404,310	463,650	384,070	229,720	469,760	247,340	222,980	199,230	112,190
MEAN	1,990	6,519	9,246	13,040	16,560	12,390	7,657	15,150	8,245	7,193	6,427	3,740
MAX	2,910	8,710	15,100	18,400	18,600	18,400	10,800	18,600	14,400	10,200	9,710	8,410
MIN	1,650	2,710	5,160	4,390	8,750	8,430	3,000	8,660	4,700	4,810	3,670	1,900
AC-FT	122,400	387,900	568,500	801,900	919,600	761,800	455,600	931,800	490,600	442,300	395,200	222,500
CAL YR 1974	TOTAL	2,975,600	MEAN	8,152	MAX	24,900	MIN	1,650	AC-FT	5,902,000		
WTR YR 1975	TOTAL	3,277,150	MEAN	8,978	MAX	18,600	MIN	1,650	AC-FT	6,500,000		

NECHES RIVER BASIN

373

08041000 Neches River at Evadale, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 30°21'22", long 94°05'36", Jasper-Hardin County line, near center of channel on downstream side of pier of bridge on U.S. Highway 96 at Evadale, 0.8 mile (1.3 km) upstream from Mill Creek, 16 miles (26 km) upstream from Village Creek, and at mile 55.6 (89.5 km).

DRAINAGE AREA.--7,951 mi² (20,593 km²).

PERIOD OF RECORD.--Discharge: July 1904 to December 1906, April 1921 to current year. Monthly discharge only for some periods, published in WSP 1312.

Water quality: Chemical and biochemical analyses: October 1947 to current year. Pesticide analyses: January 1968 to current year. Water temperatures: October 1947 to current year. Sediment records: October 1974 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 8.25 ft (2.515 m) above mean sea level. July 1, 1904, to Dec. 31, 1906, nonrecording gage on Gulf, Colorado, and Santa Fe Railway Co. bridge at site 1.2 miles (1.9 km) downstream at datum 5.50 ft (1.676 m) lower; Apr. 1, 1921, to Dec. 7, 1948, nonrecording gages at site 1.2 miles (1.9 km) downstream at present datum; Dec. 8, 1948, to Nov. 8, 1963, water-stage recorder at site 1.2 miles (1.9 km) downstream at present datum.

AVERAGE DISCHARGE.--45 years (1904-6, 1921-64) prior to regulation by Sam Rayburn Reservoir, 6,308 ft³/s (178.6 m³/s), 4,570,000 acre-ft/yr (5.63 km³/yr); 11 years (1964-75) regulated, 5,184 ft³/s (146.8 m³/s), 3,756,000 acre-ft/yr (4.63 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 19,800 ft³/s (561 m³/s) Jan. 26, 27 (gage height, 16.74 ft or 5.102 m); minimum daily, 1,780 ft³/s (50.4 m³/s) Sept. 19.

Period of record: Maximum discharge, 92,100 ft³/s (2,610 m³/s) May 11, 1944 (gage height, 23.58 ft or 7.187 m, from floodmark), at site then in use; minimum daily, 63 ft³/s (1.78 m³/s) Nov. 26-28, 1956.

Historic: Flood in May 1884 (stage 26.2 ft or 7.99 m at former site, discharge about 125,000 ft³/s or 3,540 m³/s) and flood in August 1915 (stage 24.5 ft or 7.47 m at former site, discharge about 102,000 ft³/s or 2,890 m³/s) are the highest since at least 1884.

Stages by Gulf, Colorado, and Santa Fe Railway Co.

Water quality: Current year: Maximum daily specific conductance, 177 micromhos Sept. 30; minimum daily, 98 micromhos June 1. Maximum water temperatures, 30.0°C on several days during August; minimum, 8.0°C Dec. 4, Jan. 13, 15.

Period of record: Maximum daily specific conductance, 422 micromhos Jan. 25, 1957; minimum daily, 23 micromhos Sept. 19, 1963.

Maximum water temperatures, 34.0°C June 29, 1953; minimum, 3.0°C Jan. 30, 31, 1948, Jan. 31, 1949, and Jan. 24, 1963.

REMARKS.--Discharge records fair. Flow regulated by B. A. Steinhagen Lake (station 08040000) 58.1 miles (93.5 km) upstream (capacity, 124,700 acre-ft or 154 hm³) and Sam Rayburn Reservoir (station 08039300) 95.7 miles (154.0 km) upstream (capacity, 4,442,000 acre-ft or 5.48 km³). Some diversions upstream for municipal use.

REVISIONS (WATER YEARS).--WSP 718: 1929. WSP 1342: 1905-7, 1924. WSP 1732: Drainage area at former site.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,710	3,050	7,650	9,540	13,800	18,900	9,630	8,420	16,600	8,290	8,020	8,470
2	4,190	3,250	7,610	8,410	11,300	18,800	9,210	9,050	16,200	8,770	7,990	8,900
3	3,150	4,520	7,570	7,640	10,500	18,700	8,710	9,860	15,900	9,450	7,960	8,190
4	2,610	6,310	7,470	7,080	12,700	18,800	8,520	10,500	15,000	9,470	8,040	6,790
5	2,470	7,410	7,030	6,850	15,700	19,200	8,690	10,700	12,200	8,930	8,220	6,000
6	2,350	7,840	6,750	7,380	16,500	19,200	8,930	10,800	7,790	8,560	8,090	5,650
7	2,310	7,670	7,250	9,220	16,400	19,500	8,970	11,700	7,400	8,370	8,100	5,490
8	2,290	7,380	8,540	11,700	16,000	19,500	9,020	14,600	7,360	8,260	8,510	5,420
9	2,270	7,150	9,470	13,900	15,600	18,400	8,770	16,600	7,360	8,210	8,910	5,390
10	2,120	6,840	9,630	16,400	15,300	16,700	8,120	17,300	8,190	8,160	9,050	5,370
11	2,080	6,630	9,580	17,600	15,400	15,100	6,520	17,800	9,340	8,200	9,040	5,370
12	2,240	6,100	10,000	18,200	15,600	14,100	5,490	18,600	11,200	8,240	8,530	5,390
13	2,300	5,520	11,300	17,200	15,900	14,100	6,160	18,800	13,400	8,240	7,900	5,540
14	2,310	5,630	13,200	17,500	16,900	14,200	7,350	18,800	12,400	8,290	7,550	5,570
15	2,390	5,650	15,400	16,100	18,000	14,200	7,750	19,000	8,120	8,250	7,380	5,050
16	2,420	5,650	16,400	15,000	18,800	14,800	8,470	19,200	6,920	8,010	6,930	3,270
17	2,410	5,850	16,800	14,400	19,300	15,700	9,260	19,100	6,160	7,100	6,440	2,130
18	2,370	6,230	16,600	14,200	19,400	16,300	9,750	19,000	6,080	6,310	6,200	1,850
19	2,330	7,130	15,600	14,500	19,400	14,800	10,300	18,800	6,430	6,190	6,150	1,780
20	2,310	7,770	14,400	14,900	19,400	13,200	10,500	18,600	7,230	6,330	6,520	1,920
21	2,290	8,420	13,500	15,500	19,400	12,000	10,300	18,300	8,480	6,330	6,870	3,280
22	2,280	8,970	12,200	15,900	19,500	11,000	10,300	17,500	9,520	6,090	6,330	3,920
23	2,280	9,200	10,500	16,000	19,600	10,300	10,000	16,900	10,100	5,810	5,420	4,090
24	2,270	8,970	8,670	17,000	19,500	10,000	10,100	16,600	10,300	5,720	4,920	4,040
25	2,270	8,500	7,420	18,400	19,600	9,830	10,100	16,700	9,750	5,830	4,690	3,810
26	2,270	8,180	7,170	19,500	19,400	9,720	9,300	16,300	8,860	6,550	4,600	3,580
27	2,260	8,100	7,460	19,800	19,200	9,690	8,210	15,400	8,370	7,540	4,570	3,170
28	2,330	7,980	8,370	19,300	18,900	9,690	7,740	15,000	8,210	8,290	4,550	2,810
29	2,660	7,840	9,280	18,200	-----	9,690	7,330	16,000	8,180	8,370	4,730	2,730
30	3,090	7,700	9,820	17,000	-----	9,690	7,620	17,000	8,190	8,060	5,920	2,680
31	3,250	-----	10,100	15,700	-----	9,690	-----	17,000	-----	7,990	7,410	-----
TOTAL	78,880	207,440	322,740	450,020	477,000	445,500	261,120	489,930	291,240	238,210	215,540	137,650
MEAN	2,545	6,915	10,410	14,520	17,040	14,370	8,704	15,800	9,708	7,684	6,953	4,588
MAX	4,710	9,200	16,800	19,800	19,600	19,500	10,500	19,200	16,600	9,470	9,050	8,900
MIN	2,080	3,050	6,750	6,850	10,500	9,690	5,490	8,420	6,080	5,720	4,550	1,780
AC-FT	156,500	411,500	640,200	892,600	946,100	883,600	517,900	971,800	577,700	472,500	427,500	273,000

CAL YR 1974 TOTAL 3,327,030 MEAN 9,115 MAX 26,900 MIN 2,080 AC-FT 6,599,000
WTR YR 1975 TOTAL 3,615,270 MEAN 9,905 MAX 19,800 MIN 1,780 AC-FT 7,171,000

NECHES RIVER BASIN

08041000 Neches River at Evadale, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 23...	1845	2200	11	8.5	2.9	14	2.7	26	0	15
NOV. 13...	1515	5200	11	6.8	2.6	9.7	2.5	14	0	13
DEC. 11...	1130	10000	12	7.5	1.7	11	2.5	16	0	15
JAN. 09...	0930	13000	11	7.6	2.5	12	2.7	22	0	17
FEB. 12...	1045	15000	7.7	7.1	2.5	11	2.5	19	0	15
MAR. 19...	1030	14500	6.9	6.5	2.9	13	2.5	20	0	17
APR. 09...	1640	8600	6.4	8.3	3.0	16	3.0	22	0	21
MAY 14...	0915	19000	14	6.2	2.0	9.5	2.5	18	0	14
JUNE 04...	1530	9600	8.9	7.6	2.8	12	2.1	23	0	14
JULY 09...	1430	8300	9.8	7.7	2.7	13	2.3	22	0	18
AUG. 06...	1530	8100	9.7	7.0	3.2	12	2.3	20	0	16
SEP. 10...	1515	5400	10	8.2	3.3	14	2.4	25	0	17

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT. 23...	21	--	.00	.00	.03	.62	.65	.07	112
NOV. 13...	16	--	.04	.00	.07	1.0	1.1	.07	87
DEC. 11...	17	.0	.01	.00	.09	1.4	1.5	.05	102
JAN. 09...	18	.0	.03	.01	.05	.79	.84	.05	101
FEB. 12...	17	.1	.04	.00	.03	.64	.67	.04	139
MAR. 19...	18	.2	.05	.00	.03	.36	.39	.04	95
APR. 09...	20	.1	.05	.00	.04	.42	.46	.05	106
MAY 14...	13	.1	.14	.00	.05	1.0	1.1	.05	--
JUNE 04...	17	.1	.07	.00	.00	.57	.57	.07	98
JULY 09...	17	.1	.05	.01	.08	.67	.75	.05	98
AUG. 06...	16	.1	.08	.00	.01	.56	.57	.02	96
SEP. 10...	20	.1	.01	.01	.00	.55	.55	.04	83

NECHES RIVER BASIN

375

08041000 Neches River at Evadale, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 23...	89	45	15	33	12	1.1	162	6.6	21.5
NOV. 13...	68	99	35	28	16	.8	109	6.9	16.5
DEC. 11...	75	64	23	26	13	.9	131	6.3	11.0
JAN. 09...	82	45	4	29	11	1.0	137	6.6	14.5
FEB. 12...	73	56	19	28	13	.9	123	7.1	12.0
MAR. 19...	77	110	30	28	12	1.1	145	7.0	15.5
APR. 09...	89	53	23	33	15	1.2	163	6.9	19.0
MAY 14...	70	53	4	24	9	.8	115	6.6	23.5
JUNE 04...	76	50	8	31	12	.9	139	6.6	26.5
JULY 09...	81	52	7	30	12	1.0	147	6.7	29.5
AUG. 06...	76	49	15	31	14	.9	134	6.6	28.0
SEP. 10...	87	33	3	34	14	1.0	154	6.7	27.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	RIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 23...	60	30	9.6	108	1.2	270	73	47	10
NOV. 13...	100	40	10.2	104	2.0	1700	190	550	16
DEC. 11...	80	35	8.8	79	1.2	7000	210	270	20
JAN. 09...	100	25	9.4	91	1.1	700	280	160	11
FEB. 12...	100	25	9.2	85	1.1	820	120	110	14
MAR. 19...	60	35	8.7	86	.5	850	230	120	3.2
APR. 09...	120	30	8.8	94	.6	780	150	1400	9.5
MAY 14...	120	35	6.2	72	1.9	19000	260	140	3.2
JUNE 04...	100	35	6.3	77	1.6	2100	190	74	9.7
JULY 09...	160	35	6.8	88	.9	150	130	52	--
AUG. 06...	80	40	6.8	86	1.0	3500	78	170	5.8
SEP. 10...	80	25	7.0	88	.8	2000	56	370	11

NECHES RIVER BASIN

08041000 Neches River at Evadale, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED	TOTAL	DIS-SOLVED	DIS-SOLVED	TOTAL	DIS-SOLVED	TOTAL	DIS-SOLVED	TOTAL	
		ALUM- INUM (AL) (UG/L)		ARSENIC (AS) (UG/L)	ARSENIC (AS) (UG/L)	BORON (B) (UG/L)	CAD- MIUM (CD) (UG/L)	MIUM (CD) (UG/L)	CHRO- MIUM (CR) (UG/L)	MIUM (CR) (UG/L)	COBALT (CO) (UG/L)
OCT. 23...	1845	100	2	2	50	<10	<1	0	0	<50	
FEB. 12...	1045	220	1	0	70	20	0	0	0	<50	
APR. 09...	1640	20	2	1	70	10	0	0	0	<50	
MAY 14...	0915	--	--	--	30	--	--	--	--	--	
AUG. 06...	1530	20	2	0	30	<10	0	0	0	<50	
DATE		DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	
OCT. 23...		1	<10	2	1300	110	<100	7	0	0	
FEB. 12...		0	10	8	1900	210	<100	4	0	90	
APR. 09...		0	<10	3	2000	120	100	0	10	150	
MAY 14...		--	--	--	--	--	--	--	--	--	
AUG. 06...		0	<10	4	2000	90	<100	0	0	180	
DATE		DIS-SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS-SOLVED SELE- NIUM (SE) (UG/L)	DIS-SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	
OCT. 23...		10	.0	.0	3	1	0	110	220	210	
FEB. 12...		20	.0	.0	2	0	0	90	40	100	
APR. 09...		20	.0	.0	2	0	0	120	20	30	
MAY 14...		--	--	--	--	--	--	--	--	--	
AUG. 06...		10	.0	.0	0	0	0	110	30	40	
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOT- TOM MA- TERIAL (UG/KG)
OCT. 23...	1845	2200	21.5	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 12...	1045	15000	12.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 09...	1640	8600	19.0	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 06...	1530	8100	28.0	.00	.0	.00	.0	.00	.0	.00	.0
DATE		DI- ELDRIN IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)
OCT. 23...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0
FEB. 12...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0
APR. 09...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 06...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0
DATE		CHLOR- DANE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL DIB- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
OCT. 23...		0	.0	0	.00	.00	.00	.00	.00	.00	.00
FEB. 12...		0	.0	0	.00	.00	.00	.00	.02	.00	.00
APR. 09...		0	.0	0	.00	.00	.00	.00	.00	.00	.00
AUG. 06...		0	.0	0	.00	.00	.00	.00	.01	.00	.01

08041000 Meches River at Evadale, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
NOV. 13	21	25	11	0.0	0.0	0.0	Polyethylene strip
JAN. 09	29	3.8	1.5	.1	.1	23000	
MAR. 19	35	3.4	1.5	.3	.0	6300	

OCT. 23, 1974 TIME 1845

DEC. 11, 1974 TIME 1130

PHYTOPLANKTON 2,800 CELLS/ML

PHYTOPLANKTON 180 CELLS/ML

_ORGANISM_NAME_		CELLS/ML	PER_CENT	_ORGANISM_NAME_		CELLS/ML	PER_CENT
CHLOROPHYTA				CHLOROPHYTA			
..CHLOROPHYCEAE				..CHLOROPHYCEAE			
..CHLOROCOCCALES				..CHLOROCOCCALES			
...OCCYSTACEAE				...OCCYSTACEAE			
...ANKISTRODESMUS		110	4	...ANKISTRODESMUS		8	5
...OOCYSTIS		770	28	...SCENEDESMACEAE			
...SCENEDESMACEAE				...ACTINASTRUM		49	27
...SCENEDESMUS		330	12	CHRYSPHYTA			
..VOLVOCALES				..BACILLARIOPHYCEAE			
..CHLAMYDOMONADACEAE				..CENTRALES			
...PRACHIOMONAS		55	2	...COSCINODISCACEAE			
CHRYSPHYTA				...MELOSIRA		33	18
..BACILLARIOPHYCEAE				..PENNIALES			
..CENTRALES				...FRAGILARIACEAE			
...COSCINODISCACEAE				...SYNEDRA		33	18
...CYCLOTELLA		190	7	...GOMPHONEMACEAE			
...MELOSIRA		330	12	...GOMPHONEMA		25	14
..PENNIALES				...NAVICULACEAE			
...DIATOMACEAE				...NAVICULA		8	5
...DIATOMA		28	1	...NITZSCHACEAE			
...FRAGILARIACEAE				...NITZSCHIA		8	5
...SYNEDRA		140	5	...SURIPELLACEAE			
...NITZSCHACEAE				...SURIPELLA		8	5
...NITZSCHIA		28	1	EUGLENOPHYTA			
..XANTHOPHYCEAE				..EUGLENOPHYCEAE			
..HETEROCOCCALES				..EUGLENALES			
..CHLOROTHECIACEAE				...EUGLENACEAE			
...OPHIOCYTIUM		83	3	...EUGLENA		8	5
CYANOPHYTA							
..MYXOPHYCEAE				JAN. 9, 1975 TIME 0930			
..CHROOCOCCALES				PHYTOPLANKTON 1,500 CELLS/ML			
...CHROOCOCCACEAE				_ORGANISM_NAME_		CELLS/ML	PER_CENT
...ANACYSTIS		550	20	CHRYSPHYTA			
...OSCILLATORIALES				..BACILLARIOPHYCEAE			
...NOSTOCACEAE				..CENTRALES			
...ANABAENA		55	2	...COSCINODISCACEAE			
EUGLENOPHYTA				...MELOSIRA		1,000	69
..EUGLENOPHYCEAE				..PENNIALES			
..EUGLENALES				...NAVICULACEAE			
...EUGLENACEAE				...NAVICULA		29	2
...TRACHELOMONAS		28	1	...NITZSCHACEAE			
UNKNOWN 215020202004000		55	2	...NITZSCHIA		29	2
				CYANOPHYTA			
NOV. 13, 1974 TIME 1515				..MYXOPHYCEAE			
PHYTOPLANKTON 840 CELLS/ML				...OSCILLATORIALES			
_ORGANISM_NAME_		CELLS/ML	PER_CENT	...OSCILLATORIA		400	27
CHLOROPHYTA							
..CHLOROPHYCEAE				FEB. 12, 1975 TIME 1045			
..CHLOROCOCCALES				PHYTOPLANKTON 1,200 CELLS/ML			
...OCCYSTACEAE				_ORGANISM_NAME_		CELLS/ML	PER_CENT
...CHLORELLA		9	1	CHRYSPHYTA			
...SCENEDESMACEAE				..BACILLARIOPHYCEAE			
...CRUCIGENTIA		120	14	..CENTRALES			
...SCENEDESMUS		72	9	...COSCINODISCACEAE			
..VOLVOCALES				...CYCLOTELLA		46	4
..CHLAMYDOMONADACEAE				...MELOSIRA		760	66
...CHLAMYDOMONAS		36	4	..PENNIALES			
CHRYSPHYTA				...ACHNANTHACEAE			
..BACILLARIOPHYCEAE				...ACHNANTHES		23	2
..CENTRALES				...FRAGILARIACEAE			
...COSCINODISCACEAE				...ASTERIONELLA		160	14
...CYCLOTELLA		9	1	...NAVICULACEAE			
...MELOSIRA		36	4	...NAVICULA		46	4
..PENNIALES				...NITZSCHACEAE			
...DIATOMACEAE				...NITZSCHIA		120	10
...DIATOMA		9	1				
...GYROSIGMA		9	1				
...NAVICULA		36	4				
CYANOPHYTA							
..MYXOPHYCEAE							
...OSCILLATORIALES							
...OSCILLATORIA							
...LYNGBYA		500	59				
EUGLENOPHYTA							
..EUGLENOPHYCEAE							
..EUGLENALES							
...EUGLENACEAE							
...TRACHELOMONAS		9	1				

08041000 Neches River at Evadale, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

MAR. 19, 1975 TIME 1030

PHYTOPLANKTON 3,900 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
....TETRASTRUM	310	8
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	150	4
....MELOSIRA	3,200	82
...PENNIALES		
...NAVICULACEAE		
....NAVICULA	150	4
....NITZSCHIA		
....NITZSCHIA	77	2

APR. 9, 1975 TIME 1640

PHYTOPLANKTON 4,300 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...CHARACIACEAE		
....SCHROEDERIA	140	3
...OCCYSTACEAE		
....ANKISTRODESMUS	340	8
....SELENASTRUM	68	2
....TETRAEDRON	270	6
...SCENEDESMACEAE		
....SCENEDESMUS	410	9
....TETRASTRUM	270	6
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	410	9
....MELOSIRA	2,200	50
...PENNIALES		
...FRAGILARIACEAE		
....ASTERIONELLA	68	2
....NITZSCHIA		
....NITZSCHIA	140	3
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
...EUGLENALES		
....EUGLENALES		
....TRACHELOMONAS	68	2

MAY 14, 1975 TIME 0915

PHYTOPLANKTON 1,200 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM	380	31
...OCCYSTACEAE		
....ANKISTRODESMUS	96	8
...ZYGNEATALES		
...DESMIDIACEAE		
....CLOSTERIUM	48	4
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....MELOSIRA	670	54
...PENNIALES		
...NITZSCHIA		
....NITZSCHIA	48	4

JUNE 4, 1975 TIME 1530

PHYTOPLANKTON 3,700 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
....CRUCIGENIA	440	12
....SCENEDESMUS	110	3
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	28	1
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	170	4
....MELOSIRA	670	18
...PENNIALES		
...EUNOTIACEAE		
....EUNOTIA	28	1
...FRAGILARIACEAE		
....SYNEDRA	28	1
...NAVICULACEAE		
....NAVICULA	28	1
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
....CHROOCOCCACEAE		
....ANACYSTIS	2,200	60

AUG. 6, 1975 TIME 1530

PHYTOPLANKTON 270 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM	10	4
...OCCYSTACEAE		
....ANKISTRODESMUS	10	4
...SCENEDESMACEAE		
....CRUCIGENIA	68	25
....SCENEDESMUS	78	29
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS		
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
...CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	5	2
....MELOSIRA	53	20
...PENNIALES		
...FRAGILARIACEAE		
....SYNEORA		
...NAVICULACEAE		
....NAVICULA	5	2
...NITZSCHIA		
....NITZSCHIA	10	4
...SURIPELLACEAE		
....SURIPELLA		
CYANOPHYTA		
..MYXOPHYCEAE		
...OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA	24	9
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
...EUGLENALES		
....EUGLENALES		
....PHACUS	5	2
....TRACHELOMONAS		

08041000 Neches River at Evadale, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT. 23...	1045	2200	21.5	21	125	100
NOV. 13...	1515	5200	16.5	23	323	92
DEC. 11...	1130	10000	11.0	44	1190	90
JAN. 09...	0930	13000	14.5	22	772	98
FEB. 12...	1045	15000	12.0	38	1540	52
MAR. 19...	1030	14500	15.5	25	979	76
APR. 09...	1640	8600	19.0	27	627	90
MAY 14...	0915	19000	23.5	16	821	95
JUNE 04...	1530	9600	26.5	48	1240	82
JULY 09...	1430	8300	29.5	26	583	96
AUG. 06...	1530	8100	28.0	38	831	93
SEP. 10...	1515	5400	27.5	17	248	97

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	78880	158	88	18700	21	4470	16	3410	31
NOV. 1974.....	207440	114	63	35300	13	7280	14	7840	25
DEC. 1974.....	322740	126	70	61000	15	13100	14	12200	27
JAN. 1975.....	450020	126	70	85100	15	18200	14	17000	27
FEB. 1975.....	477000	129	72	92700	16	20600	15	19300	27
MAR. 1975.....	445500	143	80	96200	18	21700	15	18000	29
APR. 1975.....	261120	155	86	60600	20	14100	16	11300	31
MAY 1975.....	489930	130	72	95200	16	21200	15	19800	27
JUNE 1975.....	291240	131	73	57400	16	12600	15	11800	27
JULY 1975.....	238210	145	81	52100	19	12200	16	10300	29
AUG. 1975.....	215540	140	78	45400	18	10500	15	8730	29
SEPT 1975.....	137650	149	83	30800	19	7060	16	5950	30
TOTAL	3615270	**	**	730000	**	163000	**	146000	**
WTD.AVG.	9904.85	135	75	**	17	**	15	**	28

NECHES RIVER BASIN

08041000 Neches River at Evadale, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	136	124	108	146	129	158	144	98	144	141	146
2	143	154	125	109	147	130	160	137	111	142	139	146
3	145	129	105	115	149	135	162	133	110	140	138	147
4	147	136	133	123	147	137	165	135	134	138	135	150
5	153	134	134	115	143	137	165	145	138	141	134	149
6	155	122	136	123	132	138	166	144	141	146	136	150
7	154	117	134	133	120	139	167	140	145	145	133	147
8	153	105	130	116	115	141	166	131	149	147	138	147
9	154	99	124	117	108	143	158	117	149	147	136	147
10	154	99	129	118	107	143	166	113	144	146	135	149
11	158	101	129	117	114	146	158	115	132	146	134	147
12	160	107	127	119	122	149	157	118	109	146	137	146
13	163	105	126	118	124	151	169	117	106	147	137	143
14	169	112	127	120	123	145	160	128	111	146	146	142
15	169	118	127	123	122	147	158	118	124	147	141	143
16	165	118	122	125	122	147	142	148	129	145	143	145
17	164	111	122	129	126	148	139	116	130	143	145	152
18	164	104	122	134	126	143	145	120	133	144	146	158
19	163	105	123	134	130	134	153	148	140	144	146	154
20	167	104	125	135	130	131	152	132	147	147	145	150
21	165	104	128	133	133	132	150	135	146	148	145	141
22	165	104	127	131	133	139	147	143	144	149	144	142
23	165	104	129	127	146	144	147	141	149	149	146	151
24	172	109	138	126	140	145	146	145	147	151	146	156
25	172	113	145	126	131	151	149	144	144	149	146	154
26	169	115	146	129	129	154	149	146	144	148	146	152
27	169	122	140	130	127	157	147	149	143	150	143	160
28	167	126	129	131	125	162	150	153	140	146	143	168
29	162	127	120	134	---	160	155	115	142	147	142	175
30	158	125	112	138	---	158	154	107	141	144	147	177
31	132	---	110	141	---	157	---	99	---	142	144	---
MONTH	159	116	127	125	129	144	155	131	134	146	141	151

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	22.0	12.0	15.0	19.0	13.0	16.0	23.0	22.0	27.0	29.0	28.0
2	21.0	22.0	9.0	14.0	19.0	15.0	18.0	22.0	24.0	27.0	27.0	28.0
3	21.0	22.0	9.0	14.0	17.0	15.0	16.0	24.0	24.0	20.0	28.0	28.0
4	20.0	22.0	8.0	14.0	18.0	15.0	18.0	24.0	24.0	28.0	28.0	28.0
5	21.0	22.0	9.0	14.0	15.0	11.0	16.0	24.0	25.0	28.0	26.0	28.0
6	26.0	22.0	14.0	14.0	14.0	13.0	18.0	24.0	25.0	29.0	28.0	28.0
7	21.0	21.0	9.0	14.0	11.0	15.0	16.0	24.0	26.0	29.0	27.0	27.0
8	21.0	20.0	10.0	15.0	11.0	14.0	16.0	24.0	26.0	28.0	28.0	27.0
9	21.0	20.0	---	15.0	12.0	15.0	18.0	24.0	27.0	28.0	27.0	27.0
10	22.0	22.0	---	15.0	11.0	15.0	19.0	24.0	24.0	28.0	27.0	28.0
11	22.0	22.0	---	15.0	12.0	16.0	18.0	24.0	26.0	28.0	27.0	28.0
12	22.0	20.0	---	14.0	12.0	16.0	18.0	24.0	25.0	28.0	27.0	28.0
13	22.0	19.0	---	8.0	11.0	17.0	18.0	24.0	25.0	27.0	28.0	28.0
14	22.0	19.0	---	8.0	11.0	16.0	12.0	19.0	25.0	29.0	27.0	26.0
15	22.0	19.0	---	8.0	12.0	14.0	17.0	24.0	27.0	27.0	29.0	26.0
16	19.0	19.0	---	10.0	15.0	14.0	17.0	24.0	28.0	20.0	30.0	26.0
17	19.0	19.0	11.0	11.0	13.0	16.0	17.0	18.0	27.0	28.0	30.0	26.0
18	20.0	19.0	12.0	12.0	15.0	16.0	20.0	18.0	27.0	28.0	29.0	26.0
19	20.0	18.0	12.0	12.0	14.0	16.0	20.0	26.0	27.0	28.0	30.0	25.0
20	20.0	17.0	11.0	12.0	13.0	16.0	19.0	20.0	28.0	28.0	30.0	28.0
21	20.0	15.0	11.0	12.0	13.0	16.0	19.0	24.0	28.0	28.0	30.0	28.0
22	20.0	15.0	11.0	12.0	15.0	19.0	19.0	21.0	27.0	28.0	30.0	24.0
23	20.0	15.0	11.0	12.0	---	18.0	19.0	---	21.0	28.0	30.0	23.0
24	21.0	15.0	15.0	12.0	---	18.0	20.0	---	21.0	29.0	29.0	22.0
25	20.0	14.0	14.0	12.0	13.0	18.0	23.0	24.0	27.0	28.0	30.0	22.0
26	21.0	13.0	12.0	13.0	13.0	18.0	23.0	24.0	27.0	28.0	28.0	21.0
27	21.0	12.0	12.0	14.0	13.0	18.0	23.0	25.0	27.0	28.0	28.0	21.0
28	20.0	13.0	12.0	15.0	13.0	10.0	23.0	26.0	27.0	28.0	27.0	21.0
29	21.0	13.0	12.0	15.0	---	18.0	23.0	24.0	27.0	28.0	28.0	22.0
30	21.0	12.0	15.0	15.0	---	16.0	23.0	23.0	27.0	29.0	29.0	22.0
31	22.0	---	16.0	18.0	---	15.0	---	22.0	---	28.0	28.0	---
MONTH	21.0	18.0	---	13.0	13.5	15.5	18.5	23.0	25.5	27.5	28.5	25.5

08041500 Village Creek near Kountze, Tex.

LOCATION.--Lat 30°23'52", long 94°15'48", Hardin County, at downstream side of bridge on Farm Road 418, 1.6 miles (2.6 km) upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.1 miles (5.0 km) upstream from Cypress Creek, 3.4 miles (5.5 km) northeast of Kountze, and 4.3 miles (6.9 km) downstream from Beech Creek.

DRAINAGE AREA.--860 mi² (2,227 km²).

PERIOD OF RECORD.--Discharge: May 1924 to September 1927, October 1927 to November 1929 (discharge measurements only), April 1939 to current year.

Water quality: Chemical analyses: November 1967 to current year. Water temperatures: November 1967 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is 25.12 ft (7.657 m) above mean sea level. Prior to Apr. 30, 1939, nonrecording gage at site 1.6 miles (2.6 km) downstream at different datum. Apr. 30, 1939, to Sept. 30, 1966, water-stage recorder at site 2,000 ft (610 m) downstream at present datum.

AVERAGE DISCHARGE.--39 years, 817 ft³/s (23.14 m³/s), 12.90 in/yr (328 mm/yr), 591,900 acre-ft/yr (730 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,540 ft³/s (214 m³/s) June 13 (gage height, 17.22 ft or 5.249 m); minimum, 158 ft³/s (4.47 m³/s) Oct. 14.

Period of record: Maximum discharge, 67,200 ft³/s (1,900 m³/s) Nov. 26, 1940 (gage height, 27.6 ft or 8.41 m, former site, from floodmark), from rating curve extended above 32,000 ft³/s (906 m³/s); minimum not determined, probably occurred during period of no gage-height record Sept. 16 to Oct. 3, 1956; minimum daily, 16 ft³/s (0.45 m³/s) Oct. 1, 2, 1956.

Maximum stage since 1884, about 34 ft (10.4 m) in August 1915 at site 2,000 ft (610 m) downstream at present datum. Flood of May 27, 1929, reached a stage of about 32 ft (9.8 m) at site 2,000 ft (610 m) downstream at present datum. Above stages were determined on basis of information by engineers of Gulf, Colorado, and Santa Fe Railway Co. for site 1.6 miles (2.6 km) downstream.

REMARKS.--Discharge records good. Small diversions above station.

REVISIONS.--WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	1,450	1,730	4,190	1,190	780	962	1,600	3,180	1,800	3,340	427
2	252	2,000	1,240	3,990	1,210	753	886	1,770	2,860	1,820	4,100	398
3	229	2,700	1,040	3,920	1,540	730	806	1,820	2,340	1,740	3,730	376
4	213	3,500	968	3,840	2,110	753	744	1,940	1,580	1,720	3,250	365
5	200	3,200	878	3,780	5,190	972	684	1,820	929	1,680	3,260	350
6	190	2,600	990	3,660	6,560	1,180	629	1,590	714	1,500	3,990	367
7	184	2,000	1,870	3,460	5,840	1,440	595	1,700	638	1,240	4,350	376
8	178	1,500	2,760	3,050	5,590	1,520	622	2,550	588	944	4,010	366
9	173	1,030	3,390	2,510	4,370	1,280	903	5,250	643	678	3,240	352
10	168	1,150	3,910	2,420	3,120	1,010	1,420	5,070	1,660	558	2,360	392
11	164	1,500	3,930	2,720	2,330	855	1,830	4,430	3,740	528	1,770	474
12	163	2,000	3,190	2,810	1,910	821	2,050	4,000	5,580	636	1,250	492
13	161	2,400	2,580	2,900	1,810	908	2,020	3,430	7,250	815	900	569
14	159	2,600	2,400	2,920	1,810	1,350	1,900	2,900	5,590	933	736	716
15	174	2,400	2,650	2,720	1,730	1,780	1,910	3,020	4,150	929	627	617
16	215	2,000	2,820	2,400	1,530	2,110	2,080	3,660	2,920	830	560	504
17	303	1,600	3,290	1,990	1,590	2,220	2,470	3,420	1,880	684	515	406
18	394	1,200	4,590	1,750	1,810	2,330	2,710	2,500	1,240	614	488	344
19	334	1,270	4,580	2,120	1,780	2,830	2,420	1,700	975	659	479	312
20	257	1,650	3,640	2,530	1,570	4,020	1,820	1,130	788	703	466	293
21	220	1,900	2,540	3,520	1,310	4,420	1,230	878	977	710	445	276
22	200	1,900	1,820	5,190	1,120	3,940	946	766	1,500	559	433	262
23	187	1,530	1,410	5,020	1,050	2,970	1,050	692	1,470	612	416	247
24	178	1,130	1,210	3,740	1,050	2,140	1,500	643	1,270	980	451	230
25	172	1,190	1,530	2,780	1,080	1,560	1,770	633	1,370	1,340	472	217
26	169	1,470	1,860	2,320	1,070	1,310	1,620	699	1,360	1,520	570	208
27	168	1,770	2,080	2,060	957	1,130	1,130	834	1,480	1,430	516	201
28	175	2,120	2,360	1,830	828	961	842	1,220	1,640	1,140	609	195
29	270	2,350	2,680	1,630	-----	899	710	2,260	1,620	1,050	615	191
30	450	2,200	3,180	1,440	-----	914	822	3,140	1,680	1,400	543	187
31	881	-----	3,940	1,290	-----	955	-----	3,260	-----	2,280	478	-----
TOTAL	7,450	57,310	77,056	90,500	63,055	50,841	41,081	70,325	63,612	34,032	48,969	10,710
MEAN	240	1,910	2,486	2,919	2,252	1,640	1,369	2,269	2,120	1,098	1,580	357
MAX	881	3,500	4,590	5,190	6,560	4,420	2,710	5,250	7,250	2,280	4,350	716
MIN	159	1,030	878	1,290	828	730	595	633	588	528	416	187
CFSM	.28	2.22	2.89	3.39	2.62	1.91	1.59	2.64	2.47	1.28	1.84	.42
IN.	.32	2.48	3.33	3.91	2.73	2.20	1.78	3.04	2.75	1.47	2.12	.46
AC-FT	14,780	113,700	152,800	179,500	125,100	100,800	81,480	139,500	126,200	67,500	97,130	21,240
CAL YR 1974	TOTAL	513,270	MEAN	1,406	MAX	21,100	MIN	123	CFSM	1.63	IN	22.20
WTR YR 1975	TOTAL	614,941	MEAN	1,685	MAX	7,250	MIN	159	CFSM	1.96	IN	26.60
									AC-FT	1,018,000		
									AC-FT	1,220,000		

NECHES RIVER BASIN

08041500 Village Creek near Kountze, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV. 18...	1500	1180	14	4.5	1.1	8.3	4.3	12	0	4.7
FEB. 06...	1110	7530	6.3	2.6	.9	5.7	1.1	4	0	5.1
MAR. 10...	1545	1000	10	5.0	1.2	9.7	1.3	8	0	3.6
APR. 23...	1355	837	11	4.2	1.5	7.0	.9	10	0	4.6
JULY 21...	1700	717	9.4	4.3	1.1	6.4	1.1	9	0	4.0
SEP. 02...	1815	371	13	4.9	1.3	7.9	1.1	14	0	3.2

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 18...	18	.0	61	16	6	.9	82	6.4	14.5
FEB. 06...	12	.0	36	10	7	.8	64	5.1	15.0
MAR. 10...	19	.1	54	17	11	1.0	90	6.0	15.5
APR. 23...	13	.1	47	17	8	.7	76	5.9	22.5
JULY 21...	12	.4	43	15	8	.7	70	5.9	26.0
SEP. 02...	15	.1	53	18	6	.8	85	6.1	27.5

08041700 Pine Island Bayou near Sour Lake, Tex.

LOCATION.--Lat 30°06'21", long 94°20'04", Jefferson-Hardin County line, on right bank at downstream side of bridge on county road and 5.1 miles (8.2 km) southeast of Sour Lake.

DRAINAGE AREA.--336 mi² (870 km²).

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

Water quality: Chemical analyses: February 1968 to current year. Water temperatures: February 1968 to current year.

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

AVERAGE DISCHARGE.--8 years, 431 ft³/s (12.21 m³/s), 312,300 acre-ft/yr (385 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 10,900 ft³/s (309 m³/s) June 11 (elevation, 30.83 ft or 9.400 m); minimum daily, 3.2 ft³/s (0.091 m³/s) Sept. 23.

Period of record: Maximum discharge, 10,900 ft³/s (309 m³/s) June 11, 1975 (elevation, 30.83 ft or 9.400 m); minimum daily, 0.58 ft³/s (0.016 m³/s) Nov. 8, 1967.

Historic: Maximum stage since at least 1917, about 31 ft (9.4 m) in September 1963, from information by local residents.

Water quality: Current year: Maximum daily specific conductance, 637 micromhos Mar. 14; minimum daily, 34 micromhos June 12. Maximum water temperatures, 31.5°C May 27; minimum, 9.0°C Dec. 4, 5.

Period of record: Maximum daily specific conductance, 11,600 micromhos Mar. 23, 1968; minimum daily, 34 micromhos June 12, 1975. Maximum water temperatures, 37.0°C Sept. 15, 1972; minimum, 2.0°C Jan. 11, 1973.

REMARKS.--Discharge records fair. No known diversions. Low flow for March through September was sustained by drainage from rice fields.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	320	1,440	1,380	146	43	44	688	1,650	656	700	74
2	54	518	1,360	1,360	203	32	38	948	1,710	668	939	56
3	38	952	1,220	1,420	267	24	43	1,130	1,600	637	1,170	52
4	30	1,540	985	1,640	493	68	55	1,150	1,350	568	1,500	40
5	23	1,880	694	1,820	837	188	60	1,060	1,050	391	1,920	32
6	18	2,080	459	1,930	1,030	181	57	903	740	285	2,340	27
7	18	2,370	434	2,110	1,150	165	41	699	407	212	2,750	25
8	15	2,480	534	2,820	1,210	185	266	464	196	146	2,950	24
9	9.5	2,320	617	2,980	1,220	163	630	281	1,560	102	2,800	80
10	8.0	2,040	672	2,900	1,130	121	897	191	7,900	82	2,430	410
11	7.8	1,900	838	2,540	950	87	1,210	165	10,700	87	2,000	356
12	6.5	1,690	997	2,220	686	64	1,320	469	9,940	135	1,640	261
13	5.5	1,580	1,120	1,930	446	78	1,250	819	8,140	154	1,300	190
14	5.1	1,520	1,180	1,690	293	149	1,320	1,060	6,020	213	962	137
15	120	1,440	1,380	1,480	253	239	1,570	1,150	4,350	180	673	97
16	221	1,390	1,450	1,290	245	287	2,090	1,190	3,320	153	409	66
17	146	1,360	1,510	1,050	244	303	2,380	1,190	2,500	139	258	52
18	99	1,350	1,530	918	251	396	2,280	1,050	1,840	145	176	48
19	59	1,330	1,520	937	226	539	2,140	792	1,370	121	131	60
20	43	1,350	1,470	983	193	639	1,890	526	960	100	128	61
21	32	1,400	1,400	1,030	150	673	1,570	283	573	92	118	33
22	24	1,390	1,310	1,020	107	696	1,270	156	311	112	94	11
23	19	1,300	1,140	948	77	749	982	100	217	122	76	3.2
24	13	1,280	942	881	61	759	789	77	214	202	64	3.6
25	10	1,400	754	793	50	626	623	73	211	319	175	4.2
26	7.9	1,500	777	618	41	365	482	61	302	318	427	3.4
27	6.6	1,580	1,100	431	43	164	372	50	448	249	370	4.6
28	30	1,570	1,260	312	50	99	246	105	491	169	281	5.4
29	412	1,520	1,390	257	-----	82	163	596	561	232	215	7.6
30	417	1,470	1,420	217	-----	68	308	968	589	391	156	10
31	243	-----	1,420	177	-----	53	-----	1,430	-----	530	110	-----
TOTAL	2,225.9	45,820	34,323	42,082	12,054	8,285	26,386	19,824	71,220	7,910	29,262	2,234.0
MEAN	71.8	1,527	1,107	1,357	431	267	880	639	2,374	255	944	74.5
MAX	417	2,480	1,530	2,980	1,220	759	2,380	1,430	10,700	668	2,950	410
MIN	5.1	320	434	177	41	24	38	50	196	82	64	3.2
AC-FT	4,420	90,880	68,080	83,470	23,910	16,430	52,340	39,320	141,300	15,690	58,040	4,430
CAL YR 1974	TOTAL	201,835.4	MEAN	553	MAX	7,860	MIN	5.1	AC-FT	400,300		
WTR YR 1975	TOTAL	301,625.9	MEAN	826	MAX	10,700	MIN	3.2	AC-FT	598,300		

NECHES RIVER BASIN

08041700 Pine Island Bayou near Sour Lake, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)
OCT.								
09...	1700	9.0	7.4	18	3.2	36	3.6	58
NOV.								
30...	1500	1150	5.6	5.5	.9	8.1	1.9	8
DEC.								
27...	1145	1120	6.2	8.6	1.6	13	1.8	24
JAN.								
31...	1730	140	5.1	13	1.9	22	1.9	34
FEB.								
28...	1700	51	4.6	17	3.2	31	1.4	38
MAR.								
25...	1215	677	3.6	8.5	1.1	11	2.0	22
APR.								
15...	0915	1700	3.4	5.8	1.5	11	1.4	12
MAY								
03...	1900	1080	3.6	6.5	.8	9.6	1.8	16
JUNE								
11...	1400	12800	1.3	3.1	.6	3.6	.9	14
JULY								
21...	1440	82	5.8	16	2.9	27	1.1	52
AUG.								
20...	1900	125	5.8	14	1.8	19	2.0	42
SEP.								
02...	1350	48	6.3	20	2.8	30	2.5	49

DATE	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)
OCT.									
09...	0	9.4	53	.1	--	--	--	--	--
NOV.									
30...	0	4.9	14	.0	--	--	--	--	--
DEC.									
27...	0	6.8	20	.1	--	--	--	--	--
JAN.									
31...	0	5.6	37	.1	--	--	--	--	--
FEB.									
28...	0	4.8	59	.1	--	--	--	--	--
MAR.									
25...	0	6.1	18	.1	--	--	--	--	--
APR.									
15...	0	7.4	17	.1	--	--	--	--	--
MAY									
03...	0	5.9	15	.1	--	--	--	--	--
JUNE									
11...	0	3.1	2.4	.0	--	--	--	--	--
JULY									
21...	0	12	39	.2	.05	.00	.02	.70	.72
AUG.									
20...	0	8.0	30	--	--	--	--	--	--
SEP.									
02...	0	6.3	50	--	--	--	--	--	--

08041700 Pine Island Bayou near Sour Lake, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 09...	--	159	58	11	2.1	300	7.0	24.0
NOV. 30...	--	45	17	11	.8	85	5.8	14.0
DEC. 27...	--	70	28	8	1.1	129	6.3	11.5
JAN. 31...	--	103	40	12	1.5	207	6.7	20.0
FEB. 28...	--	140	56	24	1.8	289	6.9	17.0
MAR. 25...	--	61	26	8	.9	115	6.3	20.0
APR. 15...	--	54	21	11	1.1	105	6.0	17.0
MAY 03...	--	51	20	6	.9	104	6.0	24.0
JUNE 11...	--	22	10	0	.5	32	6.0	24.0
JULY 21...	.05	130	52	9	1.6	249	7.4	30.0
AUG. 20...	--	101	42	8	1.3	199	6.8	28.0
SEP. 02...	--	142	61	21	1.7	281	6.8	27.5

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	2225.9	243	120	721	40	240	8.6	52	48
NOV. 1974.....	45820	100	50	6190	15	1860	5.7	705	22
DEC. 1974.....	34323	100	50	4630	15	1390	5.7	528	22
JAN. 1975.....	42082	91	46	5230	13	1480	5.2	591	20
FEB. 1975.....	12054	127	64	2080	20	651	7.2	234	27
MAR. 1975.....	8285	187	94	2100	30	671	8.0	179	38
APR. 1975.....	26386	115	58	4130	18	1280	6.5	463	25
MAY 1975.....	19824	125	63	3370	19	1020	7.1	380	27
JUNE 1975.....	71220	62	31	5960	8.1	1560	3.5	673	15
JULY 1975.....	7910	165	83	1770	26	555	7.8	167	34
AUG. 1975.....	29262	106	53	4190	16	1260	6.0	474	23
SEPT 1975.....	2234	259	130	784	43	259	8.8	53	51
TOTAL	301625.76	**	**	41200	**	12200	**	4500	**
WTD.AVG.	826.37	101	51	**	15	**	5.5	**	22

NECHES RIVER BASIN

08041700 Pine Island Bayou near Sour Lake, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	160	79	100	230	291	327	169	87	110	119	251
2	229	157	87	98	253	306	337	96	102	99	162	282
3	269	120	92	91	210	414	319	104	102	102	110	301
4	262	86	113	81	155	271	289	102	101	119	90	353
5	283	115	125	76	114	385	318	100	111	143	100	331
6	293	94	171	113	89	201	325	106	137	141	95	334
7	311	72	178	62	87	300	342	141	191	136	93	335
8	300	72	182	74	86	406	144	192	224	153	69	335
9	300	84	185	65	84	230	126	225	120	178	68	222
10	298	100	122	68	97	250	87	282	60	165	125	200
11	292	108	101	77	103	272	113	254	35	235	102	241
12	283	115	100	83	129	299	112	227	34	191	95	193
13	290	121	83	88	164	300	104	86	38	189	100	225
14	310	105	92	96	160	637	95	90	47	155	108	259
15	284	99	104	99	156	228	105	106	48	234	134	300
16	425	92	95	97	154	270	112	102	52	197	149	378
17	205	89	82	102	251	240	86	98	62	197	160	363
18	239	98	84	110	192	208	85	107	75	199	193	362
19	243	105	87	118	193	182	81	125	89	320	196	298
20	242	119	81	106	191	143	90	160	114	300	199	410
21	242	106	83	105	192	136	101	204	215	248	196	329
22	291	106	85	111	208	107	123	224	161	240	193	355
23	286	105	92	104	227	95	151	240	174	401	213	400
24	324	122	103	103	277	96	223	270	180	561	248	404
25	333	131	115	105	278	120	200	280	157	149	245	390
26	346	99	115	120	318	167	149	281	207	134	148	373
27	365	84	93	132	331	195	165	442	88	154	149	373
28	365	95	99	147	289	259	204	241	125	170	160	370
29	210	94	100	159	---	247	231	122	109	189	172	424
30	206	85	102	180	---	306	200	134	171	150	185	486
31	192	---	100	207	---	318	---	101	---	146	205	---
MONTH	279	105	107	106	186	254	178	175	114	197	148	329

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	---	15.0	---	---	18.0	18.0	23.0	22.0	24.0	27.0	29.0
2	25.0	23.5	11.0	17.0	19.0	20.0	20.0	23.0	25.0	26.0	27.0	29.0
3	24.0	---	10.0	17.0	---	15.0	18.0	24.0	---	25.0	26.0	27.0
4	24.0	22.0	9.0	15.0	17.0	15.0	19.5	---	30.0	25.0	25.0	26.0
5	23.0	20.0	9.0	14.0	17.5	13.0	---	---	29.0	28.0	28.0	27.0
6	24.0	21.0	16.0	15.0	16.0	14.0	---	24.0	28.0	27.0	---	26.0
7	24.0	---	---	17.0	14.0	---	20.0	24.0	27.0	28.0	27.0	26.0
8	25.0	---	---	15.0	---	17.0	20.0	26.0	26.0	28.0	28.0	---
9	24.0	15.0	13.5	18.0	12.0	16.0	20.0	---	---	26.0	26.0	26.0
10	25.0	---	11.0	---	13.0	---	20.0	24.0	---	28.0	28.0	---
11	25.0	17.0	13.0	18.0	12.0	19.0	20.0	25.0	24.0	29.0	28.0	27.0
12	22.0	---	12.0	14.0	14.0	17.0	21.0	25.0	26.0	28.0	28.0	26.0
13	---	18.0	14.0	12.0	15.0	17.0	20.0	24.0	26.0	26.0	---	---
14	25.0	15.5	15.0	9.5	---	16.0	17.5	23.0	26.0	27.0	28.0	26.0
15	20.0	14.0	15.0	10.0	---	13.0	17.0	23.0	---	29.0	27.0	---
16	17.5	14.0	14.0	10.5	17.0	18.0	24.0	---	25.0	28.0	27.0	25.0
17	19.0	13.5	12.0	11.0	15.0	---	19.5	23.0	27.0	26.0	28.0	26.0
18	21.0	16.0	12.5	11.0	15.5	18.0	---	25.0	29.0	25.0	28.0	26.0
19	20.0	18.0	12.0	17.0	15.0	17.0	---	26.0	27.0	27.0	---	27.0
20	---	19.0	11.5	20.0	15.5	19.0	19.0	---	27.0	---	28.0	27.0
21	---	18.5	---	16.0	16.0	19.0	19.5	24.0	25.0	29.0	---	26.0
22	20.0	18.0	15.0	15.0	17.0	20.0	20.0	27.0	26.0	27.5	26.0	26.0
23	20.0	17.0	---	17.0	---	22.0	21.5	27.0	26.0	28.0	27.0	---
24	19.0	17.0	15.0	12.5	13.0	20.5	23.0	---	28.0	28.0	---	24.0
25	21.0	15.0	---	15.0	15.0	20.5	---	---	26.0	27.0	26.0	---
26	20.0	14.0	---	---	15.5	21.0	25.0	30.0	25.0	27.0	---	28.0
27	21.0	16.0	---	---	16.5	19.0	---	31.5	24.0	28.0	26.0	24.0
28	20.0	18.0	14.0	19.0	17.0	23.0	26.0	24.0	25.0	27.0	---	---
29	---	15.0	---	20.0	---	---	24.0	---	26.0	28.0	27.0	25.0
30	23.5	14.0	16.5	---	---	17.0	---	22.0	26.0	25.0	---	25.0
31	24.5	---	16.0	20.0	---	15.0	---	22.0	---	25.5	26.0	---
MONTH	22.5	17.0	---	15.0	15.5	17.5	---	---	26.0	27.0	---	---

08042650 North Creek subwatershed No. 28-A near Jermyn, Tex.

LOCATION.--Lat 33°14'52", long 98°19'19", Jack County, near center of earthfill dam on unnamed tributary of North Creek, 0.2 miles (0.3 km) upstream from North Creek, and 4.0 miles (6.4 km) southeast of Jermyn.

DRAINAGE AREA.--6.82 mi² (17.66 km²).

PERIOD OF RECORD.--March 1972 to current year.

GAGE.--Water-stage recorder and flat-crested weir on concrete drop inlet. Datum of gage is 1,090.39 ft (332.351 m) above mean sea level (Soil Conservation Service bench mark). Prior to Oct. 5, 1972, staff gage at same datum.

EXTREMES.--Current year: Maximum outflow, 96.2 ft³/s (2.72 m³/s) Oct. 30 (gage height, 22.80 ft or 6.949 m); no outflow in December, January, March, and September. Maximum inflow, 1,430 ft³/s (40.5 m³/s), average for 5-minute interval, Oct. 30, computed and adjusted as explained below; no inflow at times.

Period of record: Maximum outflow, 96.2 ft³/s (2.72 m³/s) Oct. 30, 1974 (gage height, 22.80 ft or 6.949 m); no outflow most of time each year. Maximum inflow, 1,430 ft³/s (40.5 m³/s), average for 5-minute interval, Oct. 30, 1974, computed from change in pool contents and adjusted for rainfall on pool surface during time of peak inflow; no inflow at times each year.

REMARKS.--Records fair. The pool is formed by a rolled earthfill dam 1,800 ft (549 m) long with a 100-foot-wide (30-metre) earthen spillway at the left end of dam. The crest of emergency spillway is at gage height 33.5 ft (10.21 m). The dam was completed in March 1972, and storage began May 12, 1972. The outlet structure consists of a 2.5- by 7.5-foot (0.8- by 2.3-metre) uncontrolled concrete drop-inlet structure that is connected to a 30-inch (762-millimetre) concrete outlet pipe. The drop-inlet structure is also equipped with a 12-inch-diameter (305-millimetre) slide gate near the bottom of the tower with invert at a gage height of 8.61 ft (2.62 m). The crest of the drop inlet is at gage height 18.12 ft (5.52 m). The capacity of pool at crest of emergency spillway is 1,940 acre-ft (2.39 hm³), the capacity at crest of the drop inlet is 245 acre-ft (0.302 hm³), and the capacity at the crest of the controlled outlet pipe is 24 acre-ft (0.030 hm³). The capacity table below 18.12 ft (5.52 m) was computed using the average-end-area method from a surface area table based on a survey of Mar. 14, 1972. The capacity table above 18.12 ft (5.52 m) was computed using the average-end-area method and based on an area table furnished by the Soil Conservation Service.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	501	67.1	3.2	14.5	124	7.7	29.8	355	101	29.6	67.7	6.9
Outflow	342	219	0	0	92.8	0	15.6	332	93.4	9.8	46.6	0
(+)	+159	-170	-11.6	+2.3	+20.7	-6.2	-6.0	+19.5	-11.1	+1.3	+1.2	-25.5
(++)	7.32	.93	1.40	1.49	2.41	1.45	1.81	8.12	4.20	4.25	4.72	1.31
CAL YR 1974: Inflow	804			Outflow	577	† +33.9		†† 33.0				
WTR YR 1975: Inflow	1,310			Outflow	1,150	† -26.4		†† 39.41				

PEAK INFLOW (BASE, 200 FT³/S).--Oct. 30 (1850) *1,430 ft³/s; May 2 (0655) *846 ft³/s.

1/ Inflow adjusted for rainfall on pool and pool losses.

† Change in contents, in acre-feet.

†† Weighted-mean rainfall, in inches.

* Average for 5-minute interval.

TRINITY RIVER BASIN

08042700 North Creek near Jacksboro, Tex.

LOCATION.--Lat 33°16'57", long 98°17'53", Jack County, near left bank on downstream side of bridge on U.S. Highway 281, 1.7 miles (2.7 km) upstream from Henderson Creek, 8.4 miles (13.5 km) upstream from mouth, and 9.5 miles (15.3 km) northwest of Jacksboro.

DRAINAGE AREA.--21.6 mi² (55.9 km²)

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

GAGE.--Water-stage recorder. Datum of gage is 1,016.33 ft (309.78 m) above mean sea level (State Highway Department bench mark), unadjusted.

AVERAGE DISCHARGE.--14 years (1956-70) prior to completion of floodwater-retarding structures, 5.75 ft³/s (0.163 m³/s), 3.62 in/yr (92 mm/yr), 4,170 acre-ft/yr (5.14 hm³/yr); 5 years (1970-75) regulated, 2.06 ft³/s (0.0583 m³/s), 1.30 in/yr (33 mm/yr), 1,490 acre-ft/yr (1.84 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,450 ft³/s (41.1 m³/s) Oct. 30 (gage height, 13.10 ft or 3.993 m); no flow Oct. 1-13, 19-27. Period of record: Maximum discharge, 6,990 ft³/s (198 m³/s) Apr. 28, 1957 (gage height, 24.45 ft or 7.452 m); no flow at times each year.

Maximum stage since at least 1900, that of Apr. 28, 1957. Significant floods occurred in April 1915, from information by local resident, and flood of May 3, 1956, reached a stage of 21.58 ft (6.578 m), from floodmark (discharge, 5,700 ft³/s or 161 m³/s, from rating curve).

REMARKS.--Records good. No diversions above station. Six rain gages (two nonrecording and four recording) are operated in the basin. At end of year, flow from 16.3 mi² (42.2 km²) above this station was partly controlled by five floodwater-retarding structures with a combined capacity of 4,420 acre-ft (5.45 hm³) below the flood-spillway crests, of which 479 acre-ft (0.591 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	0	185	.09	.15	6.1	.43	.36	.28	4.6	.21	.25	.44		
2	0	57	.13	6.1	7.6	.38	.32	177	2.6	.18	1.3	.36		
3	0	10	.15	1.9	17	.34	.28	28	1.8	.45	4.6	.32		
4	0	7.1	.12	.50	16	.38	.33	5.6	1.4	2.1	.92	.29		
5	0	4.4	.16	.27	28	.42	.36	3.0	1.2	.65	.37	.26		
6	0	2.2	.22	.20	7.6	.59	.38	1.8	.99	.29	.24	.25		
7	0	1.1	.15	.20	3.5	.43	1.9	1.2	.92	.20	.19	.23		
8	0	.54	.07	.18	2.3	.35	4.0	.96	2.1	.14	.16	.20		
9	0	.47	.05	.21	1.4	.44	1.5	.83	34	.15	.13	.19		
10	0	1.7	.34	.32	1.1	.50	1.1	8.0	205	.50	.11	.18		
11	0	1.1	.54	.13	.92	.41	.88	7.8	15	.45	.09	.14		
12	0	.61	.19	.08	.82	.44	.68	3.8	6.9	1.5	.06	.10		
13	0	.41	.19	.11	.76	.38	.73	25	3.3	.25	.05	.43		
14	29	.35	.19	.25	.69	.37	.70	17	1.7	.16	.04	.65		
15	2.3	.09	.16	.30	.50	.42	.64	5.3	1.2	.10	.04	.54		
16	1.2	.25	.12	.27	.51	.47	.66	2.5	1.2	.09	.04	.43		
17	.35	.16	.14	.27	.44	.43	.68	1.4	1.1	.21	5.6	.38		
18	.04	.14	.17	.28	.46	.54	.63	.97	.90	.14	2.9	.46		
19	0	.21	.13	.26	.35	.40	.34	.86	.77	.37	.70	.93		
20	0	.11	.12	.18	.40	.41	.33	.87	.49	.70	.31	.29		
21	0	.07	.11	.28	.46	.42	.34	.87	.43	.13	.21	.29		
22	0	.12	.14	.25	.74	.41	.35	.79	3.7	.07	.13	.35		
23	0	.18	.16	.31	.72	.43	.34	13	1.5	.04	.10	.27		
24	0	.10	.13	.44	.77	.33	.38	4.8	.77	6.0	.10	.25		
25	0	.02	.09	.41	.58	.32	.29	2.8	.49	86	.07	.21		
26	0	.05	.31	.35	.51	.37	.24	1.7	.43	6.3	.89	.25		
27	0	.09	.23	.34	.44	.55	.32	1.7	.34	2.2	12	.24		
28	97	.10	.19	.30	.46	1.7	.64	4.3	.29	1.1	5.0	.19		
29	20	.12	.21	.29	-----	.47	.35	92	.26	.55	2.3	.18		
30	275	.09	.23	.29	-----	.40	.33	88	.23	.33	1.2	.14		
31	266	-----	1.7	.56	-----	.38	-----	8.9	-----	.30	.66	-----		
TOTAL	681.89	283.88	6.93	15.98	101.13	14.38	20.38	511.03	295.61	111.86	128.87	9.44		
MEAN	22.0	9.46	.22	.52	3.61	.46	.68	16.5	9.85	3.61	4.16	.31		
MAX	275	185	1.7	6.1	28	1.7	4.0	177	205	86	89	.93		
MIN	0	.02	.05	.08	.35	.32	.24	.28	.23	.04	.04	.10		
CFSM	1.02	.44	.01	.02	.17	.02	.03	.76	.46	.17	.19	.01		
IN.	1.17	.49	.01	.03	.17	.02	.04	.88	.51	.19	.22	.02		
AC-FT	1,350	563	14	32	201	29	40	1,010	586	222	256	19		
CAL YR 1974	TOTAL	1,262.42	MEAN	3.46	MAX	275	MIN	0	CFSM	.16	IN	2.17	AC-FT	2,500
WTR YR 1975	TOTAL	2,181.38	MEAN	5.98	MAX	275	MIN	0	CFSM	.28	IN	3.76	AC-FT	4,330

TRINITY RIVER BASIN

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08042800 West Fork Trinity River near Jacksboro, Tex.

LOCATION.--Lat 33°17'36", long 98°04'43", Jack County, near left bank on downstream side of bridge on State Highway 59, 4 miles (6 km) downstream from Big Cleveland Creek, 7 miles (11 km) upstream from Carroll Creek, 7 miles (11 km) northeast of Jacksboro, and at mile 660 (1,060 km).

DRAINAGE AREA.--683 mi² (1,769 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 869.28 ft (264.96 m) above mean sea level (State Highway Department bench mark). Sept. 20, 1960, to May 30, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--19 years, 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,100 ft³/s (87.8 m³/s) July 26 (gage height, 20.43 ft or 6.227 m); minimum, 0.22 ft³/s (0.006 m³/s) Oct. 13.

Period of record: Maximum discharge, 35,100 ft³/s (994 m³/s) Apr. 27, 1957 (gage height, 32.10 ft or 9.784 m, from floodmark); no flow at times each year.

Maximum stage since at least 1900, that of Apr. 27, 1957. Flood in June 1941 reached a stage of 30 ft (9.1 m), from information by local residents.

REMARKS.--Records good. At end of year, flow from 70.9 mi² (183.6 km²) above this station was partly controlled by 21 floodwater-retarding structures with a combined capacity of 22,730 acre-ft (28.0 hm³) below the flood-spillway crests, of which 2,950 acre-ft (3.64 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	2,090	.74	1.2	116	17	25	2.0	2,270	4.6	64	11
2	8.9	1,860	.64	22	360	12	15	137	1,690	3.7	42	6.0
3	4.9	1,190	.64	81	528	8.4	9.6	488	1,310	3.2	101	3.7
4	3.1	399	.60	69	655	6.5	6.8	219	671	3.2	309	2.5
5	2.5	194	.60	35	758	5.5	5.8	90	114	3.3	171	1.8
6	1.8	228	.80	30	856	4.9	5.2	48	75	29	114	1.4
7	.88	129	.76	16	818	4.1	17	26	50	18	44	1.1
8	.52	85	.51	11	430	3.4	387	15	179	7.6	27	.93
9	.54	41	.41	8.4	127	3.4	387	8.6	275	4.4	22	.76
10	.40	97	.43	8.0	71	3.4	178	16	1,450	3.2	18	.91
11	.29	95	1.5	6.9	48	2.9	80	120	2,170	2.9	13	.77
12	.27	54	1.3	5.8	35	3.3	45	431	1,750	2.5	8.0	.69
13	.32	26	.95	3.6	26	2.9	31	386	1,250	53	7.1	.69
14	75	23	1.3	2.4	20	2.6	25	578	365	66	6.7	.76
15	336	15	1.3	2.1	16	2.7	21	919	111	20	6.0	.81
16	342	11	.96	1.8	13	3.3	15	826	65	11	5.4	.91
17	275	8.3	.72	1.7	11	53	12	372	48	6.2	5.9	6.2
18	104	6.3	.53	1.5	9.3	279	9.4	106	34	4.0	59	9.0
19	33	6.0	.52	1.5	7.9	131	6.6	71	24	3.0	45	6.4
20	17	4.4	.46	1.3	6.9	57	5.6	48	24	2.5	19	9.7
21	9.5	3.4	.41	1.3	6.1	45	4.7	29	16	2.6	9.5	5.2
22	5.7	3.1	.36	1.2	11	31	4.2	20	13	2.7	5.4	3.1
23	3.8	2.7	.32	1.1	14	16	3.7	26	24	3.6	2.9	2.0
24	3.4	2.5	.32	1.2	68	8.9	3.5	168	123	3.4	1.6	1.5
25	2.6	1.8	.28	1.1	125	5.8	3.2	475	86	878	1.5	1.1
26	2.0	1.5	.36	.88	63	4.4	2.7	634	41	2,480	10	.86
27	3.1	1.4	.52	.88	40	4.8	2.4	688	21	2,060	397	.66
28	269	1.2	.58	1.1	25	207	2.8	806	12	1,290	216	.60
29	385	1.1	.58	1.0	-----	238	2.5	1,180	9.9	559	101	.68
30	448	.78	.64	1.0	-----	90	2.1	2,110	6.1	148	44	.74
31	1,620	-----	1.3	5.9	-----	45	-----	2,610	-----	108	21	-----
TOTAL	3,975.52	6,581.48	21.34	326.86	5,264.2	1,302.2	1,318.8	13,652.6	14,277.0	7,786.6	1,897.0	82.47
MEAN	128	219	.69	10.5	188	42.0	44.0	440	476	251	61.2	2.75
MAX	1,620	2,090	1.5	81	856	279	387	2,610	2,270	2,480	397	11
MIN	.27	.78	.28	.88	6.1	2.6	2.1	2.0	6.1	2.5	1.5	.60
AC-FT	7,890	13,050	42	648	10,440	2,580	2,620	27,080	28,320	15,440	3,760	164
CAL YR 1974	TOTAL	18,448.12	MEAN	50.5	MAX	2,090	MIN	0	AC-FT	36,590		
WTR YR 1975	TOTAL	56,486.07	MEAN	155	MAX	2,610	MIN	.27	AC-FT	112,000		

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-1	2015	19.61	2,350	6-11	0045	20.10	2,400
5-31	1500	20.42	2,650	7-26	1300	20.43	3,100

08043000 Bridgeport Reservoir above Bridgeport, Tex.

LOCATION.--Lat 33°13'22", long 97°49'54", Wise County, at left end of Bridgeport Dam on West Fork Trinity River, 4.6 miles (7.4 km) west of Bridgeport, 13 miles (21 km) upstream from Big Sandy Creek, and at mile 626 (1,007 km).

DRAINAGE AREA.--1,111 mi² (2,877 km²).

PERIOD OF RECORD.--Contents: April 1932 to current year (prior to October 1950, monthend figures only).
Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level. Prior to Jan. 26, 1944, nonrecording gages at various sites in vicinity of present gage at present datum.

EXTREMES (at 0730).--Current year: Maximum contents observed, 390,800 acre-ft (482 hm³) July 28 (elevation, 836.3 ft or 254.90 m); minimum observed, 169,400 acre-ft (209 hm³) Oct. 6-13 (elevation, 814.9 ft or 248.38 m).

Period of record: Maximum contents observed, 407,600 acre-ft (503 hm³) Apr. 29, 30, 1942 (elevation, 836.2 ft or 254.87 m); maximum elevation, 836.3 ft or 254.90 m, July 28, 1975; minimum contents since first appreciable storage in 1935, 7,170 acre-ft (8.84 hm³) Oct. 12-16, 1956.

REMARKS.--The reservoir is formed by a rolled earthfill dam 2,040 ft (622 m) long. The dam was completed in December 1931 and storage began Apr. 1, 1932. The original dam was 1,900 ft (579 m) long, but was lengthened to the present length (2,040 ft or 622 m) in 1971-1972. The original service spillway was eliminated during construction (1971-72), and a new spillway with approach and discharge channels was built through natural ground 2,800 ft (853 m) from the left end of dam. The new spillway is 90 ft (27 m) wide and has eight vertical lift gates that are 11.25 by 22 ft (3.43 by 7 m). The controlled outlet works consist of a 48-inch-diameter (1,219-millimetre) and an 18-inch-diameter (457-millimetre) pipe encased in a concrete conduit extending through the dam. In addition, a controlled 60-inch-diameter (1,524-millimetre) steel pipe extends through the service spillway wall to the spillway discharge basin. For elevations of outlet works, see table below. At end of year, flow from 80.3 mi² (208 km²) above this station was partly controlled by 25 floodwater-retarding structures with a combined capacity of 25,180 acre-ft (31.0 hm³) below the flood-spillway crests, of which 3,460 acre-ft (4.27 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Capacity tables are based on surveys made in 1956 and 1968. Date regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	874.0	-
Crest of spillway.....	866.0	902,000
Top of gates.....	842.0	469,300
Top of conservation pool.....	836.0	387,000
Crest of spillway.....	820.0	212,400
Lowest gated outlet (invert, at spillway).....	810.0	133,200
Lowest gated outlet (invert, at service outlet).....	751.4	0

COOPERATION.--Daily elevation and monthly diversion records furnished by Tarrant County Water Control and Improvement District No. 1. Capacity table furnished by Freese, Nichols, and Endress, Consulting Engineers for Tarrant County Water Control and Improvement District No. 1.

REVISIONS.--WSP 1922: Drainage area.

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

814.0	162,400	830.0	313,900
818.0	194,900	834.0	361,600
822.0	230,800	836.5	393,500
826.0	270,300		

CONTENTS, IN ACRE-FEET, AT 0730, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170,200	201,800	223,300	223,300	227,000	253,100	262,100	272,400	331,300	385,700	388,200	388,200
2	170,200	206,200	223,300	223,300	232,700	253,100	262,100	274,500	337,200	384,400	388,200	388,200
3	170,200	210,600	223,300	224,300	234,600	253,100	262,100	276,600	340,800	384,400	388,200	387,000
4	170,200	214,200	223,300	224,300	237,400	253,100	262,100	277,600	344,400	384,400	388,200	387,000
5	170,200	216,000	223,300	224,300	240,300	253,100	262,100	277,600	345,600	384,400	388,200	387,000
6	169,400	216,000	223,300	224,300	244,200	253,100	262,100	277,600	346,800	384,400	388,200	387,000
7	169,400	216,000	223,300	224,300	246,200	253,100	262,100	278,700	346,800	384,400	388,200	387,000
8	169,400	216,900	223,300	224,300	248,100	253,100	266,200	277,600	348,000	384,400	388,200	385,700
9	169,400	216,900	222,400	224,300	249,100	253,100	269,300	277,600	360,300	384,400	388,200	385,700
10	169,400	219,600	222,400	225,200	249,100	253,100	270,300	277,600	375,400	384,400	388,200	385,700
11	169,400	222,400	223,300	225,200	249,100	253,100	271,400	278,700	387,000	384,400	388,200	385,700
12	169,400	223,300	223,300	224,300	250,100	253,100	271,400	279,700	388,200	384,400	387,000	385,700
13	169,400	223,300	223,300	224,300	250,100	253,100	271,400	279,700	389,600	384,400	387,000	385,700
14	170,200	223,300	223,300	224,300	250,100	253,100	272,400	282,900	389,600	383,100	387,000	384,400
15	170,200	223,300	223,300	224,300	250,100	253,100	272,400	287,200	387,000	383,100	387,000	384,400
16	170,200	223,300	223,300	224,300	250,100	254,100	272,400	288,300	385,700	383,100	387,000	384,400
17	171,000	223,300	223,300	224,300	250,100	254,100	272,400	289,400	385,700	383,100	385,700	384,400
18	171,000	223,300	223,300	224,300	250,100	257,100	272,400	289,400	385,700	381,800	387,000	384,400
19	171,800	223,300	222,400	224,300	250,100	258,100	272,400	290,500	385,700	381,800	387,000	385,700
20	171,800	223,300	222,400	224,300	250,100	258,100	272,400	290,500	385,700	381,800	387,000	384,400
21	171,800	223,300	222,400	224,300	250,100	259,100	272,400	290,500	385,700	381,800	385,700	384,400
22	171,000	223,300	222,400	224,300	251,100	259,100	272,400	290,500	385,700	381,800	385,700	384,400
23	171,000	223,300	222,400	224,300	252,100	259,100	272,400	291,600	385,700	381,800	385,700	384,400
24	171,000	224,300	222,400	224,300	252,100	259,100	272,400	291,600	385,700	380,500	385,700	383,100
25	171,800	224,300	222,400	224,300	252,100	259,100	272,400	292,600	385,700	383,100	384,400	383,100
26	171,800	223,300	222,400	224,300	252,100	259,100	272,400	293,700	385,700	389,600	384,400	383,100
27	171,800	223,300	222,400	224,300	253,100	259,100	272,400	299,200	385,700	389,600	387,000	383,100
28	172,600	223,300	222,400	224,300	253,100	261,100	272,400	304,800	385,700	390,800	387,000	381,800
29	175,000	223,300	223,300	224,300	-----	262,100	272,400	309,300	385,700	389,600	388,200	381,800
30	175,000	223,300	223,300	224,300	-----	262,100	272,400	319,600	385,700	389,600	388,200	381,800
31	188,900	-----	223,300	225,200	-----	262,100	-----	326,600	-----	389,600	388,200	-----
(†)	817.3	821.2	821.2	821.4	824.3	825.2	826.2	831.1	835.9	836.2	836.1	835.6
(‡)	+18,700	+34,400	0	+1,900	+27,900	+9,000	+10,300	+54,200	+59,100	+3,900	-1,400	-6,400
(††)	210	220	204	181	137	162	270	217	225	237	217	234
MAX	188,900	224,300	223,300	225,200	253,100	262,100	272,400	326,600	389,600	390,800	388,200	388,200
MIN	169,400	201,800	222,400	223,300	227,000	253,100	262,100	272,400	331,300	380,500	384,400	381,800
CAL YR 1974.....	* +21,500			†† 3,070			MAX 224,300			MIN 151,000		
WTR YR 1975.....	* +211,600			†† 2,510			MAX 390,800			MIN 169,400		

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial use.

TRINITY RIVER BASIN

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08043000 Bridgeport Reservoir above Bridgeport, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
JULY, 1975 14...	0915	4.5	37	6.3	17	5.0	128	0	16	27
DATE		DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	DIS-SOLVED BORON (B) (UG/L)
JULY, 1975 14...		.2	176	120	13	.7	330	7.9	27.0	50

LOCATION.--Lat 33°13'54", long 97°41'40", Wise County, on downstream side of bridge on U.S. Highway 380, 1.9 miles (3.1 km) upstream from Greathouse Branch, 4.0 miles (6.4 km) east of Bridgeport, and 4.4 miles (7.1 km) upstream from mouth.

PERIOD OF RECORD.--Discharge: October 1936 to current year.

Water quality: Specific conductance: May 1968 to current year. Water temperatures: May 1968 to current year. Sediment records: May 1968 to current year.

AVERAGE DISCHARGE.--39 years, 74.1 ft³/s (2.099 m³/s), 53,690 acre-ft/yr (66.2 hm³/yr).

Period of record: Maximum discharge, 53,000 ft³/s (1,500 m³/s) June 10, 1941 (gage height, 15.69 ft or 4.782 m, from floodmark), from rating curve extended above 22,000 ft³/s (623 m³/s); no flow at times most years.

Historic: Maximum stage since at least 1887 occurred in 1908 and 1915 and reached about same stage as that of June 10, 1941.

Maximum water temperatures, 28.0°C July 6, 9, 29, Aug. 2; minimum, 1.0°C Jan. 13. Maximum daily sediment concentrations, 1,080 mg/l June 10; minimum daily, 3 mg/l Jan. 13. Maximum daily sediment loads, 8,670 tons Oct. 31; minimum daily, 0.06 tons Sept. 30.

June 10; minimum daily, 3 mg/l July 13. Maximum daily sediment loads, 8,670 tons Oct. 31; minimum daily, 0.00 tons Sept. 30.
Period of record: Maximum daily specific conductance, 1,070 micromhos Mar. 16, 1975; minimum daily, 101 micromhos Dec. 29, 1969.
Maximum water temperatures, 31.0°C June 13, 1968; minimum, freezing point on several days during January 1973-74. Maximum daily sediment concentrations, 3,480 mg/l July 29, 1971; no flow for many days. Maximum daily sediment loads, 14,000 tons May 7, 1969; minimum daily, 0 tons on many days.

REMARKS.--Discharge records good. Since May 1, 1956, runoff from 103 mi² (267 km²) above station is affected by Anon Carter Reservoir 30 miles (48 km) upstream, capacity 15,240 acre-ft (18.8 hm³) at elevation 920.0 ft (280.42 m), spillway crest. Records furnished by city of Bowie show that during the current year 752 acre-ft (927,000 m³) of water was diverted from Anon Carter Reservoir for municipal use and 139 acre-ft (171,000 m³) of sewage effluent was discharged into a tributary above station. At end of year, flow from 37.5 mi² (97.1 km²) above this station was affected by 13 floodwater-retarding structures with a combined capacity of 10,840 acre-ft (13.4 hm³) below the flood-spillway crests, of which 1,400 acre-ft (1.73 km³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	2,920	21	26	748	37	66	23	394	9.4	41	2.4
2	7.7	694	21	27	1,040	33	51	207	121	8.7	50	2.1
3	6.4	222	21	85	468	30	40	268	69	15	221	1.8
4	5.4	152	21	60	296	28	36	70	50	28	84	1.6
5	4.8	106	21	35	373	28	34	42	40	14	29	1.6
6	4.4	69	21	28	419	29	33	34	33	12	16	1.5
7	4.0	55	21	25	147	28	74	26	27	9.2	11	1.4
8	3.8	48	20	23	86	25	1,190	21	99	7.9	8.8	1.3
9	3.7	47	18	22	65	24	1,090	17	194	7.2	7.1	1.5
10	3.7	317	19	23	53	26	333	15	1,390	6.7	5.8	1.6
11	3.4	474	28	21	50	27	127	15	523	6.7	5.0	1.8
12	3.2	201	31	19	45	29	80	15	111	6.7	4.2	1.4
13	3.0	89	26	17	40	31	78	16	57	6.4	3.5	1.3
14	3.8	63	23	16	34	26	95	228	45	6.0	3.1	1.7
15	11	49	22	17	37	26	74	248	36	5.5	2.7	2.8
16	13	45	21	17	35	215	58	59	29	6.2	2.6	3.6
17	8.2	41	19	17	35	95	50	33	25	6.2	2.9	3.1
18	5.8	38	19	17	33	690	47	24	21	6.0	5.7	2.5
19	4.6	37	18	18	29	493	38	19	18	5.1	6.9	2.2
20	3.8	34	18	17	28	124	33	16	15	4.6	5.1	1.7
21	3.2	31	18	17	28	68	31	17	14	4.4	4.2	1.5
22	2.9	30	18	16	80	53	31	16	18	4.0	3.8	1.5
23	2.9	30	18	16	233	44	32	78	32	3.4	3.8	1.5
24	3.1	31	18	17	186	36	33	140	119	3.3	3.8	1.5
25	3.9	26	17	18	102	30	31	55	40	500	3.6	1.4
26	5.2	25	18	19	62	27	28	30	20	910	5.9	1.4
27	6.1	24	21	18	47	244	25	75	15	204	8.0	1.4
28	90	24	21	18	41	358	43	372	13	135	5.9	1.3
29	220	23	21	17	-----	614	40	856	11	54	5.2	1.3
30	187	22	21	17	-----	283	29	1,190	10	79	3.8	1.2
31	4,960	-----	22	229	-----	97	-----	961	-----	117	2.9	-----
TOTAL	5,597.4	5,967	642	932	4,847	3,898	3,950	5,186	3,589	2,191.6	566.3	52.9
MEAN	181	199	20.7	30.1	173	126	132	167	120	70.7	18.3	1.76
MAX	4,960	2,920	31	229	1,040	690	1,190	1,190	1,390	910	221	3.6
MIN	2.9	22	17	16	28	24	25	15	10	3.3	2.6	1.2
AC-FT	11,100	11,840	1,270	1,850	9,610	7,730	7,830	10,290	7,120	4,350	1,120	105
CAL YR 1974	TOTAL 19,301.80			MEAN 52.9	MAX 4,960	MIN 0	AC-FT 38,290					
WTR YR 1975	TOTAL 37,419.20			MEAN 103	MAX 4,960	MIN 1.2	AC-FT 74,220					

TRINITY RIVER BASIN

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08044000 Big Sandy Creek near Bridgeport, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C); WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	149	774	788	400	901	658	979	298	677	378	---
2	---	187	871	874	398	870	765	416	455	681	461	---
3	612	308	865	855	252	946	688	441	574	687	383	---
4	638	437	871	632	353	996	753	529	612	660	314	---
5	617	519	853	763	517	996	835	684	697	810	401	---
6	701	614	917	773	351	1040	910	668	621	722	502	---
7	561	648	917	855	505	1040	838	699	708	725	569	---
8	529	559	914	849	672	1010	286	688	731	747	606	---
9	562	650	920	910	773	1040	291	797	403	697	590	---
10	557	337	856	900	806	1060	370	873	218	754	685	---
11	536	266	957	913	884	1040	562	978	284	713	764	---
12	574	325	931	913	829	1060	693	905	467	841	700	---
13	535	525	920	968	800	1040	759	748	553	725	685	---
14	597	636	968	968	938	1030	854	609	689	718	831	---
15	563	630	850	972	946	1060	842	423	746	763	---	---
16	633	708	874	1000	991	1070	892	524	787	737	---	---
17	651	668	931	960	1000	734	899	630	824	813	---	562
18	631	647	865	968	962	435	848	684	766	714	825	536
19	582	875	---	1010	983	383	974	752	763	750	685	---
20	625	838	---	1020	946	523	996	754	870	895	681	---
21	637	801	---	858	934	623	1000	775	938	933	866	---
22	556	955	---	984	974	742	970	704	832	---	---	---
23	624	876	---	883	640	819	966	851	966	---	---	---
24	554	867	979	896	606	875	1010	774	---	---	---	---
25	574	880	955	1000	667	881	1020	526	---	861	---	---
26	598	890	983	988	738	962	1050	630	---	235	830	---
27	625	887	1020	902	811	997	1000	691	---	304	580	---
28	655	940	1010	885	887	512	935	366	608	288	540	---
29	280	887	806	865	---	381	846	333	696	377	850	---
30	301	964	920	881	---	392	970	234	679	457	697	---
31	117	---	917	861	---	535	---	222	---	262	---	---
MONTH	560	649	909	900	734	838	816	642	646	662	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	20.0	3.0	8.0	8.0	13.0	12.0	18.0	20.0	27.0	27.0	---
2	---	19.0	3.0	8.0	8.0	14.0	12.0	18.0	22.0	27.0	28.0	---
3	19.0	22.0	4.0	6.0	8.0	11.0	11.0	20.0	22.0	26.0	27.0	---
4	19.0	20.0	5.0	5.0	9.0	8.0	11.0	20.0	24.0	26.0	27.0	---
5	20.0	17.0	8.0	6.0	8.0	8.0	13.0	20.0	26.0	24.0	26.0	---
6	19.0	14.0	9.0	5.0	4.0	12.0	14.0	21.0	26.0	26.0	27.0	---
7	20.0	14.0	9.0	7.0	3.0	13.0	15.0	21.0	25.0	27.0	26.0	---
8	19.0	13.0	7.0	8.0	5.0	11.0	13.0	22.0	25.0	28.0	27.0	---
9	20.0	13.0	5.0	9.0	5.0	11.0	15.0	22.0	22.0	28.0	26.0	---
10	19.0	14.0	6.0	9.0	5.0	10.0	15.0	23.0	22.0	27.0	26.0	---
11	20.0	13.0	6.0	7.0	5.0	9.0	13.0	23.0	21.0	24.0	26.0	---
12	20.0	12.0	6.0	4.0	9.0	10.0	14.0	21.0	21.0	26.0	26.0	---
13	21.0	12.0	7.0	1.0	10.0	7.0	14.0	22.0	23.0	24.0	26.0	---
14	21.0	11.0	8.0	2.0	11.0	6.0	12.0	19.0	24.0	25.0	27.0	---
15	16.0	10.0	8.0	4.0	11.0	8.0	16.0	19.0	25.0	25.0	---	---
16	14.0	10.0	8.0	5.0	5.0	9.0	18.0	20.0	26.0	26.0	---	---
17	15.0	11.0	5.0	6.0	6.0	10.0	19.0	20.0	26.0	25.0	---	24.0
18	16.0	11.0	6.0	7.0	7.0	11.0	22.0	21.0	26.0	26.0	25.0	22.0
19	17.0	13.0	---	8.0	6.0	12.0	18.0	23.0	26.0	26.0	26.0	---
20	16.0	13.0	---	6.0	8.0	15.0	17.0	23.0	27.0	26.0	27.0	---
21	16.0	12.0	---	6.0	11.0	16.0	17.0	22.0	27.0	27.0	27.0	---
22	16.0	13.0	---	6.0	11.0	16.0	19.0	24.0	25.0	---	---	---
23	17.0	16.0	---	7.0	5.0	18.0	20.0	23.0	25.0	---	---	---
24	18.0	13.0	11.0	8.0	5.0	15.0	22.0	21.0	25.0	---	---	---
25	18.0	10.0	7.0	8.0	7.0	13.0	23.0	20.0	27.0	25.0	---	---
26	18.0	9.0	5.0	9.0	7.0	13.0	23.0	23.0	26.0	24.0	27.0	---
27	18.0	9.0	5.0	10.0	10.0	16.0	23.0	23.0	26.0	26.0	23.0	---
28	18.0	9.0	7.0	11.0	13.0	15.0	20.0	21.0	26.0	27.0	25.0	---
29	17.0	9.0	8.0	11.0	---	6.0	21.0	21.0	27.0	28.0	25.0	---
30	20.0	5.0	10.0	11.0	---	4.0	21.0	21.0	27.0	27.0	26.0	---
31	17.0	---	9.0	10.0	---	9.0	---	21.0	---	27.0	---	---
MONTH	18.0	13.0	6.5	7.0	7.5	11.5	17.0	21.0	24.5	26.0	---	---

TRINITY RIVER BASIN

08044000 Big Sandy Creek near Bridgeport, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM.	SUS. SED. SIEVE DIAM.	
						% FINER THAN .062 MM	% FINER THAN .125 MM	
NOV. 10...	0800	246	14.0	485	322	85	95	
MAR. 28...	1700	403	11.0	1190	1300	98	99	
MAY 30...	1205	191	21.0	344	177	99	10	
JUNE 10...	1200	2120	23.0	984	5630	99	100	
JULY 26...	1300	790	27.0	77	164	99	100	
30...	1800	54	29.0	1300	190	98	99	
		SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
NOV. 10...	99	100	56	65	66	79	82	
MAR. 28...	100	--	77	90	93	95	96	
MAY 30...	--	--	91	95	96	97	98	
JUNE 10...	--	--	86	95	95	97	98	
JULY 26...	--	--	91	95	96	97	98	
30...	100	--	89	92	93	97	98	

TRINITY RIVER BASIN

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08044000 Big Sandy Creek near Bridgeport, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9.4	70	1.8	2920	200	1580	21	20	1.1
2	7.7	60	1.2	694	100	187	21	13	.74
3	6.4	60	1.0	222	120	72	21	11	.62
4	5.4	54	.79	152	180	74	21	40	2.3
5	4.8	44	.57	106	100	29	21	11	.62
6	4.4	50	.59	69	70	13	21	26	1.5
7	4.0	72	.78	55	50	7.4	21	35	2.0
8	3.8	56	.57	48	50	6.5	20	20	1.1
9	3.7	50	.50	47	109	15	18	14	.68
10	3.7	62	.62	317	543	303	19	16	.82
11	3.4	60	.55	474	170	218	28	19	1.4
12	3.2	61	.53	201	170	92	31	14	1.2
13	3.0	66	.53	89	100	24	26	10	.70
14	3.6	54	.55	63	70	12	23	11	.68
15	11	64	1.9	49	70	9.3	22	27	1.6
16	13	68	2.4	45	50	6.1	21	19	1.1
17	8.2	44	.97	41	50	5.5	19	12	.62
18	5.8	41	.64	38	50	5.1	19	9	.46
19	4.6	65	.81	37	70	7.0	18	50	2.4
20	3.8	52	.53	34	70	6.4	18	20	.97
21	3.2	64	.55	31	105	8.8	18	20	.97
22	2.9	77	.60	30	50	4.1	18	15	.73
23	2.9	58	.45	30	72	5.8	18	22	1.1
24	3.1	60	.50	31	59	4.9	18	35	1.7
25	3.9	58	.61	26	74	5.2	17	17	.78
26	5.2	69	.97	25	36	2.4	18	13	.63
27	6.1	51	.84	24	55	3.6	21	11	.62
28	90	611	398	24	40	2.6	21	9	.51
29	220	802	584	23	13	.81	21	138	7.8
30	187	628	856	22	45	2.7	21	78	4.4
31	4960	735	8670	---	---	---	22	63	3.7
MONTH	5597.4	---	10530.35	5967	---	2713.21	642	---	45.55

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	26	83	5.8	748	572	1200	37	35	3.5
2	27	100	7.3	1040	200	562	33	43	3.8
3	85	240	48	468	240	303	30	38	3.1
4	60	91	15	296	170	136	28	26	2.0
5	35	64	6.0	373	270	272	28	18	1.4
6	28	72	5.4	419	220	249	29	46	3.6
7	25	58	3.9	147	120	48	28	53	4.0
8	23	97	6.0	86	79	18	25	56	3.8
9	22	59	3.5	65	65	11	24	25	1.6
10	23	92	5.7	53	45	6.4	26	33	2.3
11	21	73	4.1	50	49	6.6	27	27	2.0
12	19	10	.51	45	67	8.1	29	38	3.0
13	17	3	.14	40	61	6.6	31	30	2.5
14	16	10	.43	39	62	6.5	26	28	2.0
15	17	15	.69	37	43	4.3	26	50	3.5
16	17	5	.23	35	19	1.8	215	814	638
17	17	11	.50	35	29	2.7	95	248	100
18	17	11	.50	33	170	15	690	1010	1710
19	18	12	.58	29	20	1.6	493	370	493
20	17	8	.37	28	20	1.5	124	250	84
21	17	21	.96	28	38	2.9	68	150	28
22	16	10	.43	80	214	86	53	120	17
23	16	8	.35	233	283	179	44	70	8.3
24	17	18	.83	188	150	76	36	50	4.9
25	18	11	.53	102	78	21	30	63	5.1
26	19	13	.67	62	82	14	27	61	4.4
27	18	75	3.6	47	53	6.7	244	562	606
28	18	113	5.5	41	44	4.9	358	588	622
29	17	125	5.7	---	---	---	614	400	663
30	17	97	4.5	---	---	---	283	220	168
31	229	734	659	---	---	---	97	140	37
MONTH	932	---	796.72	4647	---	3250.6	3898	---	5230.8

08044000 Big Sandy Creek near Bridgeport, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	66	100	18	23	120	7.5	394	150	160
2	51	100	14	207	495	302	121	170	56
3	40	95	10	268	300	217	69	120	22
4	36	71	6.9	70	200	38	50	100	13
5	34	93	8.5	42	150	17	40	120	13
6	33	82	7.3	34	150	14	33	120	11
7	74	201	143	26	100	7.0	27	100	7.3
8	1190	1040	3250	21	120	6.8	99	270	72
9	1090	370	1090	17	120	5.5	194	370	194
10	333	250	225	15	120	4.9	1390	1080	3860
11	127	150	51	15	100	4.1	523	320	452
12	80	100	22	15	100	4.1	111	220	66
13	78	100	21	16	120	5.2	57	150	23
14	95	95	24	228	586	386	45	100	12
15	74	88	18	248	320	214	36	70	6.8
16	58	85	13	59	150	24	29	70	5.5
17	50	80	11	33	120	11	25	70	4.7
18	47	105	13	24	100	6.5	21	113	6.4
19	38	54	5.5	19	100	5.1	18	91	4.4
20	33	67	6.0	16	94	4.1	15	40	1.6
21	31	68	5.7	17	103	4.7	14	48	1.8
22	31	93	7.8	16	100	4.3	18	60	2.9
23	32	106	9.2	78	440	139	32	120	10
24	33	110	9.8	140	400	151	119	569	156
25	31	111	9.3	55	220	33	40	220	24
26	28	88	6.7	30	120	9.7	20	120	6.5
27	25	90	6.1	75	589	198	15	100	4.1
28	43	170	20	372	570	573	13	100	3.5
29	40	120	13	856	250	578	11	46	1.4
30	29	100	7.8	1190	270	868	10	55	1.5
31	---	---	---	961	170	441	---	---	---
MONTH	3950	---	5052.6	5186	---	4283.5	3589	---	5202.4
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9.4	40	1.0	41	220	24	2.4	35	.23
2	8.7	80	1.9	50	521	158	2.1	30	.17
3	15	259	31	221	527	320	1.8	30	.15
4	28	150	11	84	370	84	1.6	25	.11
5	14	70	2.6	29	250	20	1.6	25	.11
6	12	79	2.6	16	150	6.5	1.5	25	.10
7	9.2	44	1.1	11	105	3.1	1.4	20	.08
8	7.9	56	1.2	8.8	90	2.1	1.3	20	.07
9	7.2	74	1.4	7.1	45	.86	1.5	20	.08
10	6.7	59	1.1	5.8	34	.53	1.6	20	.09
11	6.7	87	1.6	5.0	37	.50	1.8	20	.10
12	6.7	55	1.0	4.2	27	.31	1.4	20	.08
13	6.4	66	1.1	3.5	30	.28	1.3	25	.09
14	6.0	72	1.2	3.1	27	.23	1.7	25	.11
15	5.5	50	.74	2.7	25	.18	2.8	30	.23
16	6.2	48	.80	2.6	20	.14	3.6	30	.29
17	6.2	46	.77	2.9	20	.16	3.1	100	.84
18	6.0	46	.75	5.7	37	.57	2.5	120	.81
19	5.1	44	.61	6.9	32	.80	2.2	70	.42
20	4.6	37	.46	5.1	32	.44	1.7	45	.21
21	4.4	29	.34	4.2	38	.43	1.5	40	.16
22	4.0	30	.32	3.8	30	.31	1.5	30	.12
23	3.4	30	.28	3.8	30	.31	1.5	30	.12
24	3.3	40	.36	3.8	25	.26	1.5	30	.12
25	500	364	432	3.6	25	.24	1.4	25	.09
26	910	320	808	5.9	200	3.2	1.4	25	.09
27	204	300	165	8.0	200	4.3	1.4	25	.09
28	135	350	128	5.9	150	2.4	1.3	25	.09
29	54	220	32	5.2	103	1.4	1.3	20	.07
30	79	648	196	3.8	133	1.4	1.2	20	.06
31	117	450	142	2.9	40	.31	---	---	---
MONTH	2191.6	---	1968.23	566.3	---	637.06	52.9	---	5.38
YEAR	37419.2	---	39716.40						

08044500 West Fork Trinity River near Boyd, Tex.

LOCATION.--Lat 33°05'08", long 97°33'30", Wise County, on right bank at downstream side of bridge on Farm Road 730, 0.6 mile (1.0 km) northeast of Boyd, 3.5 miles (5.6 km) downstream from Boggy Creek, and at mile 602 (969 km).

DRAINAGE AREA.--1,725 mi² (4,468 km²).

PERIOD OF RECORD.--January 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 660.57 ft (201.342 m) above mean sea level. Prior to Dec. 14, 1954, water-stage recorder at site 2.2 miles (3.5 km) downstream at datum 5.48 ft (1.670 m) lower.

AVERAGE DISCHARGE.--28 years, 218 ft³/s (6.174 m³/s), 157,900 acre-ft/yr (195 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 15,100 ft³/s (428 m³/s) Oct. 31 (gage height, 20.45 ft or 6.233 m); minimum daily, 7.7 ft³/s (0.22 m³/s) Aug. 25.

Period of record: Maximum discharge, 27,300 ft³/s (773 m³/s) Oct. 5, 1959 (gage height, 22.17 ft or 6.757 m); no flow at times.

Maximum stage since at least 1880, 25 ft (7.6 m), present site and datum, in May 1908, from information by local residents, who also report a flood of about the same height in the period 1870-80. Flood in April 1942 reached a stage of 20.6 ft (6.28 m), present site and datum, from information by State Highway Department.

REMARKS.--Records good. Flow is largely regulated by Bridgeport Reservoir (station 08043000) and by Amon Carter Reservoir near Bowie since May 1956; combined capacity, 402,200 acre-ft (496 hm³). Sustained flow during several periods was released water from Bridgeport Reservoir 21 miles (34 km) upstream. At end of year, flow from 75.2 mi² (194.8 km²) above this station was partly controlled by 29 floodwater-retarding structures with a combined capacity of 23,000 acre-ft (28.4 hm³) below the flood-spillway crests, of which 2,620 acre-ft (3.23 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Some diversions above station.

REVISIONS (WATER YEARS).--WSP 1392: 1947(M), 1948, 1949(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	6240	48	37	636	63	97	60	1080	30	424	10
2	19	4280	47	44	1450	60	75	453	460	29	419	10
3	17	2800	46	60	1200	57	61	765	168	32	684	9.6
4	15	1400	45	91	674	55	52	323	101	114	512	8.8
5	14	742	44	60	604	53	49	135	75	53	169	23
6	14	408	43	45	493	52	47	88	64	40	79	11
7	14	262	43	41	294	51	53	65	54	32	55	8.6
8	13	217	42	38	146	49	1110	54	339	28	43	8.8
9	12	182	41	35	114	46	1540	52	1220	24	35	8.8
10	12	561	39	36	95	49	910	51	2510	22	30	16.4
11	12	765	44	36	91	49	356	49	2790	21	27	12
12	11	763	50	34	86	50	144	48	2340	21	25	9.2
13	11	400	44	34	74	61	105	48	2180	21	22	9.2
14	12	193	39	34	70	61	151	494	2080	21	19	9.2
15	17	139	38	34	66	56	121	1080	1980	20	17	11
16	23	118	38	34	66	80	92	434	1300	18	18	63
17	24	113	39	34	68	176	75	128	422	18	20	20
18	22	111	39	34	66	551	64	77	132	17	18	11
19	20	109	39	34	62	670	59	63	72	16	20	10
20	18	90	38	34	59	309	58	61	54	32	16	10
21	17	77	38	34	59	119	55	59	47	25	12	10
22	16	71	37	33	62	83	55	56	48	15	11	10
23	15	73	38	32	133	65	56	81	84	14	9.4	10
24	14	85	37	33	187	57	58	150	143	17	8.8	11
25	15	66	37	33	145	55	60	106	106	1370	7.7	11
26	15	59	38	33	98	54	59	63	53	2860	21	11
27	16	55	38	32	73	156	62	55	42	2830	127	11
28	37	51	38	33	65	666	72	428	36	2790	43	11
29	265	50	37	33	---	469	76	989	33	2550	25	11
30	562	49	37	31	---	433	68	1920	32	2120	16	11
31	9970	---	37	53	---	176	---	1580	---	1210	12	---
TOTAL	11263	20549	1257	1209	7230	4931	5440	10115	20051	16410	33504.3	386.2
MEAN	363	685	40.5	39.0	258	159	195	326	662	529	103	12.9
MAX	9970	6240	50	91	1450	670	1540	1920	2790	2860	829	63
MIN	11	49	37	31	59	46	47	48	32	14	7.7	8.6
AC-FT	22340	40760	2490	2400	14340	9780	11580	20060	39770	32550	6650	766
CAL YR 1974 TOTAL	67772.7		MEAN 186	MAX 9970	MIN 6.7	AC-FT 134400						
WTR YR 1975 TOTAL	102591.5		MEAN 281	MAX 9970	MIN 7.7	AC-FT 203500						

08045000 Eagle Mountain Reservoir above Fort Worth, Tex.

LOCATION.--Lat 32°52'39", long 97°28'29", Tarrant County, at right end of main section (left) of Eagle Mountain Dam on West Fork Trinity River and 11.8 miles (19.0 km) northwest of Fort Worth.

DRAINAGE AREA.--1,970 mi² (5,102 km²).

PERIOD OF RECORD.--February 1934 to current year (prior to October 1950, monthend figures only).

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level. Prior to Feb. 24, 1943, nonrecording gages at several sites within 1.0 mile (1.6 km) of present site at present datum.

EXTREMES (at 0700).--Current year: Maximum contents observed, 224,300 acre-ft (277 hm³) Oct. 31 (elevation, 652.6 ft or 198.91 m); minimum observed, 174,300 acre-ft (215 hm³) Sept. 26-30 (elevation, 647.3 ft or 197.30 m).
Period of record: Maximum contents observed, 333,500 acre-ft (411 hm³) Apr. 26, 1942 (elevation, 659.9 ft or 201.14 m); minimum observed since first appreciable storage in 1935, 57,690 acre-ft (71.1 hm³) Nov. 19, 20, 1956.

REMARKS.--The reservoir is formed by two sections of rolled earthfill and a concrete spillway separated by high natural ground. The total length of the dam, including spillway, is 4,800 ft (1,460 m). The dam was completed Oct. 24, 1932, and storage began Feb. 28, 1934. The emergency spillway is a 1,300-foot-wide (396-metre) cut through natural ground located between the two sections of earthfill that make up the dam. The original service spillway, located in the section to the right of the main dam, contains a concrete spillway with four 25-foot (8-metre) bays, three are equipped with vertical lift gates and the fourth is left open. In 1971, a side-channel spillway was constructed. The newest spillway is located 300 ft (91 m) to the left of the original service spillway and has six 11.25- by 22-foot-wide (3.43- by 7-metre) roller lift gates. The main section of the dam contains the outlet works that consist of two concrete conduits with two 48-inch-diameter (1,219-millimetre) valves in each conduit. The reservoir is used for flood control and maintains the water level of Lake Worth from which the city of Fort Worth derives part of its municipal water supply. Capacities are based on a survey made in 1968. For storage above reservoir, see REMARKS for West Fork Trinity River near Boyd (station 08044500). Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	682.0	-
Crest of spillway.....	676.0	558,000
Top of gates (new side-channel spillway).....	659.0	295,400
Crest of (old service) spillway (top of conservation pool).....	649.1	190,400
Crest of spillway (new side-channel spillway).....	637.0	99,120
Lowest gated outlet (invert).....	599.9	94

COOPERATION.--Daily elevation and monthly diversion records furnished by Tarrant County Water Control and Improvement District No. 1. Capacity table furnished by Freese, Nichols, and Endress, Consulting Engineers for Tarrant County Water Control and Improvement District No. 1.

REVISIONS.--WSP 1922: Drainage area.

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

647.0	171,700	651.0	208,400
649.0	189,500	653.0	228,400

CONTENTS, IN ACRE-FEET, AT 0700, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189,500	213,300	188,600	189,500	190,400	188,600	187,700	189,500	198,800	190,400	189,500	184,000
2	189,500	214,300	188,600	188,600	190,400	187,700	187,700	189,500	190,400	190,400	189,500	183,100
3	189,500	201,700	188,600	188,600	189,500	187,700	187,700	190,400	189,500	190,400	189,500	183,100
4	189,500	189,500	188,600	188,600	187,700	187,700	187,700	190,400	187,700	190,400	189,500	182,200
5	188,600	189,500	188,600	188,600	187,700	187,700	187,700	189,500	188,600	190,400	190,400	181,300
6	188,600	190,400	188,600	188,600	186,800	186,800	187,700	187,700	188,600	190,400	189,500	181,300
7	188,600	189,500	188,600	188,600	185,800	187,700	186,800	187,700	188,600	189,500	189,500	180,400
8	188,600	188,600	188,600	188,600	186,800	187,700	192,300	188,600	189,500	189,500	189,500	179,600
9	188,600	188,600	188,600	187,700	186,800	186,800	188,600	188,600	190,400	189,500	189,500	179,600
10	188,600	189,500	188,600	187,700	187,700	187,700	187,700	188,600	191,300	189,500	189,500	178,700
11	187,700	190,400	189,500	187,700	187,700	187,700	188,600	188,600	187,700	189,500	188,600	177,800
12	187,700	189,500	189,500	187,700	188,600	187,700	187,700	189,500	188,600	189,500	188,600	177,800
13	187,700	189,500	189,500	186,800	188,600	188,600	186,800	189,500	186,800	189,500	188,600	176,900
14	188,600	187,700	189,500	187,700	188,600	187,700	186,800	189,500	188,600	189,500	188,600	176,000
15	189,500	187,700	188,600	187,700	188,600	187,700	187,700	190,400	189,500	189,500	187,700	175,200
16	188,600	187,700	188,600	187,700	189,500	187,700	187,700	188,600	190,400	188,600	187,700	176,900
17	188,600	187,700	188,600	187,700	189,500	187,700	188,600	189,500	190,400	188,600	187,700	176,900
18	188,600	187,700	188,600	187,700	189,500	188,600	188,600	188,600	189,500	187,700	187,700	176,000
19	188,600	187,700	188,600	187,700	189,500	189,500	189,500	188,600	189,500	187,700	187,700	176,000
20	188,600	187,700	188,600	187,700	189,500	190,400	189,500	187,700	189,500	186,800	187,700	176,000
21	188,600	187,700	188,600	187,700	189,500	189,500	189,500	188,600	189,500	186,800	187,700	175,200
22	188,600	188,600	188,600	187,700	189,500	189,500	189,500	188,600	189,500	185,800	187,700	175,200
23	187,700	188,600	188,600	187,700	189,500	189,500	189,500	189,500	189,500	185,800	187,700	175,200
24	187,700	189,500	189,500	188,600	189,500	188,600	189,500	188,600	189,500	184,900	187,700	175,200
25	187,700	188,600	189,500	188,600	189,500	188,600	190,400	188,600	189,500	186,800	186,800	175,200
26	187,700	187,700	189,500	188,600	189,500	188,600	189,500	188,600	190,400	187,700	185,800	174,300
27	187,700	187,700	189,500	188,600	188,600	187,700	189,500	189,500	190,400	188,600	185,800	174,300
28	188,600	188,600	189,500	188,600	188,600	188,600	189,500	188,600	190,400	189,500	185,800	174,300
29	188,600	188,600	189,500	188,600	-----	188,600	189,500	188,600	190,400	190,400	185,800	174,300
30	189,500	188,600	189,500	189,500	-----	188,600	189,500	190,400	190,400	189,500	184,900	174,300
31	224,300	-----	189,500	189,500	-----	188,600	-----	188,600	-----	189,500	184,900	-----
(†)	652.6	648.9	649.0	649.0	648.9	648.9	649.0	648.9	649.1	649.0	648.5	647.3
(*)	+34,800	-35,700	+900	0	-900	0	+900	-900	+1,800	-900	-4,600	-10,600
(††)	209	227	222	242	245	345	290	331	356	435	367	307
MAX	224,300	214,300	189,500	189,500	190,400	190,400	192,300	190,400	198,800	190,400	190,400	184,000
MIN	187,700	187,700	188,600	186,800	185,800	186,800	186,800	187,700	186,600	184,900	184,900	174,300
CAL YR 1974.....	+	+3,700	††	3,980	MAX	224,300	MIN	167,500				
WTR YR 1975.....	+	-15,200	††	3,580	MAX	224,300	MIN	174,300				

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial use.

TRINITY RIVER BASIN

401

08046000 Clear Fork Trinity River near Aledo, Tex.

LOCATION.--Lat 32°38'28", long 97°33'51", Parker County, on left bank 3 miles (5 km) downstream from Turkey Creek, 3.5 miles (5.6 km) upstream from bridge on U.S. Highway 377, 4 miles (6 km) southeast of Aledo, and 11.8 miles (19.0 km) upstream from Benbrook Dam.

DRAINAGE AREA.--251 mi² (650 km²).

PERIOD OF RECORD.--August 1947 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 723.33 ft (220.471 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--9 years (1947-56) prior to regulation by Lake Weatherford, 32.6 ft³/s (0.923 m³/s), 23,620 acre-ft/yr (29.1 hm³/yr); 19 years (1956-75) regulated, unadjusted, 44.9 ft³/s (1.272 m³/s), 32,530 acre-ft/yr (40.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,550 ft³/s (242 m³/s) Oct. 31 (gage height, 22.96 ft or 6.998 m); minimum, 3.1 ft³/s (0.088 m³/s) Oct. 13.

Period of record: Maximum discharge, 34,000 ft³/s (963 m³/s) May 25, 1957 (gage height, 29.00 ft or 8.839 m); no flow at times most years.

Maximum stage since at least 1858, 34 ft (10.4 m) in April 1922, from information by local resident.

REMARKS.--Records good. Since Dec. 15, 1956, Lake Weatherford about 15 miles (24 km) upstream has partly controlled runoff from 109 mi² (282 km²), revised, above station. Lake Weatherford has a capacity of 19,470 acre-ft (24.0 hm³), revised, at elevation 895.0 ft (273.10 m), fixed glory-hole outlet, and 29,580 acre-ft (36.5 hm³), revised, at elevation 903.0 ft (275.23 m), revised, emergency flood spillway. At end of year, flow from 37.6 mi² (97.4 km²) above this station was partly controlled by 12 floodwater-retarding structures with a combined capacity of 12,820 acre-ft (15.8 hm³) below the flood-spillway crests, of which 1,660 acre-ft (2.05 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. During the year, the city of Weatherford diverted 1,375 acre-ft (1.70 hm³) from Lake Weatherford for municipal use and returned 1,283 acre-ft (1.58 hm³) of sewage effluent into a tributary above station.

REVISIONS (WATER YEARS).--WSP 1312: 1949(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	3870	66	66	1240	62	49	44	75	59	30	9.4
2	6.9	1280	55	76	975	81	54	54	64	58	50	9.0
3	6.0	1010	51	101	818	73	40	63	53	63	35	8.9
4	5.5	968	47	75	680	64	29	60	48	154	29	8.7
5	4.8	849	46	65	609	39	26	55	41	196	25	8.4
6	4.6	757	50	59	510	37	27	52	34	107	23	11
7	4.5	703	51	52	352	39	207	48	28	80	21	11
8	4.7	595	43	51	297	30	1720	44	609	71	20	8.9
9	4.8	504	35	48	264	26	963	41	1710	64	18	8.1
10	4.2	943	43	55	213	32	560	39	4250	58	17	7.6
11	4.1	738	98	46	201	29	383	70	1660	51	16	7.4
12	4.2	543	69	43	176	32	269	48	898	36	15	7.1
13	4.3	456	54	37	156	82	228	40	614	30	15	7.1
14	411	390	54	36	146	60	236	77	425	27	14	7.2
15	264	340	68	36	139	44	199	90	319	25	13	7.2
16	48	317	66	36	132	89	164	64	271	22	12	7.2
17	29	301	63	35	97	70	128	64	245	23	12	50
18	33	284	49	46	92	179	119	60	227	22	13	13
19	29	258	39	77	82	139	96	55	165	20	13	10
20	25	203	41	65	75	94	76	50	127	20	12	9.5
21	13	170	40	52	69	73	66	75	111	19	12	9.3
22	11	155	39	48	78	67	63	47	102	18	13	9.3
23	11	146	38	28	120	61	66	219	88	16	12	9.3
24	14	195	40	31	111	53	72	135	86	16	11	9.1
25	18	125	41	35	75	38	65	106	85	350	11	8.9
26	15	102	64	33	68	31	53	75	77	190	11	8.6
27	13	88	73	32	66	57	47	50	75	100	11	8.4
28	52	80	62	30	62	113	49	71	71	66	13	8.4
29	43	83	64	28	---	121	45	121	67	50	14	8.0
30	26	79	62	29	---	104	44	123	64	42	11	7.6
31	4570	---	68	119	---	68	---	98	---	35	10	---
TOTAL	5691.6	16532	1679	1570	7903	2087	6143	2238	12689	2088	532	303.6
MEAN	184	551	54.2	50.6	282	67.3	205	72.2	423	67.4	17.2	10.1
MAX	4570	3870	98	119	1240	179	1720	219	4250	350	50	50
MIN	4.1	79	35	28	62	26	26	39	28	16	10	7.1
AC-FT	11290	32790	3330	3110	15680	4140	12180	4440	25170	4140	1060	602
CAL YR 1974 TOTAL	29087.81			MEAN 79.7	MAX 4570	MIN 0	AC-FT 57700					
WTR YR 1975 TOTAL	59456.20			MEAN 163	MAX 4570	MIN 4.1	AC-FT 117900					

TRINITY RIVER BASIN

08046500 Benbrook Lake near Benbrook, Tex.

LOCATION.--Lat 32°39'02", long 97°26'54", Tarrant County, in intake structure of Benbrook Dam on Clear Fork Trinity River, 2.5 miles (4.0 km) south of Benbrook, 3.5 miles (5.6 km) upstream from Marys Creek, and 14.6 miles (23.5 km) upstream from mouth.

DRAINAGE AREA.--429 mi² (1,111 km²).

PERIOD OF RECORD.--Contents: September 1952 to current year. Prior to October 1970, published as Benbrook Reservoir.
Water quality: Chemical analyses: October 1969 to current year.

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

EXTREMES.--Current year: Maximum contents, 124,900 acre-ft (154 hm³) June 12 (elevation, 702.53 ft or 214.131 m); minimum, 84,860 acre-ft (105 hm³) Sept. 30 (elevation, 693.09 ft or 211.254 m).

Period of record: Maximum contents, 185,000 acre-ft (228 hm³) June 6, 1957 (elevation, 713.35 ft or 217.429 m); minimum since lake first filled in 1957, 64,630 acre-ft (79.7 hm³) Sept. 15, 1964 (elevation, 687.18 ft or 209.452 m).

REMARKS.--The lake is formed by a rolled earthfill dam 9,130 ft (2,780 m) long including a 500-foot (150-metre) uncontrolled off-channel concrete-gravity spillway with a 100-foot (30-metre) notch in center of gage weir section. The outlet works consist of a 13.0-foot-diameter (4.0-metre) concrete conduit controlled by two 6.5- by 13.0-foot (2.0- by 4.0-metre) broome-type gates and two 30-inch (762-millimetre) steel pipes controlled by slide gates. Deliberate impoundment began Sept. 29, 1952. From August 1950 to Sept. 28, 1952, the lake was operated as a detention basin only. The capacity table is based on a survey made in 1945. The lake was built for flood control, navigation, and low-flow regulation. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08046000. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	747.0	-
Crest of spillway.....	724.0	258,600
Crest of notch in spillway.....	710.0	164,800
Top of conservation storage.....	694.0	88,250
Crest of intake to wet wells (inverts).....	656.0	6,550
Lowest gated outlet (invert).....	622.0	12

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

REVISIONS.--WSP 1922: Drainage area.

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

692.0	80,890	700.0	113,000
694.0	88,250	702.0	122,300
696.0	95,990	703.0	127,200
698.0	104,200		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85,650	110,200	88,480	90,610	103,300	90,220	89,380	88,400	93,150	88,140	88,850	86,670
2	84,740	113,200	88,670	91,070	106,600	89,880	88,890	88,780	92,760	88,060	88,820	86,640
3	84,740	113,200	88,820	91,220	109,200	89,540	88,440	89,010	92,330	88,740	88,660	86,600
4	84,660	117,400	88,740	90,920	111,400	89,270	88,170	89,190	91,870	89,570	88,360	86,530
5	84,390	114,500	88,710	90,610	113,100	88,970	88,170	89,080	91,410	90,030	88,210	86,380
6	89,130	116,100	88,710	90,230	113,100	88,660	88,320	88,780	90,950	90,220	88,210	86,300
7	84,820	110,800	88,590	89,890	112,900	88,400	91,140	88,320	90,450	90,110	88,170	86,230
8	84,630	104,300	88,480	89,550	111,100	88,360	98,530	88,170	96,510	89,690	88,140	86,190
9	84,330	98,100	88,360	89,200	107,100	88,360	100,600	88,290	101,000	89,270	88,140	86,120
10	84,290	98,630	88,710	88,780	102,200	88,360	101,900	88,360	119,700	88,850	88,020	86,080
11	84,250	100,600	89,090	88,360	97,150	88,590	102,500	88,890	123,500	88,550	87,950	85,970
12	84,250	101,900	89,390	87,800	92,680	88,740	102,600	89,080	124,700	88,630	87,840	85,820
13	84,440	101,600	89,470	87,730	90,830	89,160	102,800	89,230	123,100	88,630	87,760	85,740
14	90,610	99,200	89,130	87,950	90,490	89,160	101,600	89,460	119,700	88,590	87,690	85,710
15	91,450	96,150	88,780	88,100	90,150	88,850	99,390	89,650	116,300	88,590	87,610	85,860
16	91,570	92,850	88,780	88,210	89,760	88,590	96,990	89,840	111,900	88,550	87,540	85,970
17	91,530	89,740	89,050	88,400	89,310	88,360	95,200	89,950	105,900	88,550	87,540	85,970
18	91,380	87,490	89,200	88,590	88,850	88,250	94,330	90,150	100,100	88,510	87,460	85,890
19	91,190	87,490	89,360	88,750	88,400	88,320	93,660	90,180	99,350	88,480	87,350	85,670
20	91,000	88,140	89,390	88,940	88,440	88,290	93,000	90,260	97,110	88,440	87,310	85,410
21	90,770	88,250	88,940	89,010	88,700	88,250	92,260	90,260	94,880	88,440	87,240	85,370
22	90,540	88,360	88,670	89,160	89,160	88,210	91,560	90,110	92,570	88,400	87,240	85,300
23	90,390	88,360	88,630	89,280	89,570	88,100	90,950	91,060	91,560	88,320	87,120	85,230
24	90,270	88,400	88,710	89,430	90,030	88,100	90,180	91,560	91,180	89,230	87,090	85,190
25	90,190	88,440	88,860	89,580	90,340	88,250	89,650	91,870	90,760	90,680	86,940	85,120
26	89,970	88,400	89,160	89,740	90,640	88,590	89,230	92,060	90,370	90,950	86,900	85,080
27	89,740	88,290	89,390	89,890	90,720	88,930	88,930	91,990	89,920	91,020	86,900	85,000
28	90,420	88,180	89,660	90,120	90,490	89,080	88,360	92,760	89,500	90,760	86,820	84,970
29	90,540	88,060	89,850	90,190	-----	89,270	88,290	93,620	89,810	90,180	86,790	84,930
30	90,540	88,360	90,120	90,390	-----	89,540	88,320	93,820	88,550	89,650	86,790	84,860
31	101,490	-----	90,350	93,200	-----	89,610	-----	93,500	-----	89,120	86,750	-----
(†)	697.43	694.03	694.55	695.29	694.59	694.36	694.02	695.37	694.08	694.23	693.60	693.09
(*)	+12,320	-13,540	+1,990	+2,850	-2,710	-880	-1,290	+5,180	-4,950	+570	-2,370	-1,890
MAX	101,900	118,500	90,350	93,200	113,100	90,220	102,800	93,820	124,700	91,020	88,850	86,670
MIN	88,250	87,990	88,360	87,730	88,400	88,100	88,170	88,170	88,550	88,060	86,760	84,860
CAL YR 1974.....	* +2,400			MAX 118,500			MIN 79,120					
WTR YR 1975.....	* -4,720			MAX 124,700			MIN 84,860					

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

TRINITY RIVER BASIN

403

08046500 Benbrook Lake near Benbrook, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
AUG.. 1975 26...	1100	7.7	41	6.3	15	3.6	147	0	21	
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
AUG.. 1975 26...	18	.2	185	130	8	.6	340	8.0	22.0	

TRINITY RIVER BASIN

08047000 Clear Fork Trinity River near Benbrook, Tex.

LOCATION.--Lat 32°39'54", Long 97°26'30", Tarrant County, on left bank 1.5 miles (2.4 km) downstream from Benbrook Dam, 1.7 miles (2.7 km) southeast of Benbrook, 2.9 miles (4.7 km) upstream from Marys Creek, and at mile 13.1 (21.1 km) upstream from West Fork Trinity River.

DRAINAGE AREA.--431 mi² (1,116 km²).

PERIOD OF RECORD.--July 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 604.22 ft (184.166 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--5 years (1947-52) prior to regulation by Benbrook Lake, 105 ft³/s (2,974 m³/s), 76,070 acre-ft/yr (93.8 hm³/yr); 23 years (1952-75) regulated, unadjusted, 65.3 ft³/s (1,849 m³/s), 47,310 acre-ft/yr (58.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,950 ft³/s (112 m³/s) Nov. 7 (gage height, 11.52 ft or 3.511 m); minimum, 0.03 ft³/s (0.001 m³/s) May 26.

Period of record: Maximum discharge, 82,900 ft³/s (2,350 m³/s) May 17, 1949 (gage height, 28.72 ft or 8.754 m), from rating curve extended above 11,000 ft³/s (312 m³/s) on basis of velocity-area studies and slope-area measurement of 82,900 ft³/s (2,350 m³/s); no flow at times most years. Maximum discharge since construction of Benbrook Dam in 1952, 4,350 ft³/s (123 m³/s) June 26, 1957 (gage height, 11.28 ft or 3.438 m).

Maximum stage known since at least 1922, that of May 17, 1949.

REMARKS.--Records good. Flow regulated by Benbrook Lake (station 08046500) since September 1952. Diversion 1.0 mile (1.6 km) upstream for Pecan Valley Golf Course.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	11	16	.93	43	294	200	4.9	223	229	125	.26
2	.26	11	13	2.3	8.3	289	285	.98	222	94	125	.29
3	.26	12	38	79	6.6	285	284	.18	221	9.5	124	.32
4	45	13	142	282	5.3	282	190	.14	222	15	126	.26
5	169	342	142	282	200	283	50	114	225	9.0	58	39
6	166	2110	145	280	708	288	.16	230	226	8.5	12	.42
7	166	3510	145	277	701	197	9.5	225	226	101	11	.14
8	166	3860	145	277	1350	126	18	99	280	241	10	.13
9	169	3770	142	277	2380	121	1.3	.71	105	237	11	.18
10	73	2250	58	281	2760	53	1.1	.66	12	236	11	.21
11	7.8	20	.56	279	2720	2.8	143	2.8	.22	171	11	.23
12	8.0	16	.66	289	2450	2.8	304	.79	391	13	10	.24
13	8.8	558	77	96	1280	3.6	310	.71	1570	14	9.9	.23
14	23	1690	306	4.3	516	135	923	.89	2140	13	9.9	1.9
15	8.1	1940	306	4.5	510	273	1490	.52	2110	13	10	.50
16	91	2000	111	4.2	498	269	1480	.16	2450	13	10	.90
17	166	1980	1.3	4.3	491	269	1250	.12	3130	13	10	.38
18	166	1410	1.3	4.8	488	187	632	.11	2380	13	10	.46
19	166	370	1.4	4.9	481	112	538	45	1250	13	11	32
20	166	226	78	5.2	226	113	531	92	1240	13	11	81
21	166	219	272	5.1	9.7	113	525	90	1240	13	11	.39
22	165	212	271	5.5	6.4	113	521	90	1230	13	8.2	.18
23	164	223	106	16	6.5	111	519	41	729	12	.63	.19
24	167	219	1.1	3.6	4.4	51	515	.06	310	26	.43	.14
25	166	208	.86	3.9	1.8	.43	439	.04	307	54	.39	.21
26	165	205	1.0	4.1	.83	.71	247	.04	306	14	.47	.22
27	164	205	.86	3.8	103	.72	245	71	303	14	1.1	.21
28	171	205	.82	3.7	296	.38	243	1.2	303	167	.51	.21
29	166	131	.90	3.6	---	.27	111	1.1	301	287	.58	.21
30	166	18	.94	1.7	---	.20	6.6	81	301	284	.41	.32
31	97	---	1.1	12	---	28	---	223	---	236	.31	---
TOTAL	3522.43	27944	2525.80	2797.43	18250.83	4003.91	12011.66	1417.11	23953.22	2589.0	739.83	161.33
MEAN	114	931	81.5	90.2	652	129	400	45.7	798	83.5	23.9	5.38
MAX	171	3860	306	289	2760	294	1490	230	3130	287	126	81
MIN	.21	11	.56	.93	.83	.20	.16	.04	.22	8.5	.31	.13
AC-FT	6990	55430	5010	5550	36200	7940	23830	2810	47510	5140	1470	320
CAL YR 1974	TOTAL	41003.37	MEAN	112	MAX	3860	MIN	0	AC-FT	81330		
WTR YR 1975	TOTAL	99916.55	MEAN	274	MAX	3860	MIN	.04	AC-FT	198200		

TRINITY RIVER BASIN

405

08047500 Clear Fork Trinity River at Fort Worth, Tex.

LOCATION.--Lat 32°43'56", long 97°21'31", Tarrant County, at Fort Worth pumping station on left bank, 240 ft (73 m) upstream from the Texas and Pacific Railway Co. bridge in Fort Worth, 830 ft (253 m) upstream from East-West Expressway bridge, 2.5 miles (4.0 km) upstream from mouth, 5 miles (8 km) downstream from Marys Creek, and 10 miles (16 km) downstream from Benbrook Dam.

DRAINAGE AREA.--518 mi² (1,342 km²).

PERIOD OF RECORD.--March 1924 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 532.91 ft (162.431 m) above mean sea level. Prior to Apr. 3, 1970, various nonrecording and recording gages within 650 ft (198 m) of present site at different datums.

AVERAGE DISCHARGE.--28 years (1924-52) prior to regulation by Benbrook Lake, 112 ft³/s (3.172 m³/s), 81,140 acre-ft/yr (100 hm³/yr); 23 years (1952-75) regulated, unadjusted, 97.1 ft³/s (2.750 m³/s), 70,350 acre-ft/yr (86.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 8,510 ft³/s (241 m³/s) June 10 (gage height, 13.16 ft or 4.011 m); minimum, 1.6 ft³/s (0.045 m³/s) Sept. 29.

Period of record: Maximum discharge, 107,000 ft³/s (3,030 m³/s) May 17, 1949 (gage height, 28.20 ft or 8.595 m, present datum), from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of contracted-opening measurement of 107,000 ft³/s (3,030 m³/s); no flow at times most years.

Maximum stage since at least 1900, 28.20 ft (8.595 m) May 17, 1949, present datum. Flood of Apr. 25, 1922, reached a stage of 27.5 ft (8.38 m) present datum (discharge, 74,300 ft³/s or 2,100 m³/s, by slope-area measurement of peak flow), data furnished by city engineer of Fort Worth.

REMARKS.--Records good. Flow largely regulated by Benbrook Lake (station 08046500). Records furnished by city of Fort Worth show that no water was pumped from pool behind dam.

REVISIONS (WATER YEARS).--WSP 1392: 1924-25, 1927. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	226	67	43	2020	429	216	53	229	253	165	5.0
2	24	143	61	98	439	438	313	101	229	127	176	4.5
3	34	116	65	95	409	438	322	53	229	31	170	4.5
4	32	224	210	350	278	438	251	42	229	146	165	4.5
5	141	247	216	343	338	438	111	135	222	41	114	20
6	145	1750	224	340	833	438	29	327	222	25	31	27
7	151	3590	206	349	802	299	637	325	222	55	28	9.1
8	154	4130	204	345	1380	284	1480	211	1720	224	27	5.4
9	159	4110	204	345	2510	270	143	34	713	223	28	4.5
10	118	3830	205	351	3020	55	104	30	1930	222	26	4.5
11	28	241	109	338	2990	16	188	239	147	203	22	4.5
12	20	157	58	335	2740	16	394	82	315	27	20	4.5
13	27	484	80	215	1530	27	432	47	1560	23	19	5.4
14	665	1730	316	43	583	80	939	69	2260	21	17	6.3
15	147	2050	316	44	570	370	1600	50	2220	19	19	64
16	109	2140	198	42	562	412	1580	31	2620	18	24	65
17	188	2120	37	42	544	249	1400	28	3390	18	25	16
18	184	1700	38	44	539	204	756	28	2490	18	23	9.6
19	181	521	34	43	524	192	642	26	1310	16	21	9.1
20	176	331	64	40	318	176	630	187	1300	16	21	140
21	176	308	339	37	54	176	627	165	1290	15	17	29
22	173	299	336	36	79	177	630	147	1280	12	69	11
23	174	313	202	45	88	179	617	400	812	11	20	8.1
24	186	396	37	41	68	128	616	48	277	41	8.6	5.8
25	185	311	34	39	57	37	568	40	275	1780	5.6	5.0
26	177	291	58	36	55	51	388	28	274	95	24	5.0
27	173	284	49	34	72	59	379	34	271	50	13	5.0
28	305	285	46	30	438	46	389	165	270	145	8.6	4.5
29	207	276	47	30	---	40	248	204	266	300	7.2	2.3
30	196	75	49	32	---	38	56	60	280	297	6.3	2.7
31	1590	---	55	452	---	43	---	242	---	272	5.4	---
TOTAL	6258	32678	4164	4657	23840	6243	16685	3631	28852	4744	1325.7	491.8
MEAN	202	1089	134	150	851	201	556	117	962	153	42.8	16.4
MAX	1590	4130	339	452	3020	438	1600	400	3390	1780	176	140
MIN	20	75	34	30	54	16	29	26	147	11	5.4	2.3
AC-FT	12410	64820	8260	9240	47290	12380	33090	7200	57230	9410	2630	975
CAL YR 1974 TOTAL	56086.08			MEAN 154	MAX 4130	MIN 14	AC-FT 111200					
WTR YR 1975 TOTAL	133569.50			MEAN 366	MAX 4130	MIN 2.3	AC-FT 264900					

TRINITY RIVER BASIN

08048000 West Fork Trinity River at Fort Worth, Tex.

LOCATION.--Lat 32°45'39", long 97°19'56", Tarrant County, on left bank 125 ft (38 m) upstream from Texas Electric Service Co.'s concrete dam, 980 ft (299 m) downstream from centerline of Paddock Viaduct (North Main Street) at Fort Worth, 2,600 ft (792 m) downstream from Clear Fork Trinity River, and at mile 556.8 (895.9 km).

DRAINAGE AREA.--2,615 mi² (6,773 km²).

PERIOD OF RECORD.--Discharge: October 1920 to current year. Gage-height records collected in this vicinity since 1910 are contained in reports of the National Weather Service.

Water quality: Chemical and biochemical analyses: October 1967 to current year.

GAGE.--Water-stage recorder and concrete dam control with angle-iron-crested notch for flow below 50 ft³/s (1.42 m³/s). Datum of gage is 519.24 ft (158.264 m) above mean sea level (Texas Reclamation Department bench mark based on Coast and Geodetic Survey datum). Prior to Aug. 22, 1954, at site 1,200 ft (366 m) upstream at same datum. Aug. 22, 1954, to Oct. 15, 1955, at site 2,000 ft (610 m) upstream at same datum.

AVERAGE DISCHARGE.--55 years, 378 ft³/s (10.70 m³/s), 273,900 acre-ft/yr (338 hm³/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 13,400 ft³/s (379 m³/s) Nov. 1 (gage height, 5.52 ft or 1.682 m); minimum, 2.5 ft³/s (0.071 m³/s) Sept. 13, 14.

Period of record: Maximum discharge, 85,000 ft³/s (2,410 m³/s) Apr. 25, 1922 (gage height, 23.95 ft or 7.300 m, site then in use), by slope-area measurement of peak flow by city engineer of Fort Worth; maximum gage height, 25.91 ft (7.897 m) May 17, 1949, site then in use (discharge, 64,300 ft³/s or 1,820 m³/s); no flow at times.

Maximum stage since at least 1866, that of May 17, 1949. Maximum stages have been affected by levee construction, levee breaks, and channel rectification.

REMARKS.--Discharge records good. Flow largely regulated by six major upstream reservoirs with a capacity of 738,500 acre-ft (911 hm³), of which 76,550 acre-ft (94.4 hm³) is for flood control. Records furnished by city of Fort Worth show that during the year 86,330 acre-ft (106 hm³) was diverted above station for municipal and industrial uses. Many small diversions above station.

REVISIONS (WATER YEARS).--WSP 1392: 1925. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	12500	210	51	3420	282	340	36	1780	347	1860	8.6
2	30	12400	177	54	2360	329	352	56	1320	260	1540	7.4
3	29	11900	141	64	3160	362	358	57	1560	62	1420	6.9
4	37	9760	128	94	3090	390	366	67	1410	345	1040	5.9
5	141	3690	135	134	2730	407	350	168	894	159	464	4.7
6	169	3520	141	169	2710	410	282	1020	512	44	286	5.6
7	177	5060	141	196	2030	410	1050	643	368	35	221	6.7
8	177	5500	148	219	1890	389	3840	341	1770	53	106	6.7
9	177	5300	148	229	2940	358	3410	48	1610	109	43	5.8
10	148	6060	141	249	3400	328	2530	30	6030	149	31	4.7
11	35	1740	155	261	3360	280	1770	435	4940	175	24	3.7
12	27	1560	141	264	3100	226	1760	164	3440	97	19	3.0
13	26	1840	104	268	1920	210	1430	112	5320	41	15	2.6
14	1220	3220	122	192	816	192	1570	179	4750	36	14	2.5
15	210	3070	177	129	712	205	2030	239	3990	32	13	4.3
16	90	2810	210	107	682	249	1800	343	4400	29	14	34
17	193	2670	201	89	661	295	1680	512	5520	28	19	31
18	185	2190	170	75	644	335	832	516	4560	27	20	23
19	177	727	148	65	636	356	642	333	2100	27	17	17
20	177	452	115	52	586	364	592	307	1620	25	16	20
21	177	358	123	47	252	381	544	376	1430	24	15	28
22	170	318	158	42	183	389	544	334	1410	23	15	23
23	162	300	173	40	180	405	544	1030	1040	21	26	16
24	177	309	152	39	193	416	534	735	327	19	20	11
25	177	358	114	37	189	407	528	567	309	3960	14	8.4
26	155	389	97	35	185	373	350	250	309	348	12	6.7
27	148	378	86	34	185	350	328	170	309	612	18	6.2
28	389	378	74	34	218	341	336	293	326	2500	17	6.2
29	185	358	63	34	---	329	270	815	318	3360	15	6.6
30	193	290	57	32	---	328	40	1080	319	3470	13	7.2
31	4660	---	53	326	---	330	---	1880	---	2970	10	---
TOTAL	10055	99405	4211	3661	42432	10426	31002	13136	63991	19387	7357	323.4
MEAN	324	3314	136	118	1515	336	1033	424	2133	625	237	10.8
MAX	4660	12500	218	326	3420	416	3840	1880	6030	3960	1860	34
MIN	26	290	53	32	180	192	40	30	309	19	10	2.5
AC-FT	19940	197200	8350	7260	84160	20680	61490	26060	126980	38450	14590	641

CAL YR 1974 TOTAL 134032.2 MEAN 367 MAX 12500 MIN 3.1 AC-FT 265900
WTR YR 1975 TOTAL 305386.4 MEAN 837 MAX 12500 MIN 2.5 AC-FT 605700

TRINITY RIVER BASIN

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08048000 West Fork Trinity River at Fort Worth, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
16...	1430	.60	11	54	3.7	13	4.0	168	0	24
NOV.										
06...	1120	2550	5.6	38	7.2	20	4.4	137	0	20
DEC.										
04...	1045	175	11	85	5.9	21	3.2	262	0	40
JAN.										
11...	1300	261	5.8	56	5.1	16	3.6	172	0	25
FEB.										
26...	1500	205	4.7	64	6.6	19	3.1	205	0	33
MAR.										
26...	1200	88	3.5	55	7.8	21	4.9	180	0	26
APR.										
21...	1800	544	1.3	66	6.4	18	3.5	206	0	29
MAY										
15...	1500	350	2.4	52	7.0	23	4.8	178	0	29
JUNE										
21...	0900	1430	5.4	52	5.7	16	3.7	171	0	23
JULY										
24...	1530	19	8.3	59	6.9	23	4.4	196	0	34
AUG.										
07...	1600	201	6.3	44	7.8	26	5.1	158	0	28
SEP.										
25...	1500	8.2	7.9	65	7.4	26	4.1	194	0	43
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.										
16...	12	--	--	.27	.01	.26	.84	1.1	.25	205
NOV.										
06...	29	--	--	.04	.00	.05	.47	.52	.07	192
DEC.										
04...	24	.3	.45	.00	.08	.25	.33	.03	.03	320
JAN.										
11...	23	.3	.09	.01	.03	.65	.68	.01	.01	220
FEB.										
26...	25	.2	.25	.00	.06	.59	.65	.05	.05	257
MAR.										
26...	27	.1	.02	.00	.13	.35	.48	.09	.09	234
APR.										
21...	21	.2	.10	.01	.02	.46	.48	.03	.03	247
MAY										
15...	30	.2	.07	.01	.08	.38	.46	.07	.07	236
JUNE										
21...	19	.2	.08	.02	.04	.67	.71	.05	.05	209
JULY										
24...	29	.3	.00	.01	.03	.83	.86	.08	.08	262
AUG.										
07...	38	.2	.08	.01	.00	.72	.72	.05	.05	233
SEP.										
25...	32	.4	.00	.01	.04	1.3	1.3	.12	.12	281
DATE		HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT.										
16...	150	12	.5	348	7.4	20.5	6.6	73	4.1	
NOV.										
06...	120	12	.8	363	7.8	17.0	8.2	85	1.7	
DEC.										
04...	240	22	.6	547	7.5	8.5	11.1	94	.8	
JAN.										
11...	160	20	.5	414	7.9	9.0	11.0	95	.9	
FEB.										
26...	190	19	.6	483	7.6	12.0	11.9	110	3.0	
MAR.										
26...	170	22	.7	453	7.8	15.0	9.7	95	1.7	
APR.										
21...	190	22	.6	490	8.1	18.5	11.9	127	1.0	
MAY										
15...	160	13	.8	449	7.6	24.5	6.4	76	2.6	
JUNE										
21...	150	13	.6	390	7.5	26.0	8.0	98	2.3	
JULY										
24...	180	15	.8	485	7.1	29.0	6.4	82	3.0	
AUG.										
07...	140	12	1.0	436	8.3	30.0	6.9	91	2.8	
SEP.										
25...	190	34	.8	486	7.9	23.0	11.4	131	7.8	

TRINITY RIVER BASIN

08048520 Sycamore Creek at Interstate Highway 35-W, Fort Worth, Tex.

LOCATION.--Lat 32°39'55", long 97°19'16", Tarrant County, on left bank at upstream side of bridge on frontage road on upstream side of Interstate Highway 35-W, 5.8 miles (9.3 km) south of Fort Worth City Hall, and 8.9 miles (14.3 km) upstream from mouth.

DRAINAGE AREA.--17.7 mi² (45.8 km²).

PERIOD OF RECORD.--October 1969 to current year.

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

AVERAGE DISCHARGE.--6 years, 9.71 ft³/s (0.275 m³/s), 7.45 in/yr (189 mm/yr), 7,030 acre-ft/yr (8.67 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,990 ft³/s (56.4 m³/s) June 8 (elevation, 635.76 ft or 193.780 m); no flow at times.
Period of record: Maximum discharge, 5,450 ft³/s (154 m³/s) Oct. 19, 1971 (elevation, 639.77 ft or 195.002 m); no flow at times.
Flood of May 6, 1969, reached an elevation of 640.1 ft (195.10 m), from floodmarks (discharge, 5,800 ft³/s or 164 m³/s). Flood in 1908 reached an elevation of 645.9 ft (196.87 m), and flood in 1938 reached an elevation of 644.4 ft (196.41 m), from information by State Highway Department.

REMARKS.--Records good above 60 ft³/s (1.70 m³/s) and fair below. Flow is slightly affected by several small farm ponds on tributaries above station. At times, low flow may be sustained by effluents from commercial establishments. Two recording rain gages are operated in basin above this station, and one recording rain gage is located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	28	3.2	5.0	796	3.5	2.4	1.5	10	.24	.10	.02
2	.97	14	3.0	22	81	3.1	2.1	18	6.4	.19	.06	.01
3	.86	11	2.9	12	67	2.7	1.3	3.9	4.7	.65	.10	.01
4	.78	34	2.6	6.7	52	2.4	1.3	2.7	3.9	3.9	4.4	.01
5	.47	13	2.4	5.0	30	2.7	1.0	1.8	2.7	1.0	.24	0
6	.40	9.2	5.6	3.9	15	3.5	1.0	1.5	2.4	.38	.12	0
7	.34	13	2.9	3.9	12	2.7	235	.86	2.1	.15	.06	0
8	.30	11	1.6	3.1	12	2.1	382	.70	331	.10	.06	0
9	.30	12	1.1	3.5	8.3	2.7	21	.58	149	.08	.06	0
10	.25	252	23	6.1	8.3	2.7	14	.47	268	.10	.02	0
11	.24	27	17	2.3	7.9	2.4	10	74	24	.10	.02	0
12	.18	14	7.2	1.6	6.3	3.9	7.9	13	12	.08	.02	0
13	.95	12	5.0	1.7	6.1	12	17	5.4	8.3	.08	.02	.02
14	233	8.9	3.9	1.6	6.1	3.9	12	13	6.1	.04	.01	.01
15	29	7.6	2.9	1.6	5.7	4.4	7.9	5.4	5.0	.02	.01	20
16	7.9	7.6	2.1	1.3	5.0	4.4	6.1	3.1	4.4	.02	.01	2.4
17	5.4	7.5	1.6	1.2	5.7	3.5	5.0	2.1	3.1	.02	.01	.24
18	3.2	6.8	1.5	1.1	4.7	7.2	5.0	1.5	2.4	.02	.01	.15
19	2.2	6.8	1.3	1.5	4.4	3.1	3.9	1.3	1.5	.02	.01	.11
20	1.6	5.8	1.2	1.1	4.4	2.7	3.9	32	1.5	.01	0	.07
21	1.1	4.8	.88	.86	4.4	1.8	3.5	9.0	1.3	.01	0	.07
22	.76	4.4	.86	.75	4.4	1.8	3.1	4.4	1.0	0	2.4	.21
23	.58	11	1.1	.68	14	1.8	3.9	230	.86	0	.58	.17
24	1.5	12	1.1	.65	7.2	1.0	3.1	23	.58	1.3	.08	.09
25	3.0	5.8	.88	.86	5.0	1.0	2.7	11	.47	119	.03	.04
26	1.0	4.9	8.2	.78	4.4	16	2.7	5.7	.47	6.4	8.2	.04
27	.72	4.0	3.8	.58	3.5	25	1.5	4.7	.38	1.8	.86	.02
28	77	3.1	2.9	.58	3.1	8.3	15	339	.30	.68	.20	.01
29	17	7.4	4.0	.58	---	3.9	4.4	157	.24	.34	.10	0
30	23	5.3	3.8	.92	---	3.1	3.1	41	.38	.23	.06	0
31	301	---	10	512	---	2.4	---	15	---	.15	.03	---
TOTAL	716.30	563.9	129.52	605.44	1183.9	141.7	782.8	1022.61	854.48	142.96	17.88	23.70
MEAN	23.1	18.8	4.18	19.5	42.3	4.57	26.1	33.0	28.5	4.61	.58	.79
MAX	301	252	23	512	796	25	382	339	331	119	8.2	20
MIN	.18	3.1	.86	.58	3.1	1.0	1.0	.47	.24	0	0	0
CFSM	1.31	1.06	.24	1.10	2.39	.26	1.47	1.86	1.61	.26	.03	.04
IN.	1.51	1.19	.27	1.27	2.49	.30	1.65	2.15	1.80	.30	.04	.05
AC-FT	1420	1120	257	1200	2350	281	1550	2030	1690	284	35	47
(††)	5.06	2.28	1.15	3.58	2.41	1.50	3.48	6.24	3.51	3.32	1.26	1.06

CAL YR 1974	TOTAL	3318.02	MEAN	9.09	MAX	312	MIN	0	CFSM	.51	IN	6.97	AC-FT	6580	††	32.65
WTR YR 1975	TOTAL	6185.19	MEAN	16.9	MAX	796	MIN	0	CFSM	.95	IN	13.00	AC-FT	12270	††	34.85

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
1-31	0515	634.42	1,220	5-23	0815	634.21	1,120
2-1	0345	635.22	1,650	5-28	0630	634.18	1,110
4-7	1645	633.93	993	6-8	2045	635.76	1,990
4-8	0100	635.53	1,840	6-10	0545	633.72	885

†† Weighted-mean rainfall, in inches, based on three rain gages.

TRINITY RIVER BASIN

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08Q48530 Sycamore Creek tributary above Seminary South Shopping Center, Fort Worth, Tex.

LOCATION.--Lat 32°41'08", long 97°19'44", Tarrant County, on right bank near entrance to culvert under Missouri, Kansas, and Texas Railroad, 0.2 mile (0.3 km) northeast of intersection of Hemphill Street and Seminary Drive in Fort Worth, 1.8 miles (2.9 km) upstream from mouth, and 4.5 miles (7.2 km) south of Fort Worth City Hall.

DRAINAGE AREA.--0.97 mi² (2.51 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder with concrete weir and culvert control. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--6 years, 0.67 ft³/s (0.0190 m³/s), 9.38 in/yr (238 mm/yr), 485 acre-ft/yr (598,000 m³/yr).

EXTREMES.--Current year: Maximum discharge, 355 ft³/s (10.1 m³/s) Apr. 7 (elevation, 652.83 ft or 198.983 m); minimum daily, 0.02 ft³/s (0.001 m³/s) July 19-22, Aug. 17, Sept. 14.

Period of record: Maximum discharge, 584 ft³/s (16.5 m³/s) Oct. 19, 1971 (elevation, 655.49 ft or 199.793 m); no flow at times in July and August 1970.

Maximum stage since 1966, about 656.0 ft (199.95 m) in August 1966 (discharge not determined), from information by local resident.

REMARKS.--Records poor prior to Mar. 25 and good thereafter. Low flow is sustained by effluent from commercial establishments above station. One recording rain gage is operated in basin above station, and one is located below station in Seminary South Shopping Center. Records of precipitation and hydrologic data for selected storms are published elsewhere in basic-data reports.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.76	.15	.25	19	.21	.20	.07	.43	.07	.05	.03
2	.13	.44	.18	2.1	2.5	.21	.14	2.0	.20	.13	.06	.04
3	.16	.36	.15	.39	1.8	.52	.14	.11	.17	.16	1.8	.06
4	.15	2.0	.18	.29	1.5	.18	.14	.09	.15	.31	.89	.06
5	.12	.38	.54	.34	.83	.18	.14	.09	.15	.04	.07	.06
6	.12	.30	.22	.25	.52	.18	.11	.08	.15	.04	.06	.06
7	.20	.89	.15	.21	.52	.18	24	.07	.13	.05	.04	.03
8	.13	.25	.12	.30	.52	.15	10	.07	14	.06	.04	.05
9	.12	1.7	.10	.55	.38	.52	.58	.07	.64	.06	.04	.06
10	.17	8.4	2.7	.34	.38	.15	.77	.07	12	.25	2.4	.04
11	.16	.83	.39	.21	.38	.18	.32	7.6	.66	.06	.05	.04
12	.15	.52	.25	.18	.34	.56	.32	.14	.54	.04	.05	.04
13	2.4	.39	.34	.15	.34	1.4	1.8	.88	.38	.04	.05	.16
14	12	.43	.29	.15	.34	.19	.32	.61	.21	.04	.05	.02
15	.53	.34	.21	.15	.29	.58	.26	.39	.20	.07	.03	5.1
16	.30	.34	.21	.18	.34	.24	.20	.10	.20	.06	.05	.08
17	.21	.30	.21	.17	.25	.76	.15	.09	.18	.04	.02	.04
18	.19	.29	.21	.15	.25	.34	.15	.07	.13	.06	.03	.04
19	.15	.29	.18	.25	.25	.21	.15	.07	.09	.02	.04	.05
20	.15	.25	.18	.18	.25	.19	.15	3.1	.09	.02	.04	.05
21	.15	.21	.18	.13	.25	.21	.20	.12	.09	.02	.05	.16
22	.15	.21	.18	.10	.29	.21	.11	.09	.09	.02	5.6	.03
23	.17	.50	.18	.14	1.6	.20	.11	10	.09	.09	.05	.04
24	.62	.21	.18	.26	.27	.18	.11	.41	.08	1.9	.03	.04
25	.20	.47	.41	.15	.25	.18	.09	.15	.08	12	.06	.04
26	.18	.18	1.2	.15	.22	2.4	.09	.11	.19	.12	.24	.04
27	.17	.32	.25	.15	.21	1.7	.07	2.1	.08	.08	.15	.05
28	5.2	.18	.58	.16	.21	.30	1.1	15	.31	.05	.05	.05
29	.34	1.0	.21	.11	---	.23	.21	9.5	.07	.39	.03	.06
30	2.5	.18	.38	.36	---	.15	.09	.77	.06	.09	.04	.03
31	11	---	.70	18	---	.14	---	.58	---	.08	.05	---
TOTAL	38.39	22.92	11.41	26.50	34.28	13.03	42.22	54.60	31.84	16.46	12.21	6.65
MEAN	1.24	.76	.37	.85	1.22	.42	1.41	1.76	1.06	.53	.39	.22
MAX	12	8.4	2.7	18	19	2.4	24	15	14	12	5.6	5.1
MIN	.12	.18	.10	.10	.21	.14	.07	.07	.06	.02	.02	.02
CFSM	1.28	.78	.38	.88	1.26	.43	1.45	1.81	1.09	.55	.40	.23
IN.	1.47	.88	.44	1.02	1.31	.50	1.62	2.09	1.22	.63	.47	.26
AC-FT	76	45	23	53	68	26	84	108	63	33	24	13
(††)	6.15	2.78	1.64	3.56	2.53	1.49	3.85	6.80	3.11	3.11	2.07	1.16
CAL YR 1974	TOTAL 219.36	MEAN .60	MAX 18	MIN .02	CFSM .62	IN 8.41	AC-FT 435	†† 36.95				
WTR YR 1975	TOTAL 310.50	MEAN .85	MAX 24	MIN .02	CFSM .88	IN 11.91	AC-FT 616	†† 38.25				

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-14	0920	unknown	200	5-28	0540	651.79	228
4-7	2345	652.83	355	5-29	0840	651.73	222
5-11	1020	651.94	243	6-8	1920	652.56	316
5-23	0745	651.67	216	9-15	1945	652.09	259

†† Weighted-mean rainfall, in inches, based on two rain gages.

NOTE.--No elevation record Jan. 9 to Mar. 25.

TRINITY RIVER BASIN

08048540 Sycamore Creek tributary at Interstate Highway 35-W, Fort Worth, Tex.

LOCATION.--Lat 32°41'18", long 97°19'11", Tarrant County, on left bank at culvert on downstream side of access road to Interstate Highway 35-W, 0.3 mile (0.5 km) north of Seminary Drive in Fort Worth, 1.2 miles (1.9 km) upstream from mouth, and 4.3 miles (6.9 km) south of Fort Worth City Hall.

DRAINAGE AREA.--1.35 mi² (3.50 km²).

PERIOD OF RECORD.--October 1969 to current year.

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

AVERAGE DISCHARGE.--6 years, 1.17 ft³/s (0.0331 m³/s), 11.77 in/yr (299 mm/yr), 848 acre-ft/yr (1.05 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 665 ft³/s (18.8 m³/s) Sept. 15 (elevation, 624.40 ft or 190.317 m); minimum daily, 0.04 ft³/s (0.001 m³/s) for many days.

Period of record: Maximum discharge, 1,100 ft³/s (31.2 m³/s) Oct. 19, 1971 (elevation, 628.41 ft or 191.539 m); minimum daily, 0.01 ft³/s (0.0003 m³/s) for many days in 1970-71.

Maximum elevation since 1969, that of Oct. 19, 1971. Flood in May 1969 reached an elevation of 627.2 ft (191.17 m), from floodmarks.

REMARKS.--Records fair. Records include runoff from a shopping center. Low flows are sustained by effluents. Two recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	1.1	.19	.32	.42	.27	.24	.10	.45	.12	.09	.10
2	.24	.60	.23	3.3	4.0	.27	.17	3.7	.38	.16	.28	.17
3	.20	.48	.19	.52	2.9	.73	.17	.26	.32	.20	3.6	.22
4	.19	3.1	.22	.38	2.2	.23	.15	.19	.27	.45	2.5	.20
5	.15	.51	.76	.45	1.2	.23	.15	.16	.27	.12	.09	.07
6	.15	.40	.28	.32	.72	.23	.15	.15	.23	.12	.09	.07
7	.26	1.3	.19	.27	.72	.23	34	.15	.23	.12	.10	.17
8	.17	.32	.16	.40	.72	.19	16	.15	27	.09	.05	.18
9	.15	2.6	.15	.77	.52	.72	.66	.15	1.5	.09	.05	.17
10	.21	14	4.3	.45	.52	.19	1.0	.15	23	.32	2.5	.18
11	.20	1.2	.53	.27	.52	.22	.38	16	.85	.09	.06	.05
12	.19	.72	.33	.23	.45	.78	.38	.33	.72	.07	.06	.05
13	3.8	.53	.45	.19	.45	2.1	.45	1.2	.45	.07	.07	.47
14	19	.59	.38	.19	.45	.24	.41	.85	.27	.07	.06	.05
15	.74	.45	.27	.19	.38	.81	.32	.52	.23	.10	.06	12
16	.39	.45	.27	.22	.45	.31	.28	.12	.23	.09	.28	.31
17	.27	.39	.27	.21	.32	1.1	.27	.12	.23	.07	.05	.13
18	.24	.38	.27	.19	.32	.45	.28	.12	.19	.09	.04	.23
19	.19	.38	.23	.32	.32	.27	.23	.18	.19	.04	.06	.10
20	.19	.32	.23	.23	.32	.24	.23	5.9	.19	.04	.05	.09
21	.19	.27	.23	.16	.32	.27	.23	.14	.19	.04	.11	.67
22	.19	.27	.23	.12	.38	.27	.23	.12	.15	.04	13	.04
23	.22	.70	.23	.18	2.5	.26	.19	20	.15	.12	.13	.15
24	.89	.27	.23	.34	.36	.23	.19	.66	.15	4.2	.04	.05
25	.25	.65	.56	.19	.32	.23	.15	.16	.19	23	.07	.05
26	.23	.23	1.8	.19	.28	3.3	.14	.15	.23	.22	.48	.05
27	.21	.42	.32	.19	.27	2.4	.12	3.2	.12	.10	.28	.06
28	8.7	.23	.81	.20	.27	.42	2.2	23	.41	.10	.15	.06
29	.45	1.5	.27	.13	---	.27	.53	14	.12	.84	.11	.13
30	4.0	.23	.52	.49	---	.19	.11	1.0	.12	.13	.86	.06
31	18	---	1.0	39	---	.19	---	.60	---	.16	.16	---
TOTAL	60.50	34.59	16.10	50.61	64.18	17.84	62.78	93.53	59.03	31.47	24.73	16.33
MEAN	1.95	1.15	.52	1.63	2.29	.58	2.09	3.02	1.97	1.02	.80	.54
MAX	19	14	4.3	39	42	3.3	34	23	27	23	13	12
MIN	.15	.23	.15	.12	.27	.19	.11	.10	.12	.04	.04	.04
CFSM	1.44	.85	.39	1.21	1.70	.43	1.55	2.24	1.46	.76	.59	.40
IN.	1.67	.95	.44	1.39	1.77	.49	1.73	2.58	1.63	.87	.68	.45
AC-FT	120	69	32	100	127	35	125	186	117	62	49	32
(††)	5.90	2.61	1.56	3.48	2.47	1.44	3.78	6.65	3.15	3.03	2.12	1.27
CAL YR 1974	TOTAL 391.63	MEAN 1.07	MAX 40	MIN .03	CFSM .79	IN 10.79	AC-FT 777	†† 36.02				
WTR YR 1975	TOTAL 531.69	MEAN 1.46	MAX 42	MIN .04	CFSM 1.08	IN 14.65	AC-FT 1050	†† 37.46				

PEAK DISCHARGE (BASE, 300 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
1-31	0405	622.14	332	5-29	0845	622.13	330
4-7	1550	622.02	315	6-8	1925	623.93	599
4-7	2350	623.94	600	7-25	1210	621.99	311
5-11	1030	623.34	506	8-22	1800	622.90	440
5-23	0750	622.67	406	9-15	1950	624.40	665
5-28	0545	622.33	358				

†† Weighted-mean rainfall, in inches, based on two rain gages.

TRINITY RIVER BASIN

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08048600 Dry Branch at Fain Street, Fort Worth, Tex.

LOCATION.--Lat 32°46'34", Long 97°17'18". Tarrant County, on right bank 30 ft (9 m) upstream from culvert on Fain Street, at intersection of Fain and Beach Streets in Fort Worth, 1.1 miles (1.8 km) upstream from mouth, and 2.9 miles (4.7 km) northeast of Tarrant County Courthouse.

DRAINAGE AREA.--2.15 mi² (5.57 km²).

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

GAGE.--Water-stage recorder and concrete culvert control. Datum of gage is 537.51 ft (163.833 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 1.61 ft³/s (0.0456 m³/s), 10.17 in/yr (258 mm/yr), 1,170 acre-ft/yr (1.44 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 447 ft³/s (12.7 m³/s) July 25 (gage height, 5.86 ft or 1.786 m); no flow at times.

Period of record: Maximum discharge, 447 ft³/s (12.7 m³/s) July 25, 1975 (gage height, 5.86 ft or 1.786 m); no flow at times.

Maximum stage since April 1964, 9.0 ft (2.74 m) in April 1966 at upstream side of Fain Street culvert, from information by local resident (discharge not determined).

REMARKS.--Records good above 1.0 ft³/s (0.028 m³/s) and fair below. Low flow is sustained by effluent from commercial establishments and industry above station. Two recording rain gages are operated in basin above station.

REVISIONS.--WSP 2122: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	2.2	.22	.38	79	.11	.22	.14	.38	.50	.54	0
2	.22	1.0	.10	5.0	8.5	.14	.22	9.6	.27	.08	4.0	0
3	.22	.62	.05	1.3	5.6	.17	.22	.59	.14	.34	.67	0
4	.19	1.9	.05	.38	4.0	.22	.22	.38	.14	2.7	3.8	.03
5	.14	.49	.88	.38	3.3	.22	.22	.38	.14	.12	.38	.03
6	.10	.38	.84	.22	.90	.22	.22	.28	.14	.05	.23	.03
7	.08	1.0	.18	.22	.61	.22	32	.22	.14	.05	.15	.03
8	.08	.40	.14	.14	.38	.22	39	.22	12	.04	.12	.04
9	.08	3.2	.14	.22	.22	1.1	1.7	.22	3.1	.03	.08	.05
10	.08	49	5.5	.38	.22	.33	1.4	.22	20	.03	.08	.05
11	.08	2.5	1.4	.14	.22	.22	.65	7.0	1.3	.03	.05	.03
12	.08	1.6	.22	.08	.14	1.4	.38	.65	.40	.03	.02	.02
13	3.1	1.4	.08	.08	.14	3.6	1.7	1.1	.14	.02	.04	.07
14	72	1.3	.08	.08	.14	.40	.57	7.2	.28	0	.03	.78
15	2.2	1.3	.08	.08	.14	1.6	.34	1.6	.23	.01	.05	9.4
16	.61	1.1	.08	.08	.14	1.3	.19	.38	.22	.01	.61	1.6
17	.38	.86	.08	.08	.14	.58	.21	.38	.22	.02	7.0	.23
18	.22	.61	.08	.08	.14	.70	.22	.38	.22	.01	1.5	.11
19	.38	.61	.08	.08	.14	.31	.22	.38	.22	.02	.38	.05
20	.22	.52	.08	.08	.14	.22	.22	4.3	.22	.02	.37	.04
21	.14	.38	.08	.08	.14	.22	.22	.58	.27	.02	.11	.07
22	.14	.68	.08	.08	1.1	.22	.22	.22	.31	.01	7.1	.10
23	.14	1.3	.08	.08	2.8	.22	.14	16	.13	0	.95	.61
24	.20	.98	.08	.08	.56	.22	.14	.93	.15	7.1	.22	0
25	.22	.61	.38	.08	.38	.17	.14	.38	.18	156	.08	0
26	.18	.61	2.9	.08	.28	2.8	.14	.31	.14	3.6	.46	0
27	.14	.61	.38	.08	.19	1.6	.14	7.2	.14	1.5	.82	0
28	8.3	.61	.38	.08	.14	.45	.74	13	.14	.66	.18	0
29	.75	1.3	.38	.08	---	.22	.14	13	.14	2.2	.03	0
30	15	.30	1.6	.22	---	.22	.14	3.6	.62	1.3	.01	0
31	62	---	1.7	23	---	.22	---	.96	---	1.2	0	---
TOTAL	127.89	79.37	18.40	33.42	109.80	19.44	82.28	88.80	42.14	177.70	30.10	12.77
MEAN	4.13	2.65	.59	1.08	3.92	.64	2.74	2.86	1.41	5.73	.97	.43
MAX	62	49	5.5	23	79	3.6	39	16	20	156	7.1	9.4
MIN	.08	.30	.05	.08	.14	.11	.14	.14	.14	.0	.0	.0
CFSM	1.92	1.23	.27	.50	1.82	.30	1.27	1.33	.66	2.67	.45	.20
IN.	2.21	1.37	.32	.58	1.90	.34	1.42	1.54	.73	3.07	.52	.22
AC-FT	254	157	36	66	218	39	163	176	84	352	60	25
(††)	5.34	2.58	1.63	2.08	2.66	1.46	3.36	5.96	2.34	7.43	2.29	1.02

CAL YR 1974 TOTAL 623.89 MEAN 1.71 MAX 62 MIN 0 CFSM .80 IN 10.79 AC-FT 1240 †† 35.02
WTR YR 1975 TOTAL 822.55 MEAN 2.25 MAX 156 MIN 0 CFSM 1.05 IN 14.23 AC-FT 1630 †† 38.15

PEAK DISCHARGE (BASE, 170 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	0445	3.96	219	4-8	0145	3.84	206
2-1	0330	3.66	188	7-25	0900	5.86	447

†† Weighted-mean rainfall, in inches, based on two rain gages.

08048850 Little Fossil Creek at Mesquite Street, Fort Worth, Tex.

LOCATION.--Lat 32°48'33", long 97°17'28", Tarrant County, on right bank at intersection of Mesquite Street and Broadway Avenue in Fort Worth, 150 ft (46 m) upstream from bridge on Alta Vista Road (Beach Street), 4.3 miles (6.9 km) northeast of county courthouse, and approximately 4.3 miles (6.9 km) upstream from Big Fossil Creek.

DRAINAGE AREA.--12.3 mi² (31.9 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 548.62 ft (167.219 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 6.15 ft³/s (0.174 m³/s), 6.79 in/yr (172 mm/yr), 4,460 acre-ft/yr (5.50 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,360 ft³/s (152 m³/s) July 25 (gage height, 12.22 ft or 3.725 m), from rating curve extended as explained below; no flow July 19-23, Sept. 5-14.

Period of record: Maximum discharge, 5,360 ft³/s (152 m³/s) July 25, 1975 (gage height, 12.22 ft or 3.725 m), from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times each year.

Maximum stage since 1900 occurred Apr. 25, 1922 (gage height and discharge unknown), from information by local residents. The second highest flood, about 13 ft (4.0 m), occurred Apr. 21, 1942 (discharge unknown), from information by local residents. Floods in 1926, 1935, 1949, and 1955, had stages slightly less than that of the July 25, 1975, flood from newspaper articles and local residents.

REMARKS.--Records good below 200 ft³/s (5.66 m³/s) and fair above. Flow is slightly regulated by several small farm ponds located on tributaries above station. Low flow is sustained at times by effluent from industrial park 2.6 miles (4.2 km) upstream. Three recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	25	2.3	3.6	328	3.0	1.8	2.0	5.0	1.8	3.0	.06
2	2.0	11	2.3	18	46	2.3	1.5	6.6	3.2	.28	2.6	.04
3	1.5	8.9	2.6	14	42	1.8	1.3	2.6	3.0	7.5	2.3	.03
4	1.3	12	2.3	6.2	27	1.8	1.3	1.5	2.6	3.2	5.0	.01
5	1.3	8.9	2.6	4.2	37	1.5	1.3	1.1	2.0	1.1	2.3	0
6	1.1	6.2	5.0	3.2	11	1.5	1.3	1.1	1.8	.42	1.5	0
7	.84	5.8	3.0	3.0	7.1	1.5	67	1.1	3.0	.28	1.1	0
8	1.3	6.2	2.3	2.3	6.2	1.1	225	.98	8.9	.11	.98	0
9	.84	7.5	2.0	2.0	4.6	1.8	13	.84	9.4	.03	.71	0
10	.71	268	6.6	2.3	4.2	3.0	7.5	.71	75	.04	.60	0
11	.84	21	15	1.8	3.9	3.0	6.6	6.6	8.4	.22	.60	0
12	.71	11	5.8	1.5	3.2	4.2	5.0	4.6	4.6	.35	.51	0
13	.98	8.0	4.6	1.1	3.2	8.9	5.4	2.0	3.2	.11	.42	0
14	94	6.2	3.9	.98	3.2	5.0	6.6	15	2.3	.08	.22	0
15	20	5.4	3.2	.98	3.2	3.2	4.6	7.1	1.8	.04	.22	3.9
16	8.0	5.0	3.0	.98	3.9	4.2	3.6	2.6	1.1	.06	.17	5.8
17	5.8	4.6	2.6	.98	3.2	3.2	3.2	1.3	.84	.04	4.6	.98
18	4.2	4.2	2.6	.84	2.3	3.2	3.2	1.3	.98	.01	1.3	.14
19	3.2	4.2	2.0	.84	2.3	2.6	2.6	1.3	.84	0	.51	.06
20	2.3	3.6	2.0	.84	2.6	2.3	2.3	5.4	.84	0	.42	.03
21	3.0	3.2	2.0	.84	3.0	2.0	2.0	4.6	.84	0	.17	.02
22	2.3	3.0	2.0	.71	6.2	2.0	2.3	1.5	.71	0	.60	.01
23	2.0	3.6	2.0	.60	11	2.0	2.0	36	.60	0	.71	.01
24	2.3	15	2.0	.71	10	1.8	1.8	8.4	.60	9.0	.28	.01
25	3.0	5.0	2.0	.84	6.6	1.8	1.8	6.2	.60	718	.14	.01
26	2.0	3.9	6.2	.71	5.0	2.3	1.3	3.2	.60	19	.11	.02
27	1.8	2.6	3.2	.71	3.6	5.0	1.3	4.2	.60	5.8	.35	.03
28	9.4	2.6	2.0	.71	3.2	4.2	3.2	31	.42	3.9	.28	.02
29	5.8	3.2	2.0	.71	---	2.6	1.5	23	.35	6.6	.22	.01
30	23	3.0	2.6	.84	---	2.0	1.3	37	.28	10	.14	.01
31	481	---	5.8	40	---	1.8	---	8.4	---	4.2	.08	---
TOTAL	688.52	477.8	107.5	117.02	592.7	86.6	382.6	229.23	144.40	792.17	32.14	11.20
MEAN	22.2	15.9	3.47	3.77	21.2	2.79	12.8	7.39	4.81	25.6	1.04	.37
MAX	481	268	15	40	328	8.9	225	37	75	718	5.0	5.8
MIN	.71	2.6	2.0	.60	2.3	1.1	1.3	.71	.28	0	.08	0
CFSM	1.80	1.29	.28	.31	1.72	.23	1.04	.60	.39	2.08	.08	.03
IN.	2.08	1.45	.33	.35	1.79	.26	1.16	.69	.44	2.40	.10	.03
AC-FT	1370	948	213	232	1180	172	759	455	286	1570	64	22
(††)	5.54	2.63	1.37	1.70	2.75	1.30	3.38	6.21	2.18	7.65	1.13	1.46

CAL YR 1974	TOTAL	2542.42	MEAN	6.97	MAX	481	MIN	0	CFSM	.57	IN	7.69	AC-FT	5040	††	33.93
WTR YR 1975	TOTAL	3661.88	MEAN	10.0	MAX	718	MIN	0	CFSM	.81	IN	11.07	AC-FT	7260	††	37.30

PEAK DISCHARGE (BASE, 290 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	0800	8.02	1,380	4-8	0200	6.47	864
11-10	0615	6.07	648	7-25	0745	12.22	5,360
2-1	0300	6.76	955				

†† Weighted-mean rainfall, in inches, based on three rain gages.

08049200 Lake Arlington at Arlington, Tex.

LOCATION.--Lat 32°43'04", long 97°11'36", Tarrant County, in pumphouse at right end of Arlington Dam on Village Creek near western boundary of Arlington, 1.5 miles (2.4 km) upstream from The Texas and Pacific Railway Co. bridge, and 7 miles (11 km) upstream from West Fork Trinity River.

DRAINAGE AREA.--143 mi² (370 km²).

PERIOD OF RECORD.--Contents: March 1957 to current year.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 9, 1957, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 52,360 acre-ft (64.6 hm³) Feb. 1 (elevation, 552.90 ft or 168.524 m); minimum, 34,250 acre-ft (42.2 hm³) Oct. 14 (elevation, 544.36 ft or 165.921 m).

Period of record: Maximum contents, 56,620 acre-ft (69.8 hm³) May 1, 1966 (elevation, 554.65 ft or 169.057 m); minimum since lake first filled in April 1957, 18,110 acre-ft (22.3 hm³) Oct. 17, 1971 (elevation, 534.27 ft or 162.845 m).

REMARKS.--Lake is formed by a rolled earthfill dam 6,482 ft (1,976 m) long. The service spillway is a 10-foot-diameter (3-metre) uncontrolled circular drop inlet. The emergency spillway is an 882-foot-wide (269-metre) cut through natural ground near the right end of dam. The dam was completed and storage began Mar. 31, 1957. Capacities are based on 1955 survey. The dam was built by city of Arlington to impound water for municipal and industrial uses. Records furnished by city of Arlington show that during year, 6,280 acre-ft (7.74 hm³) of sewage effluent was discharged into West Fork Trinity River. Several small municipalities operate sewage disposal plants in basin above lake. Water is circulated for cooling purposes from lake to generating plant of Texas Electric Service Co. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	572.0	-
Crest of spillway.....	559.7	70,140
Crest of drop inlet (top of conservation pool).....	550.0	45,710
Lowest gated outlet (invert).....	505.0	180

COOPERATION.--Records of diversions furnished by city of Arlington. Capacity table furnished by Freese and Nichols, Consulting Engineers for the city of Arlington.

REVISIONS.--WSP 1922: Drainage area.

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

544.0	33,570	550.0	45,710
546.0	37,390	551.0	47,940
548.0	41,430	552.0	50,240
549.0	43,540	553.0	52,600

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35,230	41,310	44,580	44,020	52,340	43,560	44,710	45,080	46,640	43,970	42,900	38,740
2	35,230	41,450	44,510	44,020	48,530	43,540	44,640	45,140	46,460	43,840	42,840	38,620
3	35,250	41,560	44,470	44,040	47,470	43,540	44,620	45,140	46,240	43,760	42,730	38,460
4	35,250	41,720	44,430	44,020	46,600	43,560	44,510	45,060	46,040	43,730	42,610	38,320
5	35,210	41,720	44,400	44,000	46,000	43,560	44,450	45,010	45,910	43,650	42,440	38,160
6	35,100	41,700	44,380	43,950	45,400	43,460	44,400	44,950	45,800	43,540	42,310	37,980
7	35,040	41,740	44,360	43,930	45,030	43,260	47,070	44,880	45,670	43,350	42,160	37,810
8	34,800	41,740	44,250	43,930	44,680	43,390	50,730	44,820	46,130	43,180	41,980	37,670
9	34,720	41,910	44,190	43,860	44,600	43,330	48,900	44,710	47,360	43,030	41,790	37,590
10	34,660	44,710	44,400	43,420	44,560	43,330	47,940	44,620	50,870	42,900	41,620	37,470
11	34,620	45,010	44,470	43,730	44,320	43,290	47,340	45,100	48,990	42,780	41,410	37,290
12	34,530	45,080	44,470	43,670	44,170	42,950	46,930	45,160	47,870	42,610	41,200	37,080
13	34,470	45,030	44,470	43,630	44,140	45,010	46,750	45,160	47,250	42,420	41,000	36,920
14	34,380	45,010	44,400	43,560	44,020	44,970	46,580	45,340	46,800	42,210	40,830	36,790
15	34,560	44,970	44,340	43,500	43,970	44,990	46,420	45,340	46,460	42,040	40,630	36,630
16	34,560	44,950	44,340	43,460	43,970	44,990	46,260	45,270	46,260	41,870	40,730	36,750
17	34,560	44,950	44,300	43,430	43,690	45,030	46,200	45,210	46,000	41,700	40,630	36,670
18	34,520	44,920	44,170	43,350	43,690	45,010	46,000	45,120	45,800	41,490	40,520	36,610
19	34,460	44,900	44,100	43,350	43,800	44,970	45,910	45,010	45,640	41,330	40,360	36,520
20	34,400	44,880	44,080	43,290	43,760	44,920	45,780	45,140	45,510	41,160	40,160	36,340
21	34,320	44,840	44,040	43,200	43,690	44,880	45,730	45,160	45,380	41,000	39,970	36,190
22	34,250	44,790	44,020	43,160	43,650	44,860	45,640	45,100	45,270	40,790	39,910	36,070
23	34,210	44,880	43,970	43,120	43,440	45,030	45,620	47,110	45,100	40,690	39,790	35,940
24	34,170	44,840	43,860	43,050	43,760	45,140	45,540	46,910	46,950	40,670	39,640	35,770
25	34,110	44,840	43,890	43,010	43,780	45,160	45,470	46,550	44,840	43,600	39,420	35,610
26	34,070	44,790	43,860	42,970	43,710	45,120	45,400	46,180	44,680	43,670	39,260	35,480
27	34,060	44,770	43,840	42,950	43,540	44,970	45,320	46,440	44,560	43,600	39,280	35,380
28	34,060	44,710	43,820	42,900	43,440	44,920	45,340	47,380	44,430	43,480	39,220	35,190
29	34,050	44,710	43,840	42,860	-----	44,880	45,250	47,920	44,270	43,330	39,160	35,080
30	34,070	44,640	43,910	43,760	-----	44,820	45,190	47,720	44,120	43,240	39,020	34,950
31	40,940	-----	43,890	45,860	-----	44,750	-----	47,040	-----	43,070	38,900	-----
(†)	547.78	549.51	549.16	550.07	548.97	549.56	549.76	550.60	549.27	548.78	546.76	544.73
(*)	+5,770	+3,660	-750	+1,970	-2,380	+1,270	+440	+1,850	-2,920	-1,050	-4,170	-3,950
(††)	1,560	1,270	1,310	1,360	1,210	1,360	1,530	1,660	2,240	2,690	2,540	2,300
MAX	40,980	45,080	44,580	45,860	52,340	45,160	50,730	47,920	50,870	43,970	42,900	38,740
MIN	34,470	41,310	43,820	42,860	43,480	42,950	44,400	44,620	44,120	40,670	38,900	34,950

CAL YR 1974..... * +1,130 †† 21,890 MAX 45,080 MIN 30,560
WTR YR 1975..... * -260 †† 21,030 MAX 52,340 MIN 34,470

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by city of Arlington.

TRINITY RIVER BASIN

08049200 Lake Arlington at Arlington, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
JAN. 29...	0915	2.7	41	6.4	32	5.1	148	0
JUNE 03...	0910	.3	37	6.5	36	4.7	126	0
SEP. 05...	0910	3.9	34	6.0	29	5.3	112	6

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
JAN. 29...	45	29	.3	.13	.04	.03	234	130	7
JUNE 03...	43	27	.3	.01	.01	.04	211	120	16
SEP. 05...	39	26	.3	.00	.00	.05	205	110	8

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
JAN. 29...	1.2	418	7.9	12.5	9.4	88	10	0
JUNE 03...	1.2	383	8.1	26.5	10.8	132	30	30
SEP. 05...	1.2	372	8.5	30.5	8.9	117	30	20

TRINITY RIVER BASIN

415

08049500 West Fork Trinity River at Grand Prairie, Tex.

LOCATION.--Lat 32°45'46", long 96°59'42", Dallas County, on left bank at upstream side of bridge on Belt Line Road, 1.3 miles (2.1 km) northeast of Grand Prairie, 3.7 miles (6.0 km) upstream from Bear Creek, 6.5 miles (10.5 km) upstream from Mountain Creek, and at mile 514.6 (828.0 km).

DRAINAGE AREA.--3,065 mi² (7,938 km²).

PERIOD OF RECORD.--Discharge: March 1925 to current year.

Water quality: Chemical analyses: October 1956 to current year. Chemical and biochemical analyses: January 1968 to current year.

Water temperatures: October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 410.42 ft (125.096 m) above mean sea level. Prior to Dec. 6, 1933, nonrecording gage at bridge on old channel 2,500 ft (762 m) southeast of present site at datum 2.56 ft (0.780 m) higher. Dec. 6, 1933, to May 24, 1956, water-stage recorder at site 440 ft (134 m) downstream from site of nonrecording gage at datum 2.56 ft (0.780 m) higher than present datum. May 25, 1956, to Apr. 18, 1957, nonrecording gage at site 1.5 miles (2.4 km) downstream at different datum. Apr. 19 to Aug. 13, 1957, nonrecording gage on bridge at present site and datum.

AVERAGE DISCHARGE.--50 years, 549 ft³/s (15.55 m³/s), 397,800 acre-ft/yr (490 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 12,100 ft³/s (343 m³/s) Nov. 4 (gage height, 23.25 ft or 7.087 m); minimum, 58 ft³/s (1.64 m³/s) July 18.

Period of record: Maximum discharge, 62,000 ft³/s (1,760 m³/s) May 17, 1949 (gage height, 28.00 ft or 8.534 m, site and datum then in use), from rating curve extended above 36,000 ft³/s (1,020 m³/s); minimum observed, 3.2 ft³/s (0.091 m³/s) June 6, 1925.

Historic: Maximum stage since at least 1900, 30.6 ft (9.33 m), former site and datum, in May 1908, from information by local resident. Flood in April 1922 reached a stage of 29.0 ft (8.84 m), former site and datum, from floodmarks.

Water quality: Current year: Maximum daily specific conductance, 1,080 micromhos Sept. 14; minimum daily, 256 micromhos July 25.

Maximum water temperatures, 32.0°C July 22, Sept. 1; minimum, 8.0°C Jan. 13, Feb. 7.

Period of record: Maximum daily specific conductance (1966-68, 1969-75), 1,540 micromhos Dec. 26, 1970; minimum daily, 248 micromhos Mar. 20, 1968. Maximum water temperatures, 34.0°C Aug. 9, 1970, Aug. 2, 1974; minimum, 3.0°C Jan. 9, 1973.

REMARKS.--Discharge records good except those below 125 ft³/s (3.54 m³/s), which are fair. Flow is largely regulated by seven major reservoirs with a capacity of 748,200 acre-ft (923 hm³), of which 76,550 acre-ft (94.4 hm³) is for flood control. During the current year, sewage effluent discharged between station at Fort Worth and this station by the cities of Fort Worth and Arlington was 93,300 acre-ft (115 hm³). Several diversions above Arlington for municipal and other uses. The river channel at station was relocated in 1956.

REVISIONS (WATER YEARS).--WSP 628: 1925. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	9600	378	361	7750	671	608	249	2230	560	2570	144
2	182	9900	320	395	11200	694	682	436	1920	411	1810	141
3	169	10500	299	810	6640	658	757	552	1540	305	1720	155
4	161	11800	292	545	4690	678	627	288	1820	181	1450	132
5	166	11300	414	659	4090	652	512	513	1370	521	765	132
6	269	6220	532	660	3430	597	391	930	797	213	521	127
7	288	3980	428	627	2980	569	890	1110	589	143	446	127
8	296	4590	401	628	2230	512	7800	767	574	161	360	161
9	295	4780	382	617	2440	406	8630	529	3150	356	252	146
10	293	6940	468	640	3020	411	4300	296	3410	367	203	158
11	254	8020	920	692	3200	387	2770	245	6710	364	181	144
12	161	2680	467	555	3160	283	2250	834	5180	342	175	132
13	141	2040	335	571	2830	359	2090	426	3860	169	172	130
14	1410	2510	324	454	1530	444	1810	435	4180	121	158	138
15	2600	3090	533	289	816	371	2100	874	4070	102	166	141
16	464	2950	553	262	775	666	2130	680	3610	92	178	552
17	351	2770	439	248	766	707	1970	794	3980	82	272	296
18	392	2630	307	240	734	738	1570	904	4620	71	238	187
19	362	1710	298	242	709	720	982	691	3500	78	193	146
20	342	791	268	231	683	549	811	591	1940	76	164	144
21	330	605	266	239	519	597	768	1020	1610	76	158	209
22	332	553	484	228	360	655	754	598	1480	80	172	193
23	324	549	494	220	531	683	749	2030	1430	82	431	146
24	321	718	392	226	663	715	749	2450	746	87	245	146
25	356	945	229	253	477	625	738	1220	439	5420	175	138
26	340	904	259	231	421	420	671	723	430	7730	169	127
27	321	735	357	218	428	559	539	536	429	1360	245	113
28	675	623	276	227	475	676	627	2570	423	1610	296	110
29	938	597	261	220	---	492	578	2440	419	2620	187	132
30	466	607	272	215	---	530	429	2860	420	3120	164	124
31	4510	---	376	2100	---	572	---	2280	---	3090	158	---
TOTAL	17700	115637	12024	14103	67547	17596	50282	30871	66876	29990	14394	4871
MEAN	571	3855	388	455	2412	568	1676	996	2229	967	464	162
MAX	4510	11800	920	2100	11200	738	8630	2860	6710	7730	2570	552
MIN	141	549	229	215	360	283	391	245	419	71	158	110
CFSM	.19	1.26	.13	.15	.79	.19	.55	.33	.73	.32	.15	.05
IN.	.21	1.40	.15	.17	.82	.21	.61	.37	.81	.36	.17	.06
AC-FT	35110	229400	23850	27970	134000	34900	99730	61230	132600	59490	28550	9660

CAL YR 1974	TOTAL	227660	MEAN	624	MAX	11800	MIN	87	CFSM	.20	IN	2.76	AC-FT	451600
WTR YR 1975	TOTAL	441891	MEAN	1211	MAX	11800	MIN	71	CFSM	.40	IN	5.36	AC-FT	876500

TRINITY RIVER BASIN

08049500 West Fork Trinity River at Grand Prairie, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	
OCT. 17...	0930	365	11	64	4.7	46	9.8	198	0	58	37	
NOV. 06...	1230	6200	7.1	46	6.3	25	5.0	158	0	29	31	
DEC. 04...	1200	295	13	77	8.9	70	8.3	274	0	70	64	
JAN. 10...	1450	625	7.1	69	5.4	44	5.3	197	0	68	39	
FEB. 27...	0900	460	7.2	73	8.6	60	9.1	262	0	66	56	
MAR. 26...	1400	405	7.4	63	7.7	47	6.8	200	0	77	44	
APR. 22...	0830	730	3.3	70	7.7	36	5.1	227	0	47	34	
MAY 16...	0920	625	5.7	55	7.1	47	7.5	199	0	54	45	
JUNE 20...	1330	1840	5.8	55	7.2	27	4.7	180	0	34	30	
JULY 24...	1300	187	9.9	62	10	100	12	250	0	83	89	
AUG. 07...	1400	481	8.8	57	8.2	57	7.3	203	0	46	54	
SEP. 25...	1330	169	12	61	8.9	100	16	223	0	80	84	
DATE		DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 17...	--	1.6	.25	1.0	1.5	2.5	1.6	329	100	30	180	
NOV. 06...	--	.18	.02	.37	1.4	1.8	.66	227	478	84	140	
DEC. 04...	.6	2.2	.39	4.0	1.0	5.0	4.6	447	22	2	230	
JAN. 10...	.5	1.1	.32	1.9	1.5	3.4	1.8	335	46	4	200	
FEB. 27...	.5	1.9	.34	2.1	1.5	3.6	1.9	410	71	22	220	
MAR. 26...	.5	1.5	.15	1.1	1.3	2.4	1.2	352	1020	188	190	
APR. 22...	.3	1.6	.29	.97	.93	1.9	1.3	315	102	18	210	
MAY 16...	.4	1.8	.32	.04	1.5	1.5	1.2	320	171	30	170	
JUNE 20...	.3	.42	.08	.22	.98	1.2	.84	253	244	50	170	
JULY 24...	.7	4.1	.79	3.3	2.2	5.5	7.5	490	28	19	200	
AUG. 07...	.4	2.4	.25	.45	1.5	1.9	2.2	339	70	20	180	
SEP. 25...	1.0	6.5	.50	.91	1.8	2.7	5.0	473	22	15	190	
DATE		NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 17...	17	1.5	582	7.3	18.5	20	60	6.9	73	12	15	
NOV. 06...	11	.9	414	7.3	18.5	40	200	5.8	62	6.0	14	
DEC. 04...	4	2.0	795	7.3	11.0	5	10	7.8	70	7.0	11	
JAN. 10...	33	1.4	609	7.3	12.5	5	20	8.0	75	12	--	
FEB. 27...	3	1.8	748	7.7	12.0	10	25	7.8	72	18	18	
MAR. 26...	25	1.5	628	7.7	16.0	5	220	6.8	68	14	24	
APR. 22...	20	1.1	589	7.3	18.5	5	35	6.9	73	9.3	8.9	
MAY 16...	3	1.6	593	7.0	21.5	10	70	4.6	52	14	13	
JUNE 20...	20	.9	449	7.6	28.0	10	75	6.6	84	5.1	9.6	
JULY 24...	0	3.1	906	7.4	30.5	5	3	4.2	55	3.1	13	
AUG. 07...	10	1.9	632	7.6	30.5	10	25	5.1	67	4.1	9.9	
SEP. 25...	6	3.2	859	7.2	21.5	10	10	4.8	54	5.5	11	

08049500 West Fork Trinity River at Grand Prairie, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED ALUM- INUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD- MIUM (CD) (UG/L)	DIS-SOLVED CHRO- MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)
OCT. 17...	0930	10	4	180	0	0	0	3
FEB. 27...	0900	10	3	170	3	0	1	7
JUNE 20...	1330	50	2	90	0	10	0	3
AUG. 07...	1400	10	2	170	0	10	0	5

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN- GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON- TIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 17...	40	3	0	20	.0	5	380	50
FEB. 27...	40	2	20	100	.0	6	530	30
JUNE 20...	20	1	0	0	.1	2	430	10
AUG. 07...	0	0	10	0	.0	4	430	0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARONESS (CA+MG) (MG/L)
OCT. 1974.....	17700	574	320	15300	45	2150	53	2530	180
NOV. 1974.....	115637	406	230	71800	23	7180	33	10300	180
DEC. 1974.....	12024	712	400	13000	63	2050	69	2240	190
JAN. 1975.....	14103	674	370	14100	58	2210	65	2480	190
FEB. 1975.....	67547	446	250	45600	29	5290	38	6930	180
MAR. 1975.....	17596	626	350	16600	52	2470	59	2800	190
APR. 1975.....	50282	480	270	36700	33	4480	42	5700	180
MAY 1975.....	30871	515	290	24200	38	3170	46	3830	180
JUNE 1975.....	66876	444	250	45100	28	5060	37	6680	180
JULY 1975.....	29990	410	230	18600	24	1940	33	2670	180
AUG. 1975.....	14394	616	340	13200	51	1980	58	2250	190
SEPT 1975.....	4871	906	500	6580	89	1170	92	1210	200
TOTAL	441891	**	**	321000	**	39100	**	49600	**
WTD.AVG.	1210.66	479	270	**	33	**	42	**	180

TRINITY RIVER BASIN

08049500 West Fork Trinity River at Grand Prairie, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	806	428	664	790	314	627	595	760	478	538	491	901
2	824	375	706	697	324	619	573	750	481	526	492	930
3	830	380	729	598	429	579	603	615	505	665	475	938
4	865	372	785	660	442	598	584	760	485	679	553	974
5	882	387	793	672	456	588	581	721	526	659	543	946
6	820	421	761	592	468	608	730	533	569	587	595	974
7	776	375	761	592	470	617	476	523	594	746	625	1000
8	710	384	807	596	490	637	342	557	613	758	665	1010
9	694	370	711	603	464	701	416	615	330	598	728	987
10	686	335	669	599	448	697	444	686	400	628	752	1000
11	682	402	606	559	455	710	468	760	440	608	814	987
12	689	457	611	607	450	774	497	527	453	632	829	1000
13	769	471	723	602	466	810	493	650	437	680	881	1010
14	550	446	819	615	524	852	501	697	413	735	916	1080
15	400	407	667	750	615	772	485	504	410	776	942	1030
16	538	401	604	792	639	679	490	580	411	865	942	866
17	677	410	612	846	607	585	490	542	410	879	954	565
18	665	403	709	879	621	597	536	549	407	919	874	631
19	665	467	825	983	613	567	578	580	446	919	756	805
20	649	566	856	925	622	622	590	532	446	950	781	880
21	639	623	856	888	666	609	592	532	443	970	823	908
22	654	633	720	858	924	589	607	592	440	930	923	901
23	650	666	604	889	862	570	613	481	433	904	874	866
24	654	645	622	900	685	557	613	428	533	897	503	819
25	665	553	658	941	740	589	624	509	611	256	645	880
26	657	520	728	926	767	685	618	573	619	306	756	930
27	672	542	788	882	740	589	648	603	619	450	756	946
28	624	578	735	473	713	575	619	396	603	461	861	987
29	458	588	796	882	---	615	637	458	600	433	678	1070
30	541	583	793	914	---	632	669	441	590	428	800	1000
31	514	---	804	558	---	572	---	471	---	435	806	---
MONTH	675	473	727	744	572	639	557	578	492	672	743	927

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	22.0	10.0	12.0	10.0	14.0	17.0	24.0	25.0	29.5	30.5	32.0
2	26.0	22.0	10.0	11.0	10.0	13.0	16.0	24.0	25.0	30.0	30.0	30.5
3	25.0	22.0	12.0	11.0	11.0	13.0	15.0	24.0	26.0	29.0	30.5	31.0
4	25.0	20.0	12.0	11.0	12.0	13.0	15.0	---	26.0	29.0	31.0	30.5
5	25.0	20.0	12.0	10.0	10.5	12.0	15.0	24.0	28.0	29.0	31.0	30.5
6	26.0	18.0	14.0	11.0	9.0	15.0	17.0	25.0	28.0	31.0	31.0	29.5
7	24.0	18.5	13.5	12.0	8.0	16.0	14.5	25.0	28.0	31.0	31.5	29.5
8	25.0	18.0	11.0	12.0	9.0	14.0	15.5	26.5	29.0	31.0	31.5	29.0
9	24.0	18.0	11.0	13.5	9.0	15.0	17.0	26.0	25.0	30.0	31.0	29.0
10	24.0	17.0	10.0	12.0	9.5	14.0	16.5	26.5	28.0	29.0	31.5	30.0
11	25.0	17.0	11.0	11.0	10.0	13.0	16.0	24.0	16.0	30.0	31.5	29.0
12	25.0	17.0	11.0	9.0	10.0	13.0	16.0	25.0	27.0	29.5	31.5	26.5
13	25.0	17.0	12.0	8.0	11.0	---	15.5	26.0	26.5	---	31.5	23.5
14	22.0	15.0	13.0	8.5	13.0	17.0	16.0	24.0	28.0	30.0	31.5	23.5
15	20.0	15.0	12.0	10.0	12.0	12.0	17.0	23.5	28.0	29.0	31.5	25.0
16	21.0	15.0	11.0	11.5	12.0	13.0	19.0	24.5	27.0	29.0	31.0	26.5
17	21.0	15.0	11.0	12.0	12.0	14.0	19.0	25.0	27.0	29.5	30.0	26.5
18	22.0	15.0	12.0	12.0	12.0	15.0	19.0	27.0	28.0	29.5	31.0	28.0
19	22.0	16.5	12.0	13.0	12.0	16.0	20.0	26.0	28.0	29.0	31.5	28.0
20	21.5	17.0	12.0	12.0	12.0	18.0	20.0	24.0	29.0	31.0	31.5	27.0
21	21.5	16.5	12.0	14.0	14.0	19.0	20.0	25.0	29.0	31.0	30.5	24.5
22	21.0	18.0	14.0	11.5	13.0	17.0	21.0	26.5	28.0	32.0	31.0	23.5
23	23.0	18.5	14.0	13.0	10.5	20.0	21.0	24.0	29.0	31.0	31.0	23.5
24	21.5	17.0	13.0	13.5	11.0	18.0	24.0	24.0	29.0	30.0	29.5	23.0
25	22.0	15.5	11.0	13.5	13.0	19.0	24.0	25.0	29.0	24.0	29.0	23.0
26	22.0	14.0	10.0	14.5	14.0	17.0	24.0	27.0	29.0	25.0	30.0	23.5
27	22.0	15.0	11.0	16.0	16.0	19.0	24.0	27.0	30.0	29.0	28.5	23.5
28	22.0	13.0	12.0	16.0	15.0	16.0	23.0	24.0	30.0	30.5	29.5	24.0
29	22.0	11.0	13.0	16.0	---	13.0	24.5	25.0	30.0	31.0	30.5	25.5
30	23.0	11.0	14.0	18.0	---	12.0	23.0	23.5	31.0	29.5	31.0	26.0
31	23.0	---	13.0	14.0	---	14.5	---	24.0	---	30.0	31.0	---
MONTH	23.0	17.0	12.0	12.5	11.5	15.0	19.0	25.0	27.5	29.5	31.0	27.0

TRINITY RIVER BASIN

419

08049550 Big Bear Creek near Grapevine, Tex.

LOCATION.--Lat 32°54'48", Long 97°07'44", Tarrant County, at downstream side of bridge on State Highway 121, 100 ft (30 m) downstream from St. Louis Southwestern Railway Lines bridge, 3.5 miles (5.6 km) southwest of Grapevine, and 7 miles (11 km) upstream from confluence with Little Bear Creek.

DRAINAGE AREA.--29.6 mi² (76.7 km²).

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 554.00 ft (168.859 m) above mean sea level.

AVERAGE DISCHARGE.--8 years (1967-75), 8.30 ft³/s (0.235 m³/s), 3.81 in/yr (97 mm/yr), 6,010 acre-ft/yr (7.41 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,270 ft³/s (36.0 m³/s) July 25 (gage height, 12.15 ft or 3.703 m); no flow at times.

Period of record: Maximum discharge, 2,600 ft³/s (73.6 m³/s) May 6, 1969 (gage height, 14.35 ft or 4.374 m); no flow at times each year.

Maximum stage since at least 1930, about 20 ft (6.1 m) on Sept. 21, 1964, from information by local residents.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	29	12	3.4	671	2.6	3.1	5.5	.98	.24	.02	0
2	.11	2.6	12	5.0	67	2.7	3.1	6.3	.58	.20	.02	0
3	.09	.72	12	16	97	2.5	3.3	6.8	.30	.25	.03	0
4	.09	.49	13	3.6	39	2.5	3.4	5.0	.23	.32	.04	0
5	.09	.76	13	2.3	94	2.4	3.2	4.8	.24	.37	.04	0
6	.08	.62	14	1.9	15	2.4	3.3	4.6	.37	.28	.04	0
7	.07	3.5	15	1.8	8.3	2.7	49	4.3	.37	.19	.04	0
8	.09	2.8	13	1.7	5.5	2.5	484	4.3	.91	.12	.04	0
9	.10	3.5	9.9	1.8	4.4	2.7	27	3.9	1.5	.09	.04	0
10	.11	363	12	1.8	3.5	3.0	10	3.9	9.4	.08	.03	0
11	.10	39	22	1.9	3.5	3.1	7.9	5.7	2.3	.12	.03	0
12	.11	13	15	1.6	3.0	3.7	6.2	7.5	.14	.13	.03	0
13	.12	8.3	11	1.7	2.7	5.6	5.4	4.3	.09	.09	.03	0
14	4.6	6.1	9.9	1.7	2.8	5.5	5.6	52	.09	.10	.02	0
15	14	5.5	9.1	1.7	2.6	3.9	5.6	30	.08	.08	.02	.72
16	2.6	4.4	8.5	1.8	2.5	3.9	5.1	6.1	.07	.06	.01	.15
17	.76	4.1	1.9	1.9	2.6	3.7	5.0	2.8	.08	.04	.01	0
18	.76	4.1	2.1	2.1	3.0	3.8	4.6	1.8	.07	.04	.02	0
19	1.2	6.8	2.0	2.2	3.1	3.9	3.8	2.5	.04	.03	.02	0
20	1.4	8.3	2.0	2.0	3.0	4.1	3.9	3.5	.07	.03	.01	0
21	1.4	8.5	1.9	2.1	3.9	4.1	4.3	3.4	.09	.02	0	0
22	1.2	8.8	2.0	2.1	3.8	4.1	4.8	2.8	.10	.01	0	0
23	1.1	8.8	2.2	2.2	4.6	4.0	5.0	178	.12	.01	.11	0
24	1.1	11	2.3	2.3	6.3	3.8	5.5	41	.18	0	.03	0
25	1.2	13	2.3	2.4	5.1	3.5	5.9	19	.25	414	.02	0
26	1.3	14	2.6	2.8	3.9	3.6	5.9	12	.28	32	.01	0
27	1.3	12	2.9	2.8	3.5	4.7	5.3	7.5	.29	.61	.01	0
28	3.0	12	3.1	3.3	3.0	6.1	6.3	60	.27	.12	.02	0
29	3.2	12	3.2	2.7	-----	4.3	6.6	95	.26	.04	.01	0
30	6.6	12	2.6	2.6	-----	3.8	5.7	108	.27	.03	.01	0
31	532	-----	3.0	33	-----	3.4	-----	8.8	-----	.02	0	-----
TOTAL	579.99	618.69	237.5	116.2	1,067.6	112.8	697.8	701.1	20.02	449.72	.76	.87
MEAN	18.7	20.6	7.66	3.75	38.1	3.64	23.3	22.6	.67	14.5	.025	.029
MAX	532	363	22	33	671	6.1	484	178	9.4	414	.11	.72
MIN	.07	.49	1.9	1.6	2.5	2.4	3.1	1.8	.04	0	.0	0
CFSM	.63	.70	.26	.13	1.29	.12	.79	.76	.02	.49	.0008	.001
IN.	.73	.78	.30	.15	1.34	.14	.88	.88	.03	.57	0	.001
AC-FT	1,150	1,230	471	230	2,120	224	1,380	1,390	40	892	1.5	1.7

CAL YR 1974 TOTAL 2,313.01 MEAN 6.34 MAX 532 MIN 0 CFSM .21 IN 2.91 AC-FT 4,590
WTR YR 1975 TOTAL 4,603.05 MEAN 12.6 MAX 671 MIN 0 CFSM .43 IN 5.78 AC-FT 9,130

PEAK DISCHARGE (BASE, 600 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	1400	12.11	1,260	4-8	0900	11.88	1,190
11-10	0930	9.88	738	7-25	1645	12.15	1,270
2-1	1045	11.84	1,180				

TRINITY RIVER BASIN

08049600 Mountain Creek near Cedar Hill, Tex.

LOCATION (revised).--Lat 32°35'03", long 97°01'23", Dallas County, on left bank at downstream side of county road bridge, 3.5 miles (5.6 km) downstream from Texas and New Orleans Railroad Co. bridge, 4.5 miles (7.2 km) southwest of Cedar Hill, and 12 miles (19 km) upstream from Mountain Creek Lake Dam.

DRAINAGE AREA.--119 mi² (308 km²).

PERIOD OF RECORD.--Discharge: October 1960 to current year.

Water quality: Chemical and biochemical analyses: September 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 478.31 ft (145.789 m) above mean sea level. Prior to Nov. 25, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--15 years, 52.7 ft³/s (1.492 m³/s), 38,180 acre-ft/yr (47.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,000 ft³/s (85.0 m³/s) Feb. 1 (gage height, 18.8 ft or 5.73 m, from graph); no flow for many days.

Period of record: Maximum discharge, 28,300 ft³/s (801 m³/s) May 7, 1969 (gage height, 25.10 ft or 7.650 m), from rating curve extended above 14,000 ft³/s (396 m³/s); no flow at times each year.

Maximum stage since at least 1910, 30 ft (9.1 m) May 25, 1922, from information by local resident.

REMARKS.--Discharge records good except those for periods of no gage-height record, which are fair. At end of year, flow from 14.2 mi² (36.8 km²) above this station was partly controlled by three floodwater-retarding structures with a combined capacity of 6,750 acre-ft (8.32 hm³) below flood-spillway crests, of which 1,200 acre-ft (1.48 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	410	3.4	16	2150	14	40	7.6	67	.04	3.2	0
2	.04	78	3.2	33	946	13	25	7.4	60	.02	2.5	0
3	.02	64	3.2	82	684	13	18	8.6	51	0	1.9	0
4	.01	57	3.2	45	427	13	14	8.2	33	0	1.4	0
5	0	38	3.2	24	265	13	11	7.7	26	0	.95	0
6	0	23	17	13	132	13	9.0	7.2	23	0	.65	0
7	0	18	17	11	97	13	1000	6.7	19	0	.43	0
8	0	16	6.8	10	90	12	1400	6.2	65	0	.23	0
9	0	14	3.4	9.5	83	12	300	5.6	551	0	.11	0
10	0	935	8.1	8.8	80	12	120	5.2	1150	0	0	0
11	0	295	69	8.3	73	12	66	44	201	0	0	0
12	0	66	30	7.9	55	12	51	28	70	0	0	0
13	0	30	15	7.5	51	50	42	9.0	34	0	0	0
14	1.1	23	10	7.1	49	30	89	13	24	0	0	0
15	116	19	7.6	6.9	45	20	34	7.0	21	0	0	0
16	8.4	17	7.3	6.7	41	16	24	5.2	18	0	0	44
17	2.0	16	7.0	6.6	40	14	19	4.2	14	0	0	13
18	.84	16	6.7	6.4	38	37	16	3.5	12	0	0	3.4
19	.42	16	6.8	6.3	36	28	14	3.2	9.7	0	0	1.4
20	.27	15	6.9	6.2	25	22	13	25	7.6	0	0	.64
21	.21	9.0	7.0	6.1	20	17	12	40	6.0	0	0	.47
22	.16	4.9	7.2	6.0	17	15	11	8.4	4.4	0	0	.23
23	.12	4.2	7.3	5.9	18	12	9.9	74.0	2.8	0	0	.12
24	.12	9.0	7.4	5.9	24	11	9.3	230	1.9	0	0	.06
25	.18	9.7	7.5	5.8	22	9.4	8.8	81	1.3	297	0	0
26	.21	6.8	7.7	5.8	19	50	8.5	32	.82	33	0	0
27	.18	4.9	8.0	5.8	16	250	8.3	15	.47	14	0	0
28	4.9	3.6	8.4	5.8	14	130	8.0	600	.26	8.1	0	0
29	7.6	3.4	9.0	5.8	---	64	7.9	1070	.15	5.7	0	0
30	6.8	3.4	10	5.8	---	55	7.7	127	.08	4.7	0	0
31	1330	---	19	580	---	47	---	82	---	4.0	0	---
TOTAL	1579.54	2224.9	333.3	960.9	5557	1029.4	3396.4	3237.9	2474.48	366.56	11.37	63.32
MEAN	51.0	74.2	10.8	31.0	198	33.2	113	104	82.5	11.8	.37	2.11
MAX	1330	935	69	580	2150	250	1400	1070	1150	297	3.2	44
MIN	0	3.4	3.2	5.8	14	9.4	7.7	3.2	.08	0	0	0
AC-FT	3130	4410	661	1910	11020	2040	6740	6420	4910	727	23	126
CAL YR 1974	TOTAL	11352.02	MEAN	31.1	MAX	2690	MIN	0	AC-FT	22520		
WTR YR 1975	TOTAL	21235.07	MEAN	58.2	MAX	2150	MIN	0	AC-FT	42120		

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	about 1800	18.0	2,390	2-1	about 1500	18.8	3,000
11-10	about 1800	16.5	1,500	5-29	0900	17.10	1,810
				6-10	1645	18.06	2,430

NOTE.--No gage-height record Dec. 19 to Jan. 30, Mar. 14 to Apr. 27, and June 13 to July 23. Peaks of Oct. 31, Nov. 10, and Feb. 1 were estimated from graph based on information available.

TRINITY RIVER BASIN

421

08049600 Mountain Creek near Cedar Hill, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 17...	1300	2.3	11	80	4.5	52	7.6	119	0	180	30	--
NOV. 06...	1430	87	8.2	74	5.7	78	14	134	0	220	34	--
DEC. 04...	1430	2.3	8.3	170	11	120	5.9	236	0	420	62	.5
JAN. 10...	1200	10	1.9	170	9.1	110	10	190	0	430	62	.5
FEB. 27...	1130	11	4.0	170	14	110	7.9	210	0	420	69	.5
MAR. 27...	1050	48	5.2	160	14	110	11	164	0	460	74	.6
APR. 22...	1030	10	5.8	130	9.8	86	9.6	206	0	300	46	.5
MAY 16...	1100	16	4.2	120	7.8	85	9.8	163	0	320	38	.7
JUNE 20...	1625	6.0	9.1	120	8.8	79	14	198	0	290	38	.6
AUG. 07...	1200	.5	25	94	7.6	80	9.1	188	0	230	36	2.6

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL- NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 17...	.77	.02	.15	.81	.96	.15	425	78	76	220	120	1.5
NOV. 06...	.36	.02	.16	.81	.97	.17	500	214	40	210	98	2.4
DEC. 04...	.35	.00	.06	.33	.39	.03	914	6	0	470	280	2.4
JAN. 10...	.22	.01	.06	.69	.75	.04	687	17	0	460	310	2.2
FEB. 27...	.61	.01	.04	.44	.48	.05	901	50	15	480	310	2.2
MAR. 27...	.45	.00	.08	.89	.97	.13	916	194	36	460	320	2.2
APR. 22...	.52	.01	.10	.54	.64	.05	689	19	0	370	200	2.0
MAY 16...	.13	.01	.06	.87	.93	.08	666	159	34	330	200	2.0
JUNE 20...	.22	.01	.01	.71	.72	.03	659	23	8	340	180	1.9
AUG. 07...	.04	.01	.02	1.2	1.2	.03	578	14	9	270	110	2.1

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 17...	680	7.3	17.0	20	50	8.6	89	2.5	8.7	2	.0
NOV. 06...	811	7.8	16.0	30	150	8.8	88	2.9	8.5	1	.0
DEC. 04...	1340	7.8	8.5	5	4	11.6	98	.7	4.8	0	--
JAN. 10...	1320	7.7	11.0	10	15	10.0	90	1.3	6.5	--	.1
FEB. 27...	1320	8.0	10.0	5	25	10.3	91	1.5	7.7	0	.1
MAR. 27...	1370	7.5	18.5	20	80	8.1	86	3.9	14	7	.0
APR. 22...	1090	7.5	19.0	0	50	7.8	83	1.3	9.3	3	.0
MAY 16...	1030	7.5	21.0	10	80	7.8	87	3.1	9.8	11	.0
JUNE 20...	1010	7.7	28.0	5	15	7.0	89	1.7	7.6	3	.0
AUG. 07...	879	7.4	26.0	5	5	5.6	68	1.3	4.1	2	.1

TRINITY RIVER BASIN

08049600 Mountain Creek near Cedar Hill, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
OCT. 17...	1300	20	17	80	0	0	1	3
FEB. 27...	1130	<10	0	--	0	0	1	2
JUNE 20...	1625	10	8	240	0	10	0	2
AUG. 07...	1200	0	0	250	0	0	0	5

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 17...	30	2	20	20	.1	3	700	20
FEB. 27...	20	0	40	10	.0	3	1500	7
JUNE 20...	0	1	20	0	.0	1	1700	10
AUG. 07...	0	0	30	0	.0	1	1200	0

TRINITY RIVER BASIN

423

08049700 Walnut Creek near Mansfield, Tex.

LOCATION.--Lat 32°34'51", long 97°06'06", Tarrant County, on right bank at downstream side of bridge on county road, 2.6 miles (4.2 km) northeast of Mansfield, 3.3 miles (5.3 km) downstream from Texas and New Orleans Railroad Co. bridge, and 10.2 miles (16.4 km) upstream from mouth.

DRAINAGE AREA.--62.8 mi² (162.7 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 531.08 ft (161.873 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 17.1 ft³/s (0.484 m³/s), 12,390 acre-ft/yr (15.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,260 ft³/s (92.3 m³/s) July 25 (gage height, 22.78 ft or 6.943 m, from floodmark); minimum, 0.01 ft³/s (0.0003 m³/s) Sept. 12-14.

Period of record: Maximum discharge, 7,420 ft³/s (210 m³/s) June 4, 1973 (gage height, 28.60 ft or 8.717 m); no flow at times in 1960-74.

REMARKS.--Records good. During the current year, the city of Mansfield discharged 437 acre-ft (0.539 hm³) of sewage effluent into a tributary 2.5 miles (4.0 km) upstream from station. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	52	3.5	9.6	387	7.8	8.4	4.6	16	1.1	.25	.05
2	.14	19	3.9	16	922	7.5	7.3	5.7	11	.78	.22	.05
3	.12	13	2.6	38	161	6.5	5.7	5.9	8.4	1.8	.21	.04
4	.10	13	2.4	13	87	6.5	5.7	5.1	6.8	10	.20	.05
5	.10	11	16	7.8	58	6.5	6.0	5.1	5.6	2.2	.18	.04
6	.10	7.5	20	6.2	30	6.7	6.0	5.0	4.7	1.0	.17	.05
7	.10	7.0	7.3	5.7	23	6.7	497	4.3	4.0	.69	.17	.05
8	.12	7.3	5.0	5.7	21	6.0	1410	3.7	19	.45	.15	.03
9	.14	8.1	5.5	5.3	16	5.7	66	3.4	206	.39	.13	.04
10	.16	427	15	5.7	15	7.0	34	3.0	308	.39	.14	.04
11	.12	49	42	5.0	15	6.7	24	21	43	.45	.13	.02
12	.10	17	14	4.6	13	6.7	20	14	17	.34	.13	.01
13	.10	11	8.4	3.9	12	17	23	5.2	11	.30	.16	.01
14	239	7.0	6.7	3.7	12	13	42	6.9	8.7	.26	.21	.01
15	26	6.5	5.0	4.2	11	8.7	21	6.0	6.7	.19	.18	.91
16	3.5	6.2	5.0	3.9	11	8.7	16	4.0	6.0	.17	.08	44
17	.89	5.5	4.8	3.7	9.9	8.4	14	2.8	5.3	.15	.10	2.2
18	.39	5.0	4.6	3.9	9.6	16	13	2.2	5.0	.13	.09	.65
19	.19	4.8	4.2	4.4	8.4	10	10	1.9	4.4	.12	.07	.37
20	.12	4.4	4.2	3.9	8.1	8.1	9.0	1.4	3.9	.11	.06	.28
21	.14	3.9	3.9	3.7	7.8	7.3	8.4	2.0	3.5	.10	.06	.28
22	.10	3.7	3.9	3.7	12	7.5	8.1	4.2	3.7	.09	.06	.38
23	.08	5.7	4.2	3.5	20	7.0	8.9	429	3.3	.07	.07	.36
24	.10	9.6	3.9	3.5	20	6.2	8.5	53	2.9	203	.06	.27
25	.12	6.2	3.5	3.9	12	5.7	7.3	32	2.7	1520	.06	.26
26	.10	4.2	4.6	3.9	9.6	16	6.7	1.0	2.7	21	.05	.27
27	.08	3.7	4.8	3.7	8.4	88	6.2	7.1	2.6	2.7	7.6	.29
28	12	3.5	4.6	4.2	8.1	32	5.8	688	3.9	.91	1.5	.27
29	5.0	3.1	5.0	3.7	---	20	5.5	796	3.5	.45	.13	.26
30	5.4	3.9	5.7	3.5	---	18	5.2	127	1.0	.35	.07	.23
31	1460	---	12	3.9	---	11	---	2.2	---	.30	.06	---
TOTAL	1754.77	730.4	236.2	195.4	1927.9	388.9	2308.7	2322.1	730.3	1769.99	12.75	51.77
MEAN	56.6	24.3	7.62	6.30	68.9	12.5	77.0	74.9	24.3	57.1	.41	1.73
MAX	1460	427	42	38	922	88	1410	796	308	1520	7.6	44
MIN	.08	3.1	2.4	3.5	7.8	5.7	5.2	1.9	1.0	.07	.05	.01
AC-FT	3480	1450	469	388	3820	771	4580	4610	1450	3510	25	103
(††)	5.34	2.27	1.73	1.03	2.33	1.31	2.95	6.68	3.1	3.76	.81	1.03

CAL YR 1974 TOTAL 5658.95 MEAN 15.5 MAX 1460 MIN 0 AC-FT 11220 †† 33.26
WTR YR 1975 TOTAL 12429.18 MEAN 34.1 MAX 1520 MIN .01 AC-FT 24650 †† 32.34

PEAK DISCHARGE (BASE, 1,800 FT³/S, REVISED)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	1300	21.19	2,550	7-25	about		
4-8	0930	20.92	2,460	7-25	0400	a22.78	3,260

†† Rainfall, in inches.

a From floodmark.

NOTE.--No gage-height record July 24-26.

TRINITY RIVER BASIN

425

08049900 Mountain Creek near Duncanville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT. 17...	1130	10	65	3.8	32	6.0	119	0	110	19	--	.47
NOV. 06...	1330	10	87	8.8	76	15	175	0	220	39	--	.32
DEC. 04...	1330	14	180	20	120	5.5	334	0	390	87	.5	.14
JAN. 10...	1300	5.6	160	15	99	7.7	204	0	380	81	.5	.28
FEB. 27...	1030	6.6	170	21	100	6.8	248	0	390	84	.5	.42
MAR. 27...	0930	5.8	160	18	91	8.0	200	0	390	63	.3	.47
APR. 22...	0930	9.8	150	18	93	6.6	294	0	310	66	.5	.42
MAY 16...	1030	7.1	97	11	84	15	184	0	260	39	.5	.52
JUNE 20...	1500	13	140	16	80	8.8	292	0	280	53	.6	.18
JULY 24...	1200	9.4	130	20	110	6.8	277	0	320	71	.6	.00
AUG. 07...	1245	23	85	8.0	68	7.5	193	0	180	40	.7	.00
SEP. 25...	1150	6.6	57	4.1	27	4.7	126	0	89	14	.6	.18

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 17...	.02	.19	.74	.93	.25	305	68	6	180	81	1.0
NOV. 06...	.01	.09	.79	.88	.16	542	124	28	250	110	2.1
DEC. 04...	.00	.06	.40	.46	.46	982	47	6	530	260	2.3
JAN. 10...	.01	.05	.78	.83	.10	849	29	7	460	290	2.0
FEB. 27...	.01	.04	.48	.52	.06	903	60	10	510	310	1.9
MAR. 27...	.01	.11	.81	.92	.15	835	112	18	470	310	1.8
APR. 22...	.02	.07	1.0	1.1	.08	799	153	21	450	210	1.9
MAY 16...	.01	.05	.61	.66	.09	604	82	11	290	140	2.2
JUNE 20...	.01	.02	.74	.76	.09	737	94	10	420	180	1.7
JULY 24...	.00	.04	.77	.81	.06	804	60	16	410	180	2.4
AUG. 07...	.00	.01	.20	.21	.04	509	150	114	250	88	1.9
SEP. 25...	.03	.01	.86	.87	.09	265	84	16	160	56	.9

TRINITY RIVER BASIN

08049900 Mountain Creek near Duncanville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT. 17...	493	7.2	16.0	30	50	6.6	66	3.5	12	1	.0
NOV. 06...	867	7.7	16.0	20	80	8.0	80	2.5	9.2	0	.1
DEC. 04...	1460	7.6	6.5	5	25	10.2	82	1.1	7.0	--	.2
JAN. 10...	1360	7.6	11.0	10	25	9.4	85	1.1	8.0	0	.1
FEB. 27...	1400	7.8	10.5	5	35	10.0	89	1.6	6.7	1	.0
MAR. 27...	1240	7.5	16.0	20	60	7.6	76	3.1	9.2	9	.0
APR. 22...	1250	7.5	18.0	0	80	7.2	76	.9	4.3	12	.0
MAY 16...	952	7.2	21.0	15	50	6.9	77	1.9	7.6	15	.0
JUNE 20...	1120	7.6	27.0	5	60	5.1	63	1.8	5.3	2	.1
JULY 24...	1250	7.5	28.0	0	40	6.0	76	1.0	5.7	3	.1
AUG. 07...	791	7.4	28.0	10	35	3.5	44	2.6	4.7	3	.0
SEP. 25...	448	7.0	19.0	20	60	3.8	40	3.8	9.4	2	.0

DATE	TIME	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)
OCT. 17...	1130	30	11	110	0	0	0	1
FEB. 27...	1030	<10	1	180	0	0	2	1
JUNE 20...	1500	20	2	220	0	0	0	50
AUG. 07...	1245	0	3	190	0	0	0	9

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 17...	50	2	0	0	.0	1	470	20
FEB. 27...	10	0	40	80	.0	3	1500	10
JUNE 20...	40	0	30	0	.0	1	1700	0
AUG. 07...	0	0	20	0	.0	0	920	0

TRINITY RIVER BASIN

427

08050050 Mountain Creek Lake near Grand Prairie, Tex.

LOCATION.--Lat 32°43'55", long 96°56'35", Dallas County, at right end of spillway in Mountain Creek Dam on Mountain Creek, 2.5 miles (4.0 km) upstream from Texas and Pacific Railway Co. bridge, and 3.7 miles (6.0 km) southeast of Grand Prairie.

DRAINAGE AREA.--295 mi² (764 km²).

PERIOD OF RECORD.--Contents: October 1960 to current year.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 21, 1960, nonrecording gage at powerplant at same datum.

EXTREMES.--Current year: Maximum contents, 24,860 acre-ft (30.7 hm³) June 11 (elevation, 457.70 ft or 139.507 m); minimum, 20,090 acre-ft (24.8 hm³) Sept. 30 (elevation, 455.93 ft or 138.967 m).

Period of record: Maximum contents, 25,790 acre-ft (31.8 hm³) May 7, 1969 (elevation, 458.02 ft or 139.604 m); minimum, 14,120 acre-ft (17.4 hm³) Oct. 18, 1972 (elevation, 453.25 ft or 138.151 m).

REMARKS.--The lake is formed by a rolled earthfill dam 5,800 ft (1,770 m) long, including a controlled spillway with six 34- by 27-foot (10- by 8-metre) tainter gates. The dam was completed in December 1936 and deliberate impoundment began on Mar. 24, 1937. The lake was built and is operated by Dallas Power and Light Co. to supply cooling water for their generating plant. The capacity curve is based on a survey made in 1963. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see Mountain Creek near Cedar Hill (station 08049600). Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	467.0	-
Top of gates.....	458.0	25,720
Top of dry weather conservation pool.....	457.0	22,840
Top of wet weather conservation pool.....	456.0	20,260
Crest of spillway (sill of tainter gates).....	431.0	0

COOPERATION.--The capacity curve was furnished by the Dallas Power and Light Company.

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

455.0	17,890	457.0	22,840
456.0	20,260	458.0	25,720

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20,210	19,880	20,650	20,470	23,390	22,220	21,760	23,040	23,680	22,580	23,190	21,340
2	20,160	20,420	20,650	20,780	20,880	22,250	21,730	21,810	23,880	22,500	23,240	21,290
3	20,160	20,670	20,670	21,030	20,090	20,210	21,810	21,810	24,020	22,580	23,190	21,220
4	20,120	21,090	20,700	21,220	21,160	20,310	21,810	21,830	24,140	22,580	23,130	21,140
5	20,070	21,270	20,880	21,290	20,420	20,390	21,860	21,860	24,140	22,610	23,040	21,060
6	20,000	21,370	21,160	21,370	21,110	20,520	21,940	21,880	23,650	22,630	23,010	20,980
7	19,980	20,360	21,240	21,450	21,550	20,390	21,810	21,880	23,360	22,560	22,960	20,900
8	19,980	20,420	21,270	21,470	21,760	20,440	23,790	21,910	23,560	22,480	22,870	20,850
9	19,930	20,620	21,290	21,270	22,120	20,600	19,930	21,880	23,760	22,430	22,790	20,850
10	19,950	20,160	21,290	20,120	22,500	20,540	20,440	21,880	23,730	22,480	22,740	20,800
11	19,930	20,160	21,220	20,140	22,660	20,650	20,780	22,270	22,960	22,450	22,630	20,720
12	19,880	20,650	21,110	20,160	22,900	20,620	21,090	22,380	23,240	22,380	22,560	20,570
13	19,900	20,750	21,090	20,190	21,630	20,930	21,470	21,910	23,470	22,300	22,450	20,490
14	20,390	20,830	21,270	20,210	20,390	21,110	21,940	21,680	23,470	22,220	22,400	20,440
15	20,190	20,900	21,290	20,210	20,440	21,220	22,270	21,910	23,420	22,170	22,320	20,650
16	20,390	20,930	21,320	20,240	20,750	21,370	22,450	21,940	23,560	22,120	22,250	20,670
17	20,420	21,030	21,450	20,290	20,780	21,470	22,710	21,990	23,420	21,990	22,200	20,750
18	20,420	21,140	21,340	20,360	20,880	21,680	22,630	22,010	22,840	21,940	22,140	20,700
19	20,390	21,110	21,370	20,290	21,030	21,830	22,680	22,040	22,790	21,880	22,070	20,620
20	20,360	21,140	21,400	20,360	21,190	21,940	22,710	22,450	22,740	21,810	21,960	20,570
21	20,310	21,160	21,420	20,290	21,220	22,040	22,660	22,840	22,710	21,760	21,910	20,520
22	20,260	21,270	21,500	20,310	21,370	21,990	22,900	23,010	22,680	21,700	21,880	20,440
23	20,260	20,490	21,550	20,340	21,630	22,010	22,980	22,320	22,630	21,630	21,810	20,390
24	20,290	20,540	21,320	20,360	21,810	22,010	23,070	22,610	22,580	21,990	21,780	20,310
25	20,290	20,620	21,320	20,390	21,910	21,990	23,040	23,100	22,580	22,120	21,680	20,260
26	20,260	20,620	21,550	20,470	21,990	20,190	23,040	22,710	22,530	22,840	21,550	20,210
27	20,260	20,650	21,600	20,490	22,120	20,670	23,100	23,420	22,530	22,930	21,550	20,160
28	20,600	20,650	21,650	20,570	22,200	20,960	23,130	22,610	22,500	22,930	21,550	20,140
29	20,670	20,620	21,680	20,520	-----	21,290	23,130	22,790	22,450	23,240	21,520	20,140
30	20,980	20,650	20,310	20,540	-----	21,520	23,040	22,810	22,580	23,270	21,470	20,090
31	20,470	-----	20,390	20,620	-----	21,680	-----	23,420	-----	23,210	21,420	-----
(†)	456.08	456.15	456.05	456.14	456.75	456.55	457.07	457.20	456.90	457.13	456.45	455.93
(*)	+230	+180	-260	+230	+1,580	-520	+1,360	+380	-840	+630	-1,790	-1,330
MAX	20,980	21,370	21,680	21,470	23,390	22,250	23,790	23,420	24,140	23,270	23,240	21,340
MIN	19,880	19,880	20,310	20,120	20,090	20,190	19,930	21,680	22,450	21,630	21,420	20,090

CAL YR 1974..... * -1,110

WTR YR 1975..... * -150

MAX 23,160

MIN 18,600

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

TRINITY RIVER BASIN

08050050 Mountain Creek Lake near Grand Prairie, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV., 1974 15..	1430	9.0	51	4.7	26	7.4	120	0	90

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MMOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV., 1974 15..	17	.4	265	150	48	.9	448	7.7	14.5

08050100 Mountain Creek at Grand Prairie, Tex.

LOCATION.--Lat 32°44'52", long 96°55'33", Dallas County, on right bank at downstream side of downstream bridge on Jefferson Street, 1,000 ft (305 m) upstream from bridge on U.S. Highway 80, 1.2 miles (1.9 km) upstream from Texas and Pacific Railroad Co. bridge, 1.5 miles (2.4 km) downstream from Mountain Creek Lake Dam, and 4.4 miles (7.1 km) east of Grand Prairie.

DRAINAGE AREA.--298 mi² (772 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 407.31 ft (124.148 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 107 ft³/s (3.030 m³/s), 77,520 acre-ft/yr (95.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,990 ft³/s (283 m³/s) Feb. 2 (gage height, 19.24 ft or 5.864 m); minimum daily, 0.06 ft³/s (0.002 m³/s) Jan. 15 (gage height, 1.97 ft or 0.600 m); minimum gage height, 1.70 ft (0.518 m) Aug. 4.

Period of record: Maximum discharge, 35,000 ft³/s (991 m³/s) May 7, 1969 (gage height, 24.62 ft or 7.504 m); no flow in 1964, 1972-74.

REMARKS.--Records good. Flow regulated by Mountain Creek Lake (station 08050050).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	5490	1.2	2.6	6820	.82	1.1	.67	2.0	1.8	2.1	1.4
2	.54	312	1.1	4.8	8620	.82	.67	647	1.1	1.4	1.7	1.7
3	.54	3.7	1.0	4.8	2370	939	.74	6.8	.82	1.4	.67	.49
4	.67	2.5	1.0	2.6	298	8.2	.67	1.8	.91	2.6	.30	.44
5	.60	2.5	1.0	2.0	536	3.2	.74	9.1	1.6	5.0	.67	.60
6	.54	2.4	1.2	1.6	19	2.0	.60	.60	117	1.8	.44	.67
7	.49	403	1.3	1.2	6.6	1.2	904	.49	190	1.4	.39	.60
8	.54	6.2	1.1	1.0	5.6	1.0	6330	.44	2.2	1.1	.91	.60
9	.44	2.9	1.0	.42	4.2	1.1	4820	.39	426	1.4	1.1	.67
10	.44	2270	433	389	3.9	1.1	33	.39	801	1.8	.82	.54
11	.44	2600	212	2.6	3.2	1.0	5.6	11	1760	1.3	.82	.60
12	.39	131	3.7	1.2	2.6	1.1	4.6	4.4	36	7.4	.82	.67
13	.39	3.7	2.6	.91	490	4.6	4.1	49	1.1	.39	.82	1.3
14	286	2.2	2.0	.22	788	3.2	6.0	273	.91	.49	.82	1.4
15	487	2.4	1.8	.06	4.1	1.9	3.2	5.6	.91	.60	.82	1.7
16	4.8	1.7	1.6	1.6	2.6	1.3	1.8	2.0	1.0	.44	.67	2.2
17	1.8	1.4	1.2	3.2	1.4	1.1	2.0	.91	2.4	.39	.67	1.2
18	1.6	1.4	1.0	2.0	1.2	1.0	4.4	.54	125	.53	.91	.82
19	1.0	1.2	1.0	1.4	1.2	.91	2.9	.49	3.9	.50	.54	.60
20	.91	.91	.91	1.6	1.1	.82	1.0	9.4	2.2	.44	.49	.60
21	1.0	.82	.82	1.4	1.0	.91	.74	4.8	1.6	.48	.44	.74
22	.74	.91	.91	1.2	1.0	.82	.91	1.2	1.4	.49	.49	.67
23	.54	233	.91	1.4	2.6	.82	.82	2100	1.2	.52	.49	.74
24	.49	88	.82	1.1	2.4	.74	1.0	1220	1.1	3.9	.47	.82
25	.54	2.2	.82	1.1	1.4	.74	1.1	267	1.4	3030	.54	1.0
26	.44	1.1	1.1	1.0	1.0	844	.91	286	1.6	656	.67	.91
27	.44	1.0	1.1	1.0	.91	22	.74	119	1.4	5.0	.39	.60
28	4.6	.91	1.0	.91	.91	9.2	.82	3350	.82	3.1	.39	.67
29	3.2	.82	1.0	.82	---	6.6	.82	2530	.82	7.0	.30	.49
30	5.2	1.1	567	.91	---	5.0	.67	2410	1.4	8.2	.39	.44
31	4520	---	7.5	577	---	2.4	---	11	---	2.9	.34	---
TOTAL	5326.99	11570.97	1253.69	1054.23	19989.92	1868.60	12135.65	13323.02	3488.79	3749.77	21.39	25.88
MEAN	172	386	40.4	34.0	714	60.3	405	430	116	121	.69	.86
MAX	4520	5490	567	577	8620	939	6330	3350	1760	3030	2.1	2.2
MIN	.39	.82	.82	.06	.91	.74	.60	.39	.82	.39	.30	.44
AC-FT	10570	22950	2490	2090	39650	3710	24070	26430	6920	7440	42	51
CAL YR 1974	TOTAL	31734.35	MEAN	86.9	MAX	5490	MIN	.05	AC-FT	62950		
WTR YR 1975	TOTAL	73808.90	MEAN	202	MAX	8620	MIN	.06	AC-FT	146400		

TRINITY RIVER BASIN

08050500 Elm Fork Trinity River near Sanger, Tex.

LOCATION.--Lat 33°23'11", long 97°05'05", Denton County, on right bank on downstream side of pier of bridge on Farm Road 455, 4.1 miles (6.6 km) downstream from Spring Creek, 5.0 miles (8.0 km) upstream from Isle du Bois Creek, and 5.4 miles (8.7 km) northeast of Sanger.

DRAINAGE AREA.--381 mi² (987 km²).

PERIOD OF RECORD.--Discharge: April 1949 to current year.

Water quality: Chemical and biochemical analyses: October 1969 to current year. Sediment records: January 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 553.72 ft (168.774 m) above mean sea level. Prior to May 7, 1955, at site 500 ft (150 m) downstream at same datum.

AVERAGE DISCHARGE.--26 years, 154 ft³/s (4.361 m³/s), 111,600 acre-ft/yr (138 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 50,000 ft³/s (1,420 m³/s) Oct. 31 (gage height, 29.10 ft or 8.870 m); minimum, 9.2 ft³/s (0.26 m³/s) Aug. 13-16.

Period of record: Maximum discharge, 50,000 ft³/s (1,420 m³/s) Oct. 31, 1974 (gage height, 29.10 ft or 8.870 m); no flow at times.

Maximum stage since at least 1903, 30.7 ft (9.36 m) in May 1908, from information by local residents. Flood of May 18, 1935, reached a stage of 29.7 ft (9.05 m), from floodmarks.

REMARKS.--Discharge records good. At end of year, flow from 94.7 mi² (245.3 km²) above this station was partly controlled by 41 floodwater-retarding structures with a combined capacity of 30,920 acre-ft (38.1 hm³) below the flood-spillway crests, of which 4,130 acre-ft (5.09 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by the city of Gainesville show that 2,050 acre-ft (2.53 hm³) of sewage effluent was discharged into the river above station.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	6400	82	61	4386	191	214	51	266	38	21	15
2	85	1500	78	85	3330	147	178	236	136	36	18	14
3	74	1130	75	220	2120	122	150	100	111	41	17	14
4	66	1950	73	121	1040	117	134	61	96	39	16	14
5	58	1070	72	91	1480	113	122	54	84	39	14	14
6	50	858	73	77	484	108	117	52	76	37	13	14
7	44	751	73	69	275	102	145	50	69	34	12	14
8	40	581	68	65	235	95	4870	48	396	31	12	14
9	36	434	60	61	200	88	1030	46	4470	29	11	14
10	30	4910	59	66	172	99	367	44	2040	27	11	15
11	27	1870	117	65	167	97	238	44	453	25	10	15
12	22	562	118	57	153	159	181	43	178	23	10	15
13	20	418	88	50	143	404	158	43	136	20	10	14
14	25	325	77	48	136	207	167	87	116	18	9.9	14
15	89	276	72	48	129	165	158	234	101	17	9.7	20
16	58	250	64	47	126	2250	125	86	92	16	11	27
17	37	232	60	46	146	327	116	50	76	14	88	20
18	30	215	57	46	125	3850	107	44	64	14	158	16
19	25	185	55	47	115	720	98	43	56	14	120	15
20	21	161	53	45	108	273	88	43	51	13	22	14
21	20	147	51	44	104	195	82	43	50	13	13	14
22	18	136	50	42	111	175	79	42	52	12	13	14
23	17	132	50	40	300	151	77	1320	70	12	23	13
24	17	130	50	40	282	141	78	419	165	18	13	12
25	17	119	47	46	258	117	74	125	74	18	10	12
26	20	115	47	44	205	109	70	144	57	20	597	12
27	20	111	52	41	164	625	66	275	46	40	158	11
28	92	109	53	39	249	2470	66	569	44	35	46	11
29	255	103	56	39	---	1350	64	1560	45	23	29	11
30	1050	89	55	38	---	479	57	1670	40	47	20	10
31	37300	---	54	3120	---	285	---	380	---	27	16	---
TOTAL	39759	25269	2039	4948	16737	15731	9476	8006	9710	790	1531.6	432
MEAN	1283	842	65.8	160	598	507	316	258	324	25.5	49.4	14.4
MAX	37300	6400	118	3120	4380	3850	4870	1670	4470	47	597	27
MIN	17	89	47	38	104	88	57	42	40	12	9.7	10
AC-FT	78860	50120	4040	9810	33200	31200	18800	15800	19260	1570	3040	857
CAL YR 1974	TOTAL	92887.12	MEAN	254	MAX	37300	MIN	0	AC-FT	184200		
WTR YR 1975	TOTAL	134428.60	MEAN	368	MAX	37300	MIN	9.7	AC-FT	266600		

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	0930	29.10	50,000	3-18	0830	22.48	5,400
11-10	1500	24.34	7,150	3-28	2100	21.39	4,700
1-31	1730	22.62	5,510	4- 8	1100	23.87	6,650
2- 1	2000	24.23	7,030	6- 9	0700	24.38	7,190
3-16	0700	21.51	4,760				

TRINITY RIVER BASIN

431

08050500 Elm Fork Trinity River near Sanger, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 16...	1030	72	8.8	65	5.2	47	5.6	239	0	41	40
DEC. 03...	1230	75	15	110	7.4	50	2.3	342	0	46	63
FEB. 26...	1045	218	6.5	84	6.4	38	2.2	240	0	44	54
APR. 24...	1600	75	5.7	110	8.5	53	2.7	323	0	50	76
JUNE 17...	1400	64	12	100	7.3	43	3.6	307	0	47	56
AUG. 05...	1425	14	11	84	6.8	47	3.7	253	0	38	67

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT. 16...	--	1.4	.06	.32	.78	1.1	1.7	331	18	8	180
DEC. 03...	.2	1.6	.05	.13	.18	.31	.17	463	3	0	310
FEB. 26...	.2	.69	.02	.09	.54	.63	.13	354	68	8	240
APR. 24...	.2	1.2	.04	.14	.57	.71	1.3	465	33	4	310
JUNE 17...	.3	.90	.01	.00	.68	.68	.13	421	110	21	280
AUG. 05...	.2	.67	.01	.02	.66	.68	.32	383	138	40	240

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 16...	0	1.5	570	7.4	16.0	20	7	8.5	85	3.8	11
DEC. 03...	25	1.2	794	7.5	7.0	5	1	10.5	86	.3	6.2
FEB. 26...	40	1.1	625	7.2	8.5	15	30	11.2	95	2.3	6.5
APR. 24...	45	1.3	841	7.5	22.0	0	5	8.5	97	.7	4.3
JUNE 17...	28	1.1	698	7.7	26.5	10	40	7.5	91	2.6	5.5
AUG. 05...	31	1.3	670	7.6	27.0	5	35	7.0	86	1.6	4.5

TRINITY RIVER BASIN

08050500 Elm Fork Trinity River near Sanger, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CH) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
OCT. 16...	1030	0	5	110	0	0	0	2
FEB. 26...	1045	<10	1	60	0	0	2	3
JUNE 17...	1400	20	2	40	0	0	0	1
AUG. 05...	1425	10	2	110	0	0	0	3

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 16...	30	4	0	0	0	5	330	40
FEB. 26...	20	0	10	10	0	3	400	10
JUNE 17...	10	0	0	10	0	2	600	10
AUG. 05...	10	0	10	20	0	0	500	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
DEC. 18...	1415	60	7.5	2	.32
APR. 23...	1705	78	19.5	37	7.8
JUNE 02...	1530	128	22.0	70	24
JULY 16...	1410	13	26.5	25	.08
SEP. 27...	1310	108	27.0	320	93

TRINITY RIVER BASIN

433

08051000 Isle du Bois Creek near Pilot Point, Tex.

LOCATION.--Lat 33°24'23", long 97°00'45", Denton County, on left bank at downstream side of bridge on Farm Road 372, 2.4 miles (3.9 km) downstream from Wolf Creek, 3.0 miles (4.8 km) west of Pilot Point, and 6.3 miles (10.1 km) upstream from mouth.

DRAINAGE AREA.--266 mi² (689 km²).

PERIOD OF RECORD.--Discharge: April 1949 to current year.

Water quality: Chemical analyses: November 1961 to April 1963. Sediment records: February 1966 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 555.48 ft (169.310 m) above mean sea level (Corps of Engineers bench mark). Prior to Feb. 8, 1958, water-stage recorder at site 1.0 mile (1.6 km) upstream at datum 4.22 ft (1.286 m) higher.

AVERAGE DISCHARGE.--26 years, 121 ft³/s (3.427 m³/s), 87,660 acre-ft/yr (108 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Oct. 31 (gage height, 29.43 ft or 8.970 m); minimum, 0.03 ft³/s (0.001 m³/s) Sept. 24.

Period of record: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Oct. 31, 1974 (gage height, 29.43 ft or 8.970 m, present site and datum); no flow at times most years.

Maximum stage since at least 1900, 30.4 ft (9.27 m) in May 1908, present site and datum, from information by local resident.

REMARKS.--Discharge records good. No known diversion above station.

REVISIONS (WATER YEARS).--WSP 1512: 1950. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	7400	8.8	48	3020	956	76	36	124	1.9	2.4	.17
2	6.3	1230	8.8	83	3960	203	52	329	61	1.6	2.2	.17
3	4.5	168	8.8	409	1980	125	38	632	40	1.4	1.9	.17
4	3.4	626	8.4	200	1050	94	29	166	33	1.7	1.6	.17
5	2.5	805	8.4	65	983	73	22	58	28	1.4	1.2	.14
6	2.1	141	8.4	35	570	61	18	37	24	1.3	1.1	.14
7	1.9	74	25	27	255	55	22	28	20	1.2	.89	.10
8	2.8	54	40	24	133	50	2500	24	71	1.1	.79	.07
9	2.4	54	34	22	90	47	2950	20	1370	1.1	.79	.45
10	1.9	1930	26	22	80	47	264	16	2370	1.1	.79	2.1
11	1.5	2890	105	23	67	47	136	17	850	1.1	.70	1.4
12	1.3	485	200	29	55	39	78	323	176	.98	.70	.32
13	1.3	120	64	26	47	232	54	96	76	.98	.70	.14
14	7.0	81	28	12	41	494	58	464	31	.98	.79	.14
15	15	54	18	10	35	184	55	398	13	.88	.62	.22
16	14	31	17	10	33	1240	45	314	6.1	.79	.62	.27
17	5.4	21	15	10	32	1340	37	69	3.8	.79	.98	.27
18	3.4	16	13	10	29	811	32	31	2.9	.79	1.6	.22
19	1.9	15	11	10	27	882	28	20	2.9	.70	1.1	.14
20	1.5	15	10	27	24	174	25	14	2.9	.54	.89	.05
21	1.6	15	8.7	9.7	21	104	23	12	2.7	.47	.89	.07
22	1.3	14	7.7	8.4	70	65	22	11	2.5	.32	.79	.07
23	.9	14	7.4	12	210	52	21	370	2.5	.27	.70	.04
24	.9	17	6.7	11	160	44	22	433	158	.39	.70	.03
25	.9	20	11	9.2	145	34	21	111	213	.47	.70	.04
26	1.0	17	13	8.8	120	30	20	48	7.2	37	.70	.14
27	1.0	16	12	8.8	100	505	18	95	3.4	9.2	.98	.17
28	1.3	15	10	8.4	273	1700	18	1470	3.3	15	.47	.27
29	2.5	14	9.7	8.8	---	668	19	2360	2.5	82	.27	.39
30	250	14	9.7	12	---	222	111	2030	2.2	6.8	.22	.47
31	21800	---	10	932	---	129	---	930	---	3.3	.22	---
TOTAL	22151.4	16366	763.5	2131.1	13610	10707	6814	10962	5 02.9	177.55	29.00	53.09
MEAN	715	546	24.6	68.7	486	345	227	354	190	5.73	.94	1.77
MAX	21800	7400	200	932	3960	1700	2950	2360	2370	82	2.4	.45
MIN	.90	14	6.7	8.4	21	30	18	11	2.2	.27	.22	.03
AC-FT	43940	32460	1510	4230	27000	21240	13520	21740	11310	352	58	105

CAL YR 1974 TOTAL 61394.56 MEAN 168 MAX 21800 MIN 0 AC-FT 121800
WTR YR 1975 TOTAL 89467.54 MEAN 245 MAX 21800 MIN .03 AC-FT 177500

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	1330	29.43	40,000	4-9	0400	21.57	4,200
11-11	0900	12.80	3,400	5-29	1630	17.55	2,630
2-2	0430	21.91	4,420	6-10	1000	17.69	2,670

TRINITY RIVER BASIN

08051000 Isle du Bois Creek near Pilot Point, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
DEC. 18...	1230	13	6.0	15	.53
JUNE 03...	1410	38	22.0	54	5.5
JULY 17...	1300	.92	27.0	14	.03

TRINITY RIVER BASIN

435

08051500 Clear Creek near Sanger, Tex.

LOCATION (revised).--Lat 33°20'21", long 97°10'51", Denton County, at the downstream side of left abutment of main channel bridge on Interstate Highway 35, 600 ft (180 m) downstream from Duck Creek, 1.3 miles (2.1 km) upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 1.7 miles (2.7 km) south of Sanger.

DRAINAGE AREA.--295 mi² (764 km²).

PERIOD OF RECORD.--Discharge: March 1949 to current year.

Water quality: Specific conductance: May 1968 to current year. Water temperatures: May 1968 to current year. Sediment records: May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 582.23 ft (177.464 m) above mean sea level (Corps of Engineers bench mark). Prior to Apr. 18, 1975, water-stage recorder at site 950 ft (290 m) downstream at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE.--26 years, 82.2 ft³/s (2.328 m³/s), 59,550 acre-ft/yr (73.4 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 14,500 ft³/s (411 m³/s) Oct. 31 (gage height, 23.82 ft or 7.260 m); minimum, 5.7 ft³/s (0.16 m³/s) Sept. 12.

Period of record: Maximum discharge, 18,200 ft³/s (515 m³/s) Sept. 13, 1950 (gage height, 24.80 ft or 7.559 m); no flow at times most years.

Historic: Maximum stage since at least 1880, 31.5 ft (9.60 m) in May 1908, from information by Gulf, Colorado, and Santa Fe Railway Co. Flood in May 1935 reached a stage of 29.0 ft (8.84 m), from information by State Highway Department.

Water quality: Current year: Maximum daily specific conductance, 1,470 micromhos Aug. 14, 15; minimum daily, 197 micromhos Apr. 8. Maximum water temperatures, 32.0°C Aug. 18, 21; minimum, 5.0°C Jan. 12. Maximum daily sediment concentrations, 2,590 mg/l Apr. 8; minimum daily, 3 mg/l Oct. 12, Apr. 27. Maximum sediment loads, 71,900 tons Oct. 31; minimum daily, 0.10 tons Oct. 12.

Period of record: Maximum daily specific conductance (1972-75), 1,680 micromhos Sept. 4, 1973; minimum daily, 182 micromhos July 29, 1973. Maximum water temperatures (1968-70, 1972-75), 39.0°C June 28, 1969; minimum, freezing point Jan. 9, 1970. Maximum daily sediment concentrations, 7,370 mg/l May 12, 1972; no flow for many days. Maximum daily sediment loads, 79,000 tons May 7, 1969; minimum daily, 0 tons on many days.

REMARKS.--Discharge records good until Apr. 18 and fair thereafter. No appreciable diversion above station. At end of year, flow from 153 mi² (396 km²) above this station was partly controlled by 66 floodwater-retarding structures with a capacity of 44,490 acre-ft (54.9 km³) below the flood-spillway crests, of which 5,170 acre-ft (6.37 km³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1512: 1950, 1955. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	2620	63	60	2210	89	199	63	228	31	19	8.8
2	23	2040	62	70	1630	89	170	159	148	27	17	7.9
3	21	1830	61	127	1480	86	149	123	114	44	17	7.6
4	20	1920	60	99	1060	85	114	94	91	42	16	7.6
5	19	1560	59	77	1230	85	99	81	77	51	14	6.9
6	18	1420	62	68	529	84	99	76	70	36	13	6.4
7	17	1320	63	63	283	81	111	71	69	27	13	6.6
8	14	1210	59	58	237	79	1770	65	336	24	12	6.3
9	13	1100	54	55	191	80	917	60	1390	22	11	6.8
10	12	2450	55	56	176	86	394	57	2160	21	11	7.7
11	12	1410	102	55	172	81	254	55	1040	28	10	8.4
12	12	1100	109	48	152	95	204	55	659	25	9.6	5.9
13	12	881	86	41	138	170	174	53	388	22	8.8	6.4
14	20	609	72	39	122	143	153	107	215	19	8.0	8.2
15	33	350	65	39	116	164	138	227	134	18	7.7	12
16	27	223	59	39	109	998	126	117	94	19	7.6	16
17	26	184	55	38	99	476	117	78	68	19	8.3	14
18	24	157	53	37	102	1880	108	63	53	19	12	10
19	20	127	52	37	106	773	100	57	45	18	15	8.7
20	16	116	50	37	95	283	93	53	40	17	9.8	7.7
21	16	106	46	37	92	197	89	57	38	16	8.4	7.3
22	14	99	46	37	91	172	81	58	42	15	8.0	7.4
23	14	98	47	36	101	160	82	404	54	14	7.3	7.5
24	15	102	46	36	111	149	82	280	228	15	8.1	7.2
25	14	77	43	37	91	144	78	145	77	71	7.2	7.0
26	14	76	46	37	91	138	70	99	49	54	26	6.9
27	14	77	53	38	90	290	70	101	41	79	34	7.4
28	71	73	53	38	90	824	78	240	36	34	19	7.1
29	119	71	52	38	---	547	84	927	39	24	14	6.8
30	1380	66	52	37	---	278	68	1320	36	21	12	6.6
31	12300	---	54	993	---	227	---	477	---	20	10	---
TOTAL	14356	23472	1839	2507	10994	9033	6271	5822	8059	892	393.8	241.1
MEAN	463	782	59.3	80.9	393	291	209	188	269	28.8	12.7	8.04
MAX	12300	2620	109	993	2210	1880	1770	1320	2160	79	34	16
MIN	12	66	43	36	90	79	68	53	36	14	7.2	5.9
AC-FT	28480	46560	3650	4970	21810	17920	12440	11550	15990	1770	781	478
CAL YR 1974	TOTAL	52285.10	MEAN	143	MAX	12300	MIN	0	AC-FT	103700		
WTR YR 1975	TOTAL	83879.90	MEAN	230	MAX	12300	MIN	5.9	AC-FT	166400		

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	1000	23.82	14,500	2-1	2000	14.04	3,240
11-10	0930	14.40	3,380	6-10	1000	16.40	4,350

TRINITY RIVER BASIN

08051500 Clear Creek near Sanger, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	219	879	677	320	752	574	555	290	1070	1160	1340
2	---	216	751	742	317	775	566	749	709	1050	1150	1350
3	584	224	795	637	472	696	549	446	692	935	1150	1348
4	---	241	616	475	511	592	560	771	682	709	1150	1360
5	561	238	618	721	725	608	219	785	694	763	1150	1370
6	572	246	691	702	651	565	363	779	686	779	1160	1350
7	607	230	620	677	566	562	428	793	691	---	1180	1350
8	651	270	598	673	506	623	197	785	---	1060	1190	1370
9	667	255	---	677	539	566	400	793	---	1060	---	698
10	688	271	---	673	725	568	451	804	---	1070	---	706
11	654	300	---	671	757	514	488	790	---	930	---	702
12	684	461	609	702	732	482	427	785	---	934	---	730
13	---	463	624	689	778	488	463	821	---	934	---	692
14	---	466	618	668	722	388	454	587	---	1100	1470	746
15	590	468	602	671	778	595	695	611	---	1090	1470	699
16	588	577	518	702	800	384	605	594	898	1100	919	697
17	731	715	815	666	717	403	594	613	858	1100	854	703
18	639	677	803	651	748	372	619	658	874	1100	916	1000
19	710	602	784	691	776	391	626	334	848	1110	920	1020
20	778	625	817	689	661	373	645	348	848	1200	954	1080
21	691	810	776	675	704	405	713	379	739	1210	905	1020
22	691	805	693	710	806	565	667	377	732	1200	901	1000
23	777	797	730	689	771	572	724	358	756	1200	573	1010
24	705	761	773	704	779	553	663	359	939	1220	572	966
25	---	889	744	693	789	565	735	345	958	546	555	1030
26	---	841	761	685	723	368	749	425	962	---	535	1110
27	---	869	756	702	779	377	769	405	923	---	666	1050
28	348	860	690	660	718	365	468	295	991	---	682	1040
29	362	844	744	---	---	355	477	333	931	---	729	1060
30	375	792	749	---	---	360	488	363	1050	---	673	1050
31	203	---	764	---	---	585	---	351	---	1160	1340	---
MONTH	---	534	712	678	674	509	546	561	---	1030	959	1020

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	13.0	9.0	16.0	10.0	13.0	21.0	24.0	28.0	27.0	27.0
2	---	22.0	13.0	12.0	14.0	8.0	11.0	20.0	26.0	29.0	29.0	29.0
3	21.0	21.0	13.0	13.0	11.0	10.0	12.0	22.0	28.0	26.0	28.0	28.0
4	---	19.0	14.0	13.0	10.0	9.0	13.0	20.0	25.0	30.0	26.0	31.0
5	25.0	17.0	14.0	11.0	10.0	10.0	14.0	21.0	26.0	28.0	29.0	29.0
6	24.0	18.0	15.0	10.0	11.0	10.0	12.0	23.0	29.0	27.0	27.0	30.0
7	29.0	16.0	14.0	10.0	11.0	11.0	15.0	20.0	27.0	---	30.0	27.0
8	24.0	16.0	13.0	8.0	10.0	11.0	15.0	21.0	---	29.0	28.0	27.0
9	23.0	18.0	---	11.0	7.0	10.0	17.0	22.0	---	30.0	---	28.0
10	22.0	15.0	---	11.0	9.0	10.0	17.0	21.0	---	28.0	---	27.0
11	22.0	14.0	---	7.0	10.0	9.0	15.0	23.0	---	30.0	---	29.0
12	24.0	17.0	14.0	5.0	8.0	9.0	17.0	26.0	---	31.0	---	28.0
13	---	19.0	13.0	6.0	10.0	10.0	17.0	26.0	---	31.0	---	26.0
14	---	18.0	13.0	8.0	7.0	10.0	19.0	22.0	---	29.0	30.0	30.0
15	22.0	15.0	15.0	9.0	9.0	11.0	15.0	20.0	---	31.0	31.0	29.0
16	20.0	16.0	15.0	9.0	11.0	12.0	16.0	23.0	28.0	30.0	30.0	27.0
17	18.0	14.0	14.0	11.0	10.0	11.0	18.0	25.0	27.0	31.0	30.0	26.0
18	19.0	16.0	13.0	10.0	12.0	13.0	17.0	27.0	30.0	29.0	32.0	25.0
19	21.0	16.0	12.0	10.0	8.0	12.0	17.0	21.0	29.0	30.0	31.0	25.0
20	22.0	14.0	11.0	12.0	11.0	14.0	16.0	26.0	29.0	28.0	29.0	23.0
21	19.0	17.0	11.0	10.0	13.0	11.0	17.0	20.0	28.0	27.0	32.0	24.0
22	21.0	19.0	11.0	12.0	11.0	12.0	18.0	27.0	30.0	25.0	31.0	22.0
23	23.0	19.0	10.0	11.0	10.0	12.0	19.0	23.0	27.0	26.0	30.0	24.0
24	20.0	14.0	10.0	11.0	8.0	12.0	20.0	25.0	30.0	27.0	29.0	21.0
25	---	17.0	9.0	10.0	12.0	12.0	19.0	25.0	28.0	25.0	26.0	23.0
26	---	13.0	8.0	12.0	9.0	13.0	19.0	26.0	31.0	26.0	25.0	23.0
27	---	14.0	8.0	10.0	8.0	11.0	20.0	26.0	27.0	29.0	27.0	22.0
28	18.0	16.0	9.0	12.0	11.0	10.0	21.0	22.0	27.0	26.0	29.0	20.0
29	21.0	14.0	10.0	---	---	9.0	20.0	24.0	29.0	25.0	30.0	23.0
30	21.0	15.0	10.0	---	---	10.0	19.0	21.0	30.0	26.0	28.0	22.0
31	12.0	---	10.0	---	---	11.0	---	23.0	---	28.0	27.0	---
MONTH	---	16.5	12.0	10.0	10.5	10.5	16.5	23.0	---	28.0	29.0	26.0

TRINITY RIVER BASIN

437

08051500 Clear Creek near Sanger, Tex.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)		SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM	SUS. SED. SIEVE DIAM. % FINER THAN .031 MM
OCT. 28...	1800	160	18.0	1740	752										
NOV. 01...	0820	2510	13.0	2730	18500										
FEB. 01...	1700	3000	11.0	1470	11900										
JULY 25...	1945	124	25.0	2930	981										
OCT. 28...							96	97	99	100	73	77	85	93	95
NOV. 01...							81	95	99	100	32	40	42	51	65
FEB. 01...							73	95	99	100	29	35	37	46	58
JULY 25...							97	98	99	100	63	79	88	95	96

TRINITY RIVER BASIN

08051500 Clear Creek near Sanger, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	26	30	2.1	2620	1400	9900	63	33	5.6
2	23	35	2.2	2040	1170	6440	62	45	7.5
3	21	48	2.7	1830	970	4790	61	30	4.9
4	20	42	2.3	1920	1100	5700	60	11	1.8
5	19	38	2.0	1560	670	2820	59	15	2.4
6	18	30	1.5	1420	420	1610	62	19	3.2
7	17	8	.37	1320	520	1850	63	26	4.4
8	14	17	.64	1210	620	2030	59	19	3.0
9	13	17	.60	1100	850	2520	54	15	2.2
10	12	18	.58	2450	1540	10300	55	15	2.2
11	12	14	.45	1410	720	2740	102	220	61
12	12	3	.10	1100	400	1190	109	13	3.8
13	12	20	.65	881	650	1550	86	34	7.9
14	20	30	1.6	609	370	608	72	13	2.5
15	33	150	13	350	300	283	65	67	12
16	27	46	3.4	223	270	163	59	25	4.0
17	26	46	3.2	184	300	149	55	13	1.9
18	24	40	2.6	157	320	136	53	31	4.4
19	20	52	2.8	127	370	127	52	47	6.6
20	16	29	1.3	116	300	94	50	41	5.5
21	16	29	1.3	106	500	143	46	36	4.5
22	14	39	1.5	99	500	134	46	34	4.2
23	14	38	1.4	98	370	98	47	36	4.6
24	15	43	1.7	102	170	47	46	26	3.2
25	14	40	1.5	77	42	8.7	43	11	1.3
26	14	40	1.5	76	44	9.0	46	16	2.0
27	14	35	1.3	77	30	6.2	53	9	1.3
28	71	470	272	73	34	6.7	53	17	2.4
29	119	670	215	71	36	6.9	52	14	2.0
30	1380	697	11400	66	42	7.5	52	19	2.7
31	12300	2240	71900	---	---	---	54	33	4.8
MONTH	14356	---	83841.29	23472	---	55467.0	1839	---	179.8
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	60	17	2.8	2210	1800	10000	89	53	13
2	70	120	23	1630	875	3960	89	62	15
3	127	220	75	1480	939	4820	86	70	16
4	99	120	32	1060	370	1060	85	99	23
5	77	39	8.1	1230	738	2620	85	124	28
6	68	26	4.8	529	200	286	84	161	37
7	63	35	6.0	283	300	229	81	162	35
8	58	36	5.6	237	320	205	79	122	26
9	55	76	11	191	250	129	80	167	36
10	56	45	6.8	176	100	48	86	126	29
11	55	60	8.9	172	64	30	81	109	24
12	48	33	4.3	152	22	9.0	95	103	26
13	41	38	4.2	138	82	31	170	200	92
14	39	50	5.3	122	70	23	143	250	97
15	39	49	5.2	116	56	18	164	250	111
16	39	32	3.4	109	47	14	998	795	2420
17	38	25	2.6	99	51	14	476	358	481
18	37	17	1.7	102	48	13	1880	1270	7510
19	37	34	3.4	106	45	13	773	250	522
20	37	22	2.2	95	46	12	283	300	229
21	37	45	4.5	92	75	19	197	300	160
22	37	44	4.4	91	70	17	172	150	70
23	36	31	3.0	101	90	25	160	120	52
24	36	16	1.6	111	56	17	149	150	60
25	37	12	1.2	91	52	13	144	150	58
26	37	20	2.0	91	104	26	138	150	56
27	38	16	1.6	90	52	13	290	659	705
28	38	28	2.9	90	76	18	824	989	2350
29	38	20	2.1	---	---	---	947	520	768
30	37	50	5.0	---	---	---	278	450	338
31	993	1670	5200	---	---	---	227	250	153
MONTH	2507	---	5444.6	10994	---	22882.0	9033	---	16540

08051500 Clear Creek near Sanger, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	APRIL				MAY			JUNE	
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	199	190	102	63	67	11	228	200	123
2	170	170	78	159	619	366	148	64	26
3	149	190	76	123	420	139	114	62	19
4	114	159	49	94	120	30	91	17	4.2
5	99	150	40	81	88	19	77	21	4.4
6	99	150	40	76	16	3.3	70	17	3.2
7	111	200	60	71	13	2.5	69	15	2.8
8	1770	2590	13300	65	11	1.9	336	530	1510
9	917	1950	4830	60	15	2.4	1390	1130	5520
10	394	950	1010	57	13	2.0	2160	2030	13300
11	254	300	206	55	20	3.0	1040	520	1460
12	204	350	193	55	7	1.0	659	150	267
13	174	420	197	53	16	2.3	388	150	157
14	153	300	124	107	270	78	215	120	70
15	138	170	63	227	911	615	134	100	36
16	126	120	41	117	170	54	94	10	2.5
17	117	94	30	78	34	7.2	68	100	18
18	108	70	20	63	22	3.7	53	52	7.4
19	100	71	19	57	47	7.2	45	62	7.5
20	93	86	22	53	38	5.4	40	80	8.6
21	89	75	18	57	34	5.2	38	64	6.6
22	81	88	19	58	100	16	42	67	7.6
23	82	94	21	404	674	946	54	74	11
24	82	26	5.8	280	160	121	228	319	282
25	78	20	4.2	145	170	67	77	53	11
26	70	25	4.7	99	220	59	49	46	6.1
27	70	3	.57	101	320	87	41	67	7.4
28	78	46	9.7	240	908	889	36	42	4.1
29	84	51	12	927	1090	3000	39	62	6.5
30	68	72	13	1320	868	3290	36	33	3.2
31	---	---	---	477	220	283	---	---	---
MONTH	6271	---	20607.97	5822	---	10117.1	8059	---	22892.1
DAY	JULY				AUGUST			SEPTEMBER	
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	31	23	1.9	19	121	6.2	8.8	45	1.1
2	27	34	2.5	17	131	6.0	7.9	67	1.4
3	44	172	35	17	126	5.8	7.6	51	1.0
4	42	100	11	16	128	5.5	7.6	61	1.3
5	51	150	21	14	125	4.7	6.9	78	1.5
6	36	35	3.4	13	120	4.2	6.4	55	.95
7	27	50	3.6	13	122	4.3	6.6	46	.82
8	24	18	1.2	12	111	3.6	6.3	47	.80
9	22	27	1.6	11	100	3.0	6.8	84	1.5
10	21	23	1.3	11	70	2.1	7.7	85	1.8
11	28	50	3.8	10	70	1.9	8.4	86	2.0
12	25	48	3.2	9.6	70	1.8	5.9	74	1.2
13	22	104	6.2	8.8	60	1.4	6.4	83	1.4
14	19	43	2.2	9.0	60	1.3	8.2	74	1.6
15	18	116	5.6	7.7	80	1.7	12	78	2.5
16	19	122	6.3	7.6	44	.90	16	77	3.3
17	19	121	6.2	8.3	74	1.7	14	75	2.8
18	19	109	5.6	12	50	1.6	10	10	.27
19	18	119	5.8	15	36	1.5	8.7	26	.61
20	17	112	5.1	9.8	36	.95	7.7	24	.50
21	16	121	5.2	8.4	42	.95	7.3	15	.30
22	15	116	4.7	8.0	58	1.3	7.4	15	.30
23	14	110	4.2	7.3	150	3.0	7.5	16	.32
24	15	114	4.6	8.1	183	4.0	7.2	17	.33
25	71	280	75	7.2	200	3.9	7.0	52	.98
26	54	300	44	26	289	26	6.9	88	1.6
27	79	520	111	34	100	9.2	7.4	34	.68
28	34	250	23	19	62	3.2	7.1	25	.48
29	24	108	7.0	14	62	2.3	6.8	26	.48
30	21	112	6.4	12	76	2.5	6.6	33	.59
31	20	127	6.9	10	51	1.4	---	---	---
MONTH	892	---	424.5	393.8	---	117.90	241.1	---	34.41
YEAR	83879.9	---	238548.7	---	---	---	---	---	---

TRINITY RIVER BASIN

08052630 Little Elm Creek subwatershed No. 10 near Gunter, Tex.

LOCATION.--Lat 33°24'33", long 96°48'41", Grayson County, near center of dam on Walnut Fork tributary to Little Elm Creek, 1.6 miles (2.6 km) upstream from mouth, and 4.7 miles (7.6 km) southwest of Gunter.

DRAINAGE AREA.--2.10 mi² (5.44 km²).

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 615.51 ft (187.607 m) above mean sea level (Soil Conservation Service bench mark).

AVERAGE INFLOW.--9 years, 1,140 acre-ft/yr (1.41 hm³/yr).

AVERAGE OUTFLOW.--9 years, 1,040 acre-ft/yr (1.28 hm³/yr).

EXTREMES.--Current year: Maximum outflow, 31.9 ft³/s (0.90 m³/s) Oct. 31 (gage height, 28.24 ft or 8.608 m); no outflow for many days. Maximum inflow, 2,180 ft³/s (61.7 m³/s), average for 5-minute interval, Oct. 30, computed and adjusted as explained below; no inflow at times.

Period of record: Maximum outflow, 31.9 ft³/s (0.90 m³/s) Apr. 30, 1966, and Oct. 31, 1974; maximum gage height, 28.24 ft (8.608 m); no flow at times each year. Maximum inflow, 3,240 ft³/s (91.8 m³/s), average for 5-minute interval, May 30, 1967, computed from outflow and change in pool contents and adjusted for rainfall on pool surface during time of peak inflow; no inflow at times each year.

REMARKS.--Records good. Dam was completed Mar. 16, 1966, and storage began in April 1966. Pool is formed by rolled earthfill dam 1,588 ft (484 m) long, with a 130-foot-wide (40-metre) spillway at left end of dam with crest at gage height 29.2 ft (8.90 m). Outlet structure is a 2.0- by 4.0-foot (0.6- by 1.2-metre) uncontrolled concrete drop-inlet structure with crest at gage height 20.00 ft (6.096 m) and connected to a 24-inch (610-millimetre) concrete pipe with invert at gage height 13.0 ft (3.96 m). There is also a 12-inch (305-millimetre) controlled slide gate used as a water-supply outlet that is connected to the drop inlet at gage height 13.5 ft (4.11 m). Pool capacity is 868 acre-ft (1.07 hm³) at spillway crest, 159 acre-ft (0.196 hm³) at crest of drop inlet, and 40 acre-ft (0.049 hm³) at controlled slide gate. Capacity table is based on Soil Conservation Service map prepared prior to construction and adjusted for borrow by the Geological Survey. Recording rain gage located at station. Records of precipitation and hydrologic data for selected storms are published elsewhere in basic-data report.

REVISIONS.--WSP 2122: Drainage area.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	637	215	61.0	40.0	183	70.5	164	149	268	5.2	2.2	4.0
Outflow	84.6	785	50.9	29.6	191	60.4	163	126	274	.1	0	0
(+)	+578	-583	+6.3	+7.7	-14.0	+3.6	-6.2	+16.3	-15.3	-12.4	-16.6	-6.1
(++)	8.91	2.60	2.03	2.37	1.30	1.76	2.87	5.14	5.12	1.74	.40	2.63
CAL YR 1974: Inflow	1,760			Outflow			1,670			+12.1		
WTR YR 1975: Inflow	1,800			Outflow			1,760			+41.7		

PEAK INFLOW (BASE, 100 FT³/S)

DATE	TIME	DISCHARGE	DATE	TIME	DISCHARGE
10-30	2225	*2,180	5-14	2055	*265
11-10	0205	*282	6- 8	2040	*590
4- 8	0040	*388	6- 9	2025	*440

1/ Inflow adjusted for rainfall on pool and pool losses.

+ Change in contents, in acre-feet.

++ Rainfall, in inches.

* Average for 5-minute interval.

TRINITY RIVER BASIN

441

08052650 Little Elm Creek near Celina, Tex.

LOCATION.--Lat 33°21'55", long 96°49'25", Collin County, on left bank at downstream side of bridge on Farm Road 455, 3.6 miles (5.8 km) northwest of Celina, and 10 miles (16 km) upstream from Mustang Creek.

DRAINAGE AREA.--46.7 mi² (121.0 km²).

PERIOD OF RECORD.--Discharge: February 1966 to current year.

Water quality: Specific conductance: October 1966 to current year. Water temperatures: February 1966 to current year. Sediment records: February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 582.4 ft (177.5 m) above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--9 years, 39.1 ft³/s (1.107 m³/s), 11.37 in/yr (289 mm/yr), 28,330 acre-ft/yr (34.9 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 4,940 ft³/s (140 m³/s) Oct. 31 (gage height, 13.18 ft or 4.017 m); no flow for many days.

Period of record: Maximum discharge, 5,340 ft³/s (151 m³/s) May 31, 1967 (gage height, 13.32 ft or 4.060 m); no flow for many days each year.

Water quality: Current year: Maximum daily sediment concentrations, 2,730 mg/l Apr. 8; no flow for many days. Maximum daily, sediment loads, 8,220 tons Apr. 8; minimum daily, 0 tons on many days.

Period of record: Maximum water temperatures (1966-69), 31.0°C June 20, 1969; minimum, freezing point Jan. 1, 1969. Maximum daily sediment concentrations, 2,730 mg/l Apr. 8, 1975; no flow for many days. Maximum daily sediment loads, 15,200 tons Apr. 28, 1966; minimum daily, 0 tons on many days.

REMARKS.--Discharge records fair. Small diversions for irrigation above station. Four standard and two recording rain gages are located in basin above station. At end of year, flow from 28.4 mi² (73.6 km²) above this station was partly controlled by 12 floodwater-retarding structures with a combined capacity of 9,490 acre-ft (11.7 hm³) below the flood-spillway crests, of which 1,530 acre-ft (1.89 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 2122: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	742	1.8	35	680	15	11	.02	102	.96		0
2	11	613	1.3	80	364	24	7.4	15	52	.60		0
3	7.2	579	.85	91	347	23	5.1	18	31	.25		0
4	4.5	508	.50	46	272	17	3.5	8.0	17	.14		0
5	3.0	458	1.3	28	428	12	2.2	5.3	9.0	.07		1.3
6	2.0	425	164	18	193	9.2	1.6	4.1	4.7	.01		15
7	1.3	392	56	13	113	7.2	151	3.0	2.7	0		12
8	.81	366	28	10	71	4.6	921	2.2	451	0		3.4
9	.32	325	17	7.7	45	4.5	305	1.5	1290	0		.50
10	.10	1200	44	8.3	29	13	224	.59	976	0		3.1
11	.02	454	158	5.8	21	8.8	139	.24	484	0		.59
12	.01	370	76	4.6	14	9.6	79	4.1	396	0		.08
13	.01	289	45	3.3	10	33	49	3.8	364	0		.02
14	.49	184	29	2.1	8.0	31	31	112	324	0		.01
15	.55	118	20	1.9	6.2	23	20	186	248	0		.01
16	.26	86	14	1.6	5.0	149	14	77	137	0		0
17	.12	65	9.8	1.2	4.0	106	9.4	34	70	0		0
18	7.9	48	7.5	.96	3.1	73	7.2	14	46	0		.21
19	5.5	36	5.7	1.1	2.4	47	4.7	7.1	34	0		.09
20	3.6	23	4.4	1.2	1.8	26	3.1	3.8	26	0		.02
21	2.3	14	3.4	.17	1.3	16	2.2	2.4	17	0		0
22	1.3	9.3	2.7	.05	13	10	1.6	1.2	12	0		0
23	.48	7.3	2.4	.03	19	8.3	1.4	11	8.0	0		0
24	.14	7.6	2.4	.06	27	5.9	1.1	7.6	4.9	0		0
25	.18	4.9	2.1	.71	25	3.6	.66	3.5	3.5	0		0
26	.29	3.1	9.7	.53	17	3.0	.23	1.6	2.7	0		0
27	.52	2.5	10	.20	11	47	.08	.64	2.2	0		0
28	.81	1.8	7.8	.06	8.8	46	.05	1.1	1.9	0		0
29	.53	1.9	7.5	.06	---	33	.04	444	1.6	0		0
30	182	2.7	12	.10	---	30	.02	473	1.3	0		0
31	2890	---	68	214	---	17	---	194	---	0		---
TOTAL	3437.40	7336.1	812.15	576.73	2739.6	855.7	1995.98	1634.79	5119.5	2.06	0	36.33
MEAN	111	245	26.2	18.6	97.8	27.6	66.5	52.9	171	.067	0	1.21
MAX	2890	1200	164	214	680	149	921	473	1290	.96	0	15
MIN	.01	1.8	.50	.03	1.3	3.0	.02	.02	1.3	0	0	0
CFSM	2.39	5.25	.56	.40	2.09	.59	1.42	1.13	3.66	.001	0	.03
IN.	2.74	5.84	.65	.46	2.18	.68	1.59	1.31	4.08	.001	0	.03
AC-FT	6820	14550	1610	1140	5430	1700	3960	3250	10150	4.1	0	72
CAL YR 1974	TOTAL	22240.14	MEAN	60.9	MAX	2690	MIN	0	CFSM	1.30	IN	17.72
WTR YR 1975	TOTAL	24551.34	MEAN	67.3	MAX	2890	MIN	0	CFSM	1.44	IN	19.56
									AC-FT	44110	AC-FT	48700

TRINITY RIVER BASIN

08052650 Little Elm Creek near Celina, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	457	541	305	511	473	524	321	317		
2	---	191	---	537	349	476	477	646	325	324		
3	---	186	---	517	362	496	494	661	---	320		
4	284	186	---	439	357	463	493	628	---	331		
5	283	186	---	498	365	456	493	529	---	332		
6	291	187	367	465	352	466	510	460	---	---		
7	297	190	356	447	354	471	544	455	---	---		
8	301	189	352	507	361	471	312	455	---	---		
9	313	189	363	514	347	468	374	452	257	---		
10	320	195	363	545	404	520	407	453	234	---		
11	329	208	360	544	405	593	430	455	253	---		
12	---	215	366	531	406	605	514	750	229	---		
13	---	213	343	517	431	634	600	753	224	---		
14	524	207	357	504	444	615	351	390	216	---		
15	293	202	342	514	443	530	368	371	217	---		
16	447	200	380	520	463	387	374	347	224	---		
17	305	202	380	530	491	406	387	349	226	---		
18	543	198	395	531	497	409	396	348	228	---		
19	318	211	397	551	509	407	410	350	237	---		
20	324	211	409	---	503	410	408	353	234	---		
21	330	227	409	---	496	431	417	368	232	---		
22	331	248	412	---	497	427	430	391	247	---		
23	334	263	426	---	500	453	468	424	261	---		
24	335	272	457	---	505	475	467	419	260	---		
25	339	295	553	---	---	476	517	412	---	---		
26	342	307	555	---	513	476	517	394	263	---		
27	---	366	526	---	514	605	516	382	282	---		
28	430	457	526	---	512	444	520	381	286	---		
29	380	456	555	---	---	467	522	403	301	---		
30	376	455	564	673	---	465	529	326	312	---		
31	231	---	538	530	---	471	---	325	---	---		
MONTH	344	245	426	---	433	483	457	450	---	---		

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	19.0	9.0	9.0	13.0	17.0	9.0	25.0	22.0	25.0		
2	---	20.0	---	9.0	14.0	16.0	9.0	22.0	22.0	25.0		
3	---	20.0	---	9.0	14.0	16.0	9.0	20.0	---	25.0		
4	21.0	18.0	---	9.0	14.0	15.0	10.0	21.0	---	25.0		
5	21.0	18.0	---	10.0	10.0	14.0	11.0	21.0	---	25.0		
6	22.0	16.0	9.0	10.0	7.0	14.0	12.0	21.0	---	---		
7	23.0	16.0	9.0	10.0	5.0	14.0	12.0	22.0	---	---		
8	23.0	16.0	8.0	10.0	5.0	12.0	13.0	22.0	---	---		
9	21.0	15.0	5.0	9.0	7.0	11.0	12.0	22.0	22.0	---		
10	20.0	10.0	6.0	9.0	9.0	11.0	11.0	22.0	23.0	---		
11	20.0	13.0	8.0	9.0	10.0	10.0	11.0	22.0	24.0	---		
12	---	13.0	8.0	8.0	10.0	10.0	12.0	22.0	24.0	---		
13	---	13.0	8.0	8.0	11.0	10.0	15.0	22.0	26.0	---		
14	19.0	11.0	8.0	7.0	12.0	9.0	13.0	22.0	27.0	---		
15	16.5	10.0	9.0	9.0	14.0	8.0	15.0	22.0	27.0	---		
16	18.0	10.0	8.0	8.0	13.0	7.0	16.0	23.0	28.0	---		
17	18.0	10.0	9.0	8.0	13.0	12.0	16.0	23.0	28.0	---		
18	19.0	10.0	10.0	8.0	13.0	14.0	16.0	22.0	26.0	---		
19	19.0	12.0	9.0	8.0	13.0	15.0	16.0	22.0	28.0	---		
20	18.0	14.0	9.0	---	13.0	15.0	16.0	22.0	28.0	---		
21	17.0	15.0	10.0	---	14.0	16.0	16.0	21.0	25.0	---		
22	17.0	16.0	10.0	---	14.0	16.0	16.0	21.0	25.0	---		
23	18.0	17.0	10.0	---	9.0	14.0	16.0	21.0	28.0	---		
24	19.0	15.0	10.0	---	8.0	14.0	16.0	21.0	25.0	---		
25	20.0	15.0	9.0	---	---	15.0	16.0	23.0	25.0	---		
26	20.0	16.0	9.0	---	12.0	15.0	17.0	23.0	25.0	---		
27	---	14.0	10.0	---	14.0	14.0	20.0	23.0	25.0	---		
28	20.0	12.0	10.0	---	15.0	10.0	23.0	25.0	25.0	---		
29	20.0	9.0	10.0	---	---	8.0	25.0	23.0	25.0	---		
30	19.0	6.0	11.0	14.0	---	9.0	25.0	21.0	25.0	---		
31	18.0	---	11.0	13.0	---	9.0	---	---	---	---		
MONTH	19.5	14.0	9.0	---	11.5	12.5	15.0	22.0	25.5	---		

08052650 Little Elm Creek near Celina, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)			
JAN. 31...	1100	450	13.0	1890	2300			
MAR. 16...	0900	182	7.0	1760	865			
DATE	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
JAN. 31...	98	99	100	65	72	78	87	93
MAR. 16...	99	100	--	80	88	93	97	98

TRINITY RIVER BASIN

08052650 Little Elm Creek near Celina, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17	40	1.8	742	201	371	1.8	35	.17
2	11	50	1.5	613	300	497	1.3	30	.11
3	7.2	40	.78	579	200	313	.85	30	.07
4	4.5	30	.36	508	120	165	.50	40	.05
5	3.0	90	.73	458	100	124	1.3	40	.14
6	2.0	27	.15	425	108	124	164	371	202
7	1.3	33	.12	392	103	109	56	98	15
8	.81	15	.03	366	105	104	28	112	8.5
9	.32	13	.01	325	178	178	17	90	4.1
10	.10	16	0	1200	377	1100	44	268	104
11	.02	14	0	454	145	178	158	329	162
12	.01	10	0	370	124	124	76	200	41
13	.01	10	0	289	112	87	45	95	12
14	69	760	346	184	126	63	29	53	4.2
15	55	1950	290	118	123	39	20	81	4.4
16	26	1220	86	86	131	30	14	41	1.6
17	12	120	3.9	65	44	7.7	9.8	33	.87
18	7.9	43	.92	48	113	15	7.5	37	.75
19	5.5	38	.56	36	109	11	5.7	32	.49
20	3.6	33	.32	23	114	7.1	4.4	27	.32
21	2.3	35	.22	14	90	3.4	3.4	26	.24
22	1.3	27	.09	9.3	95	2.4	2.7	46	.34
23	.48	24	.03	7.3	166	3.3	2.4	47	.30
24	.14	25	.01	7.6	56	1.2	2.4	46	.30
25	.10	14	0	4.9	36	.48	2.1	37	.21
26	.29	19	.01	3.1	52	.44	9.7	100	2.6
27	.52	20	.03	2.5	44	.30	10	39	1.1
28	81	600	131	1.8	37	.18	7.8	26	.55
29	53	220	31	1.9	40	.21	7.5	38	.77
30	182	189	833	2.7	34	.25	12	50	1.6
31	289n	535	5500	---	---	---	68	200	37
MONTH	3437.40	---	7228.57	7336.1	---	3658.96	812.15	---	606.78
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	35	200	19	680	400	734	15	66	2.7
2	80	450	97	364	220	216	24	68	4.4
3	91	520	128	347	240	225	23	48	3.0
4	46	70	8.7	272	170	125	17	58	2.7
5	28	70	5.3	428	300	347	12	59	1.9
6	18	66	3.2	193	166	87	9.2	49	1.2
7	13	50	1.8	113	133	41	7.2	75	1.5
8	10	34	.92	71	139	27	4.6	50	.62
9	7.7	45	.94	45	100	12	4.5	43	.52
10	8.3	55	1.2	29	93	7.3	13	52	1.8
11	5.8	56	.88	21	123	7.0	8.8	50	1.2
12	4.6	50	.62	14	57	2.2	9.6	137	3.6
13	3.3	31	.28	10	86	2.3	33	300	27
14	2.1	26	.15	8.0	81	1.8	31	200	17
15	1.9	23	.12	6.2	41	.69	23	200	12
16	1.6	21	.09	5.0	65	.88	149	1260	534
17	1.2	16	.05	4.0	42	.45	106	750	215
18	.96	20	.05	3.1	60	.50	73	120	24
19	1.1	17	.05	2.4	39	.25	47	120	15
20	1.2	20	.06	1.8	41	.20	26	102	7.2
21	.17	20	.01	1.3	33	.12	16	152	6.6
22	.05	20	0	13	150	5.3	10	172	4.6
23	.03	18	0	19	100	5.1	8.3	123	2.8
24	.06	15	0	27	100	7.3	5.9	44	.70
25	.71	15	.03	25	40	2.7	3.6	51	.50
26	.53	15	.02	17	73	3.4	3.0	47	.38
27	.20	10	.01	11	68	2.0	47	436	79
28	.06	10	0	8.8	56	1.3	46	220	27
29	.06	15	0	---	---	---	33	174	16
30	.10	27	.01	---	---	---	30	89	7.2
31	214	632	585	---	---	---	17	75	3.4
MONTH	576.73	---	853.49	2739.6	---	1864.79	855.7	---	1024.52

08052650 Little Elm Creek near Celina, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	11	82	2.4	.02	7	0	102	267	74
2	7.8	38	.80	15	200	8.1	52	400	56
3	5.1	92	1.3	18	150	7.3	31	150	13
4	3.5	81	.77	8.0	105	2.3	17	50	2.3
5	2.2	51	.30	5.3	150	2.1	9.0	50	1.2
6	1.6	48	.21	4.1	103	1.1	4.7	70	.89
7	151	2020	2200	3.0	107	.87	2.7	120	.87
8	921	2730	8220	2.2	94	.56	451	549	2270
9	305	350	288	1.5	60	.24	1290	428	1950
10	224	820	496	.59	44	.07	976	370	975
11	139	300	113	.24	54	.04	484	400	523
12	79	250	53	4.1	115	1.3	396	213	228
13	49	250	33	3.8	46	.47	364	165	162
14	31	200	17	112	1020	414	324	97	85
15	20	100	5.4	186	448	260	248	89	60
16	14	100	3.8	77	200	42	137	120	44
17	9.4	70	1.8	34	270	25	70	88	17
18	7.2	100	1.9	14	150	5.7	46	84	10
19	4.7	84	1.1	7.1	140	2.7	34	150	14
20	3.1	94	.79	3.8	44	.45	26	120	8.4
21	2.2	86	.51	2.4	140	.91	17	77	3.5
22	1.6	59	.25	1.2	145	.47	12	89	2.9
23	1.4	89	.34	11	170	5.0	8.0	36	.78
24	1.1	77	.23	7.6	96	2.0	4.9	79	1.0
25	.66	55	.10	3.5	120	1.1	3.5	70	.66
26	.23	40	.02	1.6	111	.48	2.7	70	.51
27	.08	64	.01	.64	96	.17	2.2	71	.42
28	.05	34	0	1.1	89	.26	1.9	85	.44
29	.04	10	0	444	860	1870	1.6	55	.24
30	.02	8	0	473	520	664	1.3	32	.11
31	---	---	---	194	350	163	---	---	---
MONTH	1995.98	---	11442.03	1639.79	---	3501.69	5119.5	---	6505.22

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.96	25	.06	0			0	---	---
2	.60	25	.04	0			0	---	---
3	.28	37	.03	0			0	---	---
4	.14	28	.01	0			0	---	---
5	.07	28	.01	0			1.3	80	.28
6	.01	25	0	0			15	100	4.1
7	0	---	---	0			12	50	1.6
8	0	---	---	0			3.4	25	.23
9	0	---	---	0			.50	25	.03
10	0	---	---	0			3.1	100	.84
11	0	---	---	0			.59	25	.04
12	0	---	---	0			.08	25	.01
13	0	---	---	0			.02	25	0
14	0	---	---	0			.01	25	0
15	0	---	---	0			.01	30	0
16	0	---	---	0			0	---	---
17	0	---	---	0			0	---	---
18	0	---	---	0			.21	20	.01
19	0	---	---	0			.09	25	.01
20	0	---	---	0			.02	15	0
21	0	---	---	0			0	---	---
22	0	---	---	0			0	---	---
23	0	---	---	0			0	---	---
24	0	---	---	0			0	---	---
25	0	---	---	0			0	---	---
26	0	---	---	0			0	---	---
27	0	---	---	0			0	---	---
28	0	---	---	0			0	---	---
29	0	---	---	0			0	---	---
30	0	---	---	0			0	---	---
31	0	---	---	0			---	---	---
MONTH	2.06	---	---	0			36.33	---	---
YEAR	24551.34		36693.35						

08052700 Little Elm Creek near Aubrey, Tex.

LOCATION.--Lat 33°17'00", long 96°53'33", Denton County, on left bank at downstream side of bridge on Farm Road 1385, 1.5 miles (2.4 km) upstream from Mustang Creek, 5.5 miles (8.8 km) east of Aubrey, and 18 miles (29 km) upstream from Lewisville Dam.

DRAINAGE AREA.--75.5 mi² (195.5 km²).

PERIOD OF RECORD.--Discharge: June 1956 to current year.

Water quality: Chemical analyses: January 1968. Specific conductance: December 1966 to current year. Water temperatures: February 1966 to current year. Sediment records: February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 534.76 ft (162.995 m) above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--19 years, 46.9 ft³/s (1.328 m³/s), 8.44 in/yr (214 mm/yr), 33,980 acre-ft/yr (41.9 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 7,920 ft³/s (224 m³/s) Oct. 31 (gage height, 17.04 ft or 5.194 m); no flow July 17-Sept. 8, Sept. 18-30.

Period of record: Maximum discharge, 7,920 ft³/s (224 m³/s) Oct. 31, 1974 (gage height, 17.04 ft or 5.194 m); maximum gage height, 17.34 ft (5.285 m) Apr. 26, 1957; no flow at times each year.

Historic: Maximum stage since about 1900, 18.2 ft (5.55 m) in May 1941, from information by local residents.

Water quality: Current year: Maximum daily sediment concentrations, 1,350 mg/l June 9; no flow for many days. Maximum daily sediment loads, 13,900 tons Oct. 31; minimum daily, 0 tons on many days.

Period of record: Maximum specific conductance (1966-68, 1971-74), 1,380 micromhos Jan. 24, Feb. 25, 1967; minimum daily, 195 micromhos June 4, 1968. Maximum water temperatures (1966-68, 1971-74), 33.0°C June 16, 1968; minimum, freezing point Feb. 22, 1968. Maximum daily sediment concentrations, 4,750 mg/l Aug. 13, 1966; no flow for many days. Maximum daily sediment loads, 17,900 tons May 31, 1967; minimum daily, 0 tons on many days.

REMARKS.--Discharge records good above 100 ft³/s (2.83 m³/s) and fair below. Small diversions for irrigation above station. Ten rain gages, six standard and four recording gages, are operated in basin above station. At end of year, flow from 35.7 mi² (92.5 km²) above this station was partly controlled by 16 floodwater-retarding structures with a combined capacity of 12,340 acre-ft (15.2 hm³) below the flood-spillway crests, of which 2,080 acre-ft (2.56 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WRD Texas 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	1250	4.3	51	889	16	26	.45	156	.69		0
2	12	734	3.1	76	640	32	14	2.6	83	.19		0
3	7.9	669	2.4	152	506	33	8.0	44	51	.18		0
4	6.0	627	2.0	64	386	30	6.2	16	27	.90		0
5	3.9	577	2.8	43	610	22	5.5	10	16	.50		0
6	2.9	545	235	23	288	19	4.9	7.2	11	.16		0
7	2.3	511	86	16	146	12	95	5.5	8.5	.07		0
8	2.0	483	41	14	82	7.8	1180	4.4	75	.04		0
9	1.6	453	23	11	59	7.0	355	3.2	1630	.04		3.3
10	1.2	1480	25	13	43	12	261	1.9	1650	.05		2.2
11	1.2	783	252	13	32	15	180	.78	572	.12		.78
12	.64	500	98	11	23	17	95	1.6	417	.11		.95
13	.46	434	62	6.5	17	43	63	4.2	375	.07		.20
14	43	296	41	4.6	12	51	40	103	332	.05		.12
15	131	199	29	3.6	7.6	39	24	251	273	.03		.08
16	36	136	21	2.9	6.7	129	16	111	162	.01		.04
17	21	79	15	2.8	5.9	114	12	46	77	0		.01
18	15	58	13	2.4	5.2	82	11	20	44	0		0
19	12	42	10	2.8	4.6	61	9.2	12	32	0		0
20	9.9	29	8.9	2.9	4.1	47	7.5	9.5	24	0		0
21	7.2	16	7.5	2.5	3.6	34	6.0	7.4	17	0		0
22	5.5	12	6.2	1.3	7.1	26	4.6	5.5	13	0		0
23	3.8	10	5.4	1.2	40	17	3.9	12	11	0		0
24	2.2	9.9	4.6	1.3	52	12	3.2	21	9.0	0		0
25	1.6	7.9	3.9	1.9	46	7.4	3.0	10	7.2	0		0
26	1.4	5.9	6.8	2.2	36	7.1	2.1	6.5	5.7	0		0
27	2.0	4.5	17	2.2	27	41	1.9	5.5	4.5	0		0
28	84	3.1	11	1.9	19	71	2.4	19	4.0	0		0
29	131	3.0	10	1.4	---	49	2.1	347	2.8	0		0
30	127	3.9	11	1.2	---	49	1.0	1020	1.9	0		0
31	4640	---	84	310	---	36	---	288	---	0		---
TOTAL	5333.64	9961.2	1141.9	842.6	3997.8	1138.3	2443.5	2396.23	6091.6	3.21	0	7.68
MEAN	172	332	36.8	27.2	143	36.7	81.5	77.3	203	.10	0	.26
MAX	4640	1480	252	310	889	129	1180	1020	1650	.90	0	3.3
MIN	.40	3.0	2.0	1.2	3.6	7.0	1.0	.45	1.9	0	0	0
CFSM	2.28	4.40	.49	.36	1.89	.49	1.08	1.02	2.69	.001	0	.003
IN	2.63	4.91	.56	.42	1.97	.56	1.20	1.18	3.00	.001	0	.003
AC-FT	10580	19760	2260	1670	7930	2260	4850	4750	12080	6.4	0	15
CAL YR 1974	TOTAL	31422.21	MEAN	86.1	MAX	4640	MIN	0	CFSM	1.14	IN	15.48
WTR YR 1975	TOTAL	33357.66	MEAN	91.4	MAX	4640	MIN	0	CFSM	1.21	IN	16.44
									AC-FT	62330		66160

08052700 Little Elm Creek near Aubrey, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	201	432	---	---	447	---	---	---	---	---	---
2	293	---	460	---	---	458	---	---	269	---	---	---
3	298	195	474	467	---	455	514	449	249	---	---	---
4	307	211	480	---	---	438	---	---	277	---	---	---
5	307	---	521	457	---	---	---	---	227	---	---	---
6	316	---	---	453	---	---	---	---	302	---	---	---
7	324	---	346	470	---	---	---	---	---	---	---	---
8	328	---	369	484	381	508	---	---	265	---	---	---
9	333	202	371	495	450	459	---	442	225	---	---	---
10	344	260	375	567	---	---	---	---	218	---	---	---
11	355	231	373	564	426	---	---	463	---	---	---	---
12	---	---	365	532	---	---	---	474	---	---	---	---
13	---	219	372	532	400	---	---	472	181	---	---	---
14	536	---	395	---	446	---	---	515	196	---	---	---
15	365	---	390	---	---	---	---	361	189	---	---	---
16	333	---	---	---	---	---	---	---	---	---	---	---
17	---	---	411	---	494	---	---	---	---	---	---	---
18	---	---	419	---	531	---	---	302	---	---	---	---
19	326	227	426	545	491	---	---	---	---	---	---	---
20	---	231	---	571	536	---	---	357	---	---	---	---
21	349	250	452	583	466	---	---	---	---	---	---	---
22	362	---	465	581	---	---	---	144	---	---	---	---
23	367	281	---	582	511	---	---	---	230	---	---	---
24	373	---	500	581	573	---	---	---	---	---	---	---
25	---	414	456	587	---	---	---	---	---	---	---	---
26	388	393	---	615	490	---	---	---	---	---	---	---
27	---	421	453	633	444	---	---	---	---	---	---	---
28	581	---	453	677	429	---	---	---	---	---	---	---
29	445	402	454	674	---	---	---	331	---	---	---	---
30	225	400	---	---	---	---	---	282	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	16.0	9.0	---	---	15.5	---	---	---	---	---	---
2	23.0	---	8.5	---	---	15.0	---	---	30.0	---	---	---
3	24.0	21.0	8.0	---	---	9.5	9.0	---	27.0	---	---	---
4	23.5	18.5	8.5	---	---	---	---	---	28.0	---	---	---
5	24.0	---	9.0	---	---	---	---	---	28.5	---	---	---
6	27.0	---	---	7.0	---	---	---	---	31.5	---	---	---
7	25.0	---	---	---	---	---	---	---	---	---	---	---
8	26.5	---	10.0	---	8.5	---	---	---	30.5	---	---	---
9	27.0	14.0	7.5	14.0	9.0	---	---	23.0	25.0	---	---	---
10	27.5	15.0	7.0	---	---	---	---	---	26.0	---	---	---
11	22.5	12.5	7.0	---	10.0	---	---	24.0	---	---	---	---
12	---	---	12.0	---	---	---	---	---	---	---	---	---
13	---	---	10.0	---	10.5	---	---	26.5	30.0	---	---	---
14	17.5	---	9.5	---	17.0	---	---	19.0	29.5	---	---	---
15	16.5	---	9.5	---	---	---	---	---	29.0	---	---	---
16	19.0	---	---	---	---	---	---	---	---	---	---	---
17	---	---	10.0	---	11.0	---	---	---	---	---	---	---
18	---	---	9.5	---	10.0	---	---	24.5	---	---	---	---
19	23.0	14.5	10.0	---	17.0	---	---	---	---	---	---	---
20	---	14.0	---	9.0	14.0	---	---	25.5	---	---	---	---
21	19.0	16.0	---	9.0	15.5	---	---	---	---	---	---	---
22	20.0	---	9.0	10.0	---	---	---	---	---	---	---	---
23	20.5	19.0	---	10.0	---	---	---	---	30.0	---	---	---
24	20.0	---	9.5	10.0	10.0	---	---	---	---	---	---	---
25	---	12.0	---	11.0	---	---	---	---	---	---	---	---
26	20.0	13.0	8.5	12.0	12.0	---	---	---	---	---	---	---
27	---	13.0	8.5	---	12.0	---	---	---	---	---	---	---
28	18.5	---	8.0	13.0	17.0	---	---	---	---	---	---	---
29	17.5	6.0	---	13.0	---	---	---	23.5	---	---	---	---
30	22.5	5.5	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
OCT. 28...	2110	24	18.5	750	49	99	100	74	87	88	96	98

08052700 Little Elm Creek near Aubrey, Tex.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	18	70	3.4	1250	270	911	4.3	31	.36
2	12	99	3.2	734	100	198	3.1	22	.18
3	7.9	96	2.0	669	170	307	2.4	16	.10
4	6.0	120	1.9	627	172	291	2.0	38	.21
5	3.9	78	.82	577	100	156	2.8	70	.53
6	2.9	51	.40	545	70	103	235	770	489
7	2.3	59	.37	511	70	97	86	200	46
8	2.0	78	.42	483	50	65	41	100	11
9	1.6	46	.20	453	120	147	23	96	6.0
10	1.2	30	.10	1480	575	1930	25	270	18
11	1.2	23	.07	783	200	423	252	620	422
12	.64	25	.04	500	170	229	98	200	53
13	.40	25	.03	434	169	198	62	148	25
14	43	270	31	296	120	96	41	40	4.4
15	131	820	290	199	120	64	29	36	2.8
16	36	115	11	136	100	37	21	30	1.7
17	21	100	5.7	79	100	21	15	30	1.2
18	15	80	3.2	58	70	11	13	49	1.7
19	12	95	3.1	42	73	8.3	10	55	1.5
20	9.9	100	2.7	29	42	3.3	8.9	50	1.2
21	7.2	83	1.6	16	108	4.7	7.5	41	.83
22	5.5	59	.88	12	100	3.2	6.2	53	.89
23	3.8	43	.44	10	51	1.4	5.4	45	.66
24	2.2	99	.59	9.9	50	1.3	4.6	29	.36
25	1.6	50	.22	7.9	400	8.5	3.9	70	.74
26	1.4	50	.19	5.9	150	2.4	6.8	70	1.3
27	2.0	50	.27	4.5	36	.44	17	40	1.8
28	84	370	84	3.1	36	.30	11	49	1.5
29	131	250	88	3.0	35	.28	10	54	1.5
30	127	370	422	3.9	42	.44	11	100	3.0
31	4640	1160	13900	---	---	---	84	320	73
MONTH	5333.64	---	14857.84	9961.2	---	5318.56	1141.9	---	1171.46

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	51	100	14	889	700	1680	16	136	5.9
2	76	300	62	640	200	346	32	83	7.2
3	152	200	82	506	70	96	33	140	12
4	64	100	17	386	120	125	30	126	10
5	43	78	9.1	610	200	329	22	100	5.9
6	23	32	2.0	288	70	54	19	100	5.1
7	16	41	1.8	146	60	24	12	70	2.3
8	14	89	3.4	82	200	44	7.8	97	2.0
9	11	65	1.9	59	106	17	7.0	100	1.9
10	13	56	2.0	43	100	12	12	150	4.9
11	13	41	1.4	32	101	8.7	15	70	2.8
12	11	39	1.2	23	100	6.2	17	70	3.2
13	6.5	34	.60	17	150	6.9	43	70	8.1
14	4.6	30	.37	12	110	3.6	51	60	8.3
15	3.6	30	.29	7.6	100	2.1	39	60	6.3
16	2.9	30	.23	6.7	70	1.3	129	250	87
17	2.8	25	.19	5.9	60	.96	114	80	25
18	2.4	25	.16	5.2	46	.65	82	70	15
19	2.8	72	.54	4.6	85	1.1	61	70	12
20	2.9	19	.15	4.1	105	1.2	47	50	6.3
21	2.5	26	.18	3.6	98	.95	34	50	4.6
22	1.3	17	.06	7.1	150	2.9	26	50	3.5
23	1.2	16	.05	40	150	16	17	50	2.3
24	1.3	19	.07	52	120	17	12	50	1.6
25	1.9	14	.07	46	100	12	7.4	40	.80
26	2.2	21	.12	36	120	12	7.1	100	1.9
27	2.2	15	.09	27	100	7.3	41	200	22
28	1.9	22	.11	19	80	4.1	71	70	13
29	1.4	21	.08	---	---	---	49	50	6.6
30	1.2	25	.08	---	---	---	49	50	6.6
31	310	1030	1210	---	---	---	36	40	3.9
MONTH	842.6	---	1411.24	3997.8	---	2831.96	1138.3	---	298.00

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

APRIL					MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	26	50	3.5	.45	30	.04	156	70	29	
2	14	70	2.6	2.6	120	.84	83	143	32	
3	8.0	115	2.5	44	370	44	51	198	27	
4	6.2	70	1.2	16	70	3.0	27	167	12	
5	5.5	50	.74	10	70	1.9	16	123	5.3	
6	4.9	40	.53	7.2	50	.97	11	63	1.9	
7	95	662	521	5.5	50	.74	8.5	50	1.1	
8	1180	470	1500	4.4	40	.48	75	242	159	
9	355	100	96	3.2	120	1.0	1630	1350	4600	
10	261	60	42	1.9	90	.46	1650	150	660	
11	180	50	24	.78	100	.21	572	70	108	
12	95	50	13	1.6	90	.39	417	60	68	
13	63	50	8.5	4.2	70	.79	375	100	101	
14	40	70	7.6	103	1030	423	332	145	130	
15	24	70	4.5	251	950	644	273	93	69	
16	16	60	2.6	111	200	60	162	70	31	
17	12	65	2.1	46	60	7.5	77	70	15	
18	11	50	1.5	20	80	4.3	44	70	8.3	
19	9.2	50	1.2	12	90	2.9	32	60	5.2	
20	7.5	40	.81	9.5	80	2.1	24	65	4.2	
21	6.0	40	.65	7.4	100	2.0	17	35	1.6	
22	4.6	40	.50	5.5	120	1.8	13	35	1.2	
23	3.9	50	.53	12	170	5.5	11	29	.86	
24	3.2	50	.43	21	80	4.5	9.0	25	.61	
25	3.0	50	.41	10	70	1.9	7.2	25	.49	
26	2.1	40	.23	6.5	70	1.2	5.7	20	.31	
27	1.9	40	.21	5.5	70	1.0	4.5	20	.24	
28	2.4	40	.26	19	200	10	4.0	20	.22	
29	2.1	30	.17	347	814	1290	2.8	20	.15	
30	1.0	30	.08	1020	570	1570	1.9	15	.08	
31	---	---	---	288	70	54	---	---	---	
MONTH	2443.5	---	2239.35	2396.23	---	4140.52	6091.6	---	6080.76	
JULY					AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	.69	15	.03	0			0	---	---	
2	.19	15	.01	0			0	---	---	
3	.18	20	.01	0			0	---	---	
4	.90	20	.05	0			0	---	---	
5	.50	25	.03	0			0	---	---	
6	.16	20	.01	0			0	---	---	
7	.07	20	0	0			0	---	---	
8	.04	15	0	0			0	---	---	
9	.04	15	0	0			3.3	220	2.0	
10	.05	30	0	0			2.2	120	.71	
11	.12	30	.01	0			.78	50	.11	
12	.11	30	.01	0			.95	60	.15	
13	.07	30	.01	0			.20	40	.02	
14	.05	30	0	0			.12	40	.01	
15	.03	25	0	0			.08	30	.01	
16	.01	25	0	0			.04	25	0	
17	0	---	---	0			.01	15	0	
18	0	---	---	0			0	---	---	
19	0	---	---	0			0	---	---	
20	0	---	---	0			0	---	---	
21	0	---	---	0			0	---	---	
22	0	---	---	0			0	---	---	
23	0	---	---	0			0	---	---	
24	0	---	---	0			0	---	---	
25	0	---	---	0			0	---	---	
26	0	---	---	0			0	---	---	
27	0	---	---	0			0	---	---	
28	0	---	---	0			0	---	---	
29	0	---	---	0			0	---	---	
30	0	---	---	0			0	---	---	
31	0	---	---	0			---	---	---	
MONTH	3.21	---	---	0			7.68	---	---	
YEAR 33357.66		38352.87								

TRINITY RIVER BASIN

08052800 Lewisville Lake near Lewisville, Tex.

LOCATION.--Lat 33°04'09", long 96°57'51", Denton County, in intake structure of Lewisville Dam on Elm Fork Trinity River, 2 miles (3 km) upstream from bridge on State Highway 121, 2.4 miles (3.9 km) northeast of Lewisville, 12 miles (19 km) upstream from Denton Creek, and at mile 30.0 (48.3 km).

DRAINAGE AREA.--1,660 mi² (4,299 km²).

PERIOD OF RECORD.--Contents: November 1954 to current year. Prior to October 1970, published as Garza-Little Elm Reservoir near Lewisville.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 17, 1955, nonrecording gage at site 4,000 ft (1,220 m) upstream at same datum.

EXTREMES.--Current year: Maximum contents, 892,500 acre-ft (1,100 hm³) Nov. 12 (elevation, 529.42 ft or 161.367 m); minimum, 415,100 acre-ft (512 hm³) Sept. 30 (elevation, 512.81 ft or 156.304 m).
Period of record: Maximum contents, 1,146,000 acre-ft (1,41 km³) June 3, 1957 (elevation, 535.57 ft or 163.242 m); minimum since initial filling in 1957, 307,200 acre-ft (379 hm³) Feb. 29, 1964 (elevation, 507.00 ft or 154.534 m).

REMARKS.--The lake is formed by a rolled earthfill dam 32,888 ft (10,024 m) long, including a 560-foot (171-metre) uncontrolled off-channel concrete-gravity spillway with ogee weir section. Deliberate impoundment began Nov. 1, 1954, and the dam was completed in August 1955. The controlled low-flow outlet works consist of a 16-foot-diameter (5-metre) conduit that is controlled by three 6.5- by 13-foot (2.0- by 4-metre) broome-type gates and two 60-inch (1,524-millimetre) steel pipes with service valves. The lake was built for flood control and water conservation. The city of Dallas derives most of its water for municipal use from this lake. The capacity table is based on a survey made in 1960. At end of year, flow from 300 mi² (777 km²) above this station was partly controlled by 132 (corrected) floodwater-retarding structures with a combined capacity of 94,120 acre-ft (116 hm³) below the flood-spillway crests, of which 12,190 acre-ft (15.0 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity of 1,100 acre-ft (1.36 hm³) below flood-spillway crests, of which 83 acre-ft (0.102 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	560.0	-
Crest of spillway.....	532.0	989,700
Top of conservation pool.....	515.0	464,500
Lowest intakes to wet wells (invert).....	481.0	44,080
Invert of three broome-type gates.....	448.0	33

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

REVISIONS.--WSP 1922: Drainage area.

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

512.0	397,600	520.0	590,600	526.0	773,100
514.0	441,600	522.0	648,400	528.0	841,500
516.0	488,200	524.0	709,200	530.0	913,700
518.0	537,800				

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	483,900	786,900	700,300	468,300	520,400	478,200	482,000	479,400	544,200	467,800	457,600	436,200
2	483,000	806,000	687,700	467,600	549,400	475,100	476,500	478,200	538,600	466,200	456,900	435,300
3	484,000	817,100	676,900	468,100	575,400	470,400	470,200	482,700	531,200	468,500	456,700	434,200
4	480,600	825,500	665,000	468,100	591,500	466,900	468,000	483,400	524,400	468,500	455,800	432,800
5	480,100	834,500	655,700	467,100	608,900	466,200	468,000	482,200	518,400	468,000	454,800	432,200
6	480,100	842,200	643,700	466,000	613,800	466,200	468,300	477,700	511,200	467,300	453,900	430,800
7	474,400	846,100	636,300	465,300	614,400	467,600	475,600	472,300	504,500	466,600	453,000	429,700
8	474,300	845,700	626,400	465,000	613,300	466,400	505,200	468,000	504,700	465,700	452,300	428,800
9	477,500	843,600	614,500	464,800	607,500	466,900	526,400	466,600	527,400	465,500	451,900	429,700
10	474,600	878,600	609,100	465,500	600,400	467,100	535,500	465,900	552,000	465,000	451,200	429,000
11	474,700	887,000	603,100	465,500	595,400	467,300	537,100	466,200	571,100	464,300	450,000	428,800
12	474,200	888,800	597,200	464,500	589,200	469,200	537,600	465,700	574,800	463,400	449,100	427,700
13	474,400	883,700	588,500	464,300	581,600	469,200	539,100	466,200	570,500	462,500	447,800	426,600
14	477,800	872,500	580,900	464,300	575,900	469,700	538,100	468,000	565,800	461,500	446,800	425,900
15	474,500	863,600	573,100	464,800	571,100	469,500	531,700	471,100	560,000	460,400	446,200	425,700
16	474,600	854,300	564,400	464,500	564,200	473,200	525,200	472,300	551,400	459,500	446,600	425,300
17	474,400	844,300	557,200	464,500	557,700	478,600	523,900	469,900	544,800	458,800	447,100	424,200
18	474,700	832,800	550,700	464,500	551,400	484,400	524,600	466,400	538,600	457,600	447,100	423,700
19	475,200	824,800	544,600	464,500	544,200	489,900	520,600	462,700	530,200	457,100	446,200	423,300
20	474,000	812,200	536,600	463,600	536,800	486,300	515,900	464,300	524,400	456,500	445,000	422,400
21	472,800	801,300	530,300	464,500	530,200	481,700	511,400	464,100	516,900	455,800	444,300	421,700
22	471,600	791,900	523,500	464,300	523,900	476,500	506,700	463,600	513,600	454,200	443,400	420,800
23	470,500	785,200	518,200	464,300	517,400	470,900	502,300	472,700	513,100	453,200	442,800	420,200
24	469,700	774,100	511,400	464,300	509,400	465,900	498,600	479,800	509,200	453,500	440,900	419,500
25	470,000	761,100	504,800	464,500	503,000	464,300	496,900	481,000	503,300	456,200	439,800	418,600
26	469,000	751,400	498,700	464,300	495,200	464,300	496,200	482,000	496,200	456,200	439,600	417,500
27	468,800	741,700	492,100	464,500	485,800	466,600	496,600	485,100	488,900	456,000	438,000	416,400
28	469,700	731,300	485,800	464,100	480,800	475,300	494,700	492,000	484,100	455,800	439,400	416,000
29	470,500	722,100	479,400	464,500	-----	485,300	489,600	508,900	475,600	458,100	438,900	415,100
30	481,100	709,900	475,200	465,700	-----	487,900	485,800	538,400	470,400	458,100	438,000	415,100
31	687,100	-----	472,300	476,100	-----	487,500	-----	546,500	-----	457,800	437,100	-----
(†)	523.28	524.02	515.33	515.49	515.69	515.97	515.90	518.34	515.25	514.71	513.80	512.81
(*)	+202,700	+22,800	-237,600	+3,800	+4,700	+6,700	-1,700	+60,700	-76,100	-12,600	-20,700	-22,000
(††)	679	573	614	646	561	641	612	661	850	1,210	1,230	1,080
MAX	687,100	888,800	700,300	476,100	614,400	489,900	539,100	546,500	574,800	468,500	457,600	436,200
MIN	468,800	709,900	472,300	463,600	480,800	464,300	468,000	462,700	470,400	453,200	437,100	415,100

CAL YR 1974..... † -1,200 †† 8,086 MAX 888,800 MIN 429,800

WTR YR 1975..... † -69,300 †† 9,360 MAX 888,800 MIN 415,100

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by cities of Denton and Lewisville.

08052800 Lewisville Lake near Lewisville, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)		
SEP. 04...	1120	6.8	42	3.9	20	4.0	120	0		
DATE		DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
SEP. 04...	30	24	.2	.00	.00	.02	190	120	23	
DATE		SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	
SEP. 04...		.8	336	8.3	29.0	8.8	113	20	10	

TRINITY RIVER BASIN

08053000 Elm Fork Trinity River near Lewisville, Tex.

LOCATION.--Lat 33°02'43", long 96°57'41", Denton County, on left bank at downstream side of pier of bridge on State Highway 121, 1.8 miles (2.9 km) east of Lewisville, 1.9 miles (3.1 km) downstream from Lewisville Lake, and 8.3 miles (13.4 km) upstream from Denton Creek.

DRAINAGE AREA.--1,673 mi² (4,333 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 432.39 ft (131.792 m) above mean sea level (Corps of Engineers bench mark). Prior to Jan. 6, 1950, nonrecording gage 0.6 mile (1.0 km) upstream at datum 3.26 ft (0.994 m) lower.

AVERAGE DISCHARGE.--26 years, 611 ft³/s (17.30 m³/s), 442,700 acre-ft/yr (546 hm³/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 5,820 ft³/s (165 m³/s) Nov. 10 (gage height, 24.70 ft or 7.529 m); minimum daily, 42 ft³/s (1.19 m³/s) July 31 to Aug. 3.

Period of record: Maximum discharge, 21,700 ft³/s (615 m³/s) Sept. 15, 1950 (gage height, 30.75 ft or 9.373 m); minimum daily, 0.8 ft³/s (0.023 m³/s) Jan. 19, 1955. Maximum discharge since construction of Lewisville Dam in 1954, 11,400 ft³/s (323 m³/s) May 27, 1957, includes about 4,000 ft³/s (113 m³/s) passing over spillway of Lewisville Dam and bypassing gage.

Maximum stage since at least 1907, 33.8 ft (10.30 m) in 1908, present site and datum, from information by local resident.

REMARKS.--Records good. Flow regulated by Lewisville Lake (see preceding page) since November 1954. Most of low flow is used by city of Dallas for municipal supply (see station 08055500).

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	204	5,420	1,970	1,040	2,770	2,490	2,540	1,880	1,690	42	314
2	325	146	5,390	1,790	114	2,530	3,640	3,130	3,350	512	42	336
3	309	137	5,370	954	69	2,510	3,500	1,440	3,540	435	42	336
4	313	143	5,340	910	105	2,150	1,910	222	3,550	216	152	319
5	333	179	5,320	903	437	628	281	724	3,540	203	266	302
6	318	251	5,300	902	974	321	272	2,150	3,530	198	198	269
7	324	635	5,200	773	959	313	320	2,830	3,520	255	172	238
8	327	2,130	5,280	327	1,500	309	746	2,330	3,250	306	143	238
9	326	3,880	5,260	298	2,750	310	285	625	2,580	304	114	224
10	323	5,030	4,910	231	3,500	310	269	345	1,790	255	114	157
11	310	3,130	3,930	223	3,600	308	265	348	331	185	143	192
12	308	4,000	3,920	218	3,600	310	262	346	561	196	190	212
13	313	5,320	4,290	194	3,580	313	264	348	1,930	219	201	172
14	362	5,620	4,340	163	3,560	725	930	362	3,460	228	213	129
15	349	5,650	4,330	144	3,550	1,180	2,710	367	3,650	224	265	131
16	337	5,640	4,320	125	3,540	1,180	3,720	788	3,660	170	199	133
17	334	5,610	4,230	124	3,520	1,470	1,370	1,460	3,650	188	164	134
18	328	5,590	3,656	124	3,520	2,480	700	1,460	3,640	204	166	130
19	332	5,600	3,500	123	3,510	2,730	1,820	1,030	3,630	204	247	140
20	333	5,590	3,480	124	3,500	3,160	2,130	291	3,610	204	341	140
21	331	5,570	3,470	108	3,580	3,200	2,150	209	3,600	235	340	140
22	332	5,570	3,460	92	4,330	3,200	2,190	205	2,800	297	342	141
23	332	5,580	3,460	136	4,440	3,190	2,280	247	401	292	342	132
24	333	5,580	3,460	158	4,440	3,000	2,280	213	1,420	252	342	135
25	334	5,540	3,440	143	4,420	1,260	1,500	205	3,340	144	326	170
26	334	5,510	3,440	143	4,410	228	318	202	3,560	116	296	146
27	336	5,480	3,430	143	4,400	227	312	476	3,560	113	294	146
28	372	5,460	3,420	141	4,180	224	878	341	3,560	85	294	146
29	353	5,470	3,410	141	-----	221	2,190	256	3,550	64	255	169
30	355	5,450	3,100	142	-----	220	2,270	524	3,330	72	224	193
31	1,050	-----	2,090	299	-----	811	-----	1,300	-----	42	262	-----
TOTAL	10,988	119,695	128,960	12,266	81,128	41,788	44,252	27,314	87,773	8,108	6,731	5,764
MEAN	354	3,990	4,160	396	2,897	1,348	1,475	881	2,926	262	217	192
MAX	1,050	5,650	5,420	1,970	4,440	3,200	3,720	3,130	3,660	1,690	342	336
MIN	308	137	2,090	92	69	220	262	202	331	42	42	129
AC-FT	21,790	237,400	255,800	24,330	160,900	82,890	87,770	54,180	174,100	16,080	13,350	11,430
CAL YR 1974	TOTAL	360,631	MEAN	988	MAX	5,650	MIN	26	AC-FT	715,300		
WTR YR 1975	TOTAL	574,767	MEAN	1,575	MAX	5,650	MIN	42	AC-FT	1,140,000		

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LOCATION.--Lat 33°07'08", long 97°17'25", Denton County, on right bank at downstream side of bridge on Farm Road 156, 100 ft (30 m) upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.2 miles (3.5 km) north of Justin, 3.0 miles (4.8 km) upstream from Olivers Creek, 12.9 miles (20.8 km) upstream from Harriet Creek, and 32.9 miles (52.9 km) upstream from Grapevine Dam.

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

GAGE.--Water-stage recorder. Datum of gage is 606.66 ft (184.910 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 21,900 ft³/s (620 m³/s) Oct. 31 (gage height, 17.10 ft or 5.212 m); minimum, 2.6 ft³/s (0.074 m³/s) Aug. 26.

Period of record: Maximum discharge, 29,800 ft³/s (844 m³/s) May 24, 1957 (gage height, 17.64 ft or 5.377 m); no flow at times in 1949-65, 1967-74.

Flood in May 1935 was the highest since 1908 and reached a stage of 20.6 ft (6.28 m) at site about 1,500 ft (457 m) upstream, from information by local resident. Flood in May 1908 reached a stage about 1.0 ft (0.30 m) higher than flood in May 1935, from information by local resident.

REMARKS.--Discharge records good. Several small diversions above station. At end of year, flow from 198 mi² (513 km²) above this station was partly controlled by 107 floodwater-retarding structures with a combined capacity of 59,930 acre-ft (73.9 hm³) below the flood-spillway crests, of which 7,860 acre-ft (9.69 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	4,760	70	54	2,060	85	154	45	353	48	53	4.6
2	26	2,550	68	67	1,310	79	129	700	215	44	36	4.0
3	20	1,740	67	120	1,040	72	107	290	156	42	30	3.9
4	17	1,380	65	92	729	69	97	138	127	45	23	3.6
5	15	1,110	65	72	1,010	71	92	87	107	59	17	3.6
6	13	887	68	60	524	70	91	71	94	84	14	3.6
7	12	660	69	53	329	70	113	61	85	54	12	3.8
8	11	490	61	50	255	63	2,190	52	125	42	10	4.0
9	11	378	54	45	198	62	929	46	686	34	8.9	4.2
10	10	1,890	56	50	163	77	393	42	1,680	32	8.1	5.9
11	11	1,190	122	46	156	70	234	42	1,040	39	6.9	5.8
12	11	562	103	36	135	75	155	42	452	37	6.3	4.9
13	11	390	85	27	123	132	144	40	289	31	5.4	4.0
14	23	306	75	30	116	118	188	137	218	25	5.0	5.0
15	27	220	69	30	110	95	137	487	173	22	4.7	7.9
16	30	174	64	29	103	381	107	210	152	20	4.7	36
17	27	149	59	27	105	277	92	103	133	19	5.6	21
18	23	134	58	28	96	1,170	86	75	121	18	6.2	10
19	19	129	54	29	86	574	70	63	113	17	7.8	7.2
20	15	116	51	26	82	291	58	58	101	16	5.7	6.0
21	14	102	49	23	81	199	53	59	91	15	4.0	5.1
22	12	98	47	21	92	150	50	56	87	15	3.4	5.5
23	11	100	47	19	210	131	53	480	103	12	4.0	6.2
24	12	197	46	20	184	110	55	329	390	15	4.7	5.6
25	13	112	42	25	147	91	53	166	111	193	3.1	4.9
26	15	98	48	28	119	84	49	112	88	476	3.0	4.8
27	21	91	56	31	98	1,163	46	721	73	376	25	5.9
28	116	83	51	28	91	523	48	436	64	204	15	5.8
29	146	81	49	25	-----	634	63	1,140	56	84	9.8	5.5
30	1,780	75	48	25	-----	295	50	2,140	51	76	7.8	5.6
31	11,600	-----	49	309	-----	198	-----	721	-----	115	6.3	-----
TOTAL	14,100	20,252	1,915	1,525	9,752	6,479	6,086	9,149	7,534	2,309	356.4	203.9
MEAN	455	675	61.8	49.2	348	209	203	295	251	74.5	11.5	6.80
MAX	11,600	4,760	122	309	2,060	1,170	2,190	2,140	1,680	476	53	36
MIN	10	75	42	19	81	62	46	40	51	12	3.0	3.6
AC-FT	27,979	40,170	3,800	3,020	19,340	12,850	12,070	18,150	14,940	4,580	707	40

CAL YR 1974	TOTAL 45,804.90	MEAN 125	MAX 11,600	MIN 0	AC-FT 90,850
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WTR YR 1974	TOTAL 45,804.30	MEAN 123	MAX 11,000	MIN 0	AC-FT 30,830
WTR YR 1975	TOTAL 79,661.30	MEAN 218	MAX 11,600	MIN 3.0	AC-FT 158,000

PEAK DISCHARGE (BASE, 3,000 FT³/S)[illegible]

DATE	TIME	QTY.	DISCHARGE
12-22	10:00		

10-31	0700	17.10	21,900
2-1	1200	12.05	2,140

2-1	1300	13.05	3,140
5-30	0315	13.17	3,250

TRINITY RIVER BASIN

08053500 Denton Creek near Justin, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
DEC. 19...	1055	56	7.0	9	1.4
APR. 22...	--	51	18.0	27	3.7
JUNE 03...	1745	151	21.5	120	49
JULY 23...	1710	14	27.5	11	.42
AUG. 27...	1550	34	27.0	100	9.2

08054500 Grapevine Lake near Grapevine, Tex.

LOCATION.--Lat 32°58'21", long 97°03'22", Tarrant County, in intake structure of Grapevine Dam on Denton Creek, 2.7 miles (4.3 km) north-east of Grapevine, 4.3 miles (6.9 km) upstream from bridge on State Highway 121, and 11.7 miles (18.8 km) upstream from mouth.

DRAINAGE AREA.--695 mi² (1,800 km²).

PERIOD OF RECORD.--Contents: July 1952 to current year. Prior to October 1970, published as Grapevine Reservoir.
Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to May 16, 1953, nonrecording gage at site 1,000 ft (305 m) upstream at present datum.

EXTREMES.--Current year: Maximum contents, 309,900 acre-ft (382 hm³) Nov. 12 (elevation, 549.78 ft or 167.573 m); minimum, 166,400 acre-ft (205 hm³) Sept. 30 (elevation, 532.93 ft or 162.437 m).
Period of record: Maximum contents, 445,800 acre-ft (550 hm³) June 6, 1957 (elevation, 560.80 ft or 170.932 m); minimum since lake first filled in 1957, 114,000 acre-ft (141 hm³) Mar. 6, 1964 (elevation, 523.33 ft or 159.511 m).

REMARKS.--The lake is formed by a rolled earthfill dam 12,850 ft (3,917 m) long, including a 500-foot (150-metre) uncontrolled off-channel concrete-gravity spillway with an ogee weir section. The dam was completed in June 1952 and deliberate impoundment began July 3, 1952. The controlled outlet works consist of a 13-foot-diameter (4-metre) concrete conduit that is controlled by two 6.5- by 13.0-foot (2.0- by 4.0-metre) broome-type gates and two 30-inch (762-millimetre) steel pipes with service valves. The capacity table since April 1972 has been based on a survey made in October 1966. The lake was built for flood control, navigation, and water conservation. The city of Dallas uses part of this water for their municipal supply. At end of year, flow from 218 mi² (565 km²) above this station was partly controlled by 110 floodwater-retarding structures with a combined capacity of 65,560 acre-ft (80.8 hm³) below the flood-spillway crests, of which 8,380 acre-ft (10.3 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	588.0	-
Crest of spillway.....	560.0	425,500
Top of conservation pool.....	535.0	181,100
Lowest intake to wet wells (invert).....	500.5	22,140
Invert of two broome-type gates.....	475.0	100

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

REVISIONS.--MSP 1922: Drainage area.

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

532.0	160,000	540.0	219,600	546.0	272,700
534.0	173,900	542.0	236,500	548.0	292,100
536.0	188,500	544.0	254,100	550.0	312,100
538.0	203,600				

CONTENTS, IN ACRE-FEET, AT 2400+ WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174,500	268,900	267,200	199,000	196,200	181,000	191,800	181,500	204,800	182,300	184,600	175,600
2	174,500	278,300	264,600	196,300	201,500	180,900	192,000	183,200	202,300	181,900	184,300	175,400
3	174,300	281,300	262,300	194,700	206,200	181,000	190,900	184,200	199,400	182,000	184,000	175,200
4	174,100	285,300	259,800	193,100	210,000	181,100	188,800	184,600	196,500	182,200	183,700	174,900
5	174,000	288,600	257,500	191,500	215,300	181,300	186,600	184,400	193,500	182,300	183,700	174,700
6	174,000	291,300	255,100	190,000	216,200	181,600	184,300	183,200	190,700	182,300	183,400	174,400
7	173,900	293,600	252,700	188,400	218,300	181,600	185,100	181,900	188,200	182,200	182,900	174,000
8	173,800	294,800	250,000	186,400	215,900	181,500	197,800	181,100	186,800	182,000	182,300	173,500
9	173,800	295,200	247,100	185,200	213,400	181,600	201,100	181,200	186,400	181,600	181,600	173,000
10	173,800	304,800	245,300	183,800	210,100	181,500	202,400	181,100	191,100	181,300	181,100	172,400
11	173,700	309,600	243,900	182,900	207,600	181,500	203,100	182,900	194,800	181,000	180,500	172,500
12	173,500	309,100	242,300	181,800	204,400	181,800	203,600	182,600	195,800	180,700	180,000	172,100
13	173,500	307,300	240,100	181,000	201,400	182,100	204,400	182,300	195,600	180,500	179,600	171,800
14	174,500	308,500	238,200	180,700	194,900	182,100	205,100	185,000	193,200	180,200	179,400	171,400
15	175,300	303,300	236,300	180,500	195,600	182,100	205,500	187,100	191,300	179,700	178,800	171,500
16	175,300	301,000	234,200	180,200	193,700	182,800	205,900	186,200	189,200	179,400	178,400	171,400
17	175,300	299,000	232,100	180,000	191,100	183,400	206,300	184,600	187,100	179,100	178,300	171,200
18	175,300	296,300	230,100	179,900	188,700	185,800	206,300	182,900	185,500	178,700	178,000	170,800
19	175,200	294,300	227,900	179,700	185,600	187,000	204,200	181,300	184,300	178,300	177,600	170,600
20	175,100	292,000	225,900	179,600	183,500	187,200	200,500	181,000	183,200	178,000	177,300	170,200
21	175,000	289,400	223,800	179,400	182,900	187,200	197,100	181,100	182,500	177,700	177,000	169,800
22	174,900	287,200	221,800	179,300	182,900	186,900	194,100	181,000	182,100	177,200	177,600	169,400
23	174,900	285,600	219,900	179,300	182,300	186,600	191,300	180,000	182,100	176,800	177,500	169,000
24	174,800	283,800	218,200	179,700	182,000	186,500	198,100	187,500	184,800	176,800	177,200	168,400
25	175,000	281,400	215,800	179,800	181,600	186,400	196,900	186,000	184,600	183,400	177,000	168,200
26	175,000	279,100	214,100	179,800	181,400	186,800	196,800	186,500	184,300	185,100	176,800	167,800
27	174,800	276,700	212,100	180,000	181,100	187,400	197,300	191,400	183,900	185,500	176,700	167,400
28	174,500	274,500	210,200	180,300	181,000	188,600	196,500	193,200	183,600	185,800	176,500	167,000
29	174,400	272,100	208,300	180,400	-----	190,200	184,900	197,900	183,200	185,600	176,300	166,600
30	174,200	269,800	206,300	180,700	-----	190,800	182,900	204,200	182,900	185,400	176,000	166,400
31	254,100	-----	202,500	183,300	-----	191,200	-----	205,500	-----	185,100	175,800	-----
(+)	544.00	545.69	537.85	535.30	534.99	536.37	535.25	538.28	535.24	535.54	534.27	532.93
(*)	+79,600	+15,700	-67,300	-19,200	-2,300	+10,200	-8,300	+22,900	-22,900	+2,500	-9,300	-9,400
(††)	70	64	65	66	58	72	73	80	92	102	102	96
MAX	254,100	309,600	267,200	199,000	216,300	191,200	206,300	205,800	204,800	185,800	184,600	175,600
MIN	173,500	268,900	202,500	179,300	181,000	180,900	182,900	181,000	182,100	176,800	175,800	166,400
CAL YR 1974.....	*	+19,200		††	921		MAX	309,600		MIN	159,000	
WTR YR 1975.....	*	-8,100		††	940		MAX	309,600		MIN	166,400	

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by city of Grapevine.

TRINITY RIVER BASIN

08054500 Grapevine Lake near Grapevine, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
AUG. 21...	1105	7.3	44	6.1	18	3.5	145	0	29	
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)
AUG. 21...	19	.1	198	146	16	.7	358	7.8	26.0	

08055000 Denton Creek near Grapevine, Tex.

LOCATION.--Lat 32°59'13", long 97°00'45", Denton County, on left bank at downstream side of left pier of bridge on State Highway 121, 1.3 miles (2.1 km) downstream from Bakers Branch, 4.3 miles (6.9 km) downstream from Grapevine Dam, 5.0 miles (8.0 km) northeast of Grapevine, and 6.1 miles (9.8 km) upstream from mouth.

DRAINAGE AREA.--705 mi² (1,826 km²).

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 439.11 ft (133.841 m) above mean sea level.

AVERAGE DISCHARGE.--5 years (1947-52) prior to regulation, 140 ft³/s (3.965 m³/s), 101,400 acre-ft/yr (125 hm³/yr); 23 years (1952-75) regulated, unadjusted, 151 ft³/s (4.276 m³/s), 109,400 acre-ft/yr (135 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,910 ft³/s (54.1 m³/s) Dec. 31-Jan. 1 (gage height, 17.77 ft or 5.416 m); minimum, 10 ft³/s (0.283 m³/s) Jan. 29, 30.

Period of record: Maximum discharge, 13,900 ft³/s (394 m³/s) Feb. 26, 1948 (gage height, 30.38 ft or 9.260 m), from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of conveyance-slope study; no flow at times. Maximum discharge since construction of Grapevine Dam in 1952, 6,430 ft³/s (182 m³/s) Sept. 21, 1964 (gage height, 26.50 ft or 8.077 m).

Flood in May 1908 was slightly higher than the flood in April 1942, which reached a stage of 35.9 ft (10.94 m), from floodmarks, from information by local resident.

REMARKS.--Records good. Flow regulated by Grapevine Lake since July 1952 (see preceding page). Much of flow is used by city of Dallas for municipal supply (see station 08055500).

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	37	1,340	1,910	514	194	34	802	849	224	216	44
2	20	29	1,330	1,870	43	158	34	385	1,610	224	216	44
3	20	31	1,330	1,430	36	96	366	211	1,630	156	216	44
4	20	31	1,330	950	27	53	1,100	74	1,620	52	121	43
5	21	29	1,360	937	154	52	1,230	264	1,620	50	16	43
6	21	29	1,420	936	445	53	1,230	748	1,580	50	80	42
7	21	29	1,420	934	437	94	1,090	746	1,320	81	183	41
8	21	28	1,410	933	729	135	688	453	1,180	115	216	55
9	21	307	1,430	929	1,320	136	70	54	997	152	217	96
10	21	948	1,370	841	1,680	136	64	52	416	196	216	94
11	22	272	1,160	561	1,760	136	64	47	98	162	208	93
12	22	1,010	1,150	556	1,770	136	62	203	164	96	174	93
13	23	1,380	1,140	419	1,770	137	62	406	708	95	104	93
14	40	1,390	1,140	223	1,700	177	62	414	1,120	115	105	91
15	24	1,400	1,130	221	1,500	211	61	576	1,120	134	139	92
16	21	1,390	1,130	220	1,480	211	61	847	1,120	133	140	90
17	21	1,390	1,120	219	1,480	263	61	1,010	1,120	133	139	89
18	21	1,390	1,120	201	1,470	362	211	1,010	990	127	139	89
19	22	1,390	1,120	177	1,460	361	945	845	605	127	138	89
20	23	1,390	1,120	177	1,310	361	1,690	333	541	128	83	87
21	23	1,390	1,120	162	697	361	1,850	56	350	127	19	87
22	24	1,390	1,110	81	414	360	1,790	54	241	127	33	86
23	24	1,400	1,100	16	409	360	1,600	112	90	127	36	86
24	24	1,400	1,100	16	404	262	1,590	57	132	127	33	85
25	24	1,390	1,100	16	400	35	1,090	52	229	137	38	84
26	24	1,380	1,100	16	398	36	56	51	229	129	48	84
27	25	1,360	1,090	16	324	36	52	143	228	128	47	83
28	42	1,350	1,090	16	234	35	314	107	227	171	49	83
29	28	1,350	1,090	17	-----	34	928	82	227	228	46	83
30	35	1,350	1,280	11	-----	34	1,010	183	227	218	46	82
31	355	-----	1,890	147	-----	34	-----	497	-----	216	45	-----
TOTAL	1,073	27,660	38,140	15,158	24,365	5,049	19,465	10,874	22,588	4,285	3,506	2,295
MEAN	34.6	922	1,230	489	870	163	649	351	753	138	113	76.5
MAX	355	1,400	1,890	1,910	1,770	362	1,850	1,010	1,630	228	217	96
MIN	20	28	1,090	11	27	34	34	47	90	50	16	41
AC-FT	2,130	54,860	75,650	30,070	48,330	10,010	38,610	21,570	44,800	8,500	6,950	4,550
CAL YR 1974	TOTAL	89,015.8	MEAN	244	MAX	1,890	MIN	2.4	AC-FT	176,600		
WTR YR 1975	TOTAL	174,458.0	MEAN	478	MAX	1,910	MIN	11	AC-FT	346,000		

08055500 Elm Fork Trinity River near Carrollton, Tex.

DRAINAGE AREA.--2,459 mi² (6,369 km²).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 433.40 ft (132.100 m) above mean sea level. Prior to November 1923, nonrecording gage at site 15.5 miles (24.9 km) downstream at different datum. Nov. 1, 1923, to Nov. 13, 1934, nonrecording gage, and Nov. 14, 1934, to July 6, 1938, water-stage recorder at present site and datum. July 7, 1938, to Apr. 14, 1939, nonrecording gage at site 9.3 miles (15.0 km) downstream at datum 22.94 ft (6.992 m) lower. Apr. 15, 1939, to Sept. 30, 1955, water-stage recorder at site 8.5 miles (13.7 km) downstream at datum 22.94 ft (6.992 m) lower.

AVERAGE DISCHARGE.--68 years, 799 ft³/s (22.63 m³/s), 578,900 acre-ft/yr (714 hm³/yr).

Period of record: Maximum gage height, about 17 ft (5.2 m) May 25, 1908, present site and datum, from information by local resident, estimated discharge, 145,000 ft³/s (4,110 m³/s), at site 8.5 miles (13.7 km) downstream (from information by Corps of Engineers); maximum gage height subsequent to 1908, 14.5 ft (4.42 m) Apr. 26, 1942, present site and datum, from observation by National Weather Service; discharge at site 8.5 miles (13.7 km) downstream, 90,700 ft³/s (2,570 m³/s); no flow at times.

REMARKS.--Records good. Flow largely regulated by Lewisville Lake (station 08052800) since November 1954 and by Grapevine Lake (station 08054500) since July 1952. Records furnished by Dallas show that during the year 99,620 acre-ft (123 hm³) was diverted from pool at gage and 67,060 acre-ft (82.7 hm³) was diverted from river channel 14 miles (23 km) downstream for municipal use. About 400 acre-ft (0.493 hm³) was returned from a water treatment plant to the river below this station. Records furnished by the Dallas Power and Light Co. show that during the year 1,080 acre-ft (1.33 hm³) was diverted from pool at gage into North Lake for cooling water at electric generating plant.

REVISIONS (WATER YEARS).--WSP 788: 1924. WSP 1148: Drainage area at former site. WSP 1632: 1908(M). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	499	7,640	4,270	4,670	2,950	2,350	3,530	2,480	2,180	141	157
2	209	170	7,560	4,180	662	2,870	3,870	3,810	5,080	588	123	166
3	214	135	7,510	2,800	381	2,820	4,100	2,120	5,400	572	121	176
4	194	243	7,450	1,990	273	2,470	3,640	256	5,420	164	136	166
5	194	135	7,450	1,970	778	763	1,370	623	5,420	137	130	160
6	219	191	7,600	1,950	1,500	285	1,350	2,800	5,360	106	115	179
7	199	373	7,600	1,810	1,430	285	1,480	3,810	5,150	122	167	123
8	185	1,670	7,560	1,240	2,110	335	3,170	3,240	4,920	245	194	120
9	199	3,650	7,490	1,210	4,180	348	540	772	2,890	263	165	188
10	234	8,320	7,180	1,120	5,470	355	342	342	844	335	166	126
11	229	3,650	5,730	803	5,710	355	285	335	408	266	173	134
12	240	4,600	5,450	795	5,730	355	322	429	500	146	188	160
13	234	6,430	5,710	638	5,710	381	322	739	2,390	179	139	189
14	361	7,400	5,780	309	5,660	695	696	795	4,600	159	115	116
15	322	7,730	5,780	303	5,610	1,300	2,660	886	5,010	208	170	79
16	262	7,790	5,760	285	5,450	1,320	3,990	1,410	5,100	153	168	117
17	250	7,790	5,730	279	5,430	1,440	1,890	2,420	5,060	155	160	106
18	245	7,760	5,170	291	5,480	2,800	560	2,450	4,970	163	143	91
19	256	7,730	5,060	240	5,360	3,020	2,510	2,000	4,490	153	148	106
20	250	7,750	5,040	224	5,330	3,650	4,060	723	4,340	132	210	97
21	250	7,730	5,040	194	4,920	3,730	4,250	548	4,160	136	135	120
22	219	7,680	5,040	109	5,150	3,730	4,290	172	3,540	194	209	106
23	250	7,760	5,010	75	5,330	3,730	4,250	443	460	199	226	111
24	219	7,780	5,040	126	5,330	3,690	4,210	297	1,180	217	202	79
25	224	7,760	5,040	109	5,310	1,660	3,270	224	4,640	160	192	136
26	250	7,730	5,040	123	5,260	199	328	204	4,750	79	184	109
27	256	7,710	5,040	94	5,220	250	273	340	5,360	116	167	110
28	348	7,690	5,040	103	5,080	267	766	660	5,330	108	190	91
29	328	7,670	5,040	113	-----	262	3,210	503	5,330	409	143	104
30	273	7,640	4,990	94	-----	262	3,470	716	4,420	275	102	129
31	2,880	-----	4,360	1,370	-----	678	-----	1,830	-----	139	114	-----
TOTAL	10,217	161,166	184,930	29,217	118,524	47,255	67,824	39,427	119,002	8,458	4,936	3,851
MEAN	330	5,372	5,965	942	4,233	1,524	2,261	1,272	3,967	273	159	128
MAX	2,880	8,320	7,640	4,270	5,730	3,730	4,290	3,810	5,420	2,180	226	1,080
MIN	185	135	4,360	75	273	199	273	172	408	79	102	79
AC-FT	20,270	319,700	366,800	57,950	235,100	93,730	134,500	78,200	236,008	16,780	9,798	7,640
WAL YR 1974	TOTAL	440,421.8		MEAN	1,207	MAX	8,320	MIN	1.6	AC-FT	873,600	
CTR YR 1975	TOTAL	794,807.0		MEAN	2,178	MAX	8,320	MIN	75	AC-FT	1,576,000	

TRINITY RIVER BASIN

459

08055700 Bachman Branch at Dallas, Tex.

LOCATION.--Lat 32°51'37", long 96°50'13" (corrected), Dallas County, on left bank at downstream side of bridge on Midway Road in Dallas, 1,300 ft (396 m) south of Northwest Highway (Loop 12), 1.5 miles (2.4 km) upstream from Bachman Lake Dam, and 6.0 miles (9.7 km) northwest of Dallas City Hall.

DRAINAGE AREA.--10.0 mi² (25.9 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. From May 1, 1970, to Feb. 28, 1974, at site 2,300 ft (700 m) upstream at same datum.

AVERAGE DISCHARGE.--12 years. 9.58 ft³/s (0.271 m³/s), 13.01 in/yr (330 mm/yr), 6,940 acre-ft/yr (8.56 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,740 ft³/s (77.6 m³/s) Apr. 8 (elevation, 457.00 ft or 139.294 m); minimum, 0.10 ft³/s (0.003 m³/s) Sept. 30.

Period of record: Maximum discharge, 16,000 ft³/s (453 m³/s) Apr. 28, 1966 (elevation, 467.97 ft or 142.637 m), from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of contracted-opening measurements of 5,300, 9,200, and 16,000 ft³/s (150, 261, and 453 m³/s); no flow at times most years.

Maximum stage since at least 1900, that of Apr. 28, 1966. Flood of Oct. 8, 1962, the second highest flood since 1900, reached an elevation of 465.6 ft (141.91 m), discharge 9,200 ft³/s (261 m³/s).

REMARKS.--Records good except those for no elevation record, which are poor. Flow is slightly regulated by several small channel dams above station. Two recording rain gages are operated in the basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	16	4.0	3.8	362	4.0	6.5	2.5	7.8	1.4	1.3	.45
2	2.6	9.7	3.9	13	30	3.6	6.1	56	6.8	1.3	1.1	.47
3	2.3	7.9	3.7	5.3	23	3.5	5.9	3.7	6.0	21	.90	.51
4	2.3	20	3.6	4.5	28	3.5	6.1	3.3	5.2	2.5	.84	.84
5	2.3	7.6	8.7	4.4	30	3.7	5.9	3.1	4.4	1.6	.80	2.0
6	2.1	6.4	12	4.5	12	4.0	9.4	2.9	4.0	1.3	.75	.70
7	2.0	9.3	4.0	4.2	9.4	3.6	103	3.5	4.7	1.2	.70	.44
8	2.0	6.1	3.6	3.8	8.2	3.2	228	2.9	59	1.1	.67	.45
9	1.9	8.4	3.6	3.7	6.6	7.9	12	2.7	31	1.1	.64	.59
10	1.7	122	28	6.8	6.3	4.0	8.6	2.9	22	1.1	.62	.74
11	1.7	17	11	3.4	6.4	4.2	6.7	15	4.0	1.1	.60	.50*
12	1.7	11	6.0	3.3	6.1	5.3	5.9	3.7	3.2	1.0	.86	1.1
13	1.8	8.2	5.3	3.3	5.2	15	15	50	2.7	.90	.68	.51
14	76	6.5	4.9	3.5	5.7	2.9	6.5	20	2.4	.89	.74	.44
15	4.7	6.2	4.5	3.3	6.4	5.0	5.1	28	2.0	.88	.71	.47
16	3.1	6.0	4.4	3.3	5.8	5.9	4.6	4.4	1.9	.86	.80	.65
17	2.8	5.6	4.1	3.4	5.4	4.5	5.2	4.6	1.7	.85	.97	.37
18	2.6	4.8	4.0	3.4	5.2	10	4.4	4.6	1.5	.84	.85	.32
19	2.4	4.5	3.9	3.2	4.0	5.1	3.9	3.7	1.4	.83	.74	.35
20	2.3	4.4	3.7	3.0	4.7	4.2	3.6	53	1.3	.82	.71	.29
21	2.2	4.4	3.8	3.2	5.0	4.0	3.4	6.4	2.9	.81	8.1	.21
22	2.2	4.3	3.7	3.0	6.1	4.0	3.3	4.9	3.7	.81	.97	.25
23	2.6	13	5.1	3.2	14	4.4	3.3	18	1.4	.80	.80	.26
24	3.4	7.5	3.2	5.4	4.5	3.8	3.3	5.2	1.3	10	.62	.19
25	4.6	3.7	3.0	3.5	4.4	3.8	3.0	4.8	1.4	100	.65	.23
26	3.5	3.8	5.8	3.2	4.1	83	2.9	4.2	1.4	10	.46	.20
27	3.4	3.7	3.4	3.2	4.0	21	2.8	48	1.3	4.0	.43	.18
28	22	3.5	3.7	3.3	3.9	8.8	11	57	14	2.5	.51	.19
29	3.0	19	4.2	3.3	---	16	3.0	139	2.7	4.5	.50	.17
30	5.3	4.5	11	9.6	---	6.1	2.7	22	1.8	3.0	.49	.16
31	369	---	8.1	192	---	7.6	---	9.8	---	2.0	.45	---
TOTAL	542.2	355.0	181.9	320.0	616.4	265.6	491.1	589.8	204.9	180.99	29.96	14.23
MEAN	17.5	11.8	5.87	10.3	22.0	8.57	16.4	19.0	6.83	5.84	.97	.47
MAX	369	122	28	192	362	83	228	139	59	100	8.1	2.0
MIN	1.7	3.5	3.0	3.0	3.9	2.9	2.7	2.5	1.3	.80	.43	.16
CFSM	1.75	1.18	.59	1.03	2.20	.86	1.64	1.90	.68	.58	.10	.05
IN.	2.02	1.32	.68	1.19	2.29	.99	1.83	2.19	.76	.67	.11	.05
AC-FT	1080	704	361	635	1220	527	974	1170	406	359	59	28
(††)	5.58	3.06	1.66	2.88	2.59	2.60	3.26	6.74	2.96	4.08	.40	.46
CAL YR 1974 TOTAL	3912.04											
WTR YR 1975 TOTAL	3792.08											
MEAN 10.7												
MAX 373												
MIN .36												
CFSM 1.07												
IN 14.55												
AC-FT 7760												
†† 43.03												
MEAN 10.4												
MAX 369												
MIN .16												
CFSM 1.04												
IN 14.11												
AC-FT 7520												
†† 36.27												

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-31	0515	454.60	1,780	5-27	2245	452.74	1,160
2-1	0930	453.96	1,560	5-29	1045	454.80	1,850
3-26	1315	454.09	1,600	6-8	2100	452.41	1,060
4-8	0110	457.00	2,740	7-25	unknown	453.01	1,240
5-13	2300	452.97	1,230				

†† Weighted-mean rainfall, in inches, based on two rain gages.

NOTE.--No elevation record July 11 to Aug. 11.

TRINITY RIVER BASIN

08056500 Turtle Creek at Dallas, Tex.

LOCATION.--Lat 32°48'26", long 96°48'08", Dallas County, on left bank 68 ft (21 m) upstream from Hall Street Dam, 210 ft (64 m) upstream from Hall Street in Dallas, and 2.0 miles (3.2 km) north of Dallas County Courthouse.

DRAINAGE AREA.--7.98 mi² (20.67 km²).

PERIOD OF RECORD.--Annual maximums, water years 1948-51, October 1951 to current year. Daily discharge records for April 1948 to September 1951, published in WSP 1392, are unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 428.13 ft (130.494 m) above mean sea level. Prior to Dec. 17, 1951, at site 52 ft (16 m) upstream at same datum.

AVERAGE DISCHARGE.--24 years, 8.20 ft³/s (0.232 m³/s), 13.95 in/yr (354 mm/yr), 5,940 acre-ft/yr (7.32 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,440 ft³/s (69.1 m³/s) Oct. 31 (gage height, 5.92 ft or 1.804 m); minimum daily, 0.39 ft³/s (0.011 m³/s) Sept. 26.

Period of record: Maximum discharge, 12,200 ft³/s (346 m³/s) Apr. 28, 1966 (gage height, 10.54 ft or 3.213 m), from rating curve extended above 2,460 ft³/s (69.7 m³/s) on basis of contracted-opening measurement of 12,200 ft³/s (346 m³/s); no flow at times most years.

Maximum stage since at least 1903, that of April 28, 1966.

REMARKS.--Records good. Flow slightly regulated by eight small channel dams above station. Five recording rain gages are operated in basin above station.

REVISIONS (WATER YEARS).--See PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	12	2.4	2.6	367	2.4	4.0	2.0	5.2	3.1	1.7	.76
2	3.3	7.5	2.3	16	25	3.1	3.5	82	4.5	2.0	4.9	.77
3	2.7	18	2.2	3.9	18	5.7	3.4	4.8	3.8	30	2.6	.71
4	2.4	14	2.3	3.0	17	3.0	3.5	2.0	3.4	4.0	1.4	.81
5	2.3	5.3	11	2.9	16	1.8	4.1	3.1	3.2	1.9	1.3	.99
6	2.2	4.3	11	2.9	7.7	1.9	7.4	7.2	3.1	1.6	1.2	.84
7	2.0	11	2.5	3.0	8.3	1.8	111	3.0	3.0	1.6	1.4	.73
8	1.8	4.1	2.4	2.7	7.4	1.4	170	2.8	37	2.8	1.5	.76
9	2.1	12	2.6	3.5	6.1	14	8.9	2.6	91	2.4	1.2	.98
10	2.0	121	43	5.4	5.8	4.4	7.3	2.7	29	2.8	1.3	.83
11	2.1	9.2	8.0	5.0	5.1	4.8	6.1	14	5.1	2.9	1.1	.90
12	2.0	6.3	4.1	3.8	4.1	8.7	6.0	3.2	4.3	1.7	1.1	.75
13	2.0	5.4	3.7	1.9	3.5	30	24	27	3.7	1.4	1.2	1.8
14	77	5.0	3.6	3.1	3.6	4.2	7.2	74	3.1	1.6	1.1	.75
15	4.1	4.4	3.0	2.6	3.2	6.4	6.2	24	2.7	1.8	1.1	6.7
16	2.4	4.6	2.8	2.2	3.4	9.3	5.9	4.5	2.7	2.1	3.6	2.6
17	2.1	3.9	3.0	2.3	2.8	5.3	5.7	4.3	2.7	2.0	2.3	1.5
18	1.8	3.8	3.0	3.1	2.6	8.0	4.9	4.2	1.9	1.9	1.6	.83
19	1.7	3.5	3.0	4.1	2.4	5.9	4.6	5.2	2.1	1.4	1.2	.68
20	1.5	2.7	2.6	2.9	3.6	5.4	4.0	60	2.3	1.1	1.0	.56
21	1.6	3.0	2.4	2.9	5.5	4.7	3.4	4.7	2.4	1.1	11	.75
22	1.6	3.2	2.4	2.3	9.6	3.8	2.3	3.3	2.9	1.2	3.3	.83
23	1.6	19	2.6	1.8	18	2.2	2.1	31	3.4	1.3	1.4	.83
24	1.7	8.4	2.0	3.4	6.0	1.6	1.9	7.3	2.7	51	2.9	.62
25	3.7	2.8	1.9	1.3	6.4	1.6	1.9	3.9	3.2	158	1.3	.56
26	2.2	3.0	7.6	1.1	5.6	80	1.8	3.2	4.0	11	1.0	.39
27	1.5	2.6	2.3	1.1	4.2	15	1.9	60	3.4	3.9	1.1	.44
28	100	2.6	3.2	1.8	2.7	8.3	12	48	2.5	3.1	1.1	.50
29	4.5	8.4	3.1	3.6	-----	14	3.0	166	3.0	6.4	1.1	.50
30	3.9	2.7	15	5.1	-----	4.9	2.8	24	3.1	3.6	.85	.50
31	413	-----	9.5	98	-----	4.6	-----	6.7	-----	2.0	.77	-----
TOTAL	656.8	318.7	170.5	199.3	570.6	268.2	431.3	690.7	244.4	312.7	59.62	31.17
MEAN	21.2	10.6	5.50	6.43	20.4	8.65	14.4	22.3	8.15	10.1	1.92	1.04
MAX	413	121	43	98	367	80	170	166	91	158	11	6.7
MIN	1.5	2.6	1.9	1.1	2.4	1.4	1.8	2.0	1.9	1.1	.77	.39
CFSM	2.66	1.33	.69	.81	2.56	1.08	1.80	2.79	1.02	1.27	.24	.13
IN.	3.06	1.49	.79	.93	2.66	1.25	2.01	3.22	1.14	1.46	.28	.15
AC-FT	1,300	632	338	395	1,130	532	855	1,370	485	620	118	62
(††)	5.95	2.82	1.73	2.06	3.37	2.85	3.28	7.47	2.16	4.46	.62	.40

CAL YR 1974 TOTAL 4,464.04 MEAN 12.2 MAX 413 MIN .98 CFMS 1.53 IN 20.81 AC-FT 8,850 †† 43.77
WTR YR 1975 TOTAL 3,953.99 MEAN 10.8 MAX 413 MIN .39 CFMS 1.35 IN 18.43 AC-FT 7,840 †† 37.17

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-28	0515	4.57	1,320	5- 2	0745	4.71	1,430
10-31	0415	5.92	2,440	5-29	1030	5.36	1,960
2- 1	0915	4.93	1,610	6- 9	2000	4.95	1,630
4- 8	0045	5.40	1,990	7-25	0915	4.42	1,250

†† Weighted-mean rainfall, in inches, based on five rain gages.

TRINITY RIVER BASIN

461

08057000 Trinity River at Dallas, Tex.

LOCATION.--Lat 32°46'31", long 96°49'11", Dallas County, on left bank on downstream side of left pier of Commerce Street viaduct in Dallas, 5.2 miles (8.4 km) downstream from confluence of West and Elm Forks, and at mile 500.3 (805.0 km).

DRAINAGE AREA.--6,106 mi² (15,815 km²).

PERIOD OF RECORD.--October 1898 to December 1899 (gage heights only published in WSP 28 and 37), July 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 368.02 ft (112.172 m) above mean sea level. Oct. 1, 1898, to Dec. 31, 1899, nonrecording gage at site 2 miles (3 km) upstream at different datum. July 1, 1903, to July 20, 1930, nonrecording gage at present site and datum. July 21, 1930, to Sept. 30, 1932, nonrecording gage at site 6 miles (10 km) downstream at datum 3.08 ft (0.939 m) lower.

AVERAGE DISCHARGE.--72 years, 1,516 ft³/s (42.93 m³/s), 1,098,000 acre-ft/yr (1.35 km³/yr).

EXTREMES.--Current year: Maximum discharge, 27,000 ft³/s (765 m³/s) Feb. 2 (gage height, 37.86 ft or 11.540 m); minimum observed, 177 ft³/s (5.01 m³/s) Sept. 29.

Period of record: Maximum discharge, 184,000 ft³/s (5,210 m³/s) May 25, 1908 (gage height, 52.6 ft or 16.03 m), from rating curve extended above 109,000 ft³/s (3,090 m³/s); minimum observed for periods 1903-6, 1920-75, 1.2 ft³/s (0.034 m³/s) July 4, 1953, result of storage behind temporary dam 4 miles (6 km) upstream.

Maximum stage since at least 1840, that of May 25, 1908. Flood in 1866 reached about the same stage.

REMARKS.--Records good. Flow is largely regulated by 12 major upstream reservoirs having a capacity of 2,323,000 acre-ft (2.86 km³), of which 846,200 acre-ft (1.04 km³) is for flood control. The city of Dallas reported the diversion for municipal use during the current year of 99,620 acre-ft (123 hm³) of water from the Elm Fork, 19,180 acre-ft (23.6 hm³) from Lake Tawakoni (on Sabine River), the purchase of 9,540 acre-ft (11.8 hm³) from North Texas Municipal Water District (from the East Fork), and the return of 160,500 acre-ft (198 hm³) of sewage effluent to river 4 miles (6 km) downstream from station. The Trinity River Authority reported a discharge of 32,860 acre-ft (40.5 hm³) of sewage effluent into the river above the station. For other diversions and effluent returns above station see records for stations 08048000 and 08049200.

REVISIONS (WATER YEARS).--WSP 850: 1903-6 (monthly and annual means). WSP 1732: 1937(M). WSP 1922: Drainage area. WRD Texas 1973: 1972.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	18700	7310	4580	14700	4890	2280	3430	5170	3980	3310	250
2	597	14000	7140	4400	25400	3790	3580	4570	5590	1860	2340	250
3	568	11100	7030	4600	15600	3960	4410	4610	6300	1280	2000	265
4	528	11500	6940	3090	9510	3810	4510	1430	6750	939	1770	275
5	494	11900	6940	2580	7640	2400	3130	747	6880	888	1230	300
6	524	10400	7300	2530	7090	1110	1910	2660	6220	569	736	329
7	611	7150	7280	2490	5820	903	3180	4260	6240	382	613	290
8	611	7000	7150	2100	4750	882	13100	4400	5680	434	541	270
9	575	7820	7080	1860	5210	817	17500	2720	7220	676	441	260
10	536	11300	7150	2500	6840	862	9720	694	9180	785	338	300
11	531	17100	8390	1590	7900	768	5770	685	10000	760	310	275
12	466	13000	7600	1300	8350	683	3710	1330	8980	600	300	260
13	397	9170	6470	1250	8410	1050	2920	1140	6630	450	315	280
14	2200	8580	5910	898	8670	1020	2650	2180	8000	350	290	250
15	5330	9240	5890	597	6900	1670	3680	2370	9240	300	270	320
16	1870	9570	5920	516	6200	2160	5180	2110	9120	285	310	613
17	722	9610	5860	493	5980	2240	5460	2930	9090	270	447	567
18	720	9590	5610	483	5820	3060	2910	3400	9870	270	380	280
19	683	9380	5200	444	5740	3720	2660	3100	9830	270	352	260
20	662	8490	4890	418	5640	3800	3830	2370	7720	250	373	230
21	623	7920	4730	411	5440	4140	4460	2010	6410	250	403	210
22	603	7660	4860	362	4900	4270	4660	1000	5820	260	480	260
23	576	7560	4970	300	5150	4290	4700	2900	3970	300	661	220
24	585	8080	4900	312	5690	4300	4650	6710	1810	649	564	240
25	562	7900	4670	340	5500	3590	4570	3580	3030	6410	366	210
26	649	7840	4680	322	5330	2390	2480	1710	4020	11600	355	200
27	601	7720	4800	293	5260	1990	895	1320	4240	6110	408	195
28	1560	7550	4720	287	4920	1560	1000	6520	4240	2610	463	190
29	2000	7490	4660	287	---	1080	2690	8400	4220	3050	371	190
30	1060	7490	5160	293	---	931	3520	8330	4360	4790	290	187
31	8270	---	5220	3920	---	937	---	6750	---	3850	270	---
TOTAL	36754	291810	186430	45846	214360	73073	135715	100366	195830	55477	21297	8226
MEAN	1186	9727	6014	1479	7656	2357	4524	3238	6528	1790	687	274
MAX	8270	18700	8390	4600	25400	4890	17500	8400	10000	11600	3310	613
MIN	397	7000	4660	287	4750	683	895	685	1810	250	270	187
AC-FT	72900	578800	369800	90940	425200	144900	269200	199100	388400	110000	42240	16320
CAL YR 1974 TOTAL	758068		MEAN 2077	MAX 18700	MIN 139	AC-FT 1504000						
WTR YR 1975 TOTAL	1365184		MEAN 3740	MAX 25400	MIN 187	AC-FT 2708000						

TRINITY RIVER BASIN

08057100 White Rock Creek at Keller Springs Road, Dallas, Tex.

LOCATION.--Lat 32°58'13", long 96°48'19", Dallas County, on left bank at downstream side of bridge on Keller Springs Road, 0.5 mile (0.8 km) upstream from St. Louis Southwestern Railway Lines bridge, 0.9 mile (1.4 km) upstream from Spanky Branch, and 13 miles (21 km) north of Dallas County Courthouse.

DRAINAGE AREA.--29.4 mi² (76.1 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 25, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--14 years, 19.3 ft³/s (0.547 m³/s), 8.91 in/yr (226 mm/yr), 13,980 acre-ft/yr (17.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,400 ft³/s (125 m³/s) Feb. 1 (elevation, 558.88 ft or 170.347 m); minimum, 0.01 ft³/s (0.0003 m³/s) Sept. 13, 26, 27.

Period of record: Maximum discharge, 37,900 ft³/s (1,070 m³/s) Sept. 21, 1964 (elevation, 574.51 ft or 175.111 m), from rating curve extended above 5,000 ft³/s (142 m³/s) on basis of contracted-opening measurement of 37,900 ft³/s (1,070 m³/s); no flow for many days most years.

Maximum elevation since at least 1886, that of Sept. 21, 1964. Flood of Apr. 19, 1942, reached an elevation of 569.6 ft (173.61 m), from information by local resident.

REMARKS.--Records good. The Preston Trail Golf Club 0.5 mile (0.8 km) upstream diverted 16 acre-ft (19,700 m³) during year for irrigation. Flow is slightly regulated by two small floodwater-retarding structures above station. Three recording rain gages are operated in the basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	52	18	20	1,500	17	13	6.2	8.6	2.5	.79	.35
2	4.3	27	17	38	158	18	12	29	7.0	2.6	.79	.65
3	5.0	21	15	37	153	18	11	11	6.1	3.4	.97	.51
4	5.6	249	14	22	127	18	11	8.6	5.8	3.1	.83	.31
5	5.4	33	15	20	222	18	11	8.0	5.6	2.5	.63	.32
6	6.4	23	34	17	51	18	12	8.2	5.5	2.2	.18	.22
7	6.3	22	20	17	37	18	144	7.4	5.0	1.6	.34	.20
8	6.2	22	15	16	36	17	612	7.1	27	.80	.41	.19
9	5.5	22	13	15	26	18	30	6.7	111	1.5	.45	.13
10	5.7	899	32	17	25	20	19	6.3	176	1.6	.43	.09
11	5.6	60	72	15	23	19	16	7.2	13	2.2	.48	.04
12	4.2	32	26	13	20	21	12	7.1	8.1	1.8	.44	.03
13	4.0	27	22	12	19	24	13	7.5	6.7	1.5	.44	.01
14	31	22	20	13	18	22	13	8.9	6.2	1.1	.45	.02
15	14	19	18	13	17	19	10	12	5.3	.62	.31	.07
16	6.2	18	16	12	16	20	9.2	8.2	4.3	.61	.31	.10
17	5.2	18	14	12	14	19	9.0	5.4	3.4	.81	.35	.11
18	4.3	14	14	13	13	20	8.9	5.9	3.7	.91	.38	.14
19	4.0	17	13	14	12	21	7.7	5.6	3.4	.86	.34	.16
20	3.8	15	12	12	12	18	8.4	11	3.2	.66	.37	.14
21	3.0	14	11	11	12	18	7.7	9.	3.5	.59	.29	.15
22	3.4	13	11	11	13	19	7.9	8.1	3.8	.55	1.9	.14
23	4.2	17	11	10	19	18	8.5	9.6	3.3	.43	.46	.11
24	4.2	42	10	10	24	18	8.6	9.0	2.7	.11	.43	.06
25	4.5	19	9.6	9.4	27	14	8.0	7.6	3.4	4.2	.23	.03
26	4.3	17	11	9.2	22	29	7.5	5.5	3.3	1.4	.16	.01
27	4.1	15	12	8.6	19	141	7.4	6.5	3.2	1.1	.16	.01
28	9.2	15	11	7.8	17	32	7.6	26	6.2	1.0	.24	.09
29	9.6	35	12	7.2	-----	19	6.6	103	7.2	.85	.27	.24
30	5.4	25	16	7.1	-----	16	6.9	44	4.2	.71	.20	.15
31	959	-----	36	612	-----	14	-----	12	-----	.58	.18	-----
TOTAL	1,148.6	1,828	570.6	1,051.3	2,654	721	1,058.9	418.2	455.7	44.39	14.21	4.78
MEAN	37.1	60.9	18.4	33.9	94.8	23.3	35.3	13.5	15.2	1.43	.46	.16
MAX	959	899	72	612	1,500	141	612	103	176	4.2	1.9	.65
MIN	3.0	13	9.6	7.1	12	14	6.6	5.4	2.7	.11	.16	.01
CFSM	1.26	2.07	.63	1.15	3.22	.79	1.20	.46	.52	.05	.02	.005
IN.	1.45	2.31	.72	1.33	3.36	.91	1.34	.53	.58	.06	.02	.006
AC-FT	2,280	3,630	1,130	2,090	5,260	1,430	2,100	829	904	88	28	9.5
(††)	5.59	4.23	1.87	3.45	3.00	2.66	2.84	4.90	3.69	2.72	1.86	.16

CAL YR 1974 TOTAL 6,120.96 MEAN 16.8 MAX 959 MIN 0 CFSM .57 IN 7.74 AC-FT 12,140 †† 39.77
WTR YR 1975 TOTAL 9,969.68 MEAN 27.3 MAX 1,500 MIN .01 CFSM .93 IN 12.61 AC-FT 19,770 †† 36.97

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-31	1030	556.57	3,320	2-1	0615	558.88	4,400
11-10	0530	555.07	2,690	4-8	0300	555.05	2,680

†† Weighted-mean rainfall, in inches, based on three rain gages.

TRINITY RIVER BASIN

463

08057200 White Rock Creek at Greenville Avenue, Dallas, Tex.

LOCATION.--Lat 32°53'21", long 96°45'23", Dallas County, on left bank 20 ft (6 m) downstream from bridge on Greenville Avenue in Dallas, 1.1 miles (1.8 km) downstream from Texas and New Orleans Railroad Co. bridge, 1.2 miles (1.9 km) downstream from Cottonwood Creek, 2.9 miles (4.7 km) upstream from White Rock Lake, and 8.2 miles (13.2 km) northeast of Dallas County Courthouse.

DRAINAGE AREA.--66.4 mi² (172.0 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 24, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--14 years, 60.5 ft³/s (1.713 m³/s), 12.37 in/yr (314 mm/yr), 43,830 acre-ft/yr (54.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 10,100 ft³/s (286 m³/s) Feb. 1 (elevation, 487.85 ft or 148.697 m); minimum daily, 0.86 ft³/s (0.024 m³/s) Sept. 24, 25.

Period of record: Maximum discharge, 38,100 ft³/s (1,080 m³/s) Sept. 21, 1964 (elevation, 490.43 ft or 149.483 m); minimum daily, 0.01 ft³/s (0.0003 m³/s) July 8, 1970, June 27, July 14, 1971.

Maximum elevation since at least 1886, that of Sept. 21, 1964.

REMARKS.--Records good. Some regulation at low flow by on- and off-channel dams from which many small diversions are made. The Royal Oaks Country Club, 0.1 mile (0.2 km) upstream, diverted 3.8 acre-ft (4,690 m³) during the water year. Six recording rain gages were operated in basin above station during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	156	45	44	3,410	31	42	24	51	15	8.1	4.3
2	27	95	41	97	308	29	37	198	44	13	7.9	3.0
3	25	81	40	74	294	28	32	46	40	109	10	3.7
4	25	296	40	45	260	29	30	32	34	25	6.6	9.6
5	22	90	59	41	360	28	30	29	31	14	3.4	11
6	21	71	105	38	110	28	41	27	27	13	4.5	7.1
7	21	77	52	37	85	28	425	29	42	11	4.3	5.0
8	21	64	43	35	74	26	1,800	23	211	8.3	4.6	2.9
9	21	81	40	35	66	55	121	21	221	8.8	6.0	3.2
10	19	1,910	175	50	60	33	89	21	327	14	6.0	4.9
11	19	162	168	34	53	32	74	126	54	14	4.9	2.6
12	19	89	65	30	48	40	62	28	37	12	2.9	7.7
13	18	71	56	28	44	97	108	126	32	9.6	1.7	4.3
14	307	59	52	29	41	36	69	173	27	8.6	2.6	4.4
15	59	52	47	30	39	38	57	165	26	14	3.0	4.9
16	35	47	44	30	37	39	51	38	23	11	12	7.4
17	31	44	41	29	36	34	50	30	21	6.4	8.7	3.4
18	29	43	39	28	35	61	49	26	19	6.4	5.6	1.9
19	25	42	37	30	34	29	35	25	14	6.8	3.4	1.5
20	23	38	36	28	33	27	36	169	16	8.3	2.3	2.2
21	22	36	35	28	33	27	35	45	20	5.8	15	2.8
22	19	36	35	28	44	26	32	30	26	4.4	12	1.5
23	21	65	36	27	99	26	35	93	15	4.7	6.1	1.8
24	22	65	32	35	59	24	33	37	14	49	6.4	.86
25	25	40	30	28	49	22	30	30	15	285	4.0	.86
26	21	36	43	26	39	272	27	30	15	23	2.3	1.2
27	20	35	34	27	34	222	26	101	13	15	94	1.3
28	159	35	35	23	32	97	61	263	210	11	14	2.5
29	40	80	37	22	-----	90	25	580	50	11	5.5	1.8
30	29	55	75	44	-----	57	25	230	19	12	3.8	1.1
31	3,040	-----	93	1,380	-----	49	-----	67	-----	9.2	6.8	-----
TOTAL	4,213	4,071	1,710	2,460	5,816	1,660	3,570	2,862	1,694	758.3	278.8	110.72
MEAN	136	136	55.2	79.4	208	53.5	119	92.3	56.5	24.5	8.99	3.69
MAX	3,040	1,910	175	1,380	3,410	272	1,800	580	327	285	94	11
MIN	18	35	30	22	32	22	25	21	13	4.4	1.7	.86
CFSM	2.05	2.05	.83	1.20	3.13	.81	1.79	1.39	.85	.37	.14	.06
IN.	2.36	2.28	.96	1.38	3.26	.93	2.00	1.60	.95	.42	.16	.06
AC-FT	8,360	8,070	3,390	4,880	11,540	3,290	7,080	5,680	3,360	1,500	553	220
(††)	5.80	3.80	1.85	3.44	3.05	2.70	2.98	6.05	3.79	2.86	1.68	.35
CAL YR 1974	TOTAL 22,048.70	MEAN 60.4	MAX 3,040	MIN 1.4	CFSM .91	IN 12.35	AC-FT 43,730	†† 40.17				
WTR YR 1975	TOTAL 29,203.82	MEAN 80.0	MAX 3,410	MIN .86	CFSM 1.20	IN 16.36	AC-FT 57,930	†† 38.35				

PEAK DISCHARGE (BASE, 2,900 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-31	0900	487.71	8,930	2-1	0930	487.85	10,100
11-10	0745	486.92	6,980	4-8	0315	487.07	7,310
1-31	0845	485.03	3,970	5-29	1145	484.46	3,390

†† Weighted-mean rainfall, in inches, based on six rain gages.

TRINITY RIVER BASIN

08057300 White Rock Creek at White Rock Lake, Dallas, Tex.

LOCATION.--Lat 32°48'31", long 96°43'32", Dallas County, on right bank 500 ft (150 m) upstream from right end of White Rock Lake spillway, 1,500 ft (457 m) upstream from bridge on Garland Road (State Highway 78) in Dallas, and 10.3 miles (16.6 km) upstream from mouth.

DRAINAGE AREA.--100 mi² (259 km²).

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

GAGE.--Water-stage recorder and flat-crested concrete dam. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--13 years, 83.2 ft³/s (2.356 m³/s), 11.30 in/yr (287 mm/yr), 60,280 acre-ft/yr (74.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9,490 ft³/s (269 m³/s) Feb. 1 (elevation, 460.97 ft or 140.504 m); no flow at times.

Period of record: Maximum discharge, 28,300 ft³/s (801 m³/s) Sept. 21, 1964 (elevation, 465.60 ft or 141.915 m); no flow at times each year.

Maximum elevation since 1910, that of Sept. 21, 1964. Flood of Apr. 20, 1942, reached an elevation of 465.2 ft (141.79 m), from information by city of Dallas.

REMARKS.--Records poor below 50 ft³/s (1.42 m³/s) and fair above. Discharge is outflow of White Rock Lake (capacity, 10,700 acre-ft or 13.2 hm³ in 1970 at spillway crest). Storage in White Rock Lake began in 1910 and has been used at times by city of Dallas as a source of municipal water supply. Records furnished by city of Dallas show that during year 3 acre-ft (3,700 m³) was diverted from the lake for irrigation. Seven recording rain gages are operated in the basin above this station. A lake sedimentation survey by the Soil Conservation Service was made in October 1970.

REVISIONS (WATER YEARS).--WRD Texas 1974: 1968-70(M), 1972-73(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	851	43	113	5010	54	60	30	94	20	14	6.5
2	60	220	48	113	958	48	48	421	79	17	6.5	6.5
3	54	158	48	170	390	34	17	254	60	83	6.5	6.5
4	48	315	48	113	300	30	14	79	43	182	6.5	4.6
5	48	208	48	96	420	30	20	48	43	48	4.6	4.6
6	48	123	195	79	220	38	23	97	43	26	4.6	4.6
7	48	113	103	79	158	34	459	145	43	20	4.6	3.6
8	43	94	94	79	145	17	2620	60	145	30	4.6	3.6
9	43	86	85	66	103	26	352	38	645	38	2.8	3.6
10	43	1990	160	44	94	60	113	38	832	23	2.8	3.6
11	38	598	350	66	113	43	94	107	232	17	2.8	3.6
12	34	208	150	26	79	72	94	145	133	14	2.1	2.1
13	34	145	100	14	72	103	158	92	86	14	1.6	.75
14	335	72	90	30	72	72	158	668	72	14	.38	.50
15	278	72	80	30	72	60	60	175	66	10	.38	.50
16	86	72	74	30	48	79	48	113	60	10	1.6	1.1
17	60	66	69	30	48	60	43	72	48	6.5	2.8	.75
18	60	66	64	34	48	79	48	60	43	6.5	2.8	.75
19	48	66	61	20	34	54	54	48	34	4.6	2.1	.50
20	43	54	57	2.8	34	43	48	273	38	4.6	2.1	.28
21	38	48	56	2.8	48	48	48	330	30	4.6	1.6	.18
22	38	48	56	6.5	86	48	48	79	38	4.6	2.1	.18
23	38	79	55	6.5	158	43	48	179	30	2.8	2.1	0
24	38	123	55	17	113	34	48	208	26	3.9	2.1	0
25	38	66	54	30	86	26	54	103	23	389	2.8	0
26	43	54	54	26	66	190	48	60	23	123	2.8	0
27	43	48	54	26	54	258	43	106	20	26	4.1	0
28	407	48	54	26	54	360	79	940	19	17	17	0
29	208	270	72	26	---	103	66	939	204	14	14	0
30	89	113	170	23	---	54	48	746	54	14	14	0
31	4230	---	195	1330	---	60	---	248	---	14	10	---
TOTAL	6721	6474	2842	2794.6	9083	2260	5061	7101	3306	1201.1	148.76	58.89
MEAN	217	216	91.7	90.1	324	72.9	169	229	110	38.7	4.80	1.96
MAX	4230	1990	350	1330	5010	360	2620	940	832	389	17	6.5
MIN	34	44	43	2.8	34	17	14	30	19	2.8	.38	0
CFSM	2.17	2.16	.92	.90	3.24	.73	1.69	2.29	1.10	.39	.05	.02
IN.	2.50	2.41	1.06	1.04	3.38	.84	1.88	2.64	1.23	.45	.06	.02
AC-FT	13330	12840	5640	5540	18020	4480	10040	14080	6560	2380	295	117
(ft)	5.71	3.48	1.83	3.03	3.05	2.55	3.03	6.78	3.30	3.10	1.67	.46
CAL YR 1974 TOTAL	38481.58			MEAN 105	MAX 4230	MIN 0	CFSM 1.05	IN 14.32	AC-FT 76330	TT 40.96		
WTR YR 1975 TOTAL	47051.35			MEAN 129	MAX 5010	MIN 0	CFSM 1.29	IN 17.50	AC-FT 93330	TT 37.99		

†† Weighted-mean rainfall, in inches.

TRINITY RIVER BASIN

465

08057400 White Rock Creek at Scyene Road, Dallas, Tex.

LOCATION.--Lat 32°45'57", long 96°43'49", Dallas County, on left bank 30 ft (9 m) downstream from Texas and New Orleans Railroad Co. bridge, 125 ft (38 m) downstream from Scyene Road (State Highway 352) in Dallas, 4.5 miles (7.2 km) east of Dallas County Courthouse, and 5.8 miles (9.3 km) upstream from mouth.

DRAINAGE AREA.--122 mi² (316 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Dec. 7, 1962, nonrecording gage 30 ft (9 m) upstream at same datum.

AVERAGE DISCHARGE.--13 years, 114 ft³/s (3.228 m³/s), 12.69 in/yr (322 mm/yr), 82,600 acre-ft/yr (102 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,930 ft³/s (225 m³/s) Feb. 1 (elevation, 401.41 ft or 122.350 m); minimum daily, 2.0 ft³/s (0.057 m³/s) Sept. 29.

Period of record: Maximum discharge, 30,200 ft³/s (855 m³/s) Sept. 21, 1964 (elevation, 404.30 ft or 123.231 m), from rating curve extended above 20,000 ft³/s (566 m³/s) on basis of contracted-opening measurement of 30,200 ft³/s (855 m³/s); minimum daily, 0.4 ft³/s (0.011 m³/s) Aug. 2, 3, 1964.

Maximum elevation since at least 1886, 409.2 ft (124.72 m) May 26, 1908 (affected by backwater from the Trinity River); maximum discharge since at least 1886, that of Sept. 21, 1964; the second highest discharge occurred Apr. 20, 1942, 28,000 ft³/s (793 m³/s), from Geological Survey Open-File Report "Frequency and Extent of Flooding on Lower White Rock Creek at Dallas, Tex."

REMARKS.--Records good. Flow partly regulated by White Rock Lake (capacity, 10,700 acre-ft or 13.2 hm³, at normal level) 4.5 miles (7.2 km) upstream. The Dallas Power and Light Co. reported diversion of 1,360 acre-ft (1.68 hm³) to off-channel reservoir at generating plant 0.8 mile (1.3 km) upstream from station. Low flow is sustained by wastewater. Seven recording rain gages (fourteen prior to Sept. 30, 1972) above station and one at station have been operated in basin since 1962.

REVISIONS (WATER YEARS).--WSP 2122: Drainage area. WRD Texas 1973: 1972.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	1490	94	80	5180	68	66	29	188	73	23	13
2	49	350	77	160	1600	67	93	492	129	52	20	5.1
3	43	211	62	125	755	68	68	317	100	63	14	10
4	35	362	57	95	503	59	42	120	80	160	5.5	9.9
5	32	299	68	86	618	46	41	72	70	73	8.2	8.4
6	32	165	176	79	376	48	42	430	66	55	11	3.6
7	33	158	149	74	199	68	447	350	63	33	9.5	3.1
8	32	127	107	70	173	76	3250	114	204	27	9.1	2.9
9	20	126	81	70	195	52	618	69	660	42	6.8	5.1
10	7.2	2030	136	72	102	81	295	54	905	34	4.2	4.5
11	6.4	889	466	72	125	81	199	89	334	30	3.6	7.7
12	6.3	315	232	98	115	113	128	143	84	26	3.8	6.5
13	6.0	194	143	60	100	264	227	85	60	14	3.8	6.1
14	421	176	118	36	95	115	285	668	72	6.1	4.0	4.4
15	371	102	106	37	105	91	157	481	66	12	4.1	21
16	104	103	96	45	102	88	120	218	56	12	4.1	19
17	69	105	91	45	85	92	106	101	50	7.8	3.7	6.8
18	54	97	84	43	85	120	193	67	46	10	3.5	5.5
19	51	96	82	70	81	94	97	55	35	12	3.6	4.5
20	44	99	79	64	55	71	68	339	14	9.5	3.2	3.5
21	37	75	72	31	58	41	60	410	26	8.2	3.7	4.6
22	34	56	66	38	165	9.5	58	149	28	6.8	47	4.4
23	33	37	66	34	254	21	56	271	31	6.1	6.5	3.8
24	32	227	71	41	182	12	58	268	29	174	32	4.4
25	35	95	81	45	114	28	57	128	29	634	6.8	3.7
26	34	74	80	46	102	134	53	85	23	339	3.1	3.1
27	34	130	60	42	94	415	47	301	16	105	3.7	2.5
28	496	63	60	40	73	344	67	1400	23	69	3.5	2.1
29	282	112	61	45	---	216	53	1310	150	52	14	2.0
30	116	140	98	46	---	95	8.5	1020	120	41	18	2.2
31	4760	---	160	1420	---	70	---	367	---	30	18	---
TOTAL	7358.9	8503	3379	3307	11691	3147.5	6969.5	10002	3757	2216.5	305.0	223.9
MEAN	237	283	109	107	418	102	232	323	125	71.5	9.84	7.46
MAX	4760	2030	466	1420	5180	415	3250	1400	905	634	47	45
MIN	6.0	37	57	31	55	9.5	8.5	29	14	6.1	3.1	2.0
CFSM	1.94	2.32	.89	.88	3.43	.84	1.90	2.65	1.02	.59	.08	.06
IN.	2.24	2.59	1.03	1.01	3.56	.96	2.13	3.05	1.15	.68	.09	.07
AC-FT	14600	16870	6700	6560	23190	6240	13820	19840	7450	4400	605	444
(††)	5.68	3.39	1.80	3.05	3.05	2.41	3.02	7.00	3.17	2.92	1.76	.49
CAL YR 1974 TOTAL	52333.1		MEAN 143	MAX 4760	MIN 1.1	CFSM 1.17	IN 15.96	AC-FT 103800	†† 40.34			
WTR YR 1975 TOTAL	60860.3		MEAN 167	MAX 5180	MIN 2.0	CFSM 1.37	IN 18.56	AC-FT 120700	†† 37.74			

†† Weighted-mean rainfall, in inches, based on eight rain gages.

LOCATION.--Lat 32°42'27", long 96°44'08", Dallas County, on left bank at downstream side of bridge on South Loop Highway 12, 1.0 mile (1.6 km) downstream from White Rock Creek, 1.5 miles (2.4 km) upstream from Fivemile Creek, 6.4 miles (10.3 km) southeast of Dallas County Courthouse in Dallas, and at mile 491.8 (791.3 km).

Water quality: Chemical and biochemical analyses: October 1967 to current year. Pesticide analyses: October 1971 to current year. Water temperatures: October 1967 to current year.

AVERAGE DISCHARGE.--18 years (1957-75), 1,747 ft³/s (49.48 m³/s), 1,266,000 acre-ft/yr (1.56 km³/yr).

Period of record: Maximum daily specific conductance (1967-68, 1972-75), 1,070 micromhos Dec. 13, 1967; minimum daily, 335 micromhos June 5, 1973. Maximum water temperatures (1967-68, 1973-75), 32.0°C Aug. 14, 1975; minimum, 4.0°C Jan. 10, 1968.

REMARKS.--Discharge records good. Flow largely regulated by reservoirs above Dallas (see station 08057000) and White Rock Lake (capacity, 12,500 acre-ft or 15.4 hms). Cities of Fort Worth and Dallas divert water for municipal use and return sewage effluent above station (see stations 08057000 and 08048000). Low flows are largely maintained by sewage effluent.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	14100	7510	4930	11400	5620	2270	3810	7560	4480	3690	434
2	757	16400	7340	4560	20000	4460	3660	4680	6590	2490	2680	443
3	728	13900	7230	4870	20500	4050	4650	5880	6980	1350	2170	470
4	688	12500	7150	3580	15200	4490	4870	2410	7260	1270	1960	472
5	654	12700	7080	2760	11300	2960	3840	991	7560	1040	1470	480
6	684	12400	7200	2700	9640	1420	2190	2630	7350	900	982	530
7	771	9990	7340	2610	8080	1120	3050	5070	7110	668	857	448
8	771	8460	7280	2280	6560	1110	10700	5180	6630	676	803	428
9	735	8120	7200	2020	5850	1010	16900	3690	7230	895	726	431
10	708	9390	7190	2620	7050	1110	15700	1140	9530	996	611	495
11	703	14100	7980	1910	8090	1040	11100	915	10800	1010	591	458
12	631	15700	8250	1570	8790	957	6590	1620	11300	899	593	442
13	544	12100	7420	1530	9160	1400	3910	1430	9390	708	599	479
14	2010	9480	6690	1210	9460	1360	3490	2600	8750	599	562	446
15	5330	8990	6320	894	8880	1800	3900	3080	9590	579	561	436
16	2810	9050	6220	786	7760	2350	5610	2770	10100	600	556	761
17	1030	9160	6140	766	7140	2480	6340	3110	10200	570	665	849
18	928	9210	5910	730	6840	3170	4080	3760	10600	573	673	506
19	871	9230	5520	695	6640	3970	2870	3520	11100	554	629	447
20	828	9010	5100	709	6470	4090	4000	2960	10300	526	646	415
21	799	8490	4850	669	6350	4400	4810	2920	8540	528	671	400
22	777	8080	4900	606	5760	4540	5130	1610	7160	533	751	501
23	747	7790	5060	542	5890	4590	5210	2530	5280	550	858	407
24	769	7860	5050	563	6490	4610	5190	7400	2150	728	858	427
25	740	7950	4820	589	6490	4170	5110	5410	2800	5060	665	390
26	814	7920	4760	554	6190	2530	3420	2310	4110	9140	609	393
27	772	7860	4890	544	6030	2830	1180	1590	4430	8850	623	378
28	1720	7760	4840	536	5930	2150	1200	6320	4470	4710	694	358
29	2460	7620	4760	538	---	1560	2650	9680	4450	3080	629	365
30	1490	7600	5040	547	---	1310	3810	11008	4720	5130	507	380
31	5900	---	5620	3290	---	1210	---	10000	---	4350	455	---
TOTAL	40369	302920	192660	52708	243940	83867	157430	122016	224040	64042	29344	13869
MEAN	1302	10100	6215	1700	8712	2705	5248	3936	7468	2066	9707	462
MAX	5900	16400	8250	4930	20500	5620	16900	11000	11300	9140	3690	849
MIN	544	7600	4760	536	5760	957	1180					

08057410 Trinity River below Dallas, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
17...	1500	960	16	58	3.9	56	8.9	187	0	78	38	--
NOV.												
06...	1600	10200	7.9	47	5.9	26	5.4	154	0	34	29	--
DEC.												
06...	1030	7300	9.1	42	3.5	23	4.6	134	0	33	23	.3
JAN.												
10...	1100	2950	7.3	64	5.4	37	6.4	170	0	85	29	.4
FEB.												
27...	1415	5300	7.0	47	4.7	25	5.1	154	0	41	27	.3
MAR.												
27...	1330	2180	6.0	64	5.0	42	9.6	171	0	94	36	.5
APR.												
22...	1200	4650	5.6	57	5.0	26	4.4	171	0	42	28	.3
MAY												
15...	1250	2950	6.0	57	4.6	40	6.4	176	0	55	37	.4
JUNE												
20...	0930	8700	6.6	52	5.8	25	4.1	162	0	37	28	.3
JULY												
24...	1040	498	13	53	7.5	100	12	233	0	95	85	1.0
AUG.												
07...	1100	584	10	55	7.8	69	8.2	210	0	73	58	.6
SEP.												
25...	1015	338	17	50	7.3	120	13	243	0	110	90	1.8

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT.												
17...	1.3	.13	3.1	2.0	5.1	2.4	352	78	26	160	8	1.9
NOV.												
06...	.23	.04	.56	.54	1.1	.50	231	146	26	140	15	1.0
DEC.												
06...	.41	.04	.45	.85	1.3	.69	205	80	7	120	9	.9
JAN.												
10...	.31	.07	1.4	3.1	4.5	1.5	318	279	41	180	43	1.2
FEB.												
27...	.60	.05	.91	.89	1.8	.66	233	78	14	140	11	.9
MAR.												
27...	1.3	.07	3.0	1.4	4.4	1.1	341	376	82	180	40	1.4
APR.												
22...	.70	.07	.68	.82	1.5	.59	253	223	12	160	23	.9
MAY												
15...	.89	.21	1.5	1.5	3.0	1.3	293	224	46	160	17	1.4
JUNE												
20...	.37	.03	.35	1.1	1.4	.38	239	118	30	150	21	.9
JULY												
24...	.69	.71	6.0	2.8	8.8	5.7	481	30	30	160	0	3.4
AUG.												
07...	1.1	.16	4.4	2.0	6.4	3.7	386	90	36	170	0	2.3
SEP.												
25...	2.3	.43	4.2	7.8	12	7.1	529	37	25	160	0	4.2

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.											
17...	619	7.2	22.0	30	30	3.8	43	22	19	7	.4
NOV.											
06...	408	7.3	18.5	30	70	4.3	46	5.5	11	2	.1
DEC.											
06...	365	7.3	12.0	5	40	8.4	78	5.4	7.4	3	.1
JAN.											
10...	568	7.2	12.0	5	150	8.0	74	24	19	--	.2
FEB.											
27...	424	7.3	12.0	20	40	10.4	96	6.9	8.2	3	.2
MAR.											
27...	602	7.3	16.5	20	120	5.9	60	19	21	9	1.0
APR.											
22...	455	7.3	17.0	50	60	8.6	89	5.5	--	15	.1
MAY											
15...	540	7.0	21.5	25	80	4.6	52	17	--	19	.1
JUNE											
20...	431	7.2	26.0	10	50	5.8	71	5.6	6.1	6	.1
JULY											
24...	885	7.0	29.5	30	6	.2	3	13	28	18	.9
AUG.											
07...	696	7.2	30.0	40	35	1.8	24	11	12	4	.6
SEP.											
25...	944	6.9	22.0	40	15	1.4	16	26	11	7	.9

TRINITY RIVER BASIN

08057410 Trinity River below Dallas, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)				
DATE	TIME											
OCT. 17...	1500	40	6	190	0	0	0	3				
FEB. 27...	1415	<10	0	40	2	0	2	4				
JUNE 20...	0930	20	2	70	0	0	0	1				
AUG. 07...	1100	10	3	320	1	0	0	15				
DATE	TIME	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)			
OCT. 17...	60	4			50	.0	7	430	30			
FEB. 27...	30	3		10	0	.0	4	290	20			
JUNE 20...	0	0		0	0	.0	2	390	0			
AUG. 07...	0	0		10	0	.0	5	440	10			
DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	
OCT. 17...	1500	960	22.0	.00	--	.00	--	.00	--	.00	--	
FEB. 27...	1415	5300	12.0	.00	--	.00	--	.00	--	.00	--	
JUNE 20...	0930	5000	26.0	.00	.0	.00	6.7	.00	.0	.00	1.2	
AUG. 07...	1100	584	30.0	.00	.0	.00	.1	.00	.2	.00	.0	
DATE	TIME	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)
OCT. 17...		.04	--	.00	--	.00	--	.00	--	.02	--	.1
FEB. 27...		.00	--	.00	--	.00	--	.00	--	.01	--	.0
JUNE 20...		.04	6.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 07...		.01	.5	.00	.0	.00	.0	.00	.0	.00	.0	.1
DATE	TIME	TOTAL CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
OCT. 17...		--	.0	--	.47	.00	.00	.00	.03	.00	.01	
FEB. 27...		--	.0	--	.05	.00	.00	.00	.02	.00	.00	
JUNE 20...		79	.0	86	.00	.00	.00	.00	.00	.00	.00	
AUG. 07...		3	.0	4	.24	.04	.00	.00	.00	.00	.00	

TRINITY RIVER BASIN

459

08057410 Trinity River below Dallas, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

								SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)		TOTAL SEDIM- MENT DIS- CHARGE (T/DAY)	
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	STREAM WIDTH (FT)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAM- PLING POINTS	SUS- PENDE SEDIM- ENT (MG/L)			
NOV. 19...	1504	9280	15.0	475	2.7	6.7	5	137	3430	3380	
JAN. 17...	1310	730	6.0	100	1.9	3.7	5	45	89	127	
31...	1650	5090	7.0	135	3.2	11	5	984	13500	13900	
APR. 08...	1346	10200	13.5	292	3.5	9.8	5	1050	28900	32700	
		SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM
NOV. 19...	68	70	76	96	100	51	54	60	63	65	
JAN. 17...	84	89	92	97	100	71	73	74	79	81	
31...	84	92	96	99	100	44	52	56	71	78	
APR. 08...	57	61	65	74	100	32	40	46	51	55	
		BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	
NOV. 19...	7	66	94	99	100	--	--	--	--	--	
JAN. 17...	31	35	44	65	92	94	98	100	--	--	
31...	--	--	28	65	76	83	90	98	100	100	
APR. 08...	7	15	32	53	65	74	85	93	100	100	

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHQS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA.MG) (MG/L)
OCT. 1974.....	40369	588	330	36000	36	3920	77	8390	160
NOV. 1974.....	302920	389	220	180000	23	18800	33	27000	130
DEC. 1974.....	192660	365	210	109000	21	10900	27	14000	130
JAN. 1975.....	52708	553	310	44100	34	4840	74	10500	160
FEB. 1975.....	243940	421	240	158000	25	16500	42	27700	140
MAR. 1975.....	83867	509	290	65700	31	7020	70	15900	160
APR. 1975.....	157430	484	270	115000	29	12300	60	25500	160
MAY 1975.....	122016	492	280	92200	30	9880	63	20800	160
JUNE 1975.....	224040	440	250	151000	26	15700	48	29000	150
JULY 1975.....	64042	499	280	48400	30	5190	65	11200	160
AUG. 1975.....	29344	675	380	30100	60	4750	84	6660	170
SEPT 1975.....	13869	874	490	18300	88	3300	100	3740	170
TOTAL	1527205	**	**	1050000	**	113000	**	200000	**
WTD.AVG.	4184.12	449	250	**	27	**	49	**	150

TRINITY RIVER BASIN

08057410 Trinity River below Dallas, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) • WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	651	431	345	411	460	426	569	457	460	429	507	800
2	682	413	339	419	380	440	474	423	463	485	531	828
3	721	398	346	474	374	452	463	483	451	549	530	915
4	740	421	349	467	413	466	446	514	444	554	531	873
5	740	412	355	464	450	562	485	647	465	600	560	908
6	734	419	376	489	481	606	522	582	455	696	640	908
7	735	444	360	477	463	687	543	444	451	651	765	725
8	731	430	347	515	471	665	478	452	442	767	754	863
9	703	420	350	523	450	613	453	533	440	716	696	930
10	705	400	341	582	430	738	433	580	374	709	727	978
11	712	378	391	519	422	679	474	640	411	663	760	863
12	706	379	387	530	414	640	496	713	455	658	875	987
13	700	397	378	551	409	602	540	589	457	653	885	962
14	432	390	380	625	422	737	565	545	435	662	862	800
15	461	374	376	688	465	544	552	516	418	852	926	767
16	540	369	374	753	412	540	470	541	411	852	949	788
17	609	362	367	766	420	535	472	490	413	821	885	923
18	692	362	370	748	415	486	558	473	413	893	809	680
19	679	361	386	729	419	454	554	461	415	880	794	775
20	660	366	378	794	405	435	465	431	429	875	862	783
21	646	370	370	855	419	443	467	489	460	824	772	870
22	657	368	375	833	404	425	463	557	480	949	700	877
23	724	370	380	865	428	426	463	580	501	949	653	877
24	665	375	369	879	448	437	468	475	532	896	824	1030
25	676	364	340	872	421	455	470	480	536	459	673	966
26	688	364	350	856	420	656	505	551	451	350	691	912
27	654	367	365	827	425	572	590	598	440	360	794	912
28	550	354	357	907	420	597	688	536	449	459	772	905
29	526	341	360	911	---	649	572	469	436	509	752	934
30	587	352	363	914	---	641	470	443	427	429	794	950
31	500	---	398	558	---	698	---	443	---	467	772	---
MONTH	652	366	365	671	425	559	506	522	447	665	743	876

TEMPERATURE (DEG. C) OF WATER • WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	21.5	---	10.0	13.0	12.0	16.0	21.5	---	28.0	31.0	---
2	23.0	22.0	12.0	10.5	---	---	15.0	22.0	25.5	28.0	30.5	30.0
3	24.5	22.0	13.0	11.0	11.0	11.0	15.0	21.5	24.0	29.0	---	30.0
4	24.5	21.0	13.0	9.0	12.0	13.0	14.0	21.5	25.0	28.0	30.5	30.5
5	---	20.5	13.0	9.5	11.5	13.0	---	23.0	25.0	---	30.0	30.5
6	---	20.0	14.0	11.5	10.0	13.0	15.5	24.0	27.0	29.0	29.5	29.5
7	25.0	18.0	---	13.0	9.5	16.5	15.0	23.0	27.0	29.0	31.5	29.0
8	25.0	18.0	13.0	13.0	8.5	15.5	16.5	23.5	26.0	30.0	30.0	30.0
9	25.5	---	11.5	13.5	---	13.0	18.0	25.5	25.0	30.0	30.0	30.5
10	---	---	11.0	13.5	10.0	14.5	18.0	---	25.0	29.5	30.0	29.5
11	25.5	18.0	11.5	11.0	11.5	13.5	18.0	24.5	25.0	30.0	---	29.5
12	24.5	18.0	12.0	---	12.0	---	16.5	24.5	26.0	---	30.5	29.0
13	---	18.0	12.0	9.5	11.5	11.0	---	24.0	27.0	29.0	30.5	26.5
14	23.0	17.0	---	11.0	13.0	13.5	18.0	23.5	---	28.5	32.0	---
15	22.0	15.5	---	13.0	12.0	10.5	18.0	23.0	26.5	29.0	30.5	25.5
16	21.0	15.5	11.5	13.5	---	---	18.0	24.0	27.0	29.0	30.5	27.0
17	22.0	15.5	11.5	13.5	11.5	11.5	18.0	---	26.5	29.0	30.5	26.5
18	23.5	16.0	11.5	13.0	11.0	13.0	20.0	23.0	27.0	29.5	30.0	27.0
19	23.0	18.0	11.5	13.5	11.0	12.0	18.5	23.0	27.0	---	30.5	28.0
20	---	18.0	12.0	13.5	10.0	13.5	18.0	23.0	28.0	30.5	30.5	27.0
21	21.5	17.0	11.5	14.5	12.0	15.5	19.5	23.5	---	30.5	30.5	26.5
22	21.5	18.0	---	13.5	11.5	15.0	20.0	25.0	---	30.5	30.0	24.0
23	23.0	---	14.0	15.5	---	17.0	19.0	24.5	29.5	31.0	30.0	23.5
24	23.0	16.5	13.0	14.0	10.0	15.5	20.0	---	28.5	30.5	30.5	24.5
25	22.0	16.5	10.5	14.0	11.5	16.5	21.0	---	28.5	28.0	29.0	23.5
26	23.5	15.5	10.0	14.5	12.0	16.0	21.5	25.0	27.0	26.5	29.5	23.5
27	23.0	15.5	10.0	15.0	12.0	18.0	---	26.0	28.0	---	31.0	24.0
28	---	15.5	11.0	18.5	13.0	18.0	23.5	25.0	29.0	29.0	29.0	24.5
29	23.0	14.0	---	19.0	---	14.0	23.0	25.0	28.0	30.0	29.5	26.0
30	24.0	11.5	11.5	18.0	---	11.5	21.5	26.0	28.0	29.5	30.0	26.0
31	---	---	11.5	15.0	---	15.5	---	24.0	---	29.5	30.5	---
MONTH	---	17.5	12.0	13.5	11.5	14.0	18.5	23.5	27.0	29.5	30.5	27.0

TRINITY RIVER BASIN

471

08057450 Tenmile Creek at State Highway 342 at Lancaster, Tex.

LOCATION.--Lat 32°34'42", long 96°45'21", Dallas County, on left bank at downstream side of bridge on State Highway 342, 0.1 mile (0.2 km) downstream from Missouri, Kansas, and Texas Railroad bridge, 0.5 mile (0.8 km) downstream from Deep Branch, 1.0 mile (1.6 km) south of Lancaster, and 14.1 miles (22.7 km) upstream from mouth.

DRAINAGE AREA.--52.8 mi² (136.8 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--6 years, 40.6 ft³/s (1.150 m³/s) 10.44 in/yr (265 mm/yr), 29,410 acre-ft/yr (36.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,160 ft³/s (174 m³/s) Feb. 1 (elevation, 461.53 ft or 140.674 m), from rating curve extended as explained below; minimum, 1.2 ft³/s (0.034 m³/s) Sept. 30.

Period of record: Maximum discharge, 12,900 ft³/s (365 m³/s) Sept. 27, 1973 (elevation, 466.00 ft or 142.037 m, from floodmarks), from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times.

Maximum elevation since 1942, 468.4 ft (142.77 m) June 1, 1964 (discharge not determined), from information by Corps of Engineers.

Other outstanding floods occurred in 1908, 1942, 1949, 1957, and 1966 (elevations and discharges unknown) according to the Corps of Engineers. The flood of May 6, 1969, reached an elevation of 466.0 ft (142.04 m), from floodmarks at downstream side of bridge, and a discharge of 12,900 ft³/s (365 m³/s), on the basis of a contracted-opening measurement of peak flow.

REMARKS.--Records good. Flow is slightly regulated by numerous small stock ponds above station. Low flows are partly sustained by effluent from the municipalities of Duncanville and De Soto. Five recording rain gages are operated in basin above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	28	31	1,820	35	30	21	65	22	20	4.2
2	9.5	66	27	48	32	33	29	35	59	11	22	3.3
3	7.7	55	26	43	275	32	26	22	54	15	18	3.1
4	7.1	62	25	36	196	34	26	19	47	15	15	3.0
5	6.8	50	31	35	154	32	26	19	43	21	14	2.8
6	5.4	43	53	33	114	31	25	68	38	10	12	3.1
7	4.9	50	28	32	93	30	257	35	37	8.2	11	2.8
8	4.9	44	25	30	90	28	616	18	46	6.6	10	2.5
9	4.4	46	24	29	79	29	99	16	57	6.0	9.5	3.2
10	3.2	433	60	37	77	31	72	15	120	7.7	8.8	3.2
11	2.8	118	73	28	71	28	60	56	41	8.2	8.3	3.1
12	2.8	75	39	27	63	31	53	21	34	8.8	8.2	2.5
13	2.3	65	36	25	61	77	96	15	31	6.0	7.7	2.5
14	2.6	54	35	27	58	38	79	32	29	4.9	7.3	2.8
15	27	52	33	27	54	34	54	44	26	4.9	6.7	3.5
16	15	51	32	27	51	34	49	15	25	4.4	7.5	11
17	13	48	31	26	48	32	46	11	23	4.4	7.5	4.4
18	10	44	30	26	46	61	43	8.4	22	4.0	7.1	2.5
19	9.2	41	28	25	43	34	36	7.0	20	4.0	5.5	2.5
20	7.8	35	28	23	42	32	35	211	19	3.2	5.0	3.3
21	7.5	33	26	24	41	31	34	45	18	3.2	4.9	2.2
22	7.2	32	28	24	49	31	33	27	17	2.2	11	3.7
23	6.1	48	26	19	62	31	33	259	16	2.2	9.7	2.5
24	6.4	58	25	27	49	29	32	143	14	107	5.2	2.0
25	6.9	34	23	25	47	26	29	74	25	814	5.2	1.9
26	7.3	37	26	23	39	78	28	54	19	89	4.9	2.1
27	6.7	31	25	23	37	51	26	72	16	24	7.3	2.0
28	8.9	30	27	19	36	37	30	150	13	19	8.3	1.9
29	23	34	28	24	-----	42	25	250	9.5	144	5.0	1.5
30	48	30	28	22	-----	36	24	113	15	49	4.4	1.5
31	1,650	-----	50	159	-----	32	-----	80	-----	24	3.6	-----
TOTAL	2,250.8	1,927	1,904	1,804	4,116	1,136	2,051	1,955.4	998.5	1,452.9	280.6	90.6
MEAN	72.6	64.2	32.4	32.4	147	36.6	68.4	63.1	33.3	46.9	9.05	3.02
MAX	1,660	433	73	159	1,820	78	616	259	120	814	22	11
MIN	2.3	30	23	19	36	26	24	7.0	9.5	2.2	3.6	1.5
CFSM	1.38	1.22	.61	.61	2.78	.69	1.30	1.20	.63	.89	.17	.06
IN.	1.59	1.36	.71	.71	2.91	.80	1.44	1.38	.70	1.02	.20	.06
AC-FT	4,460	3,820	1,990	1,990	8,150	2,250	4,070	3,880	1,980	2,880	557	180
(††)	6.89	2.60	1.80	2.13	3.63	2.26	3.70	7.64	1.90	6.95	.70	.59
CAL YR 1974 TOTAL	12,481.95											
WTR YR 1975 TOTAL	18,260.80											
MEAN	34.2											
MAX	1,660											
MIN	.13											
CFSM	.65											
IN	8.79											
AC-FT	24,760											
††	37.99											
AC-FT	36,220											
††	40.79											

PEAK DISCHARGE (BASE, 700 FT³/S)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-14	1315	451.47	1,220	5-20	1645	450.38	1,060
10-31	1045	459.69	4,360	5-23	1245	448.68	810
11-10	1015	451.33	1,200	5-29	1415	448.98	850
2-1	1030	461.53	6,160	7-25	0945	455.87	2,210
4-7	1800	450.09	1,010	7-29	1945	450.75	1,110
4-8	0400	456.63	2,490				

†† Weighted-mean rainfall, in inches, based on five rain gages.

TRINITY RIVER BASIN

08058000 Honey Creek subwatershed No. 12 near McKinney, Tex.

LOCATION.--Lat 33°18'20", long 96°40'12", Collin County, near center of dam on unnamed tributary of Honey Creek, 0.5 mile (0.8 km) west of Farm Road 543, and 7.8 miles (12.6 km) northwest of McKinney.

DRAINAGE AREA.--1.26 mi² (3.26 km²).

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

GAGE.--Water-stage recorder and concrete drop inlet. Datum of gage is 623.00 ft (189.890 m) above mean sea level (levels by Soil Conservation Service).

AVERAGE INFLOW.--23 years, 555 acre-ft/yr (684,000 m³/yr).

AVERAGE OUTFLOW.--23 years, 477 acre-ft/yr (588,000 m³/yr).

EXTREMES.--Current year: Maximum outflow, 8.1 ft³/s (0.23 m³/s) Oct. 31 (gage height, 21.62 ft or 6.590 m); no outflow most of July to September. Maximum inflow, 387 ft³/s (11.0 m³/s), average for 5-minute interval, Oct. 31, computed and adjusted as explained below; no inflow for many days.

Period of record: Maximum outflow, 766 ft³/s (21.7 m³/s) May 26, 1957 (gage height, 29.23 ft or 8.909 m); no outflow at times each year. Maximum inflow, 1,490 ft³/s (42.2 m³/s), average for 15-minute interval, May 21, 1957, computed from change in pool contents and adjusted for rainfall on pool surface during time of peak inflow; no inflow for many days each year.

REMARKS.--Records fair. The pool is formed by a rolled earthfill dam, 1,253 ft (382 m) long with a spillway located at right end of dam. The dam was completed Jan. 11, 1952, but no appreciable storage began until April 1952. The first outflow occurred on May 12, 1954. The outlet structure consists of an uncontrolled 30-inch (762-millimetre) square concrete drop-inlet structure that is connected to a 12-inch (305-millimetre) concrete outlet pipe. The spillway crest is at gage height 27.0 ft (8.23 m); crest of drop-inlet structure is at gage height 14.99 ft (4.569 m); and invert at bottom of outlet pipe is at gage height 5.0 ft (1.52 m). There is also an 8-inch (203-millimetre) controlled outlet pipe connected to the drop inlet at gage height 5.0 ft (1.52 m). Pool capacity is 477 acre-ft (588,000 m³) at the spillway crest, 104 acre-ft (128,000 m³) at the crest of drop inlet, and zero acre-ft at the controlled outlet pipe. The area and capacity tables presently in use are based on a sedimentation survey completed by the Soil Conservation Service in July 1969. The dam was built by the Soil Conservation Service for flood control and conservation. A recording rain gage is located at station.

POOL WATER BUDGET, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Inflow 1/	213	126	57.8	67.9	172	25.7	91.5	85.8	112	7.3	0.9	0.7
Outflow	54.0	280	54.3	45.2	192	21.4	85.5	78.9	108	0	0	0
(†)	+160	-159	+1.1	+20.2	-22.0	-6	0	+4.1	-4.8	-7	-10.9	-8.1
(††)	6.91	2.50	1.68	2.06	3.04	1.37	2.62	5.93	3.56	3.06	.59	1.11
CAL YR 1974: Inflow	812			Outflow	744	† +2.5		†† 35.97				
WTR YR 1975: Inflow	961			Outflow	919	† -20.7		†† 34.43				

PEAK INFLOW (BASE, 100 FT³/S)

DATE	TIME	DISCHARGE	DATE	TIME	DISCHARGE
10-31	0530	*387	5-13	2220	*360
2- 1	0300	*258	5-30	0110	*206
2- 4	2315	*155	6- 8	2015	*227
4- 8	0025	*176	6- 9	2010	*321

1/ Inflow adjusted for rainfall on pool and pool losses.

† Change in contents, in acre-feet.

†† Rainfall, in inches.

* Average for 5-minute interval.

TRINITY RIVER BASIN

473

08059000 East Fork Trinity River near McKinney, Tex.

LOCATION.--Lat 33°12'13", long 96°35'44", Collin County, on right bank at downstream side of bridge on U.S. Highway 380, 1.2 miles (1.9 km) northeast of McKinney, 4.2 miles (6.8 km) downstream from Honey Creek, 11 miles (18 km) upstream from Wilson Creek, 22 miles (35 km) upstream from Lavon Dam, and at mile 82.4 (132.6 km).

DRAINAGE AREA.--190 mi² (492 km²).

PERIOD OF RECORD.--August 1949 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 511.69 ft (155.963 m) above mean sea level. Since Feb. 21, 1966, supplementary water-stage recorder on overflow channel, 3,680 ft (1,120 m) to left of main channel.

AVERAGE DISCHARGE.--26 years, 115 ft³/s (3.257 m³/s), 83,320 acre-ft/yr (103 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 21,900 ft³/s (620 m³/s) Oct. 31 (gage height, 16.88 ft or 5.145 m); minimum, 0.35 ft³/s (0.010 m³/s) Sept. 24, 25.

Period of record: Maximum discharge not determined; maximum gage height, 17.23 ft (5.251 m) June 11, 1950; maximum discharge measured, 23,900 ft³/s (677 m³/s) May 26, 1957 (gage height, 16.65 ft or 5.075 m); no flow at times. Maximum stage since at least 1913, 21 ft (6.4 m) in April 1942, from information by local residents.

REMARKS.--Records fair. Low flow is partly sustained by sewage effluent from U.S. Government training facility upstream from station. Small diversions for irrigation above station. At end of year, flow from 91.7 mi² (237.5 km²) above this station was partly controlled by 51 floodwater-retarding structures with a combined capacity of 33,760 acre-ft (41.6 hm³) below the flood-spillway crests, of which 6,900 acre-ft (8.51 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS (WATER YEARS).--WSP 1512: 1950, 1951(P). WSP 1732: 1950-54(P), 1956(P). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	6510	142	199	3050	396	101	47	388	43	13	.87
2	139	3480	125	170	2110	215	93	242	257	38	9.8	.72
3	113	2380	115	289	1400	165	82	251	177	48	7.4	.58
4	96	2140	107	188	1150	150	77	127	128	104	5.9	.51
5	84	1270	104	153	1520	135	73	98	105	43	4.8	.42
6	73	841	286	134	1050	125	72	86	90	35	4.1	.40
7	65	638	233	124	549	120	122	72	83	28	3.5	.51
8	61	511	157	118	476	106	1720	64	195	24	3.1	1.2
9	57	422	126	111	401	102	1340	56	1750	19	3.0	.87
10	52	2830	133	155	341	160	531	48	2590	92	2.7	.61
11	49	3080	673	133	304	135	374	45	1340	101	3.8	.48
12	45	1360	309	110	247	147	274	95	809	60	7.4	.40
13	43	639	220	95	216	171	220	74	599	38	7.4	.40
14	97	415	182	94	201	187	195	828	412	25	7.4	.51
15	216	347	158	94	189	147	158	407	298	19	7.4	.45
16	123	311	141	90	178	228	135	243	224	17	8.2	.48
17	96	272	128	85	170	234	117	150	162	15	5.9	.45
18	79	240	120	84	156	190	113	108	137	15	6.3	.45
19	68	211	110	83	142	165	97	86	119	13	6.3	.58
20	59	183	102	78	136	139	87	81	106	11	3.0	.82
21	53	157	98	71	132	125	82	91	92	10	5.1	.61
22	51	145	95	68	143	118	77	76	78	8.7	10	.48
23	49	148	95	65	257	111	78	78	75	7.9	34	.45
24	50	571	94	69	292	103	76	104	63	7.9	5.7	.37
25	49	259	85	83	257	90	70	80	56	26	1.4	.40
26	56	199	94	76	202	88	64	65	54	21	1.6	.45
27	58	165	138	70	163	180	59	73	84	17	3.1	.45
28	177	146	114	66	287	257	64	450	54	78	4.0	.42
29	460	180	114	66	---	148	61	667	69	70	2.3	.42
30	208	205	115	63	---	131	54	1660	49	34	1.1	.42
31	7800	---	251	976	---	115	---	914	---	20	1.2	---
TOTAL	10802	30255	4964	4260	15719	4883	6666	7466	10643	1088.5	189.9	16.18
MEAN	348	1009	160	137	561	158	222	241	355	35.1	6.13	.54
MAX	7800	6510	673	976	3050	396	1720	1660	2590	104	34	1.2
MIN	43	145	85	63	132	88	54	45	49	7.9	1.1	.37
AC-FT	21430	60010	9850	8450	31180	9690	13220	14810	21110	2160	377	32
CAL YR 1974 TOTAL	87012.54		MEAN 238	MAX 7800	MIN .45	AC-FT 172600						
WTR YR 1975 TOTAL	96952.58		MEAN 266	MAX 7800	MIN .37	AC-FT 192300						

08059500 Sister Grove Creek near Princeton, Tex.

LOCATION.--Lat 33°11'35", long 96°28'32", Collin County, on right bank at upstream side of bridge on Farm Road 1377, 1.4 miles (2.3 km) northeast of Princeton, 2.3 miles (3.7 km) downstream from Stiff Creek, 5 miles (8 km) upstream from mouth, and 15 miles (24 km) upstream from Lavon Dam.

DRAINAGE AREA.--113 mi² (293 km²).

PERIOD OF RECORD.--September 1949 to January 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 487.52 ft (148.596 m) above mean sea level (Corps of Engineers bench mark), unadjusted.

AVERAGE DISCHARGE.--25 years, 69.4 ft³/s (1.965 m³/s), 50,280 acre-ft/yr (62.0 hm³/yr).

EXTREMES.--Maximum discharge during period October 1974 to January 1975, 6,670 ft³/s (189 m³/s) Oct. 31 (gage height, 16.75 ft or 5.105 m); minimum daily, 50 ft³/s (1.42 m³/s) Oct. 24.

Period of record: Maximum discharge, 9,080 ft³/s (257 m³/s) Apr. 26, 1957 (gage height, 16.28 ft or 4.962 m), from rating curve extended above 5,200 ft³/s (147 m³/s) on basis of contracted-opening measurement of 7,560 ft³/s (214 m³/s); maximum gage height, 16.55 ft (5.044 m) Apr. 30, 1966; no flow at times.

Maximum stage since at least 1865, 22 ft (6.7 m) in July 1913, from information by local residents.

REMARKS.--Records fair. Station discontinued Jan. 31, 1975, as a result of backwater from enlarged Lavon Lake. At end of period, flow from 57.6 mi² (149.2 km²) above this station was partly controlled by 37 floodwater-retarding structures with a combined capacity of 19,870 acre-ft (24.5 hm³) below the flood-spillway crests, of which 4,270 acre-ft (5.26 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Some water was diverted into an off-channel pool for use in highway construction, amount unknown.

REVISIONS (WATER YEARS).--WSP 1392: 1950, 1951(P). WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1974 TO JANUARY 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	3240	159	150								
2	118	1180	124	124								
3	111	876	114	171								
4	106	825	78	148								
5	101	730	93	122								
6	95	522	293	113								
7	91	390	224	104								
8	80	297	153	98								
9	77	259	118	96								
10	75	1040	162	106								
11	72	1460	474	122								
12	67	805	325	96								
13	65	446	200	81								
14	77	299	162	106								
15	159	238	147	85								
16	118	209	130	75								
17	85	195	119	72								
18	76	187	113	69								
19	68	182	105	68								
20	59	165	98	66								
21	56	141	93	59								
22	52	131	87	57								
23	51	122	86	55								
24	50	323	86	57								
25	51	307	80	64								
26	54	203	76	64								
27	57	160	103	64								
28	102	131	98	59								
29	197	147	88	54								
30	129	207	92	54								
31	2140	---	142	733								
TOTAL	4786	15417	4426	3392								
MEAN	154	514	143	109								
MAX	2140	3240	474	733								
MIN	50	122	76	54								
AC-FT	9490	30580	8780	6730								

CAL YR 1974 TOTAL 56496.90 MEAN 155 MAX 3240 MIN .40 AC-FT 112100
WTR YR 1975 TOTAL - MEAN - MAX - MIN - AC-FT -

PEAK DISCHARGE (BASE, 1,800 FT³/S).--Oct. 31 (2300) 6,670 ft³/s (16.75 ft).

08060500 Lavon Lake near Lavon, Tex.

LOCATION.--Lat 33°01'54", long 96°28'56", Collin County, in right abutment of spillway in dam on East Fork Trinity River, 3,850 ft (1,170 m) upstream from St. Louis Southwestern Railway Lines bridge, 4,000 ft (1,200 m) upstream from bridge on State Highway 78, 2.9 miles (4.7 km) west of Lavon, and at mile 55.9 (89.9 km).

DRAINAGE AREA.--770 mi² (1,990 km²).

PERIOD OF RECORD.--Contents: September 1953 to current year. Prior to October 1970, published as Lavon Reservoir.
Water quality: Chemical analyses: October 1969 to September 1974.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Jan. 20, 1954, nonrecording gage in the approach channel at same datum.

EXTREMES.--Current year: Maximum contents, 366,200 acre-ft (452 hm³) Nov. 14 (elevation, 487.04 ft or 148.450 m); minimum, 123,300 acre-ft (152 hm³) Sept. 30 (elevation, 470.09 ft or 143.283 m).

Period of record: Maximum contents, 462,800 acre-ft (571 hm³) May 26, 1957 (elevation, 491.90 ft or 149.931 m); minimum since lake first filled in 1957, 85,850 acre-ft (106 hm³) Oct. 18, 1972 (elevation, 466.02 ft or 142.042 m).

REMARKS.--The lake is formed by a rolled earthfill dam 9,499 ft (2,895 m) long, including a 568-foot (173-metre) gated spillway with twelve 40- by 28-foot (12- by 9-metre) tainter gates. Deliberate impoundment began Sept. 14, 1953, and the dam was completed in October 1953. The low-flow outlets consist of five 36-inch-diameter (914-millimetre) controlled sluices gates. The capacity table is based on a survey made in 1952. The lake was designed for flood control and water conservation. Water for municipal supply can be released down to elevation 453.0 ft (138.07 m). At end of year, flow from 234 mi² (606 km²) above this station was partly controlled by 141 floodwater-retarding structures with a combined capacity of 84,000 acre-ft (104 hm³) below the flood-spillway crests, of which 17,110 acre-ft (21.1 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	502.0	-
Top of tainter gates.....	490.0	423,400
Top of conservation pool.....	472.0	143,600
Crest of spillway (sill of tainter gates).....	462.0	56,290
Lowest gated outlet (invert).....	453.0	14,330

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

REVISIONS.--WSP 1922: Drainage area.

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

470.0	122,400	478.0	218,900	484.0	312,100
472.0	143,600	480.0	248,000	486.0	347,200
474.0	166,700	482.0	279,000	488.0	384,300
476.0	191,800				

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215,240	253,600	304,300	245,900	242,200	290,900	222,400	202,000	217,400	197,600	151,800	134,100
2	212,300	267,000	304,900	244,700	271,900	288,600	219,600	206,800	218,400	193,800	150,200	133,900
3	209,700	277,800	301,700	243,600	285,000	265,700	215,800	207,800	218,600	192,600	146,300	133,500
4	206,900	244,900	294,200	241,300	295,200	262,400	212,000	207,200	218,900	191,800	146,600	132,900
5	205,100	242,100	296,500	239,100	307,600	279,000	208,300	204,700	217,200	190,300	144,600	132,800
6	203,500	297,000	297,800	238,400	315,200	276,500	205,000	204,400	213,300	189,100	142,800	132,200
7	201,400	300,000	297,200	239,100	319,000	274,300	207,600	204,400	210,300	187,300	141,800	131,700
8	199,150	302,900	294,000	238,200	322,800	270,800	221,000	202,000	210,300	185,600	141,500	131,200
9	197,400	306,200	290,400	235,400	321,000	268,100	234,700	199,700	218,900	184,000	140,900	130,900
10	195,400	325,400	289,800	232,500	319,700	265,800	239,400	198,000	248,000	182,400	140,400	130,200
11	194,000	348,100	293,700	229,800	319,100	263,700	241,400	196,700	264,000	181,200	140,000	129,600
12	191,400	356,700	295,700	225,800	317,400	262,500	242,500	194,800	267,000	179,600	139,300	129,900
13	192,000	365,500	295,700	222,300	315,500	259,900	244,200	193,800	265,300	177,500	138,700	129,200
14	192,400	363,500	294,800	219,300	314,300	258,000	244,200	193,500	263,400	175,600	138,300	128,500
15	191,400	357,300	293,700	216,000	313,500	256,200	242,600	194,100	261,200	173,700	138,100	128,500
16	190,900	351,200	292,200	212,800	312,100	253,900	241,100	198,900	256,900	171,900	138,100	128,200
17	196,300	344,700	289,100	209,700	310,400	251,900	238,600	196,700	254,500	170,100	139,100	127,700
18	193,800	340,600	286,400	206,400	309,200	250,200	237,000	194,800	251,300	168,000	138,500	127,500
19	195,600	337,900	283,300	204,200	306,100	247,700	234,100	192,000	247,700	166,200	138,200	127,400
20	187,700	332,600	279,900	201,000	305,000	244,400	231,800	191,700	244,200	164,400	137,900	127,200
21	186,600	327,200	276,400	197,400	302,800	241,900	229,400	191,000	240,800	162,500	137,500	126,700
22	185,900	323,500	272,700	193,600	303,700	239,400	226,700	189,700	236,900	160,500	137,200	126,300
23	185,400	321,800	269,900	191,100	304,700	236,900	224,100	190,100	237,800	158,400	136,900	126,000
24	184,900	320,800	266,100	189,000	304,500	233,900	221,300	190,500	228,900	156,900	136,100	125,800
25	184,100	319,500	262,300	187,600	302,700	230,300	218,200	190,500	228,000	154,600	135,800	125,200
26	183,600	319,200	259,000	186,100	299,300	227,400	214,400	190,900	214,200	154,700	135,600	124,800
27	183,000	317,100	255,900	184,700	295,700	225,700	211,000	190,500	212,500	154,900	135,900	124,100
28	183,500	313,000	253,000	183,800	292,400	228,100	207,400	191,600	207,600	158,000	135,500	123,700
29	184,500	312,800	250,300	182,700	287,700	227,700	204,700	193,400	203,200	156,300	135,200	123,500
30	184,200	311,100	246,600	181,600	282,900	227,900	203,800	193,300	200,500	155,100	134,900	123,300
31	206,500	-----	248,000	197,100	-----	226,900	-----	213,400	-----	153,600	134,400	-----
(†)	477.10	483.94	480.00	476.40	482.82	478.50	476.90	477.75	476.66	472.89	471.16	470.09
(*)	-10,500	-104,600	-63,100	-50,900	+95,300	-66,400	-22,200	+11,600	-14,900	-46,900	-19,200	-11,100
(††)	4,740	4,220	3,750	4,000	3,690	3,770	3,560	4,000	5,050	6,740	6,260	5,430
MAX	215,200	365,500	308,300	245,900	322,800	290,900	244,200	215,400	267,000	197,600	151,800	134,100
MIN	183,000	253,600	248,000	181,800	262,200	225,700	203,800	189,700	200,500	153,600	134,400	123,300

CAL YR 1974..... * +105,800

†† 54,500

MAX 365,500

MIN 141,400

WTR YR 1975..... * -93,700

†† 55,210

MAX 365,500

MIN 123,300

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal and industrial use by North Texas Municipal Water District.

TRINITY RIVER BASIN

08061000 East Fork Trinity River near Lavon, Tex.

LOCATION.--Lat 33°01'25", long 96°28'31", Collin County, on left bank at downstream side of St. Louis Southwestern Railway Lines bridge, 150 ft (46 m) upstream from bridge on State Highway 78, 3,550 ft (1,082 m) downstream from Lavon Dam, 2.5 miles (4.0 km) west of Lavon, and at mile 54.9 (88.3 km).

DRAINAGE AREA.--773 mi² (2,002 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 429.58 ft (130.936 m) above mean sea level. Prior to Oct. 1, 1969, at site 150 ft (46 m) downstream at same datum.

AVERAGE DISCHARGE.--22 years, 400 ft³/s (11.33 m³/s), 289,800 acre-ft/yr (357 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,890 ft³/s (110 m³/s) Nov. 15 (gage height, 14.87 ft or 4.532 m); no flow Aug. 24 to Sept. 30.

Period of record: Maximum discharge, 39,000 ft³/s (1,100 m³/s) May 26, 27, 1957, from records of released flow from Lavon Lake furnished by Corps of Engineers; maximum gage height, 17.34 ft (5.285 m) May 26, 1957; no flow at times each year.

Maximum stage since at least 1894, 22.3 ft (6.80 m) in 1913 and in April 1942, from information by St. Louis Southwestern Railway Lines and local residents.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow is regulated by Lavon Lake (station 08060500).

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1560	7.8	2080	1980	52	2120	1930	950	2.5	1860	665	
2	1620	7.8	2070	1960	13	2120	1870	990	2.0	1480	665	
3	1740	8.8	2080	1950	11	1930	1800	1030	1.4	1020	657	
4	1320	12	2120	1940	11	1820	1880	1030	1.2	689	657	
5	1100	12	2100	1920	16	1790	2060	1520	900	680	649	
6	1060	11	2150	1000	6.3	1760	2000	1920	1860	679	641	
7	1240	8.8	2280	5.1	4.4	1740	1320	1910	1800	678	272	
8	1180	9.9	2270	919	753	1720	25	1880	1750	678	.56	
9	920	9.9	2250	1880	1190	1690	10	1820	66	677	.22	
10	879	41	2150	2090	1340	1680	7.0	1520	10	725	.22	
11	746	12	1600	2060	1460	1670	6.0	1000	3.5	695	.16	
12	366	9.9	1360	2030	1440	1660	5.0	973	621	695	.11	
13	425	6.9	1370	1960	1440	1640	4.0	1310	1880	695	.07	
14	641	1590	1360	1920	1280	1600	575	1240	1870	695	.07	
15	601	3680	1360	1940	1140	1580	1040	500	1850	687	.07	
16	565	3880	1360	2040	1140	1570	1250	1120	1830	687	.07	
17	527	3810	1730	1970	1130	1550	1410	1720	1870	687	.36	
18	499	7070	2110	1900	1120	1530	1390	1550	1780	680	.40	
19	457	2170	2090	1760	1110	1630	1360	1480	1750	680	.16	
20	405	2230	2080	1700	1110	1690	1340	1090	1790	680	.07	
21	376	2220	2140	2140	1350	1660	1320	297	1820	680	.07	
22	348	2200	2200	2020	877	1620	1390	496	1780	680	.03	
23	321	2080	2180	1630	4.0	1580	1420	292	1830	687	.01	
24	313	1990	2150	1300	945	1550	1590	20	1840	680	0	
25	313	1980	2130	1050	1820	1730	1870	5.0	2380	283	0	
26	313	2060	2100	865	2090	2050	1940	3.5	3060	1.2	0	
27	304	2110	2060	740	2180	1200	1840	190	2840	.36	0	
28	296	2100	2050	710	2140	20	1960	176	2700	300	0	
29	304	2100	2030	702	---	6.0	1610	7.0	2590	665	0	
30	304	2090	2000	695	---	4.5	950	4.5	2410	665	0	
31	214	---	2000	296	---	1040	---	7.0	---	665	0	---
TOTAL	21265	41517.8	61010	47072.1	27172.7	46950.5	37172.0	28127.0	44887.6	21353.56	4208.65	0
MEAN	686	1384	1968	1518	970	1515	1239	907	1496	689	136	0
MAX	1740	3880	2280	2140	2180	2120	2060	1920	3060	1860	665	0
MIN	214	6.9	1360	5.1	4.0	4.5	4.0	3.0	1.2	.36	0	0
AC-FT	42180	82350	121000	93370	53900	93130	73730	55790	89030	42350	8350	0

CAL YR 1974 TOTAL 216184.36 MEAN 592 MAX 3880 MIN 0 AC-FT 428800
WTR YR 1975 TOTAL 380736.91 MEAN 1043 MAX 3880 MIN 0 AC-FT 755200

NOTE.--No gage-height record Feb. 13 to July 9.

08061540 Rowlett Creek near Sachse, Tex.

LOCATION.--Lat 32°57'35", long 96°36'51", Dallas County, on left bank at downstream side of bridge on State Highway 78, 150 ft (46 m) downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 250 ft (76 m) downstream from Spring Creek, and 1.5 miles (2.4 km) southwest of Sachse.

DRAINAGE AREA.--120 mi² (311 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 450.00 ft (137.160 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 95.5 ft³/s (2.705 m³/s), 69,190 acre-ft/yr (85.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 14,500 ft³/s (411 m³/s) Feb. 1 (gage height, 26.71 ft or 8.141 m); minimum, 0.43 ft³/s (0.012 m³/s) Aug. 16, 17.

Period of record: Maximum discharge, 24,700 ft³/s (700 m³/s) Dec. 9, 1971 (gage height, 28.35 ft or 8.641 m); no flow Aug. 24 to Sept. 2, 1969.

Maximum stage since at least 1942, 35.4 ft (10.79 m) in 1942, from information by Texas Highway Department.

REMARKS.--Records good. No known diversion above station. The city of Plano reported the discharge of 5,760 acre-ft (7.10 hm³) of sewage effluent into a tributary above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	509	79	89	6,130	63	65	51	66	21	8.1	4.9
2	43	203	75	112	597	59	60	357	59	20	6.2	4.9
3	44	160	73	140	516	56	54	95	54	20	6.9	4.9
4	42	479	69	89	401	58	53	67	49	43	7.7	3.9
5	39	197	70	81	678	57	52	60	45	21	4.9	3.3
6	37	145	172	75	215	56	53	67	41	17	4.2	9.7
7	38	135	93	74	158	54	378	55	44	15	3.3	9.7
8	37	132	76	69	140	51	2,200	49	127	12	2.8	5.8
9	36	134	70	66	114	62	227	48	415	11	2.1	2.8
10	29	2,920	160	83	106	81	155	41	1,570	11	3.6	3.9
11	29	346	362	65	103	66	135	53	130	18	3.3	4.6
12	28	188	126	60	95	79	115	59	80	14	2.8	3.3
13	28	157	105	56	90	138	135	36	66	13	2.3	5.2
14	205	135	97	58	87	91	133	256	56	11	2.1	6.2
15	93	123	90	56	83	79	107	222	51	9.9	2.1	6.6
16	48	106	84	54	81	83	96	57	53	9.6	1.2	11
17	44	100	79	53	77	76	91	44	46	9.1	50	11
18	40	91	76	53	73	94	89	38	42	9.3	64	6.9
19	37	90	72	53	69	75	78	34	39	8.9	30	6.2
20	35	81	70	48	67	70	75	127	36	7.8	8.5	4.9
21	34	76	67	49	65	68	72	71	33	7.3	51	4.6
22	32	73	67	45	84	67	69	47	33	7.1	119	5.8
23	31	77	65	46	107	67	70	78	35	5.7	29	4.9
24	33	140	61	51	99	63	68	63	29	14	12	3.7
25	35	78	56	50	83	61	63	52	33	132	9.3	4.0
26	34	73	66	46	74	189	61	42	35	29	7.7	5.4
27	32	69	65	45	67	214	57	47	28	14	7.7	4.5
28	150	66	61	43	65	129	76	186	26	11	24	4.6
29	80	165	64	44	-----	88	58	719	33	9.7	9.7	5.7
30	50	110	79	43	-----	78	54	247	25	8.1	7.3	5.8
31	4,510	-----	158	2,090	-----	69	-----	86	-----	8.5	5.2	-----
TOTAL	6,000	7,358	2,907	3,986	10,524	2,541	4,999	3,454	3,379	548.0	498.0	168.7
MEAN	194	245	93.8	129	376	82.0	167	111	113	17.7	16.1	5.62
MAX	4,510	2,920	362	2,090	6,130	214	2,200	719	1,570	132	119	11
MIN	28	66	56	43	65	51	52	34	25	5.7	1.2	2.8
AC-FT	11,900	14,590	5,770	7,910	20,870	5,040	9,920	6,850	6,700	1,090	988	335

CAL YR 1974 TOTAL 34,041.7 MEAN 93.3 MAX 4,510 MIN 1.3 AC-FT 67,520
WTR YR 1975 TOTAL 46,362.7 MEAN 127 MAX 6,130 MIN 1.2 AC-FT 91,960

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	1500	25.42	9,500	4-8	0630	23.39	4,990
11-10	1015	23.42	5,020	5-29	1415	17.44	2,290
1-31	0945	22.46	4,210	6-10	0100	20.47	3,300
2-1	1315	26.71	14,500				

08061550 Lake Ray Hubbard near Forney, Tex.

LOCATION.--Lat 32°48'00", long 96°29'45", Kaufman County, near right end of spillway in Forney Dam on East Fork Trinity River, 0.5 mile (0.8 km) upstream from Duck Creek, 1.8 miles (2.9 km) upstream from bridge on Interstate Highway 20, 3.8 miles (6.1 km) northwest of Forney, 24 miles (39 km) downstream from Lavon Dam, and at mile 31.8 (51.2 km).

DRAINAGE AREA.--1,071 mi² (2,774 km²).

PERIOD OF RECORD.--Contents: January 1968 to current year.

Water quality: Chemical analyses: October 1969 to current year.

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

EXTREMES.--Current year: Maximum contents, 489,200 acre-ft (603 hm³) June 9 (elevation, 435.47 ft or 132.731 m); minimum, 453,000 acre-ft (559 hm³) Feb. 24 (elevation, 433.84 ft or 132.234 m).
Period of record: Maximum contents, 500,900 acre-ft (618 hm³) June 4, 1973 (elevation, 435.98 ft or 132.887 m); minimum since first appreciable filling following closure of gates on Mar. 22, 1970, 371,000 acre-ft (457 hm³) July 23, 1971 (elevation, 429.85 ft or 131.018 m).

REMARKS.--The lake is formed by a rolled earthfill dam 12,500 ft (3,810 m) long, including a 664-foot (202-metre) gated spillway with fourteen 40- by 28-foot (12- by 9-metre) tainter gates. Closure was made in September 1967, but the gates were not closed until Mar. 22, 1970. Low-flow releases are made through three 4.5- by 6.75-foot (1.4- by 2.06-metre) sluiceways. Flow in each sluiceway is controlled by three sluice gates. The lake was built by the city of Dallas for municipal water supply. During the current year, the city of Dallas reported a total of 15,430 acre-ft (19.0 hm³) diverted from the lake for industrial and municipal uses, 2,250 acre-ft (2.77 hm³) by Dallas Power and Light Co., and 17 acre-ft (21,000 m³) by the Eastern Hills Country Club of Garland. At end of year, flow from 44.5 mi² (115.3 km²) above this station and below Lavon Lake (station 08060500) was partly controlled by 14 floodwater-retarding structures with a combined capacity of 14,470 acre-ft (17.8 hm³) below the flood-spillway crests, of which 1,950 acre-ft (2.40 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. The area and capacity tables are based on surveys made in 1953 and 1959. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	450.0	-
Design flood.....	440.5	611,500
Top of tainter gates.....	437.5	536,700
Top of conservation pool.....	435.5	489,900
Crest of spillway (sill of tainter gates).....	409.5	83,130
Lowest gated outlet (invert).....	388.0	80

COOPERATION.--Record of diversions furnished by the city of Dallas. The area and capacity tables furnished by Forrest and Cotton, Consulting Engineers, for the city of Dallas.

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

433.0	435,000	435.0	478,600
434.0	456,500	436.0	501,400

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	471,000	474,600	466,400	468,200	486,500	459,100	456,900	454,500	470,100	475,300	479,800	467,700
2	469,900	470,100	465,900	468,600	473,000	459,800	457,800	457,200	469,500	475,700	480,700	467,300
3	469,500	471,300	466,200	469,000	466,200	459,800	456,500	458,000	469,000	478,000	481,800	466,600
4	468,400	471,700	466,600	467,700	462,600	459,100	456,100	457,800	468,600	478,600	482,200	465,900
5	469,300	470,800	468,600	467,300	466,200	458,000	456,900	457,400	470,400	478,600	482,700	466,400
6	469,900	471,500	471,700	467,300	464,800	458,700	457,200	460,400	472,800	478,900	483,100	465,700
7	470,400	471,500	472,600	467,700	464,600	459,300	464,200	460,900	476,400	479,300	482,900	465,100
8	470,600	471,500	473,900	467,700	470,100	458,000	464,800	459,800	482,000	479,800	482,200	464,400
9	470,800	472,100	473,500	469,300	465,500	457,800	462,900	458,700	487,700	480,400	481,100	464,200
10	470,400	481,800	476,200	469,700	465,300	458,000	463,700	456,500	481,800	480,400	480,400	463,100
11	470,100	473,500	477,100	469,500	466,600	457,400	464,000	454,800	474,800	478,200	479,500	462,900
12	470,400	468,600	475,700	469,500	466,200	460,900	463,300	453,400	474,200	478,200	478,600	463,100
13	470,400	472,400	474,400	468,400	465,300	458,700	464,800	454,500	472,600	478,000	477,500	462,000
14	473,700	469,000	473,500	467,900	464,800	458,000	464,800	459,100	473,300	478,000	476,800	461,100
15	468,600	468,800	471,700	468,200	466,200	457,200	464,800	460,900	474,200	478,000	476,200	460,900
16	465,900	470,600	469,500	468,200	464,400	456,900	463,100	460,700	471,300	478,000	475,900	460,400
17	466,800	471,300	467,700	468,200	463,500	458,500	460,700	461,100	473,000	478,000	476,400	459,600
18	467,500	471,500	468,400	467,500	463,100	455,800	463,500	461,300	472,800	477,500	476,200	459,600
19	467,700	473,300	467,900	468,600	460,700	455,800	461,500	459,100	472,800	477,500	475,500	460,400
20	467,500	473,000	467,300	464,800	458,500	454,800	460,200	465,500	472,400	477,300	474,600	459,300
21	467,300	472,800	466,800	467,900	458,000	455,400	458,700	465,500	472,400	477,300	474,200	459,100
22	467,700	471,900	466,200	469,700	459,100	455,400	456,900	465,500	471,900	477,100	474,200	458,200
23	468,200	475,900	467,500	470,400	455,000	455,200	456,100	464,800	471,700	477,500	472,800	457,400
24	468,800	472,600	469,000	471,700	453,000	454,300	456,100	466,200	471,300	479,100	471,700	456,900
25	469,000	469,900	467,900	471,900	453,900	453,700	456,500	465,100	471,700	482,500	471,300	456,100
26	469,300	468,600	467,300	471,000	454,800	455,000	456,100	464,800	473,700	478,200	471,300	455,200
27	469,500	467,500	466,600	470,600	456,700	457,200	456,100	468,200	475,000	476,400	471,300	454,800
28	470,800	467,000	466,600	470,800	459,600	459,100	456,300	471,500	476,800	476,600	470,600	454,100
29	469,300	469,300	466,800	470,800	-----	455,400	456,300	476,400	476,800	477,500	469,700	453,900
30	468,400	467,500	467,500	470,600	-----	453,900	456,700	475,300	476,600	478,000	468,800	453,900
31	483,600	-----	468,800	479,500	-----	454,300	-----	471,500	-----	479,300	468,200	-----
(+)	435.22	434.50	434.56	435.04	434.14	433.90	434.01	434.68	434.91	435.03	434.53	433.88
(*)	+11,900	-16,100	+1,300	+10,700	-19,900	-5,300	+2,400	+14,800	+5,100	+2,700	-11,100	-14,300
(++)	1,329	10	63	90	249	609	2,240	2,443	2,664	3,559	3,719	702
MAX	483,600	481,800	477,100	479,500	486,500	459,800	464,800	476,400	487,700	482,500	483,100	467,700
MIN	465,900	467,000	465,900	464,800	453,000	453,700	456,100	453,400	468,600	475,300	468,200	453,900
CAL YR 1974.....	+	-500	++	19,820	MAX	484,500	MIN	461,800				
WTR YR 1975.....	+	-17,800	++	17,680	MAX	487,700	MIN	453,000				

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

++ Diversions, in acre-feet, for municipal and industrial use by city of Dallas.

08061550 Lake Ray Hubbard near Forney, Tex.--Continued

WATER QUALITY DATA

		DIS- SOLVED SILICA (SiO_2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO_3) (MG/L)	CAR- BONATE (CO_3) (MG/L)	DIS- SOLVED SULFATE (SO_4) (MG/L)	
DATE	TIME									
JUNE, 1975										
30...	1220	3.3	41	3.5	11	3.4	128	0	26	
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE, 1975										
30...	9.2	.3	161	120	12	.4	283	8.1	26.5	

TRINITY RIVER BASIN

08061700 Duck Creek near Garland, Tex.

LOCATION.--Lat 32°49'59", long 96°35'43", Dallas County, on right bank at downstream side of bridge on Belt Line Road, 6.0 miles (9.7 km) southeast of Garland, and 7.7 miles (12.4 km) upstream from mouth.

DRAINAGE AREA.--31.6 mi² (81.8 km²).

PERIOD OF RECORD.--January 1958 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 430.02 ft (131.070 m) above mean sea level. Prior to Oct. 1, 1962, at datum 4.00 ft (1.219 m) higher.

AVERAGE DISCHARGE.--17 years, 26.8 ft³/s (0.759 m³/s), 11.52 in/yr (293 mm/yr), 19,420 acre-ft/yr (23.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,780 ft³/s (135 m³/s) Feb. 1 (gage height, 17.17 ft or 5.233 m); no flow Sept. 26.
Period of record: Maximum discharge, 16,000 ft³/s (453 m³/s) July 27, 1962 (gage height, 20.80 ft or 6.340 m, present datum); no flow at times.

Maximum stage since about 1895, 21.5 ft (6.55 m), present datum, June 13, 1949, from information by local residents.

REMARKS.--Records good. Flow slightly regulated by several small on-channel dams. Small diversion for irrigation of golf course above station. Low flows may be sustained by effluents from city of Garland. One recording rain gage at station and three above are operated in basin.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	90	8.1	8.0	1630	6.5	7.3	4.1	12	4.4	1.0	.25
2	7.1	50	7.9	39	144	6.6	6.1	197	9.2	4.1	90	.21
3	6.7	41	7.9	11	128	5.7	5.3	22	8.4	9.0	.40	.19
4	6.0	100	7.6	9.8	93	7.5	4.8	11	7.1	6.6	.33	.17
5	5.8	38	17	9.2	148	6.5	4.5	9.6	6.4	3.4	2.6	.16
6	5.3	25	102	8.8	35	6.5	4.4	172	5.5	2.7	1.4	.15
7	5.3	35	18	8.6	20	6.0	289	8.0	25	2.7	1.0	.12
8	5.8	15	13	8.5	18	5.1	672	16	106	2.3	1.4	.11
9	5.1	28	11	8.4	14	25	27	12	553	2.2	5.5	.10
10	6.7	728	138	20	12	20	16	10	312	2.2	3.1	2.1
11	3.5	58	124	8.1	13	9.7	13	36	83	4.8	1.5	1.0
12	3.2	26	28	7.1	10	39	12	21	17	3.4	.50	.40
13	5.1	17	22	6.6	9.6	104	79	8.6	16	2.3	.50	.06
14	160	13	20	7.4	8.5	16	34	181	11	1.7	.50	.30
15	26	9.9	16	7.0	8.6	12	11	111	9.7	2.1	.50	.72
16	16	11	15	7.0	8.0	24	8.3	19	9.2	2.1	1.1	6.2
17	12	11	14	6.7	7.1	12	7.4	12	9.1	2.0	58	1.7
18	10	11	13	6.9	6.4	23	7.1	9.9	8.0	1.8	48	1.8
19	8.8	9.9	13	6.5	5.9	9.0	4.6	9.6	7.4	1.6	5.1	.71
20	7.8	8.6	12	6.1	6.0	7.7	3.5	152	8.5	1.4	3.7	.02
21	7.1	7.9	12	5.8	5.6	7.1	3.7	37	8.5	1.2	47	.06
22	6.5	7.6	11	5.7	65	7.0	4.7	15	8.5	1.3	28	.57
23	6.0	16	12	6.0	77	6.7	3.9	120	8.3	1.1	7.6	.90
24	6.5	64	12	19	27	5.7	3.8	28	7.5	38	5.1	.53
25	8.6	10	11	8.7	12	5.0	3.1	9.9	9.5	201	3.5	.13
26	7.8	8.9	17	6.6	8.6	62	2.3	6.4	8.1	13	2.2	.05
27	6.8	8.4	10	6.0	7.5	32	2.1	8.6	7.7	2.9	1.3	.83
28	8.4	7.9	11	6.5	7.4	17	14	376	60	3.2	.60	.22
29	2.3	31	12	7.3	---	30	3.4	542	127	2.4	.39	.07
30	250	15	32	5.5	---	12	3.2	199	6.9	1.7	.34	.09
31	1650	---	18	533	---	7.6	---	20	---	1.3	.29	---
TOTAL	2273.8	1502.1	765.5	810.8	2535.2	543.9	1260.5	2455.7	1475.9	329.9	355.12	19.92
MEAN	73.3	50.1	24.7	26.2	90.5	17.5	42.0	79.2	49.2	10.6	11.5	.66
MAX	1650	728	138	533	1630	104	672	542	553	201	90	6.2
MIN	2.3	7.6	7.6	5.5	5.6	5.0	2.1	4.1	5.5	1.1	.29	.02
CFSM	2.32	1.59	.78	.83	2.86	.55	1.33	2.51	1.56	.34	.36	.02
IN.	2.68	1.77	.90	.95	2.98	.64	1.48	2.89	1.74	.39	.42	.02
AC-FT	4510	2980	1520	1610	5030	1080	2500	4870	2930	654	704	.40
(††)	5.62	2.69	1.92	2.51	3.30	1.79	2.95	7.51	3.69	2.08	2.48	.45
CAL YR 1974	TOTAL	15459.52	MEAN	42.4	MAX	1650	MIN	.19	CFSM	1.34	IN	18.20
WTR YR 1975	TOTAL	14328.34	MEAN	39.3	MAX	1650	MIN	.02	CFSM	1.24	IN	16.87
AC-FT	30660	††	43.20	AC-FT	28420	††	36.99					

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	unknown	17.0	4,440	4- 8	0415	16.02	2,770
11-10	1000	15.63	2,250	5-29	1500	16.03	2,790
2- 1	0930	17.17	4,780	6- 9	2315	16.75	3,970

†† Weighted-mean rainfall, in inches, based on four rain gages.

a From floodmark.

08061750 East Fork Trinity River near Forney, Tex.

LOCATION (revised).--Lat 32°46'26", long 96°30'13", Kaufman County, on right bank 130 ft (40 m) downstream from bridge on Interstate Highway 20, 0.2 mile (0.3 km) downstream from Duck Creek, 1.9 miles (3.1 km) downstream from Lake Ray Hubbard Dam, 2.5 miles (4.0 km) upstream from Texas and Pacific Railroad Co. bridge, 2.6 miles (4.2 km) northwest of Forney, and at mile 30.8 (49.6 km). Prior to Aug. 26, 1975, at site 126 ft (38 m) upstream and 868 ft (265 m) to left.

DRAINAGE AREA.--1,118 mi² (2,896 km²), of which 1,071 mi² (2,774 km²) is above Lake Ray Hubbard.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 377.86 ft (115.17 m) above mean sea level (from State Highway Department bridge plans). Prior to Aug. 26, 1975, recording gage located at site 126 ft (38 m) upstream at same datum and 868 ft (265 m) to left.

EXTREMES.--Current year: Maximum discharge, 19,000 ft³/s (538 m³/s) Feb. 1 (gage height, 14.58 ft or 4.444 m); minimum observed, 28 ft³/s (0.79 m³/s) Aug. 27.
Period of record: Maximum discharge, 27,100 ft³/s (767 m³/s) June 4, 1973 (gage height, 15.87 ft or 4.837 m); minimum, 15 ft³/s (0.42 m³/s) Sept. 3, 1973.

REMARKS.--Records good. Flow is regulated by Lake Ray Hubbard (station 08061550). Low flow is sustained by sewage effluent from the city of Garland. Records furnished by the city of Garland show that 19,000 acre-ft (23.4 hm³) of sewage effluent was discharged into Duck Creek which enters East Fork Trinity River 0.2 miles (0.3 km) upstream from this station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,060	9,270	2,370	2,360	11,900	2,170	902	1,050	931	1,880	134	110
2	2,080	3,960	2,190	2,360	11,600	2,180	1,860	1,270	164	1,260	130	60
3	2,090	487	1,830	2,400	6,080	2,190	1,850	1,100	144	462	128	29
4	1,660	1,290	1,830	2,320	4,710	2,190	1,850	1,050	141	453	173	30
5	1,030	1,070	1,840	2,300	646	2,190	1,850	1,350	140	450	138	30
6	1,030	272	2,080	1,390	335	2,190	1,860	1,860	478	430	134	29
7	1,030	208	1,940	195	284	2,190	2,090	2,280	517	416	130	30
8	1,020	180	1,910	653	864	2,200	5,140	2,000	844	423	129	30
9	1,020	160	2,080	1,820	1,400	2,200	2,420	2,140	1,750	434	126	30
10	1,020	4,260	2,330	2,210	1,620	2,260	262	2,140	7,670	748	141	30
11	1,020	6,270	2,710	2,170	1,880	2,210	172	2,150	5,030	1,420	130	30
12	505	2,780	2,370	2,190	1,860	2,270	145	1,680	679	608	130	30
13	265	240	2,340	2,190	1,870	2,400	147	820	1,950	597	131	30
14	1,140	1,410	2,340	2,180	1,860	2,270	913	564	1,980	591	130	30
15	2,560	3,990	2,330	2,240	1,860	2,230	1,570	483	2,000	589	128	31
16	1,770	3,990	2,330	2,330	1,850	2,250	1,740	629	2,000	595	128	31
17	265	3,990	2,320	2,320	1,930	2,210	1,980	1,040	2,000	597	128	32
18	238	3,550	2,320	2,320	2,050	2,250	1,980	1,040	2,030	601	270	32
19	238	2,240	2,320	2,210	2,050	1,900	2,000	817	2,030	598	144	31
20	235	2,240	2,320	2,120	2,050	2,030	2,000	586	2,030	589	134	31
21	235	2,250	2,320	1,460	2,040	2,030	1,980	716	2,010	583	133	32
22	234	2,400	2,320	1,060	2,090	2,020	1,980	568	1,980	488	193	32
23	190	2,920	2,320	1,060	2,160	2,030	1,990	753	1,950	143	140	31
24	123	3,050	2,320	1,070	2,140	2,020	2,010	1,060	1,930	134	134	32
25	125	2,950	2,320	1,070	2,080	2,020	2,020	608	1,930	1,340	84	32
26	126	2,950	2,330	1,060	2,100	2,120	2,020	144	1,940	2,050	32	32
27	122	2,640	2,330	1,060	1,380	1,530	2,030	140	1,950	1,010	28	31
28	638	2,330	2,320	1,060	1,580	520	2,050	670	1,950	142	70	30
29	1,270	2,400	2,320	1,070	-----	794	1,670	1,630	2,160	140	110	31
30	1,190	2,428	2,330	1,070	-----	518	1,050	2,470	1,920	138	110	32
31	8,380	-----	2,500	3,340	-----	140	-----	2,010	-----	136	110	-----
TOTAL	34,909	78,167	69,830	54,658	74,269	59,722	51,531	36,818	54,228	20,045	3,960	1,031
MEAN	1,126	2,606	2,253	1,763	2,652	1,927	1,718	1,188	1,808	647	128	34.4
MAX	8,380	9,270	2,710	3,340	11,900	2,400	5,140	2,470	7,670	2,050	270	110
MIN	122	160	1,830	195	284	140	145	140	140	134	28	29
AC-FT	69,240	155,000	138,500	108,400	147,300	118,500	102,200	73,030	107,600	39,760	7,850	2,040
CAL YR 1974	TOTAL	358,501	MEAN	982	MAX	11,100	MIN	30	AC-FT	711,100		
WTR YR 1975	TOTAL	539,168	MEAN	1,477	MAX	11,900	MIN	28	AC-FT	1,069,000		

TRINITY RIVER BASIN

08061950 South Mesquite Creek at Mercury Road near Mesquite, Tex.

LOCATION.--Lat 32°43'32", long 96°34'12", Dallas County, on left bank at downstream side of bridge on Mercury Road, 3.3 miles (5.3 km) southeast of Mesquite, and 3.6 miles (5.8 km) upstream from mouth.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 389.91 ft (118.845 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 23.6 ft³/s (0.668 m³/s), 13.93 in/yr (354 mm/yr), 17,100 acre-ft/yr (21.1 km³/yr).

EXTREMES.--Current year: Maximum discharge, 2,990 ft³/s (84.7 m³/s) Feb. 1 (gage height, 10.26 ft or 3.127 m); no flow at times.
 Period of record: Maximum discharge, 9,000 ft³/s (255 m³/s) June 4, 1973 (gage height, 12.10 ft or 3.688 m); no flow at times.
 Maximum stage since about 1918, 14.3 ft (4.36 m) Apr. 27, 1957 (discharge not determined), from information by Corps of Engineers.
 Floods in April 1942, April 1958, and in 1962 reached stages almost as high as that of flood of Apr. 27, 1957, from information by Corps of Engineers.

REMARKS.--Records fair. Flow is slightly affected by numerous small stock ponds. Three recording rain gages are operated in basin above station.

REVISIONS (WATER YEARS).--WRD Texas 1974: 1972(N).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP				
1	4.0	57	3.6	17	1280	1.7	.77	.55	6.1	.01	.06	0				
2	3.3	12	2.9	65	163	1.2	.70	.77	3.9	.09	.03	0				
3	3.8	9.0	2.9	39	176	1.1	.27	12	2.6	7.2	.01	0				
4	2.9	21	1.7	11	110	3.9	.71	3.9	1.3	.68	.06	0				
5	2.3	9.1	1.2	6.8	74	2.6	.62	2.3	1.0	.19	.18	0				
6	1.5	3.3	114	5.1	18	1.3	.65	38	5.8	.22	.09	0				
7	1.1	13	13	3.9	9.2	1.6	276	243	7.0	.19	.06	0				
8	1.1	9.4	5.5	3.5	8.1	.87	669	9.1	12	.15	.03	0				
9	1.3	7.1	2.9	3.0	5.8	.98	24	4.6	78	.08	.01	0				
10	1.4	647	55	18	5.3	16	11	2.1	31	.14	0	0				
11	1.4	34	172	5.6	4.9	3.3	6.4	2.9	2.1	.45	0	0				
12	1.0	10	16	3.0	3.4	20	5.7	7.0	.17	1.5	0	0				
13	1.1	5.0	9.6	1.5	2.8	104	48	3.0	.47	2.1	0	0				
14	142	3.4	7.3	1.5	2.3	15	93	117	.66	.50	0	0				
15	27	1.9	5.3	1.4	2.0	5.9	12	42	1.2	.25	0	0				
16	4.1	1.7	3.5	1.1	1.9	6.9	6.3	7.1	1.3	.14	0	2.2				
17	2.5	3.1	2.3	.85	2.0	4.4	4.2	.83	2.4	.05	0	.33				
18	1.5	1.7	1.9	.87	1.9	31	3.8	.26	2.6	.02	0	.12				
19	1.8	1.1	1.4	1.2	.95	6.8	2.3	.08	2.4	0	.13	.03				
20	1.4	.78	1.5	.91	.81	3.3	1.7	135	1.8	0	.06	0				
21	1.7	.45	2.5	.64	.90	2.2	1.1	82	1.3	0	.02	0				
22	2.0	.35	1.7	.41	10	1.9	1.4	3.8	1.0	0	3.4	0				
23	1.5	3.1	1.7	.35	40	1.7	1.5	129	.04	0	2.8	0				
24	1.4	36	2.0	5.5	22	.79	1.9	76	.06	0	.15	.01				
25	1.1	6.8	2.1	7.8	6.0	.51	1.1	11	.05	41	.05	0				
26	1.2	2.5	6.1	2.0	3.6	7.5	.69	3.2	.76	6.5	.05	0				
27	1.0	1.2	8.6	1.1	2.2	20	.86	.82	1.9	.17	2.1	0				
28	104	.95	5.4	.77	2.3	19	3.5	159	.10	2.3	21	0				
29	26	9.4	13	.81	---	16	3.7	250	.04	.52	.26	0				
30	6.2	11	11	1.3	---	12	.93	59	.03	.11	.04	0				
31	1350	---	112	372	---	1.6	---	15	---	.04	.01	---				
TOTAL	1702.6	922.33	589.6	582.91	1959.36	315.05	1183.80	1496.54	169.08	64.60	30.60	2.69				
MEAN	54.9	30.7	19.0	18.8	70.0	10.2	39.5	48.3	5.64	2.08	.99	.090				
MAX	1350	647	172	372	1280	104	669	250	78	41	21	2.2				
MIN	1.0	.35	1.2	.35	.81	.51	.27	.08	.03	0	0	0				
CFSM	2.39	1.33	.83	.82	3.04	.44	1.72	2.10	.25	.09	.04	.004				
IN.	2.75	1.49	.95	.94	3.17	.51	1.91	2.42	.27	.10	.05	.004				
AC-FT	3380	1830	1170	1160	3890	625	2350	2970	335	128	61	5.3				
(††)	5.77	3.08	2.05	2.37	3.45	2.13	3.16	5.94	1.31	1.62	1.43	.68				
CAL YR 1974	TOTAL	10656.68	MEAN	29.2	MAX	1350	MIN	0	CFSM	1.27	IN	17.24	AC-FT	21140	††	46.86
WTR YR 1975	TOTAL	9019.16	MEAN	24.7	MAX	1350	MIN	0	CFSM	1.07	IN	14.59	AC-FT	17890	††	32.99

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	1330	10.21	2,920	4- 8	0730	8.97	1,580
11-10	1200	8.80	1,370	5- 7	0245	8.38	1,060
2- 1	1130	10.26	2,990	5-29	1930	8.12	875

†† Weighted-mean rainfall, in inches, based on three rain gages.

08062000 East Fork Trinity River near Crandall, Tex.

LOCATION.--Lat 32°38'18", long 96°29'05", Kaufman County, on right bank at downstream side of bridge on U.S. Highway 175, 0.7 mile (1.1 km) downstream from Mustang Creek, 1.8 miles (2.9 km) northwest of Crandall, 4.0 miles (6.4 km) upstream from Buffalo Creek, and at mile 11.0 (17.7 km).

DRAINAGE AREA.--1,256 mi² (3,253 km²).

PERIOD OF RECORD.--Discharge: June 1949 to current year.

Water quality: Chemical and biochemical analyses: October 1967 to current year. Water temperatures: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 343.69 ft (104.757 m) above mean sea level.

AVERAGE DISCHARGE.--4 years (1949-53) prior to regulation by Lavon Lake, 652 ft³/s (18.46 m³/s), 472,400 acre-ft/yr (582 hm³/yr); 22 years (1953-75) regulated, 645 ft³/s (18.27 m³/s), 467,300 acre-ft/yr (576 hm³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 15,400 ft³/s (436 m³/s) Feb. 2 (gage height, 18.41 ft or 5.611 m); minimum daily, 45 ft³/s (1.27 m³/s) Sept. 22.

Period of record: Maximum discharge, 33,000 ft³/s (935 m³/s) May 28, 1957 (gage height, 22.81 ft or 6.952 m); no flow at times.

Water quality: Current year: Maximum daily specific conductance, 675 micromhos Sept. 13; minimum daily, 244 micromhos Oct. 31.

Maximum water temperatures, 30.0°C on many days during July, August, and September; minimum, 6.0°C Jan. 12, 13, Feb. 7.

Period of record: Maximum daily specific conductance, 1,010 micromhos Nov. 23, 1968; minimum daily, 201 micromhos Oct. 20, 1971.

Maximum water temperatures, 33.0°C on several days during summer months of 1969 and 1974; minimum, 1.5°C Jan. 11, 1973.

REMARKS.--Discharge records good. Flow largely regulated by Lavon Lake (station 08060500) since September 1953 and Lake Ray Hubbard (station 08061550) since Mar. 22, 1970. At end of year, flow from 39.2 mi² (101.5 km²) above this station and below Lake Ray Hubbard was partly controlled by 20 floodwater-retarding structures with a combined capacity of 13,670 acre-ft (16.9 hm³) below the flood-spillway crests, of which 1,920 acre-ft (2.37 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by the city of Forney show that 1,400 acre-ft (1.73 hm³) of sewage effluent was returned to a tributary below Lake Ray Hubbard and above station; records furnished by the city of Mesquite show that 6,280 acre-ft (7.74 hm³) of sewage effluent was returned to a tributary above station.

REVISIONS.--WSP 1922: Drainage area. Revised figures of discharge, in cubic feet per second, for the water year 1974, superseding those published in WRD Texas, 1974, are given herewith:

Date	Discharge	Date	Discharge
1974		1974-Con.	
Sept. 17	1,080	Sept. 24	987
18	4,880	25	296
19	7,650	26	380
20	3,490	27	287
21	2,510	28	1,080
22	8,230	29	1,760
23	6,940	30	1,940

Month	Cfs-days	Maximum	Minimum	Mean	Acre-feet
September 1974.....	46,786	8,230	69	1,560	92,800
CAL YR 1974.....	381,693	9,160	41	1,046	757,100
WTR YR 1974.....	424,887	9,050	41	1,164	842,800

TRINITY RIVER BASIN

08062000 East Fork Trinity River near Crandall, Tex.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1950	8860	2460	2780	5420	1650	259	1050	2210	1990	144	124
2	1950	9160	2370	2620	14100	2280	1350	1040	710	1990	143	127
3	1950	5830	2220	2680	11400	2320	1840	1320	238	961	141	87
4	1950	1540	1800	2680	7060	2330	1870	1120	189	412	148	64
5	1490	1640	1690	2460	5320	2330	1880	1040	172	387	173	57
6	997	1130	1900	2390	1490	2330	1890	1450	195	383	147	54
7	920	512	2170	1160	658	2330	2220	2160	493	376	145	54
8	911	414	1880	330	547	2320	4510	2400	453	379	142	53
9	908	320	1760	1060	1180	2320	6060	2050	1070	374	142	53
10	901	1130	1860	1850	1170	2330	2340	2140	2060	376	146	53
11	904	4370	2760	2440	1760	2350	531	2150	5540	964	150	52
12	830	6160	3130	2350	1950	2350	328	2160	5150	1070	143	52
13	236	4050	2590	2260	1960	2700	272	1490	1440	509	142	52
14	690	709	2400	2250	1950	2840	621	722	1950	494	143	49
15	1540	1340	2350	2230	1940	2570	1350	574	1940	489	139	48
16	2760	3360	2320	2200	1910	2420	1660	476	1930	488	140	53
17	1920	3840	2300	2130	1900	2390	1850	803	1940	489	138	56
18	357	3860	2280	2130	1960	2420	2050	992	1940	491	191	52
19	250	3770	2280	2130	2090	2460	2040	989	1930	495	208	51
20	236	2680	2280	2150	2100	2120	2020	582	1940	494	146	48
21	229	2260	2260	2150	2090	2060	2010	839	1940	492	141	47
22	228	2230	2260	1500	2170	2100	2010	575	1940	493	162	45
23	222	2330	2280	1100	2350	2100	2010	540	1940	281	178	46
24	151	2870	2280	1060	2510	2090	2010	1190	1940	144	142	51
25	143	3050	2260	1070	2420	2070	2000	1210	1950	322	134	52
26	142	2970	2280	1060	2260	2100	2000	435	1950	1580	81	50
27	139	2890	2280	1040	2230	2220	2000	198	1950	2070	56	50
28	194	2780	2300	1040	1310	1130	2090	494	1950	578	114	48
29	1040	2440	2300	1040	---	717	2060	1140	1970	165	147	47
30	1320	2480	2300	1050	---	724	1520	2440	2140	149	135	46
31	3120	---	2480	1210	---	273	---	3080	---	146	128	---
TOTAL	30578	90975	70080	55600	85205	64744	56651	38849	53160	20031	4429	1721
MEAN	986	3033	2261	1794	3043	2089	1888	1253	1772	646	143	57.4
MAX	3120	9160	3130	2780	14100	2840	6060	3080	5540	2070	208	127
MIN	139	320	1690	330	547	273	259	198	172	144	56	45
AC-FT	60650	180400	139000	110300	169000	128400	112400	77060	105400	39730	8780	3410
CAL YR 1974	TOTAL	381693	MEAN	1046	MAX	9160	MIN	41	AC-FT	757100		
WTR YR 1975	TOTAL	572023	MEAN	1567	MAX	14100	MIN	45	AC-FT	1135000		

08062000 East Fork Trinity River near Crandall, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 19...	0945	236	5.9	50	3.1	22	4.3	151	0	31	17	--
NOV. 06...	1700	820	9.0	49	2.8	15	4.6	157	0	25	12	--
DEC. 05...	1045	1750	4.9	45	2.9	20	3.6	142	0	28	9.7	.3
JAN. 10...	1000	1850	3.3	46	2.5	12	4.3	152	0	26	9.2	.3
FEB. 27...	1530	1790	.9	53	2.2	12	3.2	161	0	26	9.4	.3
MAR. 27...	1430	2220	1.6	56	3.2	14	4.4	174	0	30	12	.4
APR. 22...	1300	1750	1.0	56	2.4	12	3.9	173	0	27	8.3	.3
MAY 15...	1050	540	3.3	49	2.4	18	4.8	160	0	30	15	.3
JUNE 20...	1025	1750	3.4	54	2.5	12	3.8	170	0	26	8.9	.3
JULY 23...	1530	193	5.3	45	2.5	19	4.7	151	0	31	14	.5
AUG. 06...	1715	135	5.7	41	2.2	25	5.5	147	0	32	18	.6
SEP. 24...	1800	52	12	36	3.1	55	8.9	206	0	41	36	2.4

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 19...	.22	.06	1.3	.80	2.1	1.3	208	20	15	140	14	.8
NOV. 06...	.15	.03	.45	.85	1.3	.78	195	82	17	130	5	.6
DEC. 05...	.16	.01	.13	.39	.52	.27	184	27	7	120	8	.8
JAN. 10...	.10	.01	.31	.67	.98	.31	179	30	3	130	0	.5
FEB. 27...	.12	.01	.12	.54	.66	.21	186	26	7	140	9	.4
MAR. 27...	.27	.01	.34	.86	1.2	.49	207	49	14	150	10	.5
APR. 22...	.31	.03	.33	.87	1.2	.23	196	84	17	150	8	.4
MAY 15...	.58	.10	.66	.84	1.5	.78	202	290	46	130	1	.7
JUNE 20...	.23	.04	.10	.57	.67	.24	195	84	26	150	6	.4
JULY 23...	.07	.10	1.3	.90	2.2	1.3	196	22	13	120	0	.7
AUG. 06...	.03	.02	2.7	1.6	4.3	2.6	202	30	28	110	0	1.0
SEP. 24...	.00	.01	11	3.0	14	8.4	296	33	28	100	0	2.4

TRINITY RIVER BASIN

08062000 East Fork Trinity River near Crandall, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 19...	365	7.1	20.0	5	10	3.0	33	5.8	8.8	1	.2
NOV. 06...	345	7.3	18.0	30	40	5.8	61	5.5	8.4	3	.1
DEC. 05...	314	7.4	10.5	10	10	8.8	79	2.4	5.3	1	.1
JAN. 10...	327	7.3	10.0	5	15	8.6	76	3.0	5.9	--	.3
FEB. 27...	331	8.3	12.5	10	9	13.0	121	2.8	8.0	1	.1
MAR. 27...	371	7.7	15.5	5	20	8.8	87	4.4	7.2	10	1.3
APR. 22...	355	7.3	16.5	0	30	8.0	82	2.6	4.3	5	.0
MAY 15...	368	6.9	21.0	20	100	4.2	47	10	12	23	.0
JUNE 20...	337	7.3	26.0	5	35	6.6	80	2.8	5.3	5	.0
JULY 23...	352	7.0	30.0	5	6	2.4	32	4.1	8.0	6	.1
AUG. 06...	374	7.6	29.5	30	10	6.1	79	8.2	4.8	9	.4
SEP. 24...	565	7.0	22.0	60	15	1.0	11	20	16	19	1.1

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	30578	312	170	14000	7.9	652	24	1980	120
NOV. 1974.....	90975	303	170	41800	7.0	1720	23	5650	120
DEC. 1974.....	70080	316	180	34100	8.4	1590	24	4540	120
JAN. 1975.....	55600	329	180	27000	9.7	1460	25	3750	130
FEB. 1975.....	85205	318	180	41400	8.6	1980	24	5520	120
MAR. 1975.....	64744	346	190	33200	12	2100	26	4550	130
APR. 1975.....	56651	348	190	29100	12	1840	26	3980	130
MAY 1975.....	38849	357	200	21000	13	1360	27	2830	140
JUNE 1975.....	53160	338	190	27300	11	1580	26	3730	130
JULY 1975.....	20031	338	190	10300	11	595	26	1410	130
AUG. 1975.....	4429	385	210	2510	16	191	29	347	150
SEPT 1975.....	1721	572	300	1390	39	181	43	200	110
TOTAL	572023	**	**	283000	**	15200	**	38500	**
MTD.AVG.	1567.19	329	180	**	9.9	**	25	**	130

TRINITY RIVER BASIN

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08062000 East Fork Trinity River near Crandall, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	262	311	337	313	341	472	359	352	315	390	438
2	309	286	307	315	253	342	340	353	415	330	390	433
3	309	311	308	336	306	337	351	359	444	361	371	420
4	311	307	312	322	320	335	348	356	473	350	369	430
5	324	333	313	322	332	342	350	356	475	331	378	600
6	314	335	331	322	360	339	350	350	482	333	368	605
7	306	352	331	436	379	341	345	360	366	339	388	640
8	306	393	317	499	402	341	307	350	389	339	370	640
9	311	404	313	324	348	337	305	350	365	341	369	633
10	315	330	311	328	345	346	356	354	326	345	388	605
11	326	284	315	330	344	348	407	346	326	328	370	640
12	312	295	317	318	341	339	444	356	338	338	378	640
13	360	321	317	316	340	341	454	352	338	325	370	675
14	315	376	316	316	341	348	431	400	338	331	368	640
15	329	301	317	316	342	343	356	388	345	381	393	644
16	309	306	316	320	338	343	357	375	335	384	375	623
17	327	306	312	320	336	339	356	353	332	334	390	644
18	359	303	315	320	334	355	357	356	337	381	375	626
19	360	305	317	319	334	344	354	353	335	381	388	630
20	358	310	315	319	333	349	366	375	334	383	390	626
21	340	309	315	319	338	342	353	365	338	383	393	573
22	345	306	315	340	334	345	354	378	333	309	393	620
23	354	306	317	332	351	344	354	365	331	352	374	605
24	365	313	316	331	349	340	354	378	334	312	375	605
25	413	319	316	349	337	343	354	361	332	310	373	610
26	429	321	312	337	332	347	350	419	332	329	375	610
27	421	306	317	331	332	359	358	450	332	310	395	585
28	400	308	317	331	372	419	348	450	329	312	395	605
29	332	307	320	332	---	374	359	368	324	414	434	583
30	318	314	321	333	---	392	375	325	314	407	436	442
31	244	---	331	371	---	439	---	340	---	423	438	---
MONTH	336	318	316	337	339	352	366	368	359	349	386	589

TEMPERATURE (DEG. C) OF WATER * WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	20.0	9.0	8.0	10.5	12.0	13.0	20.0	23.0	---	29.0	29.0
2	20.0	21.0	7.0	8.0	9.0	12.0	12.0	20.0	25.0	---	30.0	29.0
3	20.0	22.0	9.5	8.0	9.5	10.0	10.0	20.5	25.0	28.0	30.0	29.0
4	20.0	19.0	10.0	8.5	10.0	10.5	14.0	20.0	25.0	---	29.0	30.0
5	20.0	17.0	10.5	8.0	9.0	9.0	13.0	20.5	25.5	28.0	29.5	30.0
6	21.0	17.0	12.0	9.5	7.0	11.0	13.0	23.0	26.0	28.0	29.0	29.0
7	21.0	16.0	11.0	11.0	8.0	12.0	12.0	23.0	25.0	28.0	30.0	28.0
8	21.0	15.0	10.0	12.0	8.0	10.5	13.0	23.0	25.5	28.0	29.5	27.0
9	22.0	15.0	8.0	10.0	8.0	10.0	15.0	23.5	25.0	28.0	30.0	27.0
10	21.0	15.0	9.0	11.0	8.0	10.5	16.0	23.0	25.0	28.0	30.0	28.0
11	21.0	11.0	8.0	7.0	11.0	10.5	17.0	22.0	25.0	28.0	30.0	28.0
12	21.0	15.0	7.0	8.0	11.0	10.5	16.0	23.5	26.0	29.0	29.0	27.0
13	22.0	14.0	9.0	8.0	10.0	10.5	14.5	23.0	26.0	29.0	30.0	26.0
14	21.0	14.0	10.0	8.0	10.0	10.0	14.0	21.5	26.0	28.5	29.0	28.0
15	18.0	12.0	9.0	9.0	11.0	9.0	14.0	22.0	25.0	28.0	30.0	26.0
16	17.0	12.0	8.5	9.0	10.0	11.0	14.0	23.0	27.0	28.5	29.0	25.0
17	18.0	13.0	9.0	9.0	10.0	12.0	15.0	23.0	27.0	28.0	30.0	26.0
18	19.0	13.0	10.0	9.0	10.5	14.0	18.0	23.0	27.0	28.0	30.0	27.0
19	20.0	16.0	8.5	10.0	10.5	13.5	17.0	23.5	27.0	28.5	30.0	27.0
20	20.0	15.0	9.5	8.0	11.0	14.0	16.0	22.0	28.0	28.5	30.0	27.0
21	23.0	14.0	9.0	9.0	10.5	16.0	15.0	23.0	25.5	28.0	29.0	22.0
22	19.0	16.0	10.0	8.0	11.0	14.5	16.0	24.0	26.0	26.5	30.0	23.0
23	20.0	16.0	13.0	9.0	9.0	16.0	17.0	22.0	27.0	29.0	30.0	22.0
24	20.0	15.0	12.0	8.0	9.0	15.0	18.0	22.0	26.0	28.0	29.0	23.0
25	20.0	12.0	8.0	9.0	11.0	15.0	20.5	22.0	26.0	29.0	30.0	23.0
26	20.0	12.0	7.0	9.0	12.0	13.0	21.0	25.0	26.0	29.0	30.0	23.0
27	19.0	12.0	9.0	11.0	13.0	15.0	14.0	25.0	26.0	30.0	29.5	22.0
28	19.0	11.0	9.0	10.5	12.0	15.0	20.0	24.0	26.0	29.0	30.0	22.0
29	20.0	11.0	10.0	10.0	---	11.0	20.0	22.0	26.0	29.0	29.0	23.0
30	20.0	11.0	10.0	12.0	---	11.0	14.0	22.0	26.5	29.0	30.0	23.0
31	20.0	---	9.0	11.0	---	12.0	---	21.5	---	30.0	30.0	---
MONTH	20.0	14.5	9.5	9.0	10.0	12.0	15.5	22.5	26.0	28.5	29.5	26.0

TRINITY RIVER BASIN

08062500 Trinity River near Rosser, Tex.

LOCATION.--Lat 32°25'36", long 96°27'44", Ellis-Kaufman County line, on left bank at downstream side of left pier of bridge on State Highway 34, 2.5 miles (4.0 km) south of Rosser, 8.5 miles (13.7 km) downstream from East Fork Trinity River, and at mile 451.4 (726.3 km).

DRAINAGE AREA.--8,146 mi² (21,098 km²).

PERIOD OF RECORD.--Discharge: July 1924 to September 1925, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1312.

Water quality: Chemical analyses: October 1954 to current year. Chemical, biochemical and pesticide analyses: January 1968 to current year. Water temperatures: October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 302.65 ft (92.248 m) above mean sea level. July 25, 1924, to Sept. 30, 1925, nonrecording gage at abandoned lock and dam No. 7, 1.7 miles (2.7 km) upstream from present site at datum 6.94 ft (2.115 m) higher.

AVERAGE DISCHARGE.--38 years, 2,634 ft³/s (74.59 m³/s), 1,908,000 acre-ft/yr (2.35 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 47,800 ft³/s (1,350 m³/s) Feb. 4 (gage height, 33.88 ft or 10.327 m); minimum, 295 ft³/s (8.35 m³/s) Sept. 29.

Period of record: Maximum discharge not determined, occurred Apr. 23 or 24, 1942, following numerous breaks in levee system along both banks (maximum gage height, 41.55 ft or 12.664 m) Apr. 22, 1942, just prior to levee breaks; maximum daily discharge, 133,000 ft³/s (3,770 m³/s) Apr. 23, 1942; minimum, 32 ft³/s (0.91 m³/s) for several days in 1924-25.

Historic: Flood in May 1908 reached a stage of about 33 ft (10.1 m), present site and datum, from information by Corps of Engineers (discharge believed to have been about the same as that of Apr. 23 or 24, 1942).

Water quality: Current year: Maximum daily specific conductance, 926 micromhos Sept. 27; minimum daily, 274 micromhos Oct. 31.

Maximum water temperatures, 30.5°C Aug. 11, 14; minimum, 6.0°C Jan. 13.

Period of record: Maximum daily specific conductance, 2,990 micromhos Oct. 13, 1956; minimum daily, 200 micromhos July 30, 1962.

Maximum water temperatures, 36.0°C July 1, 1955; minimum, 1.0°C on several days during December and January of most years.

REMARKS.--Discharge records good. Flow is largely regulated by 15 major upstream reservoirs having a capacity of 3,572,000 acre-ft (4.40 km³), 1,138,000 acre-ft (1.40 km³) for flood control. A levee system constructed in 1916 extends several miles upstream and downstream from station. At end of year, flow from 76.7 mi² (198.7 km²) above this station and below stations Trinity River at Dallas (station 08057000) and Lake Ray Hubbard near Forney (station 08061550), was partly controlled by 38 floodwater-retarding structures with a combined capacity of 26,870 acre-ft (33.1 km³) below flood-spillway crests, of which 4,180 acre-ft (5.15 km³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. The cities of Fort Worth and Dallas and several small cities divert considerable water for municipal use, of which about 60 percent is returned as effluent from sewage disposal plants.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3970	21800	10900	8380	9410	7160	1900	5580	11900	6920	4500	446
2	2980	20400	10600	7940	23100	6960	3280	5290	10200	6430	3580	431
3	2620	21500	10300	8220	36700	6350	5240	6460	7810	4160	2690	450
4	2560	21100	9960	7920	43400	6440	6340	6610	7070	2520	2250	402
5	2510	18600	9550	6540	32500	6300	6590	3440	7070	1720	1970	392
6	2280	16700	9650	5680	23500	4880	5460	2410	7190	1490	1250	403
7	1880	15200	9890	5380	17500	3620	4670	5060	7180	1100	919	442
8	1820	14000	9860	4330	12500	3340	12900	6990	7140	882	788	362
9	1780	11700	9670	3180	9090	3290	16100	7090	6960	925	726	361
10	1730	11400	9520	3760	8490	3230	18200	5300	9080	1160	629	369
11	1700	14200	10700	4780	9100	3310	19800	3280	10900	1380	542	430
12	1680	15100	11300	4360	9910	3250	16900	4310	13400	1960	542	382
13	1510	18700	11400	3990	10600	3650	11000	3960	14600	1530	522	374
14	1090	19300	10900	3850	10900	4460	6420	3340	12700	1010	518	418
15	5110	16400	9880	3420	11100	4120	5320	3990	10900	875	479	383
16	6880	13900	9170	3070	10900	4650	6060	4170	10800	865	474	499
17	4730	13400	8820	2930	9840	4890	7370	3490	11000	859	498	804
18	2870	13800	8630	2860	8980	5030	7880	4290	11200	834	615	691
19	1710	14100	8380	2810	8570	5830	6120	4800	11400	828	648	453
20	1390	14100	8010	2730	8320	6250	5430	4530	11600	800	596	401
21	1260	13600	7630	2730	8170	6230	6280	4890	11500	770	580	356
22	1200	12700	7410	2650	7970	6410	6860	3980	10600	779	670	370
23	1160	11900	7470	2180	7690	6520	7120	4680	9200	759	836	445
24	1120	13200	7560	1740	8010	6540	7180	12800	6590	568	919	363
25	1070	12300	7500	1720	8380	6510	7140	10300	4250	2590	796	389
26	1060	11900	7330	1680	8260	5960	6980	6900	5370	9430	612	361
27	1100	11700	7330	1620	7930	5730	5010	3200	6510	10100	519	358
28	1320	11500	7400	1580	7730	5370	3430	3340	6680	10100	558	340
29	3570	11300	7380	1560	---	3900	3630	7910	6640	5560	678	323
30	3900	11400	7330	1560	---	2910	5380	11400	6660	4610	609	335
31	12300	---	7800	1830	---	2380	---	11700	---	5270	493	---
TOTAL	81860	446900	279230	116980	378550	155470	231990	175490	274100	88784	32006	12533
MEAN	2641	14900	9007	3774	13520	5015	7733	5661	9137	2864	1032	418
MAX	12300	21800	11400	8380	43400	7160	19800	12800	14600	10100	4500	804
MIN	1060	11300	7330	1560	7690	2380	1900	2410	4250	568	474	323
AC-FT	162400	886400	553900	232000	750900	308400	460200	348100	543700	176100	63480	24860

CAL YR 1974 TOTAL 1348420 MEAN 3694 MAX 21800 MIN 366 AC-FT 2675000
WTR YR 1975 TOTAL 2273893 MEAN 6230 MAX 43400 MIN 323 AC-FT 4510000

08062500 Trinity River near Rosser, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 18...	1030	2880	7.3	53	2.9	27	6.0	158	0	47	18	--
NOV. 07...	1010	15700	7.7	47	5.2	22	5.1	154	0	29	25	--
DEC. 06...	1130	8800	8.1	44	3.5	20	4.0	138	0	31	19	.3
JAN. 09...	1700	3100	7.2	60	4.8	34	7.1	192	0	55	31	.4
FEB. 28...	1600	7620	5.6	52	4.1	23	5.2	160	0	41	23	.3
MAR. 27...	1615	6000	4.5	53	3.6	27	6.6	164	0	46	25	.6
APR. 23...	0920	7150	3.8	55	4.3	22	3.9	174	0	38	23	.3
MAY 15...	0920	3950	5.9	63	4.5	35	5.4	177	0	68	30	.4
JUNE 21...	1200	10900	5.3	50	5.3	22	4.4	163	0	32	24	.3
JULY 23...	1425	799	7.6	53	5.0	51	7.4	194	0	55	43	.6
AUG. 06...	1615	1300	8.1	51	6.7	43	7.0	177	0	45	43	.4
SEP. 24...	1535	358	13	51	6.3	90	12	250	0	87	74	1.4
DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO
OCT. 18...	.45	.10	.67	1.3	2.0	1.1	240	200	46	150	15	1.0
NOV. 07...	.16	.08	.25	.75	1.0	.47	217	150	29	140	12	.8
DEC. 06...	.42	.05	.37	.83	1.2	.54	198	154	16	120	11	.8
JAN. 09...	.72	.13	1.4	1.8	3.2	1.3	294	136	17	170	12	1.1
FEB. 28...	.52	.05	.84	.76	1.6	.56	234	126	16	150	16	.8
MAR. 27...	.76	.06	1.6	2.3	3.9	.99	247	816	200	150	13	1.0
APR. 23...	.75	.08	.53	1.2	1.7	.59	236	160	36	160	12	.8
MAY 15...	1.3	.30	.84	2.2	3.0	1.1	299	720	108	180	31	1.1
JUNE 21...	.40	.08	.21	.60	.81	.40	224	214	42	150	14	.8
JULY 23...	.44	.39	3.1	2.2	5.3	2.7	318	72	20	150	0	1.8
AUG. 06...	.98	.22	1.5	1.3	2.9	1.8	292	113	27	160	10	1.5
SEP. 24...	.20	.25	12	3.0	15	5.3	458	22	13	150	0	3.2
DATE	SUF- FIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COHALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
OCT. 18...	429	7.2	19.0	10	80	5.0	53	9.6	13	1	.0	
NOV. 07...	392	7.2	17.0	30	65	5.0	52	3.8	11	1	.0	
DEC. 06...	354	7.3	22.0	20	45	--	7	5.8	--	7	.1	
JAN. 09...	519	7.2	12.0	10	55	7.5	69	14	14	5	.3	
FEB. 28...	407	7.5	12.5	20	50	8.9	83	7.7	19	1	.0	
MAR. 27...	449	7.1	16.5	15	250	2.6	27	29	34	13	.0	
APR. 23...	432	7.2	18.0	5	70	7.2	76	8.4	9.4	7	.0	
MAY 15...	528	6.9	21.5	10	180	2.0	22	16	22	22	.0	
JUNE 21...	488	7.2	27.0	10	70	5.3	65	3.8	9.6	6	.0	
JULY 23...	574	7.4	29.5	5	40	5.9	77	11	10	5	.1	
AUG. 06...	537	7.4	30.0	10	50	3.3	50	10	9.0	3	.1	
SEP. 24...	850	7.0	23.5	35	10	2.0	23	13	13	5	.6	

TRINITY RIVER BASIN

08062500 Trinity River near Rosser, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)
OCT. 18...	1030	30	7	110	0	0	0	6
FEB. 28...	1600	<10	2	80	2	0	2	4
JUNE 20...	1200	50	3	70	0	0	0	3
AUG. 06...	1615	0	4	140	1	0	0	9

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (MG) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 18...	30	3	0	0	.0	7	510	30
FEB. 28...	10	4	10	0	.0	6	350	7
JUNE 20...	10	1	0	0	.0	3	460	10
AUG. 06...	0	0	10	0	.1	4	420	10

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)
OCT. 18...	1030	2880	19.0	.00	--	.00	--	.00	--	.00	--
FEB. 28...	1600	7620	12.5	.00	--	.00	--	.00	--	.00	--
MAR. 27...	1615	6000	16.5	--	.0	--	.0	--	2.8	--	.0
JUNE 20...	1200	10900	27.0	.00	.0	.00	.0	.00	.0	.00	.0
AUG. 06...	1615	1300	30.0	--	.0	--	2.7	--	.7	--	.2
SEP. 24...	1535	358	23.5	.00	--	.00	--	.00	--	.00	--

DATE	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)
OCT. 18...	.01	--	.00	--	.00	--	.00	--	.01	--	.0
FEB. 28...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
MAR. 27...	--	2.1	--	.0	--	.0	--	.0	--	.0	--
JUNE 20...	.01	.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
AUG. 06...	--	3.0	--	.0	--	.0	--	.0	--	.0	--
SEP. 24...	.01	--	.00	--	.00	--	.01	--	.00	--	.1

DATE	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
OCT. 18...	--	.0	--	.13	.00	.00	.00	.04	.00	.00
FEB. 28...	--	.0	--	.02	.00	.00	.00	.00	.00	.00
MAR. 27...	36	--	38	--	--	--	--	--	--	--
JUNE 20...	1	.0	0	.03	.00	.00	.00	.01	.00	.00
AUG. 06...	33	--	37	--	--	--	--	--	--	--
SEP. 24...	--	.0	--	.34	.03	.00	.00	--	--	--

TRINITY RIVER BASIN

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08062500 Trinity River near Rosser, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

								NUMBER		SUS- PENDE SEDIM- MENT DIS- CHARGE		TOTAL SEDIM- ENT DIS- CHARGE	
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	STREAM WIDTH (FT)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)	SAM- PLING POINTS	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT (T/DAY)	SUS- PENDE SEDIM- MENT (T/DAY)	SUS- PENDE SEDIM- MENT (T/DAY)		
FEB. 03...	1310	38900	11.0	1680	2.9	7.7	5	283	29700	31600			
APR. 09...	1535	16400	17.0	361	3.2	13	5	332	14700	15400			
14...	1448	6210	18.0	215	2.3	12	5	372	6240	6620			
21...	1230	6210	20.0	150	2.5	16	5	255	4280	4370			
30...	1355	5910	23.0	142	2.5	16	5	357	5700	5930			
	SUS. SED. SIEVE DIAM.	SUS. SED. SIEVE DIAM.	SUS. SED. SIEVE DIAM.	SUS. SED. SIEVE DIAM.	SUS. SED. SIEVE DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.		
	% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN .002 MM	% FINER THAN .004 MM	% FINER THAN .008 MM	% FINER THAN .016 MM	% FINER THAN .031 MM	% FINER THAN .031 MM		
DATE													
FEB. 03...	82	89	96	99	100	62	72	76	79	81			
APR. 09...	90	95	99	100	--	66	70	75	83	87			
14...	85	89	90	90	100	47	57	63	74	81			
21...	96	99	100	--	--	58	67	75	83	91			
30...	84	96	99	100	--	49	58	67	73	80			
	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.		
	% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM	% FINER THAN 4.00 MM	% FINER THAN 8.00 MM	% FINER THAN 16.0 MM	% FINER THAN 16.0 MM	% FINER THAN 16.0 MM		
DATE													
FEB. 03...	1	2	3	17	27	41	63	90	100				
APR. 09...	1	6	25	45	54	63	75	90	100				
14...	2	4	18	40	47	54	62	86	100				
21...	22	32	59	72	77	83	90	98	100				
30...	5	21	43	73	81	88	95	99	100				

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1974.....	81860	458	260	57500	29	6410	46	10200	140
NOV. 1974.....	446900	358	200	241000	16	19300	36	43400	140
DEC. 1974.....	279230	355	200	151000	15	11300	35	26400	140
JAN. 1975.....	116980	441	250	79000	27	8530	44	13900	140
FEB. 1975.....	378550	389	220	225000	20	20400	39	39900	140
MAR. 1975.....	155470	452	250	105000	28	11800	45	18900	140
APR. 1975.....	231990	444	250	157000	27	16900	44	27600	140
MAY 1975.....	175490	443	250	118000	27	12800	44	20800	140
JUNE 1975.....	274100	422	240	178000	24	17800	42	31100	140
JULY 1975.....	88784	448	250	59900	27	6470	45	10800	140
AUG. 1975.....	32006	601	340	29400	47	4060	60	5180	150
SEPT 1975.....	12533	797	450	15200	73	2470	80	2710	150
TOTAL	2273893	**	**	1420000	**	138000	**	251000	**
WTD.AVG.	6229.84	409	230	**	23	**	41	**	140

TRINITY RIVER BASIN

08062500 Trinity River near Rosser, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	276	346	389	626	412	614	442	427	393	485	710
2	409	315	338	407	314	415	632	435	437	393	498	696
3	441	343	331	387	324	434	455	423	445	415	498	679
4	458	359	339	414	347	418	423	467	448	485	533	700
5	437	373	338	415	358	431	421	473	453	507	531	765
6	459	385	341	417	392	421	439	507	453	528	533	818
7	483	393	361	423	429	465	467	627	452	565	549	818
8	516	465	353	444	434	477	393	437	451	557	599	830
9	511	405	343	465	452	483	377	419	445	438	635	830
10	516	398	345	468	421	467	406	428	452	632	659	747
11	483	363	346	489	409	480	419	396	388	643	679	809
12	528	365	371	438	406	495	436	489	372	554	673	878
13	483	353	371	437	404	485	453	385	411	497	723	907
14	578	365	363	427	406	502	500	381	427	507	734	800
15	518	381	354	425	415	483	531	425	427	511	757	896
16	441	376	366	440	405	531	500	423	411	528	747	836
17	403	360	361	437	405	459	453	423	405	562	762	765
18	422	357	354	448	403	463	436	423	409	603	800	747
19	534	350	347	453	400	443	480	423	407	568	830	862
20	600	353	358	453	403	421	506	487	411	595	723	786
21	600	353	359	449	401	417	438	463	418	595	765	667
22	592	356	427	440	402	412	429	437	416	577	780	724
23	592	356	363	483	351	411	427	487	415	577	716	774
24	610	334	370	506	409	498	432	396	419	643	631	818
25	637	354	364	541	420	403	438	437	455	754	631	836
26	630	364	347	555	407	411	439	474	465	425	723	818
27	679	351	346	541	405	455	454	520	409	355	659	926
28	630	346	366	526	405	479	479	554	415	345	700	868
29	552	346	357	529	---	541	502	443	418	421	716	842
30	462	366	354	555	---	553	526	407	407	484	730	892
31	274	---	356	550	---	537	---	415	---	439	757	---
MONTH	513	360	356	463	405	461	464	450	426	519	670	801

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	20.0	9.0	9.5	13.0	12.0	13.5	20.0	21.0	26.0	28.0	30.0
2	20.0	20.5	9.0	9.0	11.0	12.0	15.0	20.0	23.0	28.0	29.0	29.5
3	20.0	21.5	9.0	9.0	11.0	12.0	12.0	21.0	23.5	27.0	29.0	29.5
4	20.5	20.0	9.5	8.0	10.0	10.0	13.0	21.0	24.0	27.0	29.0	30.0
5	21.0	21.0	10.5	8.0	10.0	10.0	13.0	21.0	24.5	28.0	29.0	29.0
6	21.0	17.0	11.5	8.0	8.5	12.0	14.5	24.0	25.0	30.0	29.0	29.0
7	21.0	18.0	12.0	10.0	8.0	13.0	14.5	23.0	25.5	30.0	29.5	28.0
8	21.0	16.0	12.0	11.0	8.0	12.0	13.5	23.0	25.0	30.0	29.0	27.0
9	22.0	16.0	10.0	11.0	8.0	13.0	16.0	22.0	25.0	29.0	30.0	28.0
10	22.0	17.0	9.5	12.0	8.0	11.5	15.5	23.0	25.0	30.0	30.0	28.0
11	23.0	16.0	9.0	10.5	9.0	11.0	15.0	22.0	24.5	28.0	30.5	28.0
12	24.0	15.0	9.0	8.0	9.0	12.0	15.0	21.0	23.5	28.0	30.0	28.0
13	23.0	14.5	9.5	6.0	10.0	10.0	15.0	23.0	25.0	28.0	30.0	24.0
14	24.0	15.0	10.0	7.0	11.0	8.0	15.0	21.5	26.0	28.0	30.5	24.0
15	20.0	13.5	10.0	8.0	11.0	9.5	17.0	22.0	26.0	28.0	30.0	23.0
16	18.5	14.0	10.0	9.0	11.0	11.0	16.0	22.0	26.0	28.0	29.5	23.5
17	18.0	13.0	9.5	10.5	10.0	11.0	18.0	23.0	26.5	28.0	30.0	25.0
18	19.0	14.0	10.0	10.5	10.0	12.0	18.0	21.5	26.0	28.5	29.0	25.0
19	20.0	15.0	10.0	11.0	9.0	13.0	17.0	22.0	27.0	29.0	30.0	25.5
20	20.0	15.0	10.0	9.0	9.0	13.5	18.0	22.0	27.0	29.5	29.5	25.5
21	19.5	15.0	9.0	9.0	12.0	15.0	17.0	23.0	27.0	29.5	30.0	25.0
22	19.0	16.0	10.5	10.0	13.0	15.0	18.0	25.0	27.0	30.0	30.0	17.0
23	20.0	16.5	11.0	9.0	8.0	17.0	18.0	25.0	26.5	30.0	29.5	23.0
24	20.5	16.0	12.0	10.0	8.5	15.0	19.0	22.0	27.0	30.0	29.0	21.5
25	20.5	13.5	10.5	10.5	9.0	13.0	20.0	23.0	27.0	29.5	28.0	21.5
26	20.0	13.0	9.0	12.0	10.0	15.0	20.5	24.0	26.0	25.5	28.0	21.0
27	19.5	15.0	9.0	12.0	10.0	16.0	21.5	25.0	25.5	27.0	28.0	22.0
28	21.0	13.0	10.0	14.0	11.5	16.0	22.0	24.0	26.5	28.0	28.0	22.0
29	21.0	13.5	10.0	15.0	---	13.0	21.0	22.0	27.0	28.0	28.5	22.0
30	22.0	13.0	10.5	15.0	---	10.0	21.0	23.0	27.0	29.0	29.0	23.0
31	20.5	---	10.5	15.5	---	11.5	---	22.0	---	29.0	29.0	---
MONTH	20.5	16.0	10.0	10.0	10.0	12.5	17.0	22.5	25.5	28.5	29.5	25.5

TRINITY RIVER BASIN

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08062650 Cedar Creek Reservoir spillway outflow near Trinidad, Tex.

LOCATION.--Lat 32°14'18", long 96°08'38", Henderson County, near center of channel at downstream side of bridge on State Highway 274, 0.2 mile (0.3 km) downstream from Cedar Creek Reservoir Spillway, 1.8 miles (2.9 km) upstream from mouth of cut channel at Trinity River, and 7.6 miles (12.2 km) north of Trinidad.

DRAINAGE AREA.--1,007 mi² (2,608 km²), that of Cedar Creek Reservoir.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to July 9, 1966, nonrecording gage at same site and datum. Auxiliary water-stage recorder 6,000 ft (1,830 m) downstream from base gage at same datum.

AVERAGE DISCHARGE.--10 years, 629 ft³/s (17.81 m³/s), 455,700 acre-ft/yr (562 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 31,900 ft³/s (903 m³/s) Feb. 2, 3 (elevation, 289.45 ft or 88.224 m); no flow at times. Period of record: Maximum discharge, 110,000 ft³/s (3,120 m³/s) June 4, 1973 (elevation, 300.75 ft or 91.669 m); no flow at times each year except 1971.

REMARKS.--Records good except those below 20 ft³/s (0.57 m³/s), which are poor. Except for a small amount of local runoff and seepage around gates, all flow is water released from Cedar Creek Reservoir (station 08063010).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	13900	1.0	962	9840	1.5	2.0	1620	1.0	.05	.15	0
2	.15	16200	1.0	1.0	15300	2.0	1.5	.50	1.0	0	0	0
3	.15	5790	1.0	1180	21000	4.0	2.0	1400	1.0	0	0	0
4	.22	2.0	1.0	1770	12600	3.0	2.0	825	1.0	0	.05	0
5	.22	3840	840	591	10500	2.0	2.0	.22	1.0	0	0	0
6	.30	2.0	7070	1.0	4850	2.0	2.0	12	1.0	0	0	0
7	.22	3840	3090	961	1.0	2.0	490	1160	1.0	0	0	0
8	.30	2.0	1.0	1550	1.0	3.0	10500	723	740	.10	0	0
9	.30	2.0	1.0	1.0	1.0	2.0	11400	.30	1.5	.10	0	0
10	.22	4140	3850	2660	1.0	2.0	12300	.30	1.5	.15	0	0
11	.22	5920	7100	295	1.0	2.0	1040	578	2.0	.05	0	0
12	.22	3550	4730	3170	1030	954	2.0	.30	1.5	0	0	0
13	.22	2960	3550	664	517	6780	1780	.22	1.5	0	0	.05
14	.30	2.0	2070	1.0	1.0	72	3030	1030	1.5	0	0	0
15	.15	2.0	1.0	1.0	1.0	2470	2.0	2040	1.0	.15	0	0
16	.10	1.0	1.0	1.0	517	4850	1.0	.50	1.0	.15	0	.10
17	.10	1.0	1.0	1.0	1.0	792	.50	.22	.50	.10	0	0
18	.10	1.0	1.0	1.0	1.0	1.5	.30	.22	.50	.15	0	0
19	.10	.5	1.0	1.0	1.0	1.5	.30	2.0	.30	0	0	0
20	.05	.5	.50	1.0	1.0	1.5	.30	2000	.30	0	0	0
21	.05	.5	.50	1.0	1.0	1.5	.30	4480	.22	.05	0	0
22	0	.5	.50	.50	1030	1.5	.30	1040	.15	.05	0	0
23	0	1170	.50	.50	1480	428	.22	7170	.15	.05	0	0
24	.05	25800	2810	.50	2.0	784	.22	6810	.10	.05	0	0
25	.05	18700	2660	.50	1.5	1.5	.22	1040	.10	.15	0	0
26	.05	6510	1.0	.50	1.0	627	.22	2.0	.05	.10	0	0
27	.05	1770	1.0	.50	1.0	811	.30	2.0	.05	0	0	0
28	.10	1770	1.0	.50	1.5	4290	4250	2.0	0	.10	0	0
29	.05	4670	1.0	.50	---	1040	3050	2660	.05	.10	0	0
30	.10	2960	1.0	.50	---	2.0	5060	2.0	.05	.10	0	0
31	8360	---	1630	981	---	1.5	---	2.0	---	.05	0	---
TOTAL	8364.29	123507.0	39418.00	14799.50	78683.0	23936.0	52919.68	34602.78	761.02	1.80	.20	.15
MEAN	270	4117	1272	477	2810	772	1764	1116	25.4	.058	.007	.005
MAX	8360	25800	7100	3170	21000	6780	12300	7170	740	.15	.15	.10
MIN	0	.50	.50	.50	1.0	1.5	.22	.22	0	0	0	0
AC-FT	16590	245000	78190	29350	156100	47480	105000	68630	1510	3.6	.4	.3
CAL YR 1974	TOTAL	292307.67	MEAN	801	MAX	25800	MIN	0	AC-FT	579800		
WTR YR 1975	TOTAL	376993.42	MEAN	1033	MAX	25800	MIN	0	AC-FT	747800		

TRINITY RIVER BASIN

08062700 Trinity River at Trinidad, Tex.

LOCATION.--Lat 32°08'05", Long 96°06'20", Navarro-Henderson County line, on left bank at pumping station of Texas Power and Light Co., near southwest boundary of Trinidad, 0.5 mile (0.8 km) downstream from St. Louis Southwestern Railway Lines bridge, 0.9 mile (1.4 km) downstream from bridge on State Highway 31, 8 miles (13 km) upstream from Cedar Creek, and at mile 391.2 (629.4 km).

DRAINAGE AREA.--8,538 mi² (22,113 km²), not including 1,007 mi² (2,608 km²) upstream from Cedar Creek Reservoir.

PERIOD OF RECORD.--Discharge: October 1964 to current year. Records of gage height collected in this vicinity for period October 1913 to September 1915 are contained in reports of Corps of Engineers, and records collected since October 1915 are contained in reports of the National Weather Service.

Water quality: Chemical and biochemical analyses: October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 239.21 ft (72.911 m) above mean sea level. Prior to May 3, 1967, at site 0.9 mile (1.4 km) upstream at datum 1.28 ft (0.390 m) higher.

AVERAGE DISCHARGE.--11 years, 4,117 ft³/s (116.6 m³/s), 2,983,000 acre-ft/yr (3.68 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 44,400 ft³/s (1,260 m³/s) Feb. 6 (gage height, 40.47 ft or 12.335 m); minimum, 402 ft³/s (11.4 m³/s) Sept. 30.

Period of record: Maximum discharge, 83,000 ft³/s (2,350 m³/s) May 8, 1969 (gage height, 44.70 ft or 13.442 m); minimum daily, 312 ft³/s (8.84 m³/s) Aug. 9, 1972.

Maximum stage since at least 1908, 49.8 ft (15.18 m) Apr. 25, 1942 (present site and datum), from records of the National Weather Service. Flood in 1908 reached a stage of 48.3 ft (14.72 m), present site and datum, from records of the National Weather Service.

REMARKS.--Discharge records good. For regulation by upstream reservoirs, see Trinity River near Rosser (station 08062500). The spillway outflow from Cedar Creek Reservoir (station 08062650) enters the Trinity River 13 miles (21 km) upstream from station. At end of year, flow from 126 mi² (326 km²) above this station and below Trinity River at Dallas (station 08057000) and Lake Ray Hubbard near Forney (station 08061550) was partly controlled by 62 floodwater-retarding structures with a combined capacity of 46,410 acre-ft (57.2 hm³) below the flood-spillway crests, of which 7,720 acre-ft (9.52 hm³) is sediment-pool capacity. Many diversions above station for municipal supply for cities of Fort Worth, Dallas, and several small towns. Sewage effluent from the Fort Worth-Dallas area maintains low flows.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3730	13700	16000	8450	6040	7670	2420	11100	10700	6800	4910	594
2	3780	21900	13700	8150	12600	7260	2140	8410	11000	7840	4390	525
3	2940	28700	12800	8050	27600	6880	3520	6910	11400	6590	3640	497
4	2540	26600	12200	9380	34800	6360	5150	7750	11300	4390	2780	506
5	2450	25700	11700	9250	41200	6300	6090	6690	10400	2720	2320	496
6	2380	26800	12600	7790	43100	6110	6330	3980	8050	1020	2070	469
7	2140	25000	14700	6750	35600	4870	5580	3180	7840	1490	1600	477
8	1810	24200	13600	7370	29800	3650	9730	6620	7910	1100	1150	516
9	1720	20300	12200	4780	24800	3360	16000	6800	7880	882	960	471
10	1680	18600	11400	5450	19700	3290	24900	6940	7430	925	889	443
11	1620	20500	13300	5220	15300	3330	26400	5750	8050	1160	784	448
12	1590	19000	15700	6730	12400	3810	22000	5900	8870	1380	676	506
13	1570	18500	15500	6720	11600	7860	21400	5200	9530	1940	645	487
14	1420	16600	15000	4770	10800	8800	23500	5710	10200	1530	632	457
15	1340	15400	13700	3830	10500	7400	19700	5720	10600	1290	628	491
16	4590	16200	12700	3480	10500	8780	14100	5770	11000	1160	589	519
17	5970	17400	11900	3310	10800	7880	10300	4440	11300	1120	578	548
18	4740	16600	11100	3180	10700	5980	9060	3910	11100	1120	585	881
19	2750	15200	10400	3080	10500	5410	8240	4380	11000	1080	703	872
20	1640	13800	9720	3020	10000	5910	6930	5310	11100	1070	762	598
21	1300	13400	8930	2930	9300	6220	5640	9140	11400	1050	727	497
22	1200	13100	8170	2900	8680	6260	6330	9070	11300	1020	694	454
23	1130	13000	7600	2810	9060	6440	6810	7960	10300	1000	773	437
24	1100	20000	7610	2340	8440	7330	7100	13800	9110	990	990	508
25	1060	32800	9790	1960	8000	6650	7160	16100	6740	819	1100	487
26	1010	31400	8500	1900	8060	6600	7120	15400	4580	2920	971	464
27	985	24600	7730	1860	8080	7060	6750	14700	5610	7010	750	445
28	1030	19900	7370	1810	7930	7540	7410	12800	6660	8030	634	435
29	1320	17600	7310	1780	---	8580	6820	9700	6820	8420	630	427
30	3240	18300	7310	1770	---	4540	11000	10300	6790	7010	763	409
31	6740	---	6130	2270	---	3040	---	10300	---	4760	724	---
TOTAL	72515	604800	348370	143090	455810	191010	315630	249740	276770	89656	48049	15334
MEAN	2339	20160	11240	4616	16280	6162	10520	8056	9226	2892	1292	511
MAX	6740	32800	16080	9380	43100	8800	26400	16100	11400	8420	4910	881
MIN	985	13000	7310	1770	6040	3040	2140	3180	4580	819	578	409
AC-FT	143800	1200000	691000	283800	904100	378900	626100	495400	549000	177800	79440	30410
CAL YR 1974 TOTAL	1741094			4772					3455900			
WTR YR 1975 TOTAL	2802774			7679					5599800			

TRINITY RIVER BASIN

495

08062700 Trinity River at Trinidad, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.										
18...	1215	5400	6.6	47	2.9	27	6.3	140	0	49
NOV.										
07...	1145	24000	8.8	47	4.0	18	5.3	145	0	32
DEC.										
06...	1430	12800	6.4	34	3.0	16	4.0	110	0	26
JAN.										
09...	1515	41800	6.3	55	3.4	25	5.0	166	0	42
FEB.										
28...	1730	8300	5.3	53	3.9	23	4.0	162	0	40
MAR.										
28...	1530	8360	2.2	37	3.5	19	5.0	115	0	31
APR.										
23...	1110	7000	4.7	56	4.2	22	4.0	173	0	37
MAY										
14...	1530	6100	4.8	55	3.5	25	5.0	160	0	45
JUNE										
18...	1415	10600	5.3	54	4.8	22	4.5	164	0	32
JULY										
23...	1300	927	8.9	54	5.0	59	8.0	194	0	62
AUG.										
06...	1410	2120	7.9	50	6.6	39	6.4	163	0	42
SEP.										
24...	1400	526	13	57	7.3	100	12	231	0	91

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
OCT.									
18...	20	--	.52	.17	.52	1.5	2.0	.96	228
NOV.									
07...	17	--	.14	.03	.08	.70	.78	.34	204
DEC.									
06...	18	.2	.34	.02	.16	.61	.77	.30	162
JAN.									
09...	23	.4	.86	.11	.88	.92	1.8	1.2	242
FEB.									
28...	23	.3	.62	.06	.40	1.0	1.4	.55	232
MAR.									
28...	20	.3	.42	.05	.22	.74	.96	.23	175
APR.									
23...	23	.3	1.2	.08	.87	.83	1.7	.66	236
MAY									
14...	24	.3	1.4	.23	1.1	1.1	2.2	.75	241
JUNE									
18...	24	.3	.54	.09	.08	.00	.08	.28	228
JULY									
23...	48	.8	.94	.56	1.3	2.0	3.3	3.4	341
AUG.									
06...	41	.4	1.7	.63	.03	1.2	1.2	1.3	274
SEP.									
24...	44	1.2	2.4	.51	3.0	2.9	5.9	4.6	479

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAL- HONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT.									
18...	130	14	1.0	405	7.2	20.0	4.8	52	17
NOV.									
07...	130	15	.7	356	7.2	17.0	5.2	54	2.5
DEC.									
06...	97	7	.7	290	7.3	12.0	8.7	81	2.7
JAN.									
09...	150	15	.9	459	7.2	12.0	7.4	69	10
FEB.									
28...	150	16	.8	402	7.2	12.0	8.8	81	5.9
MAR.									
28...	110	12	.8	301	7.1	14.5	8.4	82	4.0
APR.									
23...	160	15	.8	426	7.2	18.5	6.7	71	13
MAY									
14...	150	21	.9	424	7.0	24.0	3.8	45	13
JUNE									
18...	150	20	.8	408	7.4	27.5	6.1	76	3.0
JULY									
23...	166	0	2.1	615	7.6	30.5	7.4	97	14
AUG.									
06...	150	18	1.4	502	7.2	30.0	3.9	51	3.3
SEP.									
24...	170	0	3.3	882	7.1	23.5	5.3	62	26

TRINITY RIVER BASIN

08062800 Cedar Creek near Kemp, Tex.

LOCATION.--Lat 32°30'12", long 96°06'45", Kaufman County, on left bank at downstream side of bridge on Farm Road 1836, 3 miles (5 km) upstream from Williams Creek, 8 miles (13 km) northeast of Kemp, and at mile 51.5 (82.9 km).

DRAINAGE AREA.--189 mi² (490 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 341.48 ft (104.083 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 126 ft³/s (3.568 m³/s), 91,300 acre-ft/yr (113 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 13,200 ft³/s (374 m³/s) Nov. 24 (gage height, 14.63 ft or 4.459 m); no flow for many days. Period of record: Maximum discharge, 29,000 ft³/s (821 m³/s) Apr. 26, 1966 (gage height, 16.00 ft or 4.877 m); no flow at times each year.

Maximum stage since at least 1889, about 20.5 ft (6.25 m) in 1945, from information by State Highway Department and local residents.

REMARKS.--Records good above 700 ft³/s (19.8 m³/s) and fair below. Flow is regulated by Terrell Municipal Lake, capacity 8,300 acre-ft (10.2 hm³). Records furnished by city of Terrell show that during the current year they diverted 4,090 acre-ft (5.04 hm³) from Terrell Municipal Lake for municipal use and returned 1,820 acre-ft (2.24 hm³) of sewage effluent into a tributary of Kings Creek which enters downstream from station. At end of year, flow from 49.8 mi² (129 km²) above this station was partly controlled by 16 floodwater-retarding structures with a combined capacity of 18,770 acre-ft (23.1 hm³) below the flood-spillway crests, of which 1,380 acre-ft (1.70 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. A recording rain gage is located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	4780	719	113	1550	24	38	504	46	12	.02	0
2	.52	2400	234	94	3770	23	33	111	33	9.0	0	0
3	.31	1390	122	247	3240	21	30	272	26	7.0	0	0
4	.17	1050	88	234	2200	21	28	135	22	5.5	0	0
5	.11	1100	65	109	1780	19	26	65	20	4.5	0	0
6	.05	645	317	64	1380	19	24	43	18	3.5	0	0
7	.01	263	1100	39	920	19	49	33	16	2.6	0	0
8	0	155	547	28	375	18	1180	28	17	2.0	0	0
9	0	95	145	23	187	17	2860	25	41	1.4	0	0
10	0	258	115	122	114	18	2290	22	56	.94	0	0
11	0	1230	776	189	81	18	722	20	43	.59	0	0
12	0	1250	1700	125	63	20	165	18	31	.38	0	0
13	0	260	761	137	54	415	109	16	26	.10	0	0
14	2.6	109	179	70	47	1240	282	22	23	.01	0	0
15	19	62	116	35	42	340	293	156	23	0	0	0
16	26	37	91	27	38	160	109	176	82	0	0	0
17	7.5	26	66	23	35	168	68	53	30	0	0	0
18	1.8	22	48	21	32	91	52	27	19	0	0	0
19	.46	21	37	20	30	67	44	21	14	0	0	0
20	.11	19	30	19	28	49	38	30	11	0	0	0
21	.01	17	26	21	26	39	33	681	8.8	0	0	0
22	0	17	22	22	25	34	29	527	6.7	0	0	.31
23	0	33	21	21	26	30	27	89	5.1	0	0	.07
24	0	6270	21	20	50	27	25	132	4.0	0	0	0
25	0	3650	49	18	42	25	24	280	3.7	.03	0	0
26	0	1910	66	17	31	23	23	88	4.3	.24	0	0
27	0	1160	38	17	27	69	21	42	6.2	.56	0	0
28	0	701	34	16	25	300	59	30	13	1.3	0	0
29	0	313	25	15	---	184	326	27	15	.86	0	0
30	0	422	27	15	---	93	346	111	14	.50	0	0
31	1230	---	107	128	---	51	---	95	---	.14	0	---
TOTAL	1289.56	29671	7692	2049	16218	3642	9353	3879	677.8	53.15	.02	.38
MEAN	41.6	989	248	66.1	579	117	312	125	22.6	1.71	.001	.013
MAX	1230	6270	1700	247	3770	1240	2860	681	82	12	.02	.31
MIN	0	17	21	15	25	17	21	16	3.7	0	0	0
AC-FT	2560	58850	15260	4060	32170	7220	18550	7690	1340	105	.04	.8

CAL YR 1974 TOTAL 70262.06 MEAN 192 MAX 6270 MIN 0 AC-FT 139400
WTR YR 1975 TOTAL 74524.91 MEAN 204 MAX 6270 MIN 0 AC-FT 147800

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	0500	13.90	6,220	2-2	0530	13.63	4,170
11-24	1400	14.63	13,200	4-9	0900	13.50	3,350

TRINITY RIVER BASIN

497

08062900 Kings Creek near Kaufman, Tex.

LOCATION.--Lat 32°30'47", long 96°19'43", Kaufman County, on left bank at downstream side of bridge on Farm Road 1388, 3 miles (5 km) upstream from Big Cottonwood Creek, 4 miles (6 km) downstream from Big Brushy Creek, and 5 miles (8 km) south of Kaufman.

DRAINAGE AREA.--233 mi² (603 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 343.24 ft (104.620 m) above mean sea level (State Highway Department bench mark).

AVERAGE DISCHARGE.--12 years, 164 ft³/s (4.644 m³/s), 118,800 acre-ft/yr (146 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 13,000 ft³/s (368 m³/s) Nov. 1 (gage height, 20.90 ft or 6.370 m); minimum, 1.7 ft³/s (0.048 m³/s) Sept. 4, 5.

Period of record: Maximum discharge, 33,800 ft³/s (957 m³/s) May 7, 1969 (gage height, 23.34 ft or 7.114 m), from rating curve extended above 17,000 ft³/s (481 m³/s); no flow at times most years.

Maximum stage since at least 1942, 23.34 ft (7.114 m) May 7, 1969. Flood in 1949 reached a stage of 23.1 ft (7.04 m), from information by State Highway Department.

REMARKS.--Records good. During the water year, the city of Terrell diverted 4,090 acre-ft (5.04 hm³) from Cedar Creek basin and returned 1,820 acre-ft (2.24 hm³) of sewage effluent into the basin above this station. The city of Kaufman diverted 679 acre-ft (0.837 hm³) from Big Cottonwood Creek (enters Kings Creek below gage) and returned about 310 acre-ft (0.382 hm³) of sewage effluent above gage. At end of year, flow from 37.1 mi² (96.1 km²) above this station was partly controlled by 25 floodwater-retarding structures with a combined capacity of 14,490 acre-ft (17.9 hm³) below the flood-spillway crests, of which 2,430 acre-ft (3.00 hm³) is sediment-pool capacity. Five structures were built during the current year and have a combined capacity below flood-spillway crests of 1,480 acre-ft (1.82 hm³) of which 182 acre-ft (0.224 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Recording rain gage located at station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	9190	503	210	3230	11	83	12	102	20	4.0	2.5
2	21	2890	144	141	8370	7.2	49	15	50	11	3.8	2.4
3	18	713	89	675	4330	5.1	28	129	30	7.1	3.7	2.3
4	16	630	58	312	2750	4.5	20	89	18	5.6	3.5	2.0
5	14	498	43	127	1340	4.9	15	42	12	5.3	3.5	1.9
6	13	247	642	75	726	5.9	12	24	9.6	4.2	3.3	2.1
7	12	159	733	48	337	5.7	276	19	7.8	3.4	2.6	2.2
8	10	112	184	34	217	3.1	4280	62	8.4	3.1	2.7	2.0
9	9.9	74	105	25	155	2.9	4300	21	165	2.7	2.1	2.0
10	9.0	901	114	61	114	2.9	904	10	626	2.7	2.1	2.0
11	8.1	3240	1430	167	76	3.3	240	7.5	758	3.0	17	1.9
12	7.1	1760	1580	90	55	5.1	148	6.5	180	20	14	2.0
13	6.5	287	298	54	37	391	124	5.2	108	16	13	2.1
14	93	158	150	33	23	862	259	7.5	65	8.9	15	2.0
15	408	92	101	24	15	192	181	187	40	4.8	9.7	2.3
16	144	51	70	18	10	115	98	120	25	3.5	7.2	3.7
17	76	35	44	16	7.6	81	63	49	14	3.1	6.0	3.3
18	42	24	29	13	6.2	86	48	19	9.3	2.9	5.5	3.9
19	23	11	19	11	4.7	76	34	12	7.6	2.8	4.8	3.1
20	12	7.0	16	9.5	3.7	68	24	8.3	6.1	2.5	4.7	2.6
21	6.3	5.2	14	9.9	3.0	38	16	8.7	5.5	2.4	4.2	2.3
22	4.2	3.5	11	9.3	3.0	24	12	21	5.1	2.4	5.3	2.5
23	2.4	83	10	7.4	8.9	15	8.6	17	4.2	2.5	6.0	2.3
24	2.8	2950	8.3	6.8	158	12	7.2	43	3.7	2.4	9.7	2.1
25	2.6	2170	6.9	7.6	138	8.6	6.1	114	3.9	100	7.1	2.0
26	2.4	354	6.2	7.7	63	103	5.0	81	5.1	188	4.5	2.0
27	2.2	150	6.1	7.4	31	992	4.1	31	16	50	3.6	2.1
28	159	113	5.7	6.6	17	1260	50	37	10	15	2.9	2.2
29	617	194	5.7	6.5	---	835	65	497	5.1	8.0	2.6	2.3
30	196	1080	6.1	6.3	---	295	30	817	53	5.5	3.0	2.2
31	5090	---	21	336	---	154	---	316	---	4.6	2.8	---
TOTAL	7049.5	28181.7	6453.0	2555.0	22229.1	5669.2	11390.0	2827.7	2353.4	513.4	217.7	70.3
MEAN	227	939	208	82.4	794	183	380	91.2	78.4	16.6	7.02	2.34
MAX	5090	9190	1580	675	8370	1260	4300	817	753	188	21	3.9
MIN	2.2	3.5	5.7	6.3	3.0	2.9	4.1	5.2	3.7	2.4	2.6	1.9
AC-FT	13980	55900	12800	5070	44090	11240	22590	5610	4670	1020	432	139

CAL YR 1974 TOTAL 91705.85 MEAN 251 MAX 9190 MIN .87 AC-FT 181900
WTR YR 1975 TOTAL 89510.00 MEAN 245 MAX 9190 MIN 1.9 AC-FT 177500

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	0115	20.90	13,000	2-2	0830	20.28	9,880
11-11	1515	18.53	4,010	4-8	1930	19.43	6,380
11-24	1845	18.36	3,620				

TRINITY RIVER BASIN

08063010 Cedar Creek Reservoir near Trinidad, Tex.

LOCATION.--Lat 32°14'34", long 96°08'28", Henderson County, at site of future pump station 1,000 ft (305 m) north of spillway, 5.5 miles (8.8 km) upstream from Joe B. Hogsett Dam on Cedar Creek, and 8.0 miles (12.9 km) northwest of Trinidad.

DRAINAGE AREA.--1,007 mi² (2,608 km²).

PERIOD OF RECORD.--Contents: January 1965 to current year.

Water quality: Chemical analyses: October 1969 to current year.

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

EXTREMES.--Current year: Maximum contents, 688,800 acre-ft (849 hm³) Nov. 24 (elevation, 322.28 ft or 98.231 m); minimum, 636,400 acre-ft (785 hm³) Sept. 29, 30 (elevation, 320.70 ft or 97.749 m).

Period of record: Maximum contents, 722,000 acre-ft (890 hm³) June 4, 1973 (elevation, 323.24 ft or 98.524 m); minimum since first appreciable storage in 1966, 332,900 acre-ft (410 hm³) Mar. 19, 1967 (elevation, 309.42 ft or 94.311 m).

REMARKS.--The reservoir is formed by a rolled earthfill dam 17,539 ft (5,346 m) long. The spillway is located on the right bank 5.5 miles (8.8 km) upstream from the dam and discharges into the Trinity River through a cut channel 2 miles (3 km) long. Deliberate impoundment began July 2, 1965, and the dam was completed in February 1966. The spillway is 474 ft (144 m) long and has eight 40- by 24-foot (12- by 7-metre) radial gates and two automatically operated 40- by 8.5-foot (12- by 2.6-metre) hinged gates. Low-flow releases may be made downstream through a 5.0-foot-diameter (1.5-metre) conduit through the dam. The dam is the property of Tarrant County Water Control and Improvement District No. 1 and was built for municipal and industrial supply and for recreational purposes. The area and capacity tables were based on a survey during the period 1940-58. During the current year, records furnished by Tarrant County Water Control and Improvement District No. 1 show that a total of 3,307 acre-ft (4.08 hm³) was diverted from the reservoir for municipal and industrial uses by the cities of Fort Worth, Kemp, Trinidad, and Mabank. At end of year, flow from 153 mi² (396 km²) above this station was partly controlled by 70 floodwater-retarding structures with a combined capacity of 57,260 acre-ft (70.6 hm³) below the flood-spillway crests, of which 7,850 acre-ft (9.68 hm³) is sediment-pool capacity. Twelve structures were built during the current year and have a combined capacity below flood-spillway crests of 4,620 acre-ft (5.70 hm³), of which 598 acre-ft (0.737 km³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	340.0	-
Top of radial gates.....	325.0	785,100
Top of automatic gates.....	322.5	696,400
Top of conservation pool.....	322.0	679,200
Crest of spillway (automatic gates).....	314.0	441,000
Crest of spillway (radial gates).....	302.0	197,800
Lowest gated outlet (invert).....	263.5	430

COOPERATION.--Records of diversions furnished by the Tarrant County Water Control and Improvement District No. 1. The area and capacity tables were furnished by Freese, Nichols, and Endress, Consulting Engineers, for Tarrant County Water Control and Improvement District No. 1.

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

320.0	613,800	322.0	679,200
321.0	646,000	323.0	713,500

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	650,700	673,300	676,600	675,200	673,600	676,200	670,300	679,600	682,300	679,600	664,300	649,400
2	650,300	668,300	677,200	677,200	678,200	675,900	669,900	682,700	682,000	679,600	664,300	649,000
3	649,400	673,300	676,900	679,900	674,900	675,900	670,600	683,000	681,600	679,600	668,300	648,700
4	648,700	677,900	679,900	678,200	674,200	675,600	669,900	682,700	681,300	679,200	666,300	647,400
5	648,000	674,900	681,300	677,900	672,300	675,900	670,300	682,700	681,300	678,200	666,000	647,000
6	648,400	677,600	676,900	678,200	670,300	675,900	669,900	683,700	680,900	677,600	665,000	646,700
7	648,000	673,600	676,600	677,900	674,200	674,200	666,000	681,300	681,300	676,900	664,000	645,700
8	648,000	673,900	678,900	675,200	676,600	674,900	667,300	679,200	680,900	677,600	663,300	644,400
9	648,000	674,200	679,200	677,600	677,600	674,900	665,600	679,900	681,300	676,600	662,600	642,500
10	647,400	678,600	679,200	676,200	677,900	673,600	665,600	679,200	682,000	675,600	662,000	641,500
11	646,700	676,900	677,600	676,600	679,200	672,900	677,600	680,900	683,700	675,900	661,600	641,500
12	646,700	676,600	677,200	674,900	677,900	671,900	678,200	681,300	683,000	683,000	660,600	641,800
13	646,000	677,600	676,200	674,600	676,900	674,600	679,900	680,900	682,000	674,200	659,600	642,500
14	651,000	675,600	675,900	674,600	677,200	668,300	678,200	683,300	681,600	673,600	659,600	641,200
15	649,400	676,200	675,900	676,900	679,200	670,900	680,900	681,600	681,600	673,600	659,300	643,500
16	649,400	676,200	676,200	676,900	678,200	673,900	682,000	682,300	680,900	672,900	658,300	643,500
17	649,400	675,900	676,600	677,200	677,600	673,300	682,300	682,300	680,600	672,300	658,000	641,800
18	649,700	674,900	676,900	677,200	678,600	671,900	684,400	682,000	679,200	670,900	657,300	641,500
19	649,000	676,900	676,900	678,200	677,900	670,600	683,000	681,600	679,900	670,300	656,300	642,800
20	648,700	675,900	676,900	677,600	677,200	670,300	683,000	684,700	679,200	669,900	656,000	642,800
21	647,700	675,200	676,900	677,200	677,600	669,300	682,700	682,700	679,200	669,300	656,000	642,800
22	647,700	675,600	676,900	677,600	679,200	668,600	683,000	680,900	679,200	669,300	654,700	641,200
23	646,700	685,700	677,200	677,200	675,200	668,600	683,700	679,200	678,600	667,600	654,000	640,200
24	647,000	679,200	678,600	677,600	675,600	670,300	683,300	677,600	677,600	668,300	653,700	640,200
25	646,400	674,600	674,200	678,200	676,600	670,900	683,300	677,600	677,600	667,600	653,000	638,900
26	646,000	675,600	674,900	678,200	676,900	678,600	683,700	679,200	680,600	667,300	652,700	638,300
27	645,100	676,900	674,900	677,900	677,200	668,900	683,700	679,200	679,900	666,600	652,700	637,700
28	646,700	676,900	675,900	678,200	676,900	678,900	679,200	680,900	680,900	666,600	651,300	636,700
29	647,700	674,900	676,600	679,200	-----	670,600	679,900	678,600	680,900	666,900	651,000	636,400
30	650,000	672,900	677,900	679,200	-----	671,300	679,900	680,900	680,900	666,300	650,000	636,400
31	664,600	-----	676,200	680,600	-----	672,300	-----	682,300	-----	665,300	649,700	-----
(+)	321.56	321.81	321.91	322.04	321.93	321.79	322.02	322.09	322.05	321.58	321.11	320.70
(+)	+13,600	+8,300	+3,300	+4,400	-3,700	-4,600	+7,600	+2,400	-15,600	-15,600	-13,300	-13,300
(+)	247	168	146	225	137	232	222	252	250	487	409	532
MAX	664,600	685,700	681,300	680,600	679,200	676,200	684,400	684,700	683,700	679,600	668,300	649,400
MIN	645,100	668,300	674,200	674,600	670,300	668,300	665,600	677,600	677,600	665,300	649,700	636,400
CAL YR 1974.....	+ -1,700											
WTR YR 1975.....	+ -14,600											
	†† 9,900											
	MAX 685,700											
	MIN 640,600											

† Elevation, in feet, at end of month.

+ Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by private lakeside water companies and nearby cities.

TRINITY RIVER BASIN

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08063010 Cedar Creek Reservoir near Trinidad, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	
JULY, 1975 01...	1330	.3	17	3.0	14	3.9	56	0	25	
DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JULY, 1975 01...	18	.2	109	55	9	.8	204	7.7	27.0	

TRINITY RIVER BASIN

08063050 Navarro Mills Lake near Dawson, Tex.

LOCATION.--Lat 31°57'27", long 96°41'21", Navarro County, in left abutment of spillway of Navarro Mills Dam on Richland Creek, 1.7 miles (2.7 km) upstream from bridge on State Highway 31, 3.0 miles (4.8 km) upstream from St. Louis Southwestern Railway Lines bridge, 4.2 miles (6.8 km) upstream from Post Oak Creek, 4.6 miles (7.4 km) north of Dawson, and at mile 63.9 (102.8 km).

DRAINAGE AREA.--320 mi² (829 km²).

PERIOD OF RECORD.--Contents: August 1962 to current year. Prior to October 1970, published as Navarro Mills Reservoir.
Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Oct. 8, 1962, nonrecording gage in low-water channel at same datum.

EXTREMES.--Current year: Maximum contents, 150,600 acre-ft (186 hm³) Nov. 12 (elevation, 436.94 ft or 133.179 m); minimum, 56,570 acre-ft (69.8 hm³) Sept. 30 (elevation, 423.13 ft or 128.970 m).
Period of record: Maximum contents, 183,300 acre-ft (226 hm³) May 18, 1968 (elevation, 440.36 ft or 134.222 m); minimum since initial filling in May 1965, 48,840 acre-ft (60.2 hm³) Apr. 10, 1967, and Oct. 18, 1972 (elevation, 421.47 ft or 128.464 m).

REMARKS.--The lake is formed by a rolled earthfill dam 7,570 ft (2,310 m) long, including an off-channel 240-foot (73-metre) gated spillway with six 40- by 29-foot (12- by 9-metre) tainter gates. From Aug. 27, 1962, to Mar. 14, 1963, the lake was operated as a detention basin only. Deliberate impoundment began Mar. 15, 1963, and the dam was completed in September 1963. The low-flow outlet works consist of two 36-inch-diameter (914-millimetre) gate-controlled conduits. The lake was built for flood control and water conservation. The capacity table is based on a survey made in February 1956 by the Corps of Engineers. At end of year, flow from 78.2 mi² (202.5 km²) above this station was partly controlled by 44 floodwater-retarding structures with a combined capacity of 28,150 acre-ft (34.7 hm³) below the flood-spillway crests, of which 4,350 acre-ft (5.36 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity below flood-spillway crests of 1,210 acre-ft (1.49 hm³), of which 248 acre-ft (0.306 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	457.0	-
Design flood.....	451.9	335,800
Top of gates (top of flood control storage pool).....	443.0	212,200
Top of conservation pool.....	424.5	63,300
Crest of spillway.....	414.0	22,100
Lowest gated outlet (invert).....	400.0	2,370

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

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

423.0	55,940	430.0	95,690
424.0	60,820	432.0	110,000
425.0	65,890	434.0	125,600
426.0	71,180	436.0	142,300
428.0	82,680	437.0	151,100

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65,990	131,100	117,000	63,500	65,010	63,330	63,630	73,770	136,400	63,020	61,620	58,450
2	65,230	133,200	114,000	64,160	74,550	63,180	63,330	74,220	135,400	63,130	61,720	58,310
3	64,670	135,200	110,000	64,520	81,770	63,280	63,130	74,380	132,500	63,230	61,670	58,210
4	64,010	138,700	108,400	64,110	86,240	63,480	63,130	74,660	129,800	63,280	61,570	58,060
5	63,450	140,400	103,100	63,760	87,580	63,580	63,130	73,210	126,400	63,280	61,470	57,970
6	63,200	141,700	100,300	63,300	88,350	63,430	63,330	70,750	122,800	63,280	61,420	57,920
7	63,200	143,400	96,600	63,200	84,930	63,130	67,300	68,510	119,400	63,230	61,270	57,770
8	63,250	144,700	92,410	63,250	89,520	62,670	81,710	66,040	116,100	64,240	61,120	57,630
9	63,150	145,600	89,000	64,210	89,780	62,570	83,980	64,810	113,100	63,840	61,020	57,530
10	63,150	149,100	85,710	64,270	88,480	62,420	85,290	64,290	110,000	63,180	60,870	57,480
11	63,100	150,200	83,190	64,770	86,170	62,570	86,170	67,030	106,600	63,130	60,770	57,390
12	63,050	148,900	80,310	67,480	82,870	62,620	96,620	69,090	102,900	63,070	60,620	57,100
13	63,050	145,700	78,540	66,840	79,030	63,990	87,260	69,950	98,740	62,970	60,520	56,950
14	63,500	142,500	76,760	65,280	75,340	64,140	85,980	69,570	94,660	62,820	60,420	56,850
15	63,400	139,200	73,860	63,810	71,840	64,090	82,930	68,400	90,770	62,770	60,270	56,900
16	63,350	136,200	70,020	63,100	68,240	65,370	79,970	66,880	86,870	62,670	60,170	57,770
17	63,350	133,000	66,790	63,300	64,860	65,270	77,570	65,220	82,380	62,620	60,070	57,820
18	63,350	129,700	64,010	63,610	62,770	64,860	75,060	63,630	78,970	62,570	59,930	57,720
19	63,250	126,200	63,710	63,710	62,870	64,140	72,770	63,380	77,450	62,420	59,680	57,630
20	63,100	122,600	63,150	63,760	62,970	63,580	70,480	66,820	75,730	62,420	59,580	57,530
21	63,050	118,800	63,050	63,860	63,180	63,280	68,300	72,280	74,270	62,320	59,340	57,530
22	63,000	115,200	63,150	64,010	63,580	63,480	66,150	72,720	72,110	62,170	59,630	57,340
23	63,000	116,200	63,350	63,760	63,680	63,630	64,450	81,290	69,630	62,020	59,530	57,190
24	63,000	120,400	63,710	63,400	63,580	63,680	63,580	103,100	66,820	61,920	59,340	57,140
25	63,050	121,000	63,710	63,000	63,480	63,680	63,230	109,500	67,190	61,920	59,240	57,000
26	63,050	121,200	63,960	62,900	63,430	63,680	63,380	111,400	66,410	62,120	59,090	56,900
27	63,050	121,300	63,910	63,050	63,330	63,990	63,430	114,000	66,300	62,170	58,990	56,810
28	63,300	121,400	63,450	63,250	63,380	64,040	63,790	117,900	65,730	62,170	58,990	56,710
29	63,400	122,100	63,150	63,350	-----	64,040	65,530	129,800	63,990	61,920	58,850	56,660
30	65,890	120,300	63,100	63,610	-----	64,140	73,050	134,200	63,130	61,820	58,750	56,660
31	127,200	-----	63,400	63,860	-----	63,890	-----	135,400	-----	61,720	58,600	-----
(+)	434.20	433.33	424.51	424.60	424.51	424.61	426.34	435.20	424.46	424.18	423.55	423.15
(+)	+60,680	-6,900	-56,900	+480	-460	+510	+9,160	+62,350	-72,270	-1,410	-3,120	-1,940
(+)	353	325	322	329	276	306	312	326	366	481	485	433
MAX	127,200	150,200	117,000	67,480	89,780	65,370	87,260	135,400	136,400	64,240	61,720	58,450
MIN	63,000	115,200	63,050	62,900	62,770	62,420	63,130	63,380	63,130	61,720	58,600	56,660
CAL YR 1974.....	*	+300			††	4,450		MAX	150,200		MIN	51,630
WTR YR 1975.....	*	-9,860			††	4,310		MAX	150,200		MIN	56,660

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by cities of Dawson and Corsicana.

TRINITY RIVER BASIN

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08063050 Navarro Mills Lake near Dawson, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SiO2)	DIS- SOLVED CAL- CIUM (CA)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA)	DIS- SOLVED PO- TAS- SIUM (K)	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	DIS- SOLVED SULFATE (SO4)
		(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)
NOV.. 1974									
15...	1230	5.9	34	3.1	13	4.2	101	0	30
JULY, 1975									
17...	1020	4.7	45	2.6	14	3.9	132	0	33
DATE	DIS- SOLVED CHLO- RIDE (CL)	DIS- SOLVED FLUO- RIDE (F)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS)	HARD- NESS (CA,MG)	NON- CAR- BONATE HARD- NESS	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)
	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)			(UNITS)	
NOV.. 1974									
15...	11	.5	152	98	15	.6	261	7.8	14.0
JULY, 1975									
17...	12	.3	181	120	15	.6	320	7.3	28.0

08063100 Richland Creek near Dawson, Tex.

LOCATION.--Lat 31°56'18", long 96°40'52", Navarro County, at downstream side of bridge on State Highway 31, 1.3 miles (2.1 km) upstream from St. Louis Southwestern Railway Lines bridge, 1.7 miles (2.7 km), revised, downstream from Navarro Mills Dam, 2.5 miles (4.0 km) upstream from Post Oak Creek, and 3.6 miles (5.8 km) northeast of Dawson.

DRAINAGE AREA.--333 mi² (862 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 370.52 ft (112.934 m) above mean sea level. Prior to Nov. 21, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--15 years, 165 ft³/s (4.673 m³/s), 119,500 acre-ft/yr (147 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,850 ft³/s (109 m³/s) Nov. 24 (gage height, 19.85 ft or 6.050 m); minimum daily, 0.03 ft³/s (0.001 m³/s) Sept. 20.

Period of record: Maximum discharge, 25,500 ft³/s (722 m³/s) July 3, 1961 (gage height, 22.50 ft or 6.858 m), from rating curve extended above 14,000 ft³/s (396 m³/s); no flow at times. Maximum discharge since completion of Navarro Mills Dam in 1963, 3,850 ft³/s (109 m³/s) Nov. 24, 1974 (gage height, 19.85 ft or 6.050 m).

Maximum stage since about 1895, about 28 ft (8.5 m) June 19, 1929, from information by local residents. Floods in 1946 and 1957 reached a stage of about 23 ft (7.0 m), from information by local residents.

REMARKS.--Records good. Flow is regulated since Mar. 15, 1963, by Navarro Mills Lake (station 08063050). There are diversions from Navarro Mills Lake for municipal use. At end of year, flow from 1.28 mi² (3.32 km²) below Navarro Mills Lake and above this station was partly controlled by one floodwater-retarding structure with a capacity of 382 acre-ft (471,000 m³) below the flood-spillway crest, of which 85 acre-ft (105,000 m³) is sediment-pool capacity. The capacity in this pool allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	170	1920	7.5	23	51	228	8.9	3.3	10	1.4	12
2	307	23	1900	6.0	349	50	226	3.2	710	8.0	1.5	11
3	305	18	1880	133	210	16	114	2.1	1650	6.0	1.7	11
4	304	18	1860	362	128	4.5	2.6	1.7	1750	4.5	1.5	12
5	300	16	1840	360	33	4.0	2.6	590	1950	4.0	1.3	12
6	136	14	1830	358	10	81	3.0	1280	1920	3.5	1.3	13
7	4.3	14	1800	268	7.3	213	88	1270	1900	3.0	1.3	12
8	.39	14	1770	6.3	6.7	212	324	1250	1870	2.5	1.2	12
9	.66	9.4	1860	4.5	5.2	212	41	795	1840	100	1.2	6.4
10	1.2	27	2000	5.5	613	83	11	346	1810	550	1.2	1.19
11	1.7	8.4	2020	4.3	1310	4.6	8.9	326	1780	50	1.1	.08
12	2.2	754	1730	79	1540	5.3	5.0	182	1820	8.0	1.0	.06
13	2.5	1760	1020	394	1760	47	11	1.8	2010	5.0	.83	.06
14	5.9	1750	1000	923	1720	97	649	318	1980	3.5	.83	.06
15	4.5	1730	1330	908	1680	218	1530	759	1940	2.5	.89	.06
16	2.0	1710	1730	610	1640	245	1500	906	1900	1.5	.95	4.0
17	3.3	1690	1800	6.7	1590	290	1320	897	1860	1.2	.95	.35
18	3.9	1760	1430	4.8	1170	422	1130	886	1820	1.2	13	.08
19	4.0	1850	350	4.3	15	422	1120	424	1500	1.1	53	.04
20	4.0	1850	343	3.2	8.5	419	1100	27	880	1.2	15	.03
21	4.2	1870	159	3.0	7.5	330	1080	27	860	2.4	15	.04
22	4.3	1940	8.0	2.8	7.0	4.2	1060	231	990	1.2	15	3.1
23	4.8	2060	7.3	155	7.5	3.0	975	479	1150	1.1	14	.69
24	4.8	1860	7.5	340	43	2.9	552	507	1150	1.0	14	.67
25	6.1	10	8.0	340	112	2.5	288	93	1140	1.2	14	1.8
26	6.5	5.5	7.1	149	111	2.4	2.8	24	650	1.3	14	.17
27	6.5	4.5	104	2.8	111	3.0	1.6	8.4	130	1.3	14	.09
28	7.1	4.0	346	2.4	79	3.4	5.5	5.5	350	1.3	12	.09
29	8.4	3.5	344	2.4	---	3.3	47	162	470	1.4	12	.09
30	176	860	143	2.4	---	3.0	146	44	910	1.5	12	.11
31	1650	---	9.9	3.4	---	122	---	6.7	---	1.5	12	---
TOTAL	3576.38	23803.3	32556.8	5451.3	14296.7	3576.1	13572.0	11861.3	40693.3	781.9	249.15	113.26
MEAN	115	793	1050	176	511	115	452	383	1356	25.2	8.04	3.78
MAX	1650	2060	2020	923	1760	422	1530	1280	2010	550	53	13
MIN	.39	3.5	7.1	2.4	5.2	2.4	1.6	1.7	3.3	1.0	.83	.03
AC-FT	7090	47210	64580	10810	28360	7090	26920	23530	80720	1550	494	225
CAL YR 1974 TOTAL	73404.13			MEAN 201	MAX 2060	MIN .05	AC-FT 145600					
WTR YR 1975 TOTAL	150531.49			MEAN 412	MAX 2060	MIN .03	AC-FT 298600					

TRINITY RIVER BASIN

503

08063500 Richland Creek near Richland, Tex.

LOCATION.--Lat 31°57'00", long 96°25'17", Navarro County, at downstream side of bridge on U.S. Highway 75, 800 ft (240 m) downstream from Texas and New Orleans Railroad Co. bridge, 1.0 mile (1.6 km) north of Richland, 3.5 miles (5.6 km) downstream from Pin Oak Creek, and at mile 36.7 (59.1 km).

DRAINAGE AREA.--734 mi² (1,901 km²).

PERIOD OF RECORD.--December 1924 to February 1925 (discharge measurements and gage heights only), March 1939 to current year.

GAGE.--Water-stage recorder with low-water concrete control. Datum of gage is 299.12 ft (91.172 m) above mean sea level. Dec. 11, 1924, to Feb. 11, 1925, nonrecording gage at site 800 ft (240 m) upstream. Mar. 17, 1939, to Feb. 14, 1958, water-stage recorder at site 50 ft (15 m) upstream. Feb. 15, 1958, to Jan. 28, 1959, nonrecording gage at present site. June 8, 1955, to Feb. 14, 1958, and since Feb. 6, 1959, supplementary water-stage recorder in overflow channel 3,900 ft (1,190 m) to right of main channel gage. All gages at present datum.

AVERAGE DISCHARGE.--23 years (1939-62) prior to regulation by Navarro Mills Lake, 404 ft³/s (11.44 m³/s), 292,700 acre-ft/yr (361 hm³/yr); 13 years (1962-75) regulated, 370 ft³/s (10.48 m³/s), 268,100 acre-ft/yr (331 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 32,700 ft³/s (926 m³/s) Nov. 1 (gage height, 21.92 ft or 6.68 m); no flow Sept. 25-30. Period of record: Maximum discharge, 58,900 ft³/s (1,670 m³/s) May 12, 1948 (gage height, 24.16 ft or 7.364 m); no flow at times. Maximum stage since at least 1899, 25.5 ft (7.77 m) in December 1913 (discharge not determined), from information by Texas and New Orleans Railroad Co.

REMARKS.--Records good. Since October 1962, flow is partly regulated by Navarro Mills Lake (station 08063050) located 25 miles (40 km) upstream. At end of year, flow from 137 mi² (355 km²) above this station was partly controlled by 69 floodwater-retarding structures with a combined capacity of 47,860 acre-ft (59.0 hm³) below the flood-spillway crests, of which 7,480 acre-ft (9.22 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	323	19800	1560	214	24	40	149	3520	646	298	4.1	18
2	315	6960	1730	185	1230	25	248	838	423	22	3.8	19
3	308	3140	1790	549	6100	20	241	446	1460	37	19	19
4	306	1870	1950	596	6660	20	105	421	1820	276	21	18
5	306	1780	1980	493	2940	20	25	312	1870	42	11	18
6	303	1380	2290	420	1110	20	20	1220	1980	28	8.0	19
7	100	1190	2260	386	742	130	96	1520	2050	27	6.2	21
8	16	1130	2010	221	534	245	3470	1460	2180	26	4.8	20
9	9.7	964	1890	42	364	245	6420	1400	2140	735	4.1	20
10	7.4	1380	2010	265	255	246	2960	618	1960	987	3.3	20
11	6.5	2490	3700	381	1230	92	1220	720	1960	263	2.4	18
12	5.2	1050	3910	1400	1490	22	747	3150	1890	70	2.0	10
13	5.1	1730	2680	1410	1780	502	550	1290	1900	40	1.6	5.4
14	5.4	2090	1340	1120	1990	806	1720	597	2010	30	1.5	5.6
15	60	2020	1150	1140	2000	422	1920	1080	2040	23	1.2	4.8
16	80	1930	1600	1050	1960	964	1950	1440	2020	19	1.0	7.3
17	44	1850	1850	375	1910	965	1800	1330	1980	16	.90	9.8
18	29	1810	1940	58	1840	664	1550	1120	1940	13	.66	30
19	21	1870	1150	45	889	608	1410	1020	1720	11	.46	24
20	18	1970	348	40	40	544	1370	320	1030	10	20	17
21	15	1970	321	35	25	515	1330	1700	865	9.5	26	13
22	14	1980	123	32	20	293	1310	641	864	20	16	.9.8
23	12	2050	41	30	20	44	1280	1400	1200	15	16	7.6
24	11	5180	83	230	20	32	1020	7050	1270	11	16	5.9
25	12	8800	582	326	50	27	508	9190	1330	9.0	16	0
26	11	3420	389	320	120	24	276	5230	2590	7.0	15	0
27	12	1010	219	96	120	24	30	1540	905	6.0	16	0
28	14	712	284	28	120	146	20	980	503	5.5	19	0
29	15	538	405	25	---	105	573	1410	749	5.1	15	0
30	21	732	387	25	---	38	3530	2910	1190	4.8	16	0
31	8180	---	211	24	---	26	---	1220	---	4.5	16	---
TOTAL	10585.3	84796	42183	11561	35583	7874	37848	57493	46485	3070.4	304.02	360.2
MEAN	341	2827	1361	373	1271	254	1262	1855	1550	99.0	9.81	12.0
MAX	8180	19800	3910	1410	6660	965	6420	9190	2590	987	26	30
MIN	5.1	538	41	24	20	20	20	312	423	4.5	.46	0
AC-FT	21000	168200	83670	22930	70580	15620	75070	114000	92200	6090	603	714
CAL YR 1974 TOTAL	187452.79			MEAN 514	MAX 19800	MIN 0	AC-FT 371800					
WTR YR 1975 TOTAL	338142.92			MEAN 926	MAX 19800	MIN 0	AC-FT 670700					

08063700 Bardwell Lake near Ennis, Tex.

LOCATION.--Lat 32°15'00", long 96°38'49", Ellis County, in intake structure of Bardwell Dam on Waxahachie Creek, 5 miles (8 km) south of Ennis, and 5.6 miles (9.0 km) upstream from mouth.

DRAINAGE AREA.--178 mi² (461 km²).

PERIOD OF RECORD.--Contents: November 1965 to current year. Prior to October 1970, published as Bardwell Reservoir.
Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Prior to Apr. 25, 1966, nonrecording gage on intake structure at same datum.

EXTREMES.--Current year: Maximum contents, 85,100 acre-ft (105 hm³) June 2 (elevation, 428.50 ft or 130.607 m); minimum, 50,470 acre-ft (62.2 hm³) Oct. 14 (elevation, 419.74 ft or 127.937 m).
Period of record: Maximum contents, 103,300 acre-ft (127 hm³) May 19, 1969 (elevation, 432.35 ft or 131.780 m); minimum since initial filling, 45,840 acre-ft (56.5 hm³) Sept. 4, 1967 (elevation, 418.35 ft or 127.513 m).

REMARKS.--The lake is formed by a rolled earthfill dam 15,400 ft (4,690 m) long, including a 350-foot (107-metre) uncontrolled off-channel concrete gravity spillway with ogee weir section. Deliberate impoundment began Nov. 20, 1965, and the dam was completed Mar. 27, 1966. The controlled low-flow outlet works consist of a 10.0-foot-diameter (3.0-metre) concrete conduit with two 5.0- by 10.0-foot (1.5- by 3.0-metre) sluice gates. The lake was built for flood control and water conservation. The capacity table is based on a survey completed in 1962. Flow from 81.4 mi² (210.8 km²) above this lake is modified by Lake Waxahachie, with a capacity of 13,500 acre-ft (16.6 hm³), at spillway elevation. During the current year, the city of Waxahachie diverted 2,550 acre-ft (3.14 hm³) from Lake Waxahachie and returned 2,860 acre-ft (3.53 hm³) to Bardwell Lake. At end of year, flow from 52.4 mi² (135.7 km²) above this station was partly controlled by 23 floodwater-retarding structures with a combined capacity of 18,460 acre-ft (22.8 hm³) below the flood-spillway crests, of which 3,090 acre-ft (3.81 hm³) is sediment-pool capacity. One structure was built during the current year and has a capacity below flood-spillway crest of 418 acre-ft (0.515 hm³) of which 87 acre-ft (0.107 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	460.0	-
Design flood.....	455.9	268,400
Crest of spillway (top of flood-control pool).....	439.0	140,000
Top of conservation pool.....	421.0	54,900
Lowest gated outlet (invert).....	391.0	1,320

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

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

419.0	47,950	426.0	74,200
420.0	51,350	428.0	82,860
422.0	58,500	429.0	87,330
424.0	66,100		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50,870	71,240	57,370	55,010	57,830	54,940	55,580	55,980	84,860	54,830	55,040	53,160
2	50,810	72,100	56,210	55,540	63,000	55,040	55,510	56,200	84,240	55,040	54,870	53,090
3	50,770	72,800	55,300	55,590	66,100	55,150	54,970	56,450	81,530	55,620	54,790	53,060
4	50,670	73,990	54,970	55,370	68,320	55,220	54,830	56,560	78,900	56,160	54,650	52,920
5	50,670	74,450	55,050	55,260	70,090	55,260	54,870	56,090	78,900	56,300	54,650	52,920
6	50,700	74,750	55,480	55,010	71,310	55,220	54,940	54,900	79,120	56,300	54,580	52,810
7	50,700	75,220	55,560	54,900	72,090	55,040	56,670	54,470	79,330	56,340	54,510	52,710
8	50,640	75,560	55,700	54,900	73,360	54,870	62,810	54,540	80,160	56,380	54,510	52,640
9	50,600	75,900	55,520	55,050	73,570	55,040	64,160	54,470	80,470	56,340	54,150	52,600
10	50,570	77,870	55,740	55,160	73,120	55,120	65,090	54,510	80,690	56,380	54,080	52,530
11	50,530	78,170	56,060	55,160	70,940	55,220	65,520	56,120	80,210	56,340	54,010	52,430
12	50,530	77,350	55,950	55,260	68,080	55,580	65,870	57,210	77,990	56,340	54,150	52,320
13	50,470	75,730	55,700	55,160	65,320	56,200	66,650	57,580	75,330	56,270	54,150	52,220
14	50,940	72,470	55,230	55,010	63,120	56,010	65,910	57,610	72,830	56,200	54,080	52,080
15	50,770	69,450	54,690	54,940	61,600	55,400	63,960	56,740	70,210	56,120	53,970	52,390
16	50,700	66,540	54,550	54,830	59,870	55,190	62,430	55,870	67,560	56,090	53,970	52,530
17	50,700	63,630	54,690	54,870	58,160	54,790	61,330	55,190	65,010	56,010	53,940	52,460
18	50,700	60,630	54,870	55,010	56,520	54,720	60,470	55,040	63,000	55,800	53,830	52,430
19	50,670	57,770	54,970	55,190	55,370	54,720	59,870	55,120	61,560	55,370	53,800	52,500
20	50,640	55,520	55,080	55,190	55,040	54,790	57,240	55,940	60,240	55,010	53,690	52,600
21	50,570	54,830	55,190	55,230	55,010	55,040	56,850	56,560	58,900	54,760	53,860	52,530
22	50,500	54,940	55,260	55,080	55,330	55,150	55,650	56,270	57,580	54,650	53,800	52,390
23	50,500	56,430	55,520	54,900	55,220	55,400	54,900	69,730	56,230	54,620	53,690	52,250
24	50,530	57,520	55,770	54,900	55,080	55,220	54,870	74,820	55,300	54,580	53,590	52,180
25	50,570	57,660	55,850	54,800	55,040	54,870	76,520	55,400	55,150	53,550	52,080	
26	50,530	57,840	55,950	54,800	54,940	54,970	54,940	77,600	55,220	55,400	53,510	52,040
27	50,500	57,990	55,810	54,900	54,870	55,580	55,040	78,460	55,150	55,470	53,510	51,940
28	50,740	58,130	55,230	55,010	54,790	56,160	55,370	79,120	55,080	55,550	53,440	51,870
29	50,740	58,680	54,650	55,050	-----	56,160	55,580	81,530	54,900	55,510	53,370	51,800
30	51,250	58,390	54,580	54,900	-----	56,090	55,870	83,080	54,900	55,440	53,340	51,800
31	69,130	-----	54,900	55,260	-----	55,870	-----	83,840	-----	55,260	53,270	-----
(†)	424.76	421.97	421.01	421.11	420.98	421.28	421.28	428.22	421.01	421.11	420.55	420.13
(*)	+18,220	-10,740	-3,490	+360	-470	+1,080	0	+27,970	-28,940	+360	-1,990	-1,470
(††)	131	118	126	124	116	130	114	126	137	171	178	152
MAX	69,130	78,170	57,370	55,590	73,570	56,200	66,650	83,840	84,860	56,380	55,040	53,160
MIN	50,470	54,830	54,550	54,800	54,790	54,720	54,830	54,470	54,900	54,580	53,270	51,800

CAL YR 1974.....	*	-40	↑↑	1,880	MAX	78,170	MIN	49,070
WTR YR 1975.....	*	+890	↑↑	1,620	MAX	84,860	MIN	50,470

+ Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

†† Diversions, in acre-feet, for municipal use by city of Ennis.

TRINITY RIVER BASIN

505

08063700 Bardwell Lake near Ennis, Tex.--Continued

WATER QUALITY DATA

DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
NOV.. 1974										
12...	--	5.0	33	2.4	14	3.7	104	0	22	
AUG.. 1975										
25...	1500	6.0	39	2.6	13	3.2	124	0	20	
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV.. 1974										
12...	13	.4	145	92	7	.6	254	7.9	--	
AUG.. 1975										
25...	11	.3	156	110	6	.5	279	7.6	20.0	

TRINITY RIVER BASIN

08063800 Waxahachie Creek near Bardwell, Tex.

LOCATION.--Lat 32°14'36", long 96°38'24", Ellis County, on right bank 0.8 mile (1.3 km) downstream from Bardwell Dam, 3.6 miles (5.8 km) southeast of Bardwell, 3.8 miles (6.1 km) downstream from bridge on State Highway 34, and 4.1 miles (6.6 km) upstream from mouth.

DRAINAGE AREA.--178 mi² (461 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 370.18 ft (112.831 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--12 years, 81.9 ft³/s (2.319 m³/s), 59,340 acre-ft/yr (73.2 hm³/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,680 ft³/s (47.6 m³/s) June 4 (gage height, 17.45 ft or 5.319 m); minimum, 0.02 ft³/s (0.001 m³/s) Oct. 1, 2, 17, 18.

Period of record: Maximum discharge, 2,960 ft³/s (83.8 m³/s) Feb. 9, 1965 (gage height, 17.55 ft or 5.35 m); no flow at times most years.

Maximum stage since at least 1944, about 23 ft (7.0 m) in 1944 and 1945, from information by Corps of Engineers.

REMARKS.--Records good. Flow is regulated by Bardwell Lake (station 08063700) 0.8 mile (1.3 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	23	486	5.6	32	4.9	135	5.3	2.4	2.1	74	2.4
2	.04	3.1	588	5.2	19	4.7	133	5.2	434	2.1	74	2.2
3	.04	3.2	445	81	8.6	4.7	132	5.1	1260	2.1	32	2.3
4	.04	3.8	170	147	5.1	4.4	53	4.6	1450	2.1	5.3	2.5
5	.03	3.4	120	146	4.2	4.0	4.6	275	57	2.1	5.1	2.8
6	.03	3.6	3.9	146	4.1	73	4.6	556	2.1	2.1	5.3	2.8
7	.03	3.9	2.4	128	4.1	126	5.7	258	2.4	2.1	5.5	3.0
8	.04	4.0	1.7	91	4.0	56	7.7	6.5	7.9	3.8	5.6	3.2
9	.04	4.1	79	89	3.4	3.7	6.9	6.5	2.5	3.4	5.1	3.0
10	.04	4.0	142	90	435	3.8	3.9	6.3	2.3	5.2	5.3	2.9
11	.03	201	145	90	1210	4.0	3.6	6.5	341	3.0	5.1	2.8
12	.04	593	142	91	1500	3.9	3.4	6.3	955	2.8	5.0	2.6
13	.04	861	212	90	1460	5.6	2.8	6.3	1130	2.7	4.1	2.7
14	.19	1530	327	90	1170	143	421	206	1110	5.2	1.5	2.8
15	.04	1490	323	91	843	370	980	565	1100	7.2	1.5	2.9
16	.04	1450	141	90	834	370	770	460	1090	7.8	1.5	2.9
17	.03	1420	4.1	38	829	267	580	302	1080	8.0	1.5	2.5
18	.03	1400	3.4	4.0	821	96	578	120	893	4.9	1.5	2.6
19	.03	1380	2.8	3.2	582	32	574	7.5	543	136	1.5	2.4
20	.04	1060	2.4	2.7	138	6.9	572	7.5	540	136	1.5	2.2
21	.04	349	2.3	46	110	6.6	572	7.0	539	69	1.5	2.3
22	.04	2.0	2.2	84	78	6.8	567	209	534	6.1	1.5	2.1
23	.03	11	2.1	85	78	6.3	357	321	531	6.0	1.8	.78
24	.03	7.2	2.2	84	78	80	77	31	385	5.9	1.8	.70
25	.04	1.3	2.1	84	78	126	55	4.6	53	6.0	1.7	2.5
26	.04	1.1	2.1	32	78	55	6.3	3.1	51	6.0	1.9	4.0
27	.03	1.1	106	4.2	78	5.8	5.6	2.5	50	5.6	2.1	4.1
28	.04	1.2	323	3.7	54	5.7	5.5	2.5	50	8.7	2.1	4.0
29	.04	1.2	320	38	---	5.5	5.7	4.3	51	51	2.1	3.8
30	1.7	198	141	70	---	5.9	5.9	2.5	22	75	2.3	3.7
31	151	---	5.9	70	---	76	---	2.4	---	74	2.5	---
TOTAL	153.95	12015.1	4249.6	2119.6	10538.5	1963.2	6628.2	3405.5	14268.6	698.1	263.2	81.48
MEAN	4.97	401	137	68.4	376	63.3	221	110	476	22.5	8.49	2.72
MAX	151	1530	588	147	1500	370	980	565	1450	136	74	4.1
MIN	.03	1.1	1.7	2.7	3.4	3.7	2.8	2.4	2.1	2.1	1.5	.70
AC-FT	305	23830	8430	4200	20900	3890	13150	6750	28300	1380	522	162
CAL YR 1974	TOTAL	24671.60	MEAN	67.6	MAX	1530	MIN	.03	AC-FT	48940		
WTR YR 1975	TOTAL	56385.03	MEAN	154	MAX	1530	MIN	.03	AC-FT	111800		

TRINITY RIVER BASIN

507

08064500 Chambers Creek near Corsicana, Tex.

LOCATION.--Lat 32°06'29", Long 96°22'14", Navarro County, near center of channel at downstream side of downstream bridge on State Highway 31, 430 ft (131 m) upstream from St. Louis Southwestern Railway Lines bridge, 6,000 ft (1,829 m) upstream from city of Corsicana diversion dam, 5.3 miles (8.5 km) east of Corsicana, and at mile 23.0 (37.0 km).

DRAINAGE AREA.--963 mi² (2,494 km²).

PERIOD OF RECORD.--Discharge: March 1939 to current year.

Water quality: Chemical analyses: September 1961 to current year. Water temperatures: September 1961 to September 1970.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 294.28 ft (89.696 m) above mean sea level.

AVERAGE DISCHARGE.--36 years, 460 ft³/s (13.03 m³/s), 333,300 acre-ft/yr (411 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 27,700 ft³/s (784 m³/s) Nov. 1 (gage height, 26.23 ft or 7.995 m); minimum, 0.56 ft³/s (0.016 m³/s) Aug. 24.

Period of record: Maximum discharge, 48,000 ft³/s (1,360 m³/s) May 3, 1944; maximum gage height, 28.10 ft (8.565 m) May 3, 1958; no flow at times.

Maximum stage since at least 1870, 30 ft (9.1 m) Aug. 27, 1887, from information by local residents. Flood in December 1913 reached a stage of 27.5 ft (8.38 m), from information by local residents.

REMARKS.--Discharge records good. Flow partly regulated by Bardwell Lake (station 08063700) since November 1965. At end of year, flow from 281 mi² (728 km²) above this station was partly controlled by 95 floodwater-retarding structures with a combined capacity of 98,680 acre-ft (122 hm³) below the flood-spillway crests, of which 17,800 acre-ft (21.9 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity below flood-spillway crests of 1,980 acre-ft (2.44 hm³) of which 342 acre-ft (0.422 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. During year, records furnished by the city of Corsicana show that 63.5 acre-ft (78,300 m³) was diverted for municipal supply from pool in which gage is located. Daily discharge given in the following table does not include water diverted by the city. During the current year, records furnished by the city of Ennis show that 1,407 acre-ft (1.73 hm³) of sewage effluent was returned to the creek above the gage.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	22400	769	269	714	210	310	596	4080	118	127	3.5
2	21	14100	487	286	3646	167	329	250	1290	79	117	2.8
3	18	7770	861	666	10900	155	322	186	1590	71	117	5.1
4	16	3630	538	908	8520	142	303	214	1980	197	57	5.6
5	18	2750	395	555	6560	136	144	165	1570	317	32	3.8
6	17	2140	450	445	4210	133	117	622	414	142	28	2.2
7	15	1650	809	396	2040	263	229	714	335	96	20	1.4
8	14	1330	353	323	1090	283	5350	491	1690	67	15	1.0
9	14	907	222	282	809	148	9460	200	3320	57	10	1.2
10	13	1300	402	365	654	120	7970	136	1280	54	8.7	1.6
11	13	1920	1830	511	1360	121	4290	440	1000	52	7.3	2.0
12	12	2470	1660	1000	1850	125	1720	5150	1760	43	5.0	1.9
13	11	1620	755	1016	1950	1260	1010	5010	1720	40	6.2	2.4
14	11	1760	663	462	1900	2320	1130	1260	1670	34	7.8	3.3
15	11	2010	629	365	1480	1010	1560	1210	1570	31	4.1	3.7
16	6A	1940	565	320	1210	1350	1540	1230	1490	27	4.1	5.0
17	7A	1870	239	286	1170	1970	1100	736	1430	39	4.1	163
18	26	1810	187	182	1130	933	954	540	1380	71	3.6	177
19	18	1770	173	166	1090	546	901	217	943	114	2.9	54
20	14	1730	161	156	547	367	850	188	750	181	2.5	27
21	11	1160	152	140	343	278	807	2510	732	180	1.6	19
22	9.1	268	143	168	286	236	774	2560	722	73	1.4	13
23	7.9	199	141	202	290	217	765	1810	715	16	1.3	9.4
24	6.4	5740	143	149	310	198	371	9790	705	13	.82	7.8
25	6.6	5020	168	205	329	313	274	12400	382	12	.91	5.5
26	6.2	1660	156	204	303	310	263	8140	486	19	1.1	3.9
27	6.4	883	144	137	240	246	153	5330	320	124	2.1	2.9
28	7.0	449	352	118	277	232	147	2520	467	94	2.5	4.4
29	15	328	469	114	---	243	348	2140	311	74	2.8	7.2
30	53	536	460	170	---	198	1710	5640	244	124	3.9	7.5
31	8A80	---	195	192	---	178	---	6590	---	136	4.6	---
TOTAL	9251.1	94240	15471	10827	55242	14453	45181	79245	36346	2695	602.33	548.1
MEAN	294	3141	499	349	1973	466	1506	2558	1212	86.9	19.4	18.3
MAX	8580	22400	1830	1010	10900	2320	9460	12400	4080	317	127	177
MIN	6.2	149	141	114	277	120	117	136	244	12	.42	1.0
AC-FT	18350	186900	30690	21480	149500	26670	89620	157300	72090	5350	1190	1090
CAL YR 1974	TOTAL	159439.63	MEAN	437	MAX	22400	MIN	.12	AC-FT	316200		
WTR YR 1975	TOTAL	364141.53	MEAN	998	MAX	22400	MIN	.42	AC-FT	722300		

PEAK DISCHARGE (BASE, 13,000 FT³/S).--Nov. 1 (0330) 37,700 ft³/s (26.23 ft); May 24 (2230) 15,100 ft³/s (24.63 ft).

TRINITY RIVER BASIN

08064500 Chambers Creek near Corsicana, Tex.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 02...	1045	22	12	74	4.1	34	4.4	158	0	100
NOV. 12...	1330	2430	9.7	51	2.9	16	4.2	138	0	45
DEC. 17...	1015	301	7.0	68	3.8	24	3.4	184	0	55
JAN. 28...	1105	115	3.4	100	5.5	45	2.8	243	0	120
MAR. 11...	1010	123	4.7	100	6.7	48	4.1	250	0	130
APR. 22...	1005	787	2.9	63	2.7	19	3.5	178	0	46
JUNE 03...	1225	1710	5.8	54	2.1	15	3.5	151	0	34
JULY 15...	0850	31	7.0	80	6.5	43	3.7	184	0	100
AUG. 26...	1140	1.2	7.9	80	4.7	48	3.6	204	0	79

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 02...	23	--	329	200	72	1.0	555	8.3	20.5
NOV. 12...	13	.3	210	140	26	.6	362	7.7	16.5
DEC. 17...	20	.3	272	190	35	.8	503	7.9	7.0
JAN. 28...	38	.3	435	270	73	1.2	735	8.0	14.5
MAR. 11...	41	.5	458	280	72	1.3	782	8.0	11.5
APR. 22...	16	.3	241	170	22	.6	441	7.8	18.0
JUNE 03...	9.5	.3	199	140	20	.5	362	7.7	24.0
JULY 15...	37	.4	368	230	76	1.2	638	7.4	27.5
AUG. 26...	53	.5	377	220	52	1.4	651	7.8	27.5

TRINITY RIVER BASIN

509

08064600 Richland Creek near Fairfield, Tex.

LOCATION.--Lat 31°57'05", long 96°05'52", Freestone County, near center of channel on downstream side of bridge on Farm Road 488, 5.8 miles (9.3 km) upstream from mouth, 9.0 miles (14.5 km) downstream from Chambers Creek, and 16 miles (26 km) north of Fairfield.

DRAINAGE AREA.--1,957 mi² (5,069 km²).

PERIOD OF RECORD.--Discharge: March 1972 to current year.

Water quality: Chemical analyses: April 1956 to September 1966, March 1972 to current year. Water temperatures: April 1956 to September 1966, March 1972 to current year.

GAGE.--Nonrecording gage. Datum of gage is 230.83 ft (70.357 m) above mean sea level.

EXTREMES.--Discharge: Current year: Maximum daily discharge, 33,900 ft³/s (960 m³/s) Nov. 2; maximum gage height observed, 28.75 ft (8.763 m) Nov. 2, result of backwater from Trinity River; minimum daily discharge, 2.7 ft³/s (0.076 m³/s) Sept. 30.

Period of record: Maximum discharge observed, 29,500 ft³/s (835 m³/s) Apr. 26, 1973 (gage height, 28.76 ft or 8.766 m); minimum daily, 0.02 ft³/s (0.001 m³/s) July 26, Aug. 26 to Sept. 2, 1972.

Historic: Flood in December 1971 reached a stage of 31.5 ft (9.60 m), from floodmark.

Water quality: Current year: Maximum daily specific conductance, 1,550 micromhos Aug. 25; minimum daily, 191 micromhos Nov. 1.

Maximum water temperatures, 33.0°C Aug. 20; minimum, 6.0°C Jan. 13, 14.

Period of record: Maximum daily specific conductance, 22,000 micromhos Aug. 22, 1956; minimum daily, 157 micromhos Apr. 25, 1957. Maximum water temperatures, 37.0°C Aug. 14, 1961; minimum, freezing point Jan. 3, 4, 1959.

REMARKS.--Discharge records good except during periods of backwater, which are fair. Flow is partly regulated by Navarro Mills Lake and Bardwell Lake (stations 08063050 and 08063700) on Waxahachie Creek. At end of year, flow from 422 mi² (1,090 km²) above this station was partly controlled by 167 floodwater-retarding structures with a combined capacity of 148,250 acre-ft (183 hm³) below the flood-spillway crests, of which 25,420 acre-ft (31.3 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity below flood-spillway crests of 1,980 acre-ft (2.44 hm³), of which 342 acre-ft (0.422 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	357	7180	1460	467	323	457	226	6020	8980	1650	162	18
2	361	33900	2680	555	849	288	294	4730	5430	478	151	16
3	342	18300	3010	542	5600	221	444	1250	1970	116	139	17
4	334	11800	3050	1400	19500	201	459	727	3510	124	176	18
5	339	9300	2860	1730	17500	186	413	730	4370	544	154	19
6	305	6910	2730	1200	10900	179	305	549	3960	429	96	20
7	293	6430	3610	995	6120	176	234	2120	2750	323	65	19
8	164	5670	3530	899	3200	296	374	2570	2740	239	52	17
9	71	5150	2720	626	1870	408	10100	2240	4450	177	41	16
10	40	4990	2430	373	1350	355	18300	1840	6280	391	30	15
11	29	4950	2770	724	1050	321	12600	867	3730	830	23	17
12	26	4700	6360	1030	2980	230	6340	1330	3400	501	19	17
13	24	4650	6400	2760	3840	169	2840	9540	4200	258	16	15
14	24	4630	3950	2780	4290	2030	1790	7240	4160	168	14	14
15	18	4530	2300	1820	4470	3590	3280	2140	4230	152	14	14
16	162	4510	2050	1730	4000	1650	3550	2630	4150	117	16	15
17	147	4510	2490	1580	3650	2660	3650	3530	4040	61	13	15
18	90	4510	2400	760	3540	3380	2920	2380	3920	70	11	126
19	84	4480	2450	323	3420	1840	2470	1910	3820	149	10	209
20	45	4470	1520	280	2280	1370	2250	1420	3060	178	9.4	182
21	32	4440	585	250	675	1050	2140	584	2050	220	9.1	107
22	27	4370	544	216	423	912	2050	4960	1830	262	7.9	47
23	20	4190	306	226	352	608	1990	3800	1820	167	12	36
24	16	4480	209	266	356	300	1940	3690	2200	60	20	28
25	12	12500	260	428	380	264	1190	19400	2270	47	22	24
26	11	17000	863	504	436	391	899	24400	1970	42	26	16
27	12	5840	627	486	486	384	551	15400	3540	37	21	14
28	11	2180	417	303	460	310	210	7900	1410	149	21	12
29	10	1380	731	177	---	435	192	4140	1120	114	23	6.4
30	34	996	1000	157	---	406	1100	4080	1220	91	25	2.7
31	3130	---	974	215	---	271	---	9930	---	148	21	---
TOTAL	6570	212946	67286	25802	104300	25338	85101	154347	102580	8292	1419.4	1092.1
MEAN	212	7098	2171	832	3725	817	2837	4979	3419	267	45.8	36.4
MAX	3130	33900	6400	2780	19500	3590	18300	24800	8980	1650	176	209
MIN	10	996	209	157	323	169	192	549	1120	37	7.9	2.7
AC=FT	13030	422400	133500	51180	206900	50260	168800	306100	203500	16450	2820	2170
CAL YP 1974	TOTAL	390303.8	MEAN	1069	MAX	33900	MIN	5.4	AC=FT	774200		
WTR YR 1975	TOTAL	795073.5	MEAN	2178	MAX	33900	MIN	2.7	AC=FT	1577000		

08064600 Richland Creek near Fairfield, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
12...	1545	366	6.7	48	3.8	22	5.1	134	0	42
NOV.										
30...	1730	996	8.7	41	3.6	18	4.1	120	0	29
DEC.										
17...	1610	2320	6.6	46	2.7	15	3.8	132	0	35
JAN.										
29...	1215	183	4.0	78	5.7	38	3.7	208	0	77
FEB.										
03...	1317	3580	7.1	11	3.9	12	2.4	54	0	11
28...	1745	463	5.3	91	6.4	41	3.6	209	7	100
MAR.										
11...	1645	324	2.7	73	5.8	32	1.9	196	0	60
APR.										
30...	1630	4650	5.9	38	1.2	16	3.7	126	0	20
MAY										
22...	1100	4230	9.1	45	2.4	13	4.2	136	0	23
JUNE										
04...	1335	3480	6.7	51	1.8	15	3.6	145	0	35
JULY										
15...	1540	151	8.9	70	5.0	35	4.3	185	0	67
AUG.										
26...	1645	251	7.6	120	13	110	8.0	195	0	210
SEP.										
30...	1742	2.3	6.9	81	6.9	66	7.0	188	0	99

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.									
12...	17	--	211	140	26	.8	392	7.7	21.5
NOV.									
30...	20	.3	184	120	19	.7	317	7.6	9.0
DEC.									
17...	15	.3	189	130	22	.6	328	7.5	9.0
JAN.									
29...	40	.5	349	220	48	1.1	604	7.6	15.5
FEB.									
03...	11	.2	85	44	0	.8	154	7.2	6.0
28...	39	.5	397	250	71	1.1	672	8.4	14.0
MAR.									
11...	32	.4	304	210	45	1.0	547	7.9	13.5
APR.									
30...	17	.3	164	100	0	.7	307	8.2	21.5
MAY									
22...	10	.3	174	120	11	.5	296	7.6	22.0
JUNE									
04...	12	.4	197	130	16	.6	350	7.6	25.0
JULY									
15...	37	.4	319	200	44	1.1	552	7.5	31.0
AUG.									
26...	140	--	705	350	190	2.5	1200	7.6	31.0
SEP.									
30...	80	.8	440	230	76	1.9	764	8.2	28.0

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA, MG) (MG/L)
OCT. 1974.....	6570	352	200	3550	17	302	41	727	120
NOV. 1974.....	212946	249	140	80500	13	7470	24	13800	96
DEC. 1974.....	67286	326	180	32700	16	2910	37	6720	120
JAN. 1975.....	25802	463	260	18100	24	1670	58	4040	160
FEB. 1975.....	104300	360	200	56300	17	4790	42	11800	130
MAR. 1975.....	25338	486	280	19200	28	1920	62	4240	160
APR. 1975.....	85101	372	210	48300	18	4140	44	10100	130
MAY 1975.....	154347	286	160	66700	14	5830	30	12500	110
JUNE 1975.....	102580	345	200	55400	17	4710	40	11100	120
JULY 1975.....	8292	439	250	5600	20	448	54	1210	150
AUG. 1975.....	1419.4	689	390	1490	61	234	94	360	220
SEPT 1975.....	1092.1	735	420	1240	69	203	100	295	230
TOTAL	795073.28	**	**	389000	**	34600	**	76900	**
WTD.AVG.	2178.28	322	180	**	16	**	36	**	120

TRINITY RIVER BASIN

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08064600 Richland Creek near Fairfield, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C): WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373	191	333	470	639	668	733	269	330	352	673	1360
2	371	194	298	606	556	671	743	299	359	398	453	970
3	370	243	321	507	315	693	566	352	393	441	417	892
4	373	258	305	546	314	812	548	393	340	500	400	747
5	370	262	300	542	279	821	566	451	338	446	524	739
6	370	271	309	461	317	827	572	507	348	519	1110	739
7	368	263	316	461	376	809	619	414	354	413	694	792
8	407	263	311	461	387	792	347	424	353	446	716	772
9	456	288	314	492	406	541	287	481	298	510	694	774
10	510	256	316	517	466	536	331	444	315	275	670	736
11	553	273	257	556	509	549	328	516	338	325	664	712
12	589	313	285	463	393	673	363	360	397	384	697	690
13	612	324	309	342	386	698	395	290	350	470	743	675
14	629	299	305	343	382	448	366	295	352	527	791	675
15	682	291	329	367	382	373	400	312	343	552	820	675
16	758	291	299	389	397	447	403	368	342	587	848	711
17	649	286	325	404	396	361	410	341	337	603	961	739
18	472	282	314	459	403	419	423	388	337	626	953	1110
19	500	284	331	514	401	431	428	402	335	690	921	718
20	525	290	445	638	454	477	426	402	350	703	953	558
21	524	287	498	675	528	507	426	388	352	519	970	552
22	557	289	498	695	599	519	429	296	352	391	987	615
23	594	257	564	743	612	546	426	329	348	419	914	739
24	626	282	615	621	662	649	429	235	342	489	1230	739
25	685	219	338	774	695	683	500	218	339	544	1550	711
26	745	209	513	509	717	689	521	216	468	603	1150	700
27	755	240	475	509	809	580	533	265	301	603	961	693
28	797	267	482	548	672	589	603	298	358	648	1000	693
29	838	301	471	608	---	739	555	312	439	670	961	723
30	799	317	416	735	---	673	307	308	344	697	1230	764
31	258	---	421	778	---	672	---	260	---	648	1240	---
MONTH	552	270	375	540	480	609	466	349	352	516	868	756

TEMPERATURE (DEG. C) OF WATER: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	21.0	8.0	11.5	15.0	16.0	16.0	23.0	23.0	28.0	30.5	28.5
2	21.5	21.5	10.5	13.0	13.5	15.0	15.0	23.0	24.0	28.0	29.0	30.5
3	22.0	22.0	11.0	10.0	11.0	13.5	15.0	24.0	25.0	28.0	31.0	31.5
4	21.0	20.0	11.0	9.5	12.0	13.5	16.0	23.0	27.0	28.0	30.5	30.0
5	22.0	18.0	12.0	10.0	11.5	14.0	14.5	23.0	26.0	28.5	30.5	30.5
6	22.0	17.0	12.0	10.0	9.0	15.0	18.0	24.5	27.0	28.5	29.5	29.0
7	23.0	17.0	13.0	11.5	8.5	16.0	16.0	24.5	27.0	28.5	31.5	29.0
8	24.0	18.0	11.0	12.0	8.0	13.5	16.5	24.5	27.0	30.0	30.0	29.0
9	24.5	15.0	10.5	14.0	8.0	15.0	19.0	24.5	25.5	30.0	29.5	29.5
10	24.5	16.0	10.5	12.0	10.5	13.5	19.0	24.0	26.0	26.0	29.5	28.5
11	24.5	17.0	9.5	12.0	12.0	14.0	19.5	23.0	25.5	27.0	30.5	28.5
12	24.0	16.0	9.5	9.0	11.5	14.0	19.0	23.0	25.5	26.5	30.0	26.5
13	23.0	15.0	10.0	6.0	12.0	11.0	16.0	24.0	26.5	25.5	30.0	23.5
14	23.5	15.5	11.5	6.0	13.0	9.0	16.0	23.0	26.0	28.0	30.5	24.0
15	21.0	15.5	11.0	9.0	13.0	8.5	18.5	23.0	27.0	28.0	31.5	25.5
16	20.0	---	11.0	9.5	12.0	15.5	18.5	23.0	28.0	28.0	31.0	27.0
17	20.0	15.0	10.5	10.5	13.0	11.5	19.5	23.0	28.0	29.0	30.0	27.0
18	20.5	15.0	10.0	11.5	11.5	13.5	19.5	25.0	28.0	30.5	32.0	26.0
19	---	18.0	10.5	12.0	12.0	15.5	19.5	25.0	28.0	30.0	32.0	26.5
20	19.5	16.0	11.0	11.0	13.0	16.5	18.5	24.5	27.0	29.5	33.0	24.5
21	20.0	16.0	9.0	11.5	13.0	18.0	19.0	25.0	---	30.0	30.5	23.0
22	20.0	16.0	13.5	10.5	13.5	18.5	20.0	24.0	28.0	30.0	32.0	23.0
23	21.0	17.0	14.5	11.5	10.5	19.0	20.0	24.0	28.5	30.0	30.5	23.0
24	21.0	15.0	15.0	12.0	11.0	20.0	22.0	24.0	28.0	29.5	30.0	23.0
25	21.0	13.5	10.0	13.0	12.0	20.0	23.0	23.0	27.0	31.5	28.5	22.0
26	20.5	13.0	10.0	13.0	13.0	18.5	23.5	23.0	26.0	30.5	29.0	23.5
27	19.0	13.0	---	14.0	14.0	19.5	22.0	26.0	26.5	29.0	29.0	22.0
28	21.0	13.0	10.0	15.0	14.0	19.0	23.0	25.0	26.5	30.5	30.0	23.5
29	23.5	11.0	11.5	16.0	---	14.5	23.5	23.5	26.5	29.0	30.5	25.5
30	23.0	9.0	13.0	18.0	---	14.5	21.5	23.0	28.0	30.5	29.0	28.0
31	20.0	---	12.0	17.0	---	15.0	---	22.0	---	31.0	30.5	---
MONTH	21.5	16.0	11.0	11.5	12.0	15.0	19.0	24.0	26.5	29.0	30.5	26.5

TRINITY RIVER BASIN

08064700 Tehuacana Creek near Streetman, Tex.

LOCATION.--Lat 31°50'54", long 96°17'23", Freestone County, on downstream side of bridge on U.S. Highway 75, 2.8 miles (4.5 km) southeast of Streetman, 3.1 miles (5.0 km) downstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, and 3.8 miles (6.1 km) upstream from Caney Creek.

DRAINAGE AREA.--142 mi² (368 km²).

PERIOD OF RECORD.--Discharge: April 1968 to current year.

Water quality: Chemical analyses: February 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 287.58 ft (87.654 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 74.6 ft³/s (2.113 m³/s), 7.13 in/yr (181 mm/yr), 54,050 acre-ft/yr (66.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,980 ft³/s (198 m³/s) Oct. 31 (gage height, 23.61 ft or 7.196 m); minimum, 0.01 ft³/s (0.0003 m³/s) for many days.

Period of record: Maximum discharge, 23,100 ft³/s (654 m³/s) May 10, 1968 (gage height, 25.00 ft or 7.620 m); no flow at times most years.

Maximum stage since at least 1932, that of May 10, 1968. Flood in September 1932 reached a stage of about 24 ft (7.3 m), from information by State Highway Department.

REMARKS.--Discharge records good except those below 2.5 ft³/s (0.071 m³/s), which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	3330	119	34	6.5	14	5.3	10	32	4.5	.10	.04
2	4.4	322	51	27	1650	13	4.8	7.1	19	3.5	.08	.03
3	4.5	100	32	176	3130	11	4.3	5.8	14	3.0	.07	.02
4	3.8	149	23	80	1200	11	3.9	7.1	12	2.5	.06	.01
5	3.2	188	19	35	289	12	3.7	11	11	2.0	.06	.01
6	2.8	72	321	21	126	11	3.5	6.8	9.8	1.7	.05	.01
7	2.5	45	141	17	69	11	3.7	5.2	8.8	1.5	.05	.01
8	2.1	72	44	15	51	10	559	4.2	42	1.2	.04	.01
9	1.9	73	23	14	38	9.6	190	3.4	32	12	.04	.01
10	1.6	1140	62	23	31	9.4	60	2.6	10	9.0	.04	.01
11	1.6	916	2590	21	26	9.5	36	504	7.3	7.0	.03	.01
12	1.7	139	375	495	23	9.2	26	1330	6.0	5.0	.03	.01
13	1.6	61	86	216	20	427	22	129	5.6	3.5	.02	.01
14	1.5	38	43	56	19	202	467	558	5.1	2.7	.02	.01
15	1.9	27	31	31	17	51	103	144	4.4	2.3	.02	.01
16	2.3	22	26	21	54	186	35	127	4.2	2.0	.02	.32
17	3.0	19	19	16	140	129	18	30	3.8	1.8	.02	3.6
18	2.5	17	16	14	50	52	13	12	3.6	1.5	.01	.24
19	2.3	15	14	13	27	36	9.6	7.8	3.4	1.2	.01	.16
20	2.0	14	13	12	19	20	7.4	218	3.2	1.0	.01	.09
21	1.8	12	12	10	16	13	6.0	1310	3.1	.90	.01	.05
22	1.7	11	11	9.3	16	10	5.1	132	2.9	.80	.01	.04
23	1.6	10	10	8.7	16	9.4	5.0	721	2.7	.65	.01	.03
24	1.5	2640	10	8.4	19	8.3	4.9	4350	2.5	.56	.30	.02
25	1.8	1000	93	8.4	16	7.0	4.6	2130	5.0	.45	.34	.01
26	1.6	133	44	8.4	15	6.0	4.4	252	20	.40	.24	.01
27	1.5	62	28	8.4	14	6.0	3.6	94	13	.30	.45	.01
28	2.5	42	21	8.3	13	7.0	4.2	126	10	.25	.13	.01
29	3.0	43	19	9.1	---	7.2	20	180	8.5	.20	.07	.01
30	10	430	19	7.8	---	6.6	17	338	6.0	.15	.06	.01
31	2620	---	34	6.6	---	5.9	---	77	---	.12	.05	---
TOTAL	2699.3	11142	4349	1430.4	7110.5	1320.1	1650.0	12833.0	310.9	73.68	2.45	4.82
MEAN	87.1	371	140	46.1	254	42.6	55.0	414	10.4	2.38	.07	.16
MAX	2620	3330	2590	495	3130	427	559	4350	42	12	.45	3.6
MIN	1.5	10	10	6.6	6.5	5.9	3.5	2.6	2.5	.12	.01	.01
CFSM	.61	2.61	.99	.32	1.79	.30	.39	2.92	.87	.02	.0006	.001
IN.	.71	2.92	1.14	.37	1.86	.35	.43	3.36	.08	.02	.0006	.001
AC-FT	5350	22100	8630	2840	14100	2620	3270	25450	617	146	4.9	9.6
CAL YR 1974	TOTAL	44779.87	MEAN	123	MAX	4100	MIN	0	CFSM	.87	IN	11.73
WTR YR 1975	TOTAL	42926.15	MEAN	118	MAX	4350	MIN	.01	CFSM	.83	IN	11.25
									AC-FT	88820		
									AC-FT	85140		

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-31	2300	23.61	6,980	2-3	0400	23.11	4,310
11-10	2000	21.09	2,480	5-11	2300	21.93	2,990
11-24	1600	22.53	3,450	5-24	1200	23.70	5,580
12-11	0645	22.03	3,060				

TRINITY RIVER BASIN

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08064700 Tehuacana Creek near Streetman, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV. 13...	1245	64	11	33	8.7	31	4.6	94	0	35
DEC. 18...	1035	17	11	54	19	88	4.9	172	0	90
JAN. 29...	0915	9.2	8.9	88	33	170	5.0	225	0	150
MAR. 14...	1030	192	5.3	17	6.3	24	3.7	65	0	27
APR. 23...	0930	5.0	11	81	30	150	6.5	210	0	130
MAY 21...	1530	984	8.0	11	3.9	11	4.9	49	0	10
JUNE 04...	1720	12	14	83	29	120	7.1	220	0	120
JULY 16...	0860	2.0	12	130	49	250	7.3	295	0	190
AUG. 27...	0930	.22	11	190	91	500	8.5	322	0	400

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 13...	46	.2	216	120	41	1.2	376	7.3	16.0
DEC. 18...	130	.2	482	210	72	2.6	850	7.5	8.5
JAN. 29...	270	.3	836	360	170	3.9	1490	7.9	16.5
MAR. 14...	30	.1	145	68	15	1.3	268	7.0	6.5
APR. 23...	240	.3	752	330	150	3.6	1370	7.5	21.0
MAY 21...	14	.1	87	44	3	.7	157	6.9	22.0
JUNE 04...	200	.3	682	330	150	2.9	1240	7.5	29.5
JULY 16...	440	.4	1220	530	280	4.7	2180	7.4	28.0
AUG. 27...	870	.5	2230	850	590	7.5	3710	7.7	26.5

TRINITY RIVER BASIN

08064800 Catfish Creek near Tennessee Colony, Tex.

LOCATION.--Lat 31°52'51", long 95°52'07", Anderson County, on left bank 47 ft (14 m) downstream from bridge on U.S. Highway 287, 2 miles (3 km) upstream from Beaver Creek, 3.5 miles (5.6 km) northwest of Tennessee Colony, 12 miles (19 km) downstream from Coon Creek Lake, and 12 miles (19 km) upstream from mouth.

DRAINAGE AREA.--207 mi² (536 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 234.93 ft (71.607 m) above mean sea level.

AVERAGE DISCHARGE.--13 years, 105 ft³/s (2.974 m³/s), 76,070 acre-ft/yr (93.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,000 ft³/s (56.6 m³/s) Feb. 4 (gage height, 11.72 ft or 3.572 m); minimum daily, 10 ft³/s (0.28 m³/s) Aug. 23, Sept. 5.

Period of record: Maximum discharge, 7,550 ft³/s (214 m³/s) May 11, 1968 (gage height, 15.90 ft or 4.846 m); minimum daily, 0.8 ft³/s (0.023 m³/s) Aug. 19-21, 1964.

Maximum stage since 1927, 22 ft (6.7 m) in June 1944 as a result of dam failure at Coon Creek Lake, from information by local residents.

REMARKS.--Records good except those for August and September, which are poor. Some regulation upstream by Coon Creek Lake. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	343	296	255	156	151	180	259	345	84	26	12
2	65	899	353	292	653	146	149	270	284	98	25	11
3	58	931	315	302	1,450	137	127	262	211	122	23	11
4	54	591	245	280	1,840	136	115	230	161	129	46	11
5	49	436	195	292	1,160	135	105	209	131	117	60	10
6	45	345	178	265	722	137	95	201	105	103	40	11
7	41	287	175	224	529	137	91	180	88	86	30	12
8	40	239	202	192	413	128	117	162	102	73	25	13
9	39	195	219	176	322	127	159	144	103	64	22	13
10	39	202	207	184	264	128	277	124	102	59	23	13
11	39	235	246	184	231	121	357	110	102	58	22	12
12	38	311	269	235	198	120	350	107	97	57	21	12
13	37	416	362	279	180	134	311	99	92	55	20	11
14	37	367	357	338	170	178	294	109	85	50	18	11
15	45	282	304	329	158	283	299	111	76	46	16	12
16	59	212	261	276	156	337	358	133	66	42	15	20
17	70	160	232	230	171	302	320	181	60	54	16	30
18	69	135	208	202	208	285	251	232	59	57	14	35
19	61	124	182	182	224	256	195	212	60	47	13	30
20	54	119	166	166	202	232	164	166	58	41	12	28
21	49	116	156	160	173	211	149	166	55	38	11	26
22	45	114	152	150	155	184	140	189	53	36	11	24
23	42	112	149	136	148	166	133	257	50	34	10	22
24	41	230	144	129	156	155	126	254	46	32	11	20
25	39	265	144	129	176	144	119	215	71	31	12	18
26	39	445	151	132	179	141	113	254	93	30	13	16
27	40	504	163	138	166	129	108	309	101	29	13	15
28	45	391	165	136	155	124	108	273	107	28	13	14
29	64	306	167	131	-----	143	133	223	102	28	13	13
30	75	293	184	127	-----	203	204	292	99	28	12	12
31	187	-----	221	141	-----	221	-----	370	-----	27	12	-----
TOTAL	1,682	9,605	6,768	6,392	10,715	5,431	5,647	6,303	3,164	1,783	620	498
MEAN	54.3	320	218	206	383	175	188	203	105	57.5	20.0	16.6
MAX	187	931	362	338	1,840	337	358	370	345	129	60	35
MIN	37	112	144	127	148	120	91	99	46	27	10	10
AC-FT	3,340	19,050	13,420	12,680	21,250	10,770	11,200	12,500	6,280	3,540	1,230	988

CAL YR 1974 TOTAL 51,718 MEAN 142 MAX 967 MIN 10 AC-FT 102,600
 WTR YR 1975 TOTAL 58,608 MEAN 161 MAX 1,840 MIN 10 AC-FT 116,200

PEAK DISCHARGE (BASE, 1,400 FT³/S).--Feb. 4 (0300) 2,000 ft³/s (11.72 ft).

TRINITY RIVER BASIN

515

08065000 Trinity River near Oakwood, Tex.

LOCATION.--Lat 31°38'54", long 95°47'21", Anderson-Freestone County line, on left bank at downstream side of bridge on U.S. Highways 79 and 84, 1.5 miles (2.4 km) upstream from Missouri Pacific Railroad Co. bridge, 6 miles (10 km) northeast of Oakwood, and at mile 313.4 (504.3 km).

DRAINAGE AREA.--12,833 mi² (33,237 km²).

PERIOD OF RECORD.--October 1923 to September 1924 (monthly discharge only), October 1924 to current year. Records of January 1905 to September 1923, published in WSP 850 and 878, have been found unreliable and should not be used. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 175.06 ft (53.358 m) above mean sea level. Prior to July 15, 1932, nonrecording gage at site 1.5 miles (2.4 km) downstream at datum 1.06 ft (0.323 m) lower. July 15, 1932, to Oct. 7, 1934, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--30 years (1923-53) unregulated, 5,045 ft³/s (142.9 m³/s), 3,655,000 acre-ft/yr (4.51 km³/yr); 22 years (1953-75) regulated, 4,613 ft³/s (130.6 m³/s), 3,342,000 acre-ft/yr (4.12 km³/yr).

EXTREMES.--Current year: Maximum discharge, 49,800 ft³/s (1,410 m³/s) Feb. 8 (gage height, 44.34 ft or 13.515 m); minimum daily, 525 ft³/s (14.9 m³/s) Sept. 13.

Period of record: Maximum discharge, 153,000 ft³/s (4,330 m³/s) Apr. 29, 1942 (gage height, 51.64 ft or 15.740 m); minimum observed, 28 ft³/s (0.79 m³/s) Aug. 24, 1925.

Flood in May 1890 reached a stage of 53 ft or 16.2 m (discharge, about 180,000 ft³/s or 5,100 m³/s) and was the highest since that date, from information in local newspapers. Flood of June 4, 1908, reached a stage of 52.2 ft (15.91 m), present site and datum, from information by the National Weather Service (discharge, about 164,000 ft³/s or 4,640 m³/s).

REMARKS.--Records fair. Twenty-one major reservoirs with a capacity of 4,200,000 acre-ft (5.18 km³), of which 1,362,000 acre-ft (1.68 km³) is flood control, partly regulate the flow. At end of year, flow from 592 mi² (1,533 km²) above this station was partly controlled by 236 (revised) floodwater-retarding structures with a combined capacity of 212,100 acre-ft (262 hm³) below the flood-spillway crests, of which 34,620 acre-ft (42.7 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity below flood-spillway crests of 1,980 acre-ft (2.44 km³) of which 342 acre-ft (0.422 km³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. Records furnished by Industrial Generating Co., Fairfield, show that during the current year, 4,590 acre-ft (5.66 hm³) was diverted into Fairfield Lake from the Trinity River about 34 miles (55 km) upstream.

REVISIONS (WATER YEARS).--WSP 1442: 1934. See also PERIOD OF RECORD. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,690	13,900	30,000	9,550	2,630	9,140	5,450	11,200	25,600	7,860	6,710	869
2	4,120	15,100	27,400	9,950	6,330	8,930	3,870	12,600	23,500	7,810	5,560	818
3	4,430	17,000	25,200	10,600	14,600	8,570	3,170	13,600	21,600	7,490	5,080	694
4	4,050	24,900	23,400	10,900	16,700	8,120	3,570	13,600	19,800	7,100	4,490	624
5	3,450	38,300	21,900	11,300	19,700	7,610	4,940	12,200	18,300	6,110	3,740	593
6	3,150	39,400	20,700	11,500	34,300	7,160	6,030	10,300	17,000	4,520	3,060	603
7	3,040	36,500	19,500	11,200	43,800	6,960	6,530	7,760	15,900	3,260	2,640	585
8	2,910	33,900	18,300	10,100	48,400	6,310	6,680	6,300	14,800	2,460	2,270	560
9	2,530	31,800	17,400	8,910	44,900	5,240	9,910	7,410	13,400	2,090	1,770	564
10	2,190	30,500	17,100	7,770	38,400	4,570	12,400	8,300	12,900	1,730	1,390	595
11	2,050	29,400	17,400	6,650	32,800	4,250	13,700	8,490	12,500	1,900	1,220	555
12	1,970	28,200	17,300	6,850	29,400	4,120	15,200	7,950	12,200	2,450	1,110	526
13	1,910	27,400	17,200	8,520	26,900	4,320	17,300	8,610	11,900	2,290	979	525
14	1,880	26,900	17,500	10,700	24,500	7,120	20,800	10,000	12,000	2,250	870	565
15	1,920	26,600	18,100	10,500	22,500	10,300	24,700	11,000	12,300	2,320	825	561
16	1,650	25,800	18,800	8,590	20,700	11,100	26,200	11,300	12,600	1,930	809	668
17	2,750	24,700	19,100	6,870	19,100	11,300	25,900	10,800	12,900	1,550	791	679
18	5,250	23,600	18,900	5,750	17,600	11,900	25,000	9,610	13,200	1,400	757	680
19	5,660	22,700	18,300	4,820	16,500	11,700	23,600	7,750	13,400	1,360	740	815
20	4,400	21,900	17,500	4,140	15,800	10,100	21,600	6,660	13,500	1,350	746	1,290
21	2,840	21,300	16,600	3,840	14,900	8,570	18,800	7,760	13,500	1,330	852	1,180
22	1,930	20,800	15,200	3,670	13,800	7,890	15,300	9,890	13,200	1,370	907	871
23	1,550	20,300	13,200	3,560	12,800	7,670	11,900	11,800	12,800	1,370	859	707
24	1,410	21,200	11,200	3,500	11,800	7,540	9,980	12,600	12,400	1,310	825	626
25	1,330	21,800	9,770	3,310	10,700	7,710	9,320	13,500	12,300	1,220	947	594
26	1,280	21,200	10,100	3,000	9,940	7,710	8,900	14,900	12,300	1,110	1,140	632
27	1,230	21,300	10,800	2,920	9,390	7,480	8,400	16,500	11,600	1,440	1,220	591
28	1,450	24,800	10,500	2,880	9,270	7,600	8,340	19,100	10,200	5,170	1,140	576
29	1,790	32,700	9,560	2,690	-----	7,740	8,730	23,200	8,920	7,300	943	553
30	1,470	33,100	9,120	2,480	-----	8,660	10,500	27,100	8,230	8,230	790	539
31	6,080	-----	9,280	2,400	-----	7,910	-----	27,400	-----	8,310	777	-----
TOTAL	85,360	777,006	526,330	209,420	588,160	245,280	386,720	379,190	424,750	107,390	55,957	20,238
MEAN	2,754	25,900	16,980	6,755	21,010	7,912	12,890	12,230	14,160	3,464	1,805	675
MAX	6,080	39,400	30,000	11,500	48,400	11,900	26,200	27,400	25,600	8,310	6,710	1,290
MIN	1,230	13,900	9,120	2,400	2,630	4,120	3,170	6,300	8,230	1,110	740	525
AC-FT	169,300	1,541M	1,044M	415,400	1,167M	486,500	767,100	752,100	842,500	213,000	111,000	40,140
CAL YR 1974	TOTAL	2,422,444	MEAN	6,637	MAX	39,400	MIN	426	AC-FT	4,805,000		
WTR YR 1975	TOTAL	3,805,795	MEAN	10,430	MAX	48,400	MIN	525	AC-FT	7,549,000		

08065200 Upper Keechi Creek near Oakwood, Tex.

LOCATION.--Lat 31°34'11", long 95°53'17", Leon County, at right bank 20 ft (6 m) downstream from bridge on U.S. Highway 79, 1.9 miles (3.1 km) upstream from Missouri Pacific Railroad Co. bridge, 2 miles (3 km) southwest of Oakwood, 11 miles (18 km) upstream from Buffalo Creek, and 21 miles (34 km) upstream from mouth.

DRAINAGE AREA.--150 mi² (388 km²).

PERIOD OF RECORD.--Discharge: April 1962 to current year.

Water quality: Chemical analyses: June 1962 to April 1964, November 1967 to September 1975 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 240.11 ft (73.186 m) above mean sea level.

AVERAGE DISCHARGE.--13 years, 81.8 ft³/s (2.317 m³/s), 7.41 in/yr (188 mm/yr), 59,260 acre-ft/yr (73.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 13,500 ft³/s (382 m³/s) Oct. 31 (gage height, 15.46 ft or 4.712 m); minimum, 0.61 ft³/s (0.017 m³/s) Sept. 16.

Period of record: Maximum discharge, 24,000 ft³/s (680 m³/s) May 16, 1965 (gage height, 14.91 ft or 4.545 m), and Apr. 25, 1966, from rating curve extended above 5,800 ft³/s (164 m³/s); maximum gage height, 15.46 ft (4.712 m) Oct. 31, 1974; no flow at times.

Maximum stage since 1900, about 21 ft (6.4 m) in 1932, from information by local residents.

REMARKS.--Discharge records good. No known diversions or regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	4,580	168	263	40	59	30	602	297	45	4.4	1.5
2	12	955	187	233	241	52	29	294	91	32	12	1.4
3	11	516	90	258	4,530	42	26	98	36	150	5.4	1.3
4	10	231	60	258	1,060	45	24	70	28	237	3.7	1.3
5	9.5	95	55	243	645	50	23	88	26	279	3.0	1.1
6	9.0	63	152	102	462	47	23	106	25	53	2.7	1.3
7	9.0	89	130	69	256	46	25	76	23	25	2.4	1.3
8	9.4	328	91	63	156	40	76	54	24	17	2.3	1.3
9	9.3	262	64	94	111	35	236	41	36	14	2.1	1.6
10	8.3	277	59	75	90	35	344	32	122	12	70	1.5
11	7.7	349	289	72	80	35	258	83	43	12	14	1.4
12	7.3	498	424	130	70	37	99	1,650	26	11	5.2	1.3
13	11	431	559	174	62	54	68	1,030	21	11	3.4	1.2
14	15	136	271	233	58	97	155	530	17	10	2.8	1.2
15	25	53	119	123	58	97	242	223	16	8.6	2.3	.99
16	23	42	76	68	71	70	153	99	15	8.1	2.0	17
17	19	39	59	58	65	66	63	86	13	8.7	1.7	21
18	14	37	51	54	57	149	50	56	12	7.6	1.6	7.5
19	11	37	44	53	50	184	39	35	10	6.6	1.4	4.5
20	9.7	39	41	45	44	111	34	35	9.4	6.1	1.3	3.3
21	8.7	31	38	40	42	62	27	284	9.3	5.7	1.2	2.5
22	7.7	28	37	37	46	53	23	379	9.3	5.2	1.0	1.8
23	7.3	26	36	36	49	72	24	573	8.4	4.8	.88	1.6
24	7.1	2,450	39	37	52	76	23	337	7.3	4.4	.92	1.4
25	7.1	2,190	42	44	48	46	20	654	32	4.1	1.1	1.2
26	7.6	745	42	42	43	37	17	773	84	3.8	1.3	1.0
27	10	402	49	40	49	38	15	444	101	3.5	1.5	.99
28	93	166	52	38	56	39	144	144	79	3.3	1.4	.99
29	179	107	56	37	-----	40	376	128	214	3.0	1.7	.89
30	31	181	42	37	-----	35	801	291	163	3.0	1.8	.94
31	2,260	-----	182	38	-----	31	-----	315	-----	3.0	1.6	-----
TOTAL	2,862.7	15,383	3,604	3,094	8,591	1,880	3,467	9,610	1,597.7	997.5	166.10	86.30
MEAN	92.3	513	116	99.8	307	60.6	116	310	53.3	32.2	5.36	2.88
MAX	2,260	4,580	559	263	4,530	184	801	1,650	297	279	78	21
MIN	7.1	26	36	36	40	31	15	32	7.3	3.0	.88	.89
CFSM	.62	3.42	.77	.67	2.05	.40	.77	2.07	.36	.21	.04	.02
IN.	.71	3.81	.89	.77	2.13	.47	.86	2.38	.40	.25	.04	.02
AC-FT	5,680	30,510	7,150	6,140	17,040	3,730	6,880	19,060	3,170	1,980	329	171

CAL YR 1974 TOTAL 52,296.44 MEAN 143 MAX 4,580 MIN .07 CFSM .95 IN 12.97 AC-FT 103,700
WTR YR 1975 TOTAL 51,339.30 MEAN 141 MAX 4,580 MIN .88 CFSM .94 IN 12.73 AC-FT 101,800

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
10-31	2400	15.46	13,500	2-3	0500	14.99	10,100
11-24	2000	14.69	8,240	5-12	1300	13.52	3,150

TRINITY RIVER BASIN

517

08065200 Upper Keech1 Creek near Oakwood, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
JUNE 17...	1255	14	23	27	11	33	3.8	43	0	75
JULY 03...	1415	180	13	13	5.9	14	3.3	8	0	49
30...	1230	3.1	23	22	8.5	27	3.9	39	0	65
SEP. 09...	1250	1.6	22	21	7.9	25	4.7	29	0	54

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
JUNE 17...	54	.2	248	110	77	1.4	435	7.2	28.0
JULY 03...	21	.1	123	57	50	.8	216	5.8	26.0
30...	43	.2	212	90	58	1.2	373	6.9	29.5
SEP. 09...	40	.2	189	85	61	1.2	341	6.5	29.0

TRINITY RIVER BASIN

08065350 Trinity River near Crockett, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 31°20'08", long 95°39'27", Houston-Leon County Line, on right bank 30 ft (9 m) downstream from bridge on State Highway 7, 7.1 miles (11.4 km) downstream from Upper Keechi Creek, 11.9 miles (19.1 km) west of Crockett, and at mile 265.2 (426.7 km).

DRAINAGE AREA.--13,911 mi² (36,029 km²).

PERIOD OF RECORD.--Discharge: January 1964 to current year.

Water quality: Chemical analyses: February 1964 to current year. Chemical and biochemical analyses: October 1967 to current year. Pesticide analyses: October 1971 to current year. Water temperatures: February 1964 to September 1971, March to September 1975. Sediment records: October 1967 to September 1968.

GAGE.--Water-stage recorder. Datum of gage is 136.59 ft (41.633 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 6,342 ft³/s (179.6 m³/s), 4,595,000 acre-ft/yr (5.67 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 45,600 ft³/s (1,290 m³/s) Feb. 11 (gage height, 48.89 ft or 14.902 m); minimum daily, 679 ft³/s (19.2 m³/s) Sept. 14.

Period of record: Maximum discharge, 78,000 ft³/s (2,210 m³/s) May 15, 1969 (gage height, 52.24 ft or 15.923 m); minimum, 275 ft³/s (7.79 m³/s) Aug. 13, 1964.

Historic: Maximum stage since at least 1900, 56.1 ft (17.10 m) Apr. 30 or May 1, 1942, from information by State Highway Department.

Water quality: Current year: Maximum daily specific conductance, 852 micromhos Sept. 24; minimum daily, 194 micromhos Nov. 4. Maximum daily water temperatures, 35.5°C July 31. Maximum daily pH, 8.8 units July 25, 27; minimum, 7.1 units May 6, 11. Maximum daily dissolved oxygen, 13.8 mg/l July 27; minimum, 1.1 mg/l Sept. 11.

Period of record: Maximum daily specific conductance, 2,370 micromhos Sept. 22, 1964; minimum daily, 148 micromhos Apr. 27, 1966. Maximum water temperatures, 37.0°C July 4, 1970; minimum, 4.0°C Jan. 30, 1966.

REMARKS.--Discharge records fair. For statement regarding regulation by upstream reservoirs and by Soil Conservation Service floodwater-retarding structures, see Trinity River near Oakwood (station 08065000). Also affected by Houston County Lake near Crockett (capacity, 19,500 acre-ft or 24.0 km³). Diversions above station for irrigation, municipal, and industrial uses. Dissolved-oxygen concentration was estimated for the following days or periods: March 17, 18, July 29-30, Aug. 1-7. The pH was estimated for the following days or periods: March 17, 18, May 1-5, 7, 8, 17-19, 24, June 26, 27, July 7-16, 28, 30, 31, Aug. 1-6, Sept. 12. Specific conductance, temperature, pH, and DO are recorded continuously at this station since Mar. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,910	9,250	31,600	10,200	3,600	9,940	8,000	12,700	25,900	9,000	7,920	977
2	4,120	16,500	34,100	11,100	5,700	9,790	5,880	13,900	26,400	8,860	6,590	1,050
3	4,460	20,300	34,100	12,800	12,700	9,530	4,290	15,600	26,100	8,680	5,730	1,000
4	4,540	20,300	32,500	13,300	20,100	9,220	3,490	16,500	24,900	8,330	5,240	893
5	4,100	22,800	31,600	12,500	25,400	8,900	4,750	16,400	23,200	7,730	4,570	797
6	3,590	27,000	27,800	12,700	26,000	8,490	5,980	14,700	21,300	6,500	3,800	754
7	3,340	30,200	25,400	12,900	27,300	8,000	6,860	12,100	19,600	5,060	3,150	747
8	3,210	32,300	22,900	12,100	31,100	7,430	7,430	10,300	18,100	3,940	2,740	730
9	3,020	34,100	21,200	10,800	36,300	6,650	8,690	9,850	16,700	2,970	2,370	702
10	2,630	34,600	20,000	9,590	41,900	6,040	12,000	9,250	16,300	2,400	1,910	702
11	2,330	34,600	19,600	8,530	44,900	5,580	14,100	9,370	15,200	2,050	1,530	733
12	2,180	33,900	19,700	7,660	42,800	5,220	15,800	9,510	14,200	2,270	1,370	733
13	2,110	33,100	19,300	8,290	39,500	5,130	17,200	9,710	13,600	2,600	1,270	689
14	2,050	32,200	19,100	9,400	35,000	5,840	19,000	13,100	13,300	2,500	1,100	679
15	2,090	29,600	19,500	11,200	31,600	8,560	21,100	13,900	13,100	2,470	973	699
16	2,070	28,300	19,800	10,800	29,800	11,000	23,300	13,700	13,200	2,440	908	837
17	1,860	27,400	20,000	9,130	27,100	11,900	25,100	13,400	13,400	2,060	870	954
18	1,670	26,400	20,100	7,540	24,200	12,500	26,100	12,400	13,700	1,720	844	946
19	1,610	25,100	20,000	6,410	21,600	13,100	26,300	10,700	14,000	1,560	819	950
20	1,450	23,800	19,500	5,500	19,400	12,500	25,900	8,640	14,200	1,490	758	1,090
21	4,110	22,600	18,900	4,920	17,600	10,900	24,700	8,170	14,300	1,460	751	1,490
22	2,740	21,600	18,000	4,690	16,200	9,510	22,500	9,200	14,300	1,430	881	1,380
23	1,960	20,800	16,400	4,470	14,900	8,800	18,900	11,000	14,000	1,490	977	1,090
24	1,640	21,700	14,300	4,330	13,500	8,520	14,000	12,800	13,500	1,460	942	900
25	1,490	23,500	12,000	4,220	12,300	8,410	11,100	13,900	13,000	1,380	912	801
26	1,410	25,400	10,700	3,980	11,300	8,590	10,100	15,400	13,100	1,280	1,070	779
27	1,360	26,000	10,900	3,740	10,500	8,500	9,590	17,300	13,200	1,160	1,320	786
28	1,320	25,600	11,300	3,670	10,100	8,320	9,460	18,700	12,400	1,940	1,440	751
29	1,700	25,600	10,900	3,620	-----	8,340	10,700	20,300	10,900	5,430	1,310	726
30	1,830	28,600	10,200	3,390	-----	8,680	11,500	22,300	9,650	7,350	1,130	706
31	2,220	-----	10,000	3,200	-----	9,190	-----	24,500	-----	8,140	992	-----
TOTAL	89,060	783,180	621,400	247,080	652,600	273,080	423,820	419,300	484,750	117,210	66,187	26,071
MEAN	2,873	26,110	20,050	7,970	23,310	8,809	14,130	13,530	16,160	3,781	2,135	869
MAX	5,610	34,600	34,100	13,300	44,900	13,100	26,300	24,500	26,400	9,000	7,920	1,490
MIN	1,320	9,280	10,000	3,200	3,600	5,130	3,490	8,170	9,650	1,160	751	679
AC-FT	176,700	1,553M	1,233M	490,100	1,294M	541,700	840,600	831,700	961,500	232,500	131,300	51,710

CAL YR 1974 TOTAL 2,746,425 MEAN 7,524 MAX 34,600 MIN 515 AC-FT 5,448,000

WTR YR 1975 TOTAL 4,203,738 MEAN 11,520 MAX 44,900 MIN 679 AC-FT 8,338,000

TRINITY RIVER BASIN

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08065350 Trinity River near Crockett, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	
OCT. 08...	1600	3000	7.5	50	2.8	26	5.4	150	0	44	
NOV. 13...	1300	37500	9.9	43	3.8	16	6.0	133	0	28	
DEC. 10...	1250	21300	7.7	37	3.8	18	4.5	112	0	29	
JAN. 22...	1625	41300	7.0	49	5.3	28	4.5	142	0	45	
FEB. 04...	1500	20700	5.7	25	3.3	21	3.9	76	0	32	
MAR. 05...	1645	8880	7.0	52	5.0	28	4.8	152	0	54	
APR. 01...	1200	7900	4.7	45	5.1	25	2.3	122	0	51	
MAY 06...	1400	14500	7.1	41	4.5	23	5.0	124	0	34	
JUNE 27...	1100	13500	6.3	44	5.0	25	4.5	125	0	45	
JULY 11...	1200	2300	10	58	6.1	35	5.2	163	0	50	
AUG. 14...	1110	1400	13	57	7.0	45	5.7	166	0	52	
SEP. 11...	0910	760	12	55	6.2	78	8.8	191	0	77	
DATE		DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
OCT. 08...	24	--	1.1	.02	.04	1.3	1.3	.75	247	234	
NOV. 13...	18	--	1.8	.00	.03	.71	.74	.36	199	191	
DEC. 10...	20	.2	.38	.01	.10	.51	.61	.24	184	175	
JAN. 22...	32	.3	.80	.06	.44	.86	1.3	.54	272	241	
FEB. 04...	27	.2	.29	.01	.14	1.2	1.3	.11	178	156	
MAR. 05...	34	.5	.85	.07	.23	.74	.97	.52	263	260	
APR. 01...	28	.3	.83	.05	.05	.80	.85	.43	235	222	
MAY 06...	28	.3	1.1	.01	.03	1.2	1.2	.39	235	208	
JUNE 27...	28	.3	.79	.01	.02	.65	.67	.36	303	220	
JULY 11...	36	.4	1.6	.01	.04	.53	.57	.64	298	281	
AUG. 14...	51	.4	2.1	.01	.00	.76	.76	.95	330	314	
SEP. 11...	71	.7	2.2	.19	.59	2.1	2.7	2.2	--	403	

TRINITY RIVER BASIN

08065350 Trinity River near Crockett, Tex.--Continued

WATER QUALITY DATA: WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)
OCT. 08...	312	44	140	13	1.0	421	7.5	23.0	10	100
NOV. 13...	102	11	120	14	.6	335	7.2	16.0	40	45
DEC. 10...	36	4	110	16	.8	310	7.2	10.0	40	60
JAN. 22...	157	20	140	28	1.0	453	7.4	11.0	10	40
FEB. 04...	487	54	76	14	1.0	282	7.0	13.0	70	150
MAR. 05...	154	18	150	26	1.0	444	7.1	12.0	25	65
APR. 01...	212	28	130	33	.9	396	7.2	14.0	10	85
MAY 06...	217	194	120	19	.9	371	7.7	23.0	20	90
JUNE 27...	162	30	130	28	1.0	387	7.8	27.0	10	75
JULY 11...	190	33	170	36	1.2	504	7.3	29.9	30	85
AUG. 14...	20	1	170	36	1.5	564	7.8	30.0	20	15
SEP. 11...	29	20	160	6	2.7	734	7.6	28.7	20	10

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 08...	7.1	82	5.6	2100	340	430	10	0	1.0
NOV. 13...	6.4	64	1.3	740	120	480	--	1	--
DEC. 10...	9.7	86	1.8	10000	1700	120	--	0	.1
JAN. 22...	8.6	77	3.0	4600	860	160	6.8	8	.0
FEB. 04...	8.3	78	2.1	9200	3100	4500	13	3	.0
MAR. 05...	8.5	79	3.8	4100	1200	32	8.7	3	.0
APR. 01...	8.3	80	2.2	11000	480	51	9.4	8	.0
MAY 06...	5.9	68	1.5	21000	1500	620	7.2	33	.0
JUNE 27...	5.8	72	.4	6700	1200	430	4.4	3	.0
JULY 11...	5.0	65	1.8	6700	1200	430	8.5	3	.0
AUG. 14...	7.2	95	1.3	105	31	84	6.8	3	.1
SEP. 11...	1.1	14	5.2	17000	6	140	11	4	.2

TRINITY RIVER BASIN

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08065350 Trinity River near Crockett, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

		DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	
DATE	TIME										
NOV. 13...	1300	30	12	9	70	<10	1	<10	0	<50	
FEB. 04...	1500	40	4	2	60	--	1	--	0	--	
JUNE 27...	1100	0	5	4	40	<10	1	10	0	<50	
AUG. 14...	1110	280	7	7	120	<10	1	30	0	<50	
		DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	
DATE											
NOV. 13...		0	<10	0	2700	20	<100	2	0	60	
FEB. 04...		1	--	4	--	40	--	2	10	--	
JUNE 27...		0	<10	6	5000	20	<100	1	0	130	
AUG. 14...		0	10	3	710	440	<100	34	10	60	
		DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	
DATE											
NOV. 13...		0	<.1	<.1	0	0	0	300	20	30	
FEB. 04...		0	--	.0	5	0	0	200	--	0	
JUNE 27...		0	.0	.0	2	--	--	470	40	30	
AUG. 14...		0	.1	.1	14	0	0	480	10	10	
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)
JAN. 22...	1625	41300	11.0	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 27...	1100	13500	27.0	.00	.00	.00	.00	.00	.00	.00	.00
AUG. 14...	1110	1400	30.0	.00	.00	.00	.00	.00	.00	.00	.00
DATE		TOTAL LINDANE (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL PCB (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
JAN. 22...		.00	.0	.0	.06	.00	.00	.00	--	--	--
JUNE 27...		.00	.0	.0	.02	.00	.00	.00	.02	.00	.01
AUG. 14...		.00	.0	.0	.07	.00	.00	.00	.00	.00	.01

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

NOV. 13, 1974 TIME 1300

PHYTOPLANKTON 2,900 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	160	5
....KIRCHNERIELLA	36	1
...SCENEDESMACEAE		
....CRUCIGENIA	430	15
....SCENEDESMUS	270	9
....TETRASTRUM	140	5
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCAEAE		
....CYCLOTELLA	230	8
....MELOSIRA	370	13
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	36	1
...DIATOMACEAE		
....DIATOMA	18	1
...NAVICULACEAE		
....NAVICULA	110	4
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	850	29
..OSCILLATORIALES		
...OSCILLATORIAEAE		
....OSCILLATORIA	270	9

DEC. 10, 1974 TIME 1250

PHYTOPLANKTON 15,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...CHARACIACEAE		
...SCHROEDERIA		0
...HYDRODICTYACEAE		
....PEDIASTRUM	570	4
...OCCYSTACEAE		
....ANKISTRODESMUS	140	1
...SCENEDESMACEAE		
....CRUCIGENIA	280	2
....SCENEDESMUS	280	2
....TETRASTRUM	280	2
..ZYGNEMATALES		
...DESMIDIACEAE		
....CLOSTERIUM		0
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCAEAE		
....COSCINODISCUS	140	1
....CYCLOTELLA	210	1
..PENNALES		
...NITZSCHIAEAE		
....NITZSCHIA	500	3
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	9,100	61
....ANACYSTIS	710	5
..OSCILLATORIALES		
...OSCILLATORIAEAE		
....OSCILLATORIA	2,500	17

JAN. 22, 1975 TIME 1625

PHYTOPLANKTON 930 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	34	4
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCAEAE		
....CYCLOTELLA	69	7
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	69	7
...CYMBELLACEAE		
....CYMBELLA	34	4
...FRAGILARIACEAE		
....SYNEDRA	69	7
...NAVICULACEAE		
....NAVICULA	210	22
...NITZSCHIAEAE		
....NITZSCHIA	310	33
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	140	15

FEB. 4, 1975 TIME 1500

PHYTOPLANKTON 3,100 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCAEAE		
....CYCLOTELLA	110	3
....MELOSIRA	110	3
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA	150	5
...GOMPHONEMATAEAE		
....GOMPHONEMA	36	1
...NAVICULACEAE		
....NAVICULA	110	3
...NITZSCHIAEAE		
....NITZSCHIA	180	6
...SURIARELLACEAE		
....SURIARELLA	73	2
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	2,300	74
....ANACYSTIS	36	1

MAR. 5, 1975 TIME 1645

PHYTOPLANKTON 4,300 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
....ANKISTRODESMUS	580	14
...SCENEDESMACEAE		
....SCENEDESMUS	1,100	26
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCAEAE		
....CYCLOTELLA	850	20
....MELOSIRA	410	7
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	45	1
...NAVICULACEAE		
....NAVICULA	130	3
...NITZSCHIAEAE		
....NITZSCHIA	130	3
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	1,100	25

08065350 Trinity River near Crockett, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

APR. 1, 1975 TIME 1200

PHYTOPLANKTON 4,400 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...CHARACIACEAE	100	2
...SCHROEDERIA		
...OCCYSTACEAE		
...ANKISTRODESMUS	100	2
...SELENASTRUM	100	2
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	1,500	33
...MELOSIRA	1,000	24
..PENNALES		
...NAVICULACEAE		
...NAVICULA	940	21
...NITZSCHIA	630	14

MAY 6, 1975 TIME 1400

PHYTOPLANKTON 2,400 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	100	4
...SCENEDESMACEAE		
...CRUCIGENIA	1,000	42
...SCENEDESMUS	300	12
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	100	4
...MELOSIRA	510	21
..PENNALES		
...NAVICULACEAE		
...NAVICULA	250	10
...NITZSCHIA	150	6

JUNE 27, 1975 TIME 1100

PHYTOPLANKTON 13,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...HYDRODICTYACEAE		
...PEDIASTRUM	4,700	36
...OCCYSTACEAE		
...ANKISTRODESMUS	270	2
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS	400	3
...ZYGNEATALES		
...DESMIDIACEAE		
...COSMARIIUM	270	2
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	1,700	13
...MELOSIRA	1,100	8
..PENNALES		
...NAVICULACEAE		
...NAVICULA	270	2
...NITZSCHIA	1,200	9
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
...ANACYSTIS	930	7
...OSCILLATORIALES		
...OSCILLATORIAEAE		
...PHORMIDIUM	2,100	16
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENAEAE		
...EUGLENA	130	1

JULY 11, 1975 TIME 1200

PHYTOPLANKTON 4,700 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
...SCENEDESMUS	950	20
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	1,900	40
..PENNALES		
...CYMBELLACEAE		
...EPITHEMIA	240	5
...NAVICULACEAE		
...NAVICULA	470	10
...NITZSCHIA	470	10
CYANOPHYTA		
..MYXOPHYCEAE		
..OSCILLATORIALES		
...NOSTOCACEAE		
...ANABAENA	470	10
PYRRHOPHYTA		
..DINOPHYCEAE		
...PERIDINIALES		
...PERIDINIAEAE		
...PERIDINIUM	240	5

TRINITY RIVER BASIN

08065350 Trinity River near Crockett, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

AUG. 14, 1975 TIME 1110

PHYTOPLANKTON 12,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM	200	2
....SCENEDESMACEAE		
....ACTINASTRUM		0
....SCENEDESMUS	330	3
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	65	1
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	200	2
..PENNALES		
...NAVICULACEAE		
....NAVICULA	130	1
...NITZSCHIA		
....NITZSCHIA	460	4
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
....CHROOCOCCACEAE		
....AGMONELLUM	1,300	11
....ANACYSTIS	390	3
....GOMPHOSPHERIA		0
...OSCILLATORIALES		
....OSCILLATORIA		
....OSCILLATORIA	8,500	74
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
...EUGLENALES		
....EUGLENALES		
....TRACHELOMONAS		0

SEP. 11, 1975 TIME 0910

PHYTOPLANKTON 11,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...HYDRODICTYACEAE		
....PEDIASTRUM		0
....SCENEDESMACEAE		
....ACTINASTRUM	580	5
....CRUCIGENIA	180	2
....SCENEDESMUS	180	2
..VOLVOCALES		
...VOLVOCAEAE		
....PANDORINA		0
CHRYSTOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCEAE		
....CYCLOTELLA	270	2
..PENNALES		
...FRAGILARIACEAE		
....SYNEDRA		0
...NAVICULACEAE		
....NAVICULA		0
...NITZSCHIA		
....NITZSCHIA		0
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
....CHROOCOCCACEAE		
....ANACYSTIS	6,300	55
...OSCILLATORIALES		
....NOSTOCACEAE		
....APHANIZOMENON		0
....OSCILLATORIA		
....OSCILLATORIA	3,900	34

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	STREAM WIDTH (FT)	STREAM VELOCITY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAMPLING POINTS	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT CHARGE (T/DAY)	TOTAL SEDIMENT DISCHARGE (T/DAY)
OCT. 08...	1600	3000	23.0	--	--	--	--	292	2370	--
NOV. 13...	1300	37500	16.0	--	--	--	--	234	23700	--
DEC. 03...	1630	33900	9.0	412	3.3	24	8	108	9890	10500
10...	1250	21300	10.0	--	--	--	--	124	7130	--
JAN. 22...	1130	4750	10.5	170	2.4	11	5	301	3860	3970
22...	1625	41300	11.0	--	--	--	--	159	17700	--
FEB. 04...	1500	20700	13.0	--	--	--	--	357	20000	--
MAR. 05...	1645	8880	12.0	225	2.7	14	6	198	4750	5220
APR. 01...	1200	7900	14.0	--	--	--	--	241	5140	--
09...	1435	12100	15.5	256	3.0	15	6	389	12700	13300
MAY 06...	1400	14500	23.0	--	--	--	--	191	7480	--
JUNE 27...	1100	13500	27.0	--	--	--	--	585	21300	--
JULY 11...	1200	2300	29.9	--	--	--	--	194	1210	--
AUG. 14...	1110	1400	30.0	--	--	--	--	497	1880	--
SEP. 11...	0910	7480	28.7	--	--	--	--	14	29	--

[illegible]

TRINITY RIVER BASIN

08065350 Trinity River near Crockett, Tex.--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	89060	478	270	64900	45	10800	48	11500	140
NOV. 1974.....	783180	297	170	359000	26	55000	27	57100	99
DEC. 1974.....	621400	319	180	302000	28	47000	29	48700	110
JAN. 1975.....	247080	410	230	153000	38	25400	40	26700	140
FEB. 1975.....	652600	336	190	335000	30	52900	31	54600	110
MAR. 1975.....	273080	428	240	177000	40	29500	42	31000	140
APR. 1975.....	423820	391	220	252000	36	41200	38	43500	130
MAY 1975.....	419300	327	180	204000	29	32800	30	34000	110
JUNE 1975.....	484750	379	210	275000	34	44500	36	47100	130
JULY 1975.....	117210	447	250	79100	41	13000	44	13900	140
AUG. 1975.....	66187	528	300	53600	50	8940	54	9650	150
SEPT 1975.....	26071	743	420	29600	72	5070	80	5630	160
TOTAL	4203738	**	**	2280000	**	366000	**	383000	**
WTD.AVG.	11517.08	358	200	**	32	**	34	**	120

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1			456			350			266			370
2			432			275			277			376
3			500			212			290			351
4			523			194			295			336
5			416			205			312			398
6			415			222			320			404
7			424			229			324			412
8			407			243			327			393
9			441			284			316			413
10			455			283			308			415
11			442			301			323			413
12			456			316			334			409
13			487			327			328			404
14			509			339			289			485
15			515			333			282			374
16			591			325			294			356
17			523			328			309			384
18			509			336			324			402
19			559			343			339			415
20			466			346			341			427
21			432			355			348			442
22			424			356			349			457
23			422			354			349			457
24			434			350			360			477
25			447			333			365			485
26			479			296			370			485
27			545			285			373			493
28			431			272			316			401
29			634			267			375			538
30			593			260			366			510
31			581			---			365			585
MONTH			482			298			327			429

08065350 Trinity River near Crockett, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C): WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1			535	---	---	439	483	394	423	368	288	338
2			516	---	---	431	532	478	497	425	271	359
3			375	---	---	433	545	521	532	290	262	270
4			256	---	---	422	568	535	552	336	299	328
5			263	---	---	436	582	559	573	350	324	337
6			223	---	---	451	657	561	603	379	351	366
7			228	---	---	451	596	443	488	410	366	377
8			259	---	---	444	445	418	435	422	410	416
9			265	---	---	471	444	392	420	441	336	377
10			287	---	---	467	422	365	404	455	380	421
11			307	516	509	513	356	270	297	533	390	460
12			324	516	499	506	287	274	282	434	423	427
13			344	517	501	509	305	284	295	421	351	395
14			363	550	506	526	319	305	312	360	310	341
15			382	515	389	469	338	320	332	306	286	293
16			376	416	347	370	355	338	347	337	297	314
17			374	389	370	380	364	355	360	351	298	319
18			384	412	370	380	368	361	365	389	300	348
19			393	373	337	353	383	367	374	412	309	381
20			400	420	378	396	405	382	394	422	410	416
21			402	432	421	424	415	404	410	477	417	438
22			402	451	438	445	423	409	415	451	393	421
23			404	457	441	449	434	419	424	397	314	365
24			404	444	431	438	462	436	453	311	284	297
25			405	446	424	435	456	429	438	346	305	325
26			388	438	399	428	434	429	431	344	228	267
27			417	426	385	400	440	431	435	230	217	224
28			420	440	423	430	442	425	438	228	225	227
29			---	444	406	434	436	385	415	248	230	238
30			---	451	397	416	414	372	400	276	250	260
31			---	447	322	369	---	---	---	298	274	287
MONTH			361	---	---	436	657	270	418	533	217	343
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	315	300	308	419	409	414	---	---	395	759	738	749
2	330	316	323	412	397	406	---	---	410	758	704	731
3	340	331	336	404	394	399	---	---	485	699	624	659
4	348	340	344	396	391	394	---	---	519	715	673	697
5	384	357	371	396	383	390	---	---	515	703	667	678
6	402	384	394	398	386	393	471	460	465	754	704	732
7	406	399	402	400	204	383	476	467	470	762	752	756
8	405	399	402	431	401	417	502	476	490	752	703	722
9	411	399	406	448	425	432	510	501	505	744	706	729
10	395	366	382	489	446	462	535	504	525	751	735	738
11	396	357	379	517	490	502	542	530	533	749	733	740
12	380	373	376	532	508	522	549	541	545	750	742	746
13	394	378	383	533	506	515	546	534	537	760	741	752
14	405	376	392	565	443	511	570	548	561	753	720	731
15	384	371	379	499	448	473	575	571	573	734	722	730
16	384	367	374	544	502	520	578	571	573	730	678	701
17	397	384	392	633	550	606	607	577	591	688	672	680
18	410	397	403	630	613	623	623	609	613	737	684	702
19	409	401	406	613	545	576	661	621	645	803	753	788
20	401	395	398	542	506	520	670	653	658	768	732	746
21	396	390	393	537	509	520	684	671	680	773	744	763
22	396	390	393	550	533	542	697	677	687	766	709	724
23	399	394	396	535	529	532	692	665	673	847	766	819
24	402	396	399	546	529	534	693	671	683	852	829	838
25	408	400	404	557	540	545	704	687	694	826	777	805
26	412	396	402	596	562	585	717	701	708	822	784	802
27	403	392	397	598	565	582	776	688	694	826	788	814
28	394	381	390	581	555	565	820	775	800	781	742	754
29	407	381	391	705	556	593	822	724	778	744	732	737
30	425	391	411	509	357	389	754	719	728	747	734	742
31	---	---	---	---	---	373	770	736	753	---	---	---
MONTH	425	300	384	705	204	491	822	460	596	852	624	744

TRINITY RIVER BASIN

08065350 Trinity River near Crockett, Tex.--Continued

PM (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	7.6	7.5	7.5	---	---	7.5
2				---	---	---	7.5	7.4	7.4	---	---	7.5
3				---	---	---	7.4	7.4	7.4	---	---	7.4
4				---	---	---	7.5	7.4	7.4	---	---	7.4
5				---	---	---	7.5	7.5	7.5	---	---	7.3
6				---	---	---	7.5	7.4	7.5	7.3	7.1	7.2
7				---	---	---	7.5	7.4	7.5	7.5	---	7.3
8				---	---	---	7.6	7.5	7.6	7.3	---	7.2
9				---	---	---	7.6	7.4	7.5	7.4	7.2	7.2
10				---	---	---	7.7	7.4	7.5	7.5	7.3	7.4
11				7.7	7.7	7.7	7.7	7.6	7.7	7.4	7.1	7.3
12				7.7	7.6	7.7	7.7	7.6	7.7	7.6	7.4	7.5
13				7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.4	7.5
14				7.7	7.6	7.7	7.6	7.5	7.6	7.5	7.4	7.4
15				7.7	7.7	7.7	7.6	7.5	7.6	7.6	7.5	7.6
16				7.8	7.7	7.8	7.6	7.6	7.6	7.6	7.5	7.5
17				7.8	7.7	7.8	7.8	7.6	7.7	7.6	---	7.5
18				7.7	7.7	7.7	7.8	7.7	7.8	7.7	---	7.5
19				7.8	7.7	7.7	7.8	7.6	7.7	7.6	---	7.5
20				7.8	7.6	7.7	7.7	7.6	7.6	7.5	7.4	7.4
21				7.9	7.7	7.8	7.6	7.6	7.6	7.5	7.4	7.4
22				8.0	7.8	7.9	7.7	7.5	7.6	7.6	7.4	7.5
23				7.9	7.8	7.8	7.7	7.6	7.6	7.6	7.5	7.5
24				7.8	7.5	7.7	7.7	7.5	7.6	7.6	---	7.5
25				7.6	7.6	7.6	7.8	7.6	7.7	7.6	7.5	7.5
26				7.6	7.6	7.6	7.8	7.7	7.7	7.6	7.5	7.6
27				7.7	7.6	7.6	7.7	7.6	7.7	7.6	7.5	7.6
28				7.8	7.7	7.7	7.6	7.6	7.6	7.6	7.5	7.5
29				7.7	7.6	7.7	7.6	7.5	7.5	7.5	7.4	7.4
30				7.7	7.6	7.6	7.5	7.4	7.5	7.4	7.4	7.4
31				7.6	7.5	7.6	---	---	---	7.4	7.4	7.4
MONTH				---	---	---	7.8	7.4	7.6	7.7	---	7.4
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.5	7.4	7.4	7.8	7.7	7.8	---	---	7.5	8.3	7.8	8.0
2	7.5	7.4	7.4	7.8	7.8	7.8	---	---	7.6	8.4	8.1	8.2
3	7.5	7.4	7.5	7.9	7.8	7.9	---	---	7.6	8.3	7.8	7.9
4	7.5	7.4	7.5	7.9	7.9	7.9	---	---	7.5	8.4	8.1	8.2
5	7.5	7.4	7.5	7.9	7.9	7.9	---	---	7.6	8.4	8.2	8.3
6	7.6	7.5	7.5	7.9	7.8	7.9	7.7	---	7.6	8.2	7.9	8.1
7	7.5	7.5	7.5	7.8	---	7.7	7.7	7.4	7.6	8.1	7.7	7.9
8	7.5	7.5	7.5	7.8	---	7.7	7.6	7.6	7.6	7.8	7.6	7.7
9	7.5	7.4	7.4	---	---	7.7	7.7	7.6	7.6	7.6	7.5	7.6
10	7.4	7.3	7.4	---	---	7.7	7.7	7.6	7.6	7.7	---	7.5
11	7.4	7.3	7.4	---	---	7.7	7.7	7.6	7.7	7.7	7.6	7.6
12	7.4	7.4	7.4	---	---	7.8	7.7	7.7	7.7	7.8	---	7.7
13	7.5	7.4	7.5	---	---	7.8	7.8	7.6	7.7	7.8	7.6	7.7
14	7.5	7.4	7.5	---	---	7.8	8.0	7.8	7.9	7.9	7.6	7.7
15	7.5	7.5	7.5	---	---	7.8	8.0	7.7	7.9	8.3	7.7	8.0
16	7.6	7.5	7.5	8.0	---	7.8	8.1	7.8	8.0	8.6	8.3	8.4
17	7.6	7.6	7.6	8.0	7.7	7.8	8.2	7.9	8.1	8.6	7.9	8.3
18	7.6	7.6	7.6	7.9	7.7	7.8	8.3	8.0	8.1	8.1	7.8	8.0
19	7.6	7.6	7.6	8.2	7.9	8.0	8.3	8.1	8.2	7.9	7.5	7.7
20	7.6	7.5	7.6	8.4	7.9	8.1	8.3	8.0	8.1	7.8	7.6	7.7
21	7.6	7.5	7.6	8.6	7.9	8.2	8.2	7.9	8.1	7.8	7.6	7.7
22	7.6	7.6	7.6	8.7	8.2	8.5	8.1	7.9	8.0	8.0	7.6	7.8
23	9.6	7.5	7.7	8.7	8.0	8.4	8.1	7.8	7.9	7.9	7.5	7.6
24	7.6	7.6	7.6	8.5	8.2	8.4	7.9	7.7	7.8	7.7	7.5	7.6
25	7.8	7.6	7.6	8.8	8.3	8.5	7.7	7.6	7.6	7.8	7.5	7.7
26	7.8	---	7.6	8.7	8.2	8.5	7.7	7.6	7.6	8.0	7.7	7.8
27	7.8	7.7	7.7	8.8	8.2	8.5	7.7	7.5	7.6	8.0	7.8	7.9
28	7.8	7.7	7.8	8.5	---	8.4	7.6	7.5	7.5	8.1	7.8	7.9
29	7.7	7.6	7.7	8.0	7.3	7.8	8.4	7.5	7.8	8.4	7.9	8.1
30	7.7	7.6	7.7	---	---	7.6	8.4	8.0	8.2	8.3	8.0	8.1
31	---	---	---	---	---	7.7	8.2	7.8	8.0	---	---	---
MONTH	9.6	7.3	7.5	---	---	8.0	8.4	7.4	7.8	8.6	7.5	7.9

TRINITY RIVER BASIN

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08065350 Trinity River near Crockett, Tex.--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	8.3	7.6	8.0	7.5	5.2	5.5
2				---	---	---	7.6	6.5	6.9	6.0	3.5	4.9
3				---	---	---	6.9	6.5	6.7	5.4	4.6	4.9
4				---	---	---	7.2	6.9	7.0	4.8	4.0	4.4
5				---	---	---	7.5	7.0	7.3	4.9	4.8	4.7
6				---	---	---	7.1	4.8	6.1	5.6	5.4	5.5
7				---	---	---	7.1	4.8	6.0	5.5	4.8	5.0
8				---	---	---	7.9	7.2	7.6	5.2	4.9	5.0
9				---	---	---	8.0	7.6	7.8	5.6	5.1	5.2
10				---	---	---	7.8	7.0	7.4	5.8	4.1	5.1
11				8.1	7.8	7.9	7.9	7.2	7.7	5.2	1.4	3.7
12				8.5	7.6	8.0	7.8	7.5	7.6	5.5	4.8	5.3
13				8.3	7.8	8.1	7.8	7.6	7.6	5.7	5.3	5.5
14				8.8	8.0	8.3	7.8	7.7	7.8	5.3	5.1	5.2
15				9.3	8.3	8.6	8.0	7.8	7.9	5.3	4.7	5.0
16				10.1	9.6	9.9	8.0	7.8	7.9	5.3	4.8	5.2
17				9.9	---	9.5	7.8	7.6	7.7	5.4	4.7	5.2
18				9.4	---	9.2	7.6	7.4	7.5	5.5	4.2	5.0
19				9.7	8.9	9.3	7.5	7.3	7.4	5.5	4.1	4.6
20				8.9	8.3	8.5	7.3	7.2	7.2	5.0	4.4	4.7
21				8.4	7.8	8.0	7.2	7.0	7.1	5.0	4.6	4.8
22				7.9	7.3	7.5	7.1	6.4	6.8	5.2	4.3	4.8
23				7.1	6.5	6.8	6.5	6.1	6.3	6.1	5.1	5.5
24				7.1	6.7	6.9	6.1	5.6	5.8	6.1	5.8	5.9
25				7.4	6.9	7.2	6.4	5.9	6.1	5.8	4.7	5.5
26				7.5	7.0	7.3	6.6	6.3	6.5	5.8	4.5	5.3
27				8.0	7.4	7.8	6.4	5.6	6.1	5.7	5.4	5.5
28				7.7	7.5	7.6	6.0	5.6	5.7	5.4	5.2	5.3
29				8.0	7.6	7.8	5.9	5.3	5.7	5.2	5.1	5.2
30				8.4	7.6	8.1	5.8	5.4	5.6	5.3	5.2	5.3
31				8.6	7.4	7.9	---	---	---	5.4	5.3	5.4
MONTH				---	---	---	8.3	4.8	7.0	7.5	1.4	5.1
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.4	5.2	5.3	4.8	3.9	4.6	---	---	3.4	10.8	6.9	8.6
2	5.4	5.2	5.3	5.3	4.5	4.9	---	---	3.7	11.4	8.2	9.6
3	5.4	5.2	5.3	5.6	5.0	5.3	---	---	4.2	10.2	6.8	7.7
4	5.3	5.2	5.2	5.6	5.4	5.5	---	---	4.6	10.6	7.6	9.0
5	5.7	5.4	5.5	5.5	5.3	5.4	---	---	5.0	10.9	8.0	9.1
6	5.4	5.3	5.3	5.3	5.2	5.3	---	---	5.2	8.1	5.4	7.1
7	5.3	5.2	5.3	5.2	5.1	5.2	---	---	5.4	7.0	3.5	5.4
8	5.3	5.1	5.2	5.1	5.0	5.0	5.8	5.5	5.6	5.9	2.7	4.0
9	5.1	4.7	4.8	5.1	5.0	5.1	6.1	5.6	5.8	4.5	2.8	3.5
10	4.9	4.7	4.8	5.1	5.0	5.1	6.3	5.7	6.0	7.2	1.2	3.0
11	4.9	4.7	4.8	5.3	5.0	5.2	6.5	5.8	6.1	3.4	1.1	2.6
12	5.0	4.8	5.0	5.5	5.2	5.3	7.0	6.0	6.4	4.5	2.4	3.2
13	5.3	5.0	5.2	5.9	5.5	5.7	7.2	5.9	6.0	6.5	3.2	4.6
14	5.3	5.0	5.2	5.7	5.4	5.5	8.2	6.8	7.3	7.3	4.1	5.6
15	5.3	5.1	5.2	6.0	5.4	5.8	9.0	6.4	7.6	10.1	5.2	7.8
16	5.4	5.1	5.2	7.1	3.9	6.0	9.7	7.3	8.4	12.1	8.7	10.2
17	5.9	5.2	5.5	8.7	6.0	7.2	10.9	7.9	9.3	10.5	7.3	9.3
18	5.9	5.8	5.8	8.4	6.0	7.2	11.3	7.9	9.5	8.9	5.7	7.5
19	6.0	5.8	5.9	9.9	7.2	8.4	10.7	8.2	9.5	7.6	5.2	5.4
20	6.0	5.6	5.9	10.8	7.0	8.8	9.8	7.3	8.3	7.3	5.1	6.1
21	6.1	5.6	6.0	11.9	7.2	9.5	9.1	6.4	7.5	6.3	5.3	5.8
22	6.0	5.9	6.0	13.2	8.4	10.5	9.4	6.5	7.7	8.9	5.7	7.1
23	7.1	5.9	6.0	12.1	7.0	9.5	8.6	6.3	7.4	7.4	5.5	6.6
24	6.0	5.9	5.9	10.2	7.4	8.7	7.1	5.7	6.4	6.9	5.1	6.0
25	5.9	5.8	5.9	13.6	8.0	10.5	5.7	4.3	5.0	8.7	5.8	6.7
26	5.9	5.7	5.8	12.1	7.2	9.8	5.1	3.5	4.3	10.1	7.3	8.6
27	5.8	5.7	5.7	13.8	7.3	10.4	4.1	1.8	2.5	10.3	8.2	9.0
28	5.7	5.2	5.5	11.8	6.3	9.1	4.6	1.7	3.1	11.0	8.2	9.3
29	5.1	4.4	4.7	---	---	2.5	11.2	3.8	6.9	12.0	8.6	10.1
30	5.0	2.9	4.0	---	---	2.8	11.5	7.5	9.6	11.4	8.6	10.1
31	---	---	---	---	---	3.1	9.9	6.8	8.4	---	---	---
MONTH	7.1	2.9	5.4	13.8	3.9	6.5	---	---	6.3	12.1	1.1	7.0

TRINITY RIVER BASIN

08065350 Trinity River near Crockett, Tex.--Continued

TEMPERATURE (DFG, C) OF WATER WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	14.5	14.0	14.0	22.5	21.0	22.0
2	---	---	---	---	---	---	15.5	14.5	15.0	22.5	21.5	22.0
3	---	---	---	---	---	---	15.0	14.0	14.5	22.0	21.0	21.5
4	---	---	---	---	---	---	15.0	14.0	14.5	22.5	22.0	22.5
5	---	---	---	---	---	---	15.0	14.0	14.5	22.5	22.0	22.0
6	---	---	---	---	---	---	15.5	14.5	15.0	22.5	22.5	22.5
7	---	---	---	---	---	---	15.5	15.0	15.0	23.0	22.5	22.5
8	---	---	---	---	---	---	14.5	14.5	14.5	23.5	23.0	23.0
9	---	---	---	---	---	---	16.0	14.5	15.0	24.5	23.0	23.5
10	---	---	---	---	---	---	16.0	15.5	16.0	24.5	23.5	24.0
11	---	---	---	14.0	13.5	13.5	16.5	15.5	16.0	24.5	23.5	24.0
12	---	---	---	14.5	14.0	14.5	17.0	16.5	17.0	24.0	23.0	23.5
13	---	---	---	14.5	12.5	13.5	17.0	16.5	17.0	24.0	23.5	23.5
14	---	---	---	12.5	12.0	12.5	16.5	16.0	16.5	24.0	23.0	23.5
15	---	---	---	12.0	11.0	11.5	16.0	15.5	16.0	23.5	22.5	23.0
16	---	---	---	11.0	10.0	10.5	17.0	16.0	16.5	23.5	22.5	23.0
17	---	---	---	10.0	9.5	10.0	18.0	17.0	17.5	23.5	23.0	23.0
18	---	---	---	11.0	10.0	10.5	19.0	18.0	18.5	24.0	21.5	23.0
19	---	---	---	12.0	11.5	11.5	20.0	19.5	19.5	24.0	23.0	23.5
20	---	---	---	13.0	12.0	12.5	20.0	20.0	20.0	24.5	24.5	24.5
21	---	---	---	14.5	13.0	14.0	20.0	19.5	19.5	25.0	24.5	24.5
22	---	---	---	15.5	14.5	15.0	19.5	19.0	19.5	25.5	24.5	25.0
23	---	---	---	16.5	15.5	16.5	20.0	19.0	19.5	25.0	24.5	24.5
24	---	---	---	17.0	16.5	16.5	20.5	19.5	20.0	24.5	24.0	24.0
25	---	---	---	17.5	16.5	17.0	20.5	20.0	20.5	24.5	24.0	24.0
26	---	---	---	17.0	16.5	16.5	21.0	20.5	21.0	24.5	24.0	24.0
27	---	---	---	17.5	16.5	17.0	21.5	21.0	21.5	25.0	24.0	24.5
28	---	---	---	17.5	16.5	17.0	21.5	21.0	21.5	25.5	25.5	25.5
29	---	---	---	16.5	15.0	16.0	21.5	21.0	21.5	25.5	25.0	25.5
30	---	---	---	15.0	14.5	15.0	21.5	21.5	21.5	25.0	24.5	24.5
31	---	---	---	14.5	14.0	14.0	---	---	---	24.5	24.0	24.0
MONTH	---	---	---	---	---	---	21.5	14.0	17.5	25.5	21.0	23.5
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.0	23.5	24.0	28.0	27.5	27.5	31.5	25.0	27.0	30.5	29.5	30.0
2	24.5	23.5	24.0	28.5	27.5	28.0	30.0	23.0	26.5	31.0	29.5	30.5
3	25.0	24.0	24.5	29.0	28.0	28.5	35.0	24.0	28.0	31.0	30.0	30.0
4	25.0	25.0	25.0	29.0	28.5	28.5	32.0	24.0	27.5	30.5	29.5	30.0
5	26.0	25.5	25.5	29.0	28.5	28.5	34.0	22.0	28.0	30.0	29.5	29.5
6	26.5	26.0	26.0	29.5	28.5	29.0	31.5	22.0	27.5	30.5	28.5	29.5
7	27.0	26.5	26.5	29.5	29.0	29.0	30.5	25.5	27.5	30.5	28.0	29.5
8	27.5	27.0	27.0	30.5	29.5	30.0	30.5	29.5	30.0	30.0	28.0	29.0
9	27.5	27.0	27.0	30.5	29.5	30.0	30.5	29.5	30.0	29.5	28.5	29.0
10	27.0	26.5	26.5	30.0	30.0	30.0	30.5	29.0	29.5	30.0	28.5	28.5
11	27.0	26.5	26.5	30.0	29.0	29.5	30.5	29.0	30.0	29.5	28.5	29.0
12	27.0	26.0	26.5	29.5	29.0	29.0	31.0	29.5	30.0	31.0	28.5	29.0
13	27.0	26.5	26.5	29.5	28.0	28.5	31.0	29.5	29.5	28.5	27.0	28.0
14	27.0	26.5	27.0	29.0	28.0	28.5	31.5	30.0	30.5	28.0	26.5	27.0
15	27.0	26.5	27.0	29.0	28.0	28.5	31.5	30.0	31.0	27.5	26.0	26.5
16	27.5	26.5	27.0	29.5	28.5	28.5	31.5	30.5	31.0	27.0	25.5	26.5
17	28.0	27.0	27.5	29.5	28.5	29.0	32.0	30.5	31.0	27.0	26.0	26.5
18	28.0	27.5	28.0	30.0	29.0	29.5	32.0	30.5	31.5	27.0	26.0	26.5
19	28.5	28.0	28.0	30.5	29.0	30.0	32.0	31.0	31.5	27.5	26.5	26.5
20	28.5	28.0	28.0	31.0	29.5	30.0	32.0	31.0	31.5	26.5	26.0	26.5
21	28.5	28.0	28.0	31.5	30.0	30.5	32.5	31.0	31.5	26.0	24.5	25.0
22	28.5	28.0	28.0	31.5	30.0	30.5	32.0	31.0	31.5	25.0	23.5	24.0
23	28.5	28.0	28.5	31.0	29.5	30.5	31.5	30.5	31.0	24.0	23.0	23.5
24	28.5	28.0	28.5	31.5	30.0	30.5	30.5	29.5	30.0	24.0	22.5	23.0
25	28.5	28.0	28.0	31.5	30.0	31.0	30.0	29.0	29.5	23.0	22.0	22.5
26	28.0	27.5	28.0	32.0	30.5	31.0	30.0	29.0	29.5	23.0	22.0	22.5
27	28.0	27.5	27.5	32.5	30.5	31.5	30.0	29.0	29.0	23.0	21.5	22.0
28	27.5	27.0	27.5	32.5	31.0	31.5	30.0	28.5	29.0	23.0	21.5	22.5
29	27.5	27.0	27.5	31.5	29.5	31.5	30.5	29.0	29.5	23.5	21.5	22.5
30	28.0	27.0	27.5	29.0	28.0	28.5	30.5	29.5	30.0	24.0	22.0	23.0
31	---	---	---	35.5	24.5	29.0	30.5	29.5	30.0	---	---	---
MONTH	28.5	23.5	27.0	35.5	24.5	29.5	35.0	22.0	29.5	31.0	21.5	26.5

TRINITY RIVER BASIN

531

08065700 Caney Creek near Madisonville, Tex.

LOCATION.--Lat 30°56'12", long 95°56'07", Madison County, near center of span at downstream side of pier of bridge on U.S. Highway 190, 0.2 mile (0.3 km) downstream from Mustang Creek, 1.5 miles (2.4 km) southwest of Madisonville, and 13.2 miles (21.2 km) upstream from Bedia Creek.

DRAINAGE AREA.--112 mi² (290 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 213.74 ft (65.148 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 65.3 ft³/s (1.849 m³/s), 7.92 in/yr (201 mm/yr), 47,310 acre-ft/yr (58.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,250 ft³/s (149 m³/s) May 9 (gage height, 16.21 ft or 4.941 m); no flow for many days.
Period of record: Maximum discharge, 15,000 ft³/s (425 m³/s) Apr. 12, 1969 (gage height, 17.76 ft or 5.413 m); no flow at times each year.

Maximum stages since 1900, 22 ft (6.7 m) in 1929 and 21.4 ft (6.52 m) in November 1946, from information by local residents.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	1,160	22	288	513	10	5.5	120	21	35	0	0
2	5.9	667	17	525	1,290	9.6	5.4	60	12	12	0	0
3	5.1	80	13	891	2,630	9.1	5.1	30	7.4	14	0	0
4	4.7	33	11	735	2,730	9.0	4.8	300	5.1	13	1.4	0
5	4.3	38	10	174	1,150	14	4.5	1,500	3.9	16	3.6	0
6	4.5	44	31	51	242	16	4.5	1,200	3.3	5.2	8.4	0
7	4.0	82	128	33	60	13	4.7	500	2.7	1.9	1.9	0
8	3.9	356	41	26	36	11	5.6	300	2.1	.91	.26	0
9	4.0	431	20	23	28	9.3	9.4	2,800	5.5	.44	.05	0
10	4.4	123	23	27	23	8.4	8.1	1,300	417	.17	.01	0
11	4.9	263	491	42	20	8.2	8.0	500	155	.11	0	0
12	5.5	245	684	67	18	8.2	15	200	22	.09	0	0
13	5.6	40	131	132	16	7.9	9.0	120	9.8	.06	0	0
14	6.4	21	43	45	14	15	21	80	5.3	.04	0	0
15	125	15	129	26	20	16	24	60	3.3	.03	0	0
16	74	11	71	20	1,200	11	13	40	2.1	.03	0	.23
17	15	36	33	17	861	68	8.1	30	1.5	16	0	.50
18	7.2	15	21	16	111	31	6.3	20	1.2	4.0	0	.08
19	4.4	11	16	17	41	24	5.2	16	.83	.90	0	0
20	3.0	8.7	14	15	26	16	4.5	12	.59	.24	0	0
21	2.3	7.4	12	13	21	12	4.0	9.5	.50	.09	0	0
22	2.2	6.7	10	11	18	10	3.6	7.5	.48	.61	4.0	0
23	1.8	6.1	9.6	11	17	9.5	3.3	6.0	11	1.4	3.1	0
24	1.6	1,400	9.3	11	15	9.0	3.5	20	5.1	.05	3.7	0
25	1.5	1,890	9.2	11	13	8.1	3.4	60	2.5	.01	1.2	0
26	1.5	398	9.2	11	12	7.2	3.2	30	1.2	0	.19	0
27	1.5	50	9.8	10	11	6.7	3.0	18	2.4	0	.52	0
28	1.6	28	10	9.2	10	6.5	253	14	15	0	7.8	0
29	41	20	12	8.7	-----	6.5	1,000	52	7.4	0	.57	0
30	17	18	45	8.7	-----	6.2	300	158	26	0	.03	0
31	94	-----	114	11	-----	5.9	-----	57	-----	0	0	-----
TOTAL	465.2	7,503.9	2,199.1	3,285.6	11,146	402.3	1,748.7	9,620.0	753.20	122.28	36.73	.81
MEAN	15.0	250	70.9	106	398	13.0	58.3	310	25.1	3.94	1.18	.027
MAX	125	1,890	684	891	2,730	68	1,000	2,800	417	35	8.4	.50
MTN	1.5	6.1	9.2	8.7	10	5.9	3.0	6.0	.48	0	0	0
CFSM	.13	2.23	.63	.95	3.55	.12	.52	2.77	.22	.04	.01	.0002
IN.	.15	2.49	.73	1.09	3.79	.13	.58	3.20	.25	.04	.01	0
AC-FT	923	14,880	4,360	6,520	22,110	798	3,470	19,080	1,490	243	73	1.6

CAL YR 1974 TOTAL 40,265.01 MEAN 110 MAX 5,240 MIN 0 CFSM .98 IN 13.37 AC-FT 79,870
WTR YR 1975 TOTAL 37,283.82 MEAN 102 MAX 2,800 MIN 0 CFSM .91 IN 12.38 AC-FT 73,950

PEAK DISCHARGE (BASE, 1,400 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 1	1500	15.27	1,870	4-29	0100	15.18	1,670
11-24	2400	15.62	2,850				about
2- 3	0500	15.71	3,160	5- 5	unknown	unknown	2,000
2-16	1500	15.54	2,590	5- 9	unknown	16.21	5,250

NOTE.--No gage-height record Apr. 30 to May 26.

TRINITY RIVER BASIN

08065800 Bedias Creek near Madisonville, Tex.

LOCATION.--Lat 30°53'03", long 95°46'39", Madison-Walker County line, on right bank at downstream side of bridge on U.S. Highways 75 and 190, 0.5 mile (0.8 km) upstream from Interstate Highway 45, 1.5 miles (2.4 km) downstream from Caney Creek, and 9.5 miles (15.3 km) southeast of Madisonville.

DRAINAGE AREA.--321 mi² (831 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft (45.720 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 248 ft³/s (7.023 m³/s), 10.49 in/yr (266 mm/yr), 179,700 acre-ft/yr (222 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,760 ft³/s (163 m³/s) Feb. 5 (gage height, 18.97 ft or 5.782 m); minimum, 0.32 ft³/s (0.009 m³/s) Sept. 30.

Period of record: Maximum discharge, 33,800 ft³/s (957 m³/s) Sept. 14, 1974 (gage height, 25.07 ft or 7.641 m); no flow at times. Maximum stage since at least 1910, 34 ft (10.4 m) in May 1922 (discharge unknown), from information by local resident.

REMARKS.--Records good. At end of year, flow from 1.32 mi² (3.42 km²) above this station was partly controlled by two floodwater-retarding structures with a combined capacity of 1,270 acre-ft (1.57 hm³) below the flood-spillway crests, of which 436 acre-ft (0.538 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	745	255	647	191	26	12	1,270	750	318	44	6.6
2	26	881	164	951	826	26	11	561	175	116	64	4.2
3	20	1,540	84	1,930	2,310	25	10	91	60	73	29	3.1
4	15	881	57	2,280	4,830	23	10	164	40	77	53	2.6
5	12	547	46	1,920	4,860	23	9.6	781	29	277	230	2.1
6	11	356	51	901	2,600	25	9.2	2,000	28	362	378	1.5
7	9.3	313	89	230	1,090	30	8.8	1,930	31	76	152	1.1
8	8.0	855	187	125	300	29	8.8	1,100	19	30	38	.75
9	7.3	1,120	102	95	127	26	8.8	2,450	15	19	19	.56
10	6.8	1,430	66	87	92	23	8.9	2,250	119	13	12	.59
11	6.1	900	624	98	75	21	12	1,780	670	10	7.7	.68
12	4.9	533	965	165	65	20	12	1,980	1,140	14	5.7	.68
13	4.2	476	1,430	439	57	17	15	4,570	748	63	4.3	.73
14	4.2	157	967	360	51	17	20	2,570	176	111	3.4	.75
15	13	70	913	180	51	18	24	959	49	85	3.1	.87
16	136	48	755	95	305	27	36	280	27	24	2.6	1.7
17	169	49	508	70	819	22	30	122	20	16	2.2	2.9
18	57	77	158	59	1,320	84	20	73	15	24	1.8	4.4
19	28	52	88	64	473	64	15	49	12	22	1.7	3.7
20	16	37	63	71	119	51	12	37	9.7	12	1.6	5.3
21	10	29	50	56	75	39	10	29	8.1	7.3	1.6	6.0
22	8.0	23	42	47	54	27	8.8	24	6.8	5.4	1.8	27
23	6.1	19	37	43	50	22	8.8	21	6.0	4.5	33	26
24	5.1	511	33	40	43	19	8.2	47	6.5	5.0	49	8.0
25	4.4	2,510	30	40	40	18	7.4	143	14	7.1	23	3.5
26	4.2	2,800	29	39	36	17	6.7	348	22	5.2	59	1.9
27	3.8	1,840	29	37	33	15	5.8	275	93	3.8	25	1.2
28	3.6	546	29	33	30	14	5.9	77	110	2.6	31	.82
29	3.6	131	31	30	-----	13	195	257	67	2.1	43	.56
30	69	215	78	28	-----	12	805	871	405	1.9	24	.36
31	203	-----	354	26	-----	12	-----	832	-----	3.0	12	-----
TOTAL	909.6	19,691	8,314	11,186	20,927	805	1,354.7	27,941	4,871.1	1,789.9	1,355.5	120.15
MEAN	29.3	656	268	361	747	26.0	45.2	901	162	57.7	43.7	4.01
MAX	203	2,800	1,430	2,280	4,860	84	805	4,570	1,140	362	378	27
MIN	3.6	19	29	26	30	12	5.8	21	6.0	1.9	1.6	.36
CFSM	.09	2.04	.83	1.12	2.33	.08	.14	2.81	.50	.18	.14	.01
IN.	.11	2.28	.96	1.30	2.43	.09	.16	3.24	.56	.21	.16	.01
AC-FT	1,800	39,060	16,490	22,190	41,510	1,600	2,690	55,420	9,660	3,550	2,690	238
CAL YR 1974	TOTAL	115,641.78	MEAN	317	MAX	21,700	MIN	.02	CFSM	.99	IN	13.40
WTR YR 1975	TOTAL	99,264.95	MEAN	272	MAX	4,860	MIN	.36	CFSM	.85	IN	11.50
AC-FT												229,400
AC-FT												196,900

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-25	2100	18.45	4,510	5-9	1200	17.93	3,540
2-5	0500	18.97	5,760	5-13	0500	18.93	5,650

TRINITY RIVER BASIN

533

08066100 (revised) White Rock Creek near Trinity, Tex.

LOCATION.--Lat 31°03'06", Long 95°22'40", Trinity County, on right bank 3.9 miles (6.3 km) from Little White Rock Creek, 4.1 miles (6.6 km) upstream from Tantabogue Creek, 7.3 miles (11.7 km) north of Trinity, and 16.1 miles (25.9 km) above mouth.

DRAINAGE AREA.--222 mi² (575 km²). Prior to June 1974, 228 sq mi (591 km²).

PERIOD OF RECORD.--December 1965 to current year. Peak discharge, supplemental peak discharges, and discharge measurements only October 1971 to May 1974 (low stages affected by storage in Livingston Reservoir).

GAGE.--Water-stage recorder. Datum of gage is 124.30 ft (37.887 m) above mean sea level. Prior to June 19, 1974, at site 1.9 miles (3.1 km) downstream at same datum.

AVERAGE DISCHARGE.--6 years (1966-71, 1974-75), 104 ft³/s (2.945 m³/s), 6.36 in/yr (162 mm/yr), 75,350 acre-ft/yr (92.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,400 ft³/s (153 m³/s) Feb. 16 (gage height, about 21.3 ft or 6.49 m); minimum, 0.35 ft³/s (0.010 m³/s) Sept. 30.
Period of record: Maximum discharge, 16,700 ft³/s (473 m³/s) Mar. 25, 1973 (gage height, 31.22 ft or 9.516 m, present site); no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No known diversions.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	342	143	189	310	53	30	427	26	282	10	4.9
2	8.5	280	87	271	1,150	48	20	142	17	124	55	4.3
3	7.4	100	59	625	1,820	44	16	72	16	89	243	4.1
4	6.2	50	43	643	2,940	46	14	1,620	14	55	169	7.1
5	5.9	30	34	237	2,720	80	13	2,920	13	41	221	7.7
6	5.2	20	64	122	889	70	12	1,090	12	30	69	7.5
7	4.7	15	265	84	286	50	12	371	10	23	27	4.7
8	4.4	30	254	72	127	40	25	885	10	19	116	3.3
9	4.2	60	159	98	108	45	80	1,870	10	16	39	2.6
10	4.0	150	113	146	88	35	97	752	407	15	16	2.0
11	4.0	306	368	371	76	30	58	176	1,160	16	10	1.8
12	3.7	232	506	221	69	25	83	181	330	15	8.3	1.7
13	3.5	83	198	243	63	30	47	160	93	15	7.2	1.5
14	4.1	46	130	154	53	35	102	157	51	18	5.9	1.4
15	8.1	26	421	91	773	30	189	135	34	11	5.0	1.2
16	7.0	20	387	69	4,810	27	144	70	36	9.2	4.5	2.8
17	9.4	18	143	58	3,200	35	40	52	57	8.1	4.0	3.4
18	8.3	233	83	70	827	50	27	40	27	7.5	3.5	3.4
19	6.4	167	64	77	311	80	22	31	20	6.9	3.1	2.9
20	5.4	78	56	82	180	60	17	27	17	11	2.8	2.6
21	4.1	47	49	61	128	45	14	24	14	7.3	2.4	2.3
22	3.5	36	41	44	109	35	12	21	13	7.0	2.1	2.9
23	3.0	26	35	37	92	30	11	20	13	9.9	2.1	2.1
24	2.7	401	31	35	76	25	11	18	16	8.5	3.2	1.4
25	2.7	941	29	36	66	20	10	17	39	13	4.8	1.2
26	2.5	815	27	39	67	40	9.7	16	130	15	17	1.1
27	2.3	194	25	40	61	150	9.3	16	542	8.1	23	.90
28	6.9	75	29	34	54	200	44	15	1,090	6.0	14	.70
29	37	59	42	30	-----	150	767	18	526	10	9.9	.62
30	47	99	92	28	-----	80	1,190	35	566	8.8	7.9	.41
31	67	-----	263	27	-----	50	-----	34	-----	16	6.3	-----
TOTAL	299.1	4,979	4,240	4,334	21,453	1,738	3,126.0	11,412	5,309	921.3	1,112.0	84.53
MEAN	9.65	166	137	140	766	56.1	104	368	177	29.7	35.9	2.82
MAX	67	941	506	643	4,810	200	1,190	2,920	1,160	282	243	7.7
MIN	2.3	15	25	27	53	20	9.3	15	10	6.0	2.1	.41
CFSM	.04	.73	.60	.61	3.36	.25	.46	1.61	.78	.13	.16	.01
IN	.05	.81	.69	.71	3.50	.28	.51	1.86	.87	.15	.18	.01
AC-FT	593	9,880	8,410	8,600	42,550	3,450	6,200	22,640	10,530	1,830	2,210	168

CAL YR 1974	TOTAL	-	MEAN	-	MAX	-	MIN	-	CFSM	-	IN	-	AC-FT	-
WTR YR 1975	TOTAL	59,007.93	MEAN	162	MAX	4,810	MIN	.41	CFSM	.71	IN	9.63	AC-FT	117,000

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
2-4	2000	19.05	3,580	5-5	0600	19.50	3,910
		about		5-9	1500	16.65	1,990
2-16	1800	21.3	5,400				

NOTE.--No gage-height record Mar. 5 to Apr. 9.

TRINITY RIVER BASIN

08066170 Kickapoo Creek near Onalaska, Tex.

LOCATION.--Lat 30°54'25", long 95°05'18". Polk County, on right bank 114 ft (35 m) downstream from old bridge site, 1.2 miles (1.9 km) downstream from Magnolia Creek, 6.2 miles (10.0 km) upstream from Rocky Creek, 7.3 miles (11.7 km) northeast of Onalaska, and 15.9 miles (25.6 km) upstream from mouth.

DRAINAGE AREA.--57.0 mi² (147.6 km²).

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 139.85 ft (42.626 m) above mean sea level.

AVERAGE DISCHARGE.--9 years (1966-75), 44.6 ft³/s (1.263 m³/s), 10.62 in/yr (270 mm/yr), 32,310 acre-ft/yr (39.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 6,500 ft³/s (184 m³/s) May 8 (gage height, 18.00 ft or 5.486 m); minimum daily, 0.80 ft³/s (0.023 m³/s) Sept. 29, 30.

Period of record: Maximum discharge, 16,000 ft³/s (453 m³/s) June 13, 1973 (gage height, 26.0 ft or 7.92 m); minimum, 0.01 ft³/s (0.0003 m³/s) July 19, 20, 1971.

REMARKS.--Records good except those for February, which are poor. No diversion above station. Low flow is sustained by sewage effluent.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	684	40	43	476	8.0	23	57	13	52	78	2.2
2	1.8	131	23	109	200	7.5	20	35	9.8	30	202	2.0
3	1.6	60	17	294	480	7.0	17	33	8.5	57	39	1.8
4	1.3	61	14	88	1,150	40	15	288	9.4	25	648	1.8
5	1.6	33	13	41	170	22	14	823	10	11	100	31
6	1.4	28	77	26	70	17	13	84	7.6	7.8	32	10
7	1.2	58	40	27	45	15	13	216	6.7	5.8	21	4.0
8	1.1	210	19	28	35	12	669	1,880	6.3	3.3	290	2.6
9	1.0	85	12	16	30	9.8	145	202	248	3.1	51	3.2
10	.95	1,190	49	187	40	10	48	78	707	2.6	23	2.3
11	.90	236	335	60	30	11	32	56	107	22	16	2.1
12	.83	70	71	62	23	10	21	55	54	15	11	2.0
13	.81	40	36	39	20	30	289	38	26	31	8.7	2.2
14	.29	26	33	22	18	27	831	46	19	11	7.8	1.9
15	.55	18	58	17	150	15	116	61	15	65	6.6	1.6
16	.18	15	28	13	70	12	50	33	13	68	5.6	1.7
17	9.4	273	17	13	40	60	35	23	11	18	5.0	2.5
18	5.2	94	13	1,300	30	537	29	19	9.1	10	4.6	2.6
19	3.2	53	11	175	25	69	24	17	8.0	6.6	4.2	1.8
20	2.4	33	9.5	73	20	34	20	16	7.2	4.9	4.0	1.5
21	1.8	18	7.9	43	17	25	18	15	6.3	4.0	3.7	1.3
22	1.5	12	6.7	47	15	22	19	14	5.5	21	3.4	1.2
23	1.4	10	6.2	41	25	20	18	13	5.9	78	3.2	1.1
24	1.3	959	39	30	19	18	16	13	7.0	53	5.2	1.0
25	1.2	143	48	23	14	16	14	13	11	13	4.2	.95
26	1.1	60	19	19	12	158	12	12	14	6.5	3.5	.90
27	1.0	38	25	16	10	477	11	11	48	4.3	3.2	.85
28	1,210	27	23	14	9.0	123	13	24	28	3.7	2.7	.85
29	400	32	42	12	-----	68	88	22	29	5.8	2.5	.80
30	52	101	104	11	-----	38	117	29	25	4.6	2.3	.80
31	976	-----	60	25	-----	27	-----	20	-----	4.1	2.9	-----
TOTAL	2,785.89	4,898	1,296.3	2,914	3,243.0	1,945.3	2,750	4,246	1,475.3	647.1	1,594.3	90.55
MEAN	89.9	163	41.8	94.0	116	62.8	91.7	137	49.2	20.9	51.4	3.02
MAX	1,210	1,190	335	1,300	1,150	537	831	1,880	707	78	648	31
MIN	.81	10	6.2	11	9.0	7.0	11	11	5.5	2.6	2.3	.80
CFSM	1.58	2.86	.73	1.65	2.04	1.10	1.61	2.40	.86	.37	.90	.05
IN.	1.82	3.20	.85	1.90	2.12	1.27	1.79	2.77	.96	.42	1.04	.06
AC-FT	5,530	9,720	2,570	5,780	6,430	3,860	5,450	8,420	2,930	1,280	3,160	180

CAL YR 1974 TOTAL 22,772.25 MEAN 62.4 MAX 2,370 MIN .64 CFSM 1.09 IN 14.86 AC-FT 45,170
 WTR YR 1975 TOTAL 27,885.74 MEAN 76.4 MAX 1,880 MIN .80 CFSM 1.34 IN 18.20 AC-FT 55,310

PEAK DISCHARGE (BASE, 2,500 FT³/S, REVISED)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
10-28	2100	15.77	4,750	about			
10-31	1830	13.26	3,060	2- 4	0200	12.80	2,790
11-10	1400	13.93	3,480	5- 5	0130	13.47	3,190
1-18	0630	13.59	3,260	5- 8	0130	18.00	6,500
				8- 4	1830	17.43	6,030

08066190 Livingston Reservoir near Goodrich, Tex.

LOCATION.--Lat 30°38'00", long 95°00'36". Polk-San Jacinto County line, on upstream wingwall at left end of gated spillway, 4.4 miles (7.1 km) northwest of Goodrich, 7 miles (11 km) southwest of Livingston, 11.7 miles (18.8 km) upstream from Long King Creek, and at mile 129.2 (207.9 km).

DRAINAGE AREA.--16,583 mi² (42,950 km²).

PERIOD OF RECORD.--Contents: September 1968 to current year.

Water quality: Chemical analyses: October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Trinity River Authority). Prior to Feb. 26, 1969, temporary nonrecording gages at site about 200 ft (61 m) upstream and at same datum.

EXTREMES.--Current year: Maximum contents, 1,864,000 acre-ft (2.30 km³) Nov. 10 (elevation, 131.90 ft or 40.203 m); minimum, 1,755,000 acre-ft (2.16 km³) Oct. 28 (elevation, 130.59 ft or 39.804 m).

Period of record: Maximum contents, 1,923,000 acre-ft (2.37 km³) Mar. 25, 1973 (elevation, 132.60 ft or 40.476 m); minimum since deliberate impoundment began on June 26, 1969, 149,600 acre-ft (184 hm³) Dec. 5, 1969 (elevation, 98.52 ft or 30.029 m).

REMARKS.--The reservoir is formed by an earthfill dam 14,400 ft (4,390 m) long, including a controlled spillway. The dam was completed Sept. 29, 1968, and deliberate impoundment began June 26, 1969. The spillway is a concrete gravity structure 646 ft (197 m) long with a net opening of 480 ft (146 m). The spillway has twelve 40- by 35-foot (12- by 11-metre) tainter gates and is located near the left end of dam. The outlet works for low-flow releases are located in a vertical concrete multi-gated inlet tower. There are five gated openings at various elevations located in the tower and all discharge into a 10-foot-diameter (3-metre) concrete conduit through the dam. The inlet tower is located 1,700 ft (518 m) to the right of the right spillway abutment. For statement regarding regulation by upstream reservoirs, see Trinity River near Oakwood (station 08065000). At end of year, flow from 593 mi² (1,536 km²) above this station was partly controlled by 238 floodwater-retarding structures with a combined capacity of 213,320 acre-ft (263 hm³) below the flood-spillway crests, of which 35,050 acre-ft (43.2 hm³) is sediment-pool capacity. Two structures were built during the current year and have a combined capacity below flood-spillway crests of 1,980 acre-ft (2.44 hm³) of which 342 acre-ft (0.422 hm³) is sediment-pool capacity. The capacity in these pools allocated to sediment storage will be used for conservation storage until eliminated by sedimentation. The capacity tables are based on Geological Survey topographic maps. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam.....	145.0	-
Design flood.....	135.0	2,136,000
Top of tainter gates.....	134.0	2,046,000
Top of conservation pool.....	131.0	1,788,000
Crest of spillway (sill of tainter gates).....	99.0	157,900
Lowest gated outlet (invert).....	58.0	335

COOPERATION.--Capacity tables furnished by the Trinity River Authority.

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

130.5	1,747,000
131.9	1,864,000

CONTENTS, IN THOUSANDS OF ACRE-Feet, AT 2400-HOUR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.797	1.823	1.801	1.818	1.796	1.802	1.797	1.807	1.823	1.821	1.823	1.773
2	1.795	1.818	1.798	1.828	1.805	1.802	1.801	1.803	1.825	1.813	1.830	1.773
3	1.793	1.819	1.798	1.839	1.828	1.802	1.795	1.808	1.825	1.808	1.830	1.772
4	1.793	1.832	1.801	1.841	1.857	1.805	1.790	1.823	1.825	1.808	1.843	1.772
5	1.796	1.831	1.808	1.848	1.859	1.798	1.788	1.848	1.826	1.807	1.832	1.774
6	1.800	1.831	1.822	1.847	1.851	1.796	1.787	1.838	1.826	1.803	1.818	1.775
7	1.802	1.839	1.825	1.843	1.838	1.802	1.787	1.822	1.820	1.798	1.805	1.774
8	1.803	1.840	1.828	1.837	1.825	1.797	1.816	1.826	1.810	1.792	1.800	1.770
9	1.802	1.839	1.819	1.828	1.813	1.793	1.811	1.816	1.803	1.786	1.793	1.769
10	1.801	1.864	1.819	1.818	1.798	1.795	1.805	1.803	1.818	1.785	1.791	1.770
11	1.800	1.857	1.819	1.808	1.795	1.789	1.805	1.811	1.812	1.787	1.786	1.769
12	1.798	1.843	1.815	1.799	1.792	1.797	1.803	1.812	1.806	1.786	1.783	1.782
13	1.797	1.836	1.810	1.793	1.788	1.793	1.822	1.805	1.798	1.784	1.778	1.781
14	1.813	1.829	1.815	1.791	1.797	1.790	1.833	1.806	1.793	1.787	1.778	1.780
15	1.801	1.821	1.813	1.792	1.806	1.788	1.823	1.808	1.792	1.790	1.775	1.776
16	1.793	1.828	1.817	1.798	1.830	1.802	1.814	1.804	1.788	1.792	1.775	1.782
17	1.790	1.835	1.812	1.805	1.838	1.815	1.803	1.800	1.787	1.793	1.772	1.778
18	1.789	1.833	1.813	1.820	1.834	1.826	1.809	1.794	1.788	1.792	1.772	1.774
19	1.795	1.832	1.808	1.811	1.818	1.822	1.809	1.793	1.807	1.789	1.772	1.777
20	1.800	1.826	1.804	1.796	1.807	1.819	1.808	1.791	1.822	1.791	1.772	1.777
21	1.798	1.818	1.799	1.791	1.804	1.818	1.811	1.788	1.822	1.790	1.770	1.780
22	1.791	1.813	1.795	1.793	1.800	1.815	1.808	1.788	1.822	1.790	1.770	1.777
23	1.783	1.811	1.799	1.790	1.795	1.813	1.803	1.791	1.822	1.788	1.767	1.772
24	1.775	1.838	1.811	1.788	1.793	1.805	1.800	1.805	1.823	1.788	1.768	1.770
25	1.769	1.833	1.802	1.784	1.793	1.798	1.793	1.810	1.823	1.787	1.768	1.766
26	1.765	1.828	1.793	1.782	1.796	1.793	1.785	1.816	1.830	1.786	1.772	1.764
27	1.756	1.824	1.792	1.779	1.796	1.812	1.783	1.817	1.830	1.785	1.774	1.758
28	1.809	1.818	1.795	1.778	1.800	1.814	1.786	1.821	1.828	1.788	1.776	1.758
29	1.813	1.815	1.801	1.779	-----	1.807	1.795	1.826	1.827	1.794	1.774	1.757
30	1.793	1.808	1.805	1.778	-----	1.795	1.808	1.828	1.823	1.800	1.773	1.758
31	1.814	-----	1.816	1.782	-----	1.793	-----	1.825	-----	1.812	1.772	-----
(†)	131.33	131.24	131.33	130.92	131.14	131.05	131.24	131.44	131.42	131.28	130.80	130.63
(*)	+14	-8	+8	-34	+18	-7	+15	+17	-2	-11	-40	-14
MAX	1.816	1.864	1.828	1.848	1.859	1.826	1.833	1.848	1.830	1.821	1.843	1.782
MIN	1.756	1.808	1.792	1.778	1.788	1.788	1.783	1.788	1.787	1.784	1.767	1.757

CAL YR 1974..... * +7

WTR YR 1975..... * -44

MAX 1,919

MIN 1,695

MAX 1,864

MIN 1,756

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

NOTE.--All figures expressed in thousands.

TRINITY RIVER BASIN

08066190 Livingston Reservoir near Goodrich, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)
FEB. 11...	1215	7.6	37	3.9	19	4.6	114	0
AUG. 28...	1150	4.4	46	3.9	20	4.3	132	0

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
FEB. 11...	37	22	.2	.50	.02	.16	188	110	15
AUG. 28...	28	22	.2	.02	.00	.13	194	130	23

DATE	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
FEB. 11...	.8	330	7.7	12.5	8.0	75	110	0
AUG. 28...	.8	341	8.3	31.0	6.2	83	70	30

08066191 Livingston Reservoir at Outflow Weir near Goodrich, Tex.

LOCATION.--Lat 30°37'55", long 95°01'11", San Jacinto County, at end of conduit into stilling basin, 1,700 ft (518 m) to right of right spillway abutment, 4.8 miles (7.7 km) northwest of Goodrich, 11.7 miles (18.8 km) upstream from Long King Creek, and at mile 129.2 (207.9 km).

DRAINAGE AREA.--16,583 mi² (42,950 km²).

PERIOD OF RECORD.--August 1969 to current year.

GAGE (revised).--Staff gages and concrete control. Datum of gage is at mean sea level (levels by Trinity River Authority). Prior to Oct. 1, 1974, water-stage recorder at same site and datum.

AVERAGE DISCHARGE.--6 years, 172 ft³/s (4.871 m³/s), 124,600 acre-ft/yr (154 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 200 ft³/s (5.66 m³/s) Mar. 15-18, figures furnished by Trinity River Authority; maximum elevation not determined; no flow most of year.

Period of record: Maximum daily discharge, 3,400 ft³/s (96.3 m³/s) May 2, 1974; maximum elevation, about 93.0 ft (29.35 m) June 14, 1973 (backwater from Trinity River); no flow for many days.

REMARKS.--For details concerning outlet works, see Livingston Reservoir (station 08066190). The purpose of this station is to record selective withdrawal releases at outflow weir, crest 61.90 ft (18.867 m). These releases do not constitute the total flow from Livingston Reservoir since flow through tainter gates is not included in these totals.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MAR. 15..... 200
16..... 200
17..... 200
18..... 200

MONTH	TOTAL	MEAN	MAXIMUM	MINIMUM	RUNOFF IN ACRE-Feet
MARCH 1975.....	800	25.8	200	0	1,590
CAL YR 1974.....	59,644	163	3,400	0	118,300
WTR YR 1975.....	800	2.19	200	0	1,590

08066200 Long King Creek at Livingston, Tex.

LOCATION.--Lat 30°42'58", long 94°57'31", Polk County, on right bank 64 ft (20 m) downstream from centerline of bridge on U.S. Highway 190, 2 miles (3 km) west of Livingston, 2 miles (3 km) upstream from Choates Creek, and 14.8 miles (23.8 km) upstream from mouth.

DRAINAGE AREA.--141 mi² (365 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 100.12 ft (30.517 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 97.8 ft³/s (2.770 m³/s), 9.42 in/yr (239 mm/yr), 70,860 acre-ft/yr (87.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,090 ft³/s (144 m³/s) May 5 (gage height, 15.86 ft or 4.834 m); minimum daily, 3.1 ft³/s (0.088 m³/s) Oct. 27.

Period of record: Maximum discharge, 26,500 ft³/s (750 m³/s) Nov. 5, 1973 (gage height, 27.06 ft or 8.248 m); no flow at times. Maximum stage since at least 1870, about 41 ft (12.5 m) in May 1929.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	1,170	113	140	419	48	58	299	51	77	36	9.9
2	5.6	1,130	59	211	527	47	56	97	30	71	260	8.2
3	5.1	139	46	644	658	45	54	108	22	268	58	8.0
4	4.6	63	41	358	2,210	128	51	1,970	19	62	161	8.0
5	4.5	124	36	149	540	150	50	2,940	17	38	1,500	11
6	4.2	51	212	106	232	86	50	525	15	26	203	23
7	3.9	85	200	136	149	72	49	187	14	20	44	14
8	3.8	389	75	240	107	65	682	372	13	17	52	10
9	3.7	204	49	121	91	60	729	211	17	15	74	8.9
10	3.7	771	42	688	120	60	146	130	540	14	30	11
11	3.6	1,520	689	396	158	60	119	587	231	95	24	12
12	3.6	221	283	213	94	60	82	975	83	202	20	62
13	3.5	87	113	207	77	281	82	183	42	59	17	88
14	6.2	55	117	121	71	225	1,380	136	30	24	16	17
15	22	41	674	92	84	95	621	135	24	178	14	12
16	15	34	197	78	276	74	153	104	21	817	13	9.3
17	9.7	128	95	73	172	218	92	85	19	62	12	8.9
18	7.1	177	67	2,300	116	769	74	74	16	26	10	8.4
19	5.7	78	63	792	84	210	61	67	14	17	10	8.0
20	4.8	53	58	222	73	102	55	64	12	13	9.3	7.5
21	4.2	39	48	144	71	77	56	62	11	11	9.3	7.1
22	3.9	32	40	155	67	69	67	59	12	10	9.2	6.7
23	3.6	27	39	230	64	64	57	56	14	37	9.5	6.3
24	3.4	746	460	137	58	61	53	71	11	69	12	6.0
25	3.3	936	1,400	111	53	57	49	150	79	18	12	5.8
26	3.2	160	271	94	52	55	46	91	366	16	13	5.7
27	3.1	82	260	80	51	128	43	70	269	12	16	5.6
28	333	57	195	73	50	155	42	127	51	13	15	5.5
29	1,590	48	195	66	-----	98	129	1,010	35	37	11	5.4
30	248	172	315	61	-----	73	364	736	29	20	9.5	5.4
31	419	-----	212	60	-----	62	-----	137	-----	18	9.3	-----
TOTAL	2,740.9	8,819	6,664	8,498	6,724	3,754	5,550	11,818	2,107	2,382	2,689.1	404.6
MEAN	88.4	294	215	274	240	121	185	381	70.2	76.8	86.7	13.5
MAX	1,590	1,520	1,400	2,300	2,210	769	1,380	2,940	540	817	1,500	88
MIN	3.1	27	36	60	50	45	42	56	11	10	9.2	5.4
CFSM	.63	2.09	1.52	1.94	1.70	.86	1.31	2.70	.50	.54	.61	.10
IN.	.72	2.33	1.76	2.24	1.77	.99	1.46	3.12	.56	.63	.71	.11
AC-FT	5,440	17,490	13,220	16,860	13,340	7,450	11,010	23,440	4,180	4,720	5,330	803

CAL YR 1974 TOTAL 56,761.6 MEAN 156 MAX 7,400 MIN 1.4 CFSM 1.11 IN 14.98 AC-FT 112,600
WTR YR 1975 TOTAL 62,150.6 MEAN 170 MAX 2,940 MIN 3.1 CFSM 1.21 IN 16.40 AC-FT 123,300

PEAK DISCHARGE (BASE, 2,300 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 2	0130	12.21	2,680	5- 5	0230	15.86	5,090
11-11	0630	11.64	2,360	5-11	2400	12.21	2,680
1-18	0730	14.29	3,960	5-29	1630	12.38	2,780
2- 4	0600	13.0	3,150				

LOCATION.--Lat 30°34'19", long 94°56'55", Polk-San Jacinto County line, on left bank 40 ft (12 m) downstream from downstream bridge on U.S. Highway 59, 0.2 mile (0.3 km) downstream from Long King Creek, 3.0 miles (4.8 km) southeast of Goodrich, and at mile 117.3 (188.7 km).

AVERAGE DISCHARGE.--9 years (1966-75), 7,756 ft³/s (219.6 m³/s), 5,619,000 acre-ft/yr (6.93 km³/yr).

EXTREMES.--Current year: Maximum discharge, 45,200 ft³/s (1,280 m³/s) Feb. 19 (gage height, 35.32 ft or 10.766 m); minimum daily, 894 ft³/s (25.3 m³/s) Sept. 23 (regulation by Livingston Reservoir).
Period of record: Maximum discharge, 96,200 ft³/s (2,720 m³/s) June 14, 1973 (gage height, 46.36 ft or 14.131 m); minimum daily, 191 ft³/s (5.41 m³/s) Aug. 6, 1971 (regulation by Livingston Reservoir).
Maximum stage since at least 1929, 52.0 ft (15.85 m) in May 1942, from information by State Highway Department and local residents.

REMARKS.--Records good. Regulated since Sept. 29, 1968, by Livingston Reservoir (station 08066190), capacity 1,788,000 acre-ft (2.20 km³), 11.9 miles (19.1 km) upstream. No diversions between Livingston Reservoir and gaging station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,700	16,800	31,000	10,500	4,530	9,200	7,420	15,300	24,000	16,000	3,890	971
2	6,440	19,400	30,000	12,000	6,930	9,210	6,710	15,000	23,800	12,400	5,590	966
3	3,220	17,700	29,000	16,300	10,000	9,210	6,680	15,600	24,400	11,900	6,690	971
4	3,540	17,900	28,000	17,600	28,500	10,200	5,770	19,600	25,800	10,200	7,040	984
5	3,050	19,300	27,400	17,000	37,100	12,100	5,460	33,900	25,900	9,800	13,800	983
6	2,970	20,700	28,000	17,400	38,100	11,200	4,880	35,600	25,900	9,010	13,100	975
7	2,950	26,100	28,200	18,900	37,300	9,330	4,850	33,400	25,900	7,880	8,660	977
8	2,940	31,100	27,800	19,100	36,700	8,290	7,100	30,300	25,900	7,230	6,520	967
9	2,940	31,900	27,600	18,900	36,500	8,260	13,400	29,700	24,800	5,960	5,010	962
10	2,940	33,800	27,600	19,800	36,300	8,230	12,600	27,600	24,600	4,370	4,040	956
11	2,940	40,900	28,700	19,500	36,200	7,480	12,300	23,600	25,000	3,390	3,800	956
12	2,920	40,900	28,300	16,200	36,400	6,620	12,100	23,900	23,300	3,230	2,450	966
13	2,920	39,600	27,700	12,600	35,800	6,820	12,200	21,400	18,300	2,620	2,080	1,570
14	3,100	37,900	26,100	10,900	34,300	6,270	20,700	20,400	16,000	2,430	1,660	1,210
15	8,050	35,500	24,900	10,600	35,400	5,150	26,800	17,500	14,000	2,050	1,450	1,000
16	7,230	33,700	24,500	10,600	38,400	5,060	25,500	17,000	13,600	2,750	1,360	923
17	3,020	32,700	23,900	10,600	41,500	6,310	25,100	16,800	12,700	2,320	1,210	926
18	2,590	32,800	23,600	18,300	44,700	13,700	24,900	15,800	12,300	2,040	1,190	926
19	1,970	32,600	23,400	17,900	44,900	15,700	24,800	12,800	6,090	1,940	1,130	918
20	1,770	32,600	23,300	14,300	41,700	15,000	24,700	11,700	5,210	1,900	996	911
21	1,350	31,600	23,200	9,510	33,200	13,100	24,800	9,760	12,900	1,890	992	907
22	7,970	29,800	22,000	7,540	29,300	12,900	25,700	8,090	12,100	1,870	992	900
23	7,550	28,200	19,000	6,790	25,400	12,800	26,900	7,260	13,800	2,330	992	894
24	4,060	28,300	19,100	5,750	19,000	12,800	25,700	7,240	13,900	2,200	998	896
25	4,990	34,100	21,700	5,630	14,600	11,100	21,900	8,360	14,100	1,990	1,000	901
26	3,710	33,200	19,100	5,580	13,100	8,250	15,200	11,100	14,600	1,880	1,010	901
27	1,470	32,300	15,600	5,540	12,800	8,180	12,600	13,800	16,700	1,840	1,030	901
28	2,770	32,300	11,100	5,030	10,000	10,400	9,940	16,100	16,300	1,840	1,020	906
29	11,600	32,200	10,700	3,900	-----	11,900	9,380	19,600	16,100	1,950	997	905
30	12,100	32,000	10,900	3,740	-----	11,900	13,200	24,600	16,100	1,790	981	906
31	11,100	-----	10,700	3,290	-----	10,200	-----	24,400	-----	2,190	973	-----
TOTAL	151,870	907,900	722,100	371,300	818,660	306,870	469,290	587,210	544,100	141,190	102,651	29,035
MEAN	4,899	30,260	23,290	11,960	29,240	9,899	15,640	18,940	18,140	4,555	3,311	968
MAX	12,100	40,900	31,000	19,800	44,900	15,700	26,900	35,600	25,900	16,000	13,800	1,570
MIN	1,770	16,800	10,700	3,290	4,530	5,060	4,850	7,240	5,210	1,790	973	894
AC-FT	301,200	1,801M	1,432M	736,500	1,624M	608,700	930,800	1,165M	1,079M	280,100	203,600	57,590
CAL YR 1974	TOTAL 3,736,170 MEAN 10,240 MAX 57,600 MIN 1,160 AC-FT 7,411,000											
WTR YR 1975	TOTAL 5,152,176 MEAN 14,120 MAX 44,900 MIN 894 AC-FT 10,220,000											

TRINITY RIVER BASIN

08065300 Menard Creek near Rye, Tex.

LOCATION.--Lat 30°28'52", long 94°46'46", Liberty County, on left bank 20 ft (6 m) downstream from bridge on State Highway 146, 2.3 miles (3.7 km) northwest of Rye, and about 6 miles (10 km) upstream from mouth.

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--Discharge: December 1965 to current year.

Water quality: Chemical analyses: April 1966 to current year.

GAGE (revised).--Wire-weight gage read twice daily. Datum of gage is 62.32 ft (18.995 m) above mean sea level. Prior to September 1974, water-stage recorder at same site and datum.

AVERAGE DISCHARGE.--9 years (1966-75), 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,900 ft³/s (53.8 m³/s) Nov. 2 (gage height, 20.70 ft or 6.309 m); minimum daily, 28 ft³/s (0.79 m³/s) Oct. 11-13.

Period of record: Maximum discharge, 9,660 ft³/s (274 m³/s) May 8, 1969 (gage height, 30.33 ft or 9.245 m), from rating curve extended above 5,600 ft³/s (159 m³/s); minimum daily, 2.6 ft³/s (0.074 m³/s) Nov. 1, 1967.

Flood in September 1961 reached a stage of about 34 ft (10.4 m), from information by local resident.

REMARKS.--Discharge records poor. No known diversions above station. Minor regulation by Bear Foot Lake on Mill Creek 0.5 mile (0.8 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	1,510	211	735	188	111	113	121	375	205	206	40
2	42	1,670	209	768	378	98	108	131	360	164	190	35
3	38	1,050	209	728	731	82	104	147	194	211	175	40
4	36	660	175	643	1,430	95	100	184	147	329	167	100
5	34	299	163	575	1,320	118	104	230	121	382	381	91
6	32	202	456	530	1,400	123	125	291	110	284	438	79
7	31	196	735	392	1,020	164	121	1,260	107	136	282	67
8	30	304	743	327	705	149	125	1,230	104	114	207	58
9	29	375	622	282	372	132	292	732	123	96	182	51
10	29	517	386	292	272	125	375	531	372	95	147	75
11	28	854	420	285	252	118	474	453	473	181	121	121
12	28	403	432	327	292	125	486	415	678	201	104	110
13	28	664	397	415	262	171	486	491	892	201	95	161
14	35	650	364	332	221	223	498	1,170	569	191	90	267
15	100	317	577	269	205	277	582	851	257	182	88	237
16	70	214	1,070	232	198	242	511	472	160	173	80	99
17	50	257	871	209	188	262	609	310	134	147	75	55
18	40	302	652	247	177	706	317	242	124	118	71	41
19	38	348	362	679	155	570	188	196	108	98	61	38
20	36	338	282	1,300	151	386	143	161	90	88	50	36
21	35	297	252	1,170	144	292	134	135	89	82	41	36
22	34	223	223	664	140	228	179	122	134	85	38	35
23	34	175	205	392	134	176	223	115	250	121	37	34
24	34	468	192	322	131	155	234	108	227	150	36	32
25	33	854	338	267	125	132	158	132	205	140	36	31
26	33	622	505	249	121	121	134	128	186	114	50	30
27	33	643	602	223	118	125	116	140	227	95	55	29
28	300	511	650	201	114	137	98	179	381	81	70	29
29	800	272	602	186	-----	145	97	282	575	118	55	32
30	500	214	615	168	-----	143	101	304	415	343	45	37
31	800	-----	657	160	-----	134	-----	322	-----	262	40	-----
TOTAL	3,436	15,409	14,117	13,569	10,944	6,065	7,335	11,585	8,187	5,187	3,713	2,126
MEAN	111	514	457	438	391	196	245	374	273	167	120	70.9
MAX	800	1,670	1,070	1,300	1,430	706	609	1,260	892	382	438	267
MIN	28	175	163	160	114	82	97	108	89	81	36	29
AC-FT	6,820	30,560	28,120	26,910	21,710	12,030	14,550	22,980	16,240	10,290	7,360	4,220
CAL YR 1974	TOTAL	82,918	MEAN	227	MAX	2,330	MIN	16	AC-FT	164,500		
WTR YR 1975	TOTAL	101,733	MEAN	279	MAX	1,670	MIN	28	AC-FT	201,800		

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11- 2	0400	20.70	1,900	2- 4	1800	19.90	1,640
12-16	1400	18.30	1,210	5- 7	2200	19.50	1,530
1-20	2000	20.20	1,730	5-14	1300	19.00	1,390

TRINITY RIVER BASIN

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08066300 Menard Creek near Rye, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 01...	1330	1510	5.2	4.8	1.0	11	1.5	5	0	3.3
DEC. 10...	1305	430	8.9	4.1	.7	6.8	1.2	8	0	4.5
JAN. 22...	1045	608	6.6	4.0	.9	5.3	1.1	9	0	4.8
MAR. 03...	1420	75	12	4.6	1.1	7.7	.9	12	0	3.8
APR. 18...	1630	254	8.3	4.5	.7	6.9	1.1	10	0	4.8
MAY 27...	1230	147	12	4.8	1.1	9.3	.9	12	0	3.0
JUNE 13...	1235	986	6.5	3.6	.6	5.3	1.1	7	0	4.2
JULY 25...	1125	148	13	5.5	1.7	13	1.1	8	0	4.1
SEP. 05...	1050	95	12	8.0	1.0	24	1.3	12	0	2.1

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 01...	25	.0	54	16	12	1.2	107	5.5	21.0
DEC. 10...	13	.0	43	13	7	.8	75	6.4	10.0
JAN. 22...	9.4	.0	37	14	6	.6	61	5.3	11.5
MAR. 03...	15	.1	51	16	6	.8	79	6.1	14.5
APR. 18...	13	.0	44	14	6	.8	77	5.9	22.5
MAY 27...	17	.0	54	17	7	1.0	93	5.9	24.0
JUNE 13...	8.8	.0	34	11	6	.7	55	5.5	24.0
JULY 25...	27	.1	71	21	14	1.2	119	6.1	25.0
SEP. 05...	49	.0	103	24	14	2.1	200	6.0	25.0

TRINITY RIVER BASIN

08066400 Big Creek near Shepherd, Tex.

LOCATION.--Lat 30°30'59", long 94°59'06", San Jacinto County, on left bank at downstream side of downstream bridge on U.S. Highway 59, 1.5 miles (2.4 km) northeast of Shepherd, and 11.6 miles (18.7 km) upstream from mouth.

DRAINAGE AREA.--38.8 mi² (100.5 km²).

PERIOD OF RECORD.--Discharge: January 1966 to current year.

Water quality: Chemical analyses: December 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 94.90 ft (28.926 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 26.6 ft³/s (0.753 m³/s), 9.31 in/yr (236 mm/yr), 19,270 acre-ft/yr (23.8 km³/yr).

EXTREMES.--Current year: Maximum discharge, 619 ft³/s (17.5 m³/s) Apr. 14 (gage height, 12.79 ft or 3.898 m); minimum, 6.6 ft³/s (0.19 m³/s) Oct. 7-9.

Period of record: Maximum discharge, 22,000 ft³/s (623 m³/s) June 13, 1973 (gage height, 25.69 ft or 7.830 m); minimum daily, 1.0 ft³/s (0.028 m³/s) Aug. 7, 1967.

Maximum stage since at least 1949, that of June 13, 1973. Flood in 1957 reached 20.3 ft (6.19 m), from information by local resident.

REMARKS.--Discharge records good. No known regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	413	45	83	166	29	30	47	35	38	43	16
2	9.4	154	40	101	123	28	29	32	28	41	22	15
3	9.4	58	37	138	115	26	27	29	26	32	20	16
4	9.1	43	35	82	381	35	25	28	24	29	40	33
5	9.2	37	35	61	147	42	24	92	23	24	65	30
6	8.9	32	122	54	83	31	25	48	22	22	46	26
7	7.4	74	67	51	65	30	24	39	21	20	39	21
8	7.0	182	45	52	60	27	138	123	21	18	28	20
9	7.3	102	38	46	56	26	125	68	25	17	34	20
10	7.7	149	45	113	52	28	62	45	237	16	30	20
11	8.5	344	156	68	53	28	87	66	112	47	28	22
12	8.1	82	63	63	50	28	46	273	51	39	26	21
13	7.2	54	46	54	44	65	56	73	37	21	24	40
14	9.9	44	95	47	42	45	499	59	33	19	22	24
15	30	39	220	44	43	33	150	50	31	21	20	20
16	18	38	71	43	58	31	73	44	29	24	19	18
17	12	56	50	44	46	41	58	38	28	20	18	18
18	10	46	45	292	40	154	52	35	25	21	17	17
19	9.9	42	43	278	37	61	46	31	23	18	16	17
20	9.3	51	39	91	35	43	43	30	21	17	15	16
21	8.8	38	35	69	34	38	52	28	19	15	15	15
22	8.6	34	34	66	35	37	69	27	19	20	16	13
23	8.6	33	34	66	35	35	48	25	18	24	20	13
24	8.7	158	62	58	37	33	42	30	28	36	19	13
25	8.6	140	202	56	30	28	37	45	40	25	18	12
26	8.8	58	98	50	30	28	32	39	81	22	19	12
27	8.5	47	132	47	30	45	29	51	74	19	22	12
28	68	42	97	46	29	44	28	43	44	17	26	11
29	246	42	94	45	-----	36	28	91	40	30	21	11
30	50	62	110	43	-----	33	46	68	29	22	18	12
31	151	-----	76	42	-----	30	-----	54	-----	20	17	-----
TOTAL	783.4	2,694	2,311	2,393	1,950	1,218	2,030	1,751	1,244	754	783	554
MEAN	25.3	89.8	74.5	77.2	69.6	39.3	67.7	56.5	41.5	24.3	25.3	18.5
MAX	246	413	220	292	381	154	499	273	237	47	65	40
MIN	7.0	32	34	42	29	26	24	25	18	15	15	11
CFSM	.65	2.31	1.92	1.99	1.79	1.01	1.74	1.46	1.07	.63	.65	.48
IN.	.75	2.58	2.22	2.29	1.87	1.17	1.95	1.68	1.19	.72	.75	.53
AC-FT	1,550	5,340	4,580	4,750	3,870	2,420	4,030	3,470	2,470	1,500	1,550	1,100
CAL YR 1974	TOTAL 17,523.0	MEAN 48.0	MAX 778	MIN 4.8	CFSM 1.24	IN 16.80	AC-FT 34,760					
WTR YR 1975	TOTAL 18,465.4	MEAN 50.6	MAX 499	MIN 7.0	CFSM 1.30	IN 17.70	AC-FT 36,630					

PEAK DISCHARGE (BASE, 350 FT³/S, REVISED)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-1	0400	12.48	562	4-14	1200	12.79	619
11-11	0400	11.99	479	5-12	0800	11.45	406
1-19	0100	12.43	553	6-10	1800	11.14	367
2-4	1200	11.80	452				

08066400 Big Creek near Shepherd, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
NOV. 01...	0910	414	4.7	2.5	.9	3.8	1.6	4	0	5.9
DEC. 11...	1135	209	7.5	2.8	.9	3.9	1.6	7	0	4.4
JAN. 21...	1530	66	12	3.9	1.7	6.2	1.3	8	0	5.6
MAR. 04...	1515	49	13	4.4	1.4	7.3	1.3	10	0	4.4
APR. 17...	1600	988	13	3.7	1.2	6.1	1.0	11	0	3.7
MAY 28...	1130	355	13	3.8	1.1	6.3	1.0	10	0	4.4
JULY 07...	1530	20	15	3.9	.7	7.2	.9	12	0	3.4
SEP. 02...	1200	15	16	4.5	1.5	7.2	1.0	15	0	2.8

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
NOV. 01...	7.0	.0	28	10	7	.5	44	5.2	20.5
DEC. 11...	9.3	.0	34	11	5	.5	53	6.0	12.0
JAN. 21...	11	.0	46	17	10	.7	63	6.3	11.0
MAR. 04...	11	.1	48	17	9	.8	76	6.1	11.5
APR. 17...	10	.0	44	14	5	.7	69	6.1	20.0
MAY 28...	10	.1	45	14	6	.7	71	5.9	22.5
JULY 07...	11	.1	48	13	3	.9	76	6.2	25.5
SEP. 02...	12	.1	53	17	5	.8	86	6.7	23.0

TRINITY RIVER BASIN

08066500 Trinity River at Romayor, Tex.
(National stream-quality accounting network)

LOCATION.--Lat 30°25'30", long 94°51'02", Liberty County, near right bank on downstream side of pier of bridge on State Highway 105, 1.9 miles (3.1 km) south of Romayor, 1.9 miles (3.1 km) downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.7 miles (6.0 km) downstream from Big Creek, and at mile 94.3 (151.7 km).

DRAINAGE AREA.--17,186 mi² (44,512 km²).

PERIOD OF RECORD.--Discharge: May 1924 to current year. Monthly discharge only for some periods, published in WSP 1312.
Water quality: Chemical analyses: October 1945 to November 1949, February 1950 to September 1951, April 1953 to current year.
Chemical, biochemical, and pesticide analyses: February 1968 to current year. Water temperatures: February 1950 to September 1951,
April 1953 to January 1959, March 1961 to current year. Sediment records: April 1968 to September 1971, October 1974 to September
1975.

GAGE.--Water-stage recorder. Datum of gage is 35.92 ft (10.948 m) above mean sea level. Prior to September 1943, nonrecording gage at datum 53.57 ft (16.328 m) higher at railroad bridge 1.9 miles (3.1 km) upstream.

AVERAGE DISCHARGE.--44 years (1924-68) unregulated, 7,155 ft³/s (202.6 m³/s), 5,184,000 acre-ft/yr (6.39 km³/yr); 7 years (1968-75) flow regulated by Livingston Reservoir, 8,153 ft³/s (230.9 m³/s), 5,907,000 acre-ft/yr (7.28 km³/yr).

EXTREMES.--Discharge: Current year: Maximum discharge, 46,200 ft³/s (1,310 m³/s) Feb. 19 (gage height, 24.92 ft or 7.596 m); minimum daily, 949 ft³/s (26.9 m³/s) Sept. 21.
Period of record: Maximum discharge, 111,000 ft³/s (3,140 m³/s) May 9, 1942 (gage height, 35.8 ft or 10.91 m, from floodmarks, present site and datum); minimum, 102 ft³/s (2.89 m³/s) Aug. 24, 25, 1956.
Historic: Maximum stage since at least 1908, that of May 9, 1942.
Water quality: Current year: Maximum daily specific conductance, 379 micromhos Oct. 7, 8; minimum daily, 245 micromhos Nov. 2.
Period of record: Maximum daily specific conductance (1945-50, 1953-75), 3,800 micromhos Oct. 30, 1956; minimum daily, 103 micromhos Nov. 9, 1946. Maximum water temperatures (1953-58, 1961-74), 37.0°C July 18, 27, 1953; minimum, 3.0°C Jan. 18, 1956, Jan. 15, 16, 1968.

REMARKS.--Discharge records fair. Regulated since Sept. 28, 1968, by Livingston Reservoir (station 08066190), capacity 1,788,000 acre-ft (2.20 km³), 35 miles (56 km) upstream. No large diversions between Livingston Reservoir and gaging station.

REVISIONS (WATER YEARS).--WSP 1392: 1932, 1935. WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,500	15,400	33,200	11,200	4,610	9,580	8,120	15,000	24,400	17,300	4,400	1,200
2	7,630	20,600	32,300	11,600	7,280	9,570	7,040	15,100	24,100	14,200	5,890	1,190
3	4,600	19,300	30,000	15,700	9,280	9,500	6,890	15,200	24,100	12,900	7,440	1,190
4	3,530	17,800	29,100	18,200	24,600	9,880	5,950	17,600	25,600	11,600	7,770	1,220
5	3,480	18,800	27,700	17,700	36,700	12,100	5,690	29,900	25,900	10,800	12,600	1,230
6	3,220	19,100	28,400	17,300	39,200	12,000	5,040	35,800	25,900	10,300	15,600	1,220
7	3,170	23,400	29,200	18,600	39,000	10,300	4,900	34,800	25,900	8,740	10,900	1,220
8	3,140	29,700	28,600	19,100	38,100	8,720	5,750	32,700	25,900	8,260	7,850	1,210
9	3,120	31,800	28,300	18,900	37,500	8,470	12,600	31,100	25,500	7,050	6,010	1,210
10	3,100	32,700	27,900	19,300	37,300	8,430	13,400	29,500	24,500	5,710	4,650	1,210
11	3,080	39,800	28,800	20,100	37,200	8,130	13,000	25,600	26,300	4,570	4,330	1,200
12	3,050	42,200	29,000	17,600	37,300	6,920	12,700	25,200	24,900	4,480	3,350	1,200
13	3,030	41,600	28,300	14,400	37,100	7,240	12,300	22,800	20,600	3,920	2,700	1,450
14	3,040	40,000	27,600	11,800	35,500	7,310	17,800	22,300	17,500	3,740	2,230	1,490
15	6,140	37,600	27,100	10,900	35,500	5,880	27,400	19,500	14,800	3,360	1,860	1,290
16	8,190	35,300	26,800	10,700	38,200	5,580	27,000	17,900	13,900	3,500	1,750	1,200
17	4,620	33,800	25,200	10,600	41,000	5,700	26,100	17,300	13,100	3,590	1,580	1,140
18	2,640	33,700	24,400	15,100	44,500	12,000	25,500	16,700	12,700	3,190	1,510	1,110
19	2,410	33,500	23,800	19,700	45,800	16,500	25,000	13,700	8,800	3,010	1,480	1,070
20	2,030	33,500	23,400	17,000	44,600	16,100	24,800	12,500	5,030	2,950	1,350	973
21	2,170	32,900	23,200	12,900	37,300	14,400	24,800	10,600	10,400	2,920	1,300	949
22	6,570	30,900	22,600	9,330	31,900	13,300	25,300	8,820	13,500	2,920	1,280	998
23	7,760	28,900	19,700	8,300	27,800	13,000	26,800	7,650	14,300	3,070	1,270	1,030
24	6,520	28,300	18,800	6,860	21,600	12,900	26,500	7,490	14,600	3,630	1,260	973
25	5,070	33,800	21,000	6,510	16,500	12,300	23,500	7,960	14,700	3,180	1,270	993
26	4,020	34,900	20,400	6,380	13,900	9,130	17,300	10,300	15,000	3,030	1,260	1,020
27	3,510	34,000	17,500	6,290	13,500	7,970	13,300	13,100	17,100	2,970	1,270	973
28	3,000	33,600	13,100	6,080	11,600	9,490	11,100	15,300	17,600	2,910	1,300	993
29	9,170	33,200	11,700	4,870	-----	11,800	9,260	18,100	17,200	2,990	1,270	1,010
30	12,500	33,300	11,700	4,570	-----	12,000	12,100	24,100	17,300	3,150	1,240	954
31	11,600	-----	11,560	4,080	-----	11,400	-----	25,100	-----	3,100	1,200	-----
TOTAL	156,610	923,400	750,300	391,670	844,370	317,660	476,940	598,720	561,130	177,040	119,170	34,116
MEAN	5,052	30,780	24,200	12,630	30,160	10,250	15,900	19,310	18,700	5,711	3,844	1,137
MAX	12,500	42,200	33,200	20,100	45,800	16,500	27,400	35,800	26,300	17,300	15,600	1,490
MIN	2,030	15,400	11,500	4,080	4,610	5,580	4,900	7,490	5,030	2,910	1,200	949
AC-FT	310,600	1,832M	1,488M	776,900	1,675M	630,100	946,000	1,188M	1,113M	351,200	236,400	67,670
CAL YR 1974	TOTAL	3,321,810	MEAN	10,470	MAX	59,300	MIN	1,180	AC-FT	7,581,000		
WTR YR 1975	TOTAL	5,351,126	MEAN	14,660	MAX	45,800	MIN	949	AC-FT	10,610,000		

TRINITY RIVER BASIN

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08066500 Trinity River at Romayor, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 10...	0930	3000	6.1	38	3.1	27	4.2	113	0	31
NOV. 13...	1715	40000	8.5	33	3.2	22	4.5	96	0	31
DEC. 05...	0815	28000	8.4	36	2.9	17	4.7	110	0	27
JAN. 09...	1130	19000	8.1	34	2.8	16	4.4	119	0	26
FEB. 26...	1345	14000	7.7	35	3.3	18	5.2	102	0	31
MAR. 19...	1345	17500	6.9	33	3.5	16	3.8	96	0	30
APR. 07...	1330	4700	5.3	40	3.8	19	4.4	120	0	34
MAY 05...	1415	32000	3.5	36	2.6	18	3.8	98	0	30
JUNE 09...	1240	25000	3.8	40	4.0	24	4.0	118	0	40
JULY 01...	1015	18000	3.8	40	3.9	19	4.0	102	0	35
AUG. 26...	1300	1240	9.3	44	3.9	21	3.6	132	0	24
SEP. 04...	1100	2660	6.8	40	3.9	21	4.2	130	0	23

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT. 10...	28	--	.17	.00	.11	.86	.97	.16	211
NOV. 13...	21	--	.34	.00	.06	1.0	1.1	.20	178
DEC. 05...	20	.3	.33	.00	.04	.58	.62	.22	177
JAN. 09...	19	.2	.36	.00	.04	.48	.52	.16	178
FEB. 26...	21	.2	.51	.01	.07	.48	.55	.18	160
MAR. 19...	19	.3	.48	.02	.04	.52	.56	.14	176
APR. 07...	22	.2	.51	.01	.02	.59	.61	.11	205
MAY 05...	21	.2	.35	.02	.13	.78	.91	.20	174
JUNE 09...	23	.2	.32	.01	.08	.62	.70	.15	203
JULY 01...	22	.2	.05	.01	.02	.98	1.0	.12	184
AUG. 26...	26	.2	.00	.01	.00	.81	.81	.10	194
SEP. 04...	24	.2	.01	.00	.00	.81	.81	.20	199

TRINITY RIVER BASIN

08066500 Trinity River at Romayor, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILTRABLE RESIDUE (MG/L)	VOL. NON- FILTRABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT. 10...	193	27	11	110	15	1.1	367	7.8	23.0
NOV. 13...	171	83	39	96	17	1.0	305	6.7	18.5
DEC. 05...	171	39	21	100	12	.7	301	7.5	13.0
JAN. 09...	169	27	16	96	0	.7	293	6.3	14.5
FEB. 26...	172	47	16	100	17	.8	310	6.5	15.5
MAR. 19...	160	74	31	97	18	.7	295	7.5	14.5
APR. 07...	188	24	11	120	17	.8	349	7.6	17.0
MAY 05...	163	436	65	100	20	.8	308	7.5	22.5
JUNE 09...	197	38	13	120	20	1.0	347	6.9	26.0
JULY 01...	179	53	13	120	33	.8	352	7.2	27.5
AUG. 26...	197	52	33	130	18	.8	350	7.4	29.0
SEP. 04...	188	24	3	120	10	.8	364	6.7	28.5

DATE	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT. 10...	5	10	9.7	111	2.7	2500	18	22	8.5
NOV. 13...	20	30	11.4	121	1.7	680	37	150	9.1
DEC. 05...	30	20	11.2	106	1.0	230	27	45	--
JAN. 09...	40	20	10.7	104	.9	170	68	51	11
FEB. 26...	50	30	10.6	105	.8	700	46	14	8.0
MAR. 19...	50	30	10.0	97	1.0	1500	620	470	7.6
APR. 07...	30	10	10.2	105	1.4	3300	58	14	6.5
MAY 05...	50	120	8.4	95	5.0	27000	2100	2500	11
JUNE 09...	20	10	8.0	98	1.7	4200	88	44	--
JULY 01...	40	20	7.3	91	1.5	6000	210	210	8.2
AUG. 26...	30	15	7.5	96	3.0	2700	22	100	8.8
SEP. 04...	10	10	7.6	97	3.1	1700	32	350	11

TRINITY RIVER BASIN

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08066500 Trinity River at Romayor, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED ALUMINUM (AL)	TOTAL ARSENIC (AS)	DIS-SOLVED ARSENIC (AS)	DIS-SOLVED BORON (B)	TOTAL CADMIUM (CD)	DIS-SOLVED CADMIUM (CD)	TOTAL CHROMIUM (CR)	DIS-SOLVED CHROMIUM (CR)	TOTAL COBALT (CO)		
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)		
NOV. 13...	1715	80	8	7	90	<10	0	<10	0	50		
MAR. 19...	1345	50	1	0	10	10	0	0	0	<50		
JULY 01...	1015	0	4	4	30	<10	0	0	0	<50		
SEP. 04...	1100	10	4	3	80	<10	0	10	0	<50		
DATE	DIS-SOLVED COBALT (CO)	TOTAL COPPER (CU)	DIS-SOLVED COPPER (CU)	TOTAL IRON (FE)	DIS-SOLVED IRON (FE)	TOTAL LEAD (PB)	DIS-SOLVED LEAD (PB)	DIS-SOLVED LITHIUM (LI)	TOTAL MANGANESE (MN)			
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)			
NOV. 13...	0	<10	1	1600	430	<100	15	0	70			
MAR. 19...	0	<10	5	2300	60	<100	2	10	60			
JULY 01...	0	<10	3	770	10	<100	2	0	60			
SEP. 04...	0	10	1	630	20	<100	1	0	100			
DATE	DIS-SOLVED MANGANESE (MN)	TOTAL MERCURY (HG)	DIS-SOLVED MERCURY (HG)	DIS-SOLVED NICKEL (NI)	TOTAL SELENIUM (SE)	DIS-SOLVED SELENIUM (SE)	DIS-SOLVED STRONTIUM (SR)	TOTAL ZINC (ZN)	DIS-SOLVED ZINC (ZN)			
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)			
NOV. 13...	0	.0	.0	0	0	0	240	30	30			
MAR. 19...	0	.1	.1	2	1	1	240	180	30			
JULY 01...	0	.0	.0	1	0	0	330	30	10			
SEP. 04...	0	.0	.0	0	0	0	310	0	0			
DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	
NOV. 13...	1715	40000	18.5	.00	.0	.00	.0	.00	.0	.00	.0	
MAR. 19...	1345	17500	14.5	.00	.0	.00	.0	.00	.0	.00	.0	
JULY 01...	1015	18000	27.5	.00	.0	.00	.0	.00	.0	.00	.0	
SEP. 04...	1100	2660	28.5	.00	.0	.00	.0	.00	.0	.00	.0	
DATE	TIME	TOTAL DIELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)
NOV. 13...		.00	.2	.00	.0	.00	.0	.00	.0	.00	.0	.0
MAR. 19...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
JULY 01...		.00	.1	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 04...		.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.0
DATE	TIME	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	TOTAL DIBAZINON (UG/L)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)	
NOV. 13...		0	.0	27	.02	.00	.00	.00	.02	.00	.01	
MAR. 19...		0	.0	0	.00	.00	.00	.00	.00	.00	.00	
JULY 01...		0	.0	0	.01	.00	.00	.00	.00	.00	.00	
SEP. 04...		0	.0	0	.00	.00	.00	.00	.01	.01	.00	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
JULY 01	22	330	330	0.4	0.0	2500	Polyethylene strip
AUG. 26	56	21	16	7.4	1.1	710	

OCT. 10, 1974 TIME 0930

DEC. 5, 1974 TIME 0815

PHYTOPLANKTON 56,000 CELLS/ML

PHYTOPLANKTON 3,700 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT	ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			CHLOROPHYTA		
..CHLOROPHYCEAE			..CHLOROPHYCEAE		
..CHLOROCOCCALES			..CHLOROCOCCALES		
...OCCYSTACEAE			...HYDRODICTYACEAE		
...ANKISTRODESMUS	18,000	32	...PEDIASTRUM	120	3
...SCENEDESMACEAE			...OCCYSTACEAE		
....ACTINASTRUM	680	1	...OCCYSTIS	120	3
...SCENEDESMUS	5,100	9	...TETRAEDRON	29	1
..VOLVOCALES			...SCENEDESMACEAE		
...VOLVOCAEAE			...CRUCIGENIA	580	16
...PANDORINA	1,700	3	...SCENEDESMUS	520	14
CHRYSTOPHYTA			...TETRASTRUM	230	6
..BACILLARIOPHYCEAE			..ZYGNEMATALES		
..CENTRALES			..DESMIDIACEAE		
...COSCONODISCACEAE			...EUASTRUM	29	1
...CYCLOTELLA	1,200	2	CHRYSTOPHYTA		
...MELOSIRA	2,000	4	..BACILLARIOPHYCEAE		
..PENNALES			..CENTRALES		
...NAVICULACEAE			...COSCONODISCACEAE		
...NAVICULA	510	1	...CYCLOTELLA	58	2
...SURIPELLACEAE			...MELOSIRA	440	12
...SURIPELLA		0	..PENNALES		
CYANOPHYTA			...ACHNANTHACEAE		
..MYXOPHYCEAE			...ACHNANTHES	87	2
..CHROOCOCCALES			...NITZSCHIAEAE		
...CHROOCOCCACEAE			...NITZSCHIA	580	16
....AGMENELLUM	14,000	24	CYANOPHYTA		
...ANACYSTIS	340	1	..MYXOPHYCEAE		
..OSCILLATORIALES			..CHROOCOCCALES		
...NOSTOCACEAE			...CHROOCOCCACEAE		
...ANABAENA	3,700	7	...ANACYSTIS	930	25
...OSCILLATORIAEAE					
...LYNGBYA	9,000	16			

NOV. 13, 1974 TIME 1715

JAN. 9, 1975 TIME 1130

PHYTOPLANKTON 3,700 CELLS/ML

PHYTOPLANKTON 1,000 CELLS/ML

ORGANISM_NAME	CELLS/ML	PER_CENT	ORGANISM_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			CHLOROPHYTA		
..CHLOROPHYCEAE			..CHLOROPHYCEAE		
..CHLOROCOCCALES			..CHLOROCOCCALES		
...OCCYSTACEAE			...OCCYSTACEAE		
...ANKISTRODESMUS			...ANKISTRODESMUS	22	2
...SCENEDESMACEAE			...SCENEDESMACEAE		
....ACTINASTRUM	79	2	...SCENEDESMUS	86	9
...SCENEDESMUS	200	5	...TETRASTRUM	170	17
..VOLVOCALES			...VOLVOCALES		
...CHLAMYDOMONADACEAE			...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	20	1	...CHLAMYDOMONAS	22	2
CHRYSTOPHYTA			CHRYSTOPHYTA		
..BACILLARIOPHYCEAE			..BACILLARIOPHYCEAE		
..CENTRALES			..CENTRALES		
...COSCONODISCACEAE			...COSCONODISCACEAE		
...CYCLOTELLA	320	9	...CYCLOTELLA	240	23
...MELOSIRA	190	5	..PENNALES		
..PENNALES			...NITZSCHIAEAE		
...ACHNANTHACEAE			...NITZSCHIA	390	38
...ACHNANTHES	69	2	CYANOPHYTA		
...COCCONEIS	20	1	..MYXOPHYCEAE		
...FRAGILARIACEAE			..CHROOCOCCALES		
...SYNEDRA	20	1	...CHROOCOCCACEAE		
...NAVICULACEAE			...ANACYSTIS	86	9
...NAVICULA		0			
...NITZSCHIAEAE					
...NITZSCHIA	59	2			
CYANOPHYTA					
..MYXOPHYCEAE					
..CHROOCOCCALES					
...CHROOCOCCACEAE					
....AGMENELLUM	2,000	56			
...COCCOCHLORIS	39	1			
..OSCILLATORIALES					
...OSCILLATORIAEAE					
...LYNGBYA	570	16			

TRINITY RIVER BASIN

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08066500 Trinity River at Romayor, Tex.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

FEB. 26, 1975 TIME 1345

PHYTOPLANKTON 1,100 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
...SCENEDESMUS	120	12
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	620	58
...MELOSIRA	160	15
..PENNALES		
...FRAGILARIACEAE		
...SYNEDRA	120	12
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
...PHACUS	41	4

MAR. 19, 1975 TIME 1345

PHYTOPLANKTON 2,100 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	20	1
...SCENEDESMACEAE		
...CRUCIGENIA	280	13
...SCENEDESMUS	20	1
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS	80	4
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	240	11
...MELOSIRA	60	3
..PENNALES		
...FRAGILARIACEAE		
...SYNEDRA	40	2
...GOMPHONEMACEAE		
...GOMPHONEMA	20	1
...NAVICULACEAE		
...NAVICULA	60	3
...NITZSCHACEAE		
...NITZSCHIA	60	3
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
...ANACYSTIS	240	11
...OSCILLATORIALES		
...NOSTOCACEAE		
...ANABAENA	240	11
...OSCILLATORIAEAE		
...LYNGBYA	800	37

APR. 7, 1975 TIME 1330

PHYTOPLANKTON 15,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	110	1
...DICTYOSPHAERIUM	1,700	12
...OCCYSTIS	440	3
...SCENEDESMACEAE		
...CRUCIGENIA	1,700	12
...SCENEDESMUS	760	5
...TETRASTRUM	440	3
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	7,300	50
...MELOSIRA	2,000	13
..PENNALES		
...FRAGILARIACEAE		
...SYNEDRA	110	1

MAY 5, 1975 TIME 1415

PHYTOPLANKTON 1,800 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	28	2
...OCCYSTIS	110	6
...SCENEDESMACEAE		
...ACTINASTRUM	28	2
...SCENEDESMUS	280	16
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	390	22
...MELOSIRA	280	16
..PENNALES		
...GOMPHONEMACEAE		
...GOMPHONEMA	56	3
...NAVICULACEAE		
...GYROSTIGMA	28	2
...NAVICULA	140	8
...NITZSCHACEAE		
...NITZSCHIA	420	24

JUNE 9, 1975 TIME 1240

PHYTOPLANKTON 5,600 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...SCENEDESMACEAE		
...SCENEDESMUS	2,500	45
...VOLVOCALES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS	140	3
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..PENNALES		
...NITZSCHACEAE		
...NITZSCHIA	280	5
CYANOPHYTA		
..MYXOPHYCEAE		
...CHROOCOCCALES		
...CHROOCOCCACEAE		
...ANACYSTIS	1,100	20
UNKNOWN 216030101001200	1,500	28

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975--Continued

AUG. 26, 1975 TIME 1300

PHYTOPLANKTON 280,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...CHARACIACEAE		
...SCHROEDERIA	0	
...OCCYSTACEAE		
...ANKISTRODESMUS	0	
...DICTYOSPHAERIUM	0	
...KIRCHNERIELLA	0	
...SCENEDESMACEAE		
...ACTINASTRUM	0	
...SCENEDESMUS	0	
..VOLVOCELES		
...VOLVOCEAE		
...EUDORINA	0	
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	3,400	1
...MELOSIRA	1,600	1
..PENNALES		
...FRAGILARIACEAE		
...SYNEORA		
...NAVICULACEAE		
...GYROSIGMA		
...NAVICULA		
...NITZSCHACEAE		
...NITZSCHIA		
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
...AGMENELLUM	73,000	26
...ANACYSTIS	12,000	4
..OSCILLATORIALES		
...NOSTOCACEAE		
...ANABAENOPSIS	1,600	1
...CYLINDROSPERMUM	56,000	20
...OSCILLATORIA		
...OSCILLATORIA	130,000	46
EUGLENOPHYTA		
..EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
...TRACHELOMONAS		0

SEP. 4, 1975 TIME 1100

PHYTOPLANKTON 230,000 CELLS/ML

ORGANISM NAME	CELLS/ML	PER_CENT
CHLOROPHYTA		
..CHLOROPHYCEAE		
...CHLOROCOCCALES		
...OCCYSTACEAE		
...ANKISTRODESMUS	1,500	1
...SCENEDESMACEAE		
...CRUCIGENIA	2,400	1
..VOLVOCELES		
...CHLAMYDOMONADACEAE		
...CHLAMYDOMONAS		0
CHRYSOPHYTA		
..BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
...CYCLOTELLA	5,300	2
...MELOSIRA	3,000	1
..PENNALES		
...FRAGILARIACEAE		
...FRAGILARIA		0
...NAVICULACEAE		
...GYROSIGMA		0
...NITZSCHACEAE		
...NITZSCHIA	3,300	1
CYANOPHYTA		
..MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
...AGMENELLUM	43,000	19
...ANACYSTIS	20,000	9
..OSCILLATORIALES		
...NOSTOCACEAE		
...ANABAENOPSIS	8,600	4
...OSCILLATORIA		
...OSCILLATORIA	87,000	38
...RIVULARIACEAE		
...RAPHIIDOPSIS	54,000	23
PYRRHOPHYTA		
..DINOPHYCEAE		
..PERIDINIALES		
...PERIDINIACEAE		
...PERIDINIUM		0

TRINITY RIVER BASIN

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08066500 Trinity River at Romayor, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	STREAM WIDTH (FT)	STREAM VELOC- ITY (FPS)	MEAN DEPTH (FT)	NUMBER OF SAM- PLING POINTS	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	TOTAL SEDIM- ENT DIS- CHARGE (T/DAY)
OCT.										
10...	0930	3000	23.0	--	--	--	--	20	162	--
NOV.										
13...	1715	40000	18.5	--	--	--	--	135	14600	--
DEC.										
05...	0815	28000	13.0	--	--	--	--	33	2500	--
06...	1400	29200	15.0	322	3.7	24	9	211	16600	18700
JAN.										
09...	1130	19000	14.5	--	--	--	--	18	923	--
21...	1345	13700	10.5	275	2.3	21	6	74	2740	2960
FEB.										
26...	1345	14000	15.5	--	--	--	--	26	983	--
MAR.										
07...	1230	10600	14.0	261	1.9	20	7	32	916	940
19...	1345	17500	14.5	--	--	--	--	65	3070	--
APR.										
07...	1330	4700	17.0	--	--	--	--	20	254	--
MAY										
05...	1415	32000	22.5	--	--	--	--	385	33300	--
JUNE										
09...	1240	25000	26.0	--	--	--	--	47	3170	--
JULY										
01...	1015	18000	27.5	--	--	--	--	33	1600	--
AUG.										
26...	1300	1240	29.0	--	--	--	--	17	57	--
SEP.										
04...	1100	2660	28.5	--	--	--	--	19	136	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN .002 MM	SUS. SED. SIEVE DIAM. % FINER THAN .004 MM	SUS. SED. SIEVE DIAM. % FINER THAN .008 MM	SUS. SED. SIEVE DIAM. % FINER THAN .016 MM
OCT.									
10...	83	--	--	--	--	--	--	--	--
NOV.									
13...	44	--	--	--	--	--	--	--	--
DEC.									
05...	68	--	--	--	--	--	--	--	--
06...	25	39	87	95	100	19	--	20	21
JAN.									
09...	86	--	--	--	--	--	--	--	--
21...	58	66	92	99	100	43	48	50	54
FEB.									
26...	5	--	--	--	--	--	--	--	--
MAR.									
07...	80	81	84	91	100	--	--	--	--
19...	30	--	--	--	--	--	--	--	--
APR.									
07...	62	--	--	--	--	--	--	--	--
MAY									
05...	86	--	--	--	--	--	--	--	--
JUNE									
09...	44	--	--	--	--	--	--	--	--
JULY									
01...	73	--	--	--	--	--	--	--	--
AUG.									
26...	71	--	--	--	--	--	--	--	--
SEP.									
04...	92	--	--	--	--	--	--	--	--

08066500 Trinity River at Romayor, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
OCT.									
10...	--	--	--	--	--	--	--	--	--
NOV.									
13...	--	--	--	--	--	--	--	--	--
DEC.									
05...	--	--	--	--	--	--	--	--	--
06...	22	3	12	41	85	98	99	100	--
JAN.									
09...	--	--	--	--	--	--	--	--	--
21...	56	1	2	39	95	99	100	--	--
FEB.									
26...	--	--	--	--	--	--	--	--	--
MAR.									
07...	--	--	1	3	20	76	89	95	100
19...	--	--	--	--	--	--	--	--	--
APR.									
07...	--	--	--	--	--	--	--	--	--
MAY									
05...	--	--	--	--	--	--	--	--	--
JUNE									
09...	--	--	--	--	--	--	--	--	--
JULY									
01...	--	--	--	--	--	--	--	--	--
AUG.									
26...	--	--	--	--	--	--	--	--	--
SEP.									
04...	--	--	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA+MG) (MG/L)
OCT. 1974.....	156610	336	190	80300	23	9730	32	13500	120
NOV. 1974.....	923400	380	170	424000	20	49900	28	69800	98
DEC. 1974.....	750300	294	160	324000	19	38500	28	56700	95
JAN. 1975.....	391670	286	160	169000	19	20100	27	28600	91
FEB. 1975.....	844370	326	180	410000	23	52400	31	70700	110
MAR. 1975.....	317660	313	170	146000	21	18000	30	25700	100
APR. 1975.....	476940	343	190	245000	24	30900	32	41200	120
MAY 1975.....	596720	351	190	307000	25	40400	33	53300	120
JUNE 1975.....	561130	332	180	273000	23	34800	31	47000	110
JULY 1975.....	177040	323	180	86000	22	10500	30	14300	110
AUG. 1975.....	119170	333	180	57900	23	7400	31	9970	110
SEPT 1975.....	34116	351	190	17500	25	2300	33	3040	120
TOTAL	5351126	**	**	2540000	**	315000	**	434000	**
WTD.AVG.	14660.61	319	180	**	22	**	30	**	110

TRINITY RIVER BASIN

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08066500 Trinity River at Romayor, Tex.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	248	300	282	306	312	361	355	337	323	326	350
2	358	245	304	281	305	311	362	360	336	317	331	354
3	361	255	302	280	297	313	360	362	342	323	325	356
4	364	280	301	279	256	312	356	355	349	325	331	355
5	367	319	303	283	288	312	350	338	351	326	317	354
6	374	325	297	287	306	313	353	345	351	329	306	349
7	379	310	293	285	321	313	356	359	351	331	328	351
8	379	302	295	283	324	312	346	348	348	331	333	353
9	377	312	303	293	326	314	308	358	345	333	338	355
10	364	305	306	291	329	316	319	362	336	337	338	350
11	363	304	302	285	330	313	329	325	325	338	339	343
12	362	302	303	286	337	315	332	306	318	330	343	355
13	365	308	303	287	351	304	335	346	311	318	351	357
14	367	306	292	289	349	302	331	345	315	310	353	340
15	351	312	286	294	353	304	317	348	325	315	355	295
16	348	318	280	297	351	308	332	360	331	300	357	306
17	305	315	291	297	350	312	334	368	333	285	359	333
18	326	312	286	283	355	296	338	370	331	306	361	347
19	313	312	294	275	347	295	346	371	329	320	361	352
20	330	312	291	272	331	308	348	371	334	330	361	354
21	327	294	293	266	316	306	346	371	328	340	363	355
22	323	306	292	277	309	312	349	372	325	339	367	357
23	328	295	293	290	305	315	354	374	324	333	365	358
24	326	300	297	293	301	317	353	375	324	324	364	362
25	340	278	280	298	304	320	354	372	327	312	361	361
26	334	293	277	301	314	321	352	365	322	314	358	366
27	338	293	281	304	314	321	357	361	314	325	356	371
28	347	295	272	304	311	319	362	366	314	333	357	370
29	296	297	277	305	---	319	366	351	320	334	355	371
30	286	297	282	305	---	325	370	314	323	313	355	370
31	309	---	281	305	---	350	---	338	---	291	352	---
MONTH	344	298	292	289	321	313	346	355	331	322	347	352

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	22.0	---	---	15.0	14.0	14.0	20.0	---	27.0	26.0	27.0
2	21.0	---	10.0	12.0	---	---	16.0	22.0	24.0	26.0	27.0	29.0
3	21.0	---	---	12.0	---	13.0	13.0	23.0	25.0	26.0	---	29.0
4	20.0	---	11.0	9.0	14.0	---	14.0	---	25.0	---	26.0	---
5	20.0	19.0	13.0	---	14.0	11.0	14.0	21.0	25.0	---	26.0	26.0
6	---	19.0	14.0	10.0	10.0	13.0	---	22.0	25.0	---	26.0	27.0
7	21.0	---	12.0	13.0	10.0	14.0	15.0	23.0	25.0	27.0	26.0	---
8	21.0	18.0	---	14.0	12.0	12.0	17.0	23.0	---	27.0	26.0	---
9	19.0	18.0	10.0	14.0	---	---	17.0	23.0	25.0	27.0	26.0	26.0
10	21.0	---	10.0	13.0	12.0	14.0	17.0	24.0	24.0	27.0	---	---
11	22.0	15.0	10.0	---	15.0	15.0	15.0	---	---	27.0	26.0	26.0
12	21.0	17.0	---	---	12.0	17.0	15.0	23.0	25.0	27.0	26.0	27.0
13	---	17.0	12.0	9.0	12.0	13.0	---	24.0	26.0	---	26.0	25.0
14	23.0	17.0	---	9.0	12.0	11.0	15.0	23.0	26.0	27.0	27.0	---
15	---	15.0	---	10.0	---	13.0	15.0	23.0	---	26.0	---	24.0
16	20.0	15.0	10.0	11.0	---	---	16.0	23.0	26.0	26.0	27.0	25.0
17	19.0	---	10.0	11.0	14.0	14.0	17.0	24.0	26.0	26.0	---	25.0
18	20.0	16.0	10.0	12.0	14.0	12.0	19.0	---	---	27.0	27.0	25.0
19	20.0	18.0	10.0	---	14.0	10.0	17.0	25.0	26.0	26.0	27.0	26.0
20	---	15.0	10.0	10.0	12.0	14.0	---	24.0	26.0	---	28.0	26.0
21	19.0	16.0	10.0	10.0	14.0	15.0	17.0	25.0	26.0	27.0	29.0	---
22	19.0	15.0	---	12.0	15.0	15.0	18.0	24.0	---	27.0	29.0	24.0
23	19.0	18.0	14.0	10.0	---	---	18.0	---	26.0	27.0	---	20.0
24	19.0	---	15.0	10.0	10.0	15.0	19.0	24.0	26.0	26.0	---	22.0
25	19.0	14.0	---	11.0	13.0	14.0	20.0	---	26.0	26.0	27.0	24.0
26	19.0	14.0	---	---	14.0	---	20.0	24.0	26.0	27.0	25.0	24.0
27	---	14.0	11.0	14.0	13.0	14.0	---	24.0	26.0	---	---	24.0
28	---	---	7.0	---	14.0	19.0	21.0	23.0	26.0	26.0	26.0	---
29	21.0	15.0	---	15.0	---	14.0	21.0	24.0	---	26.0	27.0	24.0
30	20.0	12.0	14.0	15.0	---	---	21.0	23.0	27.0	25.0	27.0	24.0
31	22.0	---	---	15.0	---	14.0	---	23.0	---	26.0	---	---
MONTH	---	---	---	---	13.0	---	17.0	23.0	---	26.5	---	---

08067000 Trinity River at Liberty, Tex.

LOCATION.--Lat 30°03'27", long 94°49'05", Liberty County, near center of channel at upstream side of upstream bridge on U.S. Highway 90 in Liberty, 345 ft (105 m) downstream from Texas and New Orleans Railroad Co. bridge, and at mile 40.3 (64.8 km).

DRAINAGE AREA.--17,468 mi² (45,242 km²).

PERIOD OF RECORD.--October 1938 to September 1940 (gage heights, discharge measurements, and some records of daily discharge), October 1940 to current year (high-water records only). Gage-height records collected in this vicinity since 1903 are contained in reports of the National Weather Service.

GAGE (revised).--Water-stage recorder. Datum of gage is 3.04 ft (0.927 m) below mean sea level, adjustment of 1973; not adjusted for land-surface subsidence. Prior to Mar. 13, 1973, nonrecording gage at site 105 ft (32 m) downstream at same datum.

EXTREMES.--Current year: Maximum daily discharge, 46,000 ft³/s (1,300 m³/s) Feb. 21; maximum gage height, 27.90 ft (8.504 m) Feb. 21; minimum discharge not determined (affected by tides); minimum gage height observed, 4.49 ft (1.369 m) Sept. 22.
Period of record: Maximum discharge, 114,000 ft³/s (3,230 m³/s) May 12, 1942 (gage height, 29.38 ft or 8.955 m); minimum not determined (affected by tides); minimum gage height observed, 2.32 ft (0.707 m) Nov. 24, 1970.
Maximum stage since at least 1903, that of May 12, 1942. Flood of May 8-11, 1922, reached a stage of 28.6 ft (8.72 m), present datum, from observation by the National Weather Service at nonrecording gage on railroad bridge upstream.

REMARKS.--Records poor. Discharge below 10,000 ft³/s (283 m³/s) not published. Published discharges are estimated using records for Trinity River near Romayor (station 08066500), intervening area computation, and discharge measurements. Flow regulated by Livingston Reservoir (station 08066190) 88.9 miles (143.0 km) upstream. Many diversions above station for municipal supplies, industrial use, and irrigation.

REVISIONS.--WSP 1922: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

[illegible]

08067080 Devers Canal near Liberty, Tex.

LOCATION.--Lat 29°57'58", long 94°43'17", Liberty County, in flume over Farm Road 563, 250 ft (76 m) downstream from pump plant No. 2, and 8 miles (13 km) southeast of Liberty.

PERIOD OF RECORD.--March to December 1971 (elevation and discharge measurements only), January 1972 to current year (monthly discharge only).

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

REMARKS.--Records fair. Discharge is computed from pump record and verified by elevation record and discharge measurements. Flow is diverted from Trinity River at pump plant No. 1 through a canal 4.7 miles (7.6 km) to pump plant No. 2, located 250 ft (76 m) upstream from station. Water is furnished by the Trinity River Authority for irrigation.

MONTHLY DISCHARGE, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MONTH	PUMPAGE IN ACRE-FEET
October.....	1,520
November.....	1,440
December.....	0
CAL YR 1974.....	111,500
January.....	0
February.....	0
March.....	7,770
April.....	12,860
May.....	20,610
June.....	18,830
July.....	16,270
August.....	7,660
September.....	7,930
WTR YR 1975.....	94,890

CEDAR BAYOU BASIN

08067500 Cedar Bayou near Crosby, Tex.

LOCATION.--Lat 29°58'21", Long 94°59'08", Liberty County, on left bank at downstream side of bridge on U.S. Highway 90 and 6.6 miles (10.6 km) northeast of Crosby.

DRAINAGE AREA.--64.9 mi² (168.1 km²).

PERIOD OF RECORD.--Discharge: March to August 1946, March 1963 to February 1964, May to August 1971 (discharge measurements only), October 1971 to current year.

Water quality: Chemical, biochemical, and pesticide analyses: May 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 31.31 ft (9.543 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,960 ft³/s (55.5 m³/s) Nov. 1 (gage height, 22.22 ft or 6.773 m); minimum daily, 0.89 ft³/s (0.025 m³/s) Apr. 4.

Period of record: Maximum discharge, 2,870 ft³/s (81.3 m³/s) June 13, 1973 (gage height, 24.91 ft or 7.593 m); minimum daily, 0.01 ft³/s (0.0003 m³/s) May 20, July 30, 1974.

REMARKS.--Discharge records fair. Low flow is sustained from industrial effluent and drainage from irrigated lands.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	1,700	35	140	919	5.7	3.8	154	393	28	43	9.1
2	8.5	1,640	29	407	991	5.7	7.4	49	141	26	98	7.5
3	11	680	25	998	401	5.7	12	29	40	18	223	7.0
4	7.5	329	23	448	484	7.7	.89	18	15	12	157	9.8
5	6.0	177	23	194	363	13	6.3	14	8.2	11	498	8.5
6	5.6	102	84	92	141	9.6	16	23	6.5	10	296	12
7	6.0	68	100	147	63	7.9	9.0	17	5.5	12	120	11
8	4.7	72	55	126	44	7.6	261	13	7.7	9.8	56	18
9	4.0	66	38	69	38	7.4	528	16	61	12	33	10
10	2.3	213	39	154	35	7.0	236	19	605	11	24	10
11	1.5	758	374	128	54	7.0	106	20	454	27	12	9.1
12	2.8	358	237	77	119	4.0	41	208	197	36	8.0	17
13	4.3	166	109	60	42	8.9	13	62	64	30	6.9	13
14	3.7	86	81	43	28	9.5	752	116	38	28	4.7	8.5
15	22	58	500	36	23	7.2	1,030	81	23	41	4.5	6.4
16	30	44	303	32	21	6.3	381	27	17	52	4.7	4.2
17	21	55	143	33	16	6.1	108	17	11	38	5.0	4.3
18	17	53	70	333	13	27	45	20	9.7	29	5.0	4.3
19	17	55	55	254	11	11	36	14	10	27	9.1	4.7
20	13	48	44	94	9.0	7.4	33	13	11	25	9.0	4.7
21	9.4	45	35	50	7.7	4.8	33	10	9.8	23	7.5	4.7
22	7.2	34	29	45	7.6	3.6	81	15	4.9	21	5.3	4.7
23	6.2	29	26	41	7.6	3.1	37	9.6	7.2	20	5.7	4.6
24	5.3	291	26	35	6.7	3.2	25	8.0	19	27	6.6	5.4
25	4.3	572	31	35	6.0	2.2	24	22	40	33	14	7.5
26	3.7	277	66	32	6.0	1.8	22	35	38	33	28	12
27	3.5	135	173	28	5.7	2.5	14	25	33	59	15	9.3
28	3.9	69	288	27	5.7	4.4	19	50	30	51	15	7.4
29	7.2	49	364	26	-----	2.9	32	460	25	50	19	8.4
30	7.1	43	576	28	-----	2.6	103	1,170	33	50	9.4	5.1
31	369	-----	297	26	-----	2.6	-----	833	-----	66	9.8	-----
TOTAL	624.5	8,272	4,278	4,238	3,868.0	205.4	4,015.39	3,567.6	2,357.5	915.8	1,752.2	248.2
MEAN	20.1	276	138	137	138	6.63	134	115	78.6	29.5	56.5	8.27
MAX	369	1,700	576	998	991	27	1,030	1,170	605	66	498	18
MIN	1.5	29	23	26	5.7	1.8	.89	8.0	4.9	9.8	4.5	4.2
AC-FT	1,240	16,410	8,490	8,410	7,670	407	7,960	7,080	4,680	1,820	3,480	492
(††)	3.34	11.78	3.63	3.87	2.84	1.99	4.18	6.84	4.65	1.19	3.57	2.27
CAL YR 1974	TOTAL	31,908.19	MEAN	87.4	MAX	1,700	MIN	.01	AC-FT	63,290	††	54.00
WTR YR 1975	TOTAL	34,342.59	MEAN	94.1	MAX	1,700	MIN	.89	AC-FT	68,120	††	50.15

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
11-1	2000	22.22	1,960	4-14	1700	18.41	1,290
1-3	0300	17.67	1,220	5-30	0300	19.01	1,290
2-1	2000	19.58	1,600				

†† Rainfall, in inches, at gaging station.

CEDAR BAYOU BASIN

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08067500 Cedar Bayou near Crosby, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 22...	1230	7.4	13	44	3.7	47	2.8	119	0	12
NOV. 12...	1015	440	--	--	--	--	--	--	--	--
DEC. 11...	0930	490	6.2	16	1.1	12	2.4	49	0	9.1
JAN. 13...	1100	46	--	--	--	--	--	--	--	--
28...	0945	16	--	--	--	--	--	--	--	--
MAR. 12...	1000	6.0	--	--	--	--	--	--	--	--
APR. 02...	1345	7.4	9.1	64	7.6	80	3.9	136	0	41
MAY 19...	1350	12	--	--	--	--	--	--	--	--
JULY 16...	1130	52	--	--	--	--	--	--	--	--
SEP. 02...	1100	9.8	14	53	8.7	64	3.0	188	0	48
15...	1000	9.0	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT. 22...	83	--	.14	.01	.10	.80	.90	.25	265	52
NOV. 12...	--	--	.04	.00	.07	1.1	1.2	.18	--	97
DEC. 11...	20	.1	.16	.01	.08	1.1	1.2	.16	91	334
JAN. 13...	--	--	.15	.08	.11	.50	.61	.16	--	188
28...	--	--	.23	.02	.07	1.0	1.1	.21	--	121
MAR. 12...	--	--	.07	.01	.05	.65	.70	.35	--	84
APR. 02...	150	.3	3.2	.14	.27	1.0	1.3	.69	424	79
MAY 19...	--	--	.68	.21	.04	2.0	2.0	.77	--	72
JULY 16...	--	--	.05	.01	.04	.77	.81	.13	--	122
SEP. 02...	70	.5	.03	.01	.00	1.3	1.3	.25	354	16
15...	--	--	.21	.01	.00	1.2	1.2	.24	--	87

DATE	VOL. NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)
OCT. 22...	20	130	28	1.8	505	6.9	22.0	40	35
NOV. 12...	18	--	--	--	213	6.5	17.0	120	55
DEC. 11...	66	44	4	.8	188	6.4	11.5	80	150
JAN. 13...	34	--	--	--	367	6.8	6.0	140	100
28...	24	--	--	--	692	6.9	19.5	40	60
MAR. 12...	3	--	--	--	1250	--	20.5	30	40
APR. 02...	2	190	80	2.5	833	6.7	20.5	50	50
MAY 19...	5	--	--	--	596	7.3	27.5	100	50
JULY 16...	27	--	--	--	428	7.5	25.5	70	60
SEP. 02...	1	170	14	2.1	657	7.0	29.0	30	10
15...	25	--	--	--	599	7.6	25.0	50	40

CEDAR BAYOU BASIN

08067500 Cedar Bayou near Crosby, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCHI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	PHENOLS (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT. 22...	12.0	136	2.0	4200	290	500	19	2	.0
NOV. 12...	7.8	80	3.3	27000	4400	2000	13	--	.1
DEC. 11...	9.2	84	3.9	380000	29000	30000	17	4	.1
JAN. 13...	12.1	97	2.7	6700	950	1200	--	--	.1
MAR. 28...	7.6	82	2.9	12000	380	530	13	--	.1
APR. 12...	6.3	69	2.8	8700	240	120	5.9	--	.1
MAY 02...	12.0	132	5.9	14000	280	160	8.1	8	.2
JULY 19...	10.0	125	7.0	61000	750	170	20	--	.1
SEP. 16...	6.8	82	2.0	5300	600	1000	9.0	--	.1
02...	5.8	74	2.0	7100	40	240	9.3	3	.1
15...	6.3	75	1.8	5500	150	850	14	--	.1

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
OCT. 22...	1230	140	2	90	0	0	1	2
DEC. 11...	0930	--	--	40	--	--	--	--
APR. 02...	1345	60	1	90	0	0	0	2
SEP. 02...	1100	--	--	80	--	--	--	--

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 22...	120	22	0	20	.0	1	200	30
DEC. 11...	--	--	--	--	--	--	--	--
APR. 02...	40	0	10	40	.0	0	360	30
SEP. 02...	--	--	--	--	--	--	--	--

08067500 Cedar Bayou near Crosby, Tex.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDO (UG/L)	DDO IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)
OCT. 22...	1230	7.4	22.0	.00	2.2	.00	.5	.00	.0	.00	1.2
DEC. 11...	0930	490	11.5	.00	--	.00	--	.00	--	.00	--
JAN. 13...	1100	46	6.0	--	.0	--	.0	--	.0	--	.0
APR. 02...	1345	7.4	20.5	.00	.0	.00	.3	.00	.5	.00	.5
SEP. 02...	1100	9.8	29.0	--	.0	--	1.2	--	.0	--	3.1

DATE	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)
OCT. 22...	.01	3.8	.00	.0	.00	.0	.00	.0	.00	.0	.0
DEC. 11...	.01	--	.00	--	.00	--	.00	--	.00	--	.0
JAN. 13...	--	2.1	--	.0	--	.0	--	.0	--	.0	--
APR. 02...	.01	2.4	.00	.0	.00	.0	.00	.0	.00	.0	.0
SEP. 02...	--	1.7	--	.0	--	.0	--	.1	--	.0	--

DATE	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- AZINON (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL SILVEX (UG/L)	TOTAL 2,4,5-T (UG/L)
OCT. 22...	0	.0	0	.00	.00	.00	.00	.00	.00	.00
DEC. 11...	--	.0	--	.00	.00	.00	.00	.34	.00	.00
JAN. 13...	0	--	0	--	--	--	--	--	--	--
APR. 02...	1	.0	1	.02	.00	.00	.00	.00	.00	.00
SEP. 02...	0	--	3	--	--	--	--	--	--	--

Because the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than continuous stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage of those events. The data collected for special reasons are called measurements at miscellaneous sites.

Streamflow data collected at partial-record stations where water-quality data other than observations of water temperature are not obtained are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations; the second is a table of annual maximum stage and (or) discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low and high flows are given in a third table. Discharge measurements and water-quality data collected at partial-record stations are presented in downstream order in the section of this report entitled "Gaging-station records."

Low-flow partial-record stations

Measurements of streamflow at low-flow partial-record stations that are not published in the gaging-station section are given in the following table. Most of the measurements of low flow were made during periods when streamflow was sustained primarily by ground-water discharge. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will indicate the low-flow potential of the stream. The years listed in the column headed "Period of record" identifies the water years in which measurements were made at the same or at practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Arkansas River basin						
07227700	Chicken Creek near Amarillo, Tex.	Lat 35°28'29", long 101°45'35", Potter County, about 1.5 miles northeast of LX Ranch headquarters and about 18 miles northeast of Amarillo.	(c)	1953-75	1-30-75 7-18-75	1.3 .84
Red River basin						
07299750	Wanderers Creek at Odell, Tex.	Lat 34°20'50", long 99°25'15", Willbarger County, at county road bridge and 0.25 mile northwest of Odell Post Office.	199	1949-50, 1952-75	1-21-75 8-19-75	2.8 28
07299890	Lelia Lake Creek below Bell Creek near Hedley, Tex.	Lat 34°56'08", long 100°41'46", Donley County, 150 ft downstream from county road crossing, 1.0 mile downstream from mouth of Bell Creek, and about 5 miles north of Hedley.	74	1964-75	1-28-75 7-15-75	4.6 2.5
07303300	Elm Creek near Shamrock, Tex.	Lat 35°07'21", long 100°17'07", Collingsworth County, at county road bridge, 1,500 ft downstream from Fort Worth and Denver (Burlington) Railway Company bridge, and about 6 miles southwest of Shamrock.	(c)	1947-75	1-28-75 7-17-75	2.2 1.6
07307500	Quitaque Creek near Quitaque, Tex.	Lat 34°14'24", long 101°07'03", Floyd County, at W. F. Saul's Ranchhouse, 0.7 mile upstream from Turkey Creek, 1.8 miles downstream from Wilson Creek, and 9.7 miles southwest of Quitaque.	d293	1945-59*, 1960-75	1-23-75 7- 8-75	1.6 .48
07307700	Roaring Springs near Roaring Springs, Tex.	Lat 33°51'12", long 100°51'53", Motley County, 3.5 miles south of Roaring Springs.	(c)	1937, 1943-75	1-20-75 7-29-75	1.2 .87
07346160	Frazier Creek near McLeod, Tex.	Lat 32°54'37", long 94°07'16", Cass County, at bridge on Farm Road 125 and 3.3 miles southwest of McLeod.	199	1964-75	9-16-75	8.2
Neches River basin						
08031300	Flat Creek below Lake Athens near Athens, Tex.	Lat 32°12'19", long 95°43'29", Henderson County, downstream from Flat Creek Dam and 7.7 miles east of Athens.	21.6	1963-75	7-30-75 9-10-75	.02 .03
Trinity River basin						
08065975	Harmon Creek near Huntsville, Tex.	Lat 30°49'12", long 95°29'09", Walker County, at end of county road, 2.2 miles east of Farm Road 980, 7.6 miles northeast of Huntsville, and about 9 miles southwest of Riverside.	89.2	1973-75	1-22-75 3- 4-75 9- 8-75	15 15 6.9
08066210	Long King Creek near Goodrich, Tex.	Lat 30°36'16", long 94°57'26", Polk County, at bridge on Farm Road 1988, 0.7 mile west of Goodrich, and 4.5 miles upstream from mouth.	220	1973-75	10-31-74 12-19-74 3- 5-75 5-30-75	253 152 241 1,440

+ Operated as a continuous-record station.

c Not applicable.

d Of which 258 sq mi is probably noncontributing.

Crest-stage and flood-hydrograph partial-record stations

The following table contains annual maximum stage and (or) discharge at partial-record stations operated primarily for the purpose of defining the flooding characteristics of the streams. At stations where discharge is given, or is footnoted "to be determined", a stage-discharge relation has been, or will be, defined by discharge measurements obtained by current meter or by indirect procedures. Water-stage recorders are located at these flood-hydrograph stations to facilitate complete hydrograph definition. At stations where only the maximum stage is given (discharge column is dashed), data are generally collected for use in stage-frequency studies or flood-profile definition. Gages at these stations usually consist of a device that will register the peak stage occurring between inspections of the gage. The years used in the column "Period of record" identify the years in which the annual maximum has been determined.

Annual maximum stage and (or) discharge during water year 1975							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Neches River basin							
08037300	Gingham Branch near Mount Enterprise, Tex.	Lat 31°55'14", long 94°33'33", Rusk County, at culvert on U.S. Highway 84 and 7.5 miles east of Mount Enterprise (discontinued).	0.90	1967-74	6- 1-67 4- 8-68 3-15-69 3- 4-70 1971 1- 4-72 11- 7-72 2-21-74	6.92 10.31 8.44 7.01 (f) 8.60 7.56 8.80	e61 e400 e194 e68 e<48 e210 e110 e235
Trinity River basin							
08048550	Dry Branch at Blandin Street, Fort Worth, Tex.	Lat 32°47'19", long 97°18'22", Tarrant County, at culvert on Blandin Street in north Fort Worth and 2.8 miles upstream from mouth.	1.08	1969-75	7-25-75	591.59	570
08048820	Little Fossil Creek at Interstate Highway 820, Fort Worth, Tex.	Lat 32°50'22", long 97°19'20", Tarrant County, at culvert on south access road to Interstate Highway 820 and 5.7 miles north of Tarrant County courthouse, Fort Worth.	5.64	1969-75	7-25-75	615.69	1,260
08055580	Joes Creek at Royal Lane, Dallas, Tex.	Lat 32°53'43", long 96°41'36", Dallas County, at culvert on Royal Lane in northwest Dallas and 4.9 miles upstream from mouth.	1.94	1973-75	3-26-75	512.08	1,590
08055600	Joes Creek at Dallas, Tex.	Lat 32°51'41", long 96°52'27", Dallas County, at bridge on State Highway 114, Dallas, and 0.9 mile upstream from mouth.	7.51	1962-75	6- 9-75	423.06	1,230
08057020	Coombs Creek at Sylvan Avenue, Dallas, Tex.	Lat 32°46'01", long 96°50'07", Dallas County, at bridge on Sylvan Avenue, Dallas, and 1.2 miles upstream from mouth.	4.75	1965-75	8-21-75	420.14	1,390
08057050	Cedar Creek at Bonnie View Road, Dallas, Tex.	Lat 32°44'50", long 96°47'44", Dallas County, at bridge on Bonnie View Road, Dallas, and 0.9 mile upstream from mouth.	9.42	1965-75	4- 9-75 5-27-75	402.00 400.59	(k) 3,920
08057120	Spanky Branch at McCallum Lane, Dallas, Tex.	Lat 32°57'58", long 96°48'11", Dallas County, at bridge on McCallum Lane, Dallas, and 0.5 mile upstream from mouth.	6.77	1962-75	4- 8-75	558.23	1,160
08057130	Rush Branch at Arapaho Road, Dallas, Tex.	Lat 32°57'45", long 96°47'44", Dallas County, near drop-inlet structure at upstream side of Arapaho Road in north Dallas.	1.22	1973-75	4- 8-75	595.08	472
08057140	Cottonwood Creek at Forest Lane, Dallas, Tex.	Lat 32°54'33", long 96°45'54", Dallas County, at bridge on Forest Lane, Dallas, and 0.2 mile upstream from Floyd Branch.	8.50	1962-75	5-29-75	504.51	1,090
08057160	Floyd Branch at Forest Lane, Dallas, Tex.	Lat 32°54'33", long 96°45'34", Dallas County, at bridge on Forest Lane, Dallas, and 0.3 mile upstream from mouth.	4.17	1962-75	5-29-75	502.93	992
08057320	Ash Creek at Highland Road, Dallas, Tex.	Lat 32°48'18", long 96°43'04", Dallas County, at bridge on Highland Road, Dallas, and 0.4 mile upstream from mouth.	6.92	1963-75	5-27-75	424.82	5,230
08057415	Elam Creek at Seco Boulevard, Dallas, Tex.	Lat 32°44'14", long 96°41'36", Dallas County, at bridge on Seco Boulevard in southeast Dallas.	1.25	1973-75	5- 6-75	466.02	746
08057418	Fivemile Creek at Kiest Boulevard, Dallas, Tex.	Lat 32°42'19", long 96°51'32", Dallas County, at bridge on Kiest Boulevard, Dallas, and 10.9 miles upstream from mouth.	7.65	1974-75	9-20-74 5-27-75	522.09 514.54	- -
08057420	Fivemile Creek at U.S. Highway 77, Dallas, Tex.	Lat 32°41'15", long 96°49'22", Dallas County, at bridge on U.S. Highway 77, Dallas, 0.2 mile upstream from Woody Branch, and 8.0 miles upstream from mouth.	13.2	1965-75	5-27-75	464.26	3,580
08057425	Woody Branch at U.S. Highway 77, Dallas, Tex.	Lat 32°40'58", long 96°49'22", Dallas County, at bridge on U.S. Highway 77, Dallas, and 0.4 mile upstream from mouth.	11.5	1965-75	5-27-75	469.11	2,990

< Less than.

e Revised.

f Flow did not reach bottom of intakes.

k Affected by backwater.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum stage and (or) discharge during water year 1975--Continued

Annual maximum stage and (or) discharge during water year 1975--Continued							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Trinity River basin--Continued							
08057430	Fivemile Creek at Lancaster Road, Dallas, Tex.	Lat 32°40'49", long 96°47'10", Dallas County at bridge on Lancaster Road, Dallas, and 6.7 miles upstream from mouth.	37.9	1965-75	5-27-75	433.18	6,020
08057435	Newton Creek at Interstate Highway 635, Dallas, Tex.	Lat 32°39'19", long 96°44'41", Dallas County at bridge on Interstate Highway 635 in south-east Dallas and 2.2 miles upstream from mouth.	5.91	1974-75	1-10-74 7-25-75	436.72 436.12	- -
08057440	Whites Branch at Interstate Highway 635, Dallas, Tex.	Lat 32°39'26", long 96°44'25", Dallas County, at bridge on Interstate Highway 635 in south-east Dallas and 0.2 mile upstream from mouth.	2.53	1974-75	9-16-74 7-25-75	431.43 431.24	- -
08061620	Duck Creek at Buckingham Road, Garland, Tex.	Lat 32°55'53", long 96°39'55", Dallas County, at dam 200 ft upstream from Buckingham Road in north Garland and 17.5 miles upstream from mouth.	8.05	1969-75	2- 1-75	562.81	2,720
08061920	South Mesquite Creek at State Highway 352, Mesquite, Tex.	Lat 32°46'09", long 96°37'18", Dallas County, at bridge on State Highway 352 in west Mesquite and 9.6 miles upstream from mouth.	13.4	1969-75	10-31-74 2- 1-75	444.04 444.04	2,720 2,720

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table:

Discharge measurements made at miscellaneous sites during water year 1975						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Red River basin						
Holiday Creek	Wichita River	Lat 33°53'24", long 98°29'05", Wichita County, at downstream side of access road bridge on U.S. Highway 287, at Wichita Falls, Tex.	-	-	5-30-75	821
Trinity River basin						
Diversion Channel	Trinity River	Lat 32°50'40", long 96°52'43", Dallas County, in rectified diversion channel, 200 ft downstream from concrete structure under Field Road, 3,500 ft southwest of Bachman Lake filtration plant, 3,500 ft northeast of a channel dam (Frazier dam) on Elm Fork Trinity River; 5,000 ft south of Field Circle interchange, and 4.6 miles northeast of central Post Office in Irving, Tex.	-	-	12-11-74	280
Elm Fork Trinity River	.....do.....	Lat 33°18'25", long 97°02'31", Denton County, at bridge on Farm Road 428, 700 ft downstream from Aubrey Branch, 1.7 miles downstream from Bray Branch, 3.2 miles west of Aubrey, Tex., and 3.6 miles upstream from Culp Branch.	-	-	11-26-74 12-18-74 1-29-75 3-10-75 4-23-75 6- 3-75	156 93 37 145 106 172
American Rice Growers Canal	Trinity River (Diversion)	Lat 29°57'54", long 94°49'27", Chambers County, 4,500 ft west of Moore Bluff pump plant, at pipeline crossing, and 6.5 miles southeast of Liberty, Tex.	-	-	6-25-75 6-25-75 6-26-75 8-22-75	129 97 100 32
Chambers-Liberty County Navigation District's Lake intake pumps	.....do.....	Lat 29°48'42", long 94°42'30", Chambers County at bridge on private road, 30 ft west of pumping plant on west bank of Lake Anahuac, and 3 miles northwest of Anahuac, Tex.	-	-	4-11-75 4-11-75	312 299
Chambers-Liberty County Navigation District's Lone Star Canaldo.....	Lat 29°46'24", long 94°40'46", Chambers County, at bridge on South Bay Avenue at Anahuac, Tex.	-	-	4-10-75 4-10-75 4-10-75 4-10-75 4-11-75 4-11-75	175 172 178 171 89 90

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