Water Resources Data Texas Water Year 1996

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-96-1
Prepared in cooperation with the State of Texas
and with other agencies

CALENDAR FOR WATER YEAR 1996

1995

OCTOBER

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1996

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SEPTEMBER

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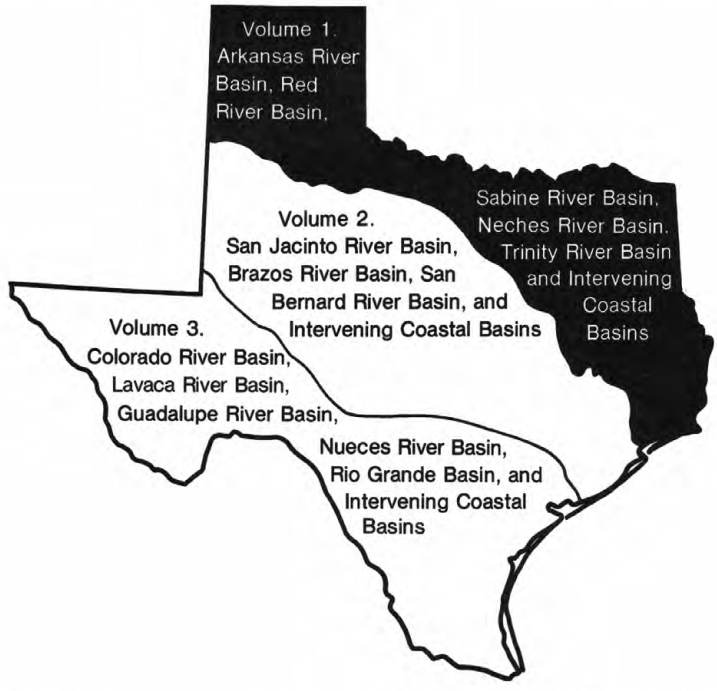
Water Resources Data
Texas
Water Year 1996

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

by S.C. Gandara, W.J. Gibbons, F.L. Andrews, R.E. Jones, and D.L. Barbie



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TX-96-1
Prepared in cooperation with the State of Texas
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

GEOLOGICAL SURVEY

Gordon P. Eaton, Director

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1997

PREFACE

This edition of the annual hydrologic data report of Texas is one of a series of annual reports that document hydrologic data collected from the U.S. Geological Survey's collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by Federal, State, local agencies, and the private sector for developing and managing land and water resources in Texas which are contained in 4 volumes:

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 Bernard River Basin, and Intervening Coastal Basins

Volume 3. Colorado River Basin, Lavaca River Basin, Guadalupe River Basin, Nueces River Basin, Rio Grande Basin, and Intervening Coastal Basins

Volume 4. Ground-Water Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had the primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. Geological Survey policy and established guidelines, most of the data were collected, computed, and processed from Subdistrict and Field Offices. The following supervised the collection, processing, and tabulation of the data:

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	February 1997	Annual--Oct. 1, 1995 to Sept. 30, 1996

4. TITLE AND SUBTITLE

Water Resources Data--Texas, Water Year 1996, Volume 1
Arkansas River, Red River, Sabine River, Neches River,
Trinity River Basins and Intervening Coastal Basins

5. FUNDING NUMBERS

6. AUTHOR(S)

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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

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Austin, TX 78754-3898

8. PERFORMING ORGANIZATION REPORT NUMBER

USGS-WDR-TX-96-1

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. Geological Survey, Water Resources Division
Texas District
8011 Cameron Road, Bldg. 1
Austin, TX 78754-3898

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

USGS-WDR-TX-96-1

11. SUPPLEMENTARY NOTES

Prepared in cooperation with Federal, State, and local agencies.

12a. DISTRIBUTION / AVAILABILITY STATEMENT

No restriction on distribution.
This report may be purchased from
National Technical Information Service
Springfield, VA 22161

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

Water-resources data for the 1996 water year for Texas are presented in four volumes, and consist of records of stage, discharge, and water quality of streams and canals; stage, contents, and water-quality of lakes and reservoirs; and water levels and water quality of ground-water wells. Volume 1 contains records for water discharge at 112 gaging stations; stage only at 4 gaging stations; stage and contents at 34 lakes and reservoirs; water quality at 76 gaging stations; and data for 15 partial-record stations comprised of 9 flood-hydrograph, 3 low-flow, and 3 crest-stage stations. Also included are lists of discontinued surface-water discharge or stage-only stations and discontinued surface-water-quality stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating Federal, State, and local agencies in Texas. Records for a few pertinent stations in the bordering States also are included.

14. SUBJECT TERMS

*Texas, *hydrologic data, *surface water, *water quality, flow rate, gaging stations, lakes, reservoirs, chemical analyses, sediments, water temperature, sampling sites.

15. NUMBER OF PAGES

539

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	

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TABLES

GAGING STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Type of data collected: (d) discharge; (c) chemical; (b) biological; (t) water temperature; (s) sediment; (e) elevation, gage heights, or contents.]

GAGING STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GAGING STATIONS IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Texas have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the title page of this report.

[Letters after station name designate the type of data collected: (d) discharge, (e) elevation (stage only).]

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Punta De Agua Creek near Channing (d)	07227448	3,568	1968-73
East Chyenne Creek Tributary near Channing (e)	07227460	0.86	1965-74
Canadian River at Tascosa (d)	07227470	18,536	1969-77
Tecovas Creek Tributary near Bushland (e)	07227480	2.5	1966-74
Lake Meredith near Sanford (e)	07227900	20,220	1965-87
Dixon Creek near Borger (d)	07227920	134	1974-89
Palo Duro Creek near Canyon (e)	07229700	982	1942-54
Palo Duro Creek near Spearman (d)	07233500	960	1945-79
Tierra Blanca Creek above Buffalo Lake near Umbarger (d)	07295500	1,968	1939-54, 1967-73
Buffalo Lake near Umbarger (e)	07296000	2,075	1938-54
Tierra Blanca Creek below Buffalo Lake near Umbarger (d)	07296100	2,075	1967-73
Prairie Dog Town Fork Red River near Canyon (d)	07297500	3,369	1924-26, 1938-49
Middle Tule Draw near Tulia (e)	07297920	313	1967-74
North Tule Draw at Reservoir near Tulia (d)	07298000	189	1939-40, 1941-73
MacKenzie Reservoir near Silverton (d)	07298100	188	1975-86
Rock Creek Tributary near Silverton (d)	07298150	13.7	1966-74
Tule Creek near Silverton (d)	07298200	1,150	1964-86
Prairie Dog Town Fork Red River near Brice (d)	07298500	6,082	1939-44, 1949-51, 1960-63
Mulberry Creek near Brice (d)	07299000	534	1949-51
Prairie Dog Town Fork Red River near Lakeview (d)	07299200	6,792	1963-80
Little Red River near Turkey (d)	07299300	139	1968-81
Prairie Dog Town Fork Red River near Estelline (d)	07299500	7,293	1924-25, 1938-47
Prairie Dog Town Fork Red River below Mountain Creek near Estelline (e)	07299505	7,341	1974-77
Prairie Dog Town Fork Red River above Jonah Creek near Estelline (e)	07299510	7,533	1974-77
Jonah Creek at Weir near Estelline (d)	07299512	65.50	1974-82
Jonah Creek below Weir near Estelline (d)	07299514	66.60	1974-76
Jonah Creek at mouth near Estelline (d)	07299525	76	1974-76
Salt Creek near Estelline (d)	07299530	142	1974-79
Red River near Quanah (d)	07299570	8,321	1960-82
North Groesbeck Creek Tributary near Kirkland (d)	07299575	0.16	1966-74
Salt Fork Red River near Clarendon (d)	07299850	457	1960-64
Lelia Lake Creek near Hedley (e)	07299900	86	1951-70
Salt Fork Red River near Hedley (e)	07299930	744	1951, 1956-62
Oklahoma Draw Tributary near Hedley (e)	07299940	1.1	1965-74
McClellan Creek near McLean (d)	07301200*	759	1968-80
North Fork Red River near Shamrock (d)	07301300*	1,082.0	1964-92
Sweetwater Creek near Wheeler (e)	07301400	164	1951-64
Doodlebug Creek near Wheeler (e)	07301405	0.19	1967-73
Quitaque Creek near Quitaque (d)	07307500	293	1945-59
North Pease River near Childress (d)	07307600	1,434	1973-79
North Pease River near Kirkland (e)	07307660	N/A	1973-79
Cottonwood Creek Tributary near Afton (e)	07307720	0.68	1967-74
Middle Pease River near Paducah (d)	07307750	1,086	1973-79
Middle Pease River near Paducah (d)	07307760	1,123	1980-82
Middle Pease River near Kirkland (e)	07307780	1,250	1973-79
Canal Creek near Crowell (e)	07307950	49.0	1968-70, 1978-79

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Pease River near Crowell (d)	07308000	3,037	1924-47
Plum Creek near Vernon (e)	07308220	4.99	1967-74
China Creek near Electra (e)	07308400	37	1967-76
Truscott Brine Lake near Truscott (e)	07311669	26.2	1985-93
North Fork Wichita River near Crowell (d)	07311622	591	1971-76
Middle Fork Wichita River near Truscott (d)	07311648	161	1971-76
South Fork Wichita River near Guthrie (d)	07311780	239	1952-54, 1956-57, 1971-76
South Wichita River at Ross Ranch near Benjamin (d)	07311790	499	1971-79
Wichita River near Seymour (d)	07311900	1,874	1960-79
Beaver Creek Tributary near Crowell (e)	07312140	3.43	1966-74
Wolf Creek near Iowa Park (e)	07312300	8.5	1966-74
North Fork Little Wichita River near Archer City (e)	07314200	0.10	1966-74
Little Wichita River near Henrietta (d)	07315000	1,037	1953-79
Little Wichita River near Ringgold (d)	07315400	1,350	1959-65
Farmers Creek near Saint Jo (e)	07315550	0.82	1966-74
Mineral Creek near Sadler (d)	07316200	26	1968-77
Sandy Creek near Sadler (e)	07316230	24	1968-74
Red River at Denison Dam near Denison (d)	07331600	39,720	1924-89
Bois D'Arc Creek near Randolph (d)	07332600	72	1963-85
Cooper Creek near Bonham (e)	07332602	6.21	1966-74
Sanders Creek near Chicota (d)	07335400	175	1968-86
Little Pine Creek near Kanawha (d)	07336750	75.40	1969-80
Pecan Bayou near Clarksville (d)	07336800	100	1962-77
South Sulphur River near Commerce (d)	07342470	189	1980-91
Cuthand Creek near Bogata (d)	07343300	69	1964-74
Buck Creek near Cookville (e)	07343900	0.78	1966-74
Sulphur River near Darden (d)	07344000	2,774	1924-56
Big Cypress Creek near Winnsboro (d)	07344482	27.2	1974-92
Lake Cypress Springs near Mt. Vernon (d)	07344484	75.0	1974-91
Dragoo Creek near Mt. Pleasant (e)	07344490	4.27	1967-74
Big Cypress Creek near Pittsburg (d)	07344500*	366.0	1943-90
Williamson Creek near Pittsburg (e)	07344600	7.11	1967-74
Boggy Creek near Daingerfield (d)	07345000	72	1943-77
Ellison Creek Reservoir near Lone Star (e)	07345500	37	1943-62, 1974-89
Big Cypress Creek Tributary near Jefferson (e)	07346010	0.51	1966-74
Taylor Branch near Smithland (e)	07346072	0.73	1966-74
Big Cypress Creek near Karnack (e)	07346085	2,174	1980-85
Frazier Creek near Linden (d)	07346140	48.0	1965-91
Sabine River near Emory (d)	08017500	888	1952-73
Grand Saline Creek near Grand Saline (d)	08018200	91.4	1968-73
Burke Creek near Yantis (d)	08018730	33.10	1979-89
Dry Creek near Quitman (e)	08018950	63.6	1968-75
Sabine River at Hawkins (e)	08019200	2,259	1976-82
Lake Winnsboro near Winnsboro (d)	08019300	27.1	1962-86
Big Sandy Creek near Hawkins (e)	08019430	196	1980-82
Prairie Creek near Gladewater (d)	08020200	48.90	1968-77
Sabine River near Longview (d)	08020500	2,947	1904-07, 1924-33
Rabbit Creek at Kilgore (d)	08020700	75.80	1964-77
Grace Creek Tributary at Longview (e)	08020800	5.05	1967-74
Mill Creek near Henderson (d)	08020960	20.30	1979-81
Mill Creek near Longview (d)	08020980	47.90	1979-81
Tiawichi Creek near Longview (d)	08020990	62.70	1978-81
Cherokee Bayou near Elderville	08021000	120	1940-49
Lake Cherokee near Longview (e)	08021500	158	1951-83
Sabine River near Tatum (d) (e)	08022000	3,493	1939-78, 1979-82
Redmon Branch near Hallesville (e)	08022010	0.46	1966-74

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Eight Mile Creek near Tatum (e)	08022050	106	1962-71
Martin Creek near Beckville (e)	08022080	192	1962-71
Murvaul Lake near Gary (d)	08022200	115	1958-78
Murvaul Bayou near Gary (d)	08022300	134	1958-83
Socagee Creek near Carthage (d)	08022400	82.60	1962-73
Tenaha Creek near Shelbyville (d)	08023200	97.80	1952-81
Dorsey Branch near Milam (e)	08024290	0.70	1967-74
Sabine River near Milam (d)	08024400	6,508	1924-25, 1939-68
Palo Gaucho Bayou near Hemphill (d)	08024500	123	1952-65
Mill Creek near Burkeville (d)	08025307	17.6	1974-79
Little Cow Creek below McGraw Creek near Burkeville (e)	08026500	112	1952-58
Nichols Creek near Buna (e)	08029750	54.4	1959-64
Cypress Creek near Buna (d)	08030000	69.20	1952-83
Adams Bayou Tributary near Deweyville (e)	08030700	12.4	1966-74
Cow Bayou near Mauriceville (d)	08031000	83.30	1952-86
Bethlehem Branch near Van (e)	08031100	1.09	1966-74
Kickapoo Creek near Brownsboro (d)	08031200	232	1962-89
Lake Athens near Athens (e)	08031290	21.6	1966-87
Lake Palestine near Frankston (e)	08031400	839	1962-94
Neches River near Reese (d)	08031500	851	1924-27
Hurricane Creek Tributary near Palestine (e)	08032100	0.39	1966-74
One Arm Creek near Maydelle (e)	08032250	6.01	1967-74
Squirrel Creek near Elkhart (e)	08032300	1.57	1967-74
Neches River near Alto (d)	08032500	1,945	1944-79
Neches River near Diboll (d)	08033000*	2,724.0	1924-85
Piney Creek Tributary near Pennington (e)	08033250	1.17	1967-74
Piney Creek near Groveton (d)	08033300	79	1962-89
Shawnee Creek Tributary near Huntington (e)	08033450	0.52	1966-74
Greenwood Creek Tributary near Colmesneil (e)	08033480	0.15	1966-74
Bowles Creek near Selman City (e)	08033600	14.5	1968-85
Striker Creek near Summerfield (d)	08033700	146	1941-49
Striker Creek Reservoir near New Salem (e)	08033800	148	1941-49
East Fork Angelina River near Cushing (d)	08033900	158	1964-89
Lake Tyler near Whitehouse (e)	08034000	107	1949-86
Mud Creek near Jacksonville (d)	08034500	376	1939-79
Mud Creek at Ponta (d)	08035000	475	1924-27
Angelina River near Lufkin (d)	08037000	1,600	1924-34, 1939-79
Bayou Lanana at Nacogdoches (d)	08037050	31.3	1965-86, 1988-93
Gingham Branch near Mt. Enterprise (e)	08037300	0.90	1967-74
Arenoso Creek near San Augustine (d)	08037500	75.30	1938-40
Attoyac Bayou near Chireno (d)	08038000*	503.0	1924-85
Angelina River near Zavalla (d)	08038500	2,892	1952-65
Ayish Bayou at San Augustine (d)	08039000	15.80	1924-25
Ayish Bayou near San Augustine (d)	08039100*	89.0	1959-85
Angelina River at Horger (d)	08039500	3,486	1928-51, 1967-73
Little Sandy Creek Tributary near Jasper (e)	08039900	0.46	1967-74
Neches River at Town Bluff (d)	08040500	7,573	1951-89
Drakes Branch near Spurger (e)	08041400	5.03	1967-74
Hillebrandt Bayou near Lovell Lake (d)	08042500	128	1954-84
West Fork Double Bayou near Anahuac (e)	08042550	4.43	1967-74
North Creek SWS No. 28-A near Jermyn (e)	08042650	6.82	1972-80
North Creek near Jacksboro (d)	08042700	21.60	1956-80
West Fork Trinity River at Bridgeport (d)	08043100	1,113	1984-89
West Fork Trinity River at Bridgeport (d)	08043500	1,147	1908-30
Walker Creek near Boyd (e)	08044200	2.95	1965-74
West Fork Trinity River at Lake Worth, Fort Worth (d)	08045500	2,069	1924-34

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Lake Weatherford near Weatherford (e)	08045800	109	1976-80
Clear Fork Trinity River near Weatherford (d)	08045850*	121.0	1980-87
Clear Fork Trinity River near Aledo (d)	08046000	251	1947-75
Marine Creek at Fort Worth (d)	08048500	16.80	1950-58
Sycamore Creek at I.H. 35W, Fort Worth (d)	08048520	17.70	1970-76
Sycamore Creek Trib. above Seminary South, Fort Worth (d)	08048530	0.97	1970-76
Sycamore Creek Trib. at I.H. 35W, Fort Worth (d)	08048540	1.35	1970-76
Dry Branch at Fain Street at Fort Worth (d)	08048600	2.15	1969-76
Big Fossil Creek at Haltom City (d)	08048800*	52.8	1959-73
Little Fossil Creek at I.H. 820, Fort Worth (e)	08048820	5.64	1969-73
Little Fossil Creek at Mesquite Street, Fort Worth (d)	08048850	12.30	1969-76
Deer Creek Tributary near Crowley (e)	08048900	5.86	1967-74
Village Creek at Kennedale (d)	08048980	100	1986-89
Village Creek near Handley (d)	08049000	126	1925-30
Big Bear Creek near Grapevine (d)	08049550	29.6	1967-79
Trigg Branch at DFW Airport near Euless (d)	08049565	1.73	1983-87
Mountain Creek near Venus (d)	08049580*	26.0	1989-91
Mountain Creek near Cedar Hill (d)	08049600	119	1961-84
Mountain Creek above Duncanville (e)	08049850	224	1986-87
Mountain Creek near Duncanville (e)	08049900	225	1971-90
Mountain Creek near Grand Prairie (d)	08050000	273	1925-33
Elm Fork Trinity River SWS 6-O near Muenster (e)	08050200	0.77	1957-73
Elm Fork Trinity River near Muenster (d)	08050300	46	1957-73
Elm Fork Trinity River near Sanger (d)	08050500	381	1949-85
Isle Du Bois Creek near Pilot Point (d)	08051000	266	1949-85
Elm Fork Trinity River near Pilot Point (d)	08051130	692	1985-92
Elm Fork Trinity River above Aubrey (e)	08051190	684	1981-89
Elm Fork Trinity River near Denton (d)	08052000	1,084	1924-27
Lake Dallas near Lake Dallas (e)	08052500	1,165	1929-57
Little Elm Creek SWS #10 near Gunter (e)	08052630	2.10	1966-72
Little Elm Creek near Celina (d)	08052650	46.70	1966-76
Hickory Creek at Denton (d)	08052780	129	1985-87
Indian Creek at Hebron Parkway at Carrollton (d)	08053010	15.0	1987-90
Furneaux Creek at Josey Lane at Carrollton (d)	08053030	4.10	1987-90
Hutton Branch at Broadway at Carrollton	08053090	9.10	1987-90
Denton Creek near Roanoke (d)	08054000	621	1924-28, 1939-55
Gamble Branch near Argyle (e)	08054200	0.50	1965-74
Denton Creek near Grapevine (d)	08055000	705	1948-91
Joes Creek near Dallas (e)	08055600	7.4	1964-79
Bachman Branch at Dallas (d)	08055700	10	1964-79
Turtle Creek at Dallas (d)	08056500	7.98	1952-80, 1984-91
White Rock Creek at Keller Springs Road, Dallas (d)	08057100	29.40	1961-79
White Rock Creek at White Rock Lake, Dallas (d)	08057300	100	1963-79
White Rock Creek at Scyene Road, Dallas (d)	08057400	122	1963-79
Tenmile Creek at State Highway 342 at Lancaster (d)	08057450	52.80	1970-79
Honey Creek SWS #11 near McKinney	08057500	2.14	1952-73
Honey Creek SWS #12 near McKinney	08058000	1.26	1952-77
Honey Creek near McKinney (d)	08058500	39	1951-73
East Fork Trinity River near McKinney (d)	08059000	190	1949-75
Arls Branch near Westminster (e)	08059200	0.52	1965-74
Sister Grove Creek near Princeton (d)	08059500	113	1949-75
East Fork Trinity River above Pilot Grove near Lavon (d)	08060000	324	1949-53
East Fork Trinity River near Lavon (d)	08061000	773	1954-89
East Fork Trinity River near Rockwall (d)	08061500	840	1924-54
Lake Ray Hubbard near Forney (e)	08061550	1,071	1968-94

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Duck Creek near Garland (d)	08061700	31.6	1958-93
South Mesquite Creek at Mercury Road near Mesquite (d)	08061950	23	1969-79
Cedar Creek Reservoir Spillway Outflow near Trinidad (d)	08062650	1,007	1966-82
Cedar Creek near Kemp (d)	08062800	189	1963-87
Bachelor Creek near Terrell (e)	08062850	13.0	1967-74
Kings Creek near Kaufman (d)	08062900	233	1963-87
Lacey Fork near Mabank (d)	08062980	118	1983-84
Cedar Creek near Mabank (d)	08063000	733	1939-66
South Twin Creek near Eustace (d)	08063003	27.40	1983-84
Red Oak Branch near Eustace (e)	08063005	0.90	1966-74
Cedar Creek at Trinidad (d)	08063020	1,011	1965-71
Pin Oak Creek near Hubbard (d)	08063200	17.60	1956-72
Richland Creek near Richland (d)	08063500	734	1939-88
Richland Creek near Richland (Overflow) (d)	08063501	734.0	1981-87
Alvarado Branch near Alvarado (e)	08063550	0.84	1966-74
Kings Branch near Reagor Springs (e)	08063620	0.62	1966-74
Waxahachie Creek near Waxahachie (e)	08063685	111	1981-82, 1986-87
Chambers Creek near Corsicana (d)	08064500	963	1939-84
Richland Creek near Fairfield (d)	08064600	1,957	1972-83
Saline Branch Tributary near Bethel (e)	08064630	0.22	1967-74
Catfish Creek near Tennessee Colony (d)	08064800	207	1962-89
Panther Branch near Spring (d)	08064850	34.5	1972-74
Mayes Branch near Latexo (e)	08065320	4.26	1967-74
Trinity River near Midway (d)	08065500	14,450	1939-71
Caney Creek near Madisonville (d)	08065700	112	1963-77
Nelson Creek near Riverside (e)	08065950	86.4	1949, 1965, 1970-74
Harmon Creek near Huntsville (e)	08065975	89.2	1973-81
Trinity River at Riverside (d)	08066000	15,589	1951-72
West Carolina Creek near Oakhurst (e)	08066050	15.2	1949, 1966-73
White Rock Creek near Trinity (e)	08066100	222	1974-85,
White Rock Creek near Trinity (e)	08066130	228	1966-74
Tantaboque Creek near Trinity (e)	08066140	61.3	1966-73
Caney Creek near Groveton (e)	08066145	41.4	1966-73
Brushy Creek near Onalaska (d)	08066150	29.1	1966-70
Livingston Reservoir outflow weir near Goodrich (d)	08066191	16,583	1969-94
Long King Creek near Goodrich (d)	08066210	220	1972-81
Bluff Creek Tributary near Livingston (e)	08066280	0.62	1965-74
Big Creek near Shepherd	08066400	38.80	1966-89
Gaylor Creek near Moss Hill (e)	08066800	32.3	1966-73
Devers Canal near Liberty (d)	08067080	N/A	1972-82
Cedar Bayou at Crosby (d)	08067500*	65.0	1972-91
Goose Creek near McNair (e)	08067520	6.7	1963-65, 1971-72

The following stations were discontinued as continuous-record surface-water-quality stations prior to the 1996 water year. Daily records of specific conductance, temperature, sediment, color, pH, dissolved oxygen, or chloride were collected and published for the record shown for each station.

[SC, specific conductance; T, temperature; S, sediment; C, color; pH, pH; DO, dissolved oxygen; Cl, chloride.]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Canadian River at Tascosa	07227470	19,200	SC, T, Cl	1948-53,
		18,536	SC, T, pH, Cl	1969-77
Canadian River near Canadian	07228000	22,866	SC, T	1974-81
Prairie Dog Town Fork Red River near Wayside	07297910	4,221	SC, T	1969-81
Tule Creek near Silverton	07298200	1,150	SC, T, pH, Cl	1968-69
Prairie Dog Town Fork Red River near Brice	07298500	6,082	SC, pH, Cl, S	1949-51,
			T	1950-51
Mulberry Creek near Brice	07299000	534	SC, pH, Cl, S	1949-51
Prairie Dog Town Fork Red River near Lakeview	07299200	6,792	SC, T	1968-80,
			S	1979-80
Little Red River near Turkey	07299300	139	SC, T	1968-81,
			S	1979-81
Jonah Creek at Weir near Estelline	07299512	65.50	SC	1974-82
Jonah Creek below Weir near Estelline	07299514	66.60	SC	1974-76
Salt Creek near Estelline	07299530	142	SC	1974-79
Prairie Dog Town Fork Red River near Childress	07299540	7,725	SC, T	1968-82
Salt Fork Red River near Hedley	07299930	868	SC, T, pH, Cl	1956-61
Salt Fork Red River near Wellington	07300000	1,222	SC, T, pH, Cl	1952-54
			SC, T	1968-91
North Pease River near Childress	07307600	1,434	SC, T	1973-79
Middle Pease River near Paducah	07307750	1,086	SC	1973-79,
			T	1973-77
Middle Pease River near Paducah	07307760	1,128	SC	1980-82,
			T	1980
Pease River near Childress	07307800	2,754	SC, T	1968-82
Pease River near Crowell	07308000	3,037	SC	1942-43
Red River near Burkburnett	07308500	20,570	SC, T	1968-81
North Fork Wichita River near Paducah	07311600	540	SC, T	1968-76
North Fork Wichita River near Crowell	07311622	591	SC	1971-76
Middle Fork Wichita River near Truscott	07311648	161	SC	1970-76
Truscott Brine Lake near Truscott	07311669	26.2	SC, T	1985-90
North Fork Wichita River near Truscott	07311700	937	SC, T	1969-92
South Fork Wichita River near Guthrie	07311780	239	SC	1970-76
South Wichita River below Low-Flow Dam near Guthrie	07311783	223	SC, T	1987-89
South Fork Wichita River at Ross Ranch near Benjamin	07311790	499	SC	1971-79
Wichita River near Seymour	07311900	1,874	SC, T	1968-79
Beaver Creek near Electra	07312200	652	SC, T	1968-70
Wichita River at Wichita Falls	07312500	3,140	SC, T	1982-89
Wichita River near Charlie	07312700	3,439	SC, T	1968-81
Little Wichita River near Archer City	07314500	481	SC	1953-55,
			T	1953-54
Little Wichita River near Henrietta	07315000	1,037	SC, T, pH, Cl	1953-56,
			S, T	1959-66,
East Fork Little Wichita River near Henrietta	07315200	178	T	1954
Little Wichita River near Ringgold	07315400	1,350	SC, pH, Cl	1959-62
Red River near Gainesville	07316000	30,872	SC, Cl	1944-46,
			SC, T, pH, Cl	1953-63,
			SC, T	1967-89,
Red River at Denison Dam near Denison	07331600	39,720	SC	1944-89,
			T	1945-89
Little Pine Creek near Kanawha	07336750	75.40	T	1980

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Red River near De Kalb	07336820	47,348	SC, T	1968-91
South Sulphur River near Cooper	07342500	527	SC, T, pH, Cl	1959-66,
				1968-72,
			SC, T	1973-89
Sulphur River near Talco	07343200	1,365	SC, T, pH, Cl	1966-72,
			SC, T	1973-91
White Oak Creek near Talco	07343500	494	SC, T, pH, Cl	1966-72
			SC, T	1973-91
Sulphur River near Darden	07344000	2,774	SC, T, pH, Cl	1947-50
Big Cypress Creek near Pittsburg	07344500	366	SC, T, pH, Cl	1968-72
			SC, T	1973-89
Little Cypress Creek near Jefferson	07346070	675	SC, T, pH, Cl	1968-72
			SC, T	1973-91
Sabine River near Emory	08017500	888	SC, T, pH, Cl	1952-54
Grand Saline Creek near Grand Saline	08018200	91.40	SC, T, pH, Cl	1968-73
Sabine River near Mineola	08018500	1,357	SC, T, pH, Cl	1968-72
			SC, T	1973-92
Lake Fork Creek near Quitman	08019000	585	SC, T, pH, Cl	1968-72
			SC, T	1973-89
Big Sandy Creek near Big Sandy	08019500	231	SC, T, S	1985-86
Sabine River at Logansport	08022500	4,842	SC, T	1939-45
Sabine River below Toledo Bend near Burkeville	08026000	7,482	SC, T	1969-86,
			C	1969-75
Sabine River near Bon Wier	08028500	8,229	SC, T, C	1969-84
Sabine River near Ruliff	08030500	9,329	pH, DO	1968-75
			C	1970-76
			Cl	1968
Cow Bayou near Mauriceville	08031000	83.30	SC, T, pH, Cl	1952-54,
			SC, T	1954-56
Neches River near Neches	08032000	1,145	SC, T	1974-91
Neches River near Alto	08032500	1,945	SC, T	1950-69
Neches River near Diboll	08033000	2,724	SC, T	1970-81
Neches River near Rockland	08033500	3,636	SC	1941-42,
				1946-47
Angelina River near Lufkin	08037000	1,600	SC, T, pH, Cl	1955-68
			SC, T	1969-79
Angelina River below Sam Rayburn Dam near Jasper	08039400	3,449	SC, T	1964-79
Village Creek near Kountze	08041500	860	SC, T	1968-70
Pine Island Bayou near Sour Lake	08041700	336	SC, T, pH, Cl	1968-72
			SC, T	1973-89
Big Sandy Creek near Bridgeport	08044000	333	SC, T, S	1968-77,
Clear Fork Trinity River at Fort Worth	08047500	518	SC, pH, Cl	1949-52,
			T	1948-62
Village Creek at Everman	08048970	84.5	SC, pH, T, DO	1990
Elm Fork Trinity River SWS # 6-0 near Muenster	08050200	0.77	S	1957-66
Elm Fork Trinity River near Muenster	08050300	46	SC	1967-68,
			T	1957-58,
				1966-68
			S	1957-68
Clear Creek near Sanger	08051500	295	SC, T, S	1968-77
Little Elm Creek near Celina	08052650	46.70	SC	1967-75
			T, S	1966-75
Little Elm Creek near Aubrey	08052700	75.50	SC	1967-75
			T, S	1966-75
Elm Fork Trinity River near Lewisville	08053000	1,673	SC	1982-86,
			T	1976-86
Duck Creek near Garland	08061700	31.6	SC, pH, T, DO	1988-89

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
East Fork Trinity River above Seagoville	08061970	1,183	SC, T, pH, DO	1987-93
Cedar Creek near Mabank	08063000	733	SC, T, pH, Cl	1956-57
Pin Oak Creek near Hubbard	08063200	17.60	SC	1967-72,
			T	1957-60, 1965-72
			S	1957-60, 1962-72
Richland Creek near Richland	08063500	734	SC, T, pH, Cl	1968-69,
			SC, T	1983-89
Chambers Creek near Corsicana	08064500	963	SC, T, pH, Cl	1961-70
Richland Creek near Fairfield	08064600	1,957	SC, T, pH, Cl	1956-66, 1972
			SC, T	1973-83
Trinity River near Oakwood	08065000	12,833	SC, T, pH, Cl	1948-54,
			SC, T, S	1977-81
Bedias Creek near Madisonville	08065800	321	SC, T	1985-87,
			S	1986
Long King Creek at Livingston	08066200	141	SC, T, pH, Cl	1963-72
Trinity River near Goodrich	08066250	16,844	SC, T	1970-73
Trinity River near Moss Bluff	08067100	17,738	SC, pH, Cl	1950-65
Old River near Cove	08067200	19.0	SC, pH, Cl	1950-65,
			T	1965
Trinity River at Anahuac	08067300	17,912	SC, pH, Cl	1950-65

WATER RESOURCES DATA—TEXAS, 1996

VOLUME 1

ARKANSAS RIVER BASIN, RED RIVER BASIN, SABINE RIVER BASIN, NECHES RIVER BASIN, TRINITY RIVER BASIN, AND INTERVENING COASTAL BASINS

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with Federal, State, and City agencies, obtains a large amount of data pertaining to the water resources of Texas each water year. Such data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in four volumes of this report series entitled "Water Resources Data - Texas."

This report series includes records of stage, discharge, and water quality of streams and canals; stage, contents, and water quality of lakes and reservoirs, and water levels and water quality of ground water wells. Volume 1 contains records for water discharge at 112 gaging stations; stage only at 4 gaging stations; stage and contents at 34 lakes and reservoirs; and water quality at 76 gaging stations. Also included are data for 15 partial-record stations comprised of 9 flood-hydrograph, 3 low-flow, and 3 crest-stage stations. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating Federal, State, and City agencies in Texas.

This series of annual reports for Texas began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to its present format, with data on quantities and quality of surface water contained in each of three volumes. Groundwater levels and water quality have been published in a separate volume beginning with the 1991 water year.

Prior to introduction of this series and for several water years concurrent with it, water resources data for Texas were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 7 and 8." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Bldg. 41, Box 25425 Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official U.S. Geological Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water Data Report TX-96-1." For archiving and general distribution, the reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or may be purchased on microfiche from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including the current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (512) 873-3000.

COOPERATION

Federal agencies that assisted the U.S. Geological Survey in the collection of data in this report in the form of funds or services in 1996 are:

- Corps of Engineers, U.S. Army.
- International Boundary and Water Commission United States and Mexico, U.S. Section.
- U.S. Bureau of Reclamation.

Organizations that assisted in the collection of data in this report through joint funding agreements through the Texas Water Development Board or through direct joint funding agreements with the U.S. Geological Survey are:

Texas Water Development Board, G.E. Kretzschmar, Executive Administrator; the cities of Abilene, Arlington, Austin, Corpus Christi, Fort Worth, Gainesville, Garland, Georgetown, Graham, Houston, Lubbock, Nacogdoches, San Angelo, and Wichita Falls; Bexar, Medina, and Atascosa Counties Water Improvement District No. 1; Barton Springs/Edwards Aquifer Conservation District; Brazos River Authority; Canadian Municipal Water Authority; Coastal Water Authority; Colorado River Municipal Water District; Dallas Public Works Department; Dallas Water Utilities; Edwards Underground Water District; Fort Bend Subsidence District; Franklin County Water District; Galveston County; Greenbelt Municipal and Industrial Water Authority; Guadalupe-Blanco River Authority; Harris-Galveston Coastal Subsidence District; Harris County Flood Control District; Houston-Galveston Area Council; Lavaca-Navidad River Authority; Lower Colorado River Authority; Lower Neches Valley Authority; North Central Texas Council of Governments; North Central Texas Municipal Water Authority; Northeast Texas Municipal Water District; North Texas Municipal Water District; Pecos River Commission; Red Bluff Water Power Control District; Red River Authority; Sabine River Authority of Texas; Sabine River Compact Administration; San Antonio City Public Service Board; San Antonio River Authority; San Antonio Water System; San Jacinto River Authority; Somervell County Water District; Tarrant Regional Water District; Texas Soil & Water Conservation Board; Texas State Department of Highways & Public Transportations; Texas Natural Resources Conservation Commission; Texas Water Development Board; Titus County Fresh Water Supply District No. 1; Trinity River Authority; Upper Guadalupe River Authority; Upper Neches River Municipal Water Authority; West Central Texas Municipal Water District; and Wichita County Water Improvement District No. 2.

HYDROLOGIC CONDITIONS

Large variations in precipitation, runoff, and streamflow characterize the usual hydrologic conditions in Texas. In the eastern part of the State, streams typically are deep with wide alluvial flood plains, and streamflow is perennial. In the western part of the State, most streams flow through arroyos, and streamflow usually is ephemeral.

Although drought conditions occurred in places, streamflow throughout the State during water year 1996 ranged from normal (discharges between the 25 percentile and 75 percentile of record) to above normal (discharges within the upper 25 percentile of record).

Conservation storage in 77 selected reservoirs throughout the State, with a combined conservation capacity of 34,558,000 acre-feet, decreased from 82 percent at the end of September 1995 to 72 percent at the end of September 1996. Records from these reservoirs indicate that storage increased in 12, decreased in 60, and remained the same in 5.

The area for which water resources data are presented in volume 1 includes the Texas Panhandle and extends across northern and eastern Texas to southeastern Texas. Normal annual precipitation ranges from about 17 inches in the western part of the Texas Panhandle to more than 50 inches in the extreme southeastern part of the State. Average annual runoff ranges from less than 1 inch in parts of the Panhandle to as much as 15 inches in southeastern Texas. The area described in volume 1 and the location of selected streamflow and water-quality stations in the area are shown in figure 1.

Streamflow

Streamflow ranged from normal to above normal during water year 1996 in the area covered in volume 1. Streamflow for water year 1996 and for the period of record at six selected stations (fig. 1) for which data are included in volume 1 are presented in table 1.

At the four long-term hydrologic index stations in the State, monthly mean streamflow during water year 1996 ranged from below normal to above normal. Monthly mean discharges for water year 1996 and the median of the long-term monthly means for water years 1961–90 for the four long-term hydrologic index stations in the State are shown in figure 2. Streamflow at the hydrologic index station Neches River near Rockland was normal during October, November, and December, above normal in August, and September, and below normal for the remaining 7 months. The station North Bosque River near Clifton had below normal streamflow during May, above normal streamflow during November, August and September, and normal streamflow for the remaining 8 months. The station North Concho River near Carlsbad had below normal streamflow during May, above normal streamflow during August and September, and normal streamflow for the remaining 9 months. Streamflow for the station Guadalupe River near Spring Branch was below normal from February through August, and normal for the remaining 5 months of water year 1996.

Conservation storage in 36 selected reservoirs in this area of the State, with a total combined conservation capacity of 21,547,000 acre-feet, decreased from 89 percent of capacity at the end of September 1995 to 79 percent of capacity at the end of September 1996. Records from these reservoirs indicate that storage increased in 5, decreased in 29, and remained the same in 2 during the water year.

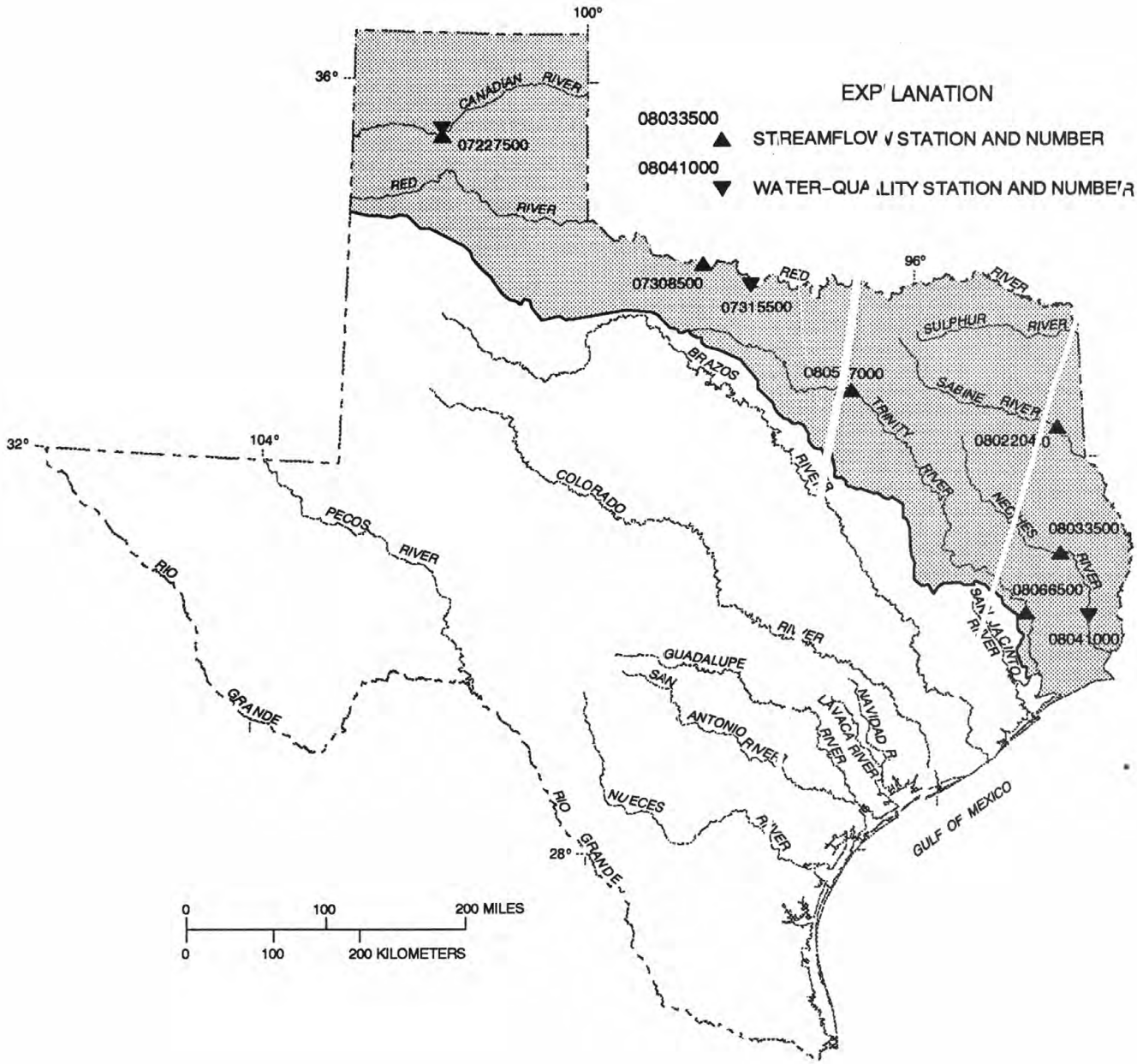

Figure 1. Area of Texas covered by volume 1 (shaded) and location of selected streamflow and water-quality stations in volume 1.

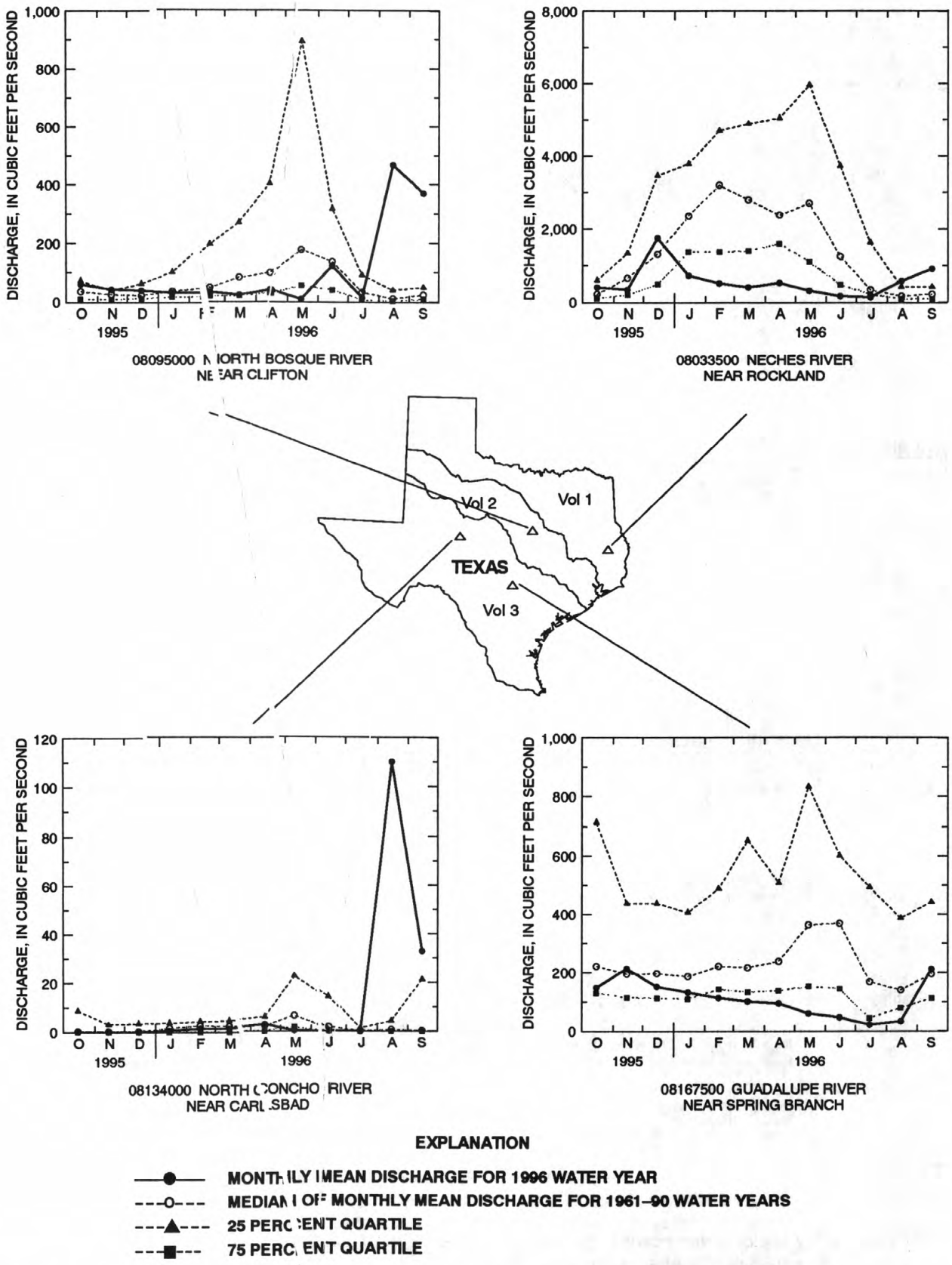

Figure 2. Monthly mean discharges at four long-term hydrologic index stations during 1996 water year and median of the monthly mean discharges for 1961–90 water years.

Water Quality

Dissolved-solids concentrations in most streams in the State are inversely related to streamflow discharges. During years when precipitation and runoff are less than normal, streamflow commonly is more mineralized than during years when precipitation and runoff are normal or greater than normal. However, for streams in which discharge is controlled by reservoirs, the dissolved-solids concentrations may remain relatively constant despite substantial fluctuations in precipitation and runoff.

Records of discharge-weighted-average concentrations of dissolved solids for water year 1996 are compared with those for water years 1992–96 for selected long-term daily or continuous-record water-quality stations (fig. 1) in the Arkansas, Red, and Neches River Basins. Results are shown in table 2.

Table 1. Streamflow at six selected stations

Station no. and name	Discharge during 1996 water year (cubic feet per second)			Discharge during period of record (cubic feet per second)		
	Maximum instantaneous	Minimum daily mean	Mean	Maximum instantaneous	Minimum daily mean	Mean
Arkansas River Basin						
07227500 Canadian River near Amarillo, Tex.	32,300	0.18	229	135,000	0	286 (1939-96)
Red River Basin						
07308500 Red River near Burkburnett, Tex.	22,000	127	1,650	174,000	0	1,201 (1960-96)
Sabine River Basin						
08022040 Sabine River near Beckville, Tex.	3,710	67	376	49,400	2.4	2,494 (1961-96)
Neches River Basin						
08033500 Neches River near Rockland, Tex.1/	6,380	99	561	42,300	18	2,311 (1962-96)
Trinity River Basin						
08057000 Trinity River at Dallas, Tex.	5,970	303	608	111,000	10	1,790 (1934-96)
08066500 Trinity River at Romayor, Tex.	19,100	788	1,975	122,000	292	8,558 (1969-96)

1/ Hydrologic index station.

Table 2. Comparison of records of discharge-weighted-average concentrations of dissolved solids for the 1996 and 1992-96 water years

Station no. and name	Mean discharge (cubic feet per second)		Discharge-weighted-average concentration of dissolved solids (milligrams per liter)	
	1996	1992-96	1996	1992-96
Arkansas River Basin				
07227500 Canadian River near Amarillo, Tex.	229	193	738	876
Red River Basin				
07315500 Red River near Terral, Okla.	1,744	4,080	2,280	1,260
Neches River Basin				
08041000 Neches River at Evadale, Tex.	2,427	8,040	88	80

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of the constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NAPD/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO2 and NOx scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostate.edu/NAPD

National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. There are currently two NAWQA Programs operating in Texas; the Trinity NAWQA and the South Central Texas NAWQA.

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html
http://www.cr.usgs.gov/trin/index.html
http://www.cr.usgs.gov/sctx/index.html

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1996 water year that began October 1, 1995, and ended September 30, 1996. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Texas, for surface-water stations where only miscellaneous measurements are made.

Downstream Order Numbering

Since October 1, 1950, the order of listing hydrologic-station records in U.S. Geological Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 08057000, which appears just to the left of the station name, includes the 2-digit Part number "08" plus the 6-digit downstream-order number "057000." The Part number designates the major river basin; for example, Part "08" is the Western Gulf of Mexico basin.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage- recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relation between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the cur- rent-meter measurements, the curves are extended using: (1) Logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations, that the daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the 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.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves, or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may increase in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consists of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly-mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7- day low-flow minimums, and flow duration.

Station Manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given

for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years which the revisions apply to. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error. Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscripts published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check, because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table for stream-gaging stations gives 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"). Figures for cubic feet per second per square mile and runoff 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 figures shown are the appropriate discharges for the calendar and water

years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the daily mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period, expressed as "FOR WATER YEARS ____- ____, BY WATER YEAR (WY)," will list the first and last water years of the range selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. However, data for partial water years, if any, will only be used in the statistical calculations, if appropriate. For example, all of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the column heading. When this occurs, it should be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data is omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period.

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

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

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

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent.

Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables, is on file in the Texas District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications.

A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin. A careful distinction needs to be made between "continuing records", as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values obtained by data logger. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory.

Procedures for on site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Texas Office of the Central Region Office.

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 for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

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 a reported pH value and the relative abundance of carbon dioxide species (alkalinity), the inconsistency is 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 alkalinity in the laboratory.

For chemical-quality stations equipped with water- quality monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Texas District Office. The address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-

discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; 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 recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Texas District Office.

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 sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge-weighted average). Therefore, for those days when the published sediment discharge value 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 discharges of suspended sediment were estimated on the basis of water discharge, 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 predicting long-term sediment- discharge characteristics of the stream.

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the U.S. Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the U.S. Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Historical and current (1996) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radio-chemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. These periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remarks Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
e or E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (Organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network Procedures

NOTE: Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (303-491-5643).

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the U.S. Geological Survey at the National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the District office (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

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 or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while 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 a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rodsha-ped bacteria which ferment lactose with gas formation within 24 hours at 35 °C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at +35 °C or -1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at +44.5 °C or -0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at +35 °C or -1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

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

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

Dry mass refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

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

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which 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, usually milliliters or liters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

Color Unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

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

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

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

Cubic-foot-per-second day [$(ft^3/s)/d$] 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 mm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\overline{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

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

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

> Supplementary gage is a gage used to obtain additional data. A supplementary gage may be used in place of the principal gage if the latter is isolated or cut off from the channel, or registers only above (or below) a certain gage height. One or more supplementary gages may be used on bypass channels or overflow channels, or on streams that flow in several channels, each of which is rated independently.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO3).

Hydrologic Benchmark Network is a network of 53 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (mg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, mg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 284 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are: (1) To obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for; (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) detection of changes or trends with time in the pattern of occurrence of water- quality characteristics; and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

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 meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (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.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The U.S. Environmental Protection Agency assigns and approves all requests for new codes.

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either 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).

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

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation
Silt	0.004 - 0.062	Sedimentation
Sand	0.062 - 2.0	Sedimentation or sieve
Gravel	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter 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.

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, mass, or volume.

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

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

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).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they 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. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

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.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary

production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2/time)] for periphyton and macrophytes and [mg C/(m^3/time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg 0/(m^2/time)] for periphyton and macrophytes and [mg 0/(m^3/time)] or phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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.

Sea level was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

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.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed-load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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 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 of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S. Geological Survey topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total-recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchal scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a sub- stance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total recoverable is the amount of a given constituent that is in solution after a representative water- suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1990, is called the "water year 1990."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate 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.

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

PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. ***Water temperature-influential factors, field measurement, and data presentation***, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 p.

1-D2. ***Guidelines for collection and field analysis of ground-water samples for selected unstable constituents***, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 p.

2-D1. ***Application of surface geophysics to ground-water investigations***, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 p.

2-D2. ***Application of seismic-refraction techniques to hydrologic studies***, by F.P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 p.

2-E1. ***Application of borehole geophysics to water-resources investigations***, by W.S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 p.

2-E2. ***Borehole geophysics applied to ground-water investigations***, by W. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 p.

2-F1. ***Application of drilling, coring, and sampling techniques to test holes and wells***, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 p.

3-A1. ***General field and office procedures for indirect discharge measurements***, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 p.

3-A2. ***Measurement of peak discharge by the slope-area method***, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 p.

3-A3. ***Measurement of peak discharge at culverts by indirect methods***, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 p.

3-A4. ***Measurement of peak discharge at width contractions by indirect methods***, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 p.

3-A5. ***Measurement of peak discharge at dams by indirect methods***, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 p.

3-A6. ***General procedure for gaging streams***, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 p.

3-A7. ***Stage measurements at gaging stations***, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 p.

3-A8. ***Discharge measurements at gaging stations***, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 p.

3-A9. ***Measurement of time of travel in streams by dye tracing***, by F.A. Kilpatrick, and J.F. Wilson, Jr.: USGS-- TWRI Book 3, Chapter A9. 1989. 27 p.

3-A10. ***Discharge ratings at gaging stations***, by E.J. Ken-nedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 p.

3-A11. ***Measurement of discharge by moving-boat method***, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 p.

3-A12. ***Fluorometric procedures for dye tracing***, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A12, 1986. 41 p.

3-A13. ***Computations of continuous records of streamflow***, by E.J. Kennedy: USGS-- TWRI Book 3, Chapter A13, 1983. 53 p.

3-A14. ***Use of flumes in measuring discharge***, by F.A. Kilpatrick and V.R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 p.

3-A15. ***Computation of water-surface profiles in open channels***, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 p.

3-A16. ***Measurement of discharge using tracers***, by F.A. Kilpatrick and E.D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 p.

3-A17. ***Acoustic velocity meter systems***, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 p.

3-A18. ***Determination of stream reaeration coefficients by use of tracers***, by F.A. Kilpatrick, R.E. Rathbun, N. Yotsukura, G.W. Parker, and L.L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 p.

3-A19. ***Levels of streamflow gaging stations***, by E.J. Ken-nedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 p.

3-A20. ***Simulation of soluble waste transport and buildup in surface waters using tracers***, by F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 p.

3-A21. ***Stream-gaging cableways***, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 p.

3-B1. ***Aquifer-test design, observation, and data analysis***, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 p.

3-B2. ***Introduction to ground-water hydraulics, a programmed text for self instruction***, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 p.

3-B3. ***Type curves for selected problems of flow to wells in confined aquifers***, by J.E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 p.

3-B4. ***Regression modeling of ground-water flow***, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 p.

3-B4. ***Supplement 1. Regression modeling of ground-water flow-Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems***, by R.L. Cooley. USGS--TWRI Book 3, Chapter B4. 1993. 8 p.

3-B5. ***Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction***, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 p.

3-B6. ***The principle of superposition and its application in ground-water hydraulics***, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 p.

3-B7. ***Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow***, by E.J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 p.

3-C1. ***Fluvial sediment concepts***, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 p.

3-C2. ***Field methods for measurement of fluvial sediment***, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 p.

3-C3. ***Computation of fluvial-sediment discharge***, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 p.

4-A1. ***Some statistical tools in hydrology***, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 p.

4-A2. ***Frequency curves***, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 p.

4-B1. ***Low-flow investigations***, by H.C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 p.

4-B2. ***Storage analyses for water supply***, by H.C. Riggs and C.H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 p.

4-B3. ***Regional analyses of streamflow characteristics***, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 p.

4-D1. ***Computation of rate and volume of stream depletion by wells***, by C.T. Jenkins: USGS--TWRI Book 4,Chapter D1. 1970. 17 p.

5-A1. ***Methods for determination of inorganic substances in water and fluvial sediments***, by M.J. Fishman and L.C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 p.

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5-A3. ***Methods for the determination of organic substances in water and fluvial sediments***, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 p.

5-A4. ***Methods for collection and analysis of aquatic biological and microbiological samples***, by L.J. Britton and P.E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 p.

5-A5. ***Methods for determination of radioactive substances in water and fluvial sediments***, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 p.

5-A6. ***Quality assurance practices for the chemical and biological analyses of water and fluvial sediments***, by L.C. Friedman and D.E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 p.

5-C1. ***Laboratory theory and methods for sediment analysis***, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 p.

6-A1. ***A modular three-dimensional finite-difference ground-water flow model***, by M.G. McDonald and A.W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 p.

6-A2. ***Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model***, by S.A. Leake and D.E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 p.

6-A3. ***A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual***, by L.J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 p.

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6-A6. ***A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction***, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 p.

7-C1. ***Finite difference model for aquifer simulation in two dimensions with results of numerical experiments***, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 p.

7-C2. ***Computer model of two-dimensional solute transport and dispersion in ground water***, by L.F. Konikow and J.D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 p.

7-C3. ***A model for simulation of flow in singular and interconnected channels***, by R.W. Schaffrannek, R.A. Baltzer, and D.E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1983. 110 p.

8-A1. ***Methods of measuring water levels in deep wells***, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 p.

8-A2. ***Installation and service manual for U.S. Geological Survey manometers***, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 p.

8-B2. ***Calibration and maintenance of vertical-axis type current meters***, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 p.

07227000 CANADIAN RIVER AT LOGAN, NM

LOCATION.--Lat 35°21'25", long 103°25'03", in NE1/4NE1/4 sec.15, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on left bank 1,110 ft upstream from bridge on U.S. Highway 54, 0.7 mi south of Logan, 1.4 mi upstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 2.0 mi downstream from Ute Dam, 4.3 mi upstream from Revuelto Creek, and at mile 672.0.

DRAINAGE AREA.--11,141 mi², of which 1,110 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1904 to November 1905 (gage heights and discharge measurements only), December 1908 to September 1909, February 1910, 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.

REVISED RECORDS.--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.

GAGE.--Water-stage recorder. Datum of gage is 3,667.1 ft above sea level. Prior to Jan. 1, 1987 same site at datum 1.0 ft higher. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

REMARKS.--Water-discharge records good except for estimated discharges, which are poor. Flow regulated by Conchas Lake, 45 mi upstream (station 07223500) and Ute Reservoir, 2 mi. upstream (station 07226800). Diversions for irrigation of about 90,000 acres upstream from station. Several observations of water temperature were made during the year. No flow at times prior to completion of Ute Dam.

AVERAGE DISCHARGE.--15 years (water years 1909, 1912-13, 1927-38), 392 ft³/s, 284,000 acre-ft/yr, prior to completion of Conchas Dam. 24 years (water years 1939-62), 257 ft³/s, 186,200 acre-ft/yr, prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft³/s, Sept. 30, 1904, gage height, about 36.5 ft, site and datum used in 1909, from rating curve extended above 14,000 ft³/s, from Ninth Biennial Report of New Mexico State Engineer.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.6	e3.2	3.4	5.4	3.6	3.5	3.2	3.3	3.8	249	5.6
2	5.6	3.6	e3.2	3.4	4.0	3.7	3.3	3.2	3.2	3.4	249	5.4
3	6.7	3.6	e3.2	3.5	3.9	3.7	3.4	3.3	3.3	3.7	214	121
4	7.8	3.6	e3.2	3.5	3.9	3.6	3.3	3.4	3.6	3.5	11	244
5	9.2	3.6	e3.2	3.5	3.9	3.5	3.4	3.5	3.1	3.4	6.7	248
6	11	3.7	3.4	3.5	4.0	3.6	3.6	3.6	3.0	3.3	5.6	250
7	12	e3.7	3.4	3.5	4.0	3.6	4.4	3.7	3.0	3.3	4.8	250
8	14	e3.7	3.4	3.6	4.0	3.6	3.4	3.4	3.0	3.2	4.5	251
9	10	e3.7	3.4	3.6	4.0	3.6	3.3	3.4	3.2	3.6	53	252
10	8.0	e3.7	3.3	3.5	4.0	3.6	3.2	3.5	3.0	12	241	253
11	6.0	e3.6	3.4	3.5	3.8	3.6	3.3	3.5	3.1	4.5	249	253
12	4.9	e3.6	3.4	3.5	3.8	3.6	3.2	3.5	3.3	3.9	251	254
13	4.5	e3.6	3.3	3.6	3.8	3.6	3.2	3.6	4.3	3.9	252	252
14	4.1	e3.6	3.3	3.6	3.8	3.5	3.0	3.5	3.2	4.0	253	251
15	3.9	e3.6	3.5	3.6	3.7	3.6	3.2	3.5	3.0	3.7	254	251
16	3.8	e3.5	3.5	3.6	3.6	3.6	3.3	3.3	2.8	3.5	256	251
17	3.8	e3.5	3.8	3.6	3.7	3.6	3.3	3.2	2.8	3.3	256	250
18	3.6	e3.5	3.8	3.8	3.6	3.6	8.7	3.3	2.8	46	257	249
19	3.5	e3.5	3.5	3.7	3.5	3.5	4.5	3.3	2.8	238	269	248
20	3.5	e3.5	3.4	3.7	3.5	3.5	3.6	3.2	2.6	247	257	246
21	3.6	e3.5	3.4	3.7	3.5	3.5	3.4	3.1	2.6	250	258	246
22	3.6	e3.4	3.4	3.7	3.4	3.5	3.4	3.1	2.9	255	258	244
23	3.6	e3.4	3.4	3.8	3.4	5.0	3.3	3.0	2.7	252	258	243
24	3.4	e3.4	3.4	3.8	3.5	4.4	3.2	3.0	3.0	252	258	242
25	3.5	e3.4	3.4	3.8	3.5	3.9	3.3	3.4	10	251	257	240
26	3.6	e3.4	3.3	3.7	3.4	3.7	3.2	3.5	6.2	251	187	238
27	3.6	e3.3	3.3	3.8	3.5	3.5	3.3	3.2	5.2	251	13	236
28	3.6	e3.3	3.4	3.8	3.6	3.4	3.2	3.2	4.9	249	8.4	109
29	3.6	e3.3	3.4	3.9	3.6	3.4	3.2	3.2	4.5	253	7.1	7.3
30	3.6	e3.3	3.4	3.9	---	3.3	3.2	3.3	4.6	250	6.3	5.6
31	3.6	---	3.4	3.9	---	3.4	---	3.4	---	249	6.1	---
TOTAL	169.7	105.7	105.0	113.0	109.3	112.8	106.8	103.5	109.0	3364.0	5109.5	6195.9
MEAN	5.47	3.52	3.39	3.65	3.77	3.64	3.56	3.34	3.63	109	165	207
MAX	14	3.7	3.8	3.9	5.4	5.0	8.7	3.7	10	255	269	254
MIN	3.4	3.3	3.2	3.4	3.4	3.3	3.0	3.0	2.6	3.2	4.5	5.4
AC-FT	337	210	208	224	217	224	212	205	216	6670	10130	12290

07227000 CANADIAN RIVER AT LOGAN, NM--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996#, BY WATER YEAR (WY)

MEAN	31.3	26.4	6.93	7.57	9.46	3.16	17.0	35.8	58.3	84.7	96.4	107
MAX	325	287	84.1	62.7	174	11.4	239	767	575	608	720	838
(WY)	1966	1983	1983	1992	1980	1983	1987	1987	1969	1982	1981	1969
MIN	1.30	1.19	1.24	.86	1.13	.63	.26	.64	.62	.65	1.19	1.36
(WY)	1964	1984	1984	1963	1987	1963	1963	1963	1963	1963	1963	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996#	
ANNUAL TOTAL	36568.9		15704.2			
ANNUAL MEAN	100		42.9		40.5	
HIGHEST ANNUAL MEAN					145	1969
LOWEST ANNUAL MEAN					1.62	1964
HIGHEST DAILY MEAN	376	Sep 21	269	Aug 19	6860	Jun 18 1969
LOWEST DAILY MEAN	2.7	May 23	2.6	Jun 20	.10	Jan 12 1963
ANNUAL SEVEN-DAY MINIMUM	2.9	Jun 2	2.7	Jun 17	.10	Apr 16 1963
INSTANTANEOUS PEAK FLOW			457	Aug 19	c219000	Sep 22 1941
INSTANTANEOUS PEAK STAGE			4.63	Aug 19	a29.30	Sep 22 1941
ANNUAL RUNOFF (AC-FT)	72530		31150		29310	
10 PERCENT EXCEEDS	322		249		38	
50 PERCENT EXCEEDS	3.4		3.6		2.6	
90 PERCENT EXCEEDS	3.1		3.2		1.6	

e Estimated
Period of regulated streamflow.
c From rating curve extended above 75,000 ft³/s.
a From floodmarks.

07227000 CANADIAN RIVER AT LOGAN, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1957 to September 1962, October 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1995												
20...	1545	3.1	9360	7.9	15.0	11.5	675	10.5	113	630	130	74
FEB 1996												
20...	1430	3.5	8510	8.0	25.5	14.5	662	10.7	125	--	--	--
MAY												
07...	1430	3.7	8900	7.9	25.5	30.5	665	8.2	130	560	120	63
AUG												
22...	1000	260	1230	8.0	23.0	21.5	673	8.3	107	300	54	41

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
NOV 1995											
20...	1800	31	9.4	313	490	2500	0.90	11	5200	360	<10
FEB 1996											
20...	--		--			--	--	--	--	--	--
MAY											
07...	1700	31	8.9	322	510	2600	1.2	9.8	5210	380	29
AUG											
22...	140	5	6.7	197	330	62	0.60	6.6	759	185	<3

ARKANSAS RIVER BASIN
07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'29", long 103°23'37", in SW1/4NW1/4 sec.24, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080008, on right bank 0.3 mi upstream from bridge on State Highway 469, 1.9 mi southeast of Logan, and at mile 2.3.

DRAINAGE AREA.--786 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft above sea level, from topographic map. Prior to Jan. 16, 1981, at site 320 ft upstream at datum 0.56 ft higher.

REMARKS.--Records good except those for estimated discharges, which are poor. Low flows supplemented by surface and ground-water return from irrigation in vicinity of Tucumcari. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD (1941-47). Maximum discharge determined, about 13,400 ft³/s, Sept. 18, 1946, gage height, 9.04 ft, at site 180 ft downstream at different datum, from unpublished records collected by U.S. Bureau of Reclamation. A peak of 26,100 ft³/s, date unknown, gage height, 12.9 ft at former site and datum, was measured by slope area method in May 1957.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	36	2.6	2.7	e4.2	.36	11	14	11	126	4.2	68
2	65	33	2.4	1.9	e4.2	.99	18	12	8.1	89	.55	47
3	40	37	1.8	1.6	e4.4	2.6	19	9.9	9.8	178	.39	227
4	11	45	1.8	2.8	e4.3	.99	16	7.6	25	70	.10	66
5	22	34	1.6	2.1	e4.0	.53	17	6.4	23	25	.06	27
6	8.5	17	1.7	1.4	e4.1	.70	28	18	8.2	7.4	.06	17
7	6.9	14	1.8	2.0	4.0	1.0	19	17	5.5	5.1	.04	188
8	7.2	30	1.8	1.9	3.5	.66	16	14	6.5	5.1	.04	98
9	9.4	11	1.4	e5.2	3.0	.65	14	13	5.5	8.3	.01	115
10	11	7.2	1.7	e5.0	2.8	1.0	14	11	27	3750	3.1	70
11	10	5.1	2.8	e5.1	1.7	.98	6.6	17	17	1200	.02	78
12	8.4	30	2.5	e5.2	2.0	.44	4.7	36	89	575	.01	27
13	4.6	9.0	1.5	e5.3	2.1	.23	5.2	30	758	821	.03	50
14	8.8	20	.90	e4.9	1.9	.19	4.5	46	469	278	.05	30
15	13	13	1.3	e4.4	1.6	.19	8.0	21	446	112	.04	53
16	12	4.8	1.7	e4.8	1.4	.18	20	15	285	36	77	46
17	8.9	3.3	4.7	e4.5	1.4	.22	15	11	103	5.5	59	42
18	9.6	2.5	21	e4.3	1.5	.21	9.4	18	50	.94	9.3	36
19	16	2.5	92	e4.6	1.3	.18	7.1	9.8	23	.16	89	12
20	41	2.5	36	e4.9	1.0	.18	7.5	3.1	23	.07	286	16
21	21	2.7	14	e4.7	.77	.19	6.8	3.7	7.4	.02	695	15
22	14	2.7	8.0	e4.6	.44	.18	6.6	4.6	1.4	2.2	106	5.6
23	13	2.6	5.6	e4.4	.33	.81	9.2	2.4	57	2.0	5.5	23
24	16	2.4	4.7	e4.5	.33	42	6.8	1.5	61	.28	60	13
25	18	2.0	5.0	e4.3	.33	24	8.7	3.6	377	.08	436	43
26	25	1.8	5.9	e4.3	.37	42	22	53	3170	.21	567	4.3
27	23	1.4	5.5	e4.3	.29	38	17	18	1630	224	696	1.2
28	27	1.3	4.7	e4.4	.29	34	12	10	629	358	379	3.4
29	41	1.9	4.2	e4.4	.32	10	16	7.3	623	130	74	9.0
30	43	2.4	2.6	e4.3	---	15	19	9.3	249	488	4.5	3.2
31	39	---	3.0	e4.3	---	10	---	12	---	121	30	---
TOTAL	601.0	378.1	246.20	123.1	57.87	228.66	384.1	455.2	9197.4	8618.36	3582.00	1433.7
MEAN	19.4	12.6	7.94	3.97	2.00	7.38	12.8	14.7	307	278	116	47.8
MAX	65	45	92	5.3	4.4	42	28	53	3170	3750	696	227
MIN	4.6	1.3	.90	1.4	.29	.18	4.5	1.5	1.4	.02	.01	1.2
AC-FT	1190	750	488	244	115	454	762	903	18240	17090	7100	2840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

MEAN	34.7	9.18	9.86	5.58	7.39	6.44	23.9	46.0	75.9	122	123	73.7
MAX	320	34.1	129	27.9	42.5	52.1	346	203	492	1203	575	515
(WY)	1961	1962	1960	1990	1983	1985	1970	1991	1960	1960	1981	1969
MIN	.000	.056	.001	.000	.000	.003	.32	.085	.89	.42	.93	1.72
(WY)	1965	1978	1976	1965	1965	1980	1981	1976	1990	1983	1978	1978

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1996	
ANNUAL TOTAL	14529.80		25305.69			
ANNUAL MEAN	39.8		69.1		44.6	
HIGHEST ANNUAL MEAN					204	1960
LOWEST ANNUAL MEAN					4.72	1964
HIGHEST DAILY MEAN	1010	Sep 10	3750	Jul 10	13800	Jul 9 1960
LOWEST DAILY MEAN	.02	Jun 16	.01	Aug 9	.00	Oct 20 1959
ANNUAL SEVEN-DAY MINIMUM	.08	Mar 21	.10	Aug 3	.00	Oct 20 1959
INSTANTANEOUS PEAK FLOW			9140	Jul 10	126700	Jul 9 1960
INSTANTANEOUS PEAK STAGE			9.06	Jul 10	14.30	Jul 9 1960
ANNUAL RUNOFF (AC-FT)	28820		50190		32320	
10 PERCENT EXCEEDS	103		90		60	
50 PERCENT EXCEEDS	8.5		7.3		5.1	
90 PERCENT EXCEEDS	.74		.42		.00	

e Estimated
i From slope area measurement of peak flow

ARKANSAS RIVER BASIN--Continued
07227100 REVUELTO CREEK NEAR LOGAN, NM

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1995												
20...	1415	2.5	1870	8.3	15.0	15.0	675	8.7	98	360	71	44
FEB 1996												
20...	1245	1.0	3060	8.3	17.5	23.0	661	8.5	116	--	--	--
MAY												
07...	1300	1/	1620	8.2	31.0	30.0	666	6.8	104	400	73	54
AUG												
22...	0845	120	546	8.4	30.0	20.5	673	7.8	99	66	17	5.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
NOV 1995											
20...	270	6	4.7	1.1	450	180	0.50	9.0	1030	280	<3.0
FEB 1996											
20...	--	--	--	--		--	--	--	--	--	--
MAY											
07...	200	4	7.4	221	520	74	0.80	7.2	1070	250	<3.0
AUG											
22...	65	3	2.4	133	79	9.3	0.40	8.3	267	139	<3.0

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM

LOCATION.--Lat 35°23'35", long 103°02'30", in SWq sec.32, T.14 N., R.37 E., Quay County, Hydrologic Unit 11080006, 0.1 mi upstream from New Mexico-Texas State line, 5.5 mi downstream from Rana Canyon, and 14.7 mi north of Glenrio.

PERIOD OF RECORD.--October 1969 to September 1973, October 1975 to September 1986, October 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 1995												
21...	0945	13	12500	8.2	10.5	7.0	678	10.2	99	690	140	83
FEB 1996												
21...	1130	9.2	10300	8.3	21.0	10.0	667	9.9	104	--	--	--
MAY												
07...	0945	11	8150	8.2	20.0	17.5	670	8.5	104	580	110	73
AUG												
21...	1445	1020	866	8.2	33.5	25.5	674	6.1	85	110	24	11

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
NOV 1995											
21...	1700	28	9.4	258	480	2500	0.50	12	5080	370	10
FEB 1996											
21...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	1500	27	9.5	234	550	2500	0.80	9.2	4690	390	<15
AUG											
21...	130	6	3.9	189	150	69	0.50	8.7	511	200	<3.0

07227500 CANADIAN RIVER NEAR AMARILLO, TX

LOCATION.--Lat 35°28'13", long 101°52'45", Potter County, Hydrologic Unit 11090105, on left bank at downstream side of southbound lane of bridge on U.S. Highways 87 and 287, 1,500 ft downstream from Pitcher Creek, 1.4 mi downstream from East Amarillo Creek, 1.7 mi downstream from Panhandle and Santa Fe Railway Co. bridge, 19 mi north of Amarillo, and 537.7 mi upstream from mouth.

DRAINAGE AREA.--19,445 mi², of which 4,069 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1924 to December 1925 (period no longer used in computation of average annual discharge), January 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: Drainage area.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. There is some regulation by Conchas and Ute Reservoirs in New Mexico, total capacity 439,000 acre-feet. Conchas and Bell Ranch Canals divert water from Conchas Reservoir upstream for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1914 reached a stage of 24 ft; a higher stage probably occurred during a flood in October 1904, but stage is unknown; information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 24	2130	32,300	9.48	Aug. 10	1300	14,800	7.16
July 14	0300	14,100	7.02				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327	35	25	32	e23	11	7.1	1.6	40	589	570	471
2	450	35	24	36	e24	11	6.2	2.2	34	373	447	360
3	478	35	23	e35	e25	11	6.2	2.2	180	298	460	610
4	470	38	23	e26	e30	11	7.2	1.6	520	248	338	571
5	407	38	22	e28	e28	9.8	7.7	1.6	190	211	345	361
6	354	37	23	e27	e33	e9.5	7.1	1.6	81	179	284	353
7	345	36	23	e22	35	e9.0	7.0	1.4	69	160	310	1210
8	335	34	22	e23	33	e9.2	7.3	.97	49	140	374	645
9	345	35	21	e30	28	9.4	7.3	.69	31	144	525	391
10	347	35	22	32	23	10	7.5	.50	23	697	7430	393
11	352	38	22	27	23	9.9	6.6	.80	18	3670	e450	350
12	327	35	23	24	22	9.2	5.5	.72	16	1360	e300	448
13	189	33	24	23	20	9.1	5.2	.88	15	1530	239	470
14	110	33	23	23	20	8.5	4.7	.73	9.7	5490	274	545
15	80	33	21	23	19	8.4	4.6	.32	8.7	696	272	666
16	66	32	21	22	19	9.0	4.4	.28	64	397	272	468
17	46	30	23	e19	18	8.9	3.7	.26	140	358	281	465
18	48	30	37	e14	18	9.6	3.4	.24	95	320	314	627
19	49	32	41	e15	18	9.3	3.1	.25	74	301	316	464
20	38	35	36	e18	19	9.1	2.9	.27	59	265	384	390
21	39	40	34	e19	19	9.1	2.6	.26	35	239	489	372
22	41	35	34	23	17	8.9	2.4	.21	20	220	801	362
23	36	32	34	22	17	8.9	2.3	.18	21	684	540	358
24	38	30	34	21	15	7.6	2.2	.20	2520	1670	421	373
25	37	28	35	20	14	7.5	1.9	.26	554	276	566	382
26	41	29	38	19	13	7.0	2.0	351	276	317	843	384
27	43	27	39	27	12	7.1	1.9	454	1600	2310	1490	435
28	38	25	41	25	11	12	1.8	146	1410	995	452	455
29	35	24	38	25	11	13	1.9	83	552	487	584	407
30	36	24	37	22	---	9.0	1.8	55	656	1710	401	392
31	36	---	34	e21	---	8.7	---	373	---	872	1560	---
TOTAL	5583	983	897	743	607	290.7	135.5	1482.22	9360.4	27206	22332	14178
MEAN	180	32.8	28.9	24.0	20.9	9.38	4.52	47.8	312	878	720	473
MAX	478	40	41	36	35	13	7.7	454	2520	5490	7430	1210
MIN	35	24	21	14	11	7.0	1.8	.18	8.7	140	239	350
AC-FT	11070	1950	1780	1470	1200	577	269	2940	18570	53960	44300	28120

07227500 CANADIAN RIVER NEAR AMARILLO, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	320	79.1	51.3	57.0	45.6	42.2	180	446	522	591	537	547
MAX	5663	812	458	519	259	403	5988	6804	5288	4880	3007	8016
(WY)	1942	1942	1942	1943	1980	1961	1942	1941	1941	1941	1981	1941
MIN	.57	1.52	1.25	4.75	3.00	1.86	1.51	4.60	.95	.31	.11	.034
(WY)	1981	1978	1984	1978	1939	1940	1978	1945	1990	1983	1983	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	75038		83797.82			
ANNUAL MEAN	206		229		286	
HIGHEST ANNUAL MEAN					2351	1941
LOWEST ANNUAL MEAN					37.7	1984
HIGHEST DAILY MEAN	4290	Jun 3	7430	Aug 10	79600	Sep 23 1941
LOWEST DAILY MEAN	14	Mar 25	.18	May 23	.00	Aug 7 1940
ANNUAL SEVEN-DAY MINIMUM	15	Mar 22	.23	May 18	.00	Sep 3 1983
INSTANTANEOUS PEAK FLOW			32300	Jun 24	135000	Jul 25 1941
INSTANTANEOUS PEAK STAGE			9.48	Jun 24	15.70	Jul 25 1941
INSTANTANEOUS LOW FLOW					.00	Oct 1 1977
ANNUAL RUNOFF (AC-FT)	148800		166200		207300	
10 PERCENT EXCEEDS	575		521		480	
50 PERCENT EXCEEDS	36		33		25	
90 PERCENT EXCEEDS	20		3.0		4.0	

e Estimated

07227500 CANADIAN RIVER NEAR AMARILLO, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: July 1948 to October 1949, February 1950 to current year. Chemical and biochemical analyses: March 1968 to current year. Pesticide analyses: March 1968 to June 1981.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1950 to current year.
WATER TEMPERATURE: August 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: August 1949 to September 1952.

INSTRUMENTATION.--Since October 1995, a water-quality instrument has recorded specific conductance and water temperature on 30 minute intervals at this station.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 9,180 microsiemens June 8, 1990; minimum daily, 346 microsiemens Oct. 29,1964.
WATER TEMPERATURE (1949-76, 1988 to current year): Maximum daily, 39.0°C July 7, 1973; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 7,040 microsiemens Apr. 14; minimum, 400 microsiemens July 13.
WATER TEMPERATURE; Maximum, 35.0°C June 12; minimum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT												
24...	0900	38	4280	8.3	5.5	11.5	102	490	290	100	58	670
JAN												
24...	1630	22	4750	8.2	7.5	11.5	108	670	470	160	65	740
MAR												
13...	1030	9.6	5550	8.1	8.0	10.9	105	760	580	180	76	850
APR												
30...	1230	1.9	6150	8.2	19.0	8.5	104	1000	820	250	90	960
JUN												
05...	1030	202	686	8.1	20.5	7.8	96	98	8	23	9.8	90
JUL												
11...	1000	3510	694	8.3	20.5	7.3	90	54	0	13	5.2	110

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	CARBONATE WATER DIS IT FIELD MG/L AS CO3	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
OCT											
24...	13	8.1	0	245	201	510	970	0.50	11	2450	0.120
JAN											
24...	12	5.7	0	240	197	600	1100	0.40	12	2800	--
MAR											
13...	13	6.1	0	220	180	750	1400	0.50	14	3380	--
APR											
30...	13	7.0	0	210	172	930	1400	0.50	17	3760	--
JUN											
05...	4	3.5	0	109	89	73	110	0.40	8.1	373	0.290
JUL											
11...	7	2.7	0	100	82	75	100	0.50	6.3	364	0.400

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ARSENIC DISSOLVED (UG/L AS AS)
OCT											
24...	--	<0.010	0.120	0.120	<0.015	--	<0.20	0.020	0.020	0.06	--
JAN											
24...	--	--	--	--	--	--	--	--	--	--	1
MAR											
13...	--	<0.010	--	<0.050	<0.015	--	<0.20	0.010	<0.010	--	--
APR											
30...	--	<0.010	--	<0.050	0.030	--	<0.20	<0.010	0.010	0.03	--
JUN											
05...	0.290	0.020	0.310	0.310	0.070	0.33	0.40	0.030	0.020	0.06	2
JUL											
11...	0.400	0.010	0.410	0.410	0.050	--	<0.20	<0.010	0.020	0.06	--

07227500 CANADIAN RIVER NEAR AMARILLO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 24...	--	--	--	--	--	--	--	--	--	--	--
JAN 24...	<100	<1.0	<1.0	<1.0	<10	<1.0	50	<0.1	<1	<1.0	<10
MAR 13...	--	--	--	--	--	--	--	--	--	--	--
APR 30...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	99	<1.0	<1.0	1.0	19	<1.0	2.0	<0.1	<1	<1.0	<3.0
JUL 11...	--	--	--	--	--	--	--	--	--	--	--

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	5583	1810	1040	15600	350	5240	230	3420	220
NOV.	1995	983	4310	2530	6730	960	2560	550	1460	570
DEC.	1995	897	4510	2660	6440	1000	2470	570	1390	600
JAN.	1996	743	4580	2700	5420	1000	2090	580	1170	610
FEB.	1996	607	4520	2670	4370	1000	1690	580	944	600
MAR.	1996	290.7	5480	3260	2560	1300	1030	700	550	750
APR.	1996	135.5	6240	3740	1370	1600	574	800	293	880
MAY	1996	1482.22	1420	812	3250	260	1060	180	713	170
JUNE	1996	9360.4	1630	939	23700	310	7940	210	5190	200
JULY	1996	27206	823	467	34300	150	10700	100	7550	96
AUG.	1996	22332	938	534	32200	170	10200	120	7070	110
SEPT	1996	14178	1420	808	30900	260	9950	180	6790	170
TOTAL		83797.82	**	**	167000	**	55500	**	36500	**
WTD.AVG.		229	1290	738	**	250	**	160	**	160

07227500 CANADIAN RIVER NEAR AMARILLO, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1590	1560	1580	4300	4170	4230	4530	4300	4400	4590	4250	4510
2	1580	1340	1490	4360	4300	4340	4510	4300	4390	4550	3950	4240
3	1500	1280	1390	4330	4220	4260	4530	4310	4410	4710	4010	4510
4	1560	1440	1510	4250	4170	4210	4510	4310	4400	4700	4410	4550
5	1520	1470	1500	4320	4240	4270	4500	4330	4410	4710	4360	4590
6	1540	1410	1470	4440	4290	4360	4610	4340	4480	4710	4230	4450
7	1560	1520	1540	4420	4340	4380	4640	4450	4540	4710	3880	4430
8	1600	1540	1570	4350	4290	4320	4710	4410	4560	4710	3950	4490
9	1600	1570	1590	4380	4220	4310	4710	4600	4680	4700	3570	4180
10	1590	1560	1570	4380	4250	4310	4710	4460	4620	4480	4200	4330
11	1610	1560	1590	4350	4210	4290	4710	4350	4550	4560	4370	4490
12	1650	1590	1610	4350	4200	4260	4670	4330	4480	4700	4390	4540
13	1730	1630	1680	4340	4180	4260	4470	4340	4410	4720	4420	4560
14	---	---	e1780	4290	4230	4260	4530	4310	4410	4740	4440	4570
15	---	---	e1900	4290	4140	4220	4470	4310	4390	4790	4470	4610
16	---	---	e2190	4340	4230	4280	4590	4360	4450	4710	4470	4580
17	---	---	e2690	4470	4290	4370	4480	4410	4430	4910	4510	4640
18	---	---	e2920	4450	4390	4420	4610	4480	4570	4950	4840	4910
19	---	---	e3470	4420	4290	4360	4500	4100	4200	4970	4840	4920
20	---	---	e3860	4360	4010	4230	4570	4290	4450	4990	4660	4860
21	---	---	e3960	4170	3970	4050	4650	4410	4540	5000	4690	4860
22	---	---	e3860	4450	4170	4340	4710	4410	4560	5000	4680	4850
23	---	---	e4290	4450	4350	4420	4710	4460	4610	5060	4800	4950
24	4510	4400	4450	4370	4300	4340	4710	4460	4630	5060	4500	4880
25	4400	4260	4320	4420	4330	4370	4710	4440	4610	5340	4880	5070
26	4290	3980	4140	4430	4350	4390	4710	4420	4590	5430	4850	5220
27	4110	3930	4020	4440	4370	4410	4710	4450	4610	5380	4380	4920
28	4340	4110	4220	4490	4390	4440	4710	4450	4610	5170	3860	4550
29	4400	4310	4350	4590	4310	4420	4650	4550	4600	4640	3530	4140
30	4390	4230	4310	4570	4300	4420	4640	4450	4530	4530	3350	4150
31	4260	4180	4210	---	---	---	4560	4370	4470	4860	3300	4520
MONTH	4510	1280	2740	4590	3970	4320	4710	4100	4500	5430	3300	4620

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5250	3880	4650	5700	5520	5620	6010	5550	5780	6260	5970	6120
2	4770	3900	4480	5590	5380	5450	6310	5900	6030	6670	3530	5300
3	4700	3130	4100	5410	5280	5360	6270	5380	5910	4250	3430	3890
4	4150	3240	3710	---	---	e5420	5660	5090	5260	4550	3700	4110
5	4160	3450	3830	---	---	e5590	6030	5090	5390	4610	4420	4520
6	3970	3320	3750	---	---	e5110	6560	6030	6320	5190	4540	4920
7	3980	3030	3520	---	---	e5060	6550	6400	6480	5030	4060	4620
8	3850	3420	3650	5750	---	e5560	6430	6130	6260	4440	2910	3940
9	4110	3790	3950	5730	---	e5210	6270	6110	6180	4150	2460	3390
10	4480	4110	4240	5420	5260	5340	6350	6060	6200	4410	2340	3150
11	4690	4480	4610	5370	---	e5290	6760	6250	6380	3330	2670	3130
12	5080	4690	4850	5800	---	e5580	6750	6470	6610	3110	2210	2850
13	5250	5070	5160	5870	5640	5740	6950	6480	6690	3200	2610	2970
14	5350	5210	5280	5850	5690	5770	7040	6630	6860	3190	2070	2800
15	5420	5340	5370	5870	5730	5800	6850	6450	6640	3270	2080	2530
16	5360	5140	5210	5900	5710	5800	6660	6280	6480	2770	2090	2550
17	5320	5160	5250	5840	5550	5690	---	---	e6540	2960	2460	2670
18	5470	5300	5370	5730	5490	5600	---	---	e6590	3210	2580	2830
19	5420	4710	5180	5720	5500	5610	---	---	e6760	3340	2990	3180
20	4710	4440	4560	5730	5530	5630	---	---	e6650	3980	2400	3090
21	4480	4250	4380	5790	5520	5640	---	---	e6550	2820	2290	2550
22	4620	4250	4380	5840	5640	5720	---	---	e6430	2920	921	2380
23	4940	---	e4450	6040	5660	5830	---	---	e6460	3170	611	2080
24	5260	4390	5040	6090	5840	5970	---	---	e6550	3630	990	2280
25	5280	4510	5150	6040	5620	5850	---	---	e6140	4040	1700	3110
26	5540	---	e5510	6140	5900	6000	---	---	e6450	---	---	e1310
27	---	---	e5460	6170	5910	6070	---	---	e6220	2470	1680	1880
28	5830	---	e5550	6090	3500	4860	---	---	e5840	1680	1590	1630
29	5680	5360	5560	4750	3450	3890	---	---	e6410	1600	1560	1580
30	---	---	---	5630	4750	5230	---	---	e6140	1880	1550	1660
31	---	---	---	6010	5580	5860	---	---	---	---	---	e669
MONTH	5830	3030	4700	6170	3450	5520	7040	5090	6310	6670	611	3020

e Estimated

07227500 CANADIAN RIVER NEAR AMARILLO, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e1550	---	---	e1010	---	---	e1090	926	742	832
2	---	---	e2650	---	---	e816	---	---	e1050	956	744	834
3	---	---	e3110	---	---	e980	---	---	e1180	1140	691	931
4	---	---	e931	---	---	e1460	---	---	e1210	1660	984	1220
5	---	---	e690	---	---	e1930	---	---	e1360	1730	1600	1670
6	1460	780	1190	---	---	e2070	---	---	e1470	1710	1250	1500
7	1890	1410	1570	---	---	e2220	---	---	e1290	1670	751	1070
8	3560	1890	2660	---	---	e2360	---	---	e1210	975	---	e870
9	3640	3480	3580	---	---	e980	---	---	e1150	---	---	e1060
10	3480	3430	3450	---	---	e902	---	---	e420	1390	875	1170
11	3470	3260	3360	---	---	e710	---	---	e860	1540	1250	1450
12	3550	2980	3390	800	720	760	---	---	e1310	1640	1450	1540
13	---	---	e3540	820	400	677	---	---	e1680	1640	1500	1570
14	---	---	e3750	730	430	531	3910	2100	2910	1550	1490	1510
15	---	---	e4630	610	570	586	3800	2090	2670	1590	1190	1420
16	5120	4220	4720	780	600	699	2090	1910	1980	1600	1450	1520
17	4830	2790	3570	1210	780	975	1920	1850	1890	1650	1600	1630
18	2790	2530	2590	1690	1210	1450	1850	1720	1760	1720	1040	1420
19	2530	2200	2340	---	---	e1800	1780	1710	1750	1650	1350	1540
20	2220	2140	2180	---	---	e2160	1770	1530	1650	1690	1420	1630
21	2510	2210	2310	---	---	e2500	1620	1270	1420	1720	1680	1700
22	3020	2500	2710	---	---	e1690	1470	1090	1350	1730	1690	1710
23	3260	2930	3050	---	---	e1640	1400	1250	1330	1760	1720	1740
24	3350	850	2580	---	---	e680	1250	1170	1200	1770	1740	1760
25	1370	810	1090	---	---	e1240	1210	437	988	1770	1760	1760
26	2150	810	1720	---	---	e1180	1070	579	829	1790	1750	1770
27	1470	990	1120	---	---	e596	972	477	708	1790	1750	1780
28	1030	840	895	---	---	e566	1080	972	1020	1760	1690	1730
29	900	820	837	---	---	e1010	1090	1050	1080	1750	1730	1740
30	960	790	836	---	---	e833	1110	995	1030	1780	1740	1770
31	---	---	---	---	---	e684	1140	407	705	---	---	---
MONTH	5120	780	2420	1690	400	1220	3910	407	1340	1790	691	1460
YEAR	7040	400	3510									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	15.5	18.5	18.5	10.0	14.0	14.0	3.5	8.5	5.0	1.5	3.0
2	---	---	---	10.0	4.5	7.0	14.0	4.0	8.5	1.5	.0	.5
3	20.0	15.0	17.5	11.5	4.0	7.0	13.0	4.0	8.0	2.0	.0	.5
4	20.5	15.0	17.5	6.5	3.5	5.0	12.5	4.0	8.0	7.0	.0	2.5
5	18.0	12.5	15.0	14.0	3.0	7.5	10.5	4.5	7.0	1.5	.0	.5
6	17.5	11.0	14.0	16.5	9.0	12.0	10.5	2.0	5.5	2.5	.0	.5
7	18.5	11.5	15.0	15.5	6.5	11.0	5.5	1.0	3.5	4.0	.0	1.0
8	20.0	13.5	16.5	15.0	6.0	10.0	7.0	.0	3.0	6.0	.0	2.0
9	21.0	13.5	17.0	16.5	7.0	11.5	2.0	.0	.5	8.0	.0	3.0
10	20.5	14.5	17.5	15.0	6.0	10.0	5.5	.0	2.0	8.5	.5	4.5
11	22.5	15.0	18.5	12.0	3.0	7.0	9.5	.0	3.5	10.0	1.5	5.5
12	21.0	15.5	18.0	16.0	5.0	10.0	11.0	.5	5.5	10.5	1.0	5.5
13	17.0	13.0	15.0	15.5	6.5	10.5	10.5	5.5	7.0	11.0	1.0	5.5
14	---	---	---	16.0	6.5	11.0	12.5	3.5	7.5	11.5	1.5	6.0
15	---	---	---	16.0	7.0	11.0	13.0	5.0	8.0	11.0	1.0	6.0
16	---	---	---	16.0	6.5	11.0	9.5	2.5	6.0	13.5	3.5	7.5
17	---	---	---	15.5	8.0	11.5	7.0	5.0	6.5	12.0	.0	6.5
18	---	---	---	15.0	5.0	9.5	5.0	2.0	2.5	2.0	.0	.5
19	---	---	---	16.0	6.5	10.5	8.0	2.0	4.0	2.5	.0	1.0
20	---	---	---	14.5	6.5	10.0	3.5	.5	2.0	8.5	.0	3.0
21	---	---	---	12.5	5.0	8.5	7.0	1.0	3.0	8.5	.0	3.5
22	---	---	---	13.5	6.0	9.5	2.5	.0	1.5	10.0	1.0	4.5
23	---	---	---	12.5	5.0	8.5	5.5	.0	2.0	6.5	.0	2.5
24	15.0	6.0	10.0	14.0	3.5	8.0	5.5	.0	1.5	7.5	.5	3.0
25	19.0	8.0	12.5	14.0	4.0	8.5	6.0	.0	2.0	9.5	.0	3.5
26	17.0	8.0	12.5	13.0	5.5	9.0	6.5	.0	2.5	4.0	.0	1.0
27	18.5	8.5	13.0	11.5	4.0	8.0	6.0	.0	2.0	5.5	.0	1.5
28	16.5	8.0	12.0	9.0	.5	4.5	5.5	.0	2.0	9.5	.0	3.5
29	19.0	8.5	13.5	12.0	2.0	6.5	3.0	1.0	2.0	6.5	.0	3.0
30	14.5	11.0	13.0	13.0	2.5	7.5	6.0	.0	2.5	3.0	.0	1.0
31	18.5	12.5	15.0	---	---	---	9.0	.0	3.5	.5	.0	.0
MONTH	22.5	6.0	15.0	18.5	.5	9.0	14.0	.0	4.5	13.5	.0	3.0

07227500 CANADIAN RIVER NEAR AMARILLO, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	13.5	.0	5.5	20.0	5.5	12.0	28.5	8.5	17.0
2	.0	.0	.0	16.0	.5	7.0	22.0	6.5	13.0	31.0	10.5	19.0
3	.5	.0	.0	18.0	2.0	9.0	23.0	9.0	14.0	30.5	14.0	20.0
4	.5	.0	.0	16.5	5.5	10.0	15.0	6.5	10.0	33.0	13.0	21.0
5	5.5	.0	1.0	16.0	5.5	9.5	14.5	5.5	9.0	21.0	13.0	16.5
6	7.5	.0	3.0	8.0	.0	2.0	22.0	3.0	11.5	30.0	13.5	19.5
7	11.0	.5	5.5	10.5	.0	2.5	20.5	6.5	13.0	34.0	16.5	23.0
8	13.0	3.0	8.0	12.0	.0	4.0	24.5	9.5	16.0	32.0	17.0	22.5
9	16.0	3.5	9.0	16.0	.0	7.0	29.0	11.0	19.0	34.5	16.5	23.0
10	13.5	4.5	8.5	19.5	2.5	10.0	25.0	12.5	17.5	25.0	15.0	18.5
11	12.0	1.0	6.0	20.5	6.0	11.5	21.5	10.5	15.0	31.5	13.0	19.5
12	12.5	1.5	6.0	19.0	4.5	11.5	25.0	8.5	15.5	32.0	13.0	20.5
13	15.5	1.0	7.5	22.0	5.5	12.5	21.0	9.0	13.5	24.5	15.5	19.0
14	16.5	4.0	9.0	19.0	8.0	12.0	13.5	6.0	9.0	33.0	16.5	22.5
15	16.0	3.5	8.5	16.0	5.5	10.5	22.5	4.5	12.5	32.0	14.5	21.5
16	11.5	.5	5.5	18.0	5.0	10.5	20.0	8.0	13.5	32.0	13.5	21.5
17	15.0	1.5	7.5	11.5	4.5	8.0	24.5	8.0	15.0	28.0	16.5	21.0
18	14.5	4.5	8.5	14.5	3.5	8.0	25.5	9.5	16.0	25.5	16.0	19.5
19	17.0	4.0	10.0	15.0	2.5	8.0	23.0	10.5	15.0	32.5	16.5	23.0
20	18.5	6.0	11.5	18.5	1.0	9.0	22.5	7.5	13.5	30.5	15.5	22.5
21	19.0	9.0	13.5	22.0	3.0	11.5	23.5	9.0	15.5	30.5	15.5	22.0
22	17.0	7.5	12.0	21.5	5.5	12.5	20.5	7.0	13.0	---	---	---
23	17.0	7.0	11.0	20.0	7.5	13.0	22.0	7.5	15.0	---	---	---
24	11.5	5.5	8.0	15.5	3.0	10.5	29.0	10.5	19.5	---	---	---
25	12.0	7.5	9.0	12.5	.0	4.5	22.0	12.0	18.5	23.0	18.5	20.5
26	14.0	6.0	9.5	17.0	1.5	7.0	26.0	4.0	16.5	22.0	17.0	19.0
27	14.0	3.0	7.5	20.0	1.0	9.0	24.0	12.5	19.0	22.5	16.5	19.0
28	7.0	.5	2.5	20.0	6.0	11.5	18.0	7.0	12.5	23.0	15.5	19.0
29	10.5	.0	4.0	20.5	8.0	13.5	16.0	5.0	10.0	23.0	17.0	20.0
30	---	---	---	17.0	8.5	11.0	29.0	4.0	15.5	22.0	18.5	20.0
31	---	---	---	22.5	4.5	12.0	---	---	---	25.5	17.0	20.0
MONTH	19.0	.0	6.5	22.5	.0	9.0	29.0	3.0	14.5	34.5	8.5	20.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29.5	18.0	22.5	31.0	24.0	27.0	32.0	24.5	28.0	26.5	21.5	23.5
2	30.5	19.5	24.0	31.0	24.0	27.5	32.0	25.5	28.5	28.5	22.0	25.0
3	27.5	20.0	22.5	33.0	24.0	28.0	30.0	23.5	26.5	26.0	21.5	24.0
4	25.5	15.0	20.5	32.0	24.0	28.0	29.0	22.0	25.5	28.0	22.0	24.5
5	30.0	19.5	24.0	31.0	22.5	26.5	32.0	23.0	27.0	28.5	22.0	25.0
6	27.5	21.0	24.0	32.5	22.0	26.5	---	---	---	27.5	22.0	24.0
7	28.5	18.0	23.0	33.5	23.0	27.5	---	---	---	24.5	21.5	23.0
8	31.5	17.5	23.5	32.5	22.5	26.0	---	---	---	27.0	21.0	24.0
9	30.5	18.5	24.0	25.0	21.5	23.0	---	---	---	28.0	21.0	24.5
10	34.0	19.5	25.5	22.0	20.0	20.5	---	---	---	27.5	20.5	24.0
11	33.5	22.0	26.5	25.5	20.0	22.0	---	---	---	27.0	20.0	23.5
12	35.0	20.0	26.0	28.5	24.0	26.0	---	---	---	24.0	21.0	22.5
13	31.0	21.5	25.5	27.0	22.5	24.5	---	---	---	21.5	19.5	20.5
14	29.0	20.5	24.0	25.0	21.0	22.5	30.5	23.0	26.5	22.5	19.0	20.5
15	32.0	19.5	25.0	28.5	22.5	25.0	30.5	23.5	26.5	23.5	19.0	21.0
16	31.0	21.0	25.5	29.5	23.0	26.0	31.5	23.0	27.0	25.0	19.5	21.5
17	33.0	22.5	27.0	30.0	22.5	26.0	31.5	24.0	27.5	26.0	19.0	22.0
18	32.5	22.0	26.0	31.0	23.5	26.5	30.5	24.0	27.0	25.5	20.0	22.5
19	31.5	19.5	25.0	31.5	23.0	27.0	28.0	23.5	25.5	24.0	18.0	21.0
20	33.5	22.0	27.0	31.5	23.5	27.5	28.5	22.5	25.0	23.0	16.0	19.5
21	32.5	21.5	25.5	33.5	24.0	28.5	29.0	24.0	26.0	24.0	16.0	19.5
22	33.5	20.0	25.0	33.0	23.0	28.0	29.0	23.5	26.0	25.5	17.5	21.0
23	33.0	20.5	26.0	30.0	21.0	25.0	27.0	23.5	25.5	25.0	17.5	21.0
24	34.5	1.0	22.0	27.5	20.0	24.0	25.0	22.5	24.0	24.5	17.5	20.5
25	26.5	12.0	19.5	28.5	23.0	26.0	28.0	22.0	24.5	25.0	19.0	21.5
26	26.0	20.0	23.5	30.5	22.5	26.0	25.5	22.0	23.5	21.5	13.5	16.0
27	27.0	22.5	24.0	27.0	24.5	25.5	25.5	21.5	23.5	17.0	12.0	13.5
28	28.0	22.5	25.0	30.0	23.5	26.5	27.0	22.5	24.5	19.5	10.5	14.5
29	30.5	23.5	26.0	30.5	24.5	27.0	26.5	22.5	24.5	22.0	13.0	17.5
30	30.5	23.0	26.5	29.0	25.0	26.5	27.0	22.0	24.5	21.5	14.5	17.5
31	---	---	---	30.0	24.0	26.5	24.5	19.5	22.0	---	---	---
MONTH	35.0	1.0	24.5	33.5	20.0	26.0	32.0	19.5	25.5	28.5	10.5	21.5
YEAR	35.0	.0	14.5									

07228000 CANADIAN RIVER NEAR CANADIAN, TX

LOCATION.--Lat 35°56'06", long 100°22'13", Hemphill County, Hydrologic Unit 11090106, on left abutment at downstream side of upstream bridge on U.S. Highways 60 and 83, 600 ft downstream from Panhandle and Santa Fe Railway Co. bridge, 1.2 mi downstream from Red Deer Creek, 1.6 mi northeast of Canadian, and 433.9 mi upstream from mouth.

DRAINAGE AREA.--22,866 mi², of which 4,688 mi² probably is noncontributing.

PERIOD OF RECORD.--July 1924 to August 1925 (gage heights only), January 1938 to current year. Prior to April 1938, monthly discharges only, published in WSP 1311.
Water-quality records.--Chemical and biochemical analyses: August 1966 to September 1994. Pesticide analyses: October 1970 to June 1982. Specific conductance and temperature: October 1974 to September 1981.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,301.50 ft above 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 upstream at same datum.

REMARKS.--Records fair. Extreme low flow is maintained by springs that enter river about 600 ft upstream from the gage. There is some regulation and diversions from Lake Meredith (07227900) 75 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--26 years (water years 1939-64) prior to completion of Lake Meredith, 549 ft³/s (397,800 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1939-64).--Maximum discharge, 122,000 ft³/s Sept. 23, 1941 (gage height, 9.8 ft), from graph based on gage readings, and from rating curves for two channels extended above 8,000 and 54,000 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 20.0 ft Oct. 2, 1904. Floods of May 2, 1914, and Oct. 5, 1923, reached stages of 12 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	49	43	65	e57	55	57	35	76	62	118	103
2	57	47	43	61	e56	55	53	35	70	58	111	99
3	83	46	43	55	e55	55	50	35	64	53	97	98
4	72	46	43	52	e54	55	49	35	61	48	93	102
5	63	47	43	50	e55	54	48	33	66	44	88	104
6	58	46	43	e47	e56	53	47	34	62	42	83	99
7	57	46	43	e44	e62	54	46	34	61	40	80	113
8	56	46	43	e45	63	55	47	33	59	37	85	106
9	54	45	43	47	62	55	46	32	52	56	117	100
10	54	45	e42	50	62	55	46	34	53	116	155	99
11	54	45	43	53	61	55	45	34	49	236	169	95
12	54	43	43	55	60	56	42	32	157	265	171	94
13	55	43	43	56	57	56	41	31	76	308	147	100
14	53	43	43	57	54	54	40	32	61	328	139	106
15	51	42	44	58	53	53	41	31	58	176	128	107
16	51	42	44	60	52	52	40	28	55	140	125	125
17	50	42	46	60	53	52	38	26	51	119	126	143
18	49	41	70	e45	53	53	37	24	47	104	126	147
19	49	41	74	e50	53	52	35	23	44	96	115	192
20	49	42	72	e60	53	51	35	23	41	91	107	285
21	48	43	70	e65	54	51	34	22	37	86	107	249
22	48	43	65	67	55	52	34	22	35	82	100	195
23	48	43	60	67	53	51	35	22	e34	88	97	138
24	46	43	57	67	53	51	34	27	e40	129	95	107
25	47	43	53	66	53	51	33	167	42	122	94	98
26	47	43	50	65	54	51	34	174	42	117	105	94
27	46	43	50	64	55	51	34	215	52	113	142	102
28	46	42	48	60	55	51	33	254	99	105	142	96
29	46	43	49	59	55	51	34	236	111	97	128	87
30	46	43	54	e58	---	55	35	102	72	100	114	81
31	47	---	60	e57	---	60	---	80	---	113	108	---
TOTAL	1632	1316	1567	1765	1618	1655	1223	1945	1827	3571	3612	3664
MEAN	52.6	43.9	50.5	56.9	55.8	53.4	40.8	62.7	60.9	115	117	122
MAX	83	49	74	67	63	60	57	254	157	328	171	285
MIN	46	41	42	44	52	51	33	22	34	37	80	81
AC-FT	3240	2610	3110	3500	3210	3280	2430	3860	3620	7080	7160	7270

07228000 CANADIAN RIVER NEAR CANADIAN, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	47.3	64.6	67.2	76.9	84.9	114	89.2	165	189	38.4	29.3	40.9
MAX	426	848	490	292	146	473	555	1022	1054	167	117	266
(WY)	1969	1972	1972	1972	1972	1973	1973	1977	1965	1967	1996	1970
MIN	.35	4.97	22.4	31.0	37.0	23.0	3.90	1.39	.34	.019	.019	.000
(WY)	1976	1967	1967	1977	1981	1967	1968	1966	1966	1970	1980	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996	
ANNUAL TOTAL	29821		25395			
ANNUAL MEAN	81.7		69.4		83.7	
HIGHEST ANNUAL MEAN					190	1972
LOWEST ANNUAL MEAN					35.4	1981
HIGHEST DAILY MEAN	3310	Jun 10	328	Jul 14	12700	Oct 9 1968
LOWEST DAILY MEAN	22	Sep 7	22	May 21	.00	Oct 11 1964
ANNUAL SEVEN-DAY MINIMUM	24	Sep 3	23	May 17	.00	Oct 11 1964
INSTANTANEOUS PEAK FLOW			430	Jun 12	38900	Oct 9 1968
INSTANTANEOUS PEAK STAGE			4.80	Jun 12	9.83	Apr 15 1973
INSTANTANEOUS LOW FLOW					.00	Oct 11 1965
ANNUAL RUNOFF (AC-FT)	59150		50370		60650	
10 PERCENT EXCEEDS	96		117		138	
50 PERCENT EXCEEDS	54		54		40	
90 PERCENT EXCEEDS	36		35		.74	

e Estimated

07235000 WOLF CREEK AT LIPSCOMB, TX

LOCATION.--Lat 36°14'19", long 100°16'31", Lipscomb County, Hydrologic Unit 11100203, on right bank at downstream side of State Highway 305, 0.3 mi north of Lipscomb, 0.6 mi downstream from Sand Creek, 2 mi upstream from Plum Creek, and 61.2 mi upstream from mouth.

DRAINAGE AREA.--697 mi², of which 222 mi² probably is noncontributing.

PERIOD OF RECORD.--October 1937 to September 1942, October 1961 to current year. Prior to 1941, monthly discharges only, published in WSP 1311.
Water-quality records.--Chemical and biochemical analyses: May 1980.

REVISED RECORDS.--WSP 1311: 1938-39, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,371.29 ft above 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 higher.

REMARKS.--Records fair. There are small diversions upstream from station for irrigation and recreation.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--5 years (water years 1938-42), 39.7 ft³/s, 28,760 acre-feet/yr.

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1938-42).--Maximum discharge, 20,000 ft³/s Oct. 21, 1941 (Gage-height, 11.57 ft, present datum), from rating curve extended above 14,000 ft³/s on basis of velocity-area studies; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1890, 15.5 ft June 23, 1957, present site and datum, from flood-marks. A flood in May 1955 reached a stage of 12.1 ft, present site and datum, from information by State Department of Highways and Public Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.66	1.1	2.0	e1.6	1.8	2.3	1.3	.59	.25	38	9.9
2	1.5	.66	1.1	2.0	e1.6	1.8	2.0	1.2	.48	.21	30	9.7
3	1.5	.65	1.1	e1.8	e1.3	1.8	1.9	1.7	.46	.19	27	9.3
4	1.3	.66	1.1	1.9	e1.4	1.9	1.8	1.1	.44	.18	18	8.9
5	1.1	.67	1.1	e1.8	e1.3	1.9	1.7	1.1	.42	.15	13	8.4
6	1.0	.72	1.1	e1.7	1.5	e1.8	1.7	.99	.42	.14	11	8.0
7	.99	.74	1.1	e1.7	1.8	e1.8	1.8	1.1	.38	.14	8.6	7.9
8	.98	.75	1.1	e1.8	1.9	e1.8	1.7	.92	.37	.14	9.0	7.6
9	.87	.77	e1.0	1.8	2.0	e1.9	1.7	.81	.40	.37	28	7.1
10	.84	.78	e1.0	1.9	1.9	2.0	1.6	.85	.37	39	28	6.8
11	.81	.80	1.2	2.0	1.9	2.0	1.8	.85	.34	75	15	6.4
12	.72	.78	1.2	2.0	1.8	1.9	1.6	.82	.46	40	13	6.1
13	.68	.79	1.3	1.9	1.8	1.8	1.5	.74	.37	24	11	6.2
14	.66	.82	1.3	1.9	1.7	1.9	1.5	.84	.36	18	9.9	6.2
15	.72	.82	1.3	1.9	1.7	1.8	1.5	.75	.37	14	11	6.4
16	.64	.82	1.3	1.9	1.7	1.8	1.5	.63	.35	11	11	6.9
17	.57	.82	1.4	1.9	1.7	1.8	1.4	.50	.32	8.1	12	7.4
18	.58	.88	2.0	e1.8	1.7	1.8	1.4	.42	.28	6.5	11	487
19	.57	.90	2.1	e1.8	1.8	1.8	1.5	.43	.25	5.3	9.9	5800
20	.60	.86	e1.9	e1.7	1.7	1.7	1.5	.41	.24	4.4	18	1810
21	.60	.86	1.9	e1.7	1.7	1.7	1.4	.36	.22	3.6	24	536
22	.57	.91	1.9	1.8	1.7	1.7	1.5	.39	.20	3.1	16	258
23	.52	.87	e2.0	e1.9	1.7	1.6	1.4	.36	.19	2.9	14	158
24	.56	.89	e1.9	e1.9	1.6	1.6	1.4	.34	.24	4.0	12	111
25	.56	.90	e1.8	1.8	1.7	1.5	1.4	.53	.30	3.4	11	88
26	.59	.90	1.8	e1.8	1.7	1.5	1.3	.47	.25	3.1	12	77
27	.60	.93	1.9	e1.8	1.8	1.6	1.3	.40	.21	4.1	15	75
28	.62	.95	1.8	1.7	e1.7	1.7	1.2	.35	.19	4.0	13	66
29	.60	.96	1.8	1.8	e1.7	1.6	1.1	.35	.17	3.3	12	57
30	.60	1.0	2.0	e1.7	---	2.3	1.3	.36	.19	123	11	51
31	.63	---	2.0	e1.6	---	2.7	---	.45	---	91	10	---
TOTAL	23.96	24.52	46.6	56.7	49.1	56.3	46.7	21.82	9.83	492.57	482.4	9703.2
MEAN	.77	.82	1.50	1.83	1.69	1.82	1.56	.70	.33	15.9	15.6	323
MAX	1.5	1.0	2.1	2.0	2.0	2.7	2.3	1.7	.59	123	38	5800
MIN	.52	.65	1.0	1.6	1.3	1.5	1.1	.34	.17	.14	8.6	6.1
AC-FT	48	49	92	112	97	112	93	43	19	977	957	19250
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.03	.68
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.04	.76

07235000 WOLF CREEK AT LIPSCOMB, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	6.61	5.63	3.40	3.61	4.41	7.01	8.31	18.2	18.1	8.22	8.70	15.3
MAX	167	112	12.3	11.8	10.9	53.0	69.1	124	206	82.7	77.6	323
(WY)	1969	1972	1972	1969	1963	1974	1980	1979	1965	1967	1965	1996
MIN	.10	.50	.60	.55	.60	1.10	.94	.65	.33	.30	.000	.21
(WY)	1965	1995	1995	1986	1986	1986	1986	1986	1996	1974	1964	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	1251.94		11013.70			
ANNUAL MEAN	3.43		30.1		8.96	
HIGHEST ANNUAL MEAN					30.5	1965
LOWEST ANNUAL MEAN					1.44	1986
HIGHEST DAILY MEAN	249	Jun 9	5800	Sep 19	5800	Sep 19 1996
LOWEST DAILY MEAN	.29	Sep 4	.14	Jul 6	.00	May 24 1964
ANNUAL SEVEN-DAY MINIMUM	.30	Sep 2	.16	Jul 2	.00	Jul 22 1964
INSTANTANEOUS PEAK FLOW			10300	Sep 19	10300	Sep 19 1996
INSTANTANEOUS PEAK STAGE			12.44	Sep 19	12.44	Sep 19 1996
INSTANTANEOUS LOW FLOW					.00	Jul 22 1964
ANNUAL RUNOFF (AC-FT)	2480		21850		6490	
ANNUAL RUNOFF (CFSM)	.007		.063		.019	
ANNUAL RUNOFF (INCHES)	.10		.86		.26	
10 PERCENT EXCEEDS	4.5		12		10	
50 PERCENT EXCEEDS	1.4		1.7		2.4	
90 PERCENT EXCEEDS	.58		.38		.48	

e Estimated

07297910 PRAIRIE DOG TOWN FORK RED RIVER NEAR WAYSIDE, TX

LOCATION.--Lat 34°50'15", long 101°24'49", Armstrong County, Hydrologic Unit 11120103, on left bank at downstream side of bridge on Farm Road 284, 13 mi northeast of Wayside, 26 mi south of Claude, and at mile 1,145.

DRAINAGE AREA.--4,211 mi², of which 3,281 mi² probably is noncontributing.

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

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

REMARKS.--Records fair except for estimated daily discharges and those less than 20 ft³/s, which are poor. There are several small diversions upstream from station. Wastewater effluent is released into river above station by the city of Amarillo.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 14	1430	7,460	9.64	Aug. 26	1830	41,600	12.12
July 30	0430	8,800	9.62	Sept. 8	0030	14,900	10.20

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	12	14	e14	e9.0	e6.9	7.3	.88	.05	7.8	5.2	e28
2	53	14	13	e14	e11	e7.0	6.5	.70	.04	1.8	3.3	e32
3	26	12	14	e14	e11	e8.2	6.0	.60	8.5	1.3	3.3	e30
4	18	11	14	e14	e12	e7.3	3.7	1.2	25	3.9	2.0	e30
5	17	12	12	e13	e12	e7.0	2.6	1.8	4.1	1.9	1.0	e22
6	21	11	12	e11	e14	e7.3	2.5	.44	1.2	.73	.59	e18
7	26	14	12	e9.0	e17	e6.8	1.2	.35	2.1	.42	1.5	341
8	26	10	12	e7.8	e12	e6.4	.97	.27	1.9	.24	558	681
9	33	5.8	12	e8.0	e8.8	e6.5	1.0	.33	1.9	9.5	98	e16
10	27	6.4	13	e8.3	e9.5	e6.7	1.1	.78	.95	72	307	e5.2
11	17	9.2	e15	e8.3	e10	e6.9	.31	.77	.56	63	9.0	e3.9
12	19	6.6	e16	e8.3	e11	e6.4	.52	.59	3.8	40	2.0	e3.0
13	26	6.8	e17	e8.1	e11	e6.0	.48	.43	1.4	167	.95	e300
14	26	7.6	e15	e7.8	e11	e5.6	.64	1.2	1.8	1070	.80	e80
15	18	7.3	e15	e7.3	e10	e5.2	.71	1.6	8.1	e10	6.1	e10
16	12	7.3	e15	e6.9	e11	e5.5	.82	1.6	5.7	e1.7	961	e150
17	12	7.3	e16	e6.4	e10	e8.0	.75	1.1	4.5	e3.1	5.7	45
18	16	8.2	e16	e6.7	e10	e6.4	.73	.70	2.3	e2.3	.78	31
19	18	6.8	e14	e6.9	e9.4	e6.2	1.0	.13	1.5	e2.9	.30	31
20	21	8.4	e13	e9.0	e9.0	e6.0	2.3	.04	1.1	e1.2	.42	26
21	18	9.1	e14	e10	e10	5.9	1.2	.01	2.7	e.60	.44	24
22	13	6.8	e14	e10	e9.0	6.9	1.3	.00	.21	e.22	.30	21
23	13	12	e15	12	e8.3	6.5	1.4	.00	.15	1950	.40	22
24	14	12	e15	e7.3	e8.5	6.0	.27	.00	.12	820	.68	21
25	15	13	e16	e7.5	e8.6	5.1	.14	.00	.25	11	7.3	22
26	19	9.0	e16	e7.8	e8.8	5.5	.46	.00	18	25	6280	18
27	21	15	e15	e8.2	e8.6	4.2	.13	.00	2.4	313	1660	130
28	21	19	e15	e8.5	e8.3	4.4	.17	.00	9.2	49	731	44
29	17	18	e15	e8.9	e7.8	3.5	.41	.00	33	159	291	31
30	15	14	e15	e8.4	---	3.8	.55	1.6	21	1570	e49	22
31	13	---	e14	e7.8	---	5.3	---	.53	---	61	e34	---
TOTAL	615.3	311.6	444	285.2	296.6	189.4	47.16	17.65	163.53	6419.61	11021.06	2238.1
MEAN	19.8	10.4	14.3	9.20	10.2	6.11	1.57	.57	5.45	207	356	74.6
MAX	53	19	17	14	17	8.2	7.3	1.8	33	1950	6280	681
MIN	4.3	5.8	12	6.4	7.8	3.5	.13	.00	.04	.22	.30	3.0
AC-FT	1220	618	881	566	588	376	94	35	324	12730	21860	4440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	24.2	7.44	4.60	4.33	3.79	6.52	10.0	49.5	55.0	28.8	94.9	26.2
MAX	147	51.9	20.3	24.7	17.4	26.1	97.5	472	304	207	1410	110
(WY)	1986	1972	1988	1988	1990	1992	1977	1978	1984	1996	1968	1969
MIN	.000	.066	.099	.30	.16	.34	.17	.13	1.44	.000	.39	.000
(WY)	1976	1971	1971	1971	1976	1971	1978	1984	1970	1974	1983	1975

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	6937.80		22049.21			
ANNUAL MEAN	19.0		60.2		26.5	
HIGHEST ANNUAL MEAN					137	1968
LOWEST ANNUAL MEAN					1.90	1983
HIGHEST DAILY MEAN	962	Jun 3	6280	Aug 26	22700	Aug 29 1968
LOWEST DAILY MEAN	.41	Aug 13	.00	May 22	.00	Jul 30 1968
ANNUAL SEVEN-DAY MINIMUM	.53	Aug 7	.00	May 22	.00	Jul 30 1968
INSTANTANEOUS PEAK FLOW			41600	Aug 26	58000	Aug 28 1968
INSTANTANEOUS PEAK STAGE			12.12	Aug 26	13.00	Aug 28 1968
ANNUAL RUNOFF (AC-FT)	13760		43730		19170	
10 PERCENT EXCEEDS	24		31		23	
50 PERCENT EXCEEDS	12		8.3		1.9	
90 PERCENT EXCEEDS	1.5		.45		.06	

e Estimated

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TX

LOCATION.--Lat 34°34'09", long 100°11'37", Childress County, Hydrologic Unit 11120105, on left bank at downstream side of bridge on U.S. Highways 62 and 83, 3.1 mi downstream from Salt Creek, 10.0 mi north of Childress, and at mile 1,061.

DRAINAGE AREA.--7,725 mi², of which 4,767 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,628.4 ft above sea level (from Texas State Department of Highways and Public Transportation bench mark).

REMARKS.--Records poor. Many small diversions upstream from station. Flow is affected at times by discharge from the flood-detention pools of 23 floodwater-retarding structures with a combined detention capacity of 20,010 acre-ft. These structures control runoff from 95.2 mi² in the drainage basin above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1899, 16.9 ft in May or June 1957, from information by local residents and State Department of Highways and Public Transportation.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 27	1400	15,000	10.41				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	9.6	20	21	15	15	16	29	35	1.4	337	64
2	135	8.2	21	19	14	16	14	46	30	1.5	176	59
3	287	6.9	20	16	15	16	13	53	20	1.8	131	39
4	272	7.1	19	16	23	16	13	50	16	1.1	72	64
5	97	7.9	20	15	26	15	14	44	135	.71	39	32
6	32	8.7	20	10	31	12	18	48	84	.54	26	23
7	21	8.0	20	8.0	30	9.3	19	51	31	.51	23	39
8	15	7.3	21	9.6	28	11	21	45	12	.47	54	80
9	12	7.6	16	12	26	12	22	27	8.7	401	757	92
10	10	8.3	16	10	26	12	20	26	11	1980	372	148
11	10	10	19	8.5	26	11	20	29	9.9	1280	537	115
12	13	9.3	22	7.6	26	11	20	32	7.0	74	415	106
13	14	e8.8	22	7.8	27	9.6	20	33	6.8	29	228	108
14	12	e10	20	7.7	27	e8.8	13	43	7.6	44	110	136
15	11	e11	20	7.9	25	e8.2	18	38	137	206	74	694
16	10	e13	20	8.2	20	e7.7	20	22	137	102	84	365
17	8.9	e14	43	7.8	22	e7.2	19	17	356	42	431	238
18	8.3	e16	101	14	25	e18	15	16	109	29	586	138
19	7.1	e18	45	21	26	e22	14	17	58	19	263	90
20	5.8	e21	37	24	25	17	14	14	12	16	147	68
21	5.9	21	33	24	24	14	18	16	4.7	14	93	54
22	6.6	21	28	24	22	14	13	27	2.7	13	67	57
23	5.6	20	24	23	15	14	16	20	1.3	14	70	57
24	5.5	20	22	24	14	10	16	13	1.7	37	61	59
25	5.9	20	20	23	18	7.7	11	13	63	554	200	84
26	6.9	21	19	18	16	9.1	14	371	16	190	409	47
27	7.1	20	19	18	13	23	16	223	7.7	122	4000	46
28	7.0	19	17	21	11	30	12	47	7.3	585	464	64
29	6.6	19	19	20	13	24	15	21	7.2	228	342	87
30	7.4	20	22	18	---	15	31	35	2.3	144	188	75
31	8.7	---	21	14	---	17	---	77	---	887	113	---
TOTAL	1086.3	411.7	786	478.1	629	432.6	505	1543	1336.9	7018.03	10869	3328
MEAN	35.0	13.7	25.4	15.4	21.7	14.0	16.8	49.8	44.6	226	351	111
MAX	287	21	101	24	31	30	31	371	356	1980	4000	694
MIN	5.5	6.9	16	7.6	11	7.2	11	13	1.3	.47	23	23
AC-FT	2150	817	1560	948	1250	858	1000	3060	2650	13920	21560	6600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	105	44.0	32.8	34.9	27.4	40.4	89.0	244	324	105	162	148
MAX	1279	377	265	296	162	243	594	1835	1297	367	1086	470
(WY)	1987	1987	1993	1993	1987	1973	1973	1978	1995	1972	1968	1966
MIN	3.14	1.85	2.27	2.05	2.00	1.72	2.95	1.18	3.46	.66	1.56	3.39
(WY)	1985	1978	1983	1971	1974	1966	1978	1988	1994	1974	1980	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	63611.7		28423.63			
ANNUAL MEAN	174		77.7		113	
HIGHEST ANNUAL MEAN					286	1987
LOWEST ANNUAL MEAN					27.6	1994
HIGHEST DAILY MEAN	26100	Jun 4	4000	Aug 27	34200	May 28 1978
LOWEST DAILY MEAN	1.8	Apr 26	.47	Jul 8	.00	Aug 5 1970
ANNUAL SEVEN-DAY MINIMUM	2.1	Apr 26	.95	Jul 2	.00	Jun 7 1988
INSTANTANEOUS PEAK FLOW			15000	Aug 27	86400	May 28 1978
INSTANTANEOUS PEAK STAGE			10.41	Aug 27	13.94	May 21 1977
ANNUAL RUNOFF (AC-FT)	126200		56380		82040	
10 PERCENT EXCEEDS	203		140		168	
50 PERCENT EXCEEDS	14		20		7.8	
90 PERCENT EXCEEDS	4.5		7.7		1.1	

e Estimated

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1994 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1994 to current year.
TEMPERATURE: October 1994 to current year.

INSTRUMENTATION.--From October 1994 to current year, specific conductance and temperature were continuously recorded at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 81,300 microsiemens May 25, 1995; minimum, 2,160 microsiemens July 31, 1996.
TEMPERATURE: Maximum, 39.0°C July 3, 1996; minimum, 0.0°C on many days during winter months, 1995 and 1996.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 76,000 microsiemens July 2; minimum, 2,160 microsiemens July 31.
TEMPERATURE: Maximum, 39.0°C July 3; minimum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
DEC									
04...	1415	20	51500	8.2	14.0	4200	4000	1200	280
FEB									
08...	1330	29	41300	8.3	19.5	3900	3700	1100	270
APR									
03...	1040	13	55800	7.8	16.5	5000	4900	1400	360
MAY									
28...	1420	44	34800	7.9	27.5	3300	3200	990	210
JUL									
25...	0905	940	13000	7.6	24.0	1800	1700	550	99
AUG									
27...	1800	9500	10100	7.6	27.5	1200	1200	390	66

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
DEC									
04...	11000	74	33	120	2800	15000	0.70	8.1	30400
FEB									
08...	9400	66	27	130	3000	15000	0.70	10	28900
APR									
03...	12000	74	35	92	3800	20000	0.70	7.2	37700
MAY									
28...	7400	56	34	96	3000	12000	0.50	<0.10	23700
JUL									
25...	2300	24	20	70	1600	3900	0.60	12	8520
AUG									
27...	1800	22	17	78	1300	2900	0.70	11	6530

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROSIEMENS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1995	1086.3	20400	13600	40000	6600	19400	1700	4910	*
NOV.	1995	411.7	51400	35200	39100	18000	20000	3400	3730	*
DEC.	1995	786	40600	27600	58600	13900	29400	2900	6150	*
JAN.	1996	478.1	39800	27000	34800	13500	17400	2900	3710	*
FEB.	1996	629	50600	34600	58800	17700	30000	3300	5640	*
MAR.	1996	432.6	51200	35100	41000	17900	20900	3300	3900	*
APR.	1996	505	57500	39600	54000	20500	27900	3500	4780	*
MAY	1996	1543	39800	27100	113000	13700	56900	2800	11500	*
JUNE	1996	1336.9	31300	21200	76400	10500	37900	2400	8490	*
JULY	1996	7018.03	10200	6730	127000	3200	59800	940	17900	*
AUG.	1996	10869	17300	11600	340000	5600	164800	1400	41900	*
SEPT	1996	3328	24100	16200	146000	8000	71600	1900	17000	*
TOTAL		28423.63	**	**	1129000	**	556000	**	130000	**
WTD.AVG.		78	21800	14700	**	7200	**	1700	**	**

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13700	13200	13400	56100	52600	55000	---	---	e50000	44400	37600	40400
2	33000	7600	14900	54400	52600	53300	---	---	e50300	40300	36400	38300
3	18600	7790	12500	55100	53200	54600	---	---	e50600	41900	39200	41500
4	18100	14900	16100	55800	54800	55500	---	---	e51000	43500	40600	42500
5	19300	17900	18300	56300	55000	55500	53100	46400	49200	44100	43100	43600
6	21900	19200	20900	55900	53500	54900	48600	47200	48100	44800	43700	44000
7	25600	21700	23600	54500	53100	53900	49300	47900	48700	47200	44500	45800
8	26900	25400	26200	54100	53100	53800	49000	47600	48500	46100	44000	45200
9	29300	26700	28000	53700	52200	53100	49600	48300	48900	44900	42000	44000
10	30400	29000	29600	53200	51800	52600	49400	48000	48800	45500	42600	44300
11	31500	28800	29900	52700	50700	51900	48000	46500	47400	45100	43300	44000
12	30100	20900	27100	52200	50900	51500	47500	46200	46600	44900	43000	44300
13	36200	22200	30800	51800	50400	51000	46200	19200	35700	44700	42700	43900
14	38600	33500	36300	50400	49900	50200	19200	18000	19100	44300	42500	43600
15	43300	34800	38400	49900	49400	49700	20100	19000	19400	44800	43000	43900
16	45600	43100	44200	---	---	e49300	21000	19900	20200	43800	41900	43200
17	46700	45400	45900	---	---	e50800	45700	18700	23500	44200	41600	42800
18	46600	44100	45600	---	---	e51200	39400	32200	35200	44100	27000	29200
19	47500	45200	46200	---	---	e51000	34000	29800	31900	27000	25200	26400
20	49800	47500	48900	---	---	e50700	44700	33800	40300	25200	22500	23600
21	49700	48500	49300	51700	49500	51100	45700	43700	45100	---	---	e21700
22	49600	48500	49100	51700	49600	50600	47400	44100	45300	---	---	e30000
23	50700	49600	50300	50800	49600	50200	44100	40900	42300	---	---	e37000
24	50800	49700	50600	51800	49700	50800	41900	39700	41400	---	---	e42000
25	50800	49800	50300	---	---	e50800	42500	40400	41800	---	---	e46000
26	58200	49900	53600	---	---	e50900	45900	42200	43800	---	---	e46300
27	59200	57800	58800	---	---	e50800	49500	44700	47000	48900	45400	47000
28	58700	57400	58200	---	---	e50900	51200	49300	49900	47300	44000	45900
29	58300	57000	57900	---	---	e51000	52200	46900	49600	47500	45700	46700
30	57900	56500	56800	---	---	e49500	47600	44800	46300	49500	46400	48200
31	56500	55100	56300	---	---	---	47600	44400	46400	51400	41700	47600
MONTH	59200	7600	38300	56300	49400	51900	53100	18000	42300	51400	22500	41100

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	54800	42700	50500	52100	45800	49200	59100	53300	55900	---	---	e52800
2	57900	39900	48700	48700	45900	47600	59800	54800	57300	58500	36800	44500
3	59100	38700	48200	48800	45100	47100	60100	52500	56500	50100	45300	47900
4	60600	48000	54700	50900	45300	47200	61000	55900	58400	48800	40100	44900
5	60000	50200	53900	50900	45400	47700	60300	59000	59700	58500	40000	49000
6	52100	42300	46400	49300	48300	48900	60200	56000	58500	61600	58500	60200
7	43500	37700	41500	52200	42900	47700	61800	58900	60200	64100	61600	63200
8	46600	41500	43700	50500	44900	47300	62000	57500	59700	65900	64100	65300
9	48500	43400	46500	49800	46000	47800	61100	55500	58300	67400	47400	59700
10	48700	44400	47400	49000	45100	46700	65000	56900	59600	47400	42800	44000
11	51300	46300	48900	50100	47200	48400	---	---	e59000	51100	44800	48700
12	51500	46400	49200	51100	46400	49100	---	---	e59400	54000	51100	52700
13	51700	43200	48500	50400	47400	49100	---	---	e59800	64500	54000	56700
14	53800	46700	51100	52400	49500	50700	---	---	e57600	---	---	59600
15	57400	49500	53200	51400	49600	49900	---	---	e56900	---	---	e53000
16	58400	52300	55900	50700	48800	49500	---	---	e57800	---	---	e51500
17	58500	51600	55400	49900	47900	48700	---	---	e58000	---	---	e50000
18	58900	54400	56600	---	---	47600	---	---	e58300	---	---	e51000
19	58100	52000	55400	---	---	e48100	---	---	e59000	---	---	e52300
20	57400	51300	55000	---	---	51900	---	---	e59300	---	---	e53000
21	56700	51500	54400	56100	51300	53300	---	---	e58100	---	---	e50000
22	56000	46300	52300	56100	51300	53700	---	---	e59000	---	---	e51000
23	52600	49200	50600	56100	52200	54200	---	---	e59200	---	---	e52500
24	52100	49300	50600	61000	54200	57700	---	---	e59400	---	---	e5300
25	52100	47700	49700	60000	57100	58100	---	---	e57100	---	---	e50000
26	54200	49600	51200	58100	53300	55200	---	---	e58000	---	---	e24000
27	54400	48000	51200	57100	52300	55500	---	---	e51000	---	---	e22000
28	55300	48200	51100	57200	53300	55500	---	---	e51300	---	---	e31000
29	53800	49300	50600	57200	53300	55000	---	---	e51600	39600	35400	36500
30	---	---	---	57200	52300	55100	---	---	e52000	48500	35700	39500
31	---	---	---	58200	54300	55900	---	---	---	51600	42300	47800
MONTH	60600	37700	50800	61000	42900	50900	65000	52500	57500	67400	35400	47400

e Estimated

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	51400	45300	48500	75400	50100	61200	5730	2220	3190	---	---	e50000
2	50200	43200	47300	76000	45400	60000	15400	2940	8030	---	---	e51200
3	43900	33000	40700	70900	57300	63100	19900	14300	17100	---	---	e52100
4	33000	29600	31800	69300	56300	60400	25900	16100	19600	---	---	e48000
5	---	---	13800	59800	50800	54800	---	---	27700	---	---	e49900
6	---	---	e28000	58100	50300	54500	---	---	e30100	---	---	e50400
7	---	---	e33000	58800	50500	54800	---	---	e31500	---	---	e46500
8	---	---	e39500	57900	39800	52000	---	---	e9000	---	---	e36900
9	---	---	e46500	47300	11900	19200	---	---	e4250	---	---	e26700
10	---	---	e50200	17900	7720	11500	---	---	e7850	---	---	e21400
11	---	---	e53400	11400	2810	8840	---	---	e11500	---	---	e30500
12	---	---	e55500	13200	3440	10000	---	---	e14500	---	---	e34200
13	---	---	e56700	13900	3500	8740	24000	15900	19700	---	---	e35700
14	---	---	e57800	22300	3580	8870	35600	24000	29900	---	---	e21800
15	---	---	e58200	17600	2910	11200	49400	35600	42000	---	---	e10400
16	---	---	e38000	15200	2840	5810	49900	36300	46300	---	---	e8500
17	---	---	e21500	23700	15200	19500	52700	6190	39000	---	---	e11100
18	---	---	e18000	33800	23700	28800	---	---	e12500	---	---	e13900
19	---	---	e27500	39600	31700	35100	---	---	e34500	---	---	e17500
20	---	---	e31300	32300	12100	18500	---	---	e46000	---	---	e24600
21	48400	37100	42700	13700	12500	12900	---	---	e49000	---	---	e29000
22	55900	47400	50300	16400	13500	14200	---	---	e51200	---	---	e33500
23	59400	52700	55400	16600	11100	14100	---	---	e52400	---	---	e35000
24	72000	41400	57500	38800	10800	18800	---	---	e53000	---	---	e31400
25	41400	30300	33000	30900	4860	13400	---	---	e41000	---	---	e36000
26	39700	30300	34800	14200	4710	7450	---	---	e23500	---	---	e38400
27	54900	39700	48100	16500	6550	14300	---	---	e10000	---	---	e41000
28	61600	31900	47700	14900	2500	8360	---	---	e21500	---	---	e42000
29	40900	32000	36100	11200	2470	5510	---	---	e30500	---	---	e42100
30	58000	40900	48100	3310	3020	3170	---	---	e38100	---	---	e44000
31	---	---	---	12900	2160	4240	---	---	e46500	---	---	---
MONTH	72000	29600	41700	76000	2160	24600	52700	2220	28100	---	---	33800
YEAR	76000	2160	42300									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.0	16.5	20.0	18.5	15.0	16.5	15.0	9.0	12.0	5.5	1.5	3.5
2	21.0	17.0	19.0	15.5	11.5	13.0	15.5	10.0	13.0	3.0	.0	1.0
3	25.0	15.0	19.0	12.5	9.5	11.0	15.0	11.0	13.5	5.0	.0	2.0
4	25.0	14.5	19.0	11.0	9.0	10.0	14.5	8.5	11.5	9.0	2.5	5.0
5	19.5	12.0	15.0	13.0	8.5	10.5	11.5	5.0	8.0	2.5	.0	1.5
6	21.5	10.0	15.0	15.5	12.0	13.5	10.5	2.5	6.5	2.0	.0	.5
7	22.0	10.5	16.0	15.0	12.0	13.5	7.0	3.5	5.5	2.5	.0	.5
8	26.0	12.5	18.0	14.0	10.5	12.5	9.0	1.5	5.5	6.0	.0	2.5
9	27.0	14.5	20.0	15.5	11.0	13.0	4.5	.0	1.5	8.0	1.5	4.5
10	28.0	15.5	21.5	16.0	12.0	14.5	5.0	.0	2.0	7.0	2.5	5.0
11	29.0	16.0	22.0	12.0	8.5	10.5	9.0	.5	4.5	7.0	4.0	5.5
12	26.5	16.5	20.5	14.0	9.0	11.0	10.5	2.5	6.5	7.5	3.5	5.5
13	20.0	14.5	17.0	14.5	11.0	13.0	11.5	4.5	8.0	8.0	4.0	5.5
14	21.0	11.0	15.5	14.5	11.5	13.0	12.5	5.0	8.0	8.0	4.0	6.0
15	22.0	12.0	17.0	14.5	11.5	13.0	12.0	5.5	8.0	6.5	4.0	5.0
16	21.5	14.0	17.5	---	---	---	8.0	3.5	6.0	8.0	4.5	5.5
17	20.5	14.0	17.0	---	---	---	10.0	7.5	8.5	6.0	2.5	5.0
18	22.0	15.5	18.0	---	---	---	8.0	2.0	4.0	2.5	.0	.0
19	18.0	14.5	16.5	---	---	---	9.0	1.0	4.0	1.0	.0	.0
20	17.0	11.0	14.0	---	---	---	3.0	.0	1.5	3.5	.0	1.5
21	18.0	12.0	15.0	17.0	6.5	11.0	4.0	1.0	2.5	4.0	.5	2.5
22	18.5	14.0	16.0	17.5	7.5	12.0	4.0	1.0	2.5	4.0	2.0	3.0
23	17.0	12.5	14.0	14.5	6.5	9.5	5.5	.0	2.0	3.5	.5	2.0
24	15.0	10.0	12.5	17.0	4.5	10.0	7.5	.0	3.5	3.0	.0	1.5
25	17.5	11.5	14.5	18.0	6.5	11.5	8.0	.0	3.5	3.5	1.0	2.0
26	19.0	11.0	15.5	17.0	7.0	11.5	8.5	2.5	5.5	3.5	.0	1.0
27	19.0	12.5	15.5	13.5	8.0	10.5	8.0	4.5	6.5	---	---	---
28	18.0	12.0	15.0	10.5	5.0	8.0	8.0	3.5	5.5	---	---	---
29	19.0	11.5	15.0	12.0	6.0	8.5	4.0	2.5	3.5	---	---	---
30	18.5	15.0	16.0	13.5	7.5	10.5	8.0	3.0	5.0	---	---	---
31	17.5	15.5	16.5	---	---	---	8.0	1.5	5.0	4.0	.0	1.0
MONTH	29.0	10.0	17.0	18.5	4.5	11.5	15.5	.0	6.0	9.0	.0	3.0

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	.0	.0	14.5	.0	5.5	22.0	4.5	12.0	23.5	14.5	19.5
2	2.0	.0	.5	16.0	.0	7.5	22.5	6.5	13.5	27.0	14.0	19.5
3	5.0	.0	.5	17.5	2.0	8.5	28.0	9.0	15.0	25.0	18.0	21.0
4	3.5	.0	.5	17.5	5.0	10.5	18.5	6.5	11.5	27.0	17.5	22.0
5	10.5	.0	3.5	14.0	7.5	10.0	11.5	5.0	7.5	27.5	20.5	24.0
6	13.0	.0	5.0	8.5	.0	3.5	24.5	3.0	12.0	29.0	19.5	23.5
7	18.0	1.5	8.5	10.0	.0	3.0	22.5	6.0	14.0	29.5	21.5	25.0
8	17.5	4.0	10.0	12.0	.0	4.0	25.5	8.5	15.5	29.0	22.5	25.5
9	19.0	4.5	10.5	13.0	.0	5.0	29.5	10.5	18.5	27.0	23.0	24.5
10	16.5	5.5	10.0	15.0	1.0	7.0	25.0	11.5	18.0	24.5	21.0	23.0
11	14.0	1.0	6.5	14.0	3.5	8.0	27.5	13.5	19.5	27.5	19.0	22.5
12	14.5	.5	7.0	17.5	4.0	9.5	24.0	11.0	18.0	28.0	19.5	23.5
13	18.0	2.0	9.0	18.5	5.0	11.0	23.0	11.0	16.5	26.0	23.0	24.0
14	21.0	5.0	11.0	16.5	7.5	11.0	18.0	9.0	12.5	29.5	21.0	25.0
15	17.0	4.5	9.5	16.0	5.0	9.5	23.0	5.5	14.0	29.0	19.0	23.5
16	13.5	.0	5.5	17.0	4.5	10.0	23.0	9.5	16.0	28.0	20.0	24.0
17	15.5	.5	7.0	14.0	4.5	8.5	25.0	11.0	17.5	27.5	21.0	24.0
18	11.5	3.0	7.0	12.5	4.5	7.5	27.5	12.5	19.0	27.5	21.5	24.0
19	19.0	4.0	10.5	10.5	2.5	6.0	23.5	14.0	18.0	28.0	21.5	24.5
20	19.0	6.5	12.0	19.0	1.5	9.0	25.0	10.5	17.0	27.0	22.0	24.5
21	20.0	8.5	13.0	21.0	3.0	11.5	28.0	12.5	19.5	29.0	21.0	24.5
22	19.0	9.0	13.0	22.5	5.5	13.5	23.5	12.5	17.5	31.5	23.5	26.5
23	15.0	7.5	10.5	24.0	10.0	15.5	26.5	10.5	18.0	32.5	22.0	27.0
24	15.5	5.0	9.5	16.5	2.0	12.0	26.5	13.0	19.5	32.0	24.5	28.0
25	18.0	8.5	12.5	14.0	.0	5.5	24.5	15.5	19.5	28.5	25.0	26.5
26	17.5	10.0	13.0	12.0	.0	5.0	29.5	13.0	20.5	35.0	21.0	26.5
27	17.0	4.5	10.0	8.5	2.5	5.5	29.5	15.5	22.0	35.5	18.5	26.0
28	10.5	.0	4.0	19.0	5.5	10.0	23.5	11.5	19.5	24.5	20.0	22.0
29	7.5	.0	2.5	20.5	7.5	13.0	22.0	8.5	14.5	22.5	17.5	20.0
30	---	---	---	17.0	7.0	11.5	26.5	11.0	18.0	22.0	18.5	20.0
31	---	---	---	22.0	3.0	11.5	---	---	---	31.0	19.5	24.0
MONTH	21.0	.0	7.5	24.0	.0	8.5	29.5	3.0	16.5	35.5	14.0	24.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	19.5	23.0	38.0	22.5	29.5	34.0	23.0	28.0	23.5	22.5	23.0
2	28.0	20.5	23.5	36.5	24.0	28.0	35.0	24.0	28.5	24.0	22.0	23.0
3	28.0	21.5	24.0	39.0	23.0	29.0	32.5	20.5	26.0	24.0	22.5	23.5
4	29.5	21.0	24.0	36.0	23.0	29.0	30.0	22.0	26.0	23.5	22.0	23.0
5	25.0	20.0	22.0	35.5	22.0	27.5	30.0	23.0	26.0	24.0	22.0	23.0
6	24.5	22.0	23.5	35.0	21.0	27.0	30.0	24.0	26.5	24.0	22.0	23.0
7	22.5	20.5	21.5	36.5	22.0	28.0	32.0	23.0	27.0	23.5	22.0	23.0
8	21.0	18.5	20.0	37.0	22.5	27.5	32.0	24.0	27.5	24.5	22.5	23.5
9	23.0	18.5	21.0	28.5	22.5	24.5	32.5	24.0	27.0	24.5	23.0	24.0
10	---	---	---	23.5	19.0	21.5	31.0	23.5	26.5	24.0	22.5	23.5
11	---	---	---	28.0	21.0	23.5	33.5	22.0	27.0	23.5	22.0	23.0
12	---	---	---	29.0	23.0	25.5	30.5	22.0	26.0	23.5	22.5	22.5
13	---	---	---	31.5	24.0	27.5	32.0	20.0	25.5	22.5	21.0	22.0
14	---	---	---	30.5	23.0	26.5	33.5	21.5	26.0	21.5	20.5	21.0
15	---	---	---	33.0	22.5	27.5	30.0	21.5	24.5	22.0	20.5	21.5
16	---	---	---	30.0	24.5	27.0	32.0	21.5	26.0	21.5	20.0	21.0
17	---	---	---	32.5	22.5	26.5	35.5	22.0	27.0	21.0	20.0	20.5
18	---	---	---	33.5	22.5	27.0	30.5	22.0	26.0	24.0	18.5	21.0
19	---	---	---	34.5	23.0	28.0	29.5	21.5	25.5	22.5	17.0	20.0
20	---	---	---	35.5	23.5	29.0	29.5	23.0	25.5	26.5	15.0	19.0
21	35.5	22.0	27.5	37.0	23.5	29.5	32.5	21.5	26.0	27.5	14.5	19.5
22	34.5	21.5	27.0	37.0	23.5	29.0	35.5	21.0	26.5	29.5	17.5	22.0
23	35.5	22.5	27.5	36.0	22.5	28.5	29.5	21.5	25.0	29.0	21.0	24.0
24	36.5	21.5	27.5	31.5	21.0	26.5	26.5	23.5	25.0	22.5	17.5	19.5
25	33.0	22.5	27.0	32.5	23.0	27.5	25.5	22.0	24.0	24.0	19.5	21.5
26	32.5	23.5	27.0	32.0	25.0	27.5	28.5	22.5	25.0	22.5	16.0	18.0
27	34.5	23.5	27.5	33.5	22.5	27.0	28.0	22.5	24.5	16.0	13.5	15.0
28	34.5	22.5	28.0	33.5	24.0	28.5	25.5	24.5	25.0	21.5	13.0	16.5
29	36.5	22.0	28.5	33.5	24.5	28.5	24.5	23.5	24.0	25.5	16.5	20.0
30	38.5	23.0	29.0	29.5	24.0	26.0	24.5	23.0	24.0	26.0	18.0	21.5
31	---	---	---	29.5	23.0	25.5	24.5	23.0	23.5	---	---	---
MONTH	38.5	18.5	25.0	39.0	19.0	27.0	35.5	20.0	26.0	29.5	13.0	21.5
YEAR	39.0	.0	16.0									

07299670 GROESBECK CREEK AT STATE HIGHWAY 6 NEAR QUANAH, TX

LOCATION.--Lat 34°21'16", long 99°44'24", Hardeman County, Hydrologic Unit 11130101, near left bank at downstream side of bridge on State Highway 6, 2 mi downstream from confluence of North and South Groesbeck Creeks, 4 mi north of Quanah, and 9 mi upstream from confluence with the Red River.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--November 1961 to current year. Prior to October 1974, published as "at State Highway 283".

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

REMARKS.--No estimated daily discharges. Records good except those under 10 ft³/s, which are poor. There are several diversions upstream from station for farm and ranch use and for a gypsum plant.

EXTREMES OUTSIDE PERIOD OF RECORD.--The highest stage known occurred in June 1891; and the highest stage since 1891 occurred in September 1929, stages unknown. Other large floods are reported to have occurred in 1912, 1936, 1946, 1951, 1955, and 1957, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 10	2400	5,070	18.82	Sept. 15	2330	3,180	17.21

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	36	27	27	22	24	30	23	23	17	8.9	54
2	48	34	27	27	21	23	31	23	17	17	8.7	38
3	103	31	28	26	21	24	31	23	16	16	8.5	32
4	68	29	28	26	20	25	32	23	21	16	8.5	32
5	46	32	27	25	22	25	32	22	22	16	8.5	35
6	40	32	26	24	21	24	32	22	20	15	8.2	40
7	38	33	26	23	21	23	33	21	18	14	8.2	27
8	39	34	26	23	22	24	33	23	18	14	8.3	318
9	38	34	25	24	21	24	33	23	18	761	21	198
10	38	33	25	23	21	24	34	22	19	2840	23	100
11	37	31	26	24	19	25	34	22	19	2610	82	39
12	37	29	26	24	19	25	33	22	26	323	67	28
13	34	28	27	24	19	24	32	22	21	89	43	25
14	35	27	27	24	20	26	30	23	20	28	42	25
15	33	29	27	23	20	25	29	22	30	21	41	742
16	34	28	27	24	20	26	29	17	20	20	38	2020
17	34	29	28	23	21	26	29	17	73	18	36	262
18	33	32	33	21	21	31	29	17	34	17	99	75
19	35	33	33	21	21	26	28	18	21	17	57	57
20	34	31	29	21	22	26	26	23	18	16	36	48
21	34	30	30	22	22	26	27	22	18	15	30	44
22	33	28	30	22	21	26	26	20	17	13	28	41
23	32	28	29	22	21	27	25	41	17	11	27	38
24	32	29	29	22	22	28	25	33	17	11	27	35
25	34	29	28	22	23	26	24	18	16	11	29	33
26	35	28	29	21	24	27	24	17	15	14	92	32
27	33	28	29	21	23	30	24	16	17	65	65	37
28	32	27	30	21	23	30	24	28	17	15	196	34
29	32	27	29	21	23	30	23	20	17	10	428	33
30	30	28	29	21	---	31	23	14	17	9.3	711	32
31	35	---	28	21	---	30	---	17	---	8.9	196	---
TOTAL	1205	907	868	713	616	811	865	674	642	7068.2	2481.8	4554
MEAN	38.9	30.2	28.0	23.0	21.2	26.2	28.8	21.7	21.4	228	80.1	152
MAX	103	36	33	27	24	31	34	41	73	2840	711	2020
MIN	30	27	25	21	19	23	23	14	15	8.9	8.2	25
AC-FT	2390	1800	1720	1410	1220	1610	1720	1340	1270	14020	4920	9030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	34.0	9.74	9.07	7.82	8.12	9.72	14.0	27.0	56.5	20.5	26.6	49.8
MAX	393	31.3	43.0	24.3	26.3	37.1	97.1	163	502	228	545	286
(WY)	1984	1995	1992	1992	1992	1990	1976	1987	1995	1996	1995	1974
MIN	.68	1.33	1.48	1.33	1.35	1.18	1.12	1.74	1.54	.10	.000	.39
(WY)	1969	1969	1969	1971	1971	1971	1969	1967	1967	1964	1964	1968

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	40995.8		21405.0			
ANNUAL MEAN	112		58.5		22.3	
HIGHEST ANNUAL MEAN					112	1995
LOWEST ANNUAL MEAN					2.97	1964
HIGHEST DAILY MEAN	8150	Jun 5	2840	Jul 10	9570	Oct 20 1983
LOWEST DAILY MEAN	3.2	May 4	8.2	Aug 6	.00	Jul 7 1964
ANNUAL SEVEN-DAY MINIMUM	3.6	Apr 29	8.4	Aug 2	.00	Jul 7 1964
INSTANTANEOUS PEAK FLOW			5070	Jul 10	18000	Oct 20 1983
INSTANTANEOUS PEAK STAGE			18.82	Jul 10	24.78	Oct 20 1983
ANNUAL RUNOFF (AC-FT)	81320		42460		16120	
10 PERCENT EXCEEDS	53		41		21	
50 PERCENT EXCEEDS	20		26		6.5	
90 PERCENT EXCEEDS	9.7		17		1.5	

07299840 GREENBELT LAKE NEAR CLARENDON, TX

LOCATION.--Lat 35°00'02", long 100°53'40", Donley County, Hydrologic Unit 11120201, on upstream side near right end of dam on Salt Fork Red River and 4.3 mi north of Clarendon.

DRAINAGE AREA.--457 mi², of which 191 mi² probably is noncontributing.

PERIOD OF RECORD.--August 1967 to current year. Prior to October 1973, published as Greenbelt Reservoir.

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

REMARKS.--The lake is formed by a rolled earthfill dam 5,800 ft 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 wide and located at the left end of dam, designed to discharge 184,000 ft³/s at an elevation of 2,684.0 ft. A morning-glory-type drop inlet with a 26-foot 8.5-inch-diameter opening at crest discharges into a 7- by 7-foot concrete conduit. The outlet works consists of a 36-inch pipe that is controlled by two 20-inch valves that control the discharge into a stilling basin and to a water treatment plant. The capacity table, dated April 1964, is based on Geological Survey topographic maps dated 1962. Gage-height telemeter at station. 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	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 provided by Greenbelt Municipal and Industrial Water Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,650 acre-ft June 26-28, 1975 (elevation, 2,655.71 ft); minimum, 2,950 acre-ft Aug. 29, 30, 1967 (elevation, 2,607.37 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 23,370 acre-ft Oct. 2 at 1200 hours (elevation, 2,639.96 ft); minimum daily, 20,510 acre-ft July 8 (elevation, 2,637.15 ft).

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

2,607.0	2,840	2,640.0	23,410	2,648.0	32,990
2,610.0	3,770	2,642.0	25,580	2,652.0	38,730
2,620.0	8,000	2,644.0	27,900	2,654.0	41,850
2,630.0	14,340	2,646.0	30,370	2,656.0	45,130

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23300	22810	e22520	22560	22470	22380	e22090	e21910	21320	20820	21030	21920
2	23350	22810	e22510	22560	22470	22370	e22100	e21880	21340	20790	20980	21920
3	23360	22810	e22490	22570	22470	22360	e22090	e21850	21350	20750	20930	21920
4	23260	22800	e22480	22580	22440	22360	e22070	e21820	21350	20690	20900	21910
5	23270	22790	e22470	22580	22440	22350	e22070	e21800	21320	20650	20860	21910
6	23270	22780	22450	22570	22450	e22330	e22060	e21760	21300	20600	20980	21900
7	23250	22740	22430	22570	22460	22320	e22060	e21720	21280	20540	21380	21940
8	23250	22770	22410	22580	22480	22300	e22050	e21690	21270	20510	21520	21940
9	23240	22780	22410	22570	22490	22300	e22050	e21670	21240	20680	21620	21950
10	23220	22790	22400	22560	22470	22280	e22060	e21640	21220	21200	21660	21940
11	23200	22740	22400	22580	22460	22280	e22070	e21600	21220	21240	21660	21920
12	23180	22770	22400	22590	22480	22270	e22090	e21560	21220	21240	21660	21920
13	23150	e22760	22380	22580	22470	22280	e22100	e21510	21220	21270	21680	21920
14	23120	e22750	22380	22590	22470	22320	e22090	21460	21200	21310	21670	22000
15	23110	e22730	22380	22590	22450	22270	e22080	21420	21220	21300	21650	22020
16	23090	e22720	22370	22580	22450	22270	e22070	21370	21220	21270	21630	22060
17	23080	e22710	22450	22530	22460	22290	e22060	21310	21210	21230	21630	22070
18	23040	e22690	22450	22550	22460	22280	e22060	21260	21190	21200	21600	22180
19	22970	e22680	22470	22530	22440	22280	e22050	21220	21170	21190	21560	22350
20	22960	e22670	22470	22550	22450	22270	e22040	21190	21130	21140	21540	22420
21	22960	e22650	22480	22550	22440	22320	e22040	21150	21090	21110	21490	22420
22	22900	e22640	22480	22530	22450	22220	e22030	21090	21040	21050	21500	22400
23	22880	e22630	22480	22540	22440	22170	e22030	21050	20990	21060	21480	22390
24	22870	e22610	22480	22530	22410	22110	e22020	21010	20970	21100	21480	22370
25	22860	e22600	22480	22470	22420	22100	e22020	20980	20940	21080	21490	22370
26	22840	e22590	22480	22510	22390	e22080	e22010	21000	20920	21130	21550	22350
27	22830	e22570	22480	22480	22400	e22080	e22000	20950	20910	21110	21600	22410
28	22810	e22560	22480	22460	22380	e22090	e21980	20900	20860	21080	21720	22400
29	22790	e22550	22550	22490	22380	e22100	e21960	20880	20820	21080	21840	22400
30	22750	e22530	22550	22470	---	e22100	e21930	20880	20810	21060	21910	22370
31	22800	---	22570	22470	---	e22090	---	21090	---	21040	21910	---
MAX	23360	22810	22570	22590	22490	22380	22100	21910	21350	21310	21910	22420
MIN	22750	22530	22370	22460	22380	22080	21930	20880	20810	20510	20860	21900
(+)	2639.41	2639.15	2639.19	2639.10	2639.01	2638.72	2638.56	2637.71	2637.42	2637.66	2638.54	2639.00
(@)	-520	-270	+40	-100	-90	-290	-160	-840	-280	+230	+870	+460
(++)	343	322	317	324	327	339	384	480	436	488	435	339

CAL YR 1995 MAX 25220 MIN 22370 (@) -1410 (++) 4241
WTR YR 1996 MAX 23360 MIN 20510 (@) -950 (++) 4534

e Estimated
(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.
(++) Diversions, in acre-feet, for municipal and industrial use by Greenbelt Municipal Water Authority

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TX

LOCATION.--Lat 34°57'27", long 100°13'14", Collingsworth County, Hydrologic Unit 11120202, near center of stream at downstream side of bridge on U.S. Highway 83, 4 mi downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 mi south of Lutie, and 7.2 mi north of Wellington.

DRAINAGE AREA.--1,222 mi², of which 209 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good, except those for estimated daily discharges, which are poor. There are several small diversions upstream from gage for irrigation. There is some regulation for municipal use by Greenbelt Lake (station 07299840) 42 mi upstream. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--14 years (water years 1953-66) prior to completion of Greenbelt Lake, 72.6 ft³/s (52,600 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1953-66).--Maximum discharge, 146,000 ft³/s May 16, 1957 (gage height, 19.00 ft), from rating curve extended above 11,000 ft³/s on basis of slope-area measurement of 63,400 ft³/s; minimum, 0.1 ft³/s June 19, 1952.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	18	22	63	e18	31	25	9.7	457	12	16	34
2	82	17	23	54	23	32	25	10	287	11	11	32
3	138	17	24	43	96	34	24	11	95	11	7.8	92
4	68	16	23	41	76	34	21	9.9	54	9.8	5.3	91
5	39	18	22	47	41	35	20	9.5	72	9.1	2.9	40
6	25	18	21	36	48	32	21	9.2	51	8.7	2.0	27
7	23	17	21	e30	126	28	21	9.6	31	8.5	1.6	32
8	23	15	22	27	57	28	20	9.9	24	12	7.1	51
9	24	16	20	53	44	31	20	8.7	20	463	6.0	35
10	23	15	21	42	37	32	19	8.0	20	1060	14	23
11	22	15	19	34	28	32	19	9.1	19	502	24	16
12	21	16	25	35	25	34	17	8.6	318	89	10	14
13	18	17	26	37	25	33	16	8.2	33	42	5.4	17
14	16	16	25	37	24	30	17	9.1	20	797	2.7	36
15	15	18	24	34	23	28	16	9.2	21	395	2.0	654
16	15	18	23	35	22	26	16	7.5	33	79	3.0	237
17	15	19	34	34	22	26	15	7.5	126	33	3.5	83
18	15	19	145	23	22	29	14	7.3	140	18	2.2	149
19	15	19	79	23	22	32	12	8.2	173	9.1	1.5	346
20	13	19	46	21	20	32	11	8.2	57	5.8	1.2	241
21	13	19	39	e21	24	32	11	9.0	33	4.2	1.1	75
22	13	21	33	e22	27	31	12	10	25	2.5	1.0	35
23	12	21	30	e21	27	30	12	9.5	21	1.5	.88	37
24	11	22	29	e20	26	28	13	8.7	18	47	.99	32
25	12	21	28	e20	28	25	12	8.2	16	105	1.4	33
26	13	21	27	e19	31	26	12	49	16	32	2.3	35
27	13	20	28	e19	31	28	12	23	18	40	13	103
28	12	19	28	e19	28	31	11	14	16	19	89	122
29	12	21	30	e19	29	31	9.6	12	14	11	292	56
30	13	21	38	e19	---	28	9.8	15	13	12	107	36
31	15	---	64	e18	---	26	---	80	---	19	58	---
TOTAL	774	549	1039	966	1050	935	483.4	416.8	2241	3868.2	695.87	2814
MEAN	25.0	18.3	33.5	31.2	36.2	30.2	16.1	13.4	74.7	125	22.4	93.8
MAX	138	22	145	63	126	35	25	80	457	1060	292	654
MIN	11	15	19	18	18	25	9.6	7.3	13	1.5	.88	14
AC-FT	1540	1090	2060	1920	2080	1850	959	827	4450	7670	1380	5580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996#, BY WATER YEAR (WY)

MEAN	31.1	27.2	25.8	29.5	33.8	39.6	57.6	113	154	32.1	30.1	33.4
MAX	279	213	92.4	86.0	64.5	127	505	468	1006	155	301	113
(WY)	1987	1987	1992	1993	1988	1979	1977	1977	1995	1993	1968	1981
MIN	4.28	8.03	3.59	10.5	10.9	8.15	6.10	2.61	8.17	2.65	1.68	2.22
(WY)	1981	1981	1984	1971	1967	1972	1971	1971	1970	1970	1970	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996#	
ANNUAL TOTAL	43651.1		15832.27			
ANNUAL MEAN	120		43.3		50.6	
HIGHEST ANNUAL MEAN					115	1995
LOWEST ANNUAL MEAN					10.5	1971
HIGHEST DAILY MEAN	15800	Jun 3	1060	Jul 10	15800	Jun 3 1995
LOWEST DAILY MEAN	1.8	Sep 14	.88	Aug 23	.40	Jun 2 1985
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 8	1.2	Aug 19	.73	May 27 1985
INSTANTANEOUS PEAK FLOW			2190	Jul 10	62100	Apr 20 1977
INSTANTANEOUS PEAK STAGE			4.91	Jul 10	13.80	Apr 20 1977
ANNUAL RUNOFF (AC-FT)	86580		31400		36620	
10 PERCENT EXCEEDS	100		75		65	
50 PERCENT EXCEEDS	19		22		16	
90 PERCENT EXCEEDS	11		8.7		4.2	

e Estimated
Period of regulated streamflow.

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: February 1951 to October 1954, October 1967 to current year. Chemical and biochemical analyses: October 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1952 to September 1954, October 1967 to September 1991.
WATER TEMPERATURE: June 1952 to September 1954, October 1967 to September 1991.

INSTRUMENTATION.--From September 1968 to September 1974, specific conductance was continuously recorded at this station.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,510 microsiemens Dec. 20, 1990; minimum daily, 330 microsiemens July 30, 1982.
WATER TEMPERATURE: Maximum daily, 40.0°C July 20, 1981; minimum daily, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
NOV											
28...	1300	21	3270	8.0	8.5	11.1	101	37	50	1500	1400
JAN											
30...	1530	19	2960	8.1	4.5	13.3	111	--	--	1300	1100
APR											
03...	0845	24	3230	8.1	10.0	12.2	118	140	200	1500	1300
MAY											
22...	0740	10	3300	8.0	20.5	8.1	98	K360	240	1600	1500
JUL											
16...	1020	81	2340	8.3	26.0	7.4	98	290	290	930	760
AUG											
22...	1110	0.83	3280	7.9	27.0	9.0	121	190	76	1700	1500

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV											
28...	470	87	230	3	3.7	170	1300	320	0.50	21	2540
JAN											
30...	390	74	210	3	4.1	180	1100	290	0.60	20	2200
APR											
03...	460	82	210	2	3.8	150	1400	300	0.70	17	2570
MAY											
22...	510	85	160	2	4.2	150	1600	220	0.60	17	2700
JUL											
16...	250	75	170	2	6.5	170	810	230	0.70	22	1670
AUG											
22...	530	85	177	2	4.0	140	1500	250	0.60	19	2650

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
NOV										
28...	1.59	1.59	0.010	1.60	1.60	0.050	--	<0.20	<0.010	<0.010
JAN										
30...	1.60	--	<0.010	1.60	1.60	0.100	0.20	0.30	<0.010	<0.010
APR										
03...	1.68	1.68	0.020	1.70	1.70	0.160	--	<0.20	<0.010	<0.010
MAY										
22...	1.87	1.87	0.030	1.90	1.90	0.120	--	<0.20	<0.010	<0.010
JUL										
16...	0.340	0.340	0.020	0.360	0.360	0.070	0.13	0.20	<0.010	<0.010
AUG										
22...	1.88	1.88	0.020	1.90	1.90	0.180	--	<0.20	0.020	<0.010

07300500 SALT FORK RED RIVER AT MANGUM, OK

LOCATION.--Lat 34°51'30", long 99°30'30", in SW 1/4 SE 1/4 sec.34. T.5 N, R.22 W., Greer County, Hydrologic Unit 11120202, near left bank on downstream side of pier of bridge on State Highway 34, 0.5 mi south of Mangum, 13.0 mi downstream from Fish Creek, and at mile 35.5.

DRAINAGE AREA.--1,566 mi², of which 209 mi² probably is noncontributing.

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

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1938.

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

REMARKS.--Records poor. No known regulation.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)

No peak greater than base discharge.

1 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e160	e85	e65	e78	e66	e58	e44	e31	570	e13	e80	123
2	646	e84	e66	e80	e65	e57	e42	e30	e160	e12	e60	99
3	545	e83	e66	e82	e65	e56	e40	e30	e120	e11	e50	87
4	314	e81	e65	87	e64	e56	e40	e30	e110	e10	e45	1290
5	e220	e79	e64	e84	e67	e57	e40	e29	e105	e9.6	e38	e310
6	e185	e78	e63	e80	e66	e56	e42	e29	99	e9.2	32	e180
7	e165	e77	e64	e77	e75	e55	e40	e28	e80	e8.8	e28	e110
8	e148	e76	e66	e78	e67	e53	e40	e28	e66	e11	150	e90
9	e130	e75	e67	e76	e63	e51	e39	e28	e54	e80	e80	e75
10	e122	e74	e65	e74	e63	e54	e38	e28	e43	718	e50	e65
11	114	e74	e64	e72	e62	e54	e37	e27	e35	e280	e150	e55
12	e112	e73	e64	e70	e62	e52	e38	e27	e30	e150	e90	e50
13	e110	e73	e66	e70	61	e51	e37	e35	e60	e90	e60	e45
14	e109	e72	e68	e74	e60	e50	e38	e30	e50	e200	e45	e40
15	e108	e71	e70	e72	e59	e49	e38	e28	e70	e120	e35	912
16	e107	e70	e72	e76	e58	e48	e37	e27	e100	e80	e200	482
17	e106	e70	e74	e74	e57	e47	e36	e27	e200	e60	e100	240
18	e106	e69	e90	e72	e58	e52	36	e26	e110	e50	e70	216
19	e105	e68	e82	e70	e62	e51	e36	e26	e70	e44	e54	169
20	e104	e67	e76	e68	e64	e49	e35	e25	e45	e40	e45	173
21	e102	e67	e72	e70	e62	e47	e35	e25	e35	e36	e38	205
22	e100	e68	e70	e71	e64	e47	e34	e25	e30	e32	e30	171
23	e98	e66	e68	e69	e63	e46	e34	e24	e26	e28	e26	134
24	e96	e66	e66	e70	e62	e45	e33	e24	e23	e75	e22	110
25	e94	e65	e65	e69	e61	e45	e33	e24	e21	e65	e70	100
26	e92	e64	e64	e68	e60	e46	e32	e30	e19	e55	33	90
27	e94	e63	e66	e68	e60	e45	e32	e60	e17	e50	252	100
28	e93	e62	e68	e66	e60	e43	e31	e50	e16	e45	e180	108
29	e91	64	e70	e65	e59	e44	e31	e41	e15	e40	390	124
30	e89	e64	e74	e64	---	e43	e31	e45	e14	e65	190	122
31	e86	---	e76	e65	---	e43	---	e60	---	e58	167	---
TOTAL	4751	2148	2136	2259	1815	1550	1099	977	2393	2545.6	2860	6075
MEAN	153	71.6	68.9	72.9	62.6	50.0	36.6	31.5	79.8	82.1	92.3	202
MAX	646	85	90	87	75	58	44	60	570	718	390	1290
MIN	86	62	63	64	57	43	31	24	14	8.8	22	40
AC-FT	9420	4260	4240	4480	3600	3070	2180	1940	4750	5050	5670	12050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	79.5	29.0	35.8	45.7	51.6	48.3	84.6	267	242	64.0	41.0	53.5
MAX	919	196	148	199	196	183	490	1389	1602	575	539	424
(WY)	1961	1987	1992	1960	1949	1969	1973	1957	1941	1953	1995	1995
MIN	.000	.000	.000	.000	.000	.12	.000	.000	.000	.000	.000	.000
(WY)	1941	1940	1940	1940	1953	1971	1955	1953	1952	1963	1943	1939

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 96	
ANNUAL TOTAL	75607		30608.6			
ANNUAL MEAN	207		83.6		86.9	
HIGHEST ANNUAL MEAN					277	1941
LOWEST ANNUAL MEAN					12.3	1940
HIGHEST DAILY MEAN	11000	Jun 4	1290	Sep 4	22600	May 28 1978
LOWEST DAILY MEAN	17	May 23	8.8	Jul 7	a.00	Oct 2 1937
ANNUAL SEVEN-DAY MINIMUM	2	May 18	10	Jul 2	.00	Aug 14 1938
INSTANTANEOUS PEAK FLOW			5550	Sep 4	72000	May 16 1957
INSTANTANEOUS PEAK STAGE			9.23	Sep 4	14.70	Jun 16 1938
ANNUAL RUNOFF (AC-FT)	150000		60710		62960	
10 PERCENT EXCEEDS	368		126		120	
50 PERCENT EXCEEDS	64		64		17	
90 PERCENT EXCEEDS	23		28		.00	

e Estimated
a No flow at times in most years.

07301200 McCLELLAN CREEK NEAR McLEAN, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 35°19'45", Long 100°36'32", Gray County, Hydrologic Unit 11120301, on left bank at downstream side of bridge on State Highway 273, 5.0 mi upstream from mouth.

DRAINAGE AREA.--759.0 mi², of which 299mi² probably is noncontributing.

PERIOD OF RECORD.--October 1967 to September 1980 (continuous record). October 1981 to September 1992 (annual maximum), October 1992 to current year (peaks above base discharge and annual maximum).

REVISED RECORDS.--WDR TX-75-1: 1968-70, 1972, 1973(M), 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,545.99 ft above sea level.

REMARKS.--Water-discharge records fair. Flow is regulated by Lake McClellan,(capacity 5,000 acre-ft), 18 mi upstream. Flow is affected at times by discharge from flood-detention pool of a floodwater-retarding structure with detention capacity of 2,930 acre-ft. These structures control flow from 17.0 mi².

AVERAGE DISCHARGE.--13 years (water years 1967-80), 20.1 ft³/s, 14,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft³/s May 29, 1975 (gage height, 14.55 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1912, 21 ft in May 1957, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s or maximum:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept 19	0100	175	7.35				

07301300 NORTH FORK RED RIVER NEAR SHAMROCK, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 35°15'51", Long 100°14'29", Wheeler County, Hydrologic Unit 11120302, on left bank at downstream side of bridge on U.S. Highway 83, 2.5 mi north of Shamrock.

DRAINAGE AREA.--1,082 mi², of which 379 mi² probably is noncontributing.

PERIOD OF RECORD.--October 1951 to September 1963 (miscellaneous measurements). October 1964 to September 1992 (annual maximum), October 1992 to current year (peaks above base discharge and annual maximum).

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

REMARKS.--Some regulation by Lake McClellan (capacity 5,000 acre-feet) 41 miles upstream. Flow is affected at times by discharge from flood-detention pools of eleven floodwater retarding structures with combined detention capacity of 18,290 acre-feet. These structures control runoff from 165 mi².

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s June 3, 1995 (gage height, 8.49 ft).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s or maximum:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 25	1300	1,140	2.26	Sept 18	0800	1,140	2.57

07301410 SWEETWATER CREEK NEAR KELTON, TX

LOCATION.--Lat 35°28'23", long 100°07'14", Wheeler County, Hydrologic Unit 11120302, near center of stream at downstream side of bridge on Farm Road 592, 5 mi north of Kelton, 8 mi upstream from Texas-Oklahoma State line, and 8.5 mi northeast of Wheeler.

DRAINAGE AREA.--287 mi², of which 20 mi² probably is noncontributing.

PERIOD OF RECORD.--November 1961 to current year.
Water-quality records.--Chemical analyses: October 1969 to June 1985.

GAGE.--Water-stage recorder. Elevation of gage is 2,230 ft above sea level from topographic map.

REMARKS.--Records good, except those for estimated daily discharge, which are poor. There are many small diversions upstream from station for ranch use. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1882, about 20 ft May 16, 1957.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 500 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 26	0500	506	12.92				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	7.9	9.1	18	e10	14	12	8.6	24	8.3	15	9.4
2	11	7.8	9.2	17	e10	14	13	8.5	24	7.9	14	9.0
3	15	7.8	9.2	16	e9.0	14	12	8.4	20	7.3	12	9.0
4	9.5	8.0	9.1	15	e9.0	14	11	8.1	18	6.8	11	9.0
5	8.3	8.2	9.3	14	e12	14	11	8.0	17	6.2	10	8.7
6	7.9	8.2	9.3	e13	e16	13	11	8.2	20	5.6	9.6	8.2
7	8.0	8.0	9.4	e12	19	14	11	7.8	17	5.2	9.4	11
8	7.9	8.0	9.7	e13	18	14	11	7.5	14	4.9	10	11
9	7.6	8.1	e9.0	14	17	14	11	7.0	12	6.5	11	9.2
10	7.4	8.0	e9.2	14	16	15	11	6.9	11	11	11	8.4
11	7.4	8.1	10	14	15	14	11	7.3	10	23	11	7.9
12	7.0	8.2	10	14	14	14	10	7.0	26	21	10	7.6
13	6.8	8.1	10	14	14	13	10	7.1	17	30	9.5	8.2
14	7.0	8.0	10	14	15	13	10	7.2	12	160	9.2	9.1
15	7.2	8.1	9.9	13	14	13	10	6.7	18	143	9.2	12
16	7.2	8.1	9.7	13	14	13	14	6.1	24	49	9.6	11
17	7.2	8.2	11	13	14	13	12	5.5	15	31	9.4	10
18	7.2	8.6	29	e10	14	13	9.7	5.2	11	24	9.1	256
19	6.7	8.4	25	e11	15	13	9.3	4.8	11	20	8.6	193
20	6.7	8.3	20	13	14	13	9.5	4.5	11	18	8.3	72
21	6.9	8.3	17	12	14	13	9.5	4.2	9.4	16	7.9	43
22	7.1	8.7	16	13	14	12	9.4	4.1	8.6	14	7.4	31
23	6.9	8.6	15	13	13	12	9.5	3.9	8.3	13	7.8	25
24	7.0	8.5	15	13	13	12	9.2	3.4	8.0	30	7.7	21
25	7.3	8.6	14	13	14	12	9.1	39	28	20	8.0	20
26	7.6	8.6	15	e12	14	12	9.0	286	17	16	8.3	21
27	7.5	8.6	14	e11	14	12	9.0	63	12	14	9.4	20
28	7.4	8.5	14	13	13	12	8.9	37	9.6	13	10	19
29	7.6	8.8	14	13	14	13	8.8	29	8.7	12	11	17
30	7.6	9.0	17	e11	---	12	8.8	25	8.1	14	9.8	16
31	7.9	---	19	e10	---	12	---	23	---	14	9.3	---
TOTAL	241.0	248.3	407.1	409	402.0	406	310.7	658.0	449.7	764.7	303.5	912.7
MEAN	7.77	8.28	13.1	13.2	13.9	13.1	10.4	21.2	15.0	24.7	9.79	30.4
MAX	15	9.0	29	18	19	15	14	286	28	160	15	256
MIN	6.7	7.8	9.0	10	9.0	12	8.8	3.4	8.0	4.9	7.4	7.6
AC-FT	478	493	807	811	797	805	616	1310	892	1520	602	1810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	8.08	10.1	11.6	12.9	15.7	17.8	20.1	24.4	22.6	5.95	5.61	7.94
MAX	42.1	34.5	19.3	24.3	29.6	35.3	74.6	196	86.3	32.3	42.7	40.9
(WY)	1987	1975	1992	1987	1987	1988	1970	1977	1965	1967	1963	1988
MIN	.30	1.05	3.11	5.78	6.82	9.09	8.72	3.38	2.80	.44	.000	.027
(WY)	1985	1985	1984	1995	1995	1977	1971	1971	1966	1974	1964	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	6329.1		5512.7			
ANNUAL MEAN	17.3		15.1		13.3	
HIGHEST ANNUAL MEAN					26.8	1977
LOWEST ANNUAL MEAN					4.89	1984
HIGHEST DAILY MEAN	753	Jun 4	286	May 26	1820	May 21 1977
LOWEST DAILY MEAN	2.9	Sep 7	3.4	May 24	.00	Jul 29 1964
ANNUAL SEVEN-DAY MINIMUM	3.1	Sep 3	4.3	May 18	.00	Jul 29 1964
INSTANTANEOUS PEAK FLOW			506	May 26	2890	May 20 1977
INSTANTANEOUS PEAK STAGE			12.92	May 26	15.73	May 20 1977
INSTANTANEOUS LOW FLOW					.00	Jul 29 1964
ANNUAL RUNOFF (AC-FT)	12550		10930		9660	
10 PERCENT EXCEEDS	23		20		21	
50 PERCENT EXCEEDS	8.4		11		10	
90 PERCENT EXCEEDS	5.3		7.3		.89	

e Estimated

07307750 MIDDLE PEASE RIVER NEAR PADUCAH, TX.

LOCATION.--Lat 34°12'31", long 100°18'03", Cottle County, Hydrologic Unit 11120104, on left bank at downstream side of bridge on U.S. Highway 62 and 83, 11.8 mi north of Paducah, and 13.4 mi upstream from mouth.

DRAINAGE AREA.--1,086 mi², of which 65 mi² probably is noncontributing.

PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: May 1973 to Septmber 1979.
WATER TEMPERATURE: May 1973 to September 1979.
SEDIMENT RECORDS: January 1992 to September 1992. October 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,910 microsiemens Feb. 12, 1975; minimum daily, 802 microsiemens June 10, 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
11...	0815	16	4120	16.0	105	4.5

07307800 PEASE RIVER NEAR CHILDRESS, TX

LOCATION.--Lat 34°13'39", long 100°04'24", Cottle County, Hydrologic Unit 11130105, near right bank at downstream side of bridge on Farm Road 104, 0.8 mi upstream from Catfish Creek, 4.4 mi downstream from confluence of North and Middle Forks, 17 mi southeast of Childress, and 71.0 mi upstream from mouth.

DRAINAGE AREA.--2,754 mi², of which 559 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1959 to September 1962 (average discharge for 1961-62 water years excluded from average annual discharge computations), and October 1967 to current year.
Water-quality records.--Chemical analyses: July 1968 to September 1982

GAGE.--Water-stage recorder. Datum of gage is 1,492.98 ft above sea level. Prior to Dec. 21, 1959, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. There are three small diversions for irrigation above station. Flow is affected at times by discharge from the flood-detention pools of six flood-water-retarding structures with a combined detention capacity of 1,360 acre-ft. These structures control runoff from 6.27 mi² in the Kent Creek drainage basin.

AVERAGE DISCHARGE.--2 years (water years 1961-62), 89.6 ft³/s (0.55 in/yr), 64,900 acre-ft/yr.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1909, 22 ft June 1, 1957; flood in May 1935 reached a stage of 18 ft and was the second highest, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 15	0630	6,010	11.06				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	21	19	27	21	18	13	5.8	160	e4.0	15	59
2	223	21	20	27	21	18	12	6.6	135	e4.0	24	28
3	382	20	20	25	21	18	11	6.4	77	e3.6	6.1	26
4	277	22	20	26	21	18	11	5.0	48	e3.4	5.9	85
5	194	23	20	23	22	18	11	4.8	98	e3.3	e5.6	15
6	134	22	19	23	21	18	10	4.5	83	e3.1	e5.4	14
7	99	13	19	22	21	18	9.2	5.3	26	e3.0	e5.3	14
8	83	12	19	22	21	17	9.3	4.8	36	e2.9	14	428
9	76	14	17	23	21	17	9.2	4.2	32	e60	7.3	108
10	72	12	18	22	21	17	8.6	3.7	20	e300	39	51
11	66	10	19	22	20	17	7.9	5.1	9.4	271	45	30
12	61	12	21	21	20	17	6.3	5.6	6.3	203	28	25
13	55	13	21	22	20	17	6.7	5.7	4.5	e120	8.9	24
14	51	11	21	22	20	17	5.1	5.8	5.5	e80	8.6	24
15	46	13	19	22	20	17	6.2	5.7	8.7	e90	e8.2	1080
16	40	13	19	22	20	16	6.6	4.7	18	e120	e8.0	237
17	35	15	24	21	20	16	5.9	3.5	122	e100	e9.2	99
18	32	13	46	21	20	16	6.0	3.4	55	e70	15	64
19	28	15	38	21	20	16	6.1	3.3	40	e45	10	33
20	25	14	30	21	19	16	5.4	2.7	50	e20	e9.5	22
21	22	14	29	20	19	16	6.3	2.8	e45	e15	e9.3	16
22	21	16	28	20	19	16	6.1	3.2	e30	e10	e9.0	12
23	19	15	25	20	19	16	6.1	3.4	e20	5.0	e8.7	8.9
24	17	16	26	20	19	16	5.8	2.2	e10	6.0	e8.5	6.3
25	17	16	25	20	19	15	5.3	2.6	e7.0	4.6	e8.2	7.0
26	18	17	25	20	19	15	6.0	72	e7.0	80	e8.8	6.3
27	18	17	24	20	19	15	6.6	499	e6.0	36	163	21
28	18	15	23	20	18	15	5.2	148	e6.0	101	206	14
29	19	17	23	21	18	16	4.8	45	e5.0	50	554	8.4
30	20	18	25	21	---	19	5.3	45	e5.0	19	291	6.6
31	21	---	26	21	---	14	---	75	---	6.3	119	---
TOTAL	2359	470	728	678	579	515	224.0	994.8	1175.4	1839.2	1663.5	2572.5
MEAN	76.1	15.7	23.5	21.9	20.0	16.6	7.47	32.1	39.2	59.3	53.7	85.7
MAX	382	23	46	27	22	19	13	499	160	300	554	1080
MIN	17	10	17	20	18	14	4.8	2.2	4.5	2.9	5.3	6.3
AC-FT	4680	932	1440	1340	1150	1020	444	1970	2330	3650	3300	5100
CFSM	.03	.01	.01	.01	.01	.01	.00	.01	.02	.03	.02	.04
IN.	.04	.01	.01	.01	.01	.01	.00	.02	.02	.03	.03	.04

07307800 PEASE RIVER NEAR CHILDRESS, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	91.8	23.2	17.7	20.4	22.8	29.8	41.8	88.4	210	41.3	69.2	102
MAX	895	153	132	158	170	181	215	341	858	172	723	683
(WY)	1984	1987	1992	1992	1992	1973	1973	1982	1995	1979	1995	1995
MIN	1.68	3.04	3.74	2.70	2.83	2.78	3.32	5.99	4.08	.28	.13	1.23
(WY)	1981	1978	1979	1971	1971	1971	1974	1975	1970	1980	1980	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	76521.1		13798.4			
ANNUAL MEAN	210		37.7		63.1	
HIGHEST ANNUAL MEAN					204	1995
LOWEST ANNUAL MEAN					15.8	1994
HIGHEST DAILY MEAN	11200	Jun 5	1080	Sep 15	14800	Oct 20 1983
LOWEST DAILY MEAN	3.4	Jul 29	2.2	May 24	.00	Aug 10 1969
ANNUAL SEVEN-DAY MINIMUM	4.3	Apr 26	2.9	May 19	.00	Aug 10 1969
INSTANTANEOUS PEAK FLOW			6010	Sep 15	28500	Jun 5 1995
INSTANTANEOUS PEAK STAGE			11.06	Sep 15	17.12	Jun 5 1995
ANNUAL RUNOFF (AC-FT)	151800		27370		45740	
ANNUAL RUNOFF (CFSM)	.096		.017		.029	
ANNUAL RUNOFF (INCHES)	1.30		.23		.39	
10 PERCENT EXCEEDS	269		78		87	
50 PERCENT EXCEEDS	15		19		9.0	
90 PERCENT EXCEEDS	6.3		5.3		1.7	

e Estimated

0730/800 PEASE RIVER NEAR CHILDRESS, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1994 to current year.

PERIOD OF DAILY RECORD.
SPECIFIC CONDUCTANCE: October 1994 to current year.
TEMPERATURE: October 1994 to current year.

INSTRUMENTATION. Since October 1994 to current year, specific conductance and temperature were continuously recorded at this station.

REMARKS.--Interruptions in the record are due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 36,800 microsiemens Feb. 9, 1995; minimum, 957 microsiemens May 29, 30, 1995.
TEMPERATURE: Maximum, 38.0°C July 9, 10, 1995; minimum, 0.0°C Mar. on many days durin 1995, 1996.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 36,700 microsiemens May 24; minimum, 1,460 microsiemens July 29.
TEMPERATURE: Maximum, 36.0°C June 12 and July 18, 21 and 22; minimum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC										
05...	0820	20	29800	7.9	7.0	10.0	98	3400	3300	1000
FEB										
06...	0825	21	27300	8.0	0.0	13.0	104	3400	3300	980
MAR										
29...	1020	16	33300	7.9	11.0	9.8	107	3700	3600	1100
MAY										
22...	1020	3.2	31800	7.8	26.5	8.0	119	3400	3300	1000
JUL										
12...	1000	203	5790	7.9	24.0	--	--	1200	1100	370

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC										
05...	220	6200	46	18	140	2700	9600	0.50	8.6	19800
FEB										
06...	230	7800	58	17	140	2500	8800	0.40	9.4	20400
MAR										
29...	230	6700	48	19	120	3000	11000	0.50	8.2	22100
MAY										
22...	220	6400	48	21	130	3200	10000	0.50	9.3	20900
JUL										
12...	69	860	11	9.9	76	1100	1300	0.50	<0.10	3750

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	2359	12600	8810	56100	3800	24100	1500	9490	*
NOV.	1995	470	29200	19400	24600	9200	11600	2800	3520	*
DEC.	1995	728	27100	18100	35600	8500	16700	2700	5250	*
JAN.	1996	678	27300	18300	33500	8500	15700	2700	4930	*
FEB.	1996	579	29700	19700	30800	9400	14700	2800	4370	*
MAR.	1996	515	32300	21200	29400	10300	14300	2900	4020	*
APR.	1996	224.0	31300	20600	12500	9900	6010	2900	1730	*
MAY	1996	994.8	18600	12700	34200	5700	15300	2000	5450	*
JUNE	1996	1175.4	14900	10400	33000	4500	14200	1800	5570	*
JULY	1996	1839.2	10100	7070	35100	3000	15000	1200	5990	*
AUG.	1996	1663.5	6390	4590	20600	1900	8430	830	3730	1100
SEPT	1996	2572.5	12000	8390	58200	3600	25000	1400	9890	*
TOTAL		13798.4	**	**	404000	**	181000	**	63900	**
WTD.AVG.		38	15800	10800	**	4900	**	1700	**	**

0730/800 PEASE RIVER NEAR CHILDRESS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5220	3860	4820	27800	26800	27000	29800	29400	29600	26700	25200	26100
2	5270	3950	4910	28100	26900	27300	29700	29300	29500	26400	24900	25600
3	9340	2640	8100	28400	28100	28300	29700	29100	29400	27000	25500	26200
4	8110	6690	7410	28600	27500	28400	29600	29100	29400	27600	25300	26500
5	9560	6750	8210	28900	27700	28600	29900	28600	29500	26100	25600	25900
6	13800	9550	11100	29000	28900	29000	29800	29200	29500	26600	25100	25800
7	15300	12400	14000	29000	29000	29000	29500	29200	29300	26900	25200	25900
8	16800	15300	15600	29000	29000	29000	29700	28700	29300	27700	24900	26300
9	18400	16800	17000	30000	29000	29300	29800	28900	29300	28100	25600	27100
10	18400	16900	17500	30000	29000	29500	29600	28600	29100	27800	25900	26900
11	18300	18200	18300	30000	30000	30000	29900	28900	29400	28400	27100	27600
12	19200	18200	19000	30000	29000	29800	29900	29300	29700	27500	26500	27100
13	20000	19100	19900	30000	29000	29800	30300	29500	29900	27800	26200	27000
14	20900	19900	20600	30000	29000	29800	30100	29500	29800	28100	26800	27500
15	21700	20800	20800	30000	29000	29700	30000	29300	29700	27900	26800	27400
16	21700	20700	21600	29800	29400	29600	29700	29500	29600	28500	27100	27700
17	22500	21600	21900	29900	29500	29700	29600	24100	28100	28300	26700	27800
18	22500	21500	22100	30200	27900	29600	26600	23800	25000	27900	26600	27700
19	23300	22400	22600	30500	26900	29600	27000	22000	25100	28400	26500	27600
20	23300	23200	23300	29900	29200	29600	23700	19000	20300	28600	26000	27200
21	24100	23200	23300	29700	29400	29600	25000	19000	22000	28600	26600	27800
22	24100	23100	23600	29900	29400	29600	24800	24400	24600	29300	27600	28400
23	24900	24000	24400	29700	29300	29500	25700	24400	25000	29100	27600	28300
24	24900	23900	24800	29700	29200	29500	26500	24900	25700	29100	27100	28100
25	25100	24900	25000	29800	29300	29500	26800	25100	26000	29400	27200	28400
26	26300	25100	25400	29900	29200	29600	27300	25500	26500	29400	27700	28600
27	26400	25500	25900	30000	28300	29700	27400	26000	26800	29100	27600	28300
28	25900	25600	25800	29900	29600	29700	27200	26200	26600	29700	27500	28600
29	26100	25900	26000	29600	29300	29400	27000	26000	26500	29800	28600	29300
30	27300	26100	26500	29900	29000	29400	27100	26000	26600	29400	27900	28700
31	26500	26400	26500	---	---	---	27500	26000	26700	28900	27200	27900
MONTH	27300	2640	19200	30500	26800	29300	30300	19000	27500	29800	24900	27400

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	29100	27400	28300	31600	29900	31000	34400	33200	33900	---	---	e31400
2	28600	27700	28100	31700	30200	30800	34700	33400	34000	---	---	e31800
3	28000	25800	27800	31900	31100	31400	34500	32200	33600	---	---	e32000
4	28500	25200	27900	32200	30600	31200	34000	32800	33400	---	---	e32200
5	30700	26200	28000	35300	31200	32600	33400	32900	33200	---	---	e32400
6	30300	27300	28700	35300	30700	31700	32900	32000	32600	---	---	e32500
7	30000	28500	29400	32500	30700	31600	32900	32100	32400	---	---	e32800
8	30300	26500	29400	34800	30600	32300	32200	31500	31800	---	---	33000
9	29400	26800	28700	34900	32000	33200	31900	31100	31400	36100	27600	33400
10	32500	28800	29900	33700	31200	32400	31600	30900	31300	35900	29900	32700
11	31300	28700	29400	32000	31200	31600	31800	29900	31100	---	---	33000
12	31700	28700	30200	32500	31400	31900	31700	30400	31200	35600	30400	33700
13	32100	28400	30300	32700	30300	31400	31500	29900	30600	35000	31500	33500
14	32300	29000	30900	---	---	e31600	31000	29100	29800	34200	31200	32800
15	33100	29100	30700	---	---	e31800	30700	28200	29700	32300	31200	31800
16	32000	29000	30100	---	---	e31900	30900	29100	29900	32000	30200	31100
17	32300	29800	31100	---	---	e32000	30900	29200	30100	31100	29900	30600
18	31800	28600	30500	---	---	e32100	30700	29000	30000	30600	29800	30300
19	31600	28900	30100	---	---	e32300	30600	29000	30000	30900	30100	30500
20	31600	29100	29900	---	---	e32400	29900	28100	29000	31100	30300	30700
21	31600	29000	29900	---	---	e32600	30700	29100	29800	31100	30200	30600
22	30800	29300	30100	---	---	e32700	---	---	29100	32500	30800	31500
23	31100	29200	30200	---	---	e32800	---	---	28900	35100	31900	33400
24	30600	29900	30100	---	---	e32900	30200	27900	29000	36700	33800	35100
25	30800	29900	30300	---	---	e33000	---	---	e29400	---	---	e36000
26	31300	29900	30400	---	---	e33100	---	---	e29800	---	---	e35200
27	31300	30100	30600	---	---	e33200	---	---	e30200	---	---	e15000
28	31400	30300	30900	---	---	e33300	---	---	e30400	---	---	e14500
29	32800	30200	31200	---	---	e33500	---	---	e30800	---	---	e17000
30	---	---	---	34900	33500	34200	---	---	e31000	---	---	e17000
31	---	---	---	35000	33600	34300	---	---	---	---	---	e16000
MONTH	33100	25200	29800	35300	29900	32300	34700	27900	30900	36700	27600	29800

e Estimated

0730/800 PEASE RIVER NEAR CHILDRESS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e15500	---	---	e28400	4220	3410	3840	8550	6140	7190
2	---	---	e15800	---	---	e30000	4230	3900	4050	10500	8550	9520
3	---	---	e15800	---	---	e30800	4020	3680	3790	12300	3460	10700
4	---	---	e14800	---	---	e32000	3820	3690	3790	11400	2200	5830
5	---	---	e13000	---	---	e33000	4060	3820	3910	20900	11400	16200
6	---	---	e12300	---	---	e33500	4430	4060	4190	22700	18200	20600
7	17100	13300	15100	---	---	e34000	4570	4430	4510	23800	21200	22500
8	21900	16600	19000	---	---	e34000	4700	4470	4590	---	---	e21800
9	24200	19100	21000	---	---	e24000	4490	4470	4480	---	---	e21000
10	27400	22800	24900	---	---	e10000	4620	3560	4080	---	---	e20300
11	28700	22600	26100	---	---	4670	4400	2740	3800	---	---	19200
12	31300	22500	26500	6780	2240	4420	2740	2390	2470	21400	20200	20700
13	32100	24900	29300	4880	2550	3210	3010	2630	2800	22600	21400	22000
14	33100	29800	31600	6550	4880	5560	5310	3010	3860	23700	22400	23000
15	30600	25800	27400	18700	6550	9050	5820	5310	5620	---	---	6740
16	32400	11600	25100	12800	7960	9600	5820	5460	5620	---	---	5780
17	16000	5330	11500	25500	12800	15400	14200	3790	5580	12200	7150	9470
18	7380	4740	6050	24200	16300	19900	10200	4160	6080	16500	12200	14300
19	7350	5850	6530	29900	24200	26900	21600	9710	14500	19800	16400	17700
20	10400	7350	8060	33200	29900	31200	26200	21600	24700	21300	19700	20100
21	16900	10400	12800	33900	23100	30200	28500	25400	27400	23500	21000	22000
22	18300	16700	17300	29000	24300	26100	29300	26100	27600	24400	17100	23100
23	19700	18300	19000	27500	26700	27100	28900	24300	26800	24900	8970	20200
24	---	---	e20500	27500	17400	23000	30700	26100	27500	9270	8760	9070
25	---	---	e21500	33400	26600	29100	27900	21600	23800	21700	9060	10800
26	---	---	e23000	33500	3560	16600	30100	26400	28100	10200	9480	9700
27	---	---	e24500	15800	7800	11600	26500	4300	12200	25900	9860	22700
28	---	---	e26000	16400	1910	4740	9500	4310	6800	28400	25900	27100
29	---	---	e28000	1920	1460	1690	5700	3000	4140	29100	14000	24100
30	---	---	e28200	2950	1920	2450	5960	3320	4470	14000	10200	10800
31	---	---	---	3520	2950	3380	7630	5730	6740	---	---	---
MONTH	33100	4740	19500	33900	1460	19200	30700	2390	10100	29100	2200	16500
YEAR	36700	1460	24300									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.5	18.0	21.5	23.5	13.5	17.5	17.0	5.5	10.5	7.0	2.0	4.5
2	22.5	18.5	20.0	15.0	8.0	11.5	17.0	5.5	10.5	6.0	.0	2.0
3	23.0	15.0	19.0	15.0	7.0	9.5	15.5	6.5	10.5	7.5	.0	2.5
4	25.0	16.5	20.5	9.0	5.0	7.0	15.0	4.5	9.5	12.0	1.0	5.5
5	21.5	14.5	18.0	18.0	5.5	11.0	13.5	6.5	9.5	4.0	1.0	3.0
6	22.5	12.5	17.5	20.5	12.5	15.5	13.0	4.0	7.5	6.0	.0	1.5
7	23.0	12.0	17.0	20.0	10.5	14.5	9.5	3.5	6.5	---	---	---
8	26.0	14.0	19.5	18.0	7.0	11.5	12.5	2.0	7.0	10.0	.0	3.5
9	27.5	16.5	21.5	20.0	9.0	14.0	7.0	.0	2.5	12.5	.5	6.0
10	28.0	16.5	22.0	21.5	7.5	14.5	7.5	.0	2.5	11.5	1.5	6.5
11	29.0	17.0	22.5	15.5	4.0	9.0	12.5	1.0	6.0	12.5	3.5	7.5
12	27.5	17.0	22.0	19.0	5.5	11.5	14.0	2.5	7.5	13.5	2.0	7.0
13	23.5	15.5	19.0	19.5	8.5	13.0	13.0	5.0	9.0	14.0	3.0	8.0
14	24.0	10.5	16.5	18.5	8.0	12.5	14.5	5.5	9.5	15.5	3.5	9.0
15	25.5	11.5	18.0	19.0	8.0	12.5	14.5	6.5	9.5	13.5	4.0	8.0
16	24.5	12.5	18.0	18.5	6.5	12.0	8.5	4.5	7.0	17.0	6.0	10.0
17	24.5	12.5	18.0	18.5	9.5	13.0	10.5	8.5	9.0	12.5	3.5	8.5
18	26.0	14.0	19.5	18.5	6.5	12.0	8.5	3.5	5.5	3.5	.0	1.0
19	22.5	14.0	18.0	20.0	8.5	13.5	10.5	2.5	5.5	6.5	.0	2.0
20	22.5	9.0	15.0	19.5	9.0	13.5	4.5	1.5	3.0	10.5	.0	4.0
21	22.5	9.5	15.5	17.5	7.5	12.0	6.0	2.5	4.0	12.0	.0	5.0
22	25.0	12.5	18.0	18.0	9.0	12.5	5.0	2.0	4.0	13.5	2.5	7.0
23	19.0	11.5	15.0	14.5	7.5	10.5	7.5	.0	3.0	10.0	1.0	5.0
24	18.5	7.0	12.5	16.5	4.5	10.0	10.0	.5	4.5	11.5	.0	4.5
25	23.0	10.0	15.5	17.5	6.0	11.0	10.5	.0	4.5	12.5	.5	6.0
26	21.5	11.5	16.0	16.0	7.0	11.5	11.5	1.0	5.5	9.0	.0	3.5
27	22.5	10.5	15.5	15.0	6.5	10.5	11.0	1.5	5.5	9.0	.0	3.0
28	20.0	9.0	14.0	12.5	3.0	7.0	8.5	.5	4.0	12.0	.0	5.0
29	22.0	10.0	15.0	14.5	3.5	8.0	5.0	.5	3.0	12.0	1.5	6.0
30	21.0	16.0	17.5	15.5	4.0	9.5	9.5	4.0	6.5	7.0	.0	2.5
31	21.0	16.5	18.0	---	---	---	12.0	1.5	6.0	4.5	.0	1.0
MONTH	29.0	7.0	18.0	23.5	3.0	11.5	17.0	.0	6.5	17.0	.0	5.0

0730/800 PEASE RIVER NEAR CHILDRESS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	.0	.5	15.5	.0	6.5	22.5	6.0	13.5	27.0	11.0	18.0
2	.0	.0	.0	18.5	2.5	9.5	24.0	8.0	14.5	32.5	12.5	21.0
3	4.5	.0	1.0	19.5	4.0	11.0	28.5	10.5	17.0	32.0	16.5	23.0
4	7.0	.0	2.0	21.0	8.0	13.5	20.5	9.0	13.5	35.0	17.5	24.5
5	12.0	.0	4.5	18.5	10.0	13.5	12.5	7.0	9.0	33.5	19.5	25.0
6	13.0	.0	5.5	12.5	1.0	7.0	24.0	5.5	13.5	33.0	17.0	24.0
7	17.5	3.5	10.0	11.5	.0	4.5	23.0	7.5	14.5	32.5	20.0	25.0
8	18.5	6.5	11.5	14.0	.5	6.0	24.5	10.5	16.0	33.0	19.5	25.0
9	19.5	5.5	12.0	16.0	1.5	7.5	28.5	10.5	18.5	32.5	19.0	24.5
10	18.5	6.5	11.5	19.0	3.0	10.0	24.5	12.0	18.0	28.5	18.5	22.5
11	14.5	3.5	8.5	17.5	5.5	11.0	28.5	14.0	19.5	32.5	16.0	22.5
12	14.5	2.5	8.0	22.5	6.5	13.5	25.0	12.5	18.0	32.5	15.0	22.5
13	17.0	3.5	9.5	23.0	8.0	15.0	25.5	10.5	16.5	26.5	19.5	22.5
14	20.5	6.5	12.0	21.0	13.0	16.0	18.0	9.0	12.0	32.0	19.5	24.0
15	17.5	7.0	11.5	22.0	9.5	14.5	25.5	6.5	15.0	33.0	18.5	24.5
16	14.5	3.0	8.0	22.5	9.0	15.0	25.0	8.5	16.0	32.5	18.5	24.5
17	16.0	2.5	8.5	19.5	9.5	14.0	28.5	10.5	18.0	32.5	18.5	24.0
18	12.0	4.0	8.0	19.5	9.0	13.5	30.0	11.5	19.5	31.5	18.5	23.5
19	20.0	5.5	11.5	18.0	7.0	11.5	25.5	12.0	17.0	30.5	18.5	23.5
20	20.0	7.5	13.0	19.5	5.0	11.5	27.0	9.5	16.5	31.0	18.5	24.0
21	20.5	10.0	14.5	22.0	6.0	13.0	29.0	11.0	19.0	34.5	18.0	25.0
22	21.0	9.5	14.5	24.0	9.0	16.0	25.0	12.0	17.5	34.5	21.0	25.5
23	17.5	9.5	12.5	25.5	13.0	18.0	27.0	9.0	17.0	35.0	19.0	25.0
24	16.5	7.0	11.0	20.0	8.0	16.0	27.5	11.5	18.0	33.0	20.5	25.5
25	20.0	10.0	14.0	16.5	2.5	9.0	26.0	12.5	18.5	32.0	20.5	24.0
26	21.5	12.0	16.0	9.0	3.5	6.5	30.0	11.0	19.0	31.5	20.5	23.5
27	16.5	7.5	11.5	8.5	5.0	6.5	29.5	12.5	20.0	---	---	---
28	12.5	2.0	6.5	19.5	6.5	11.0	20.5	10.5	17.0	---	---	---
29	8.0	3.0	4.5	21.5	9.5	14.0	21.5	7.5	13.5	---	---	---
30	---	---	---	19.0	9.0	13.5	27.5	8.0	16.0	---	---	---
31	---	---	---	22.5	5.5	13.0	---	---	---	---	---	---
MONTH	21.5	.0	9.0	25.5	.0	11.5	30.0	5.5	16.5	35.0	11.0	24.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	33.0	25.0	28.0	26.5	22.5	24.0
2	---	---	---	---	---	---	35.5	26.5	30.0	27.0	22.0	24.5
3	---	---	---	---	---	---	32.5	23.5	27.5	28.0	23.0	25.0
4	---	---	---	---	---	---	30.5	24.0	27.0	28.0	20.0	23.5
5	---	---	---	---	---	---	30.0	25.0	27.0	30.0	20.0	24.5
6	---	---	---	---	---	---	30.0	25.0	27.0	31.0	20.5	24.5
7	30.0	19.5	24.0	---	---	---	31.0	24.0	27.0	31.0	21.0	24.5
8	31.5	17.0	23.0	---	---	---	30.0	24.0	26.5	28.0	19.5	23.0
9	32.5	17.5	24.5	---	---	---	29.5	24.5	26.5	26.5	21.0	23.5
10	35.0	19.5	26.0	---	---	---	32.5	25.5	28.5	27.5	21.5	24.0
11	34.5	21.0	26.5	---	---	---	35.0	24.5	29.0	33.5	20.0	26.0
12	36.0	20.5	27.0	32.5	23.5	27.5	33.5	24.5	28.0	28.0	22.0	24.5
13	35.0	22.0	26.5	33.5	25.5	29.0	35.0	22.5	28.0	24.5	21.5	22.5
14	35.0	21.5	26.5	32.0	25.0	28.0	34.5	23.5	28.0	27.5	19.5	23.0
15	33.0	22.5	26.5	34.0	24.5	29.0	33.0	24.0	27.0	---	---	---
16	35.5	23.0	28.5	34.0	26.0	29.5	33.5	24.0	28.0	---	---	---
17	35.0	23.0	29.0	34.5	24.5	29.0	35.5	24.5	29.0	27.0	20.0	23.0
18	35.5	24.5	29.0	36.0	24.5	29.0	35.0	24.0	28.5	26.5	20.5	22.5
19	34.5	23.0	28.0	35.5	25.0	30.0	33.0	26.0	28.5	27.5	19.5	22.5
20	33.0	24.0	28.5	35.5	25.0	30.5	34.0	26.5	28.5	28.0	16.5	21.5
21	33.5	23.0	27.5	36.0	25.5	31.0	34.0	26.0	29.0	29.0	16.0	22.0
22	33.0	22.0	27.0	36.0	25.0	29.5	34.5	25.5	29.0	31.0	18.0	23.5
23	33.0	23.5	27.5	35.5	23.0	29.0	30.0	24.5	27.0	31.5	21.0	25.0
24	30.0	22.5	26.0	34.0	22.0	27.5	27.0	25.5	26.0	23.0	19.0	20.5
25	33.0	24.0	27.5	35.0	22.5	28.0	29.5	24.0	26.0	28.0	18.5	22.0
26	31.0	25.0	28.0	30.5	22.5	26.5	32.0	24.5	27.5	22.5	16.0	19.0
27	30.0	25.5	27.0	33.5	23.5	28.0	28.0	23.0	25.5	19.5	13.5	15.5
28	31.0	24.5	27.0	34.0	25.0	29.0	26.0	24.0	25.0	24.5	11.0	17.0
29	30.0	24.0	26.5	30.5	26.0	28.5	26.5	23.0	24.5	28.5	13.5	20.0
30	30.0	24.0	26.5	29.0	26.0	27.5	28.0	22.5	25.0	27.5	14.5	20.0
31	---	---	---	28.5	25.0	27.0	26.5	21.5	24.0	---	---	---
MONTH	36.0	17.0	27.0	36.0	22.0	28.5	35.5	21.5	27.5	33.5	11.0	22.5
YEAR	36.0	.0	16.5									

07308200 PEASE RIVER NEAR VERNON, TX

LOCATION.--Lat 34°10'45", long 99°16'40", Wilbarger County, Hydrologic Unit 11130105, near left bank at downstream side of bridge on U. S. Highway 283, 1.9 mi north of Vernon, and 10 mi upstream from mouth.

DRAINAGE AREA.--3,488 mi², of which 559 mi² probably is noncontributing.

PERIOD OF RECORD.--December 1959 to September 1982, and March 1992 to current year. October 1982 to September 1987, annual maximums.
Water-quality records.--Chemical analyses: November 1967 to September 1981.

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

REMARKS.--No estimated daily discharges. Records fair. There are four small diversions for irrigation above station. For statement regarding regulation by Natural Resource Conservation Service floodwater-retarding structures, see station 07307800.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 24 ft in 1891. The flood in September 1936 reached a stage of 23.5 ft, and the flood of June 2, 1957, reached a stage of 22.0 ft, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	357	140	85	70	38	30	35	8.9	99	6.1	69	294
2	480	132	85	75	33	31	38	8.8	84	4.0	52	187
3	889	126	83	71	34	31	29	8.2	95	3.4	28	148
4	669	121	82	69	40	30	24	6.9	156	2.7	16	910
5	663	120	78	64	57	28	19	6.4	164	1.8	20	369
6	566	119	74	60	66	23	29	5.9	97	1.2	8.1	181
7	480	116	72	58	63	27	30	6.0	77	.97	3.0	118
8	400	115	66	60	58	30	29	5.2	88	.78	3.1	267
9	353	131	65	62	52	31	29	4.2	72	.92	34	702
10	321	126	63	60	48	32	29	4.0	61	10	12	401
11	288	121	61	57	45	30	26	3.5	49	515	51	179
12	261	121	61	56	44	28	24	3.8	41	392	117	108
13	238	121	60	57	44	28	23	3.9	36	222	153	98
14	221	117	58	56	43	26	20	3.6	29	169	78	98
15	206	115	59	55	40	25	19	3.4	51	104	53	374
16	195	115	57	55	37	23	20	2.7	59	77	57	664
17	187	113	59	56	41	23	20	2.2	64	118	67	402
18	177	108	62	48	41	43	18	1.8	45	116	73	222
19	167	102	67	50	41	39	17	1.4	51	69	31	246
20	156	99	77	51	38	37	16	1.1	77	51	17	202
21	148	95	85	50	39	35	18	.87	54	35	17	120
22	143	88	78	50	37	30	17	3.5	37	20	14	86
23	138	90	76	49	34	24	16	66	23	10	18	77
24	134	95	75	49	33	21	16	48	15	9.8	21	66
25	132	91	72	49	33	17	13	40	9.3	4.7	26	59
26	128	88	70	46	30	20	13	32	7.7	7.3	77	56
27	129	86	67	46	27	42	11	25	8.1	6.3	71	84
28	129	86	64	46	28	51	11	66	29	68	126	77
29	126	85	64	44	28	48	9.1	201	21	75	478	75
30	137	86	64	43	---	41	9.3	138	10	77	520	58
31	153	---	63	40	---	38	---	108	---	92	593	---
TOTAL	8771	3268	2152	1702	1192	962	627.4	820.27	1709.1	2269.97	2903.2	6928
MEAN	283	109	69.4	54.9	41.1	31.0	20.9	26.5	57.0	73.2	93.7	231
MAX	889	140	85	75	66	51	38	201	164	515	593	910
MIN	126	85	57	40	27	17	9.1	.87	7.7	.78	3.0	56
AC-FT	17400	6480	4270	3380	2360	1910	1240	1630	3390	4500	5760	13740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996h, BY WATER YEAR (WY)

MEAN	118	45.7	26.5	24.6	29.4	46.8	75.3	214	373	132	128	205
MAX	1057	206	163	116	172	269	359	777	2196	1185	1657	895
(WY)	1961	1993	1960	1973	1993	1973	1973	1977	1995	1975	1995	1965
MIN	.000	.000	.000	.000	.000	.000	.000	6.12	18.0	.000	.000	.20
(WY)	1964	1971	1971	1971	1971	1971	1971	1961	1994	1964	1980	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996h	
ANNUAL TOTAL	170335.6		33304.94			
ANNUAL MEAN	467		91.0		117	
HIGHEST ANNUAL MEAN					441	1995
LOWEST ANNUAL MEAN					12.6	1964
HIGHEST DAILY MEAN	20400	Jun 5	910	Sep 4	20400	Jun 5 1995
LOWEST DAILY MEAN	7.2	Apr 15	.78	Jul 8	.00	Aug 7 1960
ANNUAL SEVEN-DAY MINIMUM	9.7	Apr 9	1.7	Jul 3	.00	Aug 7 1960
INSTANTANEOUS PEAK FLOW			1900	Sep 15	40500	Oct 2 1983
INSTANTANEOUS PEAK STAGE			10.84	Sep 15	20.15	Oct 2 1983
ANNUAL RUNOFF (AC-FT)	337900		66060		84520	
10 PERCENT EXCEEDS	690		187		177	
50 PERCENT EXCEEDS	98		56		15	
90 PERCENT EXCEEDS	17		8.2		.00	

h See PERIOD OF RECORD paragraph.

07308500 RED RIVER NEAR BURKBURNETT, TX

LOCATION.--Lat 34°06'36", long 98°31'53", Cotton County, Okla., Hydrologic Unit 11130102, on downstream guardrail of downstream bridge on U.S. Highways 277 and 281, 2.5 mi northeast of Burkburnett, and at mile 933.

DRAINAGE AREA.--20,570 mi², of which 5,936 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 952.57 ft above sea level. July 11, 1924, to Aug. 31, 1925, nonrecording gage at site 1,000 ft downstream at same datum. Dec. 16, 1959, to Jan. 11, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good. There are many small diversions upstream from station for irrigation, but total amounts are unknown.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 3, 1957, reached a stage of 13.54 ft, from floodmarks. According to local residents, higher stages occurred in 1891 and June 1941.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 5	1200	9,320	6.96	Sep. 5	2200	19,100	8.26
July 12	0200	17,000	8.13	Sep. 18	1230	14,600	7.70
Aug. 30	1600	22,000	8.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3580	4010	758	1080	568	451	557	255	734	279	1090	11900
2	3860	1300	814	1090	551	458	518	248	681	244	829	8660
3	4560	1190	880	1010	545	463	491	250	1790	217	902	6390
4	5510	1050	793	964	993	478	453	242	2800	192	1190	4600
5	8250	887	756	956	949	484	445	233	3610	173	967	14400
6	6510	821	752	995	904	456	488	239	2720	158	733	15300
7	4950	821	757	1000	1100	466	492	234	1740	145	584	10200
8	3680	784	770	984	923	491	489	219	962	137	494	6390
9	2940	772	773	989	1160	575	505	214	721	127	630	5850
10	2430	777	793	990	1180	614	508	218	644	133	948	6910
11	2110	878	760	965	825	542	487	220	644	5050	1700	6960
12	2030	998	755	931	735	505	454	238	552	15100	1640	4360
13	1800	845	781	948	654	489	436	298	430	8940	2590	2800
14	1630	784	786	920	607	482	397	325	431	6530	3700	2280
15	1610	772	775	796	570	470	371	305	468	5020	2840	2140
16	2050	760	1050	759	573	474	364	310	559	6130	1720	1970
17	1640	760	1130	750	647	467	346	316	691	3760	1100	8990
18	1350	767	939	721	637	522	335	306	918	e2000	1170	13600
19	1290	825	915	712	627	549	331	258	2450	e2030	1670	10800
20	1240	816	944	748	589	561	316	237	3460	e1580	988	8130
21	1210	769	1080	887	561	529	346	230	2930	e882	1020	6660
22	1170	732	1130	884	562	504	1080	234	1480	e625	877	5250
23	1120	690	1120	858	544	579	490	236	913	e565	686	5160
24	1090	722	1080	829	543	589	367	265	693	e509	624	4230
25	991	723	1030	828	598	563	313	256	552	e415	622	3410
26	956	730	1010	796	541	557	283	273	461	e394	612	2910
27	928	720	1000	741	494	590	283	275	402	e468	1300	2860
28	914	713	979	729	466	724	272	222	345	e468	5360	2980
29	914	710	972	631	468	802	270	222	307	e565	16900	2820
30	874	728	1270	596	---	711	270	332	289	821	20800	2530
31	1580	---	1260	562	---	605	---	680	---	1040	20100	---
TOTAL	74767	21854	28612	26649	20114	16750	12757	8390	35377	64697	96386	191440
MEAN	2412	928	923	860	694	540	425	271	1179	2087	3109	6381
MAX	8250	4010	1270	1090	1180	802	1080	680	3610	15100	20800	15300
MIN	874	690	752	562	466	451	270	214	289	127	494	1970
AC-FT	148300	55250	56750	52860	39900	33220	25300	16640	70170	128300	191200	379700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

MEAN	1615	694	526	464	550	714	802	2287	3585	884	873	1369
MAX	14900	4960	4435	2040	3024	3552	5987	12470	24780	5947	10540	6381
(WY)	1987	1987	1992	1992	1987	1987	1973	1977	1995	1975	1995	1996
MIN	21.9	.96	2.98	5.53	8.37	7.97	.15	11.4	148	.058	1.29	32.2
(WY)	1971	1971	1971	1971	1971	1971	1971	1971	1970	1970	1964	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	1491238		603793			
ANNUAL MEAN	4086		1650		1201	
HIGHEST ANNUAL MEAN					4424	1987
LOWEST ANNUAL MEAN					178	1964
HIGHEST DAILY MEAN	144000	Jun 6	20800	Aug 30	144000	Jun 6 1995
LOWEST DAILY MEAN	156	Feb 11	127	Jul 9	.00	Jul 19 1964
ANNUAL SEVEN-DAY MINIMUM	161	Feb 7	152	Jul 4	.00	Jul 19 1964
INSTANTANEOUS PEAK FLOW			22000	Aug 30	174000	Jun 6 1995
INSTANTANEOUS PEAK STAGE			8.61	Aug 30	16.90	Oct 21 1983
INSTANTANEOUS LOW FLOW					.00	Jul 19 1964
ANNUAL RUNOFF (AC-FT)	2958000		1198000		869700	
10 PERCENT EXCEEDS	5720		3900		2320	
50 PERCENT EXCEEDS	821		768		296	
90 PERCENT EXCEEDS	210		282		51	

e Estimated

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: May 1968 to current year. Biochemical analyses: October 1974 to August 1994. Pesticide analyses: October 1973 to September 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1968 to September 1981, October 1994 to current year.
WATER TEMPERATURE: July 1968 to September 1981, October 1994 to to current year.

INSTRUMENTATION.--From December 1968 to September 1979, specific conductance was continuously recorded at this station. From October 1994 to current year, specific conductance and water temperature were continuously recorded at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 17,400 microsiemens July 30, 1972; minimum, 889 microsiemens Sept. 24, 1970.
WATER TEMPERATURE: Maximum, 36.0°C July 3, 1996; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 11,400 microsiemens July 2; minimum recorded, 1,990 microsiemens July 11.
WATER TEMPERATURE: Maximum recorded, 36.0°C July 3 and 4; minimum recorded, 0.0°C on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC 08...	0810	776	7210	8.2	7.0	13.0	114	1400	1200	370
JAN 22...	0935	884	7110	8.4	4.5	13.7	112	1400	1300	380
MAR 05...	1010	486	7190	8.2	15.0	11.0	116	1500	1400	400
JUN 19...	0940	1480	3920	7.8	25.5	--	--	860	770	240
JUL 25...	0945	453	6920	8.2	25.5	7.4	95	1200	1200	340
AUG 07...	1040	604	4650	8.2	25.0	7.1	90	830	730	230

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC 08...	120	1100	13	7.9	190	1200	1600	0.50	8.5	4520
JAN 22...	120	1100	13	7.9	190	1200	1700	0.40	10	4630
MAR 05...	130	1100	12	7.5	160	1300	1700	0.50	6.5	4740
JUN 19...	64	490	7	8.1	90	760	860	0.50	9.3	2490
JUL 25...	97	1000	12	10	57	1100	1600	0.50	10	4190
AUG 07...	63	710	11	9.5	110	710	1100	0.50	3.7	2890

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	74767	5190	3240	655000	1200	234000	890	180400	1000
NOV.	1995	27854	6120	3830	288000	1400	105700	1000	76200	1200
DEC.	1995	28612	6700	4190	323000	1600	120900	1100	83500	1300
JAN.	1996	26649	7040	4400	317000	1700	119700	1100	80300	1300
FEB.	1996	20114	7350	4590	249000	1800	95500	1100	62000	1300
MAR.	1996	16750	7220	4510	204000	1700	77600	1100	51300	1300
APR.	1996	12757	6590	4120	142000	1600	53400	1100	36200	1200
MAY	1996	8390	6080	3800	86100	1400	31700	1000	22700	1200
JUNE	1996	35377	4280	2680	256000	940	89500	760	72300	880
JULY	1996	64697	3660	2280	399000	800	139700	650	113100	750
AUG.	1996	96386	2570	1610	418000	540	140200	480	124800	560
SEPT	1996	191440	3070	1920	993000	650	336100	570	293200	660
TOTAL		603793	**	**	4329000	**	1544000	**	1196000	**
WTD.AVG.		1650	4250	2660	**	950	**	730	**	850

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5010	4850	4920	5730	4560	5330	7040	6940	6980	---	---	e6450
2	6420	3380	5430	6190	5640	5850	6990	6890	6940	---	---	e6840
3	6420	5270	5860	6190	5810	6100	6920	6600	6720	---	---	e7030
4	5270	4680	4950	5840	5430	5670	6790	6530	6640	7620	7250	7470
5	4740	3570	3960	5470	5320	5390	6590	6530	6560	7880	7580	7730
6	4460	3570	3910	5560	5470	5500	6970	6570	6770	7840	7630	7770
7	4520	4420	4490	5840	5560	5730	7050	6970	7030	7630	7270	7450
8	4420	4240	4310	5950	5840	5900	7280	6900	6990	7270	6980	7140
9	4680	4330	4500	5960	5750	5860	7140	7090	7120	7000	6780	6920
10	5120	4680	4910	5860	5780	5800	7090	7000	7040	6790	6690	6740
11	5450	5120	5290	6910	5790	6190	7100	6850	7010	6800	6690	6740
12	5720	5450	5600	6810	5960	6470	6920	6850	6870	6920	6750	6860
13	5930	5720	5840	6090	5840	5940	6980	6820	6910	6930	6790	6870
14	6080	5930	6030	6250	6090	6160	6890	6820	6860	6790	6680	6730
15	6150	6080	6120	6530	6250	6430	6850	6800	6810	7240	6740	6980
16	6140	5540	5950	6580	6510	6540	6940	6540	6860	7280	7190	7240
17	5640	5320	5450	6540	6450	6480	---	---	e6560	7570	7270	7460
18	6060	5640	5850	6520	5860	6390	---	---	e6120	7920	5940	7750
19	6340	6060	6200	---	---	5790	---	---	e6480	8030	5280	7520
20	6390	6280	6320	---	---	e6090	---	---	e6800	7930	5220	7070
21	6320	6210	6260	---	---	e6370	---	---	e6950	7670	7270	7430
22	6420	6180	6270	---	---	e6520	---	---	e6510	7350	6410	6890
23	6810	6090	6530	---	---	e6630	---	---	e6150	6460	6380	6430
24	6630	6550	6580	---	---	e6740	---	---	e6280	6760	6430	6600
25	6710	6530	6610	---	---	e6860	---	---	e6550	6870	6700	6800
26	6770	6550	6630	---	---	e6950	---	---	e6800	6750	6620	6680
27	6630	6560	6590	---	---	e7010	---	---	e6920	6910	6740	6790
28	6660	6550	6610	---	---	7120	---	---	e6940	6990	6890	6940
29	6800	6540	6680	7210	7050	7120	---	---	e6950	7200	6940	7060
30	6690	6470	6610	7060	6940	6990	---	---	e6250	7340	5420	7220
31	8160	5600	6420	---	---	---	---	---	e6230	7690	5500	6830
MONTH	8160	3380	5730	7210	4560	6260	7280	6530	6730	8030	5220	7050

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8090	5930	7140	7650	7590	7610	7950	7540	7740	7720	7330	7580
2	6980	4010	5500	7610	7490	7590	8070	7940	7980	7330	6800	7020
3	6040	5380	5720	7490	7400	7410	8300	8070	8140	---	---	6570
4	6430	5950	6260	7430	7420	7430	8650	8300	8530	---	---	e6850
5	6650	6330	6460	7420	7080	7230	8730	8630	8680	---	---	e7210
6	8670	6370	7300	7480	7100	7270	8660	7890	8340	---	---	7400
7	8520	8120	8280	7690	7470	7580	7890	7670	7780	7070	6630	6900
8	8520	8180	8430	7830	7690	7750	7680	7060	7340	6730	6450	6600
9	8310	8120	8220	7860	7400	7640	7060	6670	6860	6860	6720	6780
10	8180	7540	7700	7620	6910	7280	6670	6400	6550	6730	6420	6590
11	8470	7800	8100	7110	6890	6970	6400	6210	6280	6430	6230	6340
12	8960	8470	8720	7170	7110	7140	6280	6140	6200	6290	6030	6170
13	9660	8960	9450	7340	7110	7160	6300	5550	5740	7100	6040	6570
14	9640	7840	8230	7780	7340	7560	5660	5600	5630	6850	5760	6420
15	7960	7730	7840	7840	7700	7790	5730	5640	5680	5800	5720	5760
16	7900	7610	7780	7870	7740	7820	5740	5680	5720	5770	5640	5720
17	7640	7160	7370	7950	7770	7860	5810	5720	5750	5770	4670	5170
18	7210	6100	6710	7870	7430	7580	5910	5800	5850	4750	4530	4640
19	6760	6320	6650	7670	7430	7600	5920	5890	5910	4680	4430	4550
20	6610	6350	6510	7600	7010	7310	5920	5870	5890	5540	4590	4900
21	---	---	e6600	7190	6990	7100	---	---	5890	5690	5210	5400
22	---	---	e6650	7560	7100	7330	---	---	e2850	5800	5050	5370
23	---	---	e6600	---	---	7220	---	---	e5500	5820	5150	5490
24	---	---	e6650	---	---	e6600	---	---	e6700	5220	4940	5110
25	---	---	e6720	---	---	e6650	---	---	e7200	5080	4790	4920
26	---	---	6830	---	---	e6690	---	---	7550	5580	4980	5190
27	7330	6950	7200	---	---	e6400	7800	7570	7680	5590	5040	5300
28	7550	7330	7430	---	---	e6500	7810	7600	7690	5420	5130	5260
29	7600	7530	7560	---	---	6680	7790	7560	7690	5650	5420	5550
30	---	---	---	7190	6730	6880	7790	7520	7660	5740	5310	5510
31	---	---	---	7540	7190	7380	---	---	---	9510	5740	7820
MONTH	9660	4010	7260	7950	6730	7260	8730	5550	6770	9510	4430	6020

e Estimated

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9360	7810	8420	9320	8770	8920	7620	4770	6490	---	---	e1400
2	8230	7770	8010	11400	9320	10100	7390	6520	6780	---	---	e1490
3	7770	3880	6200	10200	8910	9820	6520	6280	6370	---	---	e1670
4	5560	3700	4410	9980	8950	9440	7110	5780	6570	---	---	e1710
5	4420	3920	4180	9160	8550	8860	5780	4690	5380	---	---	e1800
6	4050	2890	3810	8800	7900	8240	4820	4230	4470	---	---	e1890
7	3940	2580	2860	9220	7730	8100	4860	3240	4400	---	---	e2030
8	2590	2440	2530	9080	8210	8720	5670	4860	5190	---	---	e2110
9	2650	2340	2550	9820	8480	8980	6020	4240	5580	---	---	e2500
10	4160	2460	3700	9760	8130	9430	---	---	3150	3590	2280	2980
11	4800	4160	4540	9400	1990	6230	---	---	e2350	5400	2770	3730
12	4940	4550	4780	---	---	e1770	---	---	e1880	5320	4560	4810
13	4600	3390	4160	---	---	e1900	---	---	e1350	4900	4600	4730
14	3500	3360	3450	---	---	e2200	---	---	e2920	5040	4690	4940
15	3930	2860	3210	---	---	e3400	---	---	e3850	5140	4620	4830
16	6300	2870	3570	---	---	e4000	---	---	e4100	5360	4840	5030
17	5780	3940	5300	---	---	e4650	---	---	e4350	7090	4430	5620
18	4370	3450	3880	---	---	5140	---	---	e4750	5900	2430	3400
19	4360	3410	3940	5870	5300	5700	---	---	e2740	3750	2240	2370
20	---	---	3450	5300	4420	4690	---	---	e3150	2930	2270	2590
21	---	---	e3400	5620	4570	5050	---	---	4610	3330	2750	2910
22	---	---	e2900	6160	4970	5880	6690	4440	5990	3730	3020	3440
23	---	---	e3700	5720	4820	5220	6400	6070	6150	6330	3540	4000
24	---	---	e4800	---	---	e5440	6300	6100	6200	4270	3840	4080
25	---	---	e5600	---	---	7090	6140	5500	5900	4720	4170	4410
26	---	---	e6800	7310	7020	7160	5700	5360	5500	7310	4500	5720
27	---	---	e7450	7250	6330	6880	5620	4040	5230	6680	6040	6330
28	---	---	8300	6400	6050	6210	4040	2430	2960	6700	6090	6390
29	8660	8230	8490	9370	6400	8100	---	---	e2850	6870	6390	6620
30	8770	8510	8650	9430	6380	8040	---	---	e1100	7610	6710	7110
31	---	---	---	6380	4550	5060	---	---	e1250	---	---	---
MONTH	9360	2340	4900	11400	1990	6470	7620	2430	4310	7610	2240	3750
YEAR	11400	1990	6040									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.0	21.0	22.5	20.0	15.5	17.5	13.5	8.0	10.5	---	---	---
2	22.5	20.0	21.0	17.0	9.5	13.0	15.0	10.0	12.5	---	---	---
3	21.5	18.5	20.0	12.0	8.0	10.0	14.0	10.5	12.0	---	---	---
4	21.5	19.0	20.0	10.5	9.5	10.0	13.0	9.0	11.0	6.5	1.5	4.0
5	20.0	17.5	18.5	12.5	8.5	10.5	12.0	9.5	10.5	4.0	1.5	3.0
6	18.5	16.0	17.0	14.0	11.0	12.5	11.0	7.0	9.0	2.0	.0	.5
7	19.0	16.0	17.5	15.0	12.5	14.0	8.5	5.5	7.0	1.0	.0	.0
8	19.5	16.0	17.5	14.0	11.5	12.5	10.0	4.5	7.5	3.5	.0	1.0
9	22.0	18.0	20.0	15.5	11.0	13.0	4.5	.0	2.0	7.0	1.0	4.0
10	24.0	20.0	21.5	17.5	13.0	15.5	3.5	.0	1.5	8.0	3.5	5.5
11	24.5	20.5	22.5	13.0	8.5	10.5	7.0	.0	3.5	9.0	5.0	7.0
12	24.0	20.5	22.5	12.5	7.0	9.5	10.0	4.5	7.0	9.5	4.5	7.0
13	22.5	19.0	21.0	14.0	9.0	11.5	11.0	7.5	9.0	11.0	6.0	8.0
14	20.0	16.0	18.0	14.5	10.0	12.0	12.5	8.0	10.0	12.0	7.0	9.0
15	20.5	16.0	18.0	14.5	10.5	12.5	12.0	8.5	10.0	9.5	6.5	8.5
16	21.0	17.0	19.0	14.5	10.0	12.0	10.0	8.5	9.0	11.5	6.0	8.5
17	20.0	16.0	18.0	14.5	10.5	12.5	---	---	---	12.5	7.5	10.5
18	21.5	16.5	18.5	15.5	10.5	13.0	---	---	---	9.5	.0	1.5
19	21.0	17.0	19.0	---	---	---	---	---	---	1.0	.0	.0
20	17.5	13.5	15.5	---	---	---	---	---	---	3.5	.0	1.5
21	17.5	13.0	15.0	---	---	---	---	---	---	6.5	.0	3.0
22	19.0	13.5	16.0	---	---	---	---	---	---	10.5	3.5	7.0
23	18.0	14.5	16.0	---	---	---	---	---	---	10.5	5.0	7.5
24	16.0	11.5	13.5	---	---	---	---	---	---	7.5	2.5	5.0
25	18.5	13.0	15.5	---	---	---	---	---	---	8.5	2.5	5.5
26	21.0	16.0	18.0	---	---	---	---	---	---	7.5	1.5	4.0
27	19.0	15.0	17.0	---	---	---	---	---	---	5.5	.0	2.5
28	18.5	14.0	16.0	---	---	---	---	---	---	8.5	1.0	4.5
29	17.0	13.0	15.0	10.0	4.5	7.0	---	---	---	7.5	3.0	5.5
30	16.0	15.0	15.5	12.0	6.5	9.0	---	---	---	---	---	---
31	18.5	15.0	16.5	---	---	---	---	---	---	---	---	---
MONTH	24.5	11.5	18.0	20.0	4.5	12.0	15.0	.0	8.0	12.5	.0	5.0

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	18.5	9.5	13.5	24.0	13.0	18.5
2	---	---	---	---	---	---	19.0	11.0	14.5	29.0	17.0	22.5
3	---	---	---	---	---	---	22.0	12.0	16.5	31.0	21.0	25.5
4	---	---	---	---	---	---	17.0	11.5	14.5	27.5	23.5	25.5
5	---	---	---	---	---	---	12.5	7.0	8.5	27.5	26.0	26.5
6	---	---	---	14.5	2.5	9.0	17.5	6.0	11.5	33.5	26.5	29.0
7	8.5	.5	4.5	6.5	.0	3.0	18.0	9.5	13.5	31.5	23.0	26.5
8	12.0	6.5	9.0	7.0	.0	3.0	21.0	12.0	16.0	30.5	22.0	26.0
9	13.0	7.5	10.0	9.5	1.5	5.0	23.5	14.0	18.5	29.0	21.5	25.5
10	13.0	8.5	10.5	11.5	2.5	7.0	22.5	15.5	19.0	27.5	20.5	24.0
11	9.0	5.0	7.0	12.5	5.0	8.5	24.5	16.0	20.0	25.5	17.0	21.0
12	10.0	4.5	7.0	16.0	6.5	11.0	19.5	15.5	17.5	29.0	18.0	23.0
13	10.5	5.5	8.0	20.0	11.0	15.5	19.0	13.5	16.0	26.0	21.0	23.5
14	9.0	7.5	8.0	20.0	14.0	16.5	18.5	15.0	16.5	29.0	21.0	25.0
15	13.5	8.5	10.0	18.5	10.5	14.5	16.0	12.5	14.0	31.0	22.0	26.0
16	10.0	3.5	7.0	20.5	11.0	15.5	17.0	14.0	15.5	31.0	22.5	26.0
17	12.0	4.0	7.5	19.0	11.5	15.0	17.5	15.0	16.0	29.5	22.0	25.5
18	12.0	6.5	9.5	15.5	10.0	12.5	19.0	16.5	17.5	30.0	22.0	25.0
19	15.5	8.0	11.5	13.0	7.5	10.0	19.5	17.5	18.5	28.5	21.0	24.5
20	16.0	10.5	13.0	13.0	5.5	9.5	19.0	16.5	17.5	32.0	21.5	26.5
21	16.0	11.5	13.5	16.5	7.0	11.5	20.0	17.0	18.0	32.5	21.5	26.5
22	18.5	13.5	16.0	18.5	9.0	14.0	---	---	---	31.5	24.0	27.5
23	17.0	12.5	15.0	21.0	14.0	17.0	---	---	---	31.0	22.0	26.5
24	14.5	10.0	12.5	17.5	10.0	15.5	---	---	---	30.5	23.0	26.0
25	17.5	11.0	14.0	11.0	5.5	8.5	---	---	---	28.0	22.5	25.0
26	20.0	15.0	17.5	7.0	4.0	5.0	---	---	---	28.0	22.5	25.0
27	17.5	9.5	13.5	5.0	4.5	5.0	26.5	16.0	21.0	29.0	20.0	24.5
28	---	---	---	10.5	5.0	7.5	22.5	13.5	19.0	29.0	18.0	23.5
29	---	---	---	16.5	6.5	11.5	18.5	10.0	14.0	26.5	19.5	23.0
30	---	---	---	18.0	12.0	14.5	21.0	11.5	16.0	27.5	20.5	23.5
31	---	---	---	17.0	8.5	12.5	---	---	---	29.5	22.0	25.5
MONTH	20.0	.5	10.5	21.0	.0	10.5	26.5	6.0	16.0	33.5	13.0	25.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.5	21.0	25.0	35.5	26.5	30.5	31.0	25.5	27.5	26.5	24.0	25.0
2	31.5	23.0	27.0	34.5	25.5	29.0	33.5	26.5	29.5	27.0	24.0	25.5
3	31.5	24.5	27.5	36.0	26.5	30.5	30.5	25.0	28.0	27.5	24.0	26.0
4	30.0	25.0	27.0	36.0	27.0	31.5	29.0	25.0	27.0	26.5	25.0	26.0
5	29.5	25.0	27.0	34.0	26.0	29.5	30.0	24.5	27.0	27.5	25.0	26.5
6	29.0	24.0	26.5	33.5	23.5	28.5	30.5	24.5	27.5	28.0	25.0	26.5
7	27.0	23.0	25.0	35.5	24.0	29.0	32.0	25.0	28.0	28.5	25.5	27.0
8	27.5	20.5	24.0	32.5	25.0	28.0	31.0	25.5	28.0	29.5	26.0	27.5
9	31.0	21.0	25.5	31.0	22.5	26.5	30.0	25.5	27.0	30.0	26.5	28.5
10	30.0	22.0	25.5	25.5	21.5	23.5	30.0	24.0	26.5	30.5	27.0	28.5
11	32.0	24.5	28.0	25.0	22.0	23.5	31.5	25.0	27.5	30.5	27.5	29.0
12	31.5	24.5	27.5	27.0	24.0	25.5	29.0	26.0	27.0	29.0	26.0	27.5
13	32.5	25.0	28.0	29.0	25.5	27.0	30.0	26.0	27.5	27.0	24.5	25.5
14	32.0	25.5	28.0	30.0	27.5	28.5	30.0	26.0	27.5	27.0	24.0	25.0
15	33.0	25.5	28.5	31.0	26.5	28.5	28.0	25.5	26.5	27.0	22.5	25.0
16	32.0	25.5	28.0	30.5	27.5	29.0	29.0	25.0	26.5	27.0	22.5	24.5
17	34.0	24.5	28.5	30.5	26.0	28.0	---	---	---	25.5	23.0	24.5
18	34.5	27.0	30.5	30.5	26.0	28.0	---	---	---	24.5	22.5	23.0
19	31.5	25.5	28.0	31.0	26.0	28.0	---	---	---	25.0	22.0	23.5
20	32.0	25.5	29.5	31.5	26.5	28.5	---	---	---	23.5	21.0	22.5
21	31.5	26.0	28.5	32.0	25.5	28.5	---	---	---	24.5	20.5	22.5
22	31.5	26.0	28.0	32.5	26.0	29.0	31.0	25.0	27.5	25.5	21.5	23.5
23	33.0	25.0	28.5	32.5	25.5	28.5	28.0	24.5	26.5	27.5	23.5	25.0
24	33.0	25.5	28.5	30.0	24.5	27.5	28.5	25.0	26.5	25.5	23.0	24.0
25	33.5	25.5	29.0	32.5	25.0	28.5	26.5	25.0	25.5	24.0	22.0	22.5
26	32.5	25.5	28.5	30.0	25.5	27.0	30.0	24.0	26.5	23.0	18.5	21.0
27	33.0	25.5	28.5	31.5	24.0	27.0	28.0	24.5	26.0	18.5	16.0	17.0
28	33.0	25.5	28.5	33.0	25.5	29.0	26.5	25.0	26.0	20.0	14.5	17.0
29	32.5	25.0	28.5	31.0	26.5	28.5	26.0	24.0	25.0	22.0	17.0	19.0
30	34.0	25.5	29.5	28.0	25.0	26.0	26.0	24.0	25.0	23.0	18.5	20.5
31	---	---	---	29.5	24.0	26.5	25.5	24.5	25.0	---	---	---
MONTH	34.5	20.5	27.5	36.0	21.5	28.0	33.5	24.0	27.0	30.5	14.5	24.5
YEAR	36.0	.0	18.5									

07311600 NORTH WICHITA RIVER NEAR PADUCAH, TX

LOCATION.--Lat 33°57'02", long 100°03'52", Cottle County, Hydrologic Unit 11130204, left downstream end of old abandoned county bridge, 4.0 mi downsteam from Cottonwood Creek, 7 mi downstream from Salt Creek,10 mi upstream from Middle Fork, 14 mi southeast of Paducah, and 211.3 mi upstream from mouth.

DRAINAGE AREA.--540 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1951-54 (occasional low-flow measurements), 1961 to 1982, October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,530 ft above sea level.

REMARKS.--Records are good except those for estimated daily discharges, which are fair. One small diversion for irrigation above station.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base discharge of 1,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	24	e22	e23	17	16	15	e15	11	13	e21
2	84	23	24	e22	e25	18	17	15	e15	12	10	e16
3	143	24	24	e22	e24	17	e17	15	e15	12	8.9	e15
4	49	24	24	e22	e23	18	e16	15	e15	19	8.7	14
5	33	24	24	e21	e21	18	e16	14	e15	14	8.8	15
6	28	e24	e23	e22	21	17	16	15	e15	11	8.5	15
7	26	e24	e23	e21	21	17	17	15	e15	11	7.9	14
8	25	e23	e23	e21	21	18	e17	15	e15	10	8.2	28
9	25	e23	e23	e20	20	18	e17	15	e15	11	10	29
10	25	e24	e23	e20	20	18	e16	15	e15	12	13	17
11	24	e24	e23	e19	19	18	16	16	e15	20	9.8	15
12	24	e24	e23	e19	19	18	14	16	e15	13	9.0	15
13	23	e24	e22	e19	19	16	15	16	e14	12	9.1	15
14	23	e24	e22	e18	19	16	14	16	e14	13	9.2	16
15	23	e24	e22	e18	19	17	15	16	e14	13	9.8	19
16	24	e24	e23	e18	18	17	15	15	e14	11	9.8	16
17	24	e24	e23	e17	19	17	15	15	e14	11	9.3	16
18	24	e24	e23	e18	19	20	15	15	e14	10	9.6	17
19	23	e24	e23	e18	19	17	15	15	e14	9.9	9.2	90
20	24	e24	e23	e18	19	16	15	14	e14	9.6	9.4	33
21	24	24	e22	e18	18	17	16	14	e13	9.1	10	19
22	24	24	e22	e19	18	17	15	15	e13	8.8	10	17
23	23	24	e22	e19	18	18	15	15	e13	8.8	e10	16
24	23	24	e22	e19	18	17	16	e15	e14	13	e10	16
25	24	24	e22	e19	19	15	14	e15	e37	11	e10	17
26	24	24	e22	e19	19	16	15	e15	19	10	e10	17
27	24	23	e22	e21	18	18	15	e15	13	10	e10	17
28	24	23	e22	e21	17	19	15	e15	12	11	e239	17
29	24	24	e22	e22	17	17	14	e15	11	10	e179	16
30	25	24	e22	e22	---	16	15	e15	11	10	e72	17
31	25	---	e22	e22	---	16	---	e15	---	11	e36	---
TOTAL	961	716	704	616	570	534	464	467	448	358.2	787.2	605
MEAN	31.0	23.9	22.7	19.9	19.7	17.2	15.5	15.1	14.9	11.6	25.4	20.2
MAX	143	25	24	22	25	20	17	16	37	20	239	90
MIN	23	23	22	17	17	15	14	14	11	8.8	7.9	14
AC-FT	1910	1420	1400	1220	1130	1060	920	926	889	710	1560	1200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996h, BY WATER YEAR (WY)

MEAN	19.2	11.8	11.2	10.6	10.6	11.8	17.5	39.3	71.2	15.1	38.7	34.6
MAX	62.4	23.9	22.7	19.9	19.7	21.5	71.8	186	452	80.4	239	141
(WY)	1966	1996	1996	1996	1996	1979	1967	1982	1995	1975	1995	1974
MIN	3.08	3.94	4.58	4.84	4.77	4.93	5.30	3.63	10.1	2.12	1.98	2.06
(WY)	1964	1965	1965	1965	1965	1965	1964	1966	1964	1966	1964	1964

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996h	
ANNUAL TOTAL	28641		7230.4			
ANNUAL MEAN	78.5		19.8		24.5	
HIGHEST ANNUAL MEAN					75.5	1995
LOWEST ANNUAL MEAN					6.10	1964
HIGHEST DAILY MEAN	8930	Jun 5	239	Aug 28	8930	Jun 5 1995
LOWEST DAILY MEAN	10	Apr 10	7.9	Aug 7	.50	Sep 2 1964
ANNUAL SEVEN-DAY MINIMUM	11	Apr 6	8.7	Aug 2	.74	Aug 31 1964
INSTANTANEOUS PEAK FLOW			485	Aug 28		
INSTANTANEOUS PEAK STAGE			5.30	Aug 28		
ANNUAL RUNOFF (AC-FT)	56810		14340		17760	
10 PERCENT EXCEEDS	43		24		20	
50 PERCENT EXCEEDS	23		17		11	
90 PERCENT EXCEEDS	13		11		4.8	

e Estimated
h See PERIOD OF RECORD paragraph.

07311600 NORTH WICHITA RIVER NEAR PADUCAH, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analysis: October 1994 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1994 to current year.
WATER TEMPERATURE: October 1994 to current year.

INSTRUMENTATION.--From October 1994 to current year, a two-parameter water-quality monitor continuously records specific conductance and water temperature at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 28,600 microsiemens May 25, 1995; minimum, 325 microsiemens Aug. 2, 1995.
WATER TEMPERATURE: Maximum, 34.0°C July 9, 10, 25, and 28, 1995; minimum, 0.0°C Feb. 2-4 , 1996.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 22,300 microsiemens Aug. 23; minimum, 3,020 microsiemens Sept. 19.
WATER TEMPERATURE: Maximum, 32.5°C May 22; minimum, 0.0°C Feb. 2-4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC										
05...	1135	23	17100	8.0	11.5	10.5	107	2400	2300	710
FEB										
06...	1035	21	16900	8.0	5.5	12.9	114	2400	2300	780
APR										
02...	1640	17	18800	8.0	20.0	13.8	172	2600	2400	720
MAY										
21...	1320	14	19900	8.0	26.5	11.7	165	2600	2500	770
JUL										
12...	1215	15	14200	7.8	28.0	10.6	148	2100	1900	610
AUG										
14...	1155	10	21600	7.8	27.5	11.9	169	2700	2600	790

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC										
05...	160	3300	29	12	180	2100	5000	0.70	11	11400
FEB										
06...	120	3200	28	13	180	2200	4800	0.50	12	11200
APR										
02...	190	3500	30	13	160	2300	5500	0.60	9.1	12300
MAY										
21...	170	3800	32	15	100	2400	6300	0.60	5.5	13500
JUL										
12...	130	2500	24	14	130	1800	3900	0.60	<0.10	9030
AUG										
14...	170	3900	33	16	100	2400	6300	0.50	4.9	13600

07311600 NORTH WICHITA RIVER NEAR PADUCAH, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	961	12300	7970	20700	3300	8430	1600	4020	*
NOV.	1995	716	16900	10900	21100	4600	8990	2000	3890	*
DEC.	1995	704	17600	11300	21400	4900	9230	2100	3900	*
JAN.	1996	616	16900	10900	18100	4600	7730	2000	3340	*
FEB.	1996	570	17200	11000	17000	4700	7280	2000	3120	*
MAR.	1996	534	18300	11700	16900	5100	7370	2100	3030	*
APR.	1996	464	18900	12100	15100	5300	6670	2100	2680	*
MAY	1996	467	19400	12400	15600	5500	6940	2200	2730	*
JUNE	1996	448	17900	11400	13800	5000	6040	2000	2480	*
JULY	1996	358.2	17100	11000	10600	4700	4570	2000	1950	*
AUG.	1996	787.2	11000	7130	15200	3000	6350	1300	2860	*
SEPT	1996	605	13600	8850	14500	3600	5910	1700	2810	*
TOTAL		7230.4	**	**	200000	**	85500	**	36800	**
WTD.AVG.		20	15900	10200	**	4400	**	1900	**	**

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10700	10000	10400	17200	16700	16900	17100	16700	17000	17300	16400	16900
2	11100	4450	9830	17000	16900	17000	17000	16700	16900	16800	16500	16700
3	5070	3400	4160	17300	17000	17200	17100	16800	17000	17300	16600	17000
4	5520	3680	4490	17300	17000	17200	17000	16900	17000	17200	16600	16900
5	7830	5520	6750	17200	17000	17100	17700	17000	17200	17000	16700	16800
6	9890	7830	8860	---	---	e17100	17700	17200	17500	17000	16600	16800
7	11000	9890	10400	---	---	e17000	18100	17700	18000	16800	16600	16700
8	11900	11000	11500	---	---	e17000	18300	17800	18000	16900	16800	16800
9	12700	11900	12400	---	---	e16900	18600	18200	18300	16900	16500	16800
10	14100	12700	13500	---	---	e17000	19100	18400	18600	16800	16500	16600
11	14400	13300	13900	---	---	e17100	19100	18500	18900	17000	16500	16800
12	13900	13000	13500	---	---	e17100	18600	18100	18500	16700	16500	16600
13	15700	13400	14400	---	---	e17100	18600	18200	18400	17000	16600	16800
14	16200	15700	15900	---	---	e17100	18300	17800	18100	16900	16500	16700
15	16200	15600	15900	---	---	e17000	18000	17700	17800	16700	16500	16600
16	15800	15200	15500	---	---	e17100	17900	17600	17800	16900	16500	16700
17	16700	15300	16200	---	---	e17000	17700	17100	17500	16900	16600	16700
18	16800	16000	16500	---	---	e16900	17400	16900	17200	17400	16900	17200
19	17100	16100	16700	---	---	e16900	18100	17400	17700	17400	16700	17200
20	17400	17000	17200	---	---	e16800	18000	17800	17900	18000	17200	17700
21	17600	17100	17400	16800	16600	16700	18000	17400	17700	17300	16400	17000
22	17300	16600	17000	16700	16400	16600	17400	16900	17100	17400	16800	17100
23	17300	17000	17200	16500	16400	16400	17200	16900	17100	17200	16800	17100
24	17500	17200	17300	16700	16400	16600	17400	17100	17300	17300	16600	16900
25	17500	17300	17400	16700	16600	16700	17200	16900	17100	17000	16700	16900
26	17400	17200	17300	16700	16500	16600	17300	17000	17100	17200	16800	17100
27	17600	17000	17300	17200	16500	16900	17200	16900	17100	17100	16900	17000
28	17400	17100	17300	17100	16900	17000	17200	16900	17000	17500	17000	17300
29	17500	17000	17300	17200	16900	17000	17200	16800	17000	17300	16600	17000
30	17100	16900	17100	17300	17000	17200	17400	16800	17100	17200	16700	17100
31	17200	16700	17000	---	---	---	17400	17000	17200	17300	17000	17200
MONTH	17600	3400	14100	17300	16400	16900	19100	16700	17600	18000	16400	16900

e Estimated

07311600 NORTH WICHITA RIVER NEAR PADUCAH, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	17300	17000	17100	18100	17900	18000	19100	18700	18900	20000	19600	19700
2	17300	16900	17200	18100	17600	17900	19100	18900	19000	19600	19100	19400
3	17200	16800	17000	17900	17500	17700	---	---	e19100	19300	19000	19200
4	17300	17000	17200	17800	17600	17700	---	---	e19100	19500	19000	19300
5	17200	16700	16900	17900	17600	17700	---	---	19200	19300	18900	19100
6	17000	16500	16800	18300	17600	17900	19100	18700	18900	19400	19100	19200
7	17100	16500	16800	19000	18300	18600	18900	18600	18800	19400	19100	19200
8	16700	16500	16600	18400	18000	18200	---	---	e18800	19700	19300	19500
9	16900	16600	16800	18700	18300	18500	---	---	e18700	19600	19100	19400
10	16900	16700	16800	18300	17800	18100	---	---	e18600	19700	19400	19600
11	17100	16800	17000	18100	17800	18000	18900	18500	18700	19800	19300	19600
12	17300	17000	17100	18300	17800	18000	18900	18600	18700	19700	19200	19500
13	17500	17100	17300	18300	17700	18000	18800	18600	18800	19800	19400	19600
14	17100	16800	17000	18300	17900	18200	---	---	e18800	19700	18900	19300
15	17100	16800	16900	18300	17800	18000	---	---	e18800	19600	19100	19300
16	17500	16400	17200	18200	18000	18100	---	---	e18900	19700	19100	19500
17	17400	17100	17200	18400	17800	18300	---	---	e18900	19900	19400	19600
18	17400	17100	17200	18300	17700	17900	---	---	e18800	19900	19500	19700
19	17400	16800	17200	18300	18000	18200	---	---	e18800	19900	19600	19800
20	17300	16900	17100	19700	18300	19300	---	---	e18700	20000	19700	19900
21	17400	17100	17200	19300	18600	19000	---	---	e18600	19900	19400	19700
22	17400	17200	17300	18800	18400	18600	---	---	e18700	19500	19200	19400
23	17600	17300	17500	18400	18200	18300	---	---	e18800	19700	19500	19600
24	17800	17500	17700	18700	18100	18500	---	---	e18900	---	---	e19500
25	17700	17400	17500	19000	18600	18800	---	---	e19000	---	---	e19500
26	17600	17300	17500	19300	18800	19100	---	---	e19100	---	---	e19400
27	17800	17400	17600	19200	18700	19000	---	---	e19200	---	---	e19300
28	17900	17400	17700	18700	18300	18500	---	---	e19400	---	---	e19300
29	18200	17900	18000	18600	18300	18400	---	---	e19500	---	---	e19200
30	---	---	---	18800	18500	18600	---	---	19600	---	---	e19200
31	---	---	---	19000	18600	18800	---	---	---	---	---	e19100
MONTH	18200	16400	17200	19700	17500	18300	19100	18500	18900	20000	18900	19400

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e19100	---	---	e18000	---	---	e17800	---	---	e14800
2	---	---	e19000	---	---	e18200	---	---	e18200	---	---	e15000
3	---	---	e19000	---	---	e18300	---	---	e18600	---	---	e15200
4	---	---	e18900	---	---	e16000	---	---	e19000	---	---	e15500
5	---	---	e19000	---	---	e16500	---	---	e19200	---	---	e16000
6	---	---	e19200	---	---	e17000	---	---	e19800	---	---	16500
7	---	---	e19500	---	---	e17000	---	---	e20000	17200	16700	17000
8	---	---	e19700	---	---	e17200	---	---	e20400	18800	14200	17200
9	---	---	e20000	---	---	e17600	---	---	e20500	18800	11800	13500
10	---	---	e20500	---	---	e17800	---	---	e19000	17300	11900	14600
11	---	---	e20800	---	---	e12000	---	---	e19400	17400	15000	16100
12	---	---	e20400	---	---	e14300	---	---	e19800	15000	14400	14600
13	---	---	e20000	---	---	e15800	---	---	e20200	15000	14600	14800
14	---	---	e19700	---	---	e16200	---	---	e20800	15300	14900	15100
15	---	---	e19500	---	---	e17000	---	---	e21000	15100	14800	15000
16	---	---	e19200	---	---	e17400	---	---	e21200	15300	14800	15100
17	---	---	e19000	---	---	e17800	---	---	e21500	15900	15000	15300
18	---	---	e18800	---	---	e18200	---	---	e21800	18800	15900	18200
19	---	---	e18600	---	---	e18400	---	---	e21900	21200	3020	9030
20	---	---	e18400	---	---	e18800	---	---	e22000	8070	4850	6580
21	---	---	e18000	---	---	e19000	---	---	e22200	9970	8070	8800
22	---	---	e17900	---	---	e19100	---	---	e22300	12300	9970	11100
23	---	---	e18000	---	---	e19200	22300	---	e22300	14400	12300	13300
24	---	---	e18000	---	---	e17000	---	---	e22200	15400	14400	15100
25	---	---	e10000	---	---	e17200	---	---	e22200	15700	15200	15400
26	---	---	e12000	---	---	e17400	---	---	e22100	15700	12400	15400
27	---	---	e14500	---	---	e17800	---	---	e22000	15800	15500	15700
28	---	---	e17000	---	---	e18000	---	---	e8000	16000	15200	15600
29	---	---	e17600	---	---	e18100	---	---	e2060	15700	14900	15300
30	---	---	e17800	---	---	e18300	---	---	e8000	15200	14500	14900
31	---	---	---	---	---	e18500	---	---	e12500	---	---	---
MONTH	---	---	18300	---	---	17400	22300	---	19000	21200	3020	14500
YEAR	22300	3020	17400									

e Estimated

07311600 NORTH WICHITA RIVER NEAR PADUCAH, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.0	21.0	22.5	20.5	16.5	18.0	13.5	9.5	11.5	9.0	5.5	7.5
2	22.0	18.0	20.5	16.5	12.0	14.5	14.0	10.0	11.5	7.0	4.0	5.5
3	20.5	16.0	18.0	13.0	10.5	11.5	14.0	10.5	12.0	7.0	3.0	5.0
4	22.0	17.0	19.5	10.5	9.5	10.0	13.0	10.0	11.5	8.5	5.0	6.5
5	21.0	17.5	19.0	13.5	8.5	11.0	12.5	9.5	11.0	6.0	4.0	5.5
6	20.5	16.5	18.5	---	---	---	11.5	8.5	10.0	5.0	2.5	3.5
7	20.5	16.0	18.0	---	---	---	10.5	8.0	9.0	5.0	1.5	3.0
8	22.0	17.0	19.5	---	---	---	11.5	7.0	9.0	6.5	2.5	4.0
9	23.5	19.0	21.0	---	---	---	7.5	4.5	6.0	9.0	4.5	6.5
10	24.0	19.5	21.5	---	---	---	7.0	3.5	5.0	9.0	5.5	7.0
11	24.5	20.0	22.0	---	---	---	9.0	5.0	6.5	10.0	7.0	8.0
12	24.0	20.0	21.5	---	---	---	11.0	7.0	8.5	10.5	6.5	8.0
13	22.0	18.5	20.5	---	---	---	12.0	9.0	10.5	11.0	7.0	8.5
14	20.5	16.0	18.0	---	---	---	12.5	9.5	11.0	12.0	7.5	9.5
15	21.0	15.5	18.0	---	---	---	13.0	10.0	11.0	11.0	8.5	9.5
16	21.0	16.0	18.5	---	---	---	10.5	9.5	10.0	12.5	8.0	10.0
17	21.0	16.5	18.5	---	---	---	11.0	10.0	10.5	11.0	8.0	10.0
18	22.0	17.0	19.0	---	---	---	10.5	7.0	9.0	8.0	2.0	4.5
19	20.5	17.0	19.0	---	---	---	9.5	6.0	7.5	5.0	1.0	3.0
20	18.5	14.5	16.5	---	---	---	7.0	6.0	6.5	7.5	3.0	5.0
21	18.5	14.0	16.0	---	---	---	7.0	6.0	6.0	8.5	4.5	6.0
22	20.0	15.0	17.0	15.5	12.5	13.5	6.5	5.5	6.0	11.0	6.0	8.0
23	18.0	14.5	16.5	14.0	11.0	12.5	7.5	4.0	5.5	9.5	6.0	8.0
24	17.0	12.5	14.5	14.0	10.0	11.5	8.5	5.0	6.5	9.0	5.0	6.5
25	19.0	14.0	16.0	14.5	10.5	12.0	9.0	5.0	6.5	9.5	5.5	7.0
26	19.5	16.0	17.5	14.5	11.5	12.5	10.0	6.0	7.5	8.0	4.5	6.0
27	19.5	15.5	17.0	13.5	10.0	12.0	10.0	6.5	8.0	7.5	3.5	5.0
28	18.0	14.5	16.0	11.0	8.0	9.5	9.0	6.0	7.0	8.5	4.0	6.0
29	18.5	14.0	16.0	11.5	8.0	9.5	7.0	6.0	6.5	9.5	5.5	7.5
30	18.0	16.5	17.5	12.5	8.5	10.0	10.0	7.0	8.0	7.0	3.0	5.5
31	19.0	17.0	18.0	---	---	---	11.0	7.0	9.0	4.0	2.0	2.5
MONTH	25.0	12.5	18.5	20.5	8.0	12.0	14.0	3.5	8.5	12.5	1.0	6.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	1.5	2.5	11.0	4.5	7.0	18.5	11.5	14.5	23.0	15.5	19.0
2	1.5	.0	1.0	13.5	6.5	9.5	---	---	---	26.5	17.0	21.0
3	3.0	.0	1.0	15.0	8.5	11.5	---	---	---	27.5	20.0	23.5
4	4.0	.0	1.5	17.5	11.0	14.0	---	---	---	29.5	21.5	25.0
5	7.5	2.0	4.0	16.0	13.5	14.5	---	---	---	29.5	23.5	26.0
6	9.0	4.5	6.5	13.5	5.5	10.5	17.0	8.5	12.5	29.5	22.5	26.0
7	13.0	7.0	9.5	9.0	3.5	6.0	18.0	11.5	15.0	30.0	23.5	26.5
8	14.5	10.5	12.0	10.0	5.0	6.5	---	---	---	30.0	23.5	26.5
9	15.5	10.5	12.5	11.5	5.5	8.0	---	---	---	30.0	23.0	26.0
10	16.0	11.0	13.0	14.0	7.0	10.0	---	---	---	26.5	22.5	25.0
11	12.5	9.0	10.5	14.5	10.0	11.5	---	---	---	28.0	20.5	23.5
12	12.5	8.0	10.0	17.0	10.5	13.5	22.5	17.5	20.0	28.0	20.5	24.0
13	13.5	8.0	10.5	19.5	12.5	15.5	---	---	---	27.0	22.5	25.0
14	16.0	10.5	12.5	20.0	15.0	17.0	---	---	---	29.5	23.0	25.5
15	15.0	11.0	12.5	19.5	13.5	16.0	---	---	---	31.0	23.5	27.0
16	12.5	9.0	10.5	19.5	13.0	16.0	---	---	---	30.5	23.5	26.5
17	13.0	8.0	10.0	18.0	13.0	15.0	---	---	---	30.5	23.0	26.5
18	11.5	8.5	10.0	16.5	12.0	14.0	---	---	---	29.5	23.5	26.5
19	15.0	9.0	11.5	15.5	11.5	13.0	---	---	---	29.5	23.0	26.0
20	16.0	11.5	13.5	15.5	10.0	12.0	---	---	---	30.0	23.0	26.0
21	17.0	12.5	14.5	17.0	10.0	13.0	---	---	---	31.0	23.5	27.0
22	17.5	13.5	15.0	19.5	12.5	15.5	---	---	---	32.5	25.0	28.0
23	15.0	12.0	14.0	21.0	15.5	17.5	---	---	---	31.5	24.5	28.0
24	14.5	10.5	12.5	18.5	12.0	16.5	---	---	---	---	---	---
25	16.0	12.0	14.0	13.5	9.0	11.0	---	---	---	---	---	---
26	18.5	14.0	16.0	9.5	7.5	8.5	---	---	---	---	---	---
27	15.5	11.5	14.0	8.0	7.0	7.5	---	---	---	---	---	---
28	11.5	7.5	9.5	12.5	7.0	9.0	---	---	---	---	---	---
29	8.0	5.5	7.0	17.0	10.0	13.0	---	---	---	---	---	---
30	---	---	---	18.0	12.5	15.0	---	---	---	---	---	---
31	---	---	---	18.0	11.5	14.5	---	---	---	---	---	---
MONTH	18.5	.0	10.0	21.0	3.5	12.5	22.5	8.5	15.5	32.5	15.5	25.5

07311600 NORTH WICHITA RIVER NEAR PADUCAH, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	30.0	24.0	26.5
8	---	---	---	---	---	---	---	---	---	30.0	24.5	27.0
9	---	---	---	---	---	---	---	---	---	29.0	23.5	26.5
10	---	---	---	---	---	---	---	---	---	30.0	24.0	26.5
11	---	---	---	---	---	---	---	---	---	29.5	24.0	26.5
12	---	---	---	---	---	---	---	---	---	27.0	24.5	25.5
13	---	---	---	---	---	---	---	---	---	25.0	23.5	24.0
14	---	---	---	---	---	---	---	---	---	25.5	22.0	23.5
15	---	---	---	---	---	---	---	---	---	27.0	22.5	24.5
16	---	---	---	---	---	---	---	---	---	28.0	22.0	24.5
17	---	---	---	---	---	---	---	---	---	26.5	22.0	24.0
18	---	---	---	---	---	---	---	---	---	25.5	22.0	23.5
19	---	---	---	---	---	---	---	---	---	24.0	21.0	22.5
20	---	---	---	---	---	---	---	---	---	25.0	20.0	22.0
21	---	---	---	---	---	---	---	---	---	26.0	20.0	23.0
22	---	---	---	---	---	---	---	---	---	27.0	21.0	23.5
23	---	---	---	---	---	---	---	---	---	29.0	23.0	25.5
24	---	---	---	---	---	---	---	---	---	25.5	21.5	23.0
25	---	---	---	---	---	---	---	---	---	24.5	20.5	22.5
26	---	---	---	---	---	---	---	---	---	23.0	19.0	21.5
27	---	---	---	---	---	---	---	---	---	19.5	17.0	18.0
28	---	---	---	---	---	---	---	---	---	22.0	15.0	18.0
29	---	---	---	---	---	---	---	---	---	24.0	17.0	20.0
30	---	---	---	---	---	---	---	---	---	24.0	18.0	21.0
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	30.0	15.0	23.5
YEAR	32.5	.0	14.0									

07311630 MIDDLE WICHITA RIVER NEAR GUTHRIE, TX

LOCATION.--Lat 33°47'45", long 100°04'29", King County, Hydrologic Unit 11130204, on right bank 100 ft (32 m) downstream from inflatable dam. One mile downstream from ranch road crossing, 0.71 miles upstream from Forrer Creek, 12 miles upstream from confluence with North Wichita River and 19 miles northeast of Guthrie, Tx.

DRAINAGE AREA.-- 50.3 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- June 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,583.90 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Daily discharges above 30 ft^3/s are not published. There are no known diversions upstream from station. Low flow is maintained by springs that enter river in the vicinity of gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.02 ft Aug. 2, 1995; minimum daily discharge, 2.7 ft^3/s Aug. 23, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.40 Sept. 18 at 0800 hours; minimum daily discharge, 2.7 ft^3/s Aug 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.6	e7.6	e7.3	8.4	e6.9	6.9	6.3	6.6	6.8	5.4	8.5	6.7
2	e7.8	e7.6	e7.3	7.7	e6.9	6.6	6.5	6.6	6.7	5.6	6.4	7.1
3	e9.3	e7.6	e7.3	7.2	e6.5	6.6	6.7	6.6	23	5.6	6.3	14
4	e8.4	e7.6	e7.3	7.1	e6.5	6.5	14	6.6	---	5.5	6.3	e7.0
5	e7.8	e7.6	7.2	6.8	6.5	6.7	6.3	6.6	11	5.5	6.6	e6.5
6	e7.8	e7.6	7.3	6.8	6.6	6.7	6.2	6.4	e6.1	5.4	6.5	19
7	e7.6	e7.6	7.1	6.7	6.7	6.7	6.3	6.8	e6.0	5.6	6.6	6.1
8	e7.6	e7.6	7.4	6.7	6.7	6.6	6.7	6.6	e6.0	5.6	6.9	8.0
9	e7.6	e7.6	7.1	7.0	6.8	6.6	6.8	6.3	e5.8	5.7	7.1	6.0
10	e7.6	e7.6	7.0	6.9	6.8	6.5	6.8	6.3	e5.8	5.9	7.3	5.9
11	e7.6	e7.3	7.2	7.0	6.9	6.5	6.9	6.3	e5.6	6.1	7.3	5.9
12	e7.6	e7.3	7.2	7.8	7.2	6.6	7.0	6.5	e5.6	6.2	7.4	6.1
13	e7.8	e7.3	7.1	6.6	7.3	6.5	7.3	22	e5.6	6.2	7.1	3.8
14	e7.8	e7.3	7.1	7.0	7.9	7.2	7.1	6.4	e5.6	11	7.1	4.1
15	e7.6	e7.3	7.0	6.8	6.6	5.3	7.0	e6.0	e5.4	6.7	7.1	5.6
16	e7.6	e7.3	7.2	7.0	6.6	5.5	7.1	e5.8	e5.4	6.5	7.3	5.4
17	e7.6	e7.3	9.3	7.1	6.6	5.8	7.1	e5.4	e5.4	6.3	7.3	5.6
18	e7.3	e7.6	12	6.9	6.8	7.1	7.1	5.3	e5.4	6.1	7.1	---
19	e7.3	e7.8	8.1	7.0	6.9	6.0	7.2	5.4	e5.3	6.0	13	16
20	e7.6	e7.8	7.2	7.3	6.4	5.8	7.1	5.4	e5.3	6.0	5.0	6.9
21	e7.6	e7.3	e7.2	7.1	6.4	5.8	7.2	5.6	e5.3	6.0	21	6.3
22	e7.8	e7.3	e7.2	8.1	6.5	5.9	7.2	5.7	e5.3	12	6.0	6.7
23	e7.8	e7.3	7.2	6.8	6.6	6.0	7.0	5.8	e5.1	4.5	2.7	6.7
24	e7.8	e7.3	7.1	6.6	6.7	6.0	6.7	5.9	e5.1	6.2	5.0	6.5
25	e7.6	e7.3	6.8	7.1	6.8	5.8	6.5	6.1	e5.0	5.6	5.7	7.0
26	e7.6	e7.3	6.9	6.8	6.7	6.0	6.6	7.3	5.0	5.8	5.8	7.0
27	e7.6	e7.3	6.8	6.8	6.8	6.9	6.0	6.2	5.1	6.1	8.3	6.7
28	e7.6	e7.3	6.7	6.8	6.8	6.7	6.5	6.2	5.1	6.0	14	e6.6
29	e7.6	e7.3	6.8	6.7	6.8	6.5	6.4	6.3	5.1	6.0	e5.2	e6.8
30	e7.6	e7.3	6.9	6.9	---	6.5	6.6	7.5	5.3	6.3	e7.0	e6.8
31	e7.6	---	6.9	7.2	---	6.3	---	7.5	---	6.4	6.9	---
TOTAL	239.1	223.3	228.2	218.7	196.2	197.1	210.2	210.0	---	193.8	231.8	---
MEAN	7.71	7.44	7.36	7.05	6.77	6.36	7.01	6.77	---	6.25	7.48	---
MAX	9.3	7.8	12	8.4	7.9	7.2	14	22	---	12	21	---
MIN	7.3	7.3	6.7	6.6	6.4	5.3	6.0	5.3	---	4.5	2.7	---
AC-FT	474	443	453	434	389	391	417	417	---	384	460	---

e Estimated

07311630 MIDDLE WICHITA RIVER NEAR GUTHRIE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1993 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1994 to current year.
TEMPERATURE: October 1994 to current year.

INSTRUMENTATION.--Since October 1994 to current year, a two-parameter monitor continuously records specific conductance and water temperature at this station.

REMARKS.--Interruptions in record are due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 18,900 microsiemens May 26, 1996; minimum, 4,250 microsiemens May 31, 1995.
TEMPERATURE: Maximum, 35.0°C July 9, 10, 1995; minimum, 1.0°C Feb. 4, 1996.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 18,900 microsiemens May 26; minimum, 4,680 microsiemens June 4.
TEMPERATURE: Maximum, 31.5°C Sept. 8 and 9; minimum, 1.0°C Feb. 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)
DEC 04...	1000	7.3	12200	7.7	8.5	12.7	119	2500	2300	760
FEB 05...	1325	6.6	11400	8.1	7.5	12.8	116	3000	2900	990
APR 02...	0915	6.4	10900	7.9	15.0	12.9	140	2600	2400	760
MAY 13...	1050	6.9	11300	7.8	24.0	10.2	133	2400	2200	730
JUL 10...	1015	5.9	11200	8.0	24.5	--	--	2300	2100	690
AUG 22...	1315	6.1	11000	8.0	29.0	--	--	2200	2100	660

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
DEC 04...	140	2100	18	12	190	2200	3000	0.60	11	8340
FEB 05...	140	1900	15	13	180	2500	3100	0.50	13	8770
APR 02...	160	1800	15	11	180	2300	2500	0.60	10	7650
MAY 13...	140	1800	16	12	160	2300	2700	0.60	10	7790
JUL 10...	130	1700	16	12	130	2300	2700	0.60	<0.10	7610
AUG 22...	130	1700	16	12	120	2300	2700	0.50	8.0	7580

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROSIEMENS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1995	239.1	12100	8260	5340	3000	1950	2300	1480	*
NOV.	1995	223.3	12200	8350	5040	3100	1850	2300	1390	*
DEC.	1995	228.2	11800	8150	5020	2900	1810	2300	1420	*
JAN.	1996	218.7	11400	7970	4710	2800	1670	2300	1360	*
FEB.	1996	196.2	11200	7900	4180	2800	1480	2300	1220	*
MAR.	1996	197.1	11200	7860	4180	2800	1470	2300	1230	*
APR.	1996	210.2	11200	7890	4480	2800	1580	2300	1310	*
MAY	1996	210.0	10900	7750	4390	2700	1530	2300	1300	*
JUNE	1996	183.2	12600	8400	4150	3200	1580	2200	1080	*
JULY	1996	193.8	10400	7490	3920	2600	1350	2300	1190	*
AUG.	1996	231.8	9870	7200	4510	2400	1520	2200	1400	2400
SEPT	1996	212.8	10800	7660	4400	2700	1540	2300	1310	*
TOTAL		2544.4	**	**	54300	**	19300	**	15700	**
WTD.AVG.		7.0	11300	7910	**	2800	**	2300	**	**

07311630 MIDDLE WICHITA RIVER NEAR GUTHRIE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12400	12100	12300	12100	12100	12100	12200	12000	12100	11500	10900	11200
2	12500	7170	10400	12300	12100	12200	12200	12100	12200	11300	10900	11100
3	10700	6450	9350	12300	12100	12200	12300	12100	12200	11500	11300	11400
4	11700	10600	11400	12400	12300	12300	12300	12000	12100	11600	11500	11500
5	11900	11700	11900	12300	12200	12200	12200	12000	12200	11500	11500	11500
6	12100	11900	12000	12300	12200	12300	12200	12000	12100	11500	11500	11500
7	12100	11900	12000	12300	12200	12300	12200	11900	12000	11600	11500	11500
8	12100	11900	12000	12400	12200	12300	12100	11800	11900	11500	11400	11500
9	12100	11800	12000	12300	12100	12200	12200	12000	12100	11500	11400	11500
10	12800	12000	12200	12200	12000	12100	12300	11900	12100	11500	11400	11400
11	13000	12200	12500	12200	12100	12200	12000	11800	11900	11400	11400	11400
12	12400	12300	12300	12300	12100	12200	11900	11700	11800	11400	11400	11400
13	12500	12300	12400	12200	12000	12100	11800	11700	11700	11400	11300	11400
14	12500	12400	12400	12200	12000	12100	11900	11700	11800	11400	11300	11300
15	12500	12400	12500	12400	12000	12200	11800	11600	11700	11300	11300	11300
16	12500	12300	12400	12400	12400	12400	11800	11600	11700	11300	11200	11300
17	12400	12300	12400	12400	12400	12400	11800	11300	11600	11300	11200	11300
18	12400	12300	12400	12400	12400	12400	11400	10900	11200	11400	11200	11300
19	12400	12300	12300	12400	12300	12400	12000	11200	11500	11400	11200	11300
20	12400	12300	12300	12400	12200	12300	12100	11800	11900	11500	11400	11400
21	12400	12300	12300	12400	12300	12300	12400	11700	11900	11500	11400	11400
22	12300	12200	12300	12400	12300	12400	12600	11400	11900	11600	11300	11400
23	12300	12200	12300	12500	12200	12300	11600	11400	11500	11600	11500	11500
24	12300	12200	12200	12300	12100	12200	11600	11400	11500	11600	11500	11500
25	12300	12200	12200	12300	12100	12200	11500	11400	11500	11600	11500	11600
26	12400	12100	12300	12200	12000	12100	11500	11400	11500	11500	11400	11500
27	12200	12100	12200	12200	12100	12100	11600	11400	11500	11500	11400	11400
28	12300	12200	12200	12300	12100	12200	11600	11500	11500	11400	11300	11400
29	12300	12300	12300	12300	12100	12200	11600	11500	11600	11300	11300	11300
30	12300	12300	12300	12200	12000	12100	11600	11500	11500	11300	11200	11300
31	12400	12100	12300	---	---	---	11600	11500	11500	11400	11300	11300
MONTH	13000	6450	12100	12500	12000	12200	12600	10900	11800	11600	10900	11400

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11300	11200	11300	11200	11000	11100	11400	11300	11300	11000	10900	10900
2	11300	11200	11300	11000	10900	11000	11300	11200	11300	11000	10900	11000
3	11500	11200	11400	11000	10900	11000	11400	11300	11300	11000	10900	11000
4	11700	11500	11600	11100	11000	11000	11400	11200	11300	11000	10800	10900
5	11600	11300	11500	11100	11000	11100	11300	11200	11200	11100	11000	11100
6	11300	11100	11300	11200	11100	11100	11400	11200	11200	11100	11100	11100
7	11200	11100	11100	11200	11100	11100	11400	11100	11300	11200	11100	11200
8	11100	11000	11100	11200	11000	11100	11300	11100	11200	11300	11200	11200
9	11000	11000	11000	11100	11000	11000	11400	11100	11200	11300	11200	11200
10	11100	11000	11000	11000	10900	11000	11400	11100	11300	11300	11100	11300
11	11100	11000	11100	11100	10900	11000	11500	11100	11300	11200	11000	11100
12	11100	11000	11100	11100	11000	11000	11500	11100	11300	11300	11100	11200
13	11100	11000	11000	11200	11100	11100	11400	11100	11200	11300	10900	11200
14	11400	11000	11100	11300	11100	11200	11500	11200	11400	---	---	e11200
15	11300	11000	11200	11300	11200	11300	11500	11100	11300	---	---	e11200
16	11200	11000	11100	11400	11300	11300	11400	11000	11200	---	---	e11300
17	11200	11000	11100	11400	11200	11300	11400	11100	11200	---	---	e11400
18	11000	10900	10900	11200	10900	11000	11400	11100	11200	---	---	e11100
19	14700	10900	11800	11400	11000	11200	11300	11000	11100	---	---	e11000
20	14800	11100	12300	11600	11400	11500	11200	11000	11100	---	---	e10900
21	11600	11000	11300	11600	11400	11500	11200	10800	11100	---	---	e10800
22	11400	11100	11300	11400	11400	11400	11100	11000	11000	10700	10600	10700
23	11400	11200	11300	11400	11100	11300	11100	10900	11000	10700	10600	10600
24	11200	11000	11100	11400	11300	11300	11200	10800	11000	10700	10500	10600
25	11300	11100	11100	11400	11300	11300	11200	11000	11100	10700	10500	10600
26	11300	11000	11100	11400	11200	11300	18900	10900	12400	10500	10300	10400
27	11200	11100	11100	11200	10900	11100	11600	11000	11200	10600	10300	10400
28	11200	11100	11200	10900	10800	10900	11100	11000	11000	10600	10500	10500
29	11200	11200	11200	11100	10900	11000	11100	10900	11000	10600	10500	10500
30	---	---	---	11300	11100	11200	11000	10900	11000	10500	10100	10400
31	---	---	---	11400	11300	11300	---	---	---	10200	10000	10100
MONTH	14800	10900	11200	11600	10800	11200	18900	10800	11200	11300	10000	10900

e Estimated

07311630 MIDDLE WICHITA RIVER NEAR GUTHRIE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10200	10000	10100	11200	11200	11200	---	---	e8500	---	---	e11000
2	10300	10200	10300	11200	11200	11200	---	---	e9000	---	---	e11000
3	10400	7810	10100	11300	11200	11200	---	---	e9500	---	---	e9000
4	9890	4680	8800	11300	11200	11300	---	---	e9800	---	---	e10000
5	17900	9630	16900	11300	11200	11300	---	---	e10000	---	---	e10500
6	17200	16100	16900	11300	11300	11300	---	---	e10100	---	---	e10900
7	17600	16900	17300	11300	11300	11300	---	---	e10200	11500	11300	11400
8	18400	17400	17800	11300	11300	11300	---	---	e10400	11500	10500	10800
9	18500	16900	17800	11300	11300	11300	---	---	e10000	11400	10600	11000
10	17100	13500	14000	11400	11300	11300	---	---	e10200	11700	11400	11600
11	13900	13200	13600	11400	11200	11300	---	---	e10000	11800	11600	11700
12	13600	13000	13400	---	---	e11200	---	---	e10200	11800	11600	11700
13	13600	12700	13200	---	---	e11200	---	---	e10400	11800	11600	11700
14	12700	12000	12200	---	---	e9000	---	---	e10500	11900	11700	11800
15	12100	11900	12000	---	---	e9600	---	---	e10600	11800	11600	11700
16	12000	11700	11900	---	---	e10000	---	---	e10800	11800	11700	11700
17	11800	11800	11800	---	---	e10200	---	---	e11000	11900	11700	11800
18	11900	11800	11800	---	---	e10400	---	---	e11000	11800	5520	9080
19	11900	11800	11900	---	---	e10600	---	---	e8000	8830	6340	7480
20	11900	11900	11900	---	---	e10800	---	---	e9500	10100	8830	9520
21	11900	11900	11900	---	---	e10900	---	---	e10000	11300	10100	10700
22	11900	11900	11900	---	---	e9000	---	---	e10800	11500	10900	11300
23	12800	10600	11800	---	---	e9600	---	---	e10800	11600	11300	11500
24	12800	11000	11200	---	---	e10000	---	---	e10900	11700	11600	11600
25	11100	11000	11000	---	---	e10200	---	---	e11000	11700	11500	11600
26	11100	11000	11100	---	---	e10400	---	---	e11000	11800	11500	11700
27	11200	11100	11200	---	---	e9800	---	---	e8500	---	---	e11800
28	11200	11200	11200	---	---	e9900	---	---	e8000	---	---	e11600
29	11200	11200	11200	---	---	e10000	---	---	e9500	---	---	e11500
30	11300	11200	11200	---	---	e9600	---	---	e10000	---	---	e11500
31	---	---	---	---	---	e9800	---	---	e10500	---	---	---
MONTH	18500	4680	12600	11400	11200	10500	---	---	10000	11900	5520	11000
YEAR	18900	4680	11300									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.0	18.0	21.5	18.0	17.0	17.5	14.0	9.5	11.5	10.0	5.5	7.5
2	21.0	16.5	18.5	17.5	13.0	15.5	14.5	8.5	11.0	6.5	4.0	5.5
3	23.0	15.5	18.5	13.0	11.0	12.0	14.0	9.5	11.5	7.0	3.5	5.5
4	24.5	16.5	20.0	11.5	9.5	10.0	13.0	8.0	10.5	9.5	5.5	7.0
5	22.5	16.0	19.0	11.5	9.5	10.5	12.5	9.5	11.0	8.5	6.0	7.0
6	21.5	14.5	17.5	15.0	11.5	13.0	11.5	7.0	9.5	6.0	4.0	5.0
7	21.5	13.5	17.0	15.5	15.0	15.0	10.5	7.5	9.0	6.0	2.5	4.0
8	23.5	15.5	19.0	15.0	12.5	13.5	11.5	6.5	9.0	8.0	3.5	5.5
9	24.5	17.0	20.5	17.0	12.5	14.5	7.0	3.5	5.0	9.5	6.0	7.5
10	21.0	17.0	19.5	19.0	12.5	15.5	6.5	1.5	4.0	10.0	6.0	8.0
11	20.5	19.5	20.5	13.5	9.0	11.0	10.0	4.5	7.0	10.5	7.5	9.0
12	20.5	19.5	20.0	15.0	8.5	11.5	12.0	7.0	9.5	11.0	7.0	8.5
13	20.5	18.5	19.5	16.0	11.0	13.0	13.5	9.5	11.0	11.0	7.0	9.0
14	19.0	16.0	17.0	15.0	10.5	12.5	13.5	9.5	11.5	12.0	8.5	10.0
15	17.0	15.0	16.0	13.0	10.5	12.0	12.5	9.5	11.0	11.5	8.5	10.0
16	17.0	16.0	16.5	13.5	12.0	12.5	10.5	8.0	9.5	12.5	8.5	10.0
17	17.5	16.5	17.0	13.5	12.5	12.5	11.5	10.0	11.0	12.0	9.0	10.5
18	18.5	17.0	17.5	13.5	13.0	13.0	11.0	7.5	9.5	9.5	3.5	5.5
19	19.0	18.0	18.5	14.0	13.0	13.5	9.5	6.5	8.0	6.0	3.0	4.0
20	18.0	15.0	16.0	14.0	13.5	14.0	7.0	5.0	6.0	8.5	4.5	6.0
21	16.0	14.0	15.0	14.0	12.5	13.5	7.5	6.0	6.5	9.0	5.0	7.0
22	17.0	15.0	16.0	13.5	12.5	13.0	8.0	6.5	7.5	12.0	7.0	9.0
23	17.0	15.5	16.5	13.5	12.0	13.0	7.5	4.5	6.0	11.5	7.5	9.0
24	15.5	12.5	14.0	14.0	10.0	12.0	8.5	5.0	7.0	9.0	5.0	7.0
25	15.5	13.0	14.0	15.0	9.5	12.0	8.5	5.0	6.5	10.0	5.5	7.5
26	17.5	15.5	16.5	14.0	10.5	12.0	9.5	5.5	7.5	9.5	5.5	7.5
27	17.5	16.5	17.0	13.5	9.5	12.0	9.5	6.0	7.5	7.5	4.0	6.0
28	16.5	14.5	15.5	11.0	7.5	9.0	8.5	5.5	7.0	9.5	5.0	6.5
29	15.5	14.0	14.5	12.0	7.0	9.0	8.0	5.5	6.5	9.5	6.5	8.0
30	16.5	15.5	16.0	13.0	7.5	10.0	10.0	7.5	8.5	9.0	5.5	6.5
31	19.0	16.5	17.0	---	---	---	10.5	6.5	8.5	6.0	3.5	4.5
MONTH	25.0	12.5	17.5	19.0	7.0	12.5	14.5	1.5	8.5	12.5	2.5	7.0

07311630 MIDDLE WICHITA RIVER NEAR GUTHRIE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	3.0	4.0	8.0	6.0	7.0	15.0	13.5	14.5	19.5	16.5	18.0
2	4.0	2.5	3.5	10.0	7.5	8.5	16.5	14.5	15.5	20.0	19.0	19.5
3	4.0	1.5	2.5	11.5	10.0	10.5	17.5	15.5	16.5	24.5	20.0	22.0
4	4.5	1.0	2.5	15.5	11.5	13.0	17.5	13.0	16.0	25.5	24.0	24.5
5	---	---	---	15.5	14.5	15.0	13.0	10.0	11.0	26.0	24.0	25.0
6	11.0	5.0	8.0	15.0	9.5	13.0	17.5	8.5	12.5	26.5	25.0	26.0
7	16.0	8.5	11.5	9.5	6.0	7.0	19.0	10.5	14.0	27.0	26.0	26.5
8	17.0	12.0	14.0	7.5	6.0	6.5	19.5	12.5	15.5	27.5	26.5	27.0
9	17.5	11.0	14.0	8.5	6.5	7.5	23.5	12.5	17.5	27.0	26.5	26.5
10	18.0	12.5	14.5	10.0	8.0	9.0	23.0	15.0	18.5	27.0	24.5	26.0
11	14.0	9.0	11.5	12.0	10.0	11.0	25.0	16.5	20.0	24.5	23.0	24.0
12	13.5	8.0	10.5	14.5	12.0	13.0	23.5	16.5	19.5	24.5	23.5	24.0
13	15.0	8.0	11.0	16.0	13.5	15.0	22.5	13.5	17.5	27.5	22.0	25.0
14	18.0	11.0	14.0	18.0	15.5	16.5	20.0	13.0	16.0	---	---	---
15	16.5	11.5	14.0	18.0	16.0	16.5	21.0	12.0	15.5	---	---	---
16	14.0	8.0	11.0	16.0	15.0	15.5	21.0	13.0	16.5	---	---	---
17	15.0	7.5	11.0	15.5	15.0	15.0	23.5	13.5	18.0	---	---	---
18	13.0	8.5	11.0	15.0	13.5	14.5	25.0	14.5	19.5	26.0	25.0	25.5
19	18.0	10.0	13.0	14.5	13.5	14.0	25.0	15.5	19.5	25.5	25.0	25.0
20	15.5	14.0	14.5	13.5	11.5	12.5	24.5	14.0	18.5	25.5	25.0	25.0
21	16.5	14.0	15.0	13.0	12.0	12.5	25.5	14.5	19.5	25.0	24.5	25.0
22	16.5	15.0	16.0	15.0	13.0	13.5	22.0	16.0	19.0	27.5	25.0	26.0
23	16.5	15.0	16.0	18.5	14.5	16.5	24.0	13.0	18.0	27.0	26.0	26.5
24	15.0	12.5	13.5	19.0	16.0	18.0	25.0	14.5	19.0	27.5	26.0	26.5
25	14.5	12.5	13.5	16.0	10.5	12.5	24.0	16.5	20.0	26.5	24.0	26.0
26	17.5	14.0	15.5	11.5	7.5	9.5	24.0	15.0	19.5	25.0	24.0	24.5
27	17.0	14.0	16.0	9.0	7.0	8.0	23.0	21.5	22.5	25.0	23.0	24.0
28	14.0	8.5	11.0	10.0	8.0	9.0	24.0	19.5	22.0	23.5	22.5	23.0
29	9.5	6.5	8.0	13.5	10.0	11.5	19.5	16.0	17.5	22.5	21.5	22.0
30	---	---	---	16.0	13.5	14.5	17.0	16.0	16.5	22.5	21.0	21.5
31	---	---	---	15.5	14.0	14.5	---	---	---	22.5	21.0	21.5
MONTH	18.0	1.0	11.5	19.0	6.0	12.5	25.5	8.5	17.5	27.5	16.5	24.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	22.5	23.0	27.5	27.5	27.5	---	---	---	---	---	---
2	24.5	24.0	24.5	27.5	27.0	27.0	---	---	---	---	---	---
3	26.0	24.5	25.0	27.0	26.0	26.5	---	---	---	---	---	---
4	26.0	22.0	23.5	26.5	26.0	26.0	---	---	---	---	---	---
5	27.5	21.5	23.5	27.5	26.0	27.0	---	---	---	---	---	---
6	29.5	23.5	26.0	27.5	26.5	27.0	---	---	---	---	---	---
7	29.0	22.5	25.5	27.0	26.5	27.0	---	---	---	30.0	22.0	25.5
8	28.5	20.5	24.5	27.0	26.5	26.5	---	---	---	31.5	23.0	27.0
9	29.0	20.5	24.5	26.5	25.0	26.0	---	---	---	31.5	22.0	26.0
10	30.5	22.5	26.0	25.0	23.5	24.0	---	---	---	31.0	22.0	26.0
11	31.0	23.5	27.0	24.5	23.5	24.0	---	---	---	30.5	22.0	26.0
12	31.0	24.0	27.0	---	---	---	---	---	---	26.5	23.0	25.0
13	30.0	27.0	28.0	---	---	---	---	---	---	25.5	23.0	24.0
14	27.0	26.5	27.0	---	---	---	---	---	---	25.0	23.5	24.0
15	28.0	26.5	27.0	---	---	---	---	---	---	25.5	23.5	24.0
16	30.5	27.5	28.0	---	---	---	---	---	---	24.5	23.5	24.5
17	29.5	28.0	28.5	---	---	---	---	---	---	24.5	23.5	24.0
18	28.5	27.5	28.0	---	---	---	---	---	---	24.5	21.5	23.5
19	29.0	28.0	28.5	---	---	---	---	---	---	27.5	21.5	23.5
20	29.0	28.5	28.5	---	---	---	---	---	---	27.0	19.0	22.5
21	29.0	28.5	28.5	---	---	---	---	---	---	27.5	19.0	23.0
22	28.5	28.0	28.5	---	---	---	---	---	---	28.5	20.5	24.0
23	28.5	28.0	28.0	---	---	---	---	---	---	30.0	23.0	25.5
24	28.5	27.0	28.0	---	---	---	---	---	---	25.5	21.0	22.5
25	28.0	26.5	27.0	---	---	---	---	---	---	25.5	20.0	22.5
26	28.5	27.0	27.5	---	---	---	---	---	---	23.5	19.0	21.5
27	28.5	28.0	28.0	---	---	---	---	---	---	---	---	---
28	28.0	27.5	27.5	---	---	---	---	---	---	---	---	---
29	28.0	27.5	27.5	---	---	---	---	---	---	---	---	---
30	27.5	27.5	27.5	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	31.0	20.5	26.5	27.5	23.5	26.5	---	---	---	31.5	19.0	24.0
YEAR	31.5	1.0	16.0									

07311700 NORTH WICHITA RIVER NEAR TRUSCOTT, TX

LOCATION.--Lat 33°49'14", long 99°47'10", Foard-Knox County line, Hydrologic Unit 11130204, near right bank at downstream side of bridge on State Highway 6, 4.5 mi north of Truscott, about 47.6 mi upstream from confluence with South Wichita River, and 188.4 mi upstream from mouth.

DRAINAGE AREA.--937 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. There is one small diversion for irrigation upstream from station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900 occurred in September 1919; the next highest flood occurred in May 1954, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	43	36	34	31	19	22	29	e18	14	22	45
2	261	38	34	34	31	18	22	33	e17	15	27	21
3	334	31	34	34	e33	18	21	21	e17	16	19	44
4	201	30	34	32	e38	18	21	21	e17	16	13	38
5	103	31	33	30	e42	17	22	22	e17	15	9.4	14
6	67	33	33	30	30	18	28	21	e17	26	8.4	11
7	54	34	34	29	24	20	25	22	e17	16	7.6	8.0
8	49	e34	34	29	23	19	23	22	e16	13	6.5	111
9	45	e34	34	27	21	19	24	20	e16	13	29	80
10	44	e34	34	27	20	19	24	19	e16	14	60	46
11	42	e34	34	25	18	18	23	21	e16	17	35	19
12	38	e34	34	24	17	18	21	22	e15	25	19	11
13	34	e34	33	24	17	19	22	e20	e15	24	15	8.6
14	34	e34	33	23	18	18	21	e20	e15	22	13	17
15	34	e34	33	23	17	17	21	e20	e15	22	12	18
16	33	e35	33	22	17	19	21	e20	e15	21	13	7.9
17	33	e35	33	21	17	19	22	e20	e15	17	14	7.6
18	33	e35	34	20	17	32	21	e20	e14	13	12	10
19	33	e35	34	21	17	31	21	e20	e14	11	10	52
20	31	e35	33	21	18	25	22	e20	e14	9.6	9.0	139
21	31	e35	33	22	17	20	22	e20	e14	7.9	9.6	67
22	31	e35	33	22	14	19	22	e20	e14	7.5	13	39
23	30	e35	33	23	15	20	23	e19	e13	7.4	11	31
24	29	e36	33	24	16	20	23	e19	e13	31	15	28
25	29	e36	33	24	15	20	22	e19	e13	24	15	26
26	30	e36	34	24	16	21	21	e19	e44	22	14	26
27	31	e36	33	26	16	30	23	e19	33	29	20	37
28	31	e36	33	25	17	35	23	e18	24	15	209	30
29	30	e36	33	26	18	33	21	e18	19	13	246	26
30	29	e36	34	29	---	29	20	e18	15	13	152	23
31	32	---	34	30	---	24	---	e18	---	13	122	---
TOTAL	1884	1044	1040	805	610	672	667	640	518	522.4	1180.5	1041.1
MEAN	60.8	34.8	33.5	26.0	21.0	21.7	22.2	20.6	17.3	16.9	38.1	34.7
MAX	334	43	36	34	42	35	28	33	44	31	246	139
MIN	29	30	33	20	14	17	20	18	13	7.4	6.5	7.6
AC-FT	3740	2070	2060	1600	1210	1330	1320	1270	1030	1040	2340	2070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

MEAN	109	31.4	27.7	24.5	28.3	31.3	45.3	114	158	49.4	84.9	107
MAX	1170	76.2	120	68.5	149	102	275	771	737	317	1266	818
(WY)	1984	1995	1992	1992	1990	1990	1987	1995	1975	1966	1965
MIN	3.90	10.4	11.8	8.23	6.16	5.49	7.61	16.4	11.9	.72	1.17	3.51
(WY)	1964	1968	1964	1965	1965	1965	1964	1965	1970	1964	1964	1968

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	60752		10624.0			
ANNUAL MEAN	166		29.0		67.3	
HIGHEST ANNUAL MEAN					193	1966
LOWEST ANNUAL MEAN					17.2	1983
HIGHEST DAILY MEAN	13000	Jun 5	334	Oct 3	19400	Sep 19 1965
LOWEST DAILY MEAN	17	May 22	6.5	Aug 8	.02	Aug 22 1974
ANNUAL SEVEN-DAY MINIMUM	20	Apr 10	10	Jul 17	.13	Jul 30 1965
INSTANTANEOUS PEAK FLOW			561	Aug 28	28900	Sep 19 1965
INSTANTANEOUS PEAK STAGE			9.19	Aug 28	21.96	Sep 19 1965
ANNUAL RUNOFF (AC-FT)	120500		21070		48790	
10 PERCENT EXCEEDS	189		36		67	
50 PERCENT EXCEEDS	34		22		20	
90 PERCENT EXCEEDS	22		14		7.5	

e Estimated

07311700 NORTH WICHITA RIVER NEAR TRUSCOTT, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: February 1954 to March 1959, July 1968 to December 1989, September 1990 to June 1992. Sediment analyses: April 1978 to December 1989. Chemical and biochemical analyses: September 1990 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1968 to December 1989, September 1990 to June 1992, October 1994 to current year.
WATER TEMPERATURE: July 1968 to December 1989, September 1990 to June 1992, October 1994 to current year.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

INSTRUMENTATION.--From August 1968 to December 1989, September 1990 to June 1992, October 1994 to current year, specific conductance was recorded continuously at this station. From June 1982 to December 1989, September 1990 to June 1992, October 1994 to current year, water temperature was recorded continuously at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,800 microsiemens Oct. 9, 1982; minimum, 400 microsiemens June 7, 8, 1985.
WATER TEMPERATURE: Maximum, 39.0°C Aug. 21, 23, 1969, Aug. 22, 1973; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 20,700 microsiemens Aug. 7 and 8; minimum, 915 microsiemens, Sept. 4.
WATER TEMPERATURE: Maximum, 36.5°C July 1; minimum, 0.0°C on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLVED FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
DEC 01...	1040	36	13400	7.9	9.0	12.7	121	2500	2300	670	190
FEB 05...	1625	43	14000	8.0	4.5	13.4	113	2600	2400	710	200
MAR 27...	1055	31	15200	7.9	5.0	10.8	93	2800	2700	740	240
MAY 13...	1255	20	17500	8.0	26.0	--	--	2600	2500	740	190
JUL 11...	1340	17	18700	8.0	29.0	9.2	132	2600	2500	740	180
AUG 23...	1315	11	20100	8.0	27.0	9.4	131	2900	2900	860	190

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
DEC 01...	2300	20	12	160	2000	3500	0.40	5.5	8780	0.750	0.750
FEB 05...	2500	21	12	180	2100	4100	0.50	8.6	9740	1.49	1.49
MAR 27...	2700	22	12	110	2300	4300	0.50	2.9	10400	0.280	0.280
MAY 13...	3100	26	15	90	2600	5200	0.50	3.4	11900	0.050	--
JUL 11...	3400	29	17	62	2600	5200	0.60	1.4	12200	0.060	0.060
AUG 23...	3800	31	19	57	2700	5900	0.50	0.70	13500	--	--

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)
DEC 01...	0.020	0.770	0.770	0.090	--	<0.20	<0.010	<0.010	1	<100
FEB 05...	0.010	1.50	1.50	0.180	--	<0.20	0.010	<0.010	--	--
MAR 27...	0.020	0.300	0.300	0.200	--	<0.20	<0.010	<0.010	--	--
MAY 13...	<0.010	0.050	0.050	0.190	0.11	0.30	0.010	<0.010	--	--
JUL 11...	0.010	0.070	0.070	0.300	0.10	0.40	<0.010	<0.010	2	52
AUG 23...	<0.010	--	<0.050	0.250	0.0	0.20	<0.010	<0.010	--	--

07311700 NORTH WICHITA RIVER NEAR TRUSCOTT, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 01...	<4.0	<10	2.0	<10	<4.0	30	0.1	12	<1.0	<10
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--
JUL 11...	<10	<1.0	13	<30	<10	17	0.9	4	<4.0	46
AUG 23...	--	--	--	--	--	--	--	--	--	--

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	1884	8420	5490	27900	2000	10400	1500	7660	1600
NOV.	1995	1044	13000	8610	24300	3400	9650	2100	5940	*
DEC.	1995	1040	13300	8810	24700	3500	9880	2100	6000	*
JAN.	1996	805	13500	8980	19500	3600	7830	2200	4690	*
FEB.	1996	610	13900	9230	15200	3700	6130	2200	3610	*
MAR.	1996	672	14700	9780	17800	4000	7260	2300	4110	*
APR.	1996	667	17300	11700	21000	5000	8970	2500	4450	*
MAY	1996	640	17000	11400	19800	4900	8400	2400	4230	*
JUNE	1996	518	17100	11500	16100	4900	6850	2500	3430	*
JULY	1996	522.4	17100	11500	16200	4900	6910	2400	3450	*
AUG.	1996	1180.5	11700	7820	24900	3200	10300	1800	5700	*
SEPT	1996	1041.1	9680	6350	17800	2400	6820	1700	4680	1800
TOTAL		10624.0	**	**	245000	**	99300	**	58000	**
WTD.AVG.		29	12900	8550	**	3500	**	2000	**	**

07311700 NORTH WICHITA RIVER NEAR TRUSCOTT, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10100	9840	9930	12500	11900	12300	13400	13300	13400	13100	12700	12900
2	10200	2290	6630	12600	12500	12600	13400	13300	13400	12900	12700	12800
3	10300	3890	6580	12600	12400	12500	13400	13300	13400	12900	12700	12800
4	10000	4710	6190	12800	12400	12700	13400	13300	13400	12800	12600	12700
5	6310	5190	5710	12800	12700	12800	13500	13400	13400	13000	12800	12900
6	5790	5460	5580	12900	12800	12900	13500	13400	13500	13300	13000	13200
7	6480	5790	6080	12900	12800	12900	13600	13400	13500	13500	13300	13400
8	7090	6430	6720	13100	12900	13000	13600	13400	13500	13700	13400	13600
9	7710	7090	7400	13000	12900	13000	13700	13600	13700	13800	13400	13600
10	8410	7710	8130	13100	12900	12900	13800	13600	13700	13600	13300	13500
11	9070	8410	8750	13200	13100	13100	13800	13500	13700	13400	13300	13400
12	9680	9070	9380	13200	12800	13000	13700	13500	13600	13400	13300	13300
13	10400	9680	10000	13200	13000	13100	13600	13500	13600	13500	13200	13400
14	10800	10400	10700	13300	13100	13200	13600	13400	13500	13600	13500	13500
15	11000	10800	10900	13300	13200	13200	13700	13400	13500	13600	13500	13500
16	11300	11000	11200	13300	13100	13200	13600	13600	13600	13700	13600	13600
17	11600	11300	11500	13200	13100	13100	13600	12900	13300	13600	13500	13600
18	11700	11600	11700	13100	13000	13100	12900	12300	12800	---	---	e13800
19	12000	11700	11800	13300	13000	13200	13000	12500	12700	---	---	e13800
20	12200	12000	12100	13100	13000	13000	12900	12700	12800	---	---	e13900
21	12300	12200	12200	13000	12900	13000	12700	12000	12300	---	---	e13900
22	12400	12200	12300	13000	12900	13000	12900	12100	12700	---	---	e14000
23	12600	12300	12500	13100	13000	13000	13200	12900	13100	---	---	e14000
24	12700	12600	12700	13200	13100	13100	13400	13200	13300	---	---	e14000
25	12800	12600	12700	13200	13000	13100	13700	13200	13400	---	---	e14100
26	12800	12600	12700	13100	13000	13000	13400	13200	13300	14200	13900	14100
27	12800	12700	12800	13200	12800	13100	13200	13000	13100	14100	14000	14100
28	12800	12700	12800	13400	13200	13300	13200	13100	13100	14100	13900	14000
29	12800	12600	12700	13400	13300	13400	13300	13200	13300	14000	13700	13900
30	12800	12800	12800	13400	13300	13400	13300	13100	13200	14000	13800	13900
31	12800	12200	12700	---	---	---	13300	13100	13200	14100	14000	14000
MONTH	12800	2290	10200	13400	11900	13000	13800	12000	13300	14200	12600	13600

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14000	13800	14000	15000	14600	14800	16300	15700	16000	---	---	e16800
2	14300	13800	14000	14900	14600	14800	16500	16000	16300	---	---	e16400
3	14500	13400	13900	14800	14500	14700	17000	16300	16600	---	---	e16200
4	14500	13100	13800	14600	14300	14500	17600	16900	17200	17600	15200	15900
5	14600	13500	14000	14500	14400	14400	18000	17600	17800	16400	15600	15900
6	14300	13300	13700	14800	14500	14500	18300	17800	18100	17400	16300	16900
7	13800	13000	13400	15000	14700	14800	18500	17700	18300	17300	16900	17100
8	13300	13200	13200	14900	14700	14800	18600	17700	18200	17400	17000	17200
9	13400	13200	13300	14900	14600	14800	---	---	e18300	17500	17100	17300
10	13500	13300	13400	14800	14500	14700	---	---	e18200	17600	17200	17500
11	13700	13500	13600	14800	14500	14600	---	---	e18100	17700	17400	17600
12	13900	13700	13900	14800	14500	14700	---	---	e18000	17600	17200	17400
13	14000	13800	13900	14800	14300	14500	---	---	e17700	17500	17300	17400
14	14100	13900	14000	14700	14400	14500	---	---	e17600	17400	17000	17300
15	14100	13800	14000	14800	14400	14600	---	---	e17500	17600	17200	17400
16	14200	14000	14200	14600	14300	14500	---	---	e17400	17700	16700	17400
17	14300	14000	14200	14600	14100	14500	---	---	e17300	17500	16900	17100
18	14400	14300	14400	14200	13600	13900	---	---	e17200	---	---	e17100
19	14400	14100	14300	14400	14000	14200	---	---	e17100	---	---	e17200
20	14100	13800	14000	14400	14100	14300	---	---	e17000	---	---	e17200
21	13900	13800	13900	14200	13900	14100	---	---	e16900	---	---	e17100
22	13900	13700	13800	14300	14000	14200	---	---	e16800	---	---	e17100
23	14200	13800	14000	14600	14200	14400	---	---	e16900	---	---	e17000
24	14300	13900	14100	15100	14500	14700	---	---	e17000	---	---	e17000
25	14000	13800	13900	15700	15100	15300	---	---	e17000	---	---	e17200
26	14200	14000	14100	16000	15600	15900	---	---	e17100	---	---	e17200
27	14200	14100	14100	15600	14900	15200	---	---	e17100	---	---	e17200
28	14100	14000	14100	15200	14700	14900	---	---	e17000	---	---	e17100
29	14900	14000	14400	15000	14700	14800	---	---	e17000	---	---	e17100
30	---	---	---	15300	14900	15100	---	---	e17100	---	---	e17100
31	---	---	---	15800	15300	15500	---	---	---	---	---	e17200
MONTH	14900	13000	13900	16000	13600	14700	18600	15700	17300	17700	15200	17100

e Estimated

07311700 NORTH WICHITA RIVER NEAR TRUSCOTT, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e17200	18900	16100	17400	19200	10300	16900	7040	5420	6630
2	---	---	e17300	16100	15400	15600	19700	9900	17200	6650	6300	6470
3	---	---	e17200	15500	14200	15000	19500	6800	16800	6910	1120	6260
4	---	---	e17100	14200	13700	13900	19700	18700	19600	7270	915	4270
5	---	---	e17000	15700	13900	14700	19700	19400	19500	8720	7260	7910
6	---	---	e17000	17200	15700	16700	20400	19600	19900	10200	8720	9280
7	---	---	e16900	17800	17200	17400	20700	20400	20500	10400	10200	10300
8	---	---	e16800	18100	17800	18000	20700	20000	20200	10400	1110	5520
9	---	---	e16800	18300	17900	18100	20100	9060	18200	10200	5560	8000
10	---	---	e16800	18500	18300	18400	19800	2700	11000	11400	8360	9810
11	---	---	e16800	18600	18400	18500	20200	12800	16600	9910	8460	9100
12	---	---	e16900	19100	18400	18800	13900	12700	13300	11900	9910	10300
13	17100	16800	17000	18600	16000	16900	16000	13800	14600	14200	11900	13400
14	17200	16800	17100	17100	15800	16500	17200	16000	16400	14300	1350	13400
15	---	---	e17000	17900	17100	17600	18100	17200	17800	12100	5870	10700
16	---	---	e17000	18400	17900	18000	17600	16200	16600	12000	11700	11900
17	---	---	e17000	18600	18400	18500	18000	16600	17400	13900	11900	12800
18	---	---	e17100	18700	18300	18500	19000	18000	18400	14500	13100	13900
19	17700	16800	17200	18300	17300	17700	19700	19000	19300	14500	7300	12500
20	---	---	e17300	17300	16900	17000	19900	19600	19700	15800	10600	13600
21	18100	16700	17400	18200	17200	17500	20000	19700	19800	16300	13500	15700
22	18500	18100	18300	19300	18200	18700	20300	20000	20200	13500	7750	9740
23	18700	17900	18500	19800	19300	19500	20300	19800	20100	7750	7170	7320
24	17900	15800	16900	19800	5260	14300	20000	19500	19700	7640	7250	7410
25	15800	14800	15100	19200	7680	17400	20300	18900	19800	8280	7640	7970
26	17800	14800	15800	18600	17900	18300	19200	18600	18900	8810	7570	8500
27	17900	16700	17300	18500	10700	17000	19300	18000	18800	9440	8810	9130
28	18000	17200	17400	18100	16700	17300	19200	7850	17200	10700	9430	9900
29	19800	18000	18900	17600	15900	16600	8340	4250	5420	11800	10700	11300
30	20000	18900	19700	17500	16300	16700	5570	3830	4540	13100	11800	12500
31	---	---	---	18800	17200	17900	5420	3820	4480	---	---	---
MONTH	20000	14800	17200	19800	5260	17200	20700	2700	16700	16300	915	9850
YEAR	20700	915	14500									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.5	19.5	22.5	20.0	15.5	17.5	12.0	8.0	10.0	8.0	3.5	5.5
2	22.5	17.0	19.5	17.0	11.5	14.0	12.5	8.0	10.5	4.5	2.0	3.0
3	20.5	17.0	18.5	12.0	9.5	10.5	12.5	9.0	11.0	4.0	.0	2.5
4	22.0	18.0	20.0	9.5	8.0	8.5	11.5	8.5	10.5	6.5	2.5	4.5
5	21.0	17.0	19.0	13.0	7.5	10.0	11.0	9.0	10.0	5.5	2.5	4.0
6	20.5	15.5	18.0	16.0	12.5	14.0	10.0	6.5	8.5	3.0	1.0	2.0
7	20.5	14.5	18.0	16.0	13.0	14.5	9.0	6.5	8.0	2.5	.0	1.0
8	22.0	16.0	19.0	14.5	10.5	12.5	10.0	6.0	8.0	4.5	.0	2.0
9	24.0	18.0	21.0	16.5	11.0	14.0	6.0	2.5	3.5	7.0	2.5	5.0
10	24.5	18.5	22.0	18.5	13.0	15.5	4.0	.5	2.5	7.5	3.0	5.5
11	24.5	19.0	22.0	13.0	8.5	10.5	7.0	2.5	4.5	9.0	5.5	7.0
12	24.0	19.0	22.0	13.0	8.0	11.0	8.5	5.0	7.0	9.0	4.5	6.5
13	22.0	18.5	20.5	14.5	10.5	12.5	10.5	7.0	8.5	9.5	5.0	7.5
14	20.0	14.5	17.5	14.0	10.5	12.5	11.0	7.5	9.5	10.5	6.5	8.5
15	20.5	14.5	17.5	14.0	10.5	12.5	11.0	8.0	9.5	10.0	7.0	8.5
16	20.5	15.0	18.0	13.5	9.5	12.0	9.5	7.5	8.0	11.0	6.5	9.0
17	20.5	15.5	18.0	14.5	11.0	13.0	10.0	8.5	9.0	10.5	8.0	9.0
18	21.5	16.5	19.0	14.5	10.5	13.0	9.5	5.5	7.5	8.5	1.0	3.5
19	20.5	17.0	19.0	16.0	11.5	14.0	7.0	4.5	6.0	3.0	.0	1.0
20	18.0	13.0	16.0	15.5	11.5	14.0	6.0	3.5	4.0	5.5	1.0	3.0
21	18.0	12.5	15.5	14.0	11.0	13.0	4.5	3.5	4.0	6.5	1.5	4.0
22	20.0	14.5	17.0	15.0	11.0	13.0	4.5	3.0	4.0	10.0	4.5	7.5
23	18.5	14.5	16.5	13.5	10.5	11.5	4.5	1.0	3.0	9.5	5.0	7.0
24	16.0	11.0	13.5	12.5	8.0	10.5	5.5	2.0	4.0	7.0	2.0	4.5
25	18.5	13.0	16.0	13.0	9.0	11.0	5.5	1.5	4.0	8.0	3.0	6.0
26	20.5	16.0	18.0	13.0	10.5	12.0	7.0	2.5	5.0	7.5	3.0	5.0
27	19.0	14.5	17.0	12.5	9.5	11.5	7.0	3.5	5.5	5.5	.5	3.5
28	17.0	13.0	15.5	9.5	6.5	8.0	5.5	2.5	4.5	7.5	2.0	5.0
29	18.5	13.5	16.0	9.5	6.0	8.0	5.0	3.0	4.0	8.0	4.0	6.0
30	17.5	16.5	17.0	10.5	6.0	8.5	8.0	5.0	6.0	6.0	2.0	4.0
31	18.5	16.5	17.5	---	---	---	8.5	4.5	6.5	2.5	.0	1.0
MONTH	24.5	11.0	18.5	20.0	6.0	12.0	12.5	.5	6.5	11.0	.0	5.0

07311700 NORTH WICHITA RIVER NEAR TRUSCOTT, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	.0	.5	9.5	1.5	5.5	19.0	10.5	14.5	24.5	14.5	19.0
2	.0	.0	.0	12.5	4.5	8.5	20.5	12.0	16.0	27.5	16.0	21.5
3	1.0	.0	.0	14.5	7.0	11.0	22.5	13.5	17.5	29.5	20.5	24.5
4	1.0	.0	.0	18.0	10.5	14.0	18.0	13.0	15.5	31.5	21.5	26.0
5	4.5	.0	1.5	16.5	13.0	14.5	13.0	9.0	10.5	31.5	23.0	27.0
6	5.5	.0	3.0	14.0	5.0	10.5	17.5	7.5	12.0	30.5	22.0	26.0
7	11.0	4.0	7.5	8.5	1.5	5.0	19.0	10.5	15.0	32.0	23.0	27.0
8	14.0	8.5	11.5	8.5	3.0	5.5	19.5	13.5	16.0	31.0	23.0	26.5
9	14.5	9.0	12.0	10.5	3.0	6.5	23.5	14.0	18.5	31.0	22.0	26.0
10	15.0	10.0	12.5	13.5	5.5	9.0	23.0	16.0	19.5	28.5	22.0	24.5
11	11.5	7.5	9.5	15.0	8.0	11.0	25.5	17.0	21.0	28.5	19.0	23.0
12	11.0	6.0	8.5	17.5	9.5	13.5	23.5	17.0	20.0	29.0	19.5	24.0
13	12.5	6.0	9.5	20.5	12.0	16.0	23.0	14.5	18.5	29.0	22.0	25.5
14	15.5	9.0	12.0	21.0	15.5	17.5	19.5	13.5	16.5	31.0	22.5	26.5
15	14.5	9.5	12.0	19.5	12.5	16.0	21.5	11.0	16.0	32.0	23.0	27.0
16	11.0	6.5	9.0	19.0	12.0	15.5	22.0	13.5	17.5	32.5	22.5	27.0
17	12.0	6.0	9.0	18.0	12.0	15.0	24.0	14.5	19.0	32.0	22.5	26.5
18	10.5	6.5	9.0	17.0	11.0	14.0	25.0	16.0	20.5	31.5	22.5	26.5
19	15.0	7.5	11.0	15.5	10.0	12.5	24.5	17.0	20.5	30.0	22.5	26.0
20	15.5	10.5	13.0	15.0	8.0	11.5	23.5	15.0	19.0	31.0	22.0	26.5
21	17.5	11.5	14.0	17.0	8.5	12.5	25.5	16.0	20.0	32.5	22.5	27.5
22	18.0	12.0	15.0	19.5	11.5	15.5	22.5	16.0	19.0	34.0	24.5	28.0
23	15.5	12.0	14.0	22.0	15.0	18.0	23.5	13.0	18.0	33.0	23.0	27.5
24	13.5	9.0	11.5	19.0	12.5	17.0	25.0	15.5	19.5	33.0	23.5	27.5
25	16.5	11.5	14.0	13.0	7.0	10.5	23.0	16.0	19.5	27.0	22.5	25.0
26	19.0	13.5	16.0	9.5	5.5	6.5	25.5	15.5	20.0	28.0	17.0	23.5
27	16.0	10.5	13.5	5.5	4.5	5.0	27.0	17.5	22.0	29.5	19.5	24.0
28	10.5	5.5	8.0	13.0	5.0	8.5	23.5	16.0	20.0	28.0	19.5	23.5
29	6.5	4.0	5.0	17.0	9.5	13.0	20.5	11.5	16.0	26.0	20.0	23.0
30	---	---	---	18.5	12.5	15.5	21.5	12.0	16.5	23.5	21.0	22.5
31	---	---	---	18.0	10.0	14.0	---	---	---	30.0	20.5	25.0
MONTH	19.0	.0	9.0	22.0	1.5	12.0	27.0	7.5	18.0	34.0	14.5	25.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29.5	23.0	26.0	36.5	26.5	31.0	34.0	25.5	29.5	28.5	23.5	25.5
2	32.0	23.0	27.0	33.5	27.0	30.0	33.5	26.5	29.5	29.5	23.5	26.5
3	30.5	21.5	26.5	33.5	25.0	29.0	34.0	24.5	29.0	31.0	22.0	27.0
4	32.0	20.0	26.5	36.0	26.0	30.5	34.0	24.5	29.0	27.5	22.0	24.5
5	29.0	20.0	25.0	35.0	26.0	30.0	33.5	25.5	28.5	29.0	22.5	25.5
6	31.5	24.0	27.5	34.5	25.5	29.5	33.5	25.5	29.0	30.0	23.5	26.5
7	30.5	22.5	26.0	36.0	26.0	30.5	34.0	24.5	28.5	31.0	24.0	27.5
8	30.5	21.5	25.5	34.0	26.0	29.5	33.0	24.5	28.0	29.5	21.5	26.0
9	32.0	21.5	26.0	33.0	25.0	28.0	32.5	24.5	27.5	30.5	24.0	27.5
10	33.5	23.0	28.0	27.0	23.0	24.5	31.5	24.0	27.5	30.5	24.0	27.0
11	34.0	25.0	29.5	31.0	23.0	26.0	34.5	24.5	28.5	30.5	23.0	27.0
12	34.0	24.5	29.0	32.5	25.0	28.5	32.0	24.5	27.5	27.5	24.0	26.0
13	34.5	25.5	29.0	34.0	26.0	29.0	32.5	22.5	27.5	26.0	23.5	24.5
14	34.5	24.5	29.0	31.5	25.5	28.5	33.0	24.0	28.0	26.0	22.0	23.5
15	35.0	26.0	30.0	34.5	25.0	29.0	29.0	24.5	26.5	28.0	22.5	24.5
16	34.0	27.0	30.0	33.5	26.5	29.5	30.5	23.5	26.5	27.5	21.0	24.0
17	35.0	25.5	30.0	33.5	25.0	29.0	32.5	24.0	27.5	27.5	21.5	24.0
18	35.5	26.5	30.5	33.5	24.5	29.0	33.0	24.5	28.5	25.5	22.0	23.5
19	35.0	25.5	29.5	35.5	25.5	30.0	33.0	24.0	28.0	25.5	21.5	23.5
20	35.0	25.5	30.0	36.0	26.0	30.5	32.0	24.5	27.5	26.0	21.0	23.0
21	35.0	25.5	30.0	35.5	25.5	30.0	34.0	24.0	28.0	26.0	19.5	23.0
22	35.0	25.0	29.5	35.0	25.5	30.0	32.0	24.5	27.5	27.5	20.5	24.0
23	35.0	25.0	29.5	36.0	25.5	30.5	27.5	24.0	26.0	30.0	23.0	26.0
24	35.0	26.0	29.5	31.0	24.5	28.0	28.0	24.5	26.0	26.5	21.5	23.0
25	33.5	25.5	29.5	32.5	25.0	28.0	27.5	24.5	26.0	25.0	21.0	22.5
26	33.0	27.0	29.5	32.0	25.5	28.0	31.5	24.0	27.0	23.5	19.0	21.5
27	33.5	26.0	29.5	29.5	25.0	27.0	29.5	25.0	27.0	19.0	15.5	17.0
28	35.0	25.5	30.0	35.0	24.5	29.0	26.5	24.5	25.5	21.5	13.0	17.0
29	36.0	26.0	30.5	34.5	25.5	29.5	27.0	24.0	25.5	24.0	15.5	19.5
30	34.5	26.5	30.5	28.5	26.0	27.0	28.0	24.5	26.0	24.5	17.0	20.5
31	---	---	---	34.0	25.0	28.5	28.0	24.5	26.0	---	---	---
MONTH	36.0	20.0	28.5	36.5	23.0	29.0	34.5	22.5	27.5	31.0	13.0	24.0
YEAR	36.5	.0	18.0									

07311782 SOUTH WICHITA RIVER AT LOW FLOW DAM NEAR GUTHRIE, TX

LOCATION.--Lat 33°37'19", long 100°12'31", King County, Hydrologic Unit 11130205, on right bank 1.0 mi downstream from ranch road crossing, 2.9 mi upstream from Willow Creek, 6.6 mi east of Guthrie, and 91.5 mi upstream from confluence with North Wichita River.

DRAINAGE AREA.--223 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985, May 1987 to current year (discharge to 07311669 Truscott Brine Lake near Truscott).

GAGE.--Water-stage recorder. Datum of gage is 1,590.0 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Discharge represents flow diverted by pumping from South Wichita River at Low Flow Dam near Guthrie (station 07311782) via pipeline to Truscott Brine Lake near Truscott (station 07311669). Flow is determined from digital recorder monitoring flowmeter in pipeline. From May 1987 to current year, specific conductivity and discharge values collected at this station have been used for computation of water quality loads for station 07311669. Satellite telemeter at station.

COOPERATION.--Flow data furnished by the U.S. Army Corps of Engineers, Tulsa District.

PEAK DISCHARGES FOR CURRENT YEAR.--Not determined.

FLOW THRU PIPELINE
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	8.1	8.1	8.0	2.7	7.3	7.8	6.1	7.4	8.3	2.7	8.7
2	9.6	8.3	8.1	8.1	1.8	7.3	7.8	7.6	.93	7.3	3.6	8.7
3	14	8.4	8.0	8.1	.00	7.2	7.9	7.6	3.9	8.2	5.2	8.7
4	11	8.4	8.1	8.1	.00	7.1	8.0	7.6	3.6	5.6	8.4	8.7
5	7.8	8.4	8.0	8.1	.00	7.1	8.0	7.5	5.1	5.4	8.4	8.6
6	10	8.4	8.0	8.1	2.4	7.1	8.0	7.5	8.6	6.2	8.4	8.8
7	11	8.3	8.0	2.9	5.7	7.5	8.0	7.5	12	8.3	6.2	8.7
8	8.3	8.3	8.0	4.0	5.6	7.8	7.9	7.5	10	4.6	8.3	8.7
9	8.2	8.3	8.3	6.6	7.5	5.3	7.9	7.4	7.7	8.2	6.7	8.8
10	8.2	8.3	8.4	6.1	3.9	.00	6.4	7.4	5.8	.72	3.4	8.4
11	7.4	8.2	8.3	7.7	.00	4.3	4.3	7.4	7.6	3.6	4.2	5.2
12	8.1	8.2	8.3	6.8	2.6	7.9	8.2	7.4	7.6	8.0	7.7	7.9
13	8.1	8.0	8.3	7.6	7.4	7.8	8.2	7.5	7.2	8.4	6.6	8.8
14	8.1	7.4	8.3	7.6	8.6	7.8	8.2	7.5	7.5	8.2	8.5	8.8
15	8.2	8.2	8.2	7.5	13	7.8	6.6	7.5	7.5	.92	6.2	8.8
16	7.2	8.2	8.2	7.5	13	7.7	7.5	7.6	7.5	7.7	6.7	8.7
17	6.9	8.2	3.5	7.4	8.1	7.7	8.2	7.5	6.1	8.4	8.6	6.8
18	8.2	8.2	1.5	6.4	7.1	7.3	8.2	7.5	5.8	6.6	8.6	.00
19	8.1	8.2	8.2	6.9	7.1	7.8	8.0	7.5	4.7	8.4	8.6	.00
20	8.1	8.2	8.2	7.5	2.8	7.8	7.7	6.7	6.7	5.2	6.4	.00
21	8.2	8.2	8.2	7.4	.00	7.8	7.6	5.6	5.3	6.4	5.7	.00
22	8.2	8.1	8.2	7.2	.00	7.7	7.6	4.6	8.3	6.0	8.6	.00
23	8.1	8.1	8.2	7.0	2.7	7.7	7.6	3.7	8.2	7.6	8.6	.00
24	8.1	8.2	6.1	6.6	7.6	7.8	7.6	7.4	5.5	4.8	7.1	.00
25	8.1	8.1	.00	6.2	7.5	7.9	7.6	7.2	5.4	7.7	.00	.00
26	7.8	8.1	.00	2.6	9.2	7.9	7.5	6.7	8.1	7.0	3.4	.00
27	8.1	8.0	.53	3.8	13	8.0	7.5	7.4	8.4	8.3	4.7	.00
28	8.1	8.1	5.3	7.5	12	7.9	7.5	7.2	8.3	7.3	7.7	.00
29	8.5	8.2	8.1	7.7	7.4	7.9	7.5	7.2	8.3	5.6	.00	.00
30	8.1	8.1	8.1	7.1	---	7.8	7.5	5.0	8.3	8.3	.00	.00
31	8.1	---	8.1	3.6	---	7.8	---	3.1	---	8.2	5.6	---
TOTAL	263.9	245.4	212.83	207.7	158.70	223.80	228.3	212.9	207.33	205.44	184.80	141.80
MEAN	8.51	8.18	6.87	6.70	5.47	7.22	7.61	6.87	6.91	6.63	5.96	4.73
MAX	14	8.4	8.4	8.1	13	8.0	8.2	7.6	12	8.4	8.6	8.8
MIN	6.9	7.4	.00	2.6	.00	.00	4.3	3.1	.93	.72	.00	.00
AC-FT	523	487	422	412	315	444	453	422	411	407	367	281

07311782 SOUTH WICHITA RIVER AT LOW FLOW DAM NEAR GUTHRIE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1984 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1984 to current year. October 1986 to April 1987 published under station 07311783.
WATER TEMPERATURE: October 1984 to current year. October 1986 to April 1987 published under station 07311783.

INSTRUMENTATION.--Since October 1984, a two-parameter water-quality monitor continuously records specific conductance and water temperature at this station.

REMARKS.--Interruptions in the record are due to malfunction of the instrument or when the pumps were not running. Where maximum and minimum specific conductance values are not shown, mean values are sometimes estimated. Because data is used from this station to compute loads for station 07311783, temperature and specific conductance values for days of zero flow through the pipeline are published if water is present behind the low flow dam. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 44,600 microsiemens July 7 and Aug. 4, 1996; minimum, 200 microsiemens July 3, 1986.
WATER TEMPERATURE: Maximum, 36.0°C July 5,11-13,21, 1996; minimum, 0.0°C Dec. 23, 1989, Dec. 22, 1990.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 44,600 microsiemens July 7 and Aug. 4; minimum estimated daily, 3,560 microsiemens Sept. 18.
WATER TEMPERATURE: Maximum, 36.0°C July 5,11-13,21; minimum 0.5°C Feb. 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC									
04...	1505	8.0	36000	7.8	13.5	3800	3700	1100	250
APR									
02...	1350	7.8	37500	7.9	18.5	4300	4200	1200	310
MAY									
17...	1115	7.5	35900	8.2	30.0	4200	4100	1200	300
JUL									
12...	1005	8.4	42700	7.6	27.0	3900	3800	1100	270
AUG									
14...	1410	8.5	42200	7.9	30.0	4200	4100	1200	280

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC									
04...	7700	55	32	120	2900	13000	0.60	6.8	25100
APR									
02...	8200	55	33	110	3100	14000	0.60	5.6	26900
MAY									
17...	8000	54	34	100	3200	13000	0.50	11	25800
JUL									
12...	8800	62	39	100	3200	15000	0.60	<0.10	28500
AUG									
14...	9100	61	45	98	3200	14000	0.50	8.1	27900

07311782 SOUTH WICHITA RIVER AT LOW FLOW DAM NEAR GUTHRIE, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICRO-SIEMENS)	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.	1995	263.9	33800	22300	15900	11200	7950	2900	2060	*
NOV.	1995	245.4	35200	23300	15400	11700	7770	3000	1960	*
DEC.	1995	212.83	35300	23300	13400	11700	6740	3000	1700	*
JAN.	1996	207.7	36300	24100	13500	12200	6810	3000	1680	*
FEB.	1996	158.70	36600	24300	10400	12300	5260	3000	1290	*
MAR.	1996	223.80	38000	25300	15300	12800	7750	3100	1850	*
APR.	1996	228.3	39100	26000	16000	13300	8180	3100	1910	*
MAY	1996	212.9	40000	26700	15300	13700	7850	3100	1800	*
JUNE	1996	207.33	37800	25100	14100	12800	7150	3100	1710	*
JULY	1996	205.44	41600	27800	15400	14300	7930	3200	1760	*
AUG.	1996	184.80	40200	26800	13400	13800	6870	3100	1550	*
SEPT	1996	141.80	34800	23100	8830	11600	4450	2900	1110	*
TOTAL		2492.90	**	**	167000	**	84700	**	20400	**
WTD.AVG.		6.8	37400	24800	**	13000	**	3000	**	**

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	34000	32200	33300	35400	34000	35100	35300	34800	35100	35800	35500	35600
2	33900	28200	31400	35400	29000	34900	35300	34300	34900	35700	35400	35600
3	32300	25300	29200	35800	35400	35700	35400	34800	35100	36000	35600	35900
4	32700	30900	31600	35800	35200	35500	35600	34000	35400	36000	35200	35500
5	31700	31300	31600	35600	31100	34900	35700	35400	35600	35600	35500	35500
6	32600	31200	31900	35400	33600	34900	35600	35200	35500	35500	35200	35500
7	33500	30600	33000	35200	34100	34800	35600	35400	35600	35600	35200	35500
8	33800	31900	33500	35200	33300	34800	35800	34700	35600	35600	34900	35400
9	34300	31500	33400	35400	33300	35100	35900	35600	35800	35200	34800	35000
10	34500	33900	34300	35400	33000	35000	36100	35700	36000	35300	34900	35200
11	34800	32000	34000	35300	34200	35100	36100	35800	36000	35300	34200	35100
12	34600	32700	33800	35300	33900	35000	36000	34600	35700	35600	34400	35300
13	34800	33900	34500	35600	34900	35300	35900	32700	35000	35800	34100	35200
14	34800	34400	34600	35500	34900	35400	35700	33200	35200	35800	34400	35400
15	34900	34400	34700	35700	35300	35500	35500	34700	35300	36000	35400	35700
16	34900	31100	33900	35800	34000	35600	35600	35400	35500	36300	32500	35500
17	35100	34400	34900	35800	35100	35500	35600	34800	35400	36300	34100	35800
18	35500	33800	35000	35600	33900	35400	35700	33300	35100	37000	35700	36800
19	35400	32100	34500	35500	35100	35300	34700	33900	34500	37100	36400	36900
20	35400	34500	35000	35500	35200	35400	34700	34300	34600	37000	36200	36700
21	35600	34700	35200	35600	35200	35400	34900	34700	34800	37200	36400	36800
22	35600	34200	35100	35600	33400	35200	35000	34800	34900	37600	33600	36800
23	35600	34400	35200	35500	33400	35300	35200	35000	35100	37500	37200	37400
24	35600	34900	35300	35500	35200	35400	35200	35100	35200	37600	37100	37300
25	35700	33000	35100	35900	35300	35500	---	---	---	39700	36400	38000
26	35700	33400	35100	35800	33600	35400	---	---	---	39600	36500	39100
27	35800	33700	35200	35700	35300	35500	35000	34800	34900	39100	38600	38800
28	35700	33300	35000	35700	35400	35600	35500	35000	35300	38800	37500	38400
29	36000	33400	35500	35800	35100	35500	35800	34800	35200	38100	37700	37900
30	35900	31400	33300	35100	34000	34500	35800	34100	34700	38000	37800	37900
31	35700	33400	34900	---	---	---	35900	34700	35500	38200	37700	38100
MONTH	36000	25300	34000	35900	29000	35200	36100	32700	35300	39700	32500	36400

07311782 SOUTH WICHITA RIVER AT LOW FLOW DAM NEAR GUTHRIE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	38200	37400	37800	37500	37000	37400	38600	37300	38200	40300	38200	39700
2	37600	37200	37500	37800	37300	37500	38800	37900	38400	40200	39100	39700
3	---	---	---	37900	37300	37600	39000	38000	38600	40800	39400	40200
4	---	---	---	37700	35200	37100	38700	35900	38200	40800	39800	40200
5	---	---	---	37700	36200	37200	39000	38000	38600	40200	38500	39300
6	35600	35200	35400	---	---	e37800	38700	37600	38400	---	---	e39000
7	35500	34800	35300	---	---	e38200	38800	37600	38300	---	---	e39200
8	35400	34900	35200	39000	38600	38800	39000	38100	38600	---	---	e39300
9	35700	35100	35500	38800	38300	38600	38900	38100	38400	---	---	e39500
10	35600	33400	35000	---	---	---	39000	38000	38600	---	---	e39800
11	---	---	---	39000	38000	38500	39100	38400	38800	---	---	e40100
12	36400	35500	36000	39100	37200	38400	39500	37900	38800	---	---	e40300
13	36100	35600	35900	38700	37800	38300	39900	38400	39200	---	---	e40500
14	36200	35000	35800	38900	38100	38500	40000	38900	39500	---	---	e40900
15	36500	35800	36200	39300	37000	38500	40300	38400	39500	---	---	41300
16	37100	36000	36400	38900	37600	38500	39400	36800	39000	---	---	e38000
17	36800	35100	35900	39000	36500	38400	40200	38800	39500	42100	40400	e36000
18	36500	34200	35900	38900	36500	38000	40800	35700	39700	---	---	e37000
19	36500	33800	35800	38600	38100	38300	40500	39100	39900	---	---	e39000
20	36900	34000	36100	38700	37800	38200	40000	38900	39700	---	---	e40500
21	---	---	---	38500	37400	38100	40000	38600	39500	---	---	e41500
22	---	---	---	38500	36800	38000	39800	37900	39200	---	---	42100
23	37700	37000	37300	38700	37300	38000	40000	38800	39500	42700	40900	42100
24	38100	36800	37800	38000	37200	37700	40200	38700	39500	43300	41300	42200
25	38100	36800	37700	38500	37700	38200	40200	39500	39800	42900	41400	42400
26	38000	37100	37600	38900	38400	38700	39700	38400	39200	41700	40300	41200
27	38100	37300	37700	38600	30800	37200	39700	38200	39200	---	---	e41000
28	39100	37800	38400	39100	33100	37000	39900	38500	39400	---	---	e40900
29	38100	36900	37500	38700	35400	37900	40400	39500	40000	---	---	e40700
30	---	---	---	38900	37400	38000	40400	38200	39600	---	---	e40700
31	---	---	---	38500	37000	38000	---	---	---	---	---	e38000
MONTH	39100	33400	36500	39300	30800	38000	40800	35700	39100	43300	38200	40100

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	34400	32600	33600	41900	39400	40600	42300	39300	41600	24100	19600	22400
2	34600	34000	34000	41500	39900	40700	42500	41500	42000	25900	19700	24200
3	34900	34100	34500	41900	37900	40000	43300	41300	42300	30100	24400	26800
4	35600	34300	35100	---	---	e40800	44600	42300	43700	33600	25500	29600
5	37000	35100	36100	41700	40600	41200	44000	42500	43400	35400	27400	31700
6	36100	32500	34300	42300	40800	41600	43200	41800	42500	36700	29000	33600
7	33900	32300	32900	44600	41400	42600	43100	41400	42200	37600	31000	33900
8	36000	33900	35300	42200	40000	41000	42700	41900	42300	36800	31400	34700
9	37000	35800	36300	44500	41100	42200	43100	41600	42600	39000	32200	36300
10	37200	36000	36800	43200	41800	42300	42700	38300	41800	39100	32700	36800
11	38400	36000	37300	42800	41700	42300	42800	39300	42100	39100	36800	38300
12	38700	36900	38100	42400	41600	42000	43200	39400	42500	39800	38800	39300
13	39500	36100	38700	43200	41300	42600	44000	42100	43100	40800	37100	39600
14	39700	38000	38900	42600	36300	39700	43300	38900	41300	42000	40600	41300
15	39300	38300	38900	42600	38900	40800	42800	37300	40600	42300	39800	41700
16	39700	37600	38900	42400	40800	41500	42700	39500	41900	42900	42200	42500
17	41500	39300	40200	41200	39900	40400	42200	34700	39300	43600	41600	43000
18	41300	37900	39800	40900	39200	40300	42900	38300	41000	---	---	---
19	40300	38900	39700	44100	39000	41000	42300	38200	41100	---	---	---
20	40600	39700	40100	---	---	e41000	41500	37600	39100	---	---	---
21	40800	39900	40400	42300	39800	41500	41500	35700	39500	---	---	---
22	41200	40100	40600	43200	40500	42100	42100	37900	39900	---	---	---
23	41100	39500	40800	43400	40100	42100	43000	35900	40000	---	---	---
24	40700	24500	35800	43000	40100	42000	40200	36100	38700	---	---	---
25	40200	38000	39200	43300	41700	42600	---	---	---	---	---	---
26	41300	39400	40300	43400	42200	42800	42400	38400	41200	---	---	---
27	41300	38300	39200	42800	40400	42300	42500	35800	40900	---	---	---
28	39200	37800	38500	43500	40400	42600	38600	19200	29600	---	---	---
29	39900	38500	39200	43300	41800	42900	---	---	---	---	---	---
30	40600	39200	39800	42400	40200	41700	---	---	---	---	---	---
31	---	---	---	43200	40700	42100	20500	17700	18600	---	---	---
MONTH	41500	24500	37800	44600	36300	41600	44600	17700	40200	43600	19600	35000
YEAR	44600	17700	37500									

e Estimated

07311782 SOUTH WICHITA RIVER AT LOW FLOW DAM NEAR GUTHRIE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.0	22.5	23.5	20.0	18.0	19.0	14.5	12.0	13.0	11.0	8.0	9.0
2	23.5	20.0	21.5	18.5	16.0	17.0	15.0	10.0	13.0	8.0	6.5	7.5
3	23.5	15.0	20.0	16.0	14.0	15.0	15.0	12.5	14.0	8.5	5.5	7.0
4	23.0	18.5	21.0	14.0	12.0	12.5	14.0	12.0	13.0	10.0	6.5	8.0
5	21.5	18.5	20.0	15.0	11.5	13.0	14.0	12.0	13.0	9.0	7.5	8.0
6	21.5	17.5	19.5	18.0	14.0	15.5	14.0	11.5	12.5	7.5	6.0	6.5
7	20.5	17.5	19.0	17.0	14.5	16.0	12.0	11.0	11.5	6.5	5.0	5.5
8	21.5	17.5	19.5	16.0	14.0	15.0	12.5	9.5	11.0	9.0	6.0	7.0
9	22.0	19.0	21.0	17.5	14.5	16.0	10.0	7.5	9.0	10.5	6.0	8.5
10	24.0	19.5	21.5	18.5	15.0	17.0	9.0	6.5	8.0	11.0	8.0	9.5
11	23.0	20.5	22.0	15.0	13.0	14.0	10.0	7.0	8.5	12.0	9.5	10.5
12	22.5	20.5	21.5	15.5	12.0	14.0	11.5	8.0	10.0	14.5	9.0	11.5
13	22.5	20.0	21.0	17.0	13.5	15.0	12.5	10.0	11.5	13.5	10.0	12.0
14	21.5	18.0	20.0	15.5	13.0	14.5	14.0	11.0	12.5	15.0	11.0	13.0
15	21.0	17.0	19.0	17.5	14.0	15.5	13.5	11.5	12.5	14.0	11.0	12.5
16	20.0	17.5	18.5	16.5	13.5	15.0	12.5	11.5	12.0	15.0	11.5	13.0
17	20.0	17.0	18.5	17.0	14.5	15.5	12.5	12.0	12.5	13.5	11.5	13.0
18	21.0	18.0	19.5	17.0	14.0	15.5	12.5	10.0	12.0	11.5	5.5	7.0
19	20.5	19.0	19.5	17.5	14.5	16.0	11.5	9.5	10.0	7.5	5.0	6.0
20	20.0	16.5	18.5	18.0	15.0	16.5	9.5	9.0	9.0	9.5	5.5	7.5
21	19.0	16.0	17.5	16.5	14.5	15.5	9.0	8.0	8.5	10.0	6.5	8.0
22	19.5	16.5	18.0	17.5	15.0	16.0	9.0	8.0	8.5	13.0	7.5	10.5
23	18.5	16.0	17.0	15.5	14.5	15.0	9.5	6.5	8.0	12.5	9.5	11.0
24	17.0	14.5	16.0	15.0	13.0	14.0	9.5	7.0	8.5	11.5	8.5	10.0
25	18.5	15.5	17.0	15.5	12.5	14.0	---	---	---	11.5	8.0	10.0
26	20.5	17.0	18.5	14.5	13.0	14.0	---	---	---	10.5	7.5	9.0
27	20.0	17.0	18.5	14.5	12.5	13.5	11.0	8.5	9.5	9.0	6.5	8.0
28	19.0	16.5	17.5	13.0	11.0	12.0	10.5	8.5	9.5	10.0	6.5	8.5
29	19.0	16.0	17.5	13.0	10.0	11.5	10.0	7.0	9.0	10.5	7.5	9.0
30	18.5	18.0	18.5	14.0	9.0	12.0	11.0	6.0	9.5	9.5	7.0	8.5
31	19.5	18.0	18.5	---	---	---	12.0	8.5	10.0	7.5	6.0	6.5
MONTH	25.0	14.5	19.5	20.0	9.0	15.0	15.0	6.0	10.5	15.0	5.0	9.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	3.5	5.5	13.5	7.0	9.5	19.0	14.0	16.5	24.0	11.5	19.5
2	5.0	4.0	4.5	14.5	8.0	11.0	19.5	15.0	17.0	25.0	18.0	21.5
3	---	---	---	14.5	9.5	12.0	22.5	16.0	19.0	34.0	20.0	25.5
4	---	---	---	16.0	12.5	14.0	18.5	16.0	17.0	35.0	22.0	28.5
5	---	---	---	---	---	---	16.5	13.0	14.0	32.0	23.0	28.0
6	9.5	5.5	7.5	---	---	---	18.5	12.5	15.0	32.5	17.0	26.5
7	13.0	8.5	10.5	---	---	---	18.5	13.0	15.5	33.5	23.0	28.5
8	15.0	11.5	13.0	---	---	---	20.0	15.5	17.5	33.5	22.5	28.0
9	16.5	11.5	14.0	12.0	7.0	9.5	23.0	16.5	19.5	32.0	22.0	27.5
10	17.0	13.0	14.5	---	---	---	22.0	18.0	20.0	29.0	18.5	24.0
11	---	---	---	14.5	10.5	12.5	23.5	19.5	21.0	27.5	17.0	21.5
12	13.5	11.0	12.0	17.5	12.5	15.0	23.5	19.0	21.0	---	---	---
13	13.5	10.0	12.0	18.5	14.5	16.0	22.5	18.5	20.0	---	---	---
14	15.5	11.5	13.5	19.5	16.0	17.5	19.5	16.5	18.0	---	---	---
15	15.5	12.5	14.0	19.5	15.0	17.5	22.5	15.0	18.0	---	---	---
16	14.5	4.5	12.5	20.0	15.5	17.5	20.5	16.0	18.0	29.0	22.5	25.5
17	14.5	.5	9.0	18.5	15.0	17.0	23.0	16.5	19.5	32.0	22.0	27.0
18	13.0	10.5	12.0	17.5	14.0	15.5	25.5	17.5	21.0	32.0	22.0	27.0
19	15.5	11.0	13.0	16.5	13.5	15.0	23.5	18.5	20.5	33.5	22.0	27.5
20	16.5	12.5	14.0	17.0	12.5	14.5	23.5	17.5	20.0	31.0	21.0	26.5
21	---	---	---	17.5	12.5	15.0	25.0	18.0	21.0	30.0	18.5	25.0
22	---	---	---	19.0	14.5	17.0	21.5	18.0	19.5	35.0	20.5	27.0
23	16.0	14.5	15.5	21.0	16.5	18.5	22.0	17.0	19.5	28.5	24.0	25.5
24	15.0	13.0	14.5	19.0	15.5	18.0	23.0	17.0	19.5	27.5	22.5	24.5
25	16.5	13.0	15.0	16.0	12.5	14.5	22.5	18.0	20.0	24.5	22.5	23.5
26	17.5	15.0	16.5	14.5	10.5	11.5	24.5	18.0	20.5	26.0	21.5	23.5
27	16.5	14.5	15.5	10.5	4.5	9.0	25.0	18.0	21.0	24.5	19.0	21.5
28	17.5	4.0	12.0	14.5	6.5	10.5	22.5	17.0	20.0	25.0	20.0	22.0
29	12.0	9.0	10.0	17.5	9.5	14.0	19.0	8.5	15.5	24.5	19.5	21.5
30	---	---	---	18.5	13.5	16.0	27.0	4.5	16.0	22.0	20.0	21.0
31	---	---	---	19.0	13.5	16.5	---	---	---	29.5	18.5	24.5
MONTH	17.5	.5	12.0	21.0	4.5	14.5	27.0	4.5	18.5	35.0	11.5	25.0

07311782 SOUTH WICHITA RIVER AT LOW FLOW DAM NEAR GUTHRIE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	23.0	24.5	---	---	---	33.5	25.0	30.5	28.0	25.5	26.5
2	29.5	24.0	26.0	35.0	26.5	32.0	33.5	30.0	32.0	28.5	25.0	27.0
3	27.5	24.5	25.5	---	---	---	32.0	28.5	30.5	30.0	26.0	28.0
4	29.0	25.0	26.5	---	---	---	32.5	28.0	30.0	30.0	26.0	28.0
5	29.0	23.0	25.5	36.0	31.0	33.5	32.5	28.5	30.5	29.5	26.0	27.5
6	31.0	24.0	27.0	35.5	30.0	33.0	32.5	28.0	30.0	30.5	25.0	28.0
7	29.0	24.5	26.5	---	---	---	32.5	27.0	29.5	30.0	25.0	27.5
8	29.0	24.0	26.5	---	---	---	32.0	27.5	29.0	31.0	26.5	28.5
9	28.5	24.0	26.0	---	---	---	---	---	---	30.5	25.5	28.5
10	29.5	24.0	26.5	33.5	26.5	31.0	32.5	28.0	30.0	30.0	25.5	27.5
11	31.0	25.5	28.0	36.0	30.0	32.5	33.0	28.0	30.5	28.0	25.5	26.5
12	32.5	26.0	29.0	36.0	31.0	33.0	31.5	27.0	29.0	27.5	25.5	26.5
13	33.0	27.0	29.5	36.0	31.5	33.5	31.0	25.0	28.5	26.5	24.5	25.5
14	32.5	26.5	29.0	35.0	27.5	32.5	31.5	26.0	29.0	26.0	24.0	25.0
15	31.5	27.0	29.0	35.5	25.0	31.5	29.5	26.5	28.0	27.0	23.5	25.0
16	33.0	27.0	29.5	34.5	29.5	32.5	28.5	25.0	27.0	28.5	22.5	25.5
17	---	---	---	---	---	---	30.5	23.5	27.0	26.5	23.5	25.0
18	---	---	---	---	---	---	30.0	25.5	28.0	---	---	---
19	---	---	---	---	---	---	29.5	25.5	27.5	---	---	---
20	32.5	28.5	30.5	---	---	---	30.0	25.5	27.5	---	---	---
21	33.0	27.5	30.5	36.0	30.0	33.0	30.5	27.0	28.5	---	---	---
22	34.0	29.0	31.5	35.5	27.5	32.5	30.5	26.0	28.0	---	---	---
23	35.5	29.0	31.5	---	---	---	27.5	25.5	26.5	---	---	---
24	35.0	23.5	29.5	34.5	25.0	31.5	27.0	25.0	26.0	---	---	---
25	33.5	28.5	31.5	33.5	29.0	31.0	---	---	---	---	---	---
26	33.5	29.5	31.5	33.5	28.5	30.5	29.5	26.0	27.5	---	---	---
27	33.0	28.5	31.0	30.5	26.0	28.5	28.5	26.0	28.0	---	---	---
28	34.5	29.0	31.5	---	---	---	26.0	24.0	25.0	---	---	---
29	35.0	30.0	32.5	---	---	---	---	---	---	---	---	---
30	35.5	30.5	32.5	33.0	28.5	29.5	---	---	---	---	---	---
31	---	---	---	---	---	---	28.5	24.5	26.0	---	---	---
MONTH	35.5	23.0	29.0	36.0	25.0	32.0	33.5	23.5	28.5	31.0	22.5	27.0
YEAR	36.0	.5	19.5									

07311783 SOUTH WICHITA RIVER BELOW DAM NEAR GUTHRIE, TX

LOCATION.--Lat 33°37'19", long 100°12'31", King County, Hydrologic Unit 11130205, on right bank 1.1 mi downstream from ranch road crossing, 2.8 mi upstream from Willow Creek, 6.6 mi east of Guthrie, and 91.4 mi upstream from confluence with North Wichita River.

DRAINAGE AREA.--223 mi².

PERIOD OF RECORD.--October 1985 to current year. Water-quality records.--Specific conductance: May 1987 to September 1989. Water temperature: May 1987 to September 1989.

GAGE.--Water-stage recorder. Datum of gage is 1,590.0 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversions from station 07311782 via pipeline to station 07311669 began in May 1987. Specific conductance and water temperature for October 1986 to April 1987 were collected at station 07311782, but are published at this station and are used for computation of water quality loads at this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1950, 20.8 ft in May 1954, at station 07311780 located about 1.1 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.21	.08	2.4	2.8	.01	.01	.01	.05	.03	.03	.05
2	3.1	.04	.10	1.5	2.9	.02	.01	.01	.03	.03	.03	.05
3	.07	.03	.07	.74	4.6	.02	.02	.01	.26	.04	.03	.04
4	.06	.04	.09	.77	4.9	.03	.02	.01	2.4	.05	.02	.04
5	.06	.04	.08	.51	5.1	.02	.01	.01	.69	.05	.02	.03
6	.12	.04	.03	.48	4.2	.01	.01	.01	.16	.04	.02	.03
7	.15	.04	.03	7.2	2.3	.01	.01	e.01	.02	.04	.02	.03
8	.13	.03	.22	7.6	2.2	.01	.01	e.01	.02	.04	.02	.02
9	.06	.04	.01	3.0	.70	.01	.01	e.01	.02	.04	.02	.01
10	.06	.04	.01	3.6	3.0	1.9	.01	e.01	.02	.04	.02	.01
11	.05	.03	.03	.64	5.5	2.0	.01	e.01	.02	.04	.02	.01
12	.05	.04	.09	6.7	3.8	.01	.01	e.01	.02	.05	.02	.01
13	.05	.04	.20	.02	.01	.01	.01	e.01	.02	.04	.02	.01
14	.05	.04	.21	.03	.10	.01	.01	e.01	.02	.56	.02	.01
15	.05	.04	.12	.02	.01	.01	.01	e.01	.02	3.5	.02	.02
16	.04	.04	.04	.02	.01	.01	.01	e.01	.02	.05	.02	.02
17	.48	.04	22	.02	.01	.02	.01	e.02	.03	.05	.01	13
18	.07	.05	18	.01	.01	.02	.01	e.02	.03	.05	.02	2010
19	.09	.05	.13	.02	.01	.02	.01	e.02	.02	.05	.02	478
20	.04	.05	.07	.02	.01	.02	.01	e.01	.04	.04	.02	68
21	.04	.04	.06	.02	2.4	.02	.01	e.01	.03	.04	.02	34
22	.04	.05	.06	.14	4.7	.03	.01	e.01	.03	.04	.02	21
23	.04	.04	.06	.21	3.3	.02	.01	e.01	.02	.04	.02	17
24	.03	.03	.06	.67	.06	.01	.01	e.01	.02	.02	.02	14
25	.04	.04	3.6	.40	.06	.01	.01	e.01	.02	.02	.02	12
26	.05	.04	14	.77	.12	.01	.01	14	.03	.02	.51	12
27	.05	.05	13	.97	.02	.01	.02	60	.03	.02	11	7.0
28	.05	.03	6.0	.01	.02	.01	.01	7.9	.04	.02	56	3.2
29	.05	.04	.35	.01	.01	.01	.01	2.2	.03	.03	25	5.9
30	.05	.06	.47	.07	---	.01	.01	4.6	.03	.03	7.6	6.6
31	.05	---	.45	1.7	---	.01	---	7.3	---	.03	.04	---
MEAN	.17	.046	2.57	1.30	1.82	.14	.011	3.11	.14	.17	3.25	90.1
MAX	3.1	.21	22	7.6	5.5	2.0	.02	60	2.4	3.5	56	2010
MIN	.03	.03	.01	.01	.01	.01	.01	.01	.02	.02	.01	.01
AC-FT	11	2.8	158	80	105	8.6	.7	191	8.3	10	200	5360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	5.17	1.64	2.93	3.24	3.49	1.75	1.82	8.40	4.61	15.8	4.19	16.5
MAX	30.6	8.51	9.34	9.16	17.8	5.20	9.16	53.2	13.8	154	15.7	90.1
(WY)	1987	1987	1992	1990	1992	1992	1990	1987	1991	1986	1995	1996
MIN	.030	.046	.028	.073	.038	.016	.011	.043	.11	.025	.021	.016
(WY)	1989	1988	1989	1989	1995	1991	1996	1988	1994	1993	1994	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL MEAN	3.03		8.45		5.81	
HIGHEST ANNUAL MEAN					20.8	1986
LOWEST ANNUAL MEAN					.75	1988
HIGHEST DAILY MEAN	391	Aug 2	2010	Sep 18	3520	Jul 3 1986
LOWEST DAILY MEAN	.01	Mar 20	.01	Dec 9	.00	Jan 4 1986
ANNUAL SEVEN-DAY MINIMUM	.01	May 9	.01	Mar 24	.01	Sep 15 1990
INSTANTANEOUS PEAK FLOW			3850	Sep 18	13100	Jul 3 1989
INSTANTANEOUS PEAK STAGE			11.53	Sep 18	19.01	Jul 3 1989
ANNUAL RUNOFF (AC-FT)	2190		6130		4210	
10 PERCENT EXCEEDS	3.4		3.9		8.2	
50 PERCENT EXCEEDS	.05		.03		.06	
90 PERCENT EXCEEDS	.03		.01		.02	

e Estimated

07311790 SOUTH WICHITA RIVER AT ROSS RANCH NEAR BENJAMIN, TX

LOCATION.--Lat 33°39'18", long 100°00'49", King County, Hydrologic Unit 11130205, on left bank 170 ft (52 m) upstream from ranch road, 1.6 mi (2.6 km) downstream from Ox Yoke Creek, 13.7 mi (22.0 km) northwest of Benjamin, and 64.5 mi (103.8 km) upstream from mouth.

DRAINAGE AREA.--499 mi^2.

PERIOD OF RECORD.--Chemical analyses: August 1970 to September 1979, March 1988 to current year. Sediment analyses: April 1978 to September 1979.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to September 1979.

REMARKS.--From October 1970 to September 1979, specific conductance was continuously recorded at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 51,000 microsiemens July 28, 1978; minimum, 1,500 microsiemens May 28, 1975.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC										
04...	1310	2.7	12300	7.9	11.0	13.0	129	2800	2700	740
JAN										
30...	0940	4.6	15900	8.0	3.0	13.0	108	3600	3400	1000
APR										
02...	1200	1.9	16600	8.2	17.0	14.8	171	3300	3200	840

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC										
04...	240	1900	16	17	120	2300	2800	0.50	3.8	8080
JAN										
30...	260	2800	20	18	140	2600	4600	0.40	4.6	11400
APR										
02...	290	2900	22	18	80	2700	4600	0.40	<0.10	11400

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX

LOCATION.--Lat 33°38'39", long 99°48'02", Knox County, Hydrologic Unit 11130205, on right bank at upstream side of bridge on State Highway 6, 2 mi downstream from Panhandle and Santa Fe Railway Co. bridge, 4 mi north of Benjamin, and 41 mi upstream from confluence with North Wichita River.

DRAINAGE AREA.--584 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. There are low flow diversions upstream on the South Wichita River at Low Flow Dam near Guthrie (station 07311782) to evaporation lake (station 07311669). There were other minor diversions upstream from station during the year. Rain gage at site. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1903 occurred in September 1919 (stage and discharge unknown), from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 18	0700	11,300	17.06a				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	e136	7.2	21	9.7	4.6	4.0	.64	6.1	.64	e.00	e5.4
2	e408	e25	7.2	23	9.3	4.5	3.8	.63	2.2	.41	e.00	e3.3
3	e172	e15	7.2	20	e9.3	4.5	2.7	.70	175	.28	e.00	e2.7
4	e40	e14	7.2	19	e9.3	3.4	2.2	.62	605	.12	e.00	e2.3
5	32	e14	8.1	17	e9.3	2.8	1.8	.58	125	.00	e.00	e2.2
6	30	e14	5.9	15	e8.8	2.5	1.8	.53	60	.00	e.00	2.3
7	27	13	5.9	12	e8.0	2.3	1.9	.58	57	.00	e.00	2.5
8	25	11	8.4	15	e7.0	2.2	1.7	.53	32	.00	e.00	2.8
9	24	11	6.4	12	6.8	2.3	1.8	.48	24	.00	e.00	3.2
10	22	11	7.3	12	6.9	2.3	1.6	.47	20	e.00	e.00	2.5
11	23	10	9.0	15	5.5	2.3	1.7	.42	16	e.00	e.00	.81
12	20	10	9.0	16	5.7	2.5	1.5	.38	12	e.00	e.00	.46
13	20	10	9.0	14	6.6	2.7	1.4	.44	8.5	e.00	e.00	.22
14	22	9.0	8.3	14	9.1	2.8	1.3	.42	6.1	e.00	e.00	e21
15	14	9.0	7.8	16	14	3.8	1.2	.42	4.1	e.00	e.00	e505
16	8.4	8.8	7.2	18	11	4.3	1.2	.36	11	e.00	e.00	e410
17	8.1	8.6	9.5	14	9.1	2.9	1.2	.30	16	e.00	e.00	e833
18	6.6	8.6	25	11	7.3	8.7	1.1	.28	9.2	e.00	e.00	e5190
19	5.1	9.0	19	8.2	8.0	5.9	1.1	.28	7.4	e.00	e.00	4060
20	6.2	8.9	31	10	7.2	4.3	.86	.24	4.1	e.00	e.00	2540
21	2.9	8.1	27	8.4	7.1	4.0	1.0	.18	2.4	e.00	e.00	338
22	2.4	8.4	22	7.1	5.9	6.2	1.0	.19	2.0	e.00	e.00	180
23	3.2	8.8	17	7.2	4.4	5.9	.84	.17	1.6	e.00	e.00	124
24	1.8	8.0	16	6.5	2.9	4.3	.91	.11	60	e.00	e.00	e94
25	1.7	8.0	14	6.1	3.7	2.2	.94	.07	160	e.00	e.00	e85
26	1.7	8.0	12	6.1	10	2.0	.80	.08	8.4	e.00	e.00	77
27	1.7	7.9	12	4.8	11	7.1	.86	.03	11	e.00	e90	67
28	1.9	7.2	10	6.2	7.0	8.6	.80	.00	4.0	e.00	e53	60
29	1.7	7.2	11	5.9	5.7	8.3	.59	.22	1.4	e.00	e29	57
30	1.4	7.2	18	8.9	---	7.8	.58	15	.91	e.00	e18	49
31	55	---	20	10	---	4.7	---	11	---	e.00	e9.2	---
TOTAL	989.8	434.7	384.6	379.4	225.6	132.7	44.18	36.35	1452.41	1.45	199.20	14720.69
MEAN	31.9	14.5	12.4	12.2	7.78	4.28	1.47	1.17	48.4	.047	6.43	491
MAX	408	136	31	23	14	8.7	4.0	15	605	.64	90	5190
MIN	1.0	7.2	5.9	4.8	2.9	2.0	.58	.00	.91	.00	.00	.22
AC-FT	1960	862	763	753	447	263	88	72	2880	2.9	395	29200
IN.	.06	.03	.02	.02	.01	.01	.00	.00	.09	.00	.01	.94

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

MEAN	75.0	18.9	12.8	11.9	17.4	19.7	28.5	75.3	86.8	24.9	50.2	84.7
MAX	656	65.1	77.5	60.3	172	88.7	187	256	458	162	578	502
(WY)	1984	1987	1992	1992	1992	1970	1990	1989	1990	1986	1995	1966
MIN	.17	1.14	.73	.68	1.39	.97	.073	.92	1.49	.013	.000	.034
(WY)	1980	1988	1989	1989	1989	1989	1989	1988	1976	1965	1963	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	34349.01		19001.08			
ANNUAL MEAN	94.1		51.9		42.7	
HIGHEST ANNUAL MEAN					107	1966
LOWEST ANNUAL MEAN					11.2	1988
HIGHEST DAILY MEAN	5880	Aug 3	5190	Sep 18	8260	Oct 20 1983
LOWEST DAILY MEAN	.20	Sep 8	.00	May 28	.00	May 24 1960
ANNUAL SEVEN-DAY MINIMUM	.37	Sep 2	.00	Jul 5	.00	Jun 27 1960
INSTANTANEOUS PEAK FLOW			11300	Sep 18	14900	Jun 1 1990
INSTANTANEOUS PEAK STAGE			17.06	Sep 18	17.07	Jun 1 1990
INSTANTANEOUS LOW FLOW					.00	May 24 1960
ANNUAL RUNOFF (AC-FT)	68130		37690		30950	
ANNUAL RUNOFF (INCHES)	2.19		1.21		.99	
10 PERCENT EXCEEDS	114		27		46	
50 PERCENT EXCEEDS	8.1		5.9		7.0	
90 PERCENT EXCEEDS	1.3		.00		.30	

e Estimated
a From floodmark.

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: July 1949 to March 1959, July 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to current year.
WATER TEMPERATURE: October 1967 to current year.

INSTRUMENTATION.--Since August 1968, specific conductance and water temperature was recorded continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 48,900 microsiemens May 13, 1971; minimum, 384 microsiemens Sept. 18, 1996.
WATER TEMPERATURE: Maximum, 39.0°C July 31, 1989; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 26,200 microsiemens May 31; minimum, 384 microsiemens, Sept. 18.
WATER TEMPERATURE: Maximum, 36.5°C June 29, 30 and July 1 and 3; minimum, 0.0°C on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC 01...	1145	7.2	13100	8.1	12.5	12.5	129	3200	3000	780
FEB 05...	1030	9.3	15000	8.0	0.0	14.3	108	3300	3200	830
MAR 27...	0900	3.8	16800	7.9	5.0	10.4	90	3700	3600	890
MAY 13...	0855	0.40	15800	8.0	20.5	8.6	106	3600	3400	800

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC 01...	310	2000	15	17	210	2600	3200	0.10	4.8	9040
FEB 05...	310	2500	19	18	200	2500	3900	0.20	5.0	10200
MAR 27...	370	2800	20	18	180	2900	4600	0.20	3.8	11700
MAY 13...	390	2500	18	20	210	3300	4200	0.10	6.1	11300

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)
DEC 01...	--	<0.010	--	<0.050	0.120	<0.20	0.020	<0.010	4	<100
FEB 05...	0.060	<0.010	0.060	0.060	0.190	<0.20	<0.010	<0.010	--	--
MAR 27...	0.080	<0.010	0.080	0.080	0.290	<0.20	<0.010	<0.010	--	--
MAY 13...	--	<0.010	--	<0.050	0.180	<0.20	<0.010	<0.010	--	--

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 01...	<4.0	<10	<1	<10	<4	60	0.2	1	<1.0	<10
FEB 05...	--	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	989.8	3760	2640	7060	820	2180	910	2440	1000
NOV.	1995	434.7	9080	6320	7420	2200	2550	1900	2270	2200
DEC.	1995	384.6	12400	8570	8900	3100	3190	2500	2590	*
JAN.	1996	379.4	12500	8660	8870	3100	3210	2500	2540	*
FEB.	1996	225.6	17700	12100	7370	4800	2950	3000	1800	*
MAR.	1996	132.7	16900	11600	4140	4600	1630	2900	1040	*
APR.	1996	44.18	17900	12200	1460	4900	583	3000	358	*
MAY	1996	36.35	20900	14100	1390	6000	591	3000	299	*
JUNE	1996	1452.41	5250	3660	14300	1300	4910	1100	4420	1300
JULY	1996	1.45	7470	5230	20	1700	6.6	1700	6.8	2000
AUG.	1996	199.20	4260	3010	1620	900	482	1100	578	1200
SEPT	1996	14720.69	1860	1310	52100	390	15500	470	18700	540
TOTAL		19001.08	**	**	115000	**	37700	**	37100	**
WTD.AVG.		52	3200	2240	**	740	**	720	**	830

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4520	4220	4370	8550	1590	4760	13400	12000	13100	11900	5020	10900
2	4510	1160	2840	4830	3790	4190	13500	13100	13300	5200	4900	5030
3	2200	1040	1350	7220	4730	5910	13500	13200	13400	11400	5120	8530
4	2040	1250	1660	9680	7160	8370	13500	13300	13400	11800	11000	11300
5	6750	2040	4170	11200	9610	10700	13600	13300	13400	12000	11500	11800
6	4800	2740	3030	---	---	11000	13700	13400	13600	12600	12000	12300
7	3290	2400	2820	---	---	e11100	13700	13400	13500	13600	12400	13000
8	---	---	e3000	---	---	e11100	13600	13100	13300	14100	13400	13800
9	---	---	e3600	---	---	e11200	13800	13500	13700	14200	13500	13800
10	---	---	e4200	---	---	e11200	13700	12600	13400	13900	13000	13000
11	---	---	e4500	---	---	e11300	13600	12800	13300	---	---	e12800
12	---	---	e4900	11700	10800	11300	13500	13000	13300	---	---	e13000
13	---	---	e5200	12500	11700	12300	13600	13000	13300	---	---	e13200
14	---	---	e5600	12800	12400	12600	13700	13400	13600	---	---	e13300
15	---	---	e6600	12900	12700	12800	13600	13300	13500	---	---	e13500
16	---	---	e7800	13000	12700	12800	13600	13300	13500	13900	13500	13700
17	---	---	e8500	13100	12700	12900	13500	11500	12900	14300	13700	14000
18	---	---	e9500	13100	12700	12900	13100	12300	12800	14800	14300	14600
19	---	---	e10000	13100	12800	13000	12800	7820	9720	15200	14500	14600
20	---	---	e9500	13300	12900	13100	11800	9020	11000	15000	14200	14700
21	---	---	e10200	13500	13000	13300	12600	11400	12100	15200	14800	15100
22	---	---	e11700	13600	12900	13300	12600	12400	12500	15300	14800	15200
23	---	---	e12000	13000	12200	12600	12500	12100	12300	15400	15100	15200
24	---	---	12400	---	---	e12800	12300	12100	12200	---	---	e15000
25	12700	11900	12200	---	---	e12900	12200	12000	12100	---	---	14800
26	12900	12100	12500	---	---	e13000	12200	12000	12000	15300	14900	15000
27	13200	12500	12800	---	---	e13000	12200	11900	12000	15000	13400	13900
28	13100	12500	12800	---	---	e13100	12200	12000	12100	15000	13600	11000
29	13100	12500	12800	---	---	e13200	12100	12000	12100	---	---	e12800
30	13100	12800	12900	---	---	e13300	12100	11900	12000	---	---	e13500
31	13200	2190	11400	---	---	---	11900	11600	11800	---	---	e14000
MONTH	13200	1040	7640	13600	1590	11500	13800	7820	12700	15400	4900	13100

e Estimated

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15500	11600	13800	---	---	e18800	17800	17200	17500	17700	16700	17100
2	15600	14300	15200	---	---	e17500	18300	17400	17900	17800	16800	17200
3	15600	14800	15300	---	---	e18400	19000	17800	18400	18200	16900	17400
4	15600	13700	15100	---	---	e18600	18600	18200	18400	18800	17100	17800
5	15800	14000	14700	---	---	e18700	18500	18000	18200	18600	17100	17800
6	15600	14100	15200	---	---	e18800	18200	17800	17900	17800	16600	17200
7	16200	14500	15500	---	---	e18900	18300	17700	18000	19200	16900	18100
8	16200	13600	15800	---	---	e19000	18300	17700	18000	18800	17700	18300
9	---	---	e15700	---	---	e19100	18200	17600	17900	18300	17400	17800
10	---	---	e15700	---	---	e19200	18300	17500	17900	17800	17000	17500
11	15800	15500	15600	---	---	e19200	18300	17500	17900	17400	16600	17000
12	---	---	e16000	---	---	e19300	18500	17700	18000	16900	16100	16400
13	---	---	e17000	---	---	e19300	18300	17600	18000	16900	15900	16400
14	---	---	e17800	---	---	e19400	18300	17500	18000	16700	15900	16200
15	19700	17800	18500	---	---	e19400	18500	17800	18200	16600	15700	16100
16	20100	19300	19900	---	---	e18000	18200	17500	17900	16500	15700	16000
17	20100	16900	19000	---	---	e17000	18200	17500	17900	16500	15800	16000
18	21000	19100	19800	---	---	e17500	18500	17800	18100	16600	15900	16200
19	20900	20200	20600	---	16200	17900	18500	17700	18000	16900	16200	16500
20	21500	20800	21200	19500	15900	18400	18500	17700	18000	17400	16400	16800
21	22100	21200	21700	17200	10800	15200	18300	17300	17800	18200	16800	17400
22	---	---	e20200	10800	9840	10300	17900	17100	17400	18600	17300	18000
23	---	---	e20000	11600	10400	11000	18300	17100	17600	19300	18100	18800
24	---	---	e19900	12700	11400	12200	18000	17000	17300	18600	13700	18000
25	---	---	e19800	14700	12700	13500	18400	17200	17600	18500	18000	18300
26	---	---	e19700	16200	14600	15300	18500	17200	17700	---	---	e18700
27	---	---	e19600	17300	15700	16400	18000	17000	17400	---	---	e19000
28	---	---	e19500	17000	15800	16500	17500	17000	17100	---	---	e19200
29	---	---	e19400	17500	16600	17100	17900	16800	17300	---	---	e19600
30	---	---	---	17400	17000	17200	17800	17000	17500	25100	15200	20000
31	---	---	---	17600	17200	17400	---	---	---	26200	24300	25400
MONTH	22100	11600	17800	19500	9840	17200	19000	16800	17800	26200	13700	17800

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25900	23700	24800	7450	6530	7000	---	---	---	---	---	e3800
2	23800	22200	23200	7990	7220	7600	---	---	---	---	---	e3700
3	22200	1050	18000	8730	7630	8130	---	---	---	---	---	e3600
4	4370	711	2140	---	---	e8000	---	---	---	---	---	e3550
5	12100	2080	6500	---	---	---	---	---	---	---	---	e3500
6	7660	3900	6570	---	---	---	---	---	---	---	---	e3100
7	5650	2120	3880	---	---	---	---	---	---	6190	1560	3750
8	3850	3560	3680	---	---	---	---	---	---	4010	2050	3810
9	3670	3510	3580	---	---	---	---	---	---	3770	2210	3250
10	3720	3540	3640	---	---	---	---	---	---	8170	3560	5120
11	3570	2740	3100	---	---	---	---	---	---	10500	8170	9670
12	4130	3090	3740	---	---	---	---	---	---	10400	10000	10200
13	4510	4070	4240	---	---	---	---	---	---	10200	5660	8850
14	4540	4210	4400	---	---	---	---	---	---	6190	869	3890
15	4480	3570	4000	---	---	---	---	---	---	4920	1130	1850
16	4600	3200	3450	---	---	---	---	---	---	2640	1710	2330
17	3580	2730	3020	---	---	---	---	---	---	3500	2610	3050
18	3300	3050	3130	---	---	---	---	---	---	3560	384	974
19	3450	3240	3320	---	---	---	---	---	---	1520	940	1300
20	3590	3390	3500	---	---	---	---	---	---	2380	800	1340
21	4690	3520	4060	---	---	---	---	---	---	5200	2380	3930
22	5340	4690	5040	---	---	---	---	---	---	7800	5160	6610
23	5660	5240	5420	---	---	---	---	---	---	10800	7800	8720
24	5840	2950	5280	---	---	---	---	---	---	12400	9440	10100
25	3980	1930	3140	---	---	---	---	---	---	11400	10300	10800
26	3880	3500	3680	---	---	---	---	---	---	11400	10500	11000
27	3990	3310	3510	---	---	---	---	---	e4500	11000	10600	10800
28	5610	3990	4960	---	---	---	---	---	e4200	11700	11000	11400
29	6080	5530	5790	---	---	---	---	---	e4000	12000	11400	11700
30	6700	5950	6320	---	---	---	---	---	e3900	12500	11700	12100
31	---	---	---	---	---	---	---	---	e3850	---	---	---
MONTH	25900	711	5970	8730	6530	7680	---	---	4090	12500	384	5930
YEAR	26200	384	12600									

e Estimated

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.0	18.5	22.0	20.5	15.0	17.5	14.5	10.5	12.5	9.5	4.0	5.5
2	23.5	16.5	19.0	16.5	10.0	12.5	15.0	8.5	11.0	4.5	2.5	3.5
3	21.0	16.5	18.5	10.5	8.5	9.5	14.5	9.5	11.5	4.5	.0	2.5
4	22.5	18.5	20.5	9.5	8.5	8.5	13.5	8.0	10.5	7.5	2.5	5.0
5	22.0	18.0	20.0	13.5	8.0	10.5	13.0	9.0	10.5	6.0	2.5	4.0
6	21.0	15.0	18.0	16.5	12.5	15.0	12.0	6.0	8.5	4.0	.5	2.0
7	22.0	13.5	18.0	16.5	14.5	15.5	9.5	6.5	8.0	4.0	.0	1.0
8	23.5	15.0	19.0	14.5	12.0	13.5	12.0	4.5	8.0	5.0	.5	2.0
9	24.5	16.5	21.0	16.5	12.5	14.5	5.5	1.0	3.0	7.5	3.0	5.0
10	24.5	17.5	21.5	17.0	15.5	16.0	5.5	.0	2.0	8.0	4.0	6.5
11	24.0	17.5	21.5	16.0	13.5	14.0	9.5	2.0	5.0	9.0	6.5	8.0
12	23.0	17.5	20.5	13.5	12.0	12.5	11.5	5.5	8.0	8.5	5.5	7.0
13	22.5	15.5	19.0	14.5	13.5	13.5	13.0	8.0	10.0	9.5	6.0	8.0
14	19.5	12.0	15.5	14.5	13.5	14.0	14.0	8.5	11.0	11.5	7.0	9.5
15	20.5	12.0	16.5	14.5	13.5	14.0	13.5	9.0	10.5	11.0	6.5	9.0
16	21.0	12.5	17.0	14.5	13.5	14.0	9.5	8.0	8.5	12.5	6.5	9.5
17	21.0	12.5	17.5	15.0	14.5	14.5	11.0	9.0	10.0	12.5	8.0	10.0
18	23.0	14.5	19.0	15.5	14.5	15.0	10.5	5.5	7.5	8.0	.0	2.5
19	21.5	11.5	17.5	16.0	15.0	15.5	8.5	4.5	6.0	5.0	.0	1.5
20	18.0	6.0	12.0	16.0	15.5	15.5	6.0	3.0	4.0	8.0	.5	3.5
21	20.5	6.5	14.5	16.0	15.5	15.5	5.0	3.5	4.0	9.0	2.0	5.0
22	25.5	13.0	20.0	15.5	15.0	15.5	5.0	3.0	4.0	13.5	5.0	9.0
23	22.5	7.5	15.5	15.5	15.0	15.5	5.0	.5	3.0	11.5	5.5	8.0
24	15.5	7.5	13.0	15.0	14.0	14.5	6.5	2.0	4.0	9.0	2.0	5.0
25	18.5	14.0	16.5	15.0	14.0	14.5	6.5	1.5	4.5	10.0	3.0	6.5
26	20.5	17.5	18.5	15.0	14.5	14.5	8.0	3.0	5.5	8.5	2.5	5.0
27	19.0	15.5	17.5	15.0	14.5	14.5	8.5	4.0	6.0	7.0	.5	3.5
28	17.0	13.5	15.5	14.5	13.0	13.5	7.0	3.0	4.5	10.5	2.0	6.0
29	18.5	14.0	16.5	13.0	12.0	12.5	6.0	3.0	4.5	10.0	4.5	7.0
30	18.0	17.0	17.5	13.0	12.0	12.5	8.5	5.5	7.0	6.5	1.5	4.0
31	19.5	16.5	18.0	---	---	---	9.5	4.5	7.5	3.0	.0	1.0
MONTH	25.5	6.0	18.0	20.5	8.0	14.0	15.0	.0	7.0	13.5	.0	5.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	.0	.5	11.5	.5	5.5	19.0	10.0	13.5	29.5	12.5	19.5
2	.0	.0	.0	16.0	4.5	9.5	20.5	11.0	15.0	---	---	---
3	1.0	.0	.0	18.0	7.0	12.0	23.5	12.5	16.5	---	---	---
4	2.0	.0	.5	21.0	12.0	16.0	17.5	11.0	13.0	---	---	---
5	4.0	.0	1.5	19.5	14.0	16.0	11.0	7.5	8.5	---	---	---
6	9.0	.0	5.0	14.5	3.0	10.0	20.0	6.0	12.0	---	---	---
7	13.5	4.5	10.0	11.0	.0	5.0	21.5	9.5	14.0	35.0	20.5	26.0
8	15.5	8.5	12.0	11.5	2.5	5.5	22.0	12.0	16.0	34.0	20.5	25.5
9	15.5	9.0	13.0	14.0	2.5	7.0	25.5	13.0	18.5	34.0	19.5	25.5
10	16.5	9.5	13.0	17.5	5.0	10.0	26.0	15.0	19.5	33.5	18.5	23.5
11	12.0	6.0	9.5	19.0	8.5	12.5	26.0	16.0	19.5	34.0	17.0	23.0
12	11.5	5.0	8.5	22.0	10.0	15.0	25.0	16.0	19.0	33.5	16.0	23.5
13	13.0	6.0	9.5	25.5	13.5	18.0	25.5	13.5	17.5	35.0	20.0	26.0
14	16.5	9.5	13.0	25.0	15.5	19.0	22.0	12.5	16.0	32.5	20.5	25.5
15	15.0	9.0	12.5	23.0	13.5	17.5	25.0	10.5	16.5	35.5	20.5	26.5
16	11.5	5.5	8.5	22.5	12.5	17.0	23.0	12.0	17.0	35.0	20.0	26.0
17	12.5	5.0	9.0	23.0	12.5	16.5	26.0	13.0	18.0	33.5	20.5	25.5
18	11.5	7.0	9.5	17.5	12.5	14.5	28.5	14.5	20.0	33.0	20.0	25.0
19	17.5	8.5	12.5	17.0	11.5	14.0	27.5	15.0	19.5	32.0	20.5	25.0
20	17.5	11.0	13.5	17.5	8.0	12.0	27.5	13.0	18.5	33.5	19.5	25.5
21	19.5	12.0	15.0	18.0	8.5	13.0	28.0	14.0	20.0	36.0	19.5	26.5
22	19.5	12.5	15.5	20.0	12.0	15.5	23.5	14.0	17.0	34.0	22.5	27.0
23	15.0	13.0	14.0	22.5	15.0	17.5	27.5	11.0	18.0	32.0	20.5	25.5
24	13.0	11.5	12.0	19.5	8.5	15.5	27.0	13.0	18.5	29.0	21.5	25.0
25	14.5	12.0	13.0	14.5	5.0	9.0	26.5	14.0	18.5	26.0	22.0	24.0
26	16.5	14.0	15.5	7.0	5.0	5.5	30.5	13.5	20.5	28.0	18.0	22.5
27	16.0	13.0	14.5	5.0	3.0	4.5	30.5	14.5	21.5	24.0	15.0	18.0
28	13.0	8.5	10.5	14.0	3.5	8.0	22.0	12.0	19.0	22.0	13.0	17.5
29	9.5	2.5	6.0	18.0	9.0	13.0	24.5	9.5	15.5	23.5	15.5	19.5
30	---	---	---	18.5	11.0	14.5	26.5	9.5	17.0	26.0	21.5	23.5
31	---	---	---	17.5	9.5	13.0	---	---	---	32.0	21.0	26.5
MONTH	19.5	.0	9.5	25.5	.0	12.5	30.5	6.0	17.0	36.0	12.5	24.0

07311800 SOUTH WICHITA RIVER NEAR BENJAMIN, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	33.0	23.5	27.5	36.5	24.5	29.5	---	---	---	---	---	---
2	35.0	24.0	28.0	36.0	24.0	28.5	---	---	---	---	---	---
3	32.0	12.5	26.0	36.5	23.0	28.5	---	---	---	---	---	---
4	29.0	13.5	21.5	---	---	---	---	---	---	---	---	---
5	31.0	20.5	26.0	---	---	---	---	---	---	---	---	---
6	34.0	23.5	29.0	---	---	---	---	---	---	---	---	---
7	31.5	21.0	26.0	---	---	---	---	---	---	31.0	21.0	25.5
8	29.5	21.5	26.0	---	---	---	---	---	---	30.0	22.0	24.5
9	29.0	24.0	26.5	---	---	---	---	---	---	30.0	20.0	25.0
10	29.0	25.5	27.0	---	---	---	---	---	---	30.5	20.5	25.5
11	29.5	26.5	28.0	---	---	---	---	---	---	32.5	20.5	25.5
12	29.0	26.0	27.5	---	---	---	---	---	---	27.5	21.0	24.0
13	30.0	26.5	28.0	---	---	---	---	---	---	23.5	21.0	22.5
14	29.0	26.0	27.5	---	---	---	---	---	---	24.0	21.0	22.5
15	28.5	26.0	27.5	---	---	---	---	---	---	26.5	20.5	23.0
16	32.0	26.0	27.0	---	---	---	---	---	---	29.0	19.0	23.5
17	31.5	25.5	28.0	---	---	---	---	---	---	32.5	19.5	24.0
18	31.0	26.0	28.5	---	---	---	---	---	---	23.0	18.0	19.5
19	29.5	26.5	28.0	---	---	---	---	---	---	21.0	18.0	19.5
20	29.5	26.0	28.0	---	---	---	---	---	---	23.0	18.5	20.5
21	28.0	25.5	26.5	---	---	---	---	---	---	23.0	20.0	21.5
22	27.5	24.5	26.0	---	---	---	---	---	---	24.5	21.0	22.5
23	29.0	25.0	26.5	---	---	---	---	---	---	27.0	22.5	24.5
24	29.5	25.5	27.0	---	---	---	---	---	---	25.0	21.5	23.0
25	33.5	24.5	28.5	---	---	---	---	---	---	24.0	21.0	22.0
26	33.0	27.5	29.5	---	---	---	---	---	---	22.5	19.5	21.0
27	33.0	25.5	28.5	---	---	---	---	---	---	19.5	16.5	17.5
28	34.0	25.5	29.0	---	---	---	---	---	---	21.0	14.5	17.5
29	36.5	25.0	29.5	---	---	---	---	---	---	23.0	16.0	19.5
30	36.5	25.0	29.5	---	---	---	---	---	---	23.5	16.5	20.0
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	36.5	12.5	27.5	36.5	23.0	28.5	---	---	---	32.5	14.5	22.0
YEAR	36.5	.0	15.5									

07312000 LAKE KEMP NEAR MABELLE, TX

LOCATION.--Lat 33°45'30", long 99°09'03", Baylor County, Hydrologic Unit 11130206, in outlet gate tower near center of dam on Wichita River, 6.2 mi north of Mabelle, 13 mi northeast of Seymour, and 126.7 mi upstream from mouth.

DRAINAGE AREA.--2,086 mi².

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

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1972, nonrecording gage at different site and at datum 2.40 ft higher.

REMARKS.--The lake is formed by a rolled earthfill dam 8,890 ft 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 3,000-foot-wide uncontrolled spillway is located approximately 600 ft 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-in by 13 ft with a 13-foot-diameter 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, oil field operation, municipal, and industrial uses. The capacity table is based on a resurvey made in 1973. Satellite telemeter at station. Figures given herein represents total contents. 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 provided by the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 420,900 acre-ft June 30, 1941 (elevation, 1,152.0 ft), present datum; minimum since first appreciable storage, 26,160 acre-ft June 30, 1953 (elevation, 1,108.0 ft), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 270,200 acre-ft Oct. 5 at 0200 hours (elevation, 1,144.14 ft); minimum contents, 146,100 acre-ft Aug. 25 (elevation, 1,133.64 ft).

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

1108.0	26,160	1136.0	166,200	1142.0	238,200
1118.0	58,000	1138.0	186,700	1147.0	317,700
1128.0	108,000	1140.0	210,900	1152.0	407,600

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266900	267100	265100	259500	256100	254600	243700	227600	199600	187600	157700	159100
2	267700	266500	265400	259600	256000	253900	243600	226700	198200	186300	156900	159400
3	269300	266500	264800	259800	256600	254900	243000	226200	198100	185500	156000	159100
4	270100	266000	264800	259000	256400	255400	242600	225200	197500	184000	154700	164300
5	269000	266000	264700	258300	256900	255500	242000	225200	200400	183100	154000	164800
6	268000	267200	263700	258400	257200	253700	242100	224100	202500	181300	153000	164800
7	267400	266300	263900	258000	257800	252700	241800	222600	202100	180100	152500	164900
8	267700	267100	263000	258400	258100	252500	242000	221800	201800	179200	151400	165900
9	267200	267700	262500	258900	258300	252100	242000	221100	200900	177800	151100	166500
10	267100	266000	262500	259200	257700	251300	241800	220200	200400	176100	151300	166700
11	267500	266600	262800	258900	258400	251300	241700	219000	200100	175100	151000	166600
12	266600	266600	264000	259000	258300	251900	241700	218400	199400	174100	151300	166500
13	266600	265900	263600	258900	258100	250900	241300	217700	199600	173500	150600	166600
14	265700	266200	263000	259200	258400	250500	240100	217300	198300	172800	150000	167400
15	265400	265900	263100	258700	256700	249700	240200	217100	197800	172500	149500	168000
16	265000	266800	262400	258600	257700	249600	239100	216100	197600	171600	150000	168100
17	264700	266300	262400	260900	258000	248400	239700	215700	197500	170500	150600	168200
18	265600	266600	262500	258000	257800	248600	239200	214900	196700	169500	149900	176300
19	264500	266300	261900	257400	258100	247700	237900	214100	196800	168500	149300	181800
20	265000	266500	261300	257700	257400	247500	237400	213300	196200	167300	148600	186100
21	264200	266500	261000	258400	257700	247000	237200	212000	196000	166700	147900	191800
22	264700	266800	260700	258700	257500	246700	236900	210100	195500	165600	147700	197100
23	263600	266400	260500	258600	256400	246200	235500	210300	194500	164900	147100	200200
24	262200	267100	261000	258400	256400	245200	235500	208200	194400	163900	146500	201400
25	264200	266300	260500	259800	256300	243500	234400	207500	193300	163000	146700	201800
26	264000	266800	260400	258000	256100	243700	233200	206200	192800	162100	147400	203200
27	263900	265900	259300	257500	254800	244600	232300	204200	192300	161300	150300	203700
28	262200	265400	259200	258600	253700	244200	232200	202800	191500	160800	153500	203700
29	263400	265600	259500	257500	254300	244300	229900	201300	189900	161000	157100	204300
30	263000	265600	259200	256900	---	244300	228500	200700	188900	159100	158200	204100
31	265000	---	258700	256900	---	243700	---	199900	---	158500	158800	---
MAX	270100	267700	265400	260900	258400	255500	243700	227600	202500	187600	158800	204300
MIN	262200	265400	258700	256900	253700	243500	228500	199900	188900	158500	146500	159100
(+)	1143.80	1143.84	1143.39	1143.27	1143.10	1142.38	1141.31	1139.13	1138.19	1135.14	1135.18	1139.46
(@)	-2100	+600	-6900	-1800	-2600	-10600	-15200	-28600	-11000	-30400	+300	+45300

CAL YR 1995 MAX 367700 MIN 210900 (@) +34900
WTR YR 1996 MAX 270100 MIN 146500 (@) -63000

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07312100 WICHITA RIVER NEAR MABELLE, TX

LOCATION.--Lat 33°45'36", long 99°08'33", Baylor County, Hydrologic Unit 11130206, near left bank at downstream side of bridge on U.S. Highways 183 and 283, 0.3 mi downstream from Lake Kemp Dam, 6.2 mi north of Mabelle, and 13 mi northeast of Seymour.

DRAINAGE AREA.--2,086 mi², all of which is above Lake Kemp Dam.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Lake Kemp (station 07312000) 0.3 mi upstream. Water is released from Lake Kemp to supply Lake Diversion, 12.5 mi downstream. Water from Lake Diversion is released for mining, recreation, and for irrigation in the vicinity of Wichita Falls.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e122	4.8	35	127	1.0	1.5	126	386	308	362	261	e1.4
2	e122	1.7	38	126	1.0	1.3	74	387	306	364	266	e1.3
3	122	1.7	106	124	1.0	1.3	74	344	305	367	292	e1.1
4	383	1.6	106	125	1.0	1.2	79	265	279	367	288	e12
5	539	1.5	109	99	1.2	1.2	78	266	223	365	285	e1.3
6	376	1.5	107	50	1.5	1.2	76	267	222	365	278	e1.2
7	198	1.5	113	50	1.4	62	74	267	198	365	278	e1.2
8	152	1.5	82	48	.92	212	76	267	161	365	278	e1.1
9	152	1.4	1.2	48	.96	212	77	267	e163	365	275	e.84
10	152	1.3	.81	49	.95	212	76	239	e165	360	276	.53
11	152	1.3	.75	49	.92	212	74	183	166	359	274	.53
12	151	1.2	.70	48	.92	213	75	181	163	356	268	.49
13	151	1.2	74	48	1.0	213	74	182	159	357	262	.47
14	152	1.3	115	48	1.0	215	74	180	159	358	262	1.3
15	152	1.3	117	48	1.1	218	74	180	165	310	217	e1.3
16	152	1.2	118	48	1.0	219	73	181	173	284	212	e.70
17	90	1.2	119	34	1.0	219	73	179	172	286	212	e.64
18	55	1.2	118	1.5	.99	219	100	178	171	286	212	e19
19	55	1.2	120	1.1	64	218	158	178	171	286	210	e.92
20	54	1.2	121	.99	156	218	157	207	170	286	210	e.92
21	54	1.2	120	.91	157	218	157	256	169	286	209	e.92
22	23	1.1	120	.84	158	219	220	256	169	286	208	e.76
23	1.7	1.0	120	.84	159	218	261	342	169	286	207	e.76
24	1.6	1.0	121	.84	158	218	262	393	169	287	207	e.70
25	1.6	1.0	121	.81	158	220	267	393	170	286	176	e.64
26	1.6	.98	122	.76	65	220	268	391	193	286	120	e.64
27	1.6	.95	122	.88	1.9	192	268	390	206	283	79	e.58
28	1.6	.92	123	.92	1.6	148	266	391	301	282	1.5	e.53
29	1.6	.92	124	.92	1.6	147	299	342	361	290	e4.0	e.53
30	1.5	11	124	.95	---	149	384	308	362	268	e1.5	e.53
31	2.4	---	124	1.0	---	150	---	306	---	261	e4.9	---
TOTAL	3574.2	50.87	2942.46	1182.26	1098.96	4968.7	4394	8552	6268	9914	6333.9	54.83
MEAN	115	1.70	94.9	38.1	37.9	160	146	276	209	320	204	1.83
MAX	539	11	124	127	159	220	384	393	362	367	292	19
MIN	1.5	.92	.70	.76	.92	1.2	73	178	159	261	1.5	.47
AC-FT	7090	101	5840	2350	2180	9860	8720	16960	12430	19660	12560	109

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996#, BY WATER YEAR (WY)

MEAN	135	109	42.9	64.2	66.5	149	168	157	317	322	286	172
MAX	952	1271	247	648	769	659	659	1246	1810	923	1742	915
(WY)	1987	1987	1987	1992	1992	1968	1968	1990	1992	1967	1995	1986
MIN	.66	.39	.42	.60	.51	.50	.89	6.53	2.59	140	30.9	1.66
(WY)	1985	1974	1974	1979	1979	1989	1981	1977	1989	1975	1978	1974

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996#	
ANNUAL TOTAL	132462.33		49334.18			
ANNUAL MEAN	363		135		166	
HIGHEST ANNUAL MEAN					522	1987
LOWEST ANNUAL MEAN					59.9	1981
HIGHEST DAILY MEAN	2710	Aug 13	539	Oct 5	3530	Jun 24 1992
LOWEST DAILY MEAN	.70	Dec 12	.47	Sep 13	.09	May 8 1989
ANNUAL SEVEN-DAY MINIMUM	.97	Nov 23	.59	Sep 24	.14	May 7 1989
INSTANTANEOUS PEAK FLOW			541	Oct 4	4290	Mar 24 1976
INSTANTANEOUS PEAK STAGE			3.88	Oct 4	10.47	Mar 24 1976
ANNUAL RUNOFF (AC-FT)	262700		97850		120500	
10 PERCENT EXCEEDS	2050		302		409	
50 PERCENT EXCEEDS	72		122		13	
90 PERCENT EXCEEDS	1.4		.94		.74	

e Estimated
Period of regulated streamflow.

07312100 WICHITA RIVER NEAR MABELLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: December 1965 to May 1993, October 1994 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1968 to May 1993, October 1994 to current year.
WATER TEMPERATURE: July 1968 to May 1993, October 1994 to current year.

INSTRUMENTATION.--From 1968 to May 1993 daily samples collected manually, October 1994 to current year specific conductance and temperature continuously recorded on an hourly basis by automatic monitors.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 7,110 microsiemens May 13, 14, 1980; minimum daily, 561 microsiemens May 28, 1975.
WATER TEMPERATURE: Maximum, 34.0°C Aug. 5, 1995; minimum daily, 0.0°C Dec. 20, 1973, Feb. 9, 17, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,400 microsiemens Feb. 7; minimum, 586 microsiemens Sept. 18.
WATER TEMPERATURE: Maximum, 33.0°C Sept. 9; minimum, 1.5°C Jan. 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV										
30...	1015	0.88	4700	7.8	10.0	--	900	740	240	74
JAN										
23...	1005	0.82	4730	7.9	8.0	13.3	900	710	240	73
APR										
02...	1100	73	4580	8.1	13.0	--	870	760	240	66
MAY										
08...	0900	267	4600	8.1	20.0	--	920	820	250	71
JUL										
26...	0915	287	4980	8.2	27.0	8.3	1000	910	270	80
AUG										
06...	1120	278	5050	8.1	27.5	8.1	970	870	260	78

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV									
30...	670	10	6.5	160	700	1000	0.30	9.7	2800
JAN									
23...	700	10	5.8	190	720	1100	0.30	8.4	2960
APR									
02...	600	9	8.0	110	790	970	0.40	7.5	2750
MAY									
08...	650	9	10	98	820	1100	0.30	7.2	2970
JUL									
26...	710	10	9.3	92	890	1100	0.30	8.2	3120
AUG									
06...	730	10	8.9	97	900	1100	0.30	8.4	3140

07312100 WICHITA RIVER NEAR MABELLE, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	3574.2	3490	2110	20400	750	7250	570	5540	690
NOV.	1995	50.87	4370	2660	366	970	134	700	95	830
DEC.	1995	2942.46	3990	2420	19200	870	6950	640	5120	770
JAN.	1996	1182.26	4100	2490	7940	900	2880	660	2100	790
FEB.	1996	1098.96	4580	2800	8300	1000	3050	720	2150	860
MAR.	1996	4968.7	4390	2670	35900	980	13100	700	9370	830
APR.	1996	4394	4700	2870	34000	1100	12600	740	8770	880
MAY	1996	8552	4530	2760	63800	1000	23400	720	16600	850
JUNE	1996	6268	4790	2930	49600	1100	18400	750	12700	890
JULY	1996	9914	4560	2780	74500	1000	27400	720	19300	860
AUG.	1996	6333.9	4550	2780	47500	1000	17500	720	12300	850
SEPT	1996	54.83	3120	1880	279	670	99	510	76	620
TOTAL		49334.18	**	**	362000	**	133000	**	94100	**
WTD.AVG.		135	4450	2720	**	1000	**	710	**	840

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3570	3540	3550	4030	1360	3170	3930	3920	3920	4120	4030	4080
2	3560	3510	3550	4440	3860	4240	3940	3900	3920	4070	4040	4060
3	3570	3550	3560	4430	3850	4200	3940	3910	3930	4110	4040	4080
4	3570	3440	3510	4570	4250	4420	3940	3910	3930	4110	4090	4100
5	3450	3260	3370	4580	4360	4470	3960	3910	3930	4120	4080	4100
6	3430	3140	3260	4510	4290	4410	3970	3930	3950	4120	4100	4110
7	3410	3190	3350	4540	4350	4430	3980	3960	3970	4120	4100	4110
8	3440	3400	3420	4580	4340	4430	4590	3950	4080	4120	4070	4100
9	3440	3410	3430	4540	4000	4340	4850	4590	4770	4100	4080	4100
10	3430	3390	3410	4680	4280	4520	4880	4810	4840	4100	4080	4090
11	3420	3370	3400	4660	4380	4500	4900	4680	4810	4110	4090	4100
12	3400	3350	3370	4710	3750	4450	4840	4740	4790	4110	4080	4090
13	3370	3350	3360	4610	4270	4450	4740	3940	4150	4090	4070	4080
14	3390	3370	3380	4540	4210	4360	3960	3940	3950	4090	4070	4080
15	3410	3380	3400	4620	4400	4520	3970	3950	3960	4090	4070	4080
16	3420	3400	3410	4590	4390	4520	3970	3950	3960	4080	4050	4070
17	4370	3410	3850	4640	4350	4520	4010	3950	3980	4540	4050	4140
18	4490	4250	4390	4560	4370	4490	4020	4000	4010	4800	4540	4710
19	4530	4330	4450	4610	4420	4550	---	---	4000	4850	4750	4800
20	4580	4350	4480	4630	4440	4520	---	---	4000	4800	4700	4750
21	4570	4320	4490	4700	4500	4570	4010	3990	3990	4770	4600	4710
22	4550	4320	4490	4760	4340	4510	4010	3990	3990	4740	4460	4690
23	4570	4410	4500	4820	4640	4720	4010	3980	3990	4740	4600	4690
24	4630	4410	4530	4760	4290	4560	4000	3960	3990	4790	4630	4720
25	4570	4230	4430	4830	4690	4760	3990	3970	3990	4830	4430	4740
26	4530	4130	4360	4750	4350	4620	4000	3980	4000	4860	4760	4820
27	4640	4480	4570	4890	4410	4760	4010	3990	4000	4900	4800	4850
28	4600	4430	4510	4850	4760	4810	4010	4000	4010	4890	4610	4820
29	4640	4240	4470	4830	4720	4760	4020	4000	4020	4880	4770	4830
30	4630	4310	4490	4810	3920	4500	4030	4010	4020	4910	4830	4860
31	4560	1660	4320	---	---	---	4030	4000	4010	4930	4830	4890
MONTH	4640	1660	3910	4890	1360	4470	4900	3900	4090	4930	4030	4400

07312100 WICHITA RIVER NEAR MABELLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4940	4840	4890	5250	5120	5180	4580	4530	4560	4790	4350	4650
2	4940	4890	4920	5230	5120	5180	4600	4560	4580	4800	4160	4520
3	4930	4840	4890	5300	5130	5210	4660	4600	4630	4860	4070	4490
4	4910	4830	4870	5220	4830	5160	4670	4650	4660	4880	4550	4790
5	4920	4690	4830	5170	4840	5100	4690	4670	4680	5010	4430	4800
6	4840	4710	4770	5380	4640	5170	4710	4680	4700	4940	4260	4660
7	4800	4490	4700	5400	4660	5110	4710	4680	4700	4790	4320	4570
8	4810	4650	4750	4690	4660	4680	4710	4680	4700	4750	4240	4540
9	4840	4710	4780	4660	4580	4620	4720	4670	4700	4610	4450	4550
10	4870	4500	4740	4610	4520	4570	4720	4690	4710	4580	4500	4560
11	4860	4740	4820	4570	4490	4520	4760	4710	4740	4590	4560	4580
12	4850	4730	4790	4490	4310	4410	4770	4750	4760	4590	4530	4570
13	4880	4620	4810	4560	4230	4360	4760	4720	4740	4600	4520	4560
14	4870	4490	4690	4550	4360	4440	4750	4730	4740	4580	4510	4540
15	4850	4550	4750	4450	4270	4340	4760	4740	4750	4580	4540	4570
16	4900	4550	4750	4560	4360	4430	4760	4740	4750	4570	4500	4540
17	4910	4820	4870	4530	4350	4450	4760	4740	4750	4540	4470	4520
18	4900	4660	4800	4370	4150	4340	4780	4740	4760	4540	4480	4510
19	4730	4240	4620	4310	4040	4140	4790	4760	4780	4520	4450	4480
20	4610	4590	4600	4290	4110	4210	4790	4740	4770	4480	4420	4460
21	4590	4550	4580	4270	4020	4150	4810	4730	4780	4470	4390	4430
22	4590	4550	4570	4400	4130	4260	4830	4640	4770	4560	4310	4470
23	4580	4570	4570	4610	3990	4180	4820	4530	4710	4510	4420	4470
24	4570	4530	4560	4430	4320	4390	4820	4680	4750	4600	4420	4500
25	4560	4510	4530	4320	4180	4270	4710	4640	4680	4560	4500	4530
26	4910	4550	4690	4310	4210	4270	4720	4420	4610	4570	4430	4550
27	5090	4820	5030	4400	4130	4200	4750	4430	4590	4630	4200	4540
28	5170	5010	5130	4440	4400	4420	4700	4530	4620	4600	3240	4240
29	5230	5120	5170	4500	4440	4470	4800	4480	4680	4610	4330	4510
30	---	---	---	4550	4500	4520	4820	4540	4730	4570	4350	4490
31	---	---	---	4580	4530	4570	---	---	---	4510	3940	4340
MONTH	5230	4240	4770	5400	3990	4560	4830	4420	4700	5010	3240	4530

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4500	3970	4350	4660	4550	4620	4950	4790	4880	4460	3060	3930
2	4760	3370	4190	4770	4620	4670	5050	4780	4920	4750	4400	4590
3	4780	4540	4690	4660	4530	4610	5060	5010	5040	4910	4630	4780
4	4750	4250	4530	4550	4420	4500	5030	4960	5000	4850	1430	2740
5	4800	4450	4730	4460	4370	4410	5010	4910	4980	4490	2610	3760
6	4820	4480	4750	4380	4270	4330	5050	4820	4920	4490	3540	4040
7	4880	4690	4810	4290	4130	4210	4900	4790	4860	4180	3150	3700
8	4880	4850	4870	4360	4130	4230	4820	4600	4770	4420	2840	3920
9	4880	4860	4870	---	---	e4290	4780	4450	4690	4480	4080	4300
10	4910	4830	4870	---	---	e4350	4790	4340	4690	4640	4230	4450
11	4920	4890	4910	---	---	e4480	4770	4640	4740	4580	4280	4430
12	4920	4870	4900	---	---	e4560	4770	4700	4740	4610	4330	4500
13	4890	4740	4830	---	---	e4660	4730	4640	4710	4680	4280	4570
14	4920	4370	4630	4630	4280	4490	4730	4600	4670	4790	2910	4460
15	5020	4910	4970	4560	4380	4510	4690	4360	4570	4270	1860	3440
16	5010	4900	4980	4500	4380	4420	4630	3820	4380	4660	4270	4550
17	5090	4920	4980	4400	4200	4330	4570	2880	3720	4840	4660	4760
18	5200	4960	5080	4280	4190	4220	4650	3210	3960	4790	586	1960
19	5020	4950	4980	4540	4240	4360	4940	3420	4110	3240	1880	2610
20	4980	4940	4970	4680	3920	4430	4860	2840	4050	3860	3200	3570
21	5070	4970	5000	4740	4070	4580	5030	3130	4300	4300	3850	4020
22	5070	5050	5060	4780	4610	4730	4890	3050	3840	4550	4300	4430
23	5110	5070	5080	4890	4420	4750	5050	2950	3890	4610	4430	4540
24	5110	5080	5100	4890	4800	4860	4760	2840	3740	4810	4520	4710
25	5090	5030	5050	4860	4680	4780	5050	2900	4010	4880	4760	4810
26	5060	4850	4990	5060	4950	4980	5080	4800	5010	4910	4830	4860
27	4850	4710	4790	4950	4760	4890	4990	4480	4860	5020	4910	4970
28	4880	4720	4820	4930	4770	4890	5000	4700	4890	5020	4910	4970
29	4810	4620	4710	4920	4790	4870	4940	931	3180	5030	4930	4990
30	4710	4570	4650	4920	4780	4860	4950	3880	4680	5080	4950	5030
31	---	---	---	4960	4770	4870	5030	1040	3720	---	---	---
MONTH	5200	3370	4840	5060	3920	4570	5080	931	4470	5080	586	4210
YEAR	5400	586	4460									

e Estimated

07312100 WICHITA RIVER NEAR MABELLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.5	26.5	16.5	22.0	15.5	18.0	13.5	13.0	13.0	7.5	7.0	7.0
2	21.5	21.5	21.5	16.5	11.0	13.5	13.5	13.0	13.0	6.5	6.0	6.5
3	21.5	21.0	21.5	17.0	10.5	12.5	13.0	12.5	13.0	6.5	6.0	6.0
4	21.5	21.0	21.5	13.0	10.5	11.5	13.0	12.0	12.5	6.5	6.0	6.0
5	21.5	20.5	21.0	19.0	10.5	13.5	13.0	12.0	12.5	6.0	5.5	6.0
6	20.5	20.5	20.5	18.5	13.5	16.0	12.5	12.0	12.0	6.0	5.0	5.5
7	21.0	20.0	20.5	19.5	13.5	16.0	12.0	12.0	12.0	5.5	5.0	5.0
8	20.5	20.0	20.5	19.5	11.5	14.5	13.0	8.0	11.5	6.0	4.5	5.0
9	20.5	20.0	20.5	20.0	12.5	16.0	11.0	5.5	8.0	6.0	5.0	5.0
10	21.0	20.0	20.5	22.0	12.5	17.5	13.0	6.5	9.0	6.0	5.0	5.5
11	20.5	20.0	20.0	17.5	8.5	12.0	15.5	8.0	11.0	6.0	5.0	5.5
12	21.0	20.0	20.5	17.5	10.0	13.0	18.0	11.0	13.5	6.0	5.0	5.5
13	21.0	19.5	20.5	19.0	12.0	14.5	12.5	9.0	10.5	6.5	5.0	6.0
14	20.0	19.5	20.0	19.0	12.0	15.0	10.5	8.5	10.0	6.5	5.5	6.0
15	20.5	19.5	20.0	19.0	12.0	15.0	10.5	10.0	10.0	6.5	5.5	5.5
16	20.5	19.5	20.0	20.0	11.5	15.0	10.0	9.5	10.0	7.0	5.5	6.0
17	23.0	18.5	20.5	19.0	13.0	15.5	10.0	9.5	10.0	10.0	6.0	7.0
18	24.5	16.5	20.0	21.0	12.5	15.5	9.5	9.0	9.5	8.0	1.5	4.5
19	22.0	16.5	18.5	21.5	13.5	16.5	---	---	---	10.0	4.5	6.5
20	21.5	13.0	16.5	21.0	14.0	17.0	---	---	---	13.5	6.0	8.5
21	21.5	12.0	16.0	20.0	12.5	15.5	8.5	8.5	8.5	14.5	6.0	9.5
22	22.5	14.0	17.5	19.0	13.0	15.5	8.5	8.0	8.5	17.0	9.0	12.0
23	19.5	14.5	17.0	16.0	12.0	14.0	8.5	8.0	8.0	13.5	7.5	10.5
24	20.5	11.5	15.0	18.0	10.5	13.5	8.5	8.0	8.0	14.5	6.5	9.5
25	23.0	14.5	17.5	20.5	10.5	14.5	8.0	7.5	8.0	13.5	7.0	9.5
26	22.0	16.5	18.5	16.5	11.5	14.0	8.0	7.5	7.5	12.0	4.0	7.5
27	22.0	14.0	17.5	16.0	11.0	13.5	8.0	7.5	7.5	13.0	5.0	8.0
28	21.0	13.0	16.5	16.0	8.5	11.0	7.5	7.0	7.5	13.0	5.5	9.0
29	22.0	14.0	17.0	18.0	9.0	12.0	7.0	7.0	7.0	13.5	7.5	9.5
30	18.0	16.5	17.0	18.0	9.5	12.5	7.5	7.0	7.0	8.5	4.5	6.5
31	21.0	16.5	18.0	---	---	---	7.5	7.0	7.0	8.0	2.0	4.5
MONTH	24.5	11.5	19.0	22.0	8.5	14.5	18.0	5.5	10.0	17.0	1.5	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	4.0	6.0	18.5	5.5	10.5	13.0	11.5	12.0	17.0	16.5	17.0
2	5.0	2.5	4.0	20.5	7.0	12.5	13.5	11.5	12.5	18.5	16.5	17.0
3	10.0	2.0	4.5	20.0	8.5	13.5	13.5	11.5	12.5	19.0	16.5	17.5
4	12.0	2.5	6.0	19.5	12.0	15.0	12.5	12.0	12.0	19.0	18.0	18.5
5	16.0	5.0	8.5	19.0	14.0	16.5	12.0	11.5	11.5	19.5	18.5	19.0
6	14.5	7.0	10.0	15.0	5.0	10.5	12.5	11.5	12.0	21.0	19.0	20.0
7	19.0	9.5	13.0	11.5	3.0	6.5	13.5	12.5	13.0	21.0	19.5	20.5
8	18.5	11.0	14.5	9.0	8.5	8.5	13.0	12.0	12.5	20.5	19.5	20.5
9	21.0	10.5	14.5	9.0	8.0	8.5	13.0	12.0	12.5	21.5	20.0	20.5
10	18.5	10.5	14.0	9.0	8.5	9.0	13.5	12.0	12.5	21.5	20.0	20.5
11	16.5	8.5	11.0	9.0	8.5	9.0	14.5	12.5	13.5	21.0	20.5	20.5
12	17.5	8.5	12.0	9.5	8.5	9.0	14.0	13.0	13.5	22.0	20.5	21.0
13	16.5	7.0	11.5	10.5	9.0	9.5	15.0	13.5	14.0	21.5	20.0	20.5
14	21.5	9.0	14.0	10.5	10.0	10.0	15.0	14.0	14.5	22.0	20.0	21.0
15	18.0	9.0	13.0	10.5	10.0	10.0	15.0	13.5	14.0	22.5	21.0	22.0
16	16.5	6.5	10.0	11.0	10.0	10.5	15.5	14.0	15.0	23.0	21.5	22.5
17	17.0	7.5	11.5	11.0	10.0	10.5	16.0	14.0	15.0	23.0	22.0	22.5
18	15.5	8.5	12.0	10.5	10.0	10.5	16.0	15.0	15.5	23.0	22.0	22.5
19	19.0	6.5	9.5	11.0	10.5	11.0	16.5	15.0	15.5	23.0	22.0	22.5
20	8.0	6.5	7.0	11.0	10.5	11.0	16.5	16.0	16.5	23.5	22.5	23.0
21	8.0	6.5	7.0	12.0	10.5	11.5	17.5	16.0	16.5	23.5	23.0	23.5
22	9.0	7.5	8.5	12.5	11.0	11.5	17.0	16.0	16.0	24.5	23.0	23.5
23	9.0	7.0	8.0	13.0	12.0	12.5	16.5	16.0	16.0	24.5	23.5	24.0
24	9.0	8.0	8.5	13.0	12.0	12.5	17.0	16.0	16.5	24.5	23.5	24.0
25	9.5	8.5	9.0	12.0	11.5	12.0	16.5	16.0	16.0	24.0	23.5	24.0
26	18.0	9.0	13.0	11.5	11.0	11.5	17.0	16.0	16.5	24.0	23.5	24.0
27	16.0	11.0	14.0	11.0	11.0	11.0	18.0	16.5	17.0	24.5	23.5	24.0
28	11.0	6.5	8.5	11.5	11.0	11.0	18.0	17.0	17.5	24.5	23.5	24.0
29	9.0	6.0	7.0	12.0	11.0	11.5	17.0	16.5	16.5	24.0	23.5	23.5
30	---	---	---	12.0	11.5	11.5	17.0	16.0	16.5	23.5	23.0	23.5
31	---	---	---	12.0	11.0	11.5	---	---	---	24.5	23.0	24.0
MONTH	21.5	2.0	10.0	20.5	3.0	11.0	18.0	11.5	14.5	24.5	16.5	21.5

07312100 WICHITA RIVER NEAR MABELLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	23.5	23.5	28.5	28.0	28.0	28.0	26.5	27.0	28.0	20.5	23.5
2	23.5	23.0	23.5	29.0	28.0	28.5	28.5	27.0	27.5	29.5	20.0	23.5
3	24.0	23.5	23.5	28.5	28.0	28.0	28.0	27.0	27.5	31.5	20.5	25.0
4	24.5	23.5	24.0	29.5	28.0	28.5	27.5	27.0	27.0	27.0	21.5	24.5
5	25.5	24.0	24.5	29.5	28.0	29.0	28.0	26.5	27.0	31.0	20.5	25.0
6	25.0	23.5	24.5	29.5	28.0	28.5	27.5	26.5	27.0	30.5	20.5	24.5
7	24.5	23.5	24.0	29.0	28.0	28.5	27.5	26.5	27.0	32.0	20.5	25.5
8	24.5	23.5	24.0	29.0	28.0	28.0	27.0	26.5	27.0	31.0	20.5	25.5
9	24.5	23.5	24.0	28.0	27.0	27.5	27.5	26.5	27.0	33.0	20.0	25.5
10	24.5	24.0	24.0	27.0	26.5	26.5	28.5	27.0	27.5	32.5	20.0	25.5
11	24.5	24.0	24.0	27.0	26.5	26.5	28.0	27.0	27.0	32.5	20.5	25.5
12	24.5	24.0	24.0	27.0	26.5	27.0	27.5	27.0	27.0	26.5	21.0	23.5
13	25.0	24.0	24.5	28.0	26.5	27.0	27.5	26.5	27.0	28.5	21.0	24.0
14	25.5	24.5	25.0	27.5	27.0	27.5	27.5	26.5	27.0	27.0	20.5	23.0
15	26.0	25.0	25.0	28.5	27.0	28.0	27.0	26.5	26.5	29.0	21.0	24.0
16	27.0	25.0	25.5	28.0	27.5	28.0	27.0	26.0	26.5	30.5	19.5	23.5
17	32.0	24.5	27.5	28.0	27.0	27.5	27.5	26.5	27.0	29.0	19.5	23.0
18	32.5	20.5	25.5	28.0	26.5	27.5	27.5	26.5	27.0	23.5	21.0	22.0
19	28.0	25.5	27.0	28.5	27.0	27.5	27.5	26.5	27.0	29.0	20.5	23.0
20	27.5	26.0	27.0	28.5	27.0	28.0	28.0	26.5	27.0	29.0	17.0	22.0
21	27.0	26.0	26.5	29.0	27.5	28.0	27.5	26.5	27.0	30.0	17.5	22.5
22	27.0	26.0	26.5	29.5	27.5	28.0	27.0	26.5	26.5	30.0	18.5	23.0
23	27.5	26.5	27.0	28.0	27.5	27.5	26.5	26.0	26.5	31.0	21.0	25.0
24	27.5	26.5	27.0	27.5	27.0	27.5	26.5	26.0	26.5	25.5	20.5	22.0
25	27.5	26.5	27.0	27.5	27.5	27.5	26.5	26.0	26.0	27.0	20.5	22.5
26	28.0	26.5	27.0	28.0	27.0	27.5	27.0	26.0	26.5	22.5	17.5	20.5
27	28.0	27.0	27.5	28.0	27.0	27.5	26.5	23.5	26.0	20.0	15.5	17.0
28	28.0	27.0	27.5	29.0	27.5	28.0	24.0	22.0	23.0	25.5	13.5	18.5
29	28.5	27.0	27.5	28.5	27.5	28.0	28.5	21.5	24.5	28.5	15.0	20.5
30	28.5	27.5	28.0	27.5	27.0	27.0	29.0	21.5	24.5	28.0	16.5	21.0
31	---	---	---	27.0	26.5	27.0	27.0	20.5	23.5	---	---	---
MONTH	32.5	20.5	25.5	29.5	26.5	27.5	29.0	20.5	26.5	33.0	13.5	23.0
YEAR	33.0	1.5	17.5									

07312110 SOUTH SIDE CANAL NEAR DUNDEE, TX

LOCATION.--Lat 33°48'50", long 98°55'57", Archer County, Hydrologic Unit 11130206, on left bank, 125 ft downstream from Lake Diversion headgates, and 5.3 mi northwest of Dundee.

DRAINAGE AREA.--2,194 mi² (for Lake Diversion on Wichita River, provided by Wichita County Water Improvement District No. 2).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,039.70 ft above sea level (Wichita County Water Improvement District benchmark).

REMARKS.--No estimated daily discharges. Records good. Records of discharge are of water released from Lake Diversion into a canal system for mining, industrial, recreation, and irrigation use. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	53	.53	138	.41	1.9	97	177	187	220	193	3.7
2	119	1.5	.61	134	.32	1.7	97	177	157	221	195	3.7
3	118	1.0	.71	135	.36	35	96	179	157	221	196	3.7
4	118	.99	.74	137	.40	100	97	178	157	222	197	3.6
5	116	.85	.66	98	.31	120	93	175	159	222	206	3.4
6	117	.87	.75	67	.26	118	90	174	158	223	227	3.4
7	118	.91	.91	66	.36	117	94	175	157	222	227	3.3
8	118	.91	.95	87	.33	118	112	173	156	223	228	3.3
9	117	.91	.94	81	.50	118	112	177	155	225	228	3.4
10	117	.91	.99	66	.61	120	113	196	155	225	230	3.4
11	117	.78	.95	65	.56	123	112	194	154	224	232	3.7
12	116	.70	40	66	.61	127	110	192	153	216	217	4.1
13	116	.70	111	65	.56	136	115	195	153	193	200	4.1
14	115	.65	115	65	.52	135	134	194	152	194	200	3.8
15	114	.61	113	66	.55	135	136	192	153	195	200	3.4
16	114	.68	113	64	.70	143	137	192	151	195	200	3.3
17	113	.70	114	46	.94	159	138	203	151	195	199	3.1
18	112	.74	111	.88	1.1	160	139	223	149	195	193	3.3
19	111	.70	111	.52	1.2	159	156	223	147	196	157	3.3
20	110	.69	111	.52	1.5	161	159	219	146	195	103	3.0
21	109	.65	111	.48	1.5	173	160	218	145	195	101	3.1
22	108	.60	110	.65	1.9	197	160	220	144	197	109	3.2
23	105	.58	110	.95	1.8	200	162	219	159	221	133	3.3
24	106	.56	109	.88	2.6	183	180	221	172	222	132	3.4
25	105	.58	109	.80	3.2	172	192	205	171	223	127	3.2
26	103	.59	109	.59	3.1	173	195	192	183	225	101	3.0
27	102	.55	109	.45	3.4	158	202	190	192	227	105	3.3
28	101	.50	124	.46	3.1	97	194	191	208	225	66	3.4
29	100	.53	139	.45	2.1	100	175	193	221	212	4.3	3.0
30	98	.53	137	.42	---	93	177	194	220	208	3.7	2.9
31	97	---	137	.35	---	95	---	196	---	193	3.7	---
TOTAL	3449	74.47	2251.74	1454.40	34.80	3928.6	4134	6047	4922	6570	4913.7	101.8
MEAN	111	2.48	72.6	46.9	1.20	127	138	195	164	212	159	3.39
MAX	119	53	139	138	3.4	200	202	223	221	227	232	4.1
MIN	97	.50	.53	.35	.26	1.7	90	173	144	193	3.7	2.9
AC-FT	6840	148	4470	2880	69	7790	8200	11990	9760	13030	9750	202

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996#, BY WATER YEAR (WY)

MEAN	69.4	11.1	16.0	21.4	13.1	27.7	62.6	78.6	126	204	182	115
MAX	141	41.0	76.3	66.1	52.2	127	150	218	240	344	282	219
(WY)	1978	1978	1978	1989	1975	1996	1972	1984	1984	1974	1980	1983
MIN	3.10	.000	.000	.000	.000	.000	2.56	17.6	20.1	124	50.8	3.39
(WY)	1977	1985	1985	1985	1985	1985	1979	1982	1982	1992	1989	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996#	
ANNUAL TOTAL	25458.32		37881.51			
ANNUAL MEAN	69.7		104		77.7	
HIGHEST ANNUAL MEAN					120	1984
LOWEST ANNUAL MEAN					46.6	1989
HIGHEST DAILY MEAN	220	Jul 13	232	Aug 11	374	Jul 22 1974
LOWEST DAILY MEAN	.00	Jan 7	.26	Feb 6	.00	Oct 20 1973
ANNUAL SEVEN-DAY MINIMUM	.01	Jan 5	.33	Feb 2	.00	Oct 20 1973
INSTANTANEOUS PEAK FLOW			239	Aug 11	374	Jul 22 1974
INSTANTANEOUS PEAK STAGE			7.69	Aug 11	8.31	Jul 22 1974
ANNUAL RUNOFF (AC-FT)	50500		75140		56260	
10 PERCENT EXCEEDS	141		208		201	
50 PERCENT EXCEEDS	72		113		52	
90 PERCENT EXCEEDS	.14		.64		.24	

Period of regulated streamflow.

07312130 WICHITA RIVER AT STATE HIGHWAY 25 NEAR KAMAY, TX

LOCATION.--Lat 33°52'09", long 98°50'20", Wichita County, Hydrologic Unit 11130206, near center of stream at upstream side of bridge on State Highway 25, 1 mile north of intersection with State Highway 258 at Kadane Corner, and 4.1 miles upstream from the confluence with Beaver Creek.

DRAINAGE AREA.--2182 mi², of which 2,086 mi² is above Lake Kemp.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1996 to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 923.00 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges and discharges greater than 50 cfs, which are poor. Flow from 2,086 mi² above this station is regulated by Lake Kemp (capacity 603,000 acre-ft) 43 mi upstream. Since completion of Lake Kemp in 1923, no outflow has been permitted to pass over the spillway. Water is diverted from Lake Diversion (capacity 40,000 acre-ft) 13 mi upstream for the irrigation of 42,000 acres under permit in the vicinity of Wichita Falls. During the current water year, the Wichita County Water Improvement District No. 2 diverted 75,130 acre-ft from Lake Diversion for mining, industrial, irrigation, and for recreational uses. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e9.0	7.9	7.5	45
2	---	---	---	---	---	---	---	---	e9.0	8.9	8.0	22
3	---	---	---	---	---	---	---	---	e9.0	8.8	e8.2	14
4	---	---	---	---	---	---	---	---	e9.0	8.3	e8.2	13
5	---	---	---	---	---	---	---	---	e9.0	8.4	e8.4	13
6	---	---	---	---	---	---	---	---	e9.0	8.0	e8.6	13
7	---	---	---	---	---	---	---	---	e9.0	8.1	11	11
8	---	---	---	---	---	---	---	---	e9.0	8.4	9.1	22
9	---	---	---	---	---	---	---	---	e9.0	9.5	12	15
10	---	---	---	---	---	---	---	---	e9.0	9.5	10	12
11	---	---	---	---	---	---	---	---	e9.0	9.9	9.5	12
12	---	---	---	---	---	---	---	---	e9.0	9.9	9.6	11
13	---	---	---	---	---	---	---	---	e9.0	9.6	9.7	11
14	---	---	---	---	---	---	---	---	e9.0	11	11	13
15	---	---	---	---	---	---	---	---	e9.0	11	11	28
16	---	---	---	---	---	---	---	---	e21	11	11	35
17	---	---	---	---	---	---	---	---	e195	11	9.8	22
18	---	---	---	---	---	---	---	---	e23	12	9.7	35
19	---	---	---	---	---	---	---	---	e11	9.1	9.7	108
20	---	---	---	---	---	---	---	---	e9.0	7.6	9.7	223
21	---	---	---	---	---	---	---	---	e8.5	6.9	9.9	140
22	---	---	---	---	---	---	---	---	e8.3	6.6	9.2	76
23	---	---	---	---	---	---	---	---	e8.1	7.1	9.7	52
24	---	---	---	---	---	---	---	---	e7.9	8.1	11	38
25	---	---	---	---	---	---	---	---	e8.5	9.6	14	23
26	---	---	---	---	---	---	---	---	e9.3	10	16	30
27	---	---	---	---	---	---	---	---	8.9	13	34	23
28	---	---	---	---	---	---	---	---	7.8	8.2	e70	17
29	---	---	---	---	---	---	---	---	6.9	6.7	e53	17
30	---	---	---	---	---	---	---	---	7.9	6.9	e32	13
31	---	---	---	---	---	---	---	---	---	6.9	e23	---
TOTAL	---	---	---	---	---	---	---	---	476.1	277.9	473.5	1107
MEAN	---	---	---	---	---	---	---	---	15.9	8.96	15.3	36.9
MAX	---	---	---	---	---	---	---	---	195	13	70	223
MIN	---	---	---	---	---	---	---	---	6.9	6.6	7.5	11
AC-FT	---	---	---	---	---	---	---	---	944	551	939	2200

e Estimated

07312130 WICHITA RIVER AT STATE HIGHWAY 25 NEAR KAMAY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: June 1996 to September 1996.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1996 to September 1996.
WATER TEMPERATURE: June 1996 to September 1996.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,970 microsiemens Aug. 6, 1996; minimum, 804 microsiemens Sept. 15, 1996.
WATER TEMPERATURE: Maximum, 35.5°C July 7 and 22, 1996; minimum, 15.5'C on Sept. 28, 1996

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 6,970 microsiemens Aug. 6; minimum, 804 microsiemens Sept. 15.
WATER TEMPERATURE: Maximum, 35.5°C July 7 and 22; minimum, 15.5'C on Sept. 28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
JUL										
24...	1035	8.6	6370	7.8	27.0	6.9	91	1300	1200	330
AUG										
06...	0935	8.8	6410	7.8	26.0	7.3	95	1300	1200	330

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JUL										
24...	110	930	11	11	130	990	1600	0.40	10	4060
AUG										
06...	110	950	12	12	100	1100	1600	0.30	9.4	4170

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e6400	6720	6410	6520	6330	5790	6070	5200	2010	3160
2	---	---	e6450	6710	6240	6420	5990	5670	5850	4240	2340	3330
3	---	---	e6500	6460	6160	6310	6150	5880	6000	5540	4240	5030
4	---	---	e6560	6660	6240	6450	6510	5560	5850	5710	5470	5570
5	---	---	e6600	6630	6250	6410	6810	6410	6510	5830	5550	5670
6	---	---	e6620	6620	6300	6430	6970	6460	6720	5870	5690	5760
7	---	---	e6650	6610	6240	6440	6500	6170	6300	6180	5810	5980
8	---	---	e6680	6460	6320	6390	6470	6380	6430	---	---	5250
9	---	---	e6700	6420	6100	6190	6420	5920	6030	6070	5330	5880
10	---	---	e6700	6160	6080	6120	6200	5950	6040	6020	5780	5890
11	---	---	e6750	6150	6000	6070	6310	6070	6200	6050	5780	5900
12	---	---	e6800	6060	5920	5980	6310	6120	6200	6260	6040	6120
13	---	---	e6850	6020	5890	5960	6280	6130	6190	6270	5970	6090
14	---	---	e6880	5970	5790	5850	6150	5940	6020	6220	5360	5940
15	---	---	e6900	5890	5710	5760	6190	5840	6000	5410	804	3460
16	---	---	e5000	5900	5620	5750	6370	6080	6170	5220	4300	4830
17	---	---	e4200	6080	5600	5800	6450	6150	6290	5540	5210	5350
18	---	---	e4800	6040	5780	5890	6440	5980	6260	5610	1410	4190
19	---	---	e5890	6200	6030	6080	6370	6010	6230	5100	3990	4700
20	---	---	e590	6600	6180	6360	6380	6010	6210	5130	5090	5100
21	---	---	e6050	6690	6460	6570	6380	6100	6220	5140	5110	5130
22	---	---	e6100	6820	6430	6650	6450	6310	6370	5140	5060	5100
23	---	---	e6300	6850	6310	6560	6460	6230	6320	5160	5100	5140
24	---	---	6500	6640	5990	6300	6370	6120	6220	5220	4690	5090
25	---	---	6270	5990	5840	5910	6170	4980	5860	5460	5220	5360
26	6240	6040	6090	5990	5200	5760	5890	5590	5750	5460	3220	4880
27	6340	6090	6180	5630	3520	4820	5790	2930	4530	5260	5110	5170
28	6460	6270	6340	6020	5290	5710	---	---	e4000	5410	5160	5290
29	6690	6460	6590	6390	6010	6150	---	---	e3500	5340	5280	5310
30	6640	6280	6400	6360	5860	6060	---	---	e4320	5660	5340	5530
31	---	---	---	6340	5880	6180	5180	3490	4670	---	---	---
ONTH	6690	6040	6110	6850	3520	6120	6970	2930	5850	6270	804	5170

e Estimated

07312130 WICHITA RIVER AT STATE HIGHWAY 25 NEAR KAMAY, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	34.5	27.5	30.5	33.5	26.5	29.5	26.5	23.5	25.0
2	---	---	---	34.5	28.0	30.0	34.0	27.5	30.0	28.5	23.5	26.0
3	---	---	---	34.0	27.5	30.0	33.0	26.5	29.5	30.5	24.5	27.5
4	---	---	---	35.0	27.5	30.5	32.5	27.0	29.0	28.0	25.0	26.5
5	---	---	---	34.0	27.5	30.0	33.5	26.0	28.5	30.0	24.5	27.0
6	---	---	---	34.0	26.5	29.5	33.5	26.0	29.0	30.5	25.5	28.0
7	---	---	---	35.5	27.0	30.0	33.0	26.5	29.0	31.0	25.5	28.0
8	---	---	---	34.5	28.0	30.0	31.5	26.5	28.5	---	---	---
9	---	---	---	32.0	27.0	29.0	31.5	26.0	28.0	31.0	24.5	27.5
10	---	---	---	27.5	24.5	26.0	32.5	26.0	28.5	31.5	25.0	28.0
11	---	---	---	30.0	24.0	26.5	33.5	25.0	28.5	31.0	25.5	28.5
12	---	---	---	32.0	26.0	28.5	31.5	26.0	28.0	28.5	25.5	27.0
13	---	---	---	34.0	27.0	29.5	31.5	24.0	27.5	28.5	24.5	26.0
14	---	---	---	31.0	27.0	28.5	31.5	25.5	28.0	27.5	24.5	25.5
15	---	---	---	33.0	25.5	29.0	30.0	25.5	27.0	27.5	22.5	25.0
16	---	---	---	33.0	27.0	29.5	30.5	25.0	27.0	27.0	23.5	25.0
17	---	---	---	32.5	26.5	29.0	32.5	25.5	28.0	27.5	23.5	25.5
18	---	---	---	33.5	26.5	29.5	32.5	26.0	28.5	25.5	21.5	24.0
19	---	---	---	34.0	27.0	30.0	32.5	25.5	28.5	25.5	22.0	24.0
20	---	---	---	35.0	27.5	30.5	32.5	26.0	28.5	25.0	22.5	24.0
21	---	---	---	35.0	26.5	30.0	30.5	26.0	28.0	24.5	22.5	24.0
22	---	---	---	35.5	26.5	30.0	32.5	25.5	28.0	26.0	23.0	24.5
23	---	---	---	35.0	27.0	30.0	28.5	25.5	27.0	27.5	24.5	26.0
24	---	---	---	32.0	26.0	28.5	27.5	25.5	26.5	26.5	23.0	24.5
25	---	---	---	32.0	26.5	28.5	26.0	25.0	25.5	25.0	22.5	23.5
26	32.5	27.5	29.0	32.5	26.5	28.5	28.5	24.0	26.5	24.0	19.5	21.5
27	33.5	27.0	29.5	30.0	23.5	27.0	27.0	24.0	26.0	19.5	17.5	18.5
28	34.0	27.0	30.0	34.5	26.0	29.5	26.5	25.5	26.0	21.5	15.5	18.5
29	34.0	26.5	29.5	33.0	27.0	29.0	---	---	---	23.5	17.0	20.5
30	33.5	27.0	29.5	28.0	26.0	27.0	---	---	---	24.5	19.0	21.5
31	---	---	---	33.5	25.5	28.5	27.0	24.5	25.5	---	---	---
MONTH	34.0	26.5	29.5	35.5	23.5	29.0	34.0	24.0	28.0	31.5	15.5	25.0

07312200 BEAVER CREEK NEAR ELECTRA, TX

LOCATION.--Lat 33°54'21", long 98°54'17", Wichita County, Hydrologic Unit 11130207, near right bank at downstream side of bridge on Farm Road 2326, 6.5 mi northwest of Kamay, 8 mi upstream from Wichita River, and 9 mi south of Electra.

DRAINAGE AREA.--652 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation by Santa Rosa Lake (capacity, 11,570 acre-ft) about 30 miles upstream. There are several diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1925, 36.0 ft, probably occurred Oct. 2, 1941 (partly caused by breaching of Santa Rosa Dam to avoid its failure), from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	111	10	16	9.5	9.2	e1.5	5.0	1.8	7.4	5.4	173
2	137	69	10	24	9.5	9.4	e.87	5.8	3.5	7.9	4.1	39
3	308	22	11	18	9.6	9.3	e.75	5.4	4.9	6.7	3.5	13
4	140	15	11	14	9.8	9.3	e.61	6.3	21	5.7	4.9	12
5	105	14	11	11	10	9.3	e.53	3.6	7.5	6.2	5.0	428
6	103	15	12	11	10	9.1	e.43	1.8	6.1	5.8	4.2	121
7	109	14	12	10	10	e7.8	e.36	.91	3.9	5.2	3.2	21
8	109	13	12	10	10	e7.2	e.30	.85	3.0	4.9	2.7	233
9	85	13	12	11	10	e5.2	e.27	2.4	3.5	4.7	202	296
10	67	13	12	11	9.9	e4.5	e1.2	3.5	6.5	4.6	57	79
11	58	13	12	11	9.8	e4.2	e1.5	3.8	4.1	4.5	17	19
12	50	13	12	11	9.6	e4.2	e1.0	3.2	1.7	4.5	18	9.9
13	45	13	12	10	9.5	e4.1	e.87	2.9	1.0	4.4	10	6.8
14	41	13	12	10	9.5	e3.9	e.53	1.5	.67	16	8.4	10
15	35	12	12	10	9.4	e3.6	e.07	.73	4.2	6.6	6.7	303
16	33	12	12	10	9.4	e3.6	e.02	.53	42	4.3	5.1	27
17	31	12	13	10	9.4	e3.6	e.19	.41	521	5.1	4.0	9.5
18	29	12	24	10	9.4	e5.0	e.43	.65	46	3.8	16	92
19	28	12	14	10	9.4	e4.6	e.22	.32	21	2.7	9.0	68
20	26	11	12	10	8.5	e4.3	e.02	.07	26	1.0	5.4	26
21	24	10	12	10	9.3	e4.2	e.07	.00	12	.73	3.4	10
22	24	11	12	10	9.5	e4.2	e.05	.02	8.7	.70	2.5	6.6
23	23	11	11	10	9.4	e4.1	e3.9	.18	7.1	.67	5.0	4.9
24	22	11	11	10	9.2	e4.2	e3.5	1.6	5.9	.79	4.2	3.7
25	21	11	11	10	9.6	e4.2	e4.3	3.2	5.2	.98	15	2.8
26	21	11	11	10	9.6	e4.8	e4.5	3.4	4.6	1.3	32	2.0
27	21	11	11	10	9.8	e27	e6.5	3.6	4.1	1.3	124	27
28	20	11	11	9.9	9.8	e53	e5.8	2.9	5.3	3.6	61	21
29	20	11	11	9.8	9.4	e18	4.9	2.2	5.8	6.7	167	9.8
30	19	10	11	9.6	---	e6.6	4.3	1.7	6.3	6.6	40	6.2
31	20	---	11	9.6	---	e3.3	---	1.5	---	6.2	60	---
TOTAL	1862	530	371	346.9	277.8	255.0	49.49	69.97	794.37	141.57	905.7	2080.2
MEAN	60.1	17.7	12.0	11.2	9.58	8.23	1.65	2.26	26.5	4.57	29.2	69.3
MAX	308	111	24	24	10	53	6.5	6.3	521	16	202	428
MIN	19	10	10	9.6	8.5	3.3	.02	.00	.67	.67	2.5	2.0
AC-FT	3690	1050	736	688	551	506	98	139	1580	281	1800	4130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

MEAN	119	38.8	30.2	21.0	51.2	76.8	61.6	145	154	64.1	75.0	116
MAX	1108	319	385	185	553	592	760	921	1435	727	1324	1107
(WY)	1987	1973	1992	1985	1993	1961	1990	1987	1995	1975	1995	1986
MIN	.14	.82	.71	.27	.84	.65	.89	2.26	3.37	1.84	1.35	1.14
(WY)	1964	1966	1971	1966	1963	1965	1982	1996	1966	1964	1983	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	109743.9		7684.00			
ANNUAL MEAN	301		21.0		80.3	
HIGHEST ANNUAL MEAN					300	1995
LOWEST ANNUAL MEAN					11.4	1983
HIGHEST DAILY MEAN	10300	Aug 3	521	Jun 17	11000	May 29 1987
LOWEST DAILY MEAN	4.4	Apr 13	.00	May 21	.00	Jun 23 1960
ANNUAL SEVEN-DAY MINIMUM	4.9	Apr 9	.14	Apr 16	.00	May 11 1962
INSTANTANEOUS PEAK FLOW			823	Jun 17	11700	Mar 17 1961
INSTANTANEOUS PEAK STAGE			18.94	Jun 17	34.94	May 29 1987
ANNUAL RUNOFF (AC-FT)	217700		15240		58180	
10 PERCENT EXCEEDS	381		39		115	
50 PERCENT EXCEEDS	14		9.5		5.8	
90 PERCENT EXCEEDS	6.0		1.0		.75	

e Estimated

07312200 BEAVER CREEK NEAR ELECTRA, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1968 to June 1970, June 1996 to September 1996. Sediment analyses: April 1966 to September 1975.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to June 1970, June 1996 to September 1996.
WATER TEMPERATURE: October 1968 to June 1970, June 1996 to September 1996.

INSTRUMENTATION.--From 1968 to June 1970 daily samples collected manually, since June 1996 specific conductance and temperature were continuously monitored with a water quality monitor.

REMARKS.--Interruptions to the record are due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 29,600 microsiemens April 19, 1970; minimum recorded, 489 microsiemens Sept. 15, 1996.
WATER TEMPERATURE: Maximum recored, 37.0°C July 7, Aug. 11 1969; minimum recorded, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 13,800 microsiemens June 10; minimum recorded, 478 microsiemens June 17.
WATER TEMPERATURE: Maximum recored, 36.0°C July 21; minimum recorded, 16.5°C Sept. 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
JUL										
24...	0830	0.71	9640	7.6	26.5	4.2	56	1800	1700	310
AUG										
06...	0830	4.2	8490	7.7	28.0	3.9	53	1600	1500	280

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JUL										
24...	250	1300	13	7.4	150	200	3000	0.40	<0.10	5160
AUG										
06...	220	1100	12	11	130	270	2700	0.40	6.5	4670

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e12000	6140	5370	5720	8740	8570	8670	1080	693	842
2	---	---	e12400	7580	6140	6870	8880	8660	8780	1090	631	858
3	---	---	e11000	8140	7570	7940	9050	8790	8940	651	610	625
4	---	---	e9800	8450	8140	8350	9110	8820	8990	795	651	704
5	---	---	e10500	8500	8250	8370	8820	8480	8660	1170	568	768
6	---	---	e11200	8260	7920	8100	8510	8440	8480	568	536	545
7	---	---	e11900	7950	7720	7850	8580	8500	8540	639	567	599
8	13000	12200	12500	7720	7540	7640	8660	8270	8580	669	515	603
9	13700	13000	13300	7590	7490	7550	8440	1220	3350	689	534	593
10	13800	5680	10900	7520	7350	7470	1590	1220	1390	627	534	558
11	10900	7800	9400	7450	7360	7410	1890	1590	1730	605	534	564
12	12000	10600	11300	7400	7230	7360	2160	1890	2040	666	605	638
13	11000	10700	10900	7520	7250	7430	2380	2160	2290	736	666	702
14	11400	11000	11300	7660	4180	5060	2380	2270	2340	786	705	760
15	12000	11400	11600	5770	4570	5290	2280	2040	2140	705	489	563
16	11800	1650	10400	7470	5770	6810	2040	1900	1970	702	540	650
17	4240	478	1140	8060	7410	7680	1900	1840	1870	793	702	754
18	834	634	742	8520	8060	8280	2450	1820	2010	812	638	757
19	933	804	874	8850	8520	8700	2480	2250	2390	688	568	626
20	3440	814	1830	9110	8850	8970	2260	2100	2160	727	627	685
21	3900	3440	3770	9270	9100	9180	2100	2040	2070	655	603	616
22	3950	3340	3670	9430	9270	9350	2060	2030	2040	632	603	617
23	3740	3520	3640	9510	9400	9470	2060	2050	2050	660	622	646
24	3740	3580	3650	9780	9290	9630	2140	2050	2090	700	660	678
25	3990	3740	3830	10000	9780	9910	2300	1590	2070	750	690	721
26	4220	3990	4080	10100	8680	9740	1690	1560	1600	830	750	786
27	4490	4220	4390	9080	8520	8730	1770	1690	1740	1200	820	916
28	4750	4480	4640	9810	9080	9380	1690	1170	1340	4190	1200	2430
29	5060	4690	4890	10300	9810	10100	1450	1070	1280	6430	4190	5130
30	5370	5030	5220	10100	9410	9720	1180	922	970	6790	6350	6560
31	---	---	---	9410	8740	9000	1010	766	924	---	---	---
MONTH	13800	478	7560	10300	4180	8160	9110	766	3660	6790	489	1080

e Estimated

07312200 BEAVER CREEK NEAR ELECTRA, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	32.5	28.0	30.5	32.5	26.5	29.0	25.5	23.0	24.0
2	---	---	---	33.0	28.5	30.5	33.5	27.5	30.5	26.5	23.5	25.0
3	---	---	---	32.5	28.0	30.5	33.5	---	30.0	29.0	24.0	26.5
4	---	---	---	34.5	28.0	31.0	33.0	28.0	30.0	28.0	25.0	26.5
5	---	---	---	34.0	28.5	31.5	33.0	28.0	30.0	27.5	23.0	24.5
6	---	---	---	34.5	28.5	31.5	33.5	28.0	30.5	27.0	25.0	26.0
7	---	---	---	35.0	29.0	31.5	33.5	28.0	30.5	29.0	---	27.0
8	29.5	24.0	26.5	34.0	29.5	31.5	31.0	28.0	29.5	27.5	21.0	24.5
9	30.0	23.0	26.5	31.5	28.5	30.0	28.0	24.5	26.0	26.5	23.5	25.0
10	28.5	24.5	26.5	28.5	25.5	26.5	28.5	25.5	26.5	27.5	25.0	26.0
11	32.0	25.0	28.5	28.5	25.0	26.5	31.5	25.5	28.0	29.5	25.5	27.0
12	31.0	26.5	29.0	31.0	26.5	28.5	31.0	27.0	28.5	27.5	25.0	26.0
13	31.0	27.0	28.5	32.0	27.0	29.5	31.0	26.0	28.5	27.0	24.5	25.5
14	32.0	27.0	29.5	30.0	24.5	26.5	31.5	26.0	28.5	27.0	22.5	25.5
15	33.5	28.0	30.0	31.5	25.0	28.0	29.5	26.0	28.0	25.5	22.0	23.5
16	33.5	25.0	30.5	32.0	27.0	29.5	31.0	26.0	28.0	25.5	22.5	24.0
17	27.0	23.5	25.5	33.0	27.5	30.0	32.0	26.5	29.0	26.5	23.0	24.5
18	31.0	26.0	28.0	34.0	28.0	30.5	29.5	24.5	27.5	25.5	20.5	22.5
19	33.0	27.0	29.5	34.5	28.5	31.0	31.5	26.5	29.0	24.5	21.5	23.0
20	34.5	29.0	31.5	35.5	28.5	31.5	31.5	26.5	29.0	24.5	21.5	23.0
21	34.5	28.5	31.0	36.0	28.5	31.5	31.5	---	29.0	24.5	20.0	22.5
22	33.0	27.5	30.5	35.5	28.0	31.5	32.5	26.0	29.0	25.5	20.5	23.0
23	33.0	28.0	30.5	34.5	---	31.0	29.0	27.0	28.0	27.5	23.5	25.5
24	34.0	28.5	31.0	33.5	26.5	30.0	28.5	27.0	27.5	26.5	23.5	24.5
25	33.0	28.5	30.5	32.5	26.5	29.5	27.5	25.0	26.0	25.0	22.5	23.5
26	32.5	28.5	30.5	31.0	27.0	28.5	28.5	24.0	26.0	24.0	20.0	22.5
27	33.5	28.0	30.5	31.0	25.5	28.0	27.5	23.5	25.5	20.0	17.5	18.5
28	33.5	28.5	30.5	32.0	26.0	29.0	26.0	25.5	26.0	20.5	17.0	18.5
29	33.5	28.5	31.0	31.5	27.5	29.5	26.5	24.5	26.0	21.0	16.5	19.0
30	32.0	28.5	30.5	30.0	27.0	28.0	28.0	25.5	26.5	22.5	---	20.5
31	---	---	---	30.5	26.0	28.0	26.0	23.0	25.0	---	---	---
MONTH	34.5	23.0	29.5	36.0	24.5	29.5	33.5	23.0	28.0	29.5	16.5	24.0

07312500 WICHITA RIVER AT WICHITA FALLS, TX

LOCATION.--Lat 33°54'34", long 98°32'00", Wichita County, Hydrologic Unit 11130206, near center of stream at downstream side of bridge on Beverly Drive in Wichita Falls, 4 mi upstream from Fort Worth and Denver Railway Co. bridge, 8.4 mi upstream from Holliday Creek, and 55.3 mi upstream from mouth.

DRAINAGE AREA.--3,140 mi², of which 2,086 mi² is above Lake Kemp Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1901 to January 1902 (monthly discharge only, published in WSP 1311, 1901 water year no longer used in computation of average discharge because of poor accuracy of record. October 1910 to December 1911 (gage heights only), March 1938 to current year.

REVISED RECORDS.--WSP 1211: Drainage area.

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow from 2,086 mi² above this station is regulated by Lake Kemp (capacity 603,000 acre-ft) 71 mi upstream. Since completion of Lake Kemp in 1923, no outflow has been permitted to pass over the spillway. Water is diverted from Lake Diversion (capacity 40,000 acre-ft) 41 mi upstream for the irrigation of 42,000 acres under permit in the vicinity of Wichita Falls. During the current water year, the Wichita County Water Improvement District No. 2 diverted 75,130 acre-ft from Lake Diversion for mining, industrial, irrigation, and for recreational uses. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s June 8, 1915, computed by Vernon L. Sullivan, engineer for Big Wichita River Irrigation Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	376	55	119	46	42	86	76	120	51	145	139
2	566	322	54	151	45	42	83	64	119	44	133	222
3	571	205	54	131	e42	40	79	51	104	53	129	137
4	662	139	54	118	e42	41	69	48	115	59	121	91
5	463	117	56	107	e42	42	57	51	135	54	117	61
6	389	108	56	100	32	90	54	55	114	53	73	305
7	421	105	55	80	42	70	43	59	120	70	89	199
8	454	104	55	51	34	97	37	51	111	78	107	154
9	428	102	54	51	32	79	35	48	107	89	124	340
10	373	102	54	50	31	70	40	48	112	83	240	306
11	328	100	54	52	35	49	42	56	144	95	245	169
12	297	93	54	51	34	44	47	63	114	99	156	94
13	274	89	54	49	35	43	44	85	110	88	164	63
14	262	86	53	47	34	17	41	95	127	82	133	57
15	246	82	92	51	35	14	45	82	91	83	129	296
16	233	79	100	54	35	17	48	73	89	85	128	362
17	210	76	107	55	34	24	53	61	124	77	181	152
18	178	72	121	75	36	32	54	59	455	77	487	111
19	166	72	121	76	36	51	54	66	151	72	219	175
20	156	72	104	61	35	72	50	86	99	61	173	197
21	151	72	96	60	32	59	50	101	84	71	97	180
22	147	69	82	57	32	55	63	108	63	74	69	142
23	142	71	79	54	33	70	68	106	49	74	e56	116
24	141	65	79	52	35	72	73	109	44	98	e56	120
25	134	65	80	50	38	79	67	110	39	102	e99	103
26	130	63	80	48	40	76	70	110	46	107	e123	113
27	126	60	77	47	41	159	95	102	47	122	150	140
28	128	58	75	48	40	193	98	103	50	127	237	90
29	127	57	76	49	42	154	102	101	47	127	314	91
30	123	55	83	48	---	123	84	110	44	145	269	63
31	123	---	99	45	---	101	---	124	---	160	215	---
TOTAL	8801	3136	2313	2087	1070	2117	1831	2461	3174	2660	4978	4788
MEAN	284	105	74.6	67.3	36.9	68.3	61.0	79.4	106	85.8	161	160
MAX	662	376	121	151	46	193	102	124	455	160	487	362
MIN	123	55	53	45	31	14	35	48	39	44	56	57
AC-FT	17460	6220	4590	4140	2120	4200	3630	4880	6300	5280	9870	9500

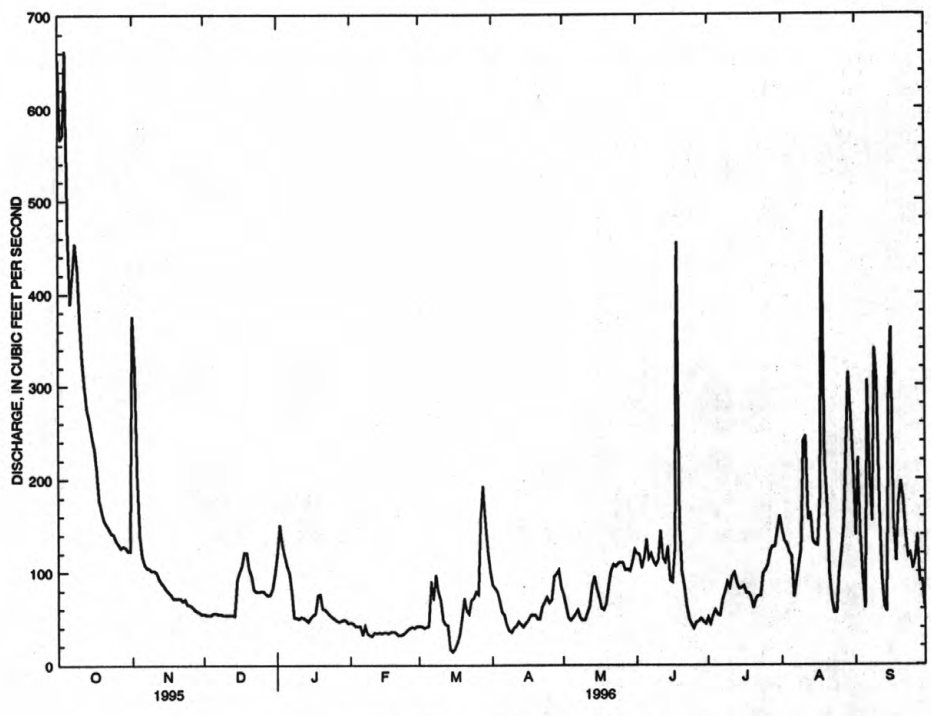
07312500 WICHITA RIVER AT WICHITA FALLS, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996#, BY WATER YEAR (WY)

MEAN	424	211	121	92.6	149	190	230	570	538	245	271	333
MAX	4017	1784	1091	859	1252	1412	1450	4105	4475	1201	2791	2619
(WY)	1942	1973	1992	1992	1992	1993	1990	1941	1941	1975	1950	1950
MIN	55.1	34.9	25.3	22.5	17.8	26.9	37.3	52.0	71.0	60.6	61.9	63.8
(WY)	1983	1982	1979	1974	1995	1975	1989	1988	1944	1986	1986	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996#	
ANNUAL TOTAL	246912.5		39416			
ANNUAL MEAN	676		108		278	
HIGHEST ANNUAL MEAN					977	1941
LOWEST ANNUAL MEAN					64.3	1983
HIGHEST DAILY MEAN	6580	Aug 6	662	Oct 4	17300	Oct 3 1941
LOWEST DAILY MEAN	9.7	Feb 25	14	Mar 15	7.7	Apr 9 1978
ANNUAL SEVEN-DAY MINIMUM	12	Feb 20	27	Mar 12	11	Mar 6 1975
INSTANTANEOUS PEAK FLOW			758	Oct 4	17800	Oct 3 1941
INSTANTANEOUS PEAK STAGE			5.82	Oct 4	24.00	Oct 3 1941
ANNUAL RUNOFF (AC-FT)	489800		78180		201700	
10 PERCENT EXCEEDS	1960		198		580	
50 PERCENT EXCEEDS	113		79		84	
90 PERCENT EXCEEDS	27		42		36	

e Estimated
Period of regulated streamflow.



07312500 WICHITA RIVER AT WICHITA FALLS, TX
MEAN DAILY DISCHARGE (CFS)

07312500 WICHITA RIVER AT WICHITA FALLS, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: April 1966 to July 1975. Chemical and biochemical analyses: November 1981 to August 1989 and June 1996 to September 1996. Sediment analyses: April 1966 to July 1975.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to September 1989, June 1996 to September 1996.
WATER TEMPERATURE: October 1981 to September 1989, June 1996 to September 1996.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 9,490 microsiemens Mar. 2, 1984; minimum daily, 245 microsiemens Oct. 24, 1983.
WATER TEMPERATURE: Maximum daily, 35.0°C July 21, 1982, July 4, 1983, and June 15, 16, 1984; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 8,800 microsiemens June 16; minimum daily, 2,600 microsiemens Sept. 14.
WATER TEMPERATURE: Maximum daily, 34.5°C July 4; minimum daily, 16.0°C on Sept. 28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JUL 23...	1355	73	5800	30.0	8.8	1100	1000	290	100
AUG 05...	1100	138	5650	28.0	8.8	1100	1000	280	96

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JUL 23...	830	11	9.4	100	940	1400	0.40	8.2	3640
AUG 05...	800	11	9.3	97	930	1300	0.40	8.2	3480

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e5100	5160	5000	5100	6470	5790	6060	5380	5290	5350
2	---	---	e5300	5460	5080	5240	6170	5540	5940	5420	5350	5380
3	---	---	e5460	5580	5460	5530	6100	5320	5660	5440	5310	5390
4	---	---	e5800	5640	5490	5580	5530	5360	5460	5420	5360	5390
5	---	---	e6280	5660	5480	5580	5670	5490	5600	5480	5200	5380
6	---	---	e6100	5810	5660	5740	5720	5560	5630	5340	5240	5310
7	---	---	e5950	5850	5670	5770	6020	5640	5880	5380	5270	5340
8	---	---	e5800	5880	5740	5820	5920	5690	5800	5520	5270	5400
9	---	---	e5650	5920	5760	5840	5980	5770	5880	5470	5350	5410
10	---	---	e5500	6050	5890	5980	---	---	e5600	5450	4950	5260
11	5420	4190	4910	6100	5930	6030	---	---	e5100	4990	2930	3930
12	5140	4400	4700	5990	5840	5920	---	---	e6200	4480	3240	3960
13	8590	5140	6440	5960	5810	5900	6740	6360	6560	3620	2790	3320
14	8400	6690	7610	5950	5860	5900	7010	6720	6840	3010	2600	2790
15	8630	8400	8520	5960	5810	5880	---	---	e6800	5620	2850	4940
16	8800	5020	7630	5940	5800	5880	---	---	e6650	5780	5580	5680
17	5820	5500	5690	5960	5840	5920	---	---	e6500	5660	3820	4890
18	7070	2680	3960	6050	5920	5980	---	---	e5500	---	---	4100
19	2980	2610	2760	6090	5940	6020	---	---	e4000	---	---	4400
20	3610	2980	3280	6080	5940	6020	---	---	e4800	4530	4040	4280
21	4010	3610	3810	6120	5650	5940	---	---	e5190	5010	4370	4610
22	4320	4010	4230	5820	5600	5740	5480	5200	5310	4700	4050	4390
23	4470	4300	4380	5820	5670	5760	---	---	5530	---	---	e4420
24	4680	4470	4560	5890	5720	5820	---	---	e5580	---	---	e4600
25	4930	4680	4800	5920	5800	5880	---	---	e5600	---	---	e5800
26	5070	4920	4990	6060	5900	5970	---	---	e5630	---	---	e6600
27	5200	5050	5110	6170	6060	6110	---	---	5300	---	---	e7400
28	5310	5150	5240	6250	6170	6210	5090	4900	5010	---	---	e6900
29	5280	5020	5070	6300	6120	6240	5140	5090	5110	---	---	e5600
30	5130	5000	5070	6370	6240	6320	5140	5090	5110	---	---	e4800
31	---	---	---	6470	6350	6400	5370	5080	5230	---	---	---
MONTH	8800	2610	5320	6470	5000	5870	7010	4900	5650	5780	2600	5030

e Estimated

07312500 WICHITA RIVER AT WICHITA FALLS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	34.0	29.0	31.5	31.5	28.0	29.0	26.5	23.0	25.0
2	---	---	---	33.5	28.5	31.0	32.5	29.0	30.5	26.5	24.5	25.5
3	---	---	---	33.5	29.0	31.0	32.0	28.5	30.5	28.0	24.5	26.0
4	---	---	---	34.5	29.5	32.0	31.5	28.5	29.5	27.0	26.0	26.5
5	---	---	---	34.0	29.5	31.5	31.0	27.5	29.0	28.5	25.0	26.5
6	---	---	---	33.5	28.5	31.0	31.5	27.0	29.0	28.0	26.0	27.0
7	---	---	---	34.0	29.0	31.5	31.0	27.0	29.0	28.0	25.0	26.0
8	---	---	---	33.5	29.5	31.5	30.0	28.0	29.0	28.0	25.5	27.0
9	---	---	---	31.5	29.0	30.5	29.5	26.5	28.0	27.5	24.0	26.0
10	---	---	---	30.0	26.5	28.0	28.5	26.5	27.5	27.0	25.0	26.0
11	30.5	25.0	28.0	28.5	25.5	27.0	29.5	25.5	27.0	29.0	25.5	27.0
12	30.0	27.0	28.5	31.0	27.5	29.0	29.0	26.5	28.0	28.0	26.0	27.0
13	30.5	27.0	28.5	31.0	28.5	30.0	29.5	26.0	27.5	28.0	25.0	26.0
14	31.5	25.5	28.5	31.0	29.0	30.0	30.0	27.0	28.5	28.0	25.0	26.5
15	32.5	28.0	30.0	32.0	27.5	29.5	28.5	27.0	27.5	27.5	23.5	25.0
16	31.0	27.5	29.0	32.5	28.5	30.5	28.5	26.0	27.0	25.5	24.5	25.0
17	31.5	27.0	28.5	32.0	28.5	30.0	28.5	24.5	27.5	26.5	23.5	25.0
18	31.0	25.5	27.5	33.0	28.5	30.5	27.5	23.0	25.0	25.5	23.5	24.5
19	31.5	27.0	29.0	33.0	29.0	31.0	29.5	26.5	27.5	25.5	23.0	24.0
20	33.0	28.5	30.5	34.0	29.5	31.5	30.0	27.0	28.5	24.5	22.0	23.0
21	32.5	28.0	30.0	34.0	29.5	31.5	---	---	---	24.5	21.5	23.0
22	32.5	28.5	30.0	34.0	29.5	31.5	31.0	26.5	28.5	26.0	22.0	24.0
23	33.0	27.5	30.0	33.0	29.0	31.0	---	---	---	28.0	25.0	26.0
24	32.5	28.0	30.5	32.0	27.5	30.0	---	---	---	27.0	24.0	25.0
25	33.5	28.0	30.5	32.0	28.0	29.5	---	---	---	25.5	23.5	24.0
26	32.5	28.5	30.0	31.0	28.5	29.5	---	---	---	25.5	20.5	23.5
27	33.0	28.0	30.0	30.5	27.5	29.0	---	---	---	20.5	18.0	19.0
28	33.0	28.0	30.5	32.0	28.5	30.0	27.0	25.5	26.5	21.0	16.0	18.5
29	32.5	28.0	30.0	31.5	29.0	30.0	26.0	24.5	25.5	23.0	18.5	20.5
30	33.0	28.0	30.0	30.0	28.0	28.5	27.0	25.0	26.0	24.0	19.5	21.5
31	---	---	---	29.5	27.0	28.0	26.5	24.0	25.0	---	---	---
MONTH	33.5	25.0	29.5	34.5	25.5	30.0	32.5	23.0	28.0	29.0	16.0	24.5

07312700 WICHITA RIVER NEAR CHARLIE, TX

LOCATION.--Lat 34°03'11", long 98°17'47", Clay County, Hydrologic Unit 11130206, on right bank at upstream side of bridge on Farm Road 810, 3.0 mi southeast of Charlie, and 5.7 mi northwest of Petrolia.

DRAINAGE AREA.--3,439 mi², of which 2,086 mi² is above Lake Kemp Dam and 143 mi² is above Lake Wichita Dam.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 872.71 ft above sea level.

REMARKS.--Records good. For statement regarding regulation and diversions, see station 07312500. Records furnished by the city of Wichita Falls show that 13,174 acre-ft was returned to river above this station as wastewater effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	963	318	101	198	73	70	178	137	179	79	199	551
2	793	607	101	477	73	71	155	120	193	90	187	222
3	900	455	99	304	70	70	153	116	153	90	167	285
4	780	308	98	241	61	70	158	110	139	97	156	167
5	770	216	96	207	77	71	143	107	149	99	138	121
6	583	178	95	186	80	70	123	97	177	96	138	94
7	523	165	94	171	78	136	118	97	180	93	119	371
8	576	157	95	143	85	159	118	105	189	102	128	254
9	604	154	93	111	80	186	120	105	138	102	160	351
10	561	152	92	113	75	166	118	95	138	108	206	439
11	482	145	92	106	72	154	119	97	151	118	773	379
12	443	139	94	107	71	150	121	104	186	129	556	188
13	412	135	95	101	72	143	123	135	146	135	302	104
14	384	133	93	98	71	140	114	166	135	129	262	124
15	365	130	92	95	71	126	106	146	171	130	221	378
16	344	127	133	96	70	122	115	139	138	129	224	1050
17	327	122	177	102	71	128	116	145	207	136	209	514
18	304	121	279	96	70	132	114	111	218	121	507	270
19	291	118	251	103	70	160	113	97	587	110	675	335
20	277	116	220	100	70	158	103	103	277	107	323	252
21	266	115	194	90	70	172	109	124	160	95	227	245
22	262	118	175	92	72	170	135	133	130	96	161	211
23	256	111	161	96	71	168	133	138	113	97	129	158
24	242	111	162	90	69	180	116	135	92	92	112	280
25	240	108	159	81	69	177	131	144	81	162	113	206
26	234	106	162	87	70	180	132	149	78	131	175	204
27	226	104	165	86	73	341	127	149	81	133	192	458
28	219	101	164	76	77	719	140	133	82	155	319	204
29	208	102	158	76	71	394	159	122	81	173	458	122
30	204	103	159	79	---	284	156	121	80	175	640	106
31	203	---	172	73	---	223	---	173	---	186	400	---
TOTAL	13242	5075	4321	4081	2102	5490	3866	3853	4829	3695	8576	8643
MEAN	427	169	139	132	72.5	177	129	124	161	119	277	288
MAX	963	607	279	477	85	719	178	173	587	186	773	1050
MIN	203	101	92	73	61	70	103	95	78	79	112	94
AC-FT	26270	10070	8570	8090	4170	10890	7670	7640	9580	7330	17010	17140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996#, BY WATER YEAR (WY)

MEAN	390	320	204	181	262	384	332	570	713	307	332	449
MAX	2032	2194	1556	1005	1411	1832	2377	3094	2815	1330	2766	2598
(WY)	1987	1973	1992	1992	1992	1993	1990	1990	1995	1992	1995	1986
MIN	101	63.2	51.5	46.1	45.6	70.2	61.2	103	135	92.5	111	111
(WY)	1971	1982	1979	1974	1995	1972	1989	1988	1994	1972	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996#	
ANNUAL TOTAL	293795		67773			
ANNUAL MEAN	805		185		370	
HIGHEST ANNUAL MEAN					986	1987
LOWEST ANNUAL MEAN					125	1983
HIGHEST DAILY MEAN	6160	Jun 12	1050	Sep 16	7740	May 7 1990
LOWEST DAILY MEAN	39	Feb 24	61	Feb 4	24	Feb 4 1989
ANNUAL SEVEN-DAY MINIMUM	40	Feb 22	70	Feb 19	29	Jan 30 1974
INSTANTANEOUS PEAK FLOW			1460	Sep 16	7760	May 7 1990
INSTANTANEOUS PEAK STAGE			8.85	Sep 16	25.80	May 7 1990
ANNUAL RUNOFF (AC-FT)	582700		134400		268200	
10 PERCENT EXCEEDS	2310		355		897	
50 PERCENT EXCEEDS	209		135		143	
90 PERCENT EXCEEDS	49		79		66	

Period or regulated streamflow.

07312700 WICHITA RIVER NEAR CHARLIE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to September 1981, October 1989 to September 1996.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1981, June 1996 to September 1996.
WATER TEMPERATURE: October 1967 to September 1981, June 1996 to September 1996.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 10,000 microsiemens Apr. 25, 1972; minimum daily, 338 microsiemens Sept. 16, 1996.
WATER TEMPERATURE: Maximum daily, 34.5°C July 25, 1981; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,750 microsiemens Aug. 15; minimum daily, 338 microsiemens Sept. 16,
WATER TEMPERATURE: Maximum daily, 34.0°C on July 4,5,7,8 and 20; minimum daily, 16.0°C on Sept. 28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 29...	1015	101	4880	8.2	7.5	12.8	112	1100	790	240	110
FEB 07...	0940	76	4600	8.4	5.5	16.3	135	1000	800	230	110
APR 04...	0930	157	4480	8.0	15.5	8.9	93	900	730	220	86
MAY 20...	1115	96	5200	8.4	25.5	11.2	145	1000	880	250	100
JUL 18...	1123	116	5110	8.3	30.0	--	--	970	850	240	89
AUG 21...	1130	230	4080	7.6	28.0	6.4	84	770	690	200	65

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV 29...	680	9	7.3	260	430	1300	0.40	6.0	2940	1.87
FEB 07...	640	9	8.4	230	420	1200	0.60	2.8	2770	3.96
APR 04...	590	9	7.9	170	550	1100	0.50	4.9	2670	1.27
MAY 20...	740	10	10	160	690	1300	0.60	4.7	3190	0.470
JUL 18...	720	10	11	120	810	1200	0.50	<0.10	3140	0.690
AUG 21...	560	9	9.7	79	640	930	0.40	8.4	2470	1.28

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV 29...	1.87	0.030	1.90	1.90	0.020	0.28	0.30	0.410	0.400	1.2
FEB 07...	3.96	0.040	4.00	4.00	0.040	0.46	0.50	0.710	0.670	2.1
APR 04...	1.27	0.030	1.30	1.30	0.130	0.37	0.50	0.250	0.260	0.80
MAY 20...	0.470	0.030	0.500	0.500	0.020	0.48	0.50	0.230	0.230	0.71
JUL 18...	0.690	0.040	0.730	0.730	0.090	0.21	0.30	0.190	0.230	0.71
AUG 21...	1.28	0.020	1.30	1.30	0.110	0.59	0.70	0.160	0.190	0.58

07312700 WICHITA RIVER NEAR CHARLIE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e4300	5030	4370	4820	4960	4720	4810	2880	421	1830
2	---	---	e4650	---	---	e5040	4940	4700	4810	1950	1230	1630
3	---	---	e4800	---	---	e5060	4950	4680	4810	3760	1950	2780
4	---	---	e4950	4970	4620	4820	4880	4690	4800	3840	1920	2260
5	---	---	e5050	4920	4620	4750	5360	4810	4980	2240	1940	2100
6	---	---	e4900	5040	4440	4820	5420	5130	5270	2700	2200	2370
7	---	---	e4800	4960	4500	4810	5370	5140	5280	4320	1820	3030
8	---	---	e4650	4790	4410	4640	5390	4980	5210	2230	1070	1320
9	---	---	e4490	4850	4480	4710	5230	4880	5030	1530	714	1150
10	---	---	e4300	4880	4590	4750	5140	3790	4540	2530	1070	1840
11	---	---	e4150	4740	3980	4620	4600	2820	4260	1610	1010	1230
12	---	---	e4000	4500	3810	4070	6630	3040	5740	1340	1030	1210
13	---	---	e4600	4440	3960	4250	6270	5660	6020	2410	1330	1520
14	---	---	e5300	4470	4040	4350	6230	5840	6040	2090	1640	1940
15	---	---	e5000	4470	3830	4300	6750	4830	6070	2140	807	1600
16	---	---	e4600	4790	4190	4500	6720	5250	6080	1720	338	938
17	---	---	e4200	5080	4340	4880	6420	4740	5450	2400	1090	1630
18	---	---	e4080	5200	4820	5040	5930	1160	4610	2030	1310	1350
19	---	---	e3850	5280	4920	5100	3850	1160	3170	1940	1210	1340
20	3410	2070	2890	5500	5000	5260	3800	3090	3530	2420	1150	1600
21	3870	3370	3560	5390	4870	5170	4290	3760	3960	3010	2180	2690
22	4340	3780	4090	5910	4610	5510	4510	4240	4400	2360	1710	1940
23	4980	4240	4670	5780	4610	5410	4600	4350	4470	4140	2340	2740
24	5200	4910	5080	5350	4480	5000	4520	4240	4380	3320	2370	3010
25	5280	4920	5200	5060	4270	4830	4480	4260	4360	2600	1600	2050
26	5140	4790	4860	4680	2970	3820	4710	4340	4480	2910	1940	2470
27	5130	4750	4880	5460	4390	4950	4720	3340	3900	2880	1240	1920
28	5140	4760	4940	5640	4490	4860	4590	2730	3720	2480	1250	1820
29	5050	4660	4930	5180	4320	4860	4170	2700	3530	2480	2250	2370
30	4980	4730	4880	5100	4390	4840	3270	1530	2160	2970	2400	2720
31	---	---	---	5150	4830	5040	2840	1840	2350	---	---	---
MONTH	5280	2070	4550	5910	2970	4800	6750	1160	4590	4320	338	1950

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	32.5	28.5	30.5	30.5	27.0	28.5	25.0	23.5	24.5
2	---	---	---	32.5	29.0	31.0	32.0	28.0	29.5	26.5	24.0	25.0
3	---	---	---	32.5	29.0	31.0	32.0	28.5	30.0	27.0	25.0	26.0
4	---	---	---	34.0	29.5	31.5	32.0	28.5	30.0	26.5	25.5	26.0
5	---	---	---	34.0	30.0	31.5	31.5	28.0	29.5	26.5	24.5	26.0
6	---	---	---	33.5	29.5	31.5	32.0	28.5	30.0	27.5	24.5	26.0
7	---	---	---	34.0	30.0	31.5	31.5	28.5	29.5	28.0	26.0	27.0
8	---	---	---	34.0	30.0	32.0	31.0	28.0	29.5	28.0	25.5	26.5
9	---	---	---	33.5	29.5	31.0	30.0	27.5	28.5	27.5	25.5	26.5
10	---	---	---	31.5	27.0	28.5	29.5	27.5	28.0	27.5	25.5	26.5
11	---	---	---	28.0	25.5	27.0	29.0	25.5	26.5	27.5	25.5	26.5
12	---	---	---	31.0	27.0	28.5	28.0	25.5	27.0	26.5	25.5	26.0
13	---	---	---	32.0	28.5	30.0	28.5	26.0	27.5	26.5	24.5	25.5
14	---	---	---	32.0	29.0	30.5	29.5	26.5	28.0	26.0	24.5	25.0
15	---	---	---	32.0	28.5	30.0	29.0	27.0	28.0	26.0	23.0	24.5
16	---	---	---	33.0	29.0	30.5	29.0	27.0	28.0	24.5	22.5	23.5
17	---	---	---	33.0	29.5	31.0	29.0	27.0	27.5	25.0	23.5	24.0
18	---	---	---	33.5	29.5	31.0	30.0	25.5	27.0	24.5	23.0	24.0
19	33.0	28.5	29.5	33.5	29.5	31.5	30.0	26.0	26.5	24.0	22.0	23.0
20	32.0	28.0	29.5	34.0	30.0	32.0	30.0	27.0	28.0	23.5	21.5	22.5
21	32.5	28.5	30.5	33.5	30.0	32.0	30.0	28.0	29.0	23.5	21.0	22.0
22	32.5	28.5	30.0	33.5	30.0	32.0	30.0	27.0	28.5	24.5	21.0	22.5
23	32.0	28.5	30.0	33.5	29.5	31.0	30.0	26.5	27.5	26.5	23.0	24.5
24	32.5	29.0	30.5	32.0	28.5	30.0	27.5	26.0	27.0	26.0	23.0	24.0
25	32.5	29.0	30.5	31.0	28.0	29.5	27.0	25.5	26.0	24.0	22.5	23.0
26	32.0	28.5	30.0	31.0	28.0	29.0	27.0	25.0	26.0	23.5	20.5	22.0
27	32.0	28.0	30.0	30.5	27.0	28.5	27.5	25.5	26.0	20.5	17.5	18.5
28	32.5	28.5	30.5	31.0	27.5	29.0	26.5	25.5	26.0	19.0	16.0	17.5
29	32.5	29.0	30.5	31.5	28.5	30.0	26.0	25.0	25.5	21.0	17.0	18.5
30	32.5	29.0	31.0	31.5	27.5	28.5	26.0	24.5	25.5	22.0	18.5	20.0
31	---	---	---	29.0	26.5	27.5	25.5	25.0	25.5	---	---	---
MONTH	33.0	28.0	30.5	34.0	25.5	30.5	32.0	24.5	27.5	28.0	16.0	24.0

07314000 LAKE KICKAPOO NEAR ARCHER CITY, TX

LOCATION.--Lat 33°39'47", long 98°46'43", Archer County, Hydrologic Unit 11130209, on intake tower near left end of dam on North Fork Little Wichita River, 8.2 mi south of Mankins, and 9.2 mi northwest of Archer City.

DRAINAGE AREA.--275 mi².

PERIOD OF RECORD.--February 1946 to current year. Prior to October 1965, end of month contents only.
Water-quality records.--Chemical analyses: October 1969 to September 1984.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by City of Wichita Falls). Prior to Oct. 8, 1946, water-stage recorder at same site and datum. Non-recording gage read twice daily prior to Feb. 17, 1974, once daily thereafter.

REMARKS.--The lake is formed by a rolled earthfill dam 8,200 ft long, including a 483-foot-wide 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 conduits. The dam and lake are owned by the City of Wichita Falls, which uses the water for their municipal supply. The capacity table is based on U.S. Geological Survey topographic maps, dated 1929. The capacity curve, dated November 1946, was entitled "Lake Kickapoo Area & Capacity Curve". 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	1,062.0	--
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 provided by the city of Wichita Falls.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 134,300 acre-ft Aug. 2, 1950 (elevation, 1,049.2 ft); minimum observed since first filling in July 1950, 35,660 acre-ft June 30, 1953 (elevation, 1,029.8 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 101,000 acre-ft Oct. 1 (elevation, 1044.2 ft); minimum daily contents, 65,150 acre-ft Aug. 25 (elevation, 1,037.7 ft).

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

1,030.0	36,200	1,042.0	87,700	1,048.0	126,000
1,038.0	66,500	1,044.0	99,700	1,049.0	132,900
1,040.0	76,500	1,046.0	112,500	1,050.0	140,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101000	97260	93600	90650	88290	87130	84850	80900	75460	72860	68420	67940
2	101000	97260	93010	91240	88880	86560	84280	80900	75460	73380	68420	67940
3	100300	97260	93010	91830	88880	87130	85420	81450	76500	71820	68420	68420
4	100300	97260	93010	91240	88290	85990	84280	80900	76500	71820	68420	67460
5	100300	97260	93010	91240	88880	85420	84280	80900	76500	71820	67460	66980
6	100300	96040	92420	91240	88290	85990	84280	80900	76500	71820	67940	67460
7	99700	96040	92420	91240	88290	85990	84280	80900	76500	71820	67940	67460
8	99700	96040	92420	91240	87700	85990	83140	80900	76500	70820	66980	67460
9	99700	95430	92420	91240	88290	85990	83710	80900	75460	70340	66500	67460
10	99700	95430	92420	91240	88290	85420	83140	80900	75460	70340	66500	67460
11	99700	95430	92420	91240	88290	85420	83140	79800	75460	70340	66050	67460
12	99090	95430	92420	91240	88290	85420	83140	79800	75460	70340	66500	67460
13	99090	94820	91830	90650	87700	85420	83710	79800	75460	70340	66500	66980
14	99090	94820	91830	90650	87700	85420	83140	78700	74940	70340	66500	66980
15	99090	94820	91830	90650	87700	85420	83140	e79250	74940	71300	66500	67940
16	98480	95430	91830	90650	87700	84850	83140	79800	74940	71300	66500	66980
17	98480	94820	91830	90650	87700	84850	83140	79250	74940	71300	66500	66980
18	98480	94820	92420	90650	87130	84850	83140	79250	74940	71300	66500	66980
19	98480	94820	92420	90650	87700	84280	82570	79250	74420	70820	66500	68900
20	97870	94820	91830	90060	87700	84280	82570	78150	74420	70340	66050	68900
21	97870	94820	91830	90060	87700	84280	82000	78150	74420	70340	65600	69380
22	97260	94820	91830	90060	87700	84280	82000	78150	74420	69860	65600	69380
23	97260	94210	91830	90060	87130	84280	82000	78150	73900	69860	65600	69860
24	97260	94820	91830	90060	87130	84280	82570	78150	73900	69380	65600	69380
25	97260	94210	91830	90060	87130	83710	e82000	78150	74420	69380	65150	69380
26	97260	94210	91240	90060	87130	83710	81450	77600	73900	69380	65600	69380
27	96650	94210	91830	90060	87130	84280	81450	77600	73380	69380	66050	68900
28	96650	93600	91240	89470	87130	84850	81450	77600	73380	68900	66980	68900
29	96650	93600	90650	88880	86560	84850	81450	75980	73380	69380	67460	68900
30	97260	93600	91240	88880	---	84850	81450	75980	73380	68900	67460	68420
31	97260	---	91240	88880	---	84280	---	75460	---	68420	67460	---
MAX	101000	97260	93600	91830	88880	87130	85420	81450	76500	73380	68420	69860
MIN	96650	93600	90650	88880	86560	83710	81450	75460	73380	68420	65150	66980
(+)	1043.6	1043.0	1042.6	1042.2	1041.8	1041.4	1040.9	1039.8	1039.4	1038.4	1038.2	1038.4
(@)	-4340	-3660	-2360	-2360	-2320	-2280	-2830	-5990	-2080	-4960	-1000	+1000
(++)	1112	1086	1103	1257	1009	1175	1243	1479	1316	1485	1098	908

CAL YR 1995 MAX 108600 MIN 78700 (@) +5820 (++) 12533
WTR YR 1996 MAX 101000 MIN 65150 (@) -33180 (++) 14271

e Estimated
(+) Elevation, 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, and for wholesale customer use.

07314500 LITTLE WICHITA RIVER NEAR ARCHER CITY, TX

LOCATION.--Lat 33°39'45", long 98°36'46", Archer County, Hydrologic Unit 11130209, on left bank at downstream side of bridge on State Highway 79, 1.5 mi downstream from confluence of North and Middle Forks, and 4.8 mi north of Archer City.

DRAINAGE AREA.--481 mi², of which 275 mi² is above Lake Kickapoo.

PERIOD OF RECORD.--May 1932 to January 1956, August 1966 to current year.
Water-quality records.--Chemical analyses: January 1953 to January 1956. Water temperatures: January 1953 to January 1956. Sediment records: May 1968 to September 1975.

REVISED RECORDS.--WSP 827: 1932-35. WSP 1211: Drainage area.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation by Lake Kickapoo (station 07314000) on North Fork Little Wichita River. Records furnished by the city of Wichita Falls show that 14,271 acre-ft was diverted from Lake Kickapoo for municipal use and wholesale customers during the current year.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--13 years (water years 1933-45) 110 ft³/s (79,700 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1933-45).--Maximum discharge, 17,900 ft³/s Oct. 31, 1941 (gage height, 21.80 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1930 reached a stage of about 28 ft, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.08	.02	.05	.02	.01	.88	.03	.00	.00	.00	14
2	.07	.05	.03	.07	.02	.00	.65	.03	.00	.01	.00	20
3	.12	.05	.03	.07	.02	.00	.56	.03	.00	.00	.00	4.2
4	.26	.05	.02	.05	.02	.00	.50	.03	.00	.00	.00	1.1
5	.01	.05	.02	.03	.02	.00	.50	.03	6.9	.00	.00	.58
6	.00	.03	.02	.03	.02	.00	.45	.03	2.2	.00	.00	1.7
7	.17	.03	.02	.03	.02	.00	.37	.03	.78	.00	.00	3.6
8	.24	.03	.02	.03	.02	.00	.29	.03	1.9	.00	.01	2.1
9	.23	.03	.02	.03	.02	.00	.24	.03	3.2	.00	.00	1.9
10	.19	.03	.02	.02	.02	.00	.16	.02	1.2	.00	e72	e3.3
11	.21	.02	.02	.02	.02	.00	.12	.02	.80	.00	e9.7	e2.3
12	.16	.02	.02	.01	.02	.00	.10	.02	.58	.00	e.94	e2.1
13	.10	.02	.04	.01	.02	.00	.10	.02	.41	.00	e.41	e2.0
14	.08	.02	.05	.02	.02	.00	.08	.01	.28	.00	e.35	e9.6
15	.06	.02	.05	.02	.02	.00	.69	.01	.08	37	e.31	e166
16	.04	.02	.04	.02	.02	.00	.62	.01	.03	4.7	e.26	e43
17	.02	.02	.03	.03	.02	.00	.57	.01	.00	1.9	e.26	e6.3
18	.02	.02	.03	.05	.02	.00	.55	.01	.00	1.2	e7.7	e1.3
19	.02	.02	.03	.23	.00	.00	e.50	.01	.00	.46	e.64	e1.2
20	.02	.03	.03	.16	.00	.00	e.47	.01	.00	.30	e.17	e1.1
21	.02	.04	.03	.11	.00	.00	e.41	.01	.00	.12	e.13	e.93
22	.02	.02	.03	.06	.00	.00	e2.9	.01	.00	.03	.26	e.83
23	.03	.02	.02	.05	.00	.00	e.96	.00	.00	.00	.13	e1.1
24	.03	.02	.02	.05	.00	.00	e.52	.00	.00	.00	.07	8.0
25	.03	.02	.02	.05	.00	.00	e.37	.00	.00	.00	.11	1.9
26	.04	.02	.02	.05	.01	.00	e.26	.00	.00	.00	.22	.70
27	.06	.02	.03	.05	.02	.00	e.17	.00	.00	.00	1.8	1.7
28	.06	.02	.03	.03	.02	20	e.08	.00	.00	.00	71	1.2
29	.04	.02	.02	.03	.02	32	e.05	.00	.00	.00	176	.78
30	.03	.02	.02	.03	---	5.4	.03	.00	.00	.00	25	.59
31	.03	---	.02	.03	---	1.8	---	.00	---	.00	13	---
TOTAL	2.48	0.86	0.82	1.52	0.43	59.21	14.15	0.44	18.36	45.72	380.47	305.11
MEAN	.080	.029	.026	.049	.015	1.91	.47	.014	.61	1.47	12.3	10.2
MAX	.26	.08	.05	.23	.02	32	2.9	.03	6.9	37	176	166
MIN	.00	.02	.02	.01	.00	.00	.03	.00	.00	.00	.00	.58
AC-FT	4.9	1.7	1.6	3.0	.9	117	28	.9	36	91	755	605

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1996#, BY WATER YEAR (WY)

MEAN	58.0	15.8	22.7	14.3	22.7	41.1	41.8	163	123	23.7	47.3	69.0
MAX	771	160	194	154	176	309	637	1224	944	282	1337	624
(WY)	1982	1987	1992	1990	1993	1990	1990	1982	1985	1950	1950	1989
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1953	1946	1946	1953	1947	1950	1971	1984	1953	1974	1967	1954

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1946 - 1996#	
ANNUAL TOTAL	13441.93		829.57			
ANNUAL MEAN	36.8		2.27		53.1	
HIGHEST ANNUAL MEAN					252	1990
LOWEST ANNUAL MEAN					2.27	1996
HIGHEST DAILY MEAN	1610	Jun 12	176	Aug 29	9550	Aug 2 1950
LOWEST DAILY MEAN	.00	Mar 7	.00	Oct 6	.00	Oct 31 1945
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 5	.00	Feb 19	.00	Oct 31 1945
INSTANTANEOUS PEAK FLOW			294	Aug 29	20100	May 16 1989
INSTANTANEOUS PEAK STAGE			11.78	Aug 29	27.03	May 16 1989
ANNUAL RUNOFF (AC-FT)	26660		1650		38500	
10 PERCENT EXCEEDS	25		1.7		63	
50 PERCENT EXCEEDS	.19		.03		.30	
90 PERCENT EXCEEDS	.02		.00		.00	

e Estimated
Period of regulated streamflow.

07314800 LAKE ARROWHEAD NEAR HENRIETTA, TX

LOCATION.--Lat 33°45'51", long 98°22'17", Clay County, Hydrologic Unit 11130209, at intake tower near center of dam on Little Wichita River, 2.3 mi upstream from Lake Creek, 11 mi southwest of Henrietta, and 12.3 mi southeast of Wichita Falls.

DRAINAGE AREA.--822 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 0.40 ft below sea level.

REMARKS.--The lake is formed by a rolled earthfill dam 15,900 ft long, including an uncontrolled reinforced concrete ogee spillway 1,581 ft 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 inlets that can be used for controlled releases. The dam was built by the city of Wichita Falls to impound water for municipal, industrial, and recreational uses. The area-capacity curves are based on U.S. Geological Survey topographic maps. Figures given herein represent total contents. Satellite telemeter at station. 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 provided by Homer Hunter and Associates and Biggs and Mathews, Consulting Engineers, for the city of Wichita Falls. Area-capacity curves provided by Homer Hunter and Associates. Record of diversions provided by the city of Wichita Falls.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 287,500 acre-ft May 4, 1990 (gage height, 927.92 ft); minimum since first appreciable storage, 4,640 acre-ft Aug. 31 to Sept. 4, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 247,200 acre-ft Oct. 2 at 1600 hours (gage height, 925.46 ft); minimum, 184,200 acre-ft Aug. 27 (gage height, 921.02 ft).

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

921.0	183,900	924.0	225,200	927.0	272,000
922.0	197,000	925.0	240,100	928.0	288,900
923.0	210,800	926.0	255,700		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245700	240400	232700	232400	228700	224600	223600	215200	206900	e200600	190000	188400
2	246600	238900	233600	232100	227800	224300	223300	214900	206600	e199900	190100	188200
3	246600	239100	232300	233000	228300	224500	222500	215900	206600	e198600	189400	188100
4	246500	239100	233300	232400	229500	227100	221800	215200	206800	e198600	188300	188200
5	245500	239100	232700	232000	229500	226100	222700	215600	206600	e198600	188300	188300
6	245400	239500	231500	232100	229500	224200	223100	214700	206400	e198400	187500	188100
7	245200	238300	232600	232300	230300	224800	222400	214500	206400	e197000	187700	187800
8	244800	238300	230900	232400	228700	224600	222500	214000	205900	e195500	187300	188400
9	244900	238300	231400	232100	228900	224300	222200	213500	205900	e195500	186900	188200
10	244600	237200	231800	232400	228300	224000	221200	213200	205900	e195900	188400	188200
11	244500	237700	231500	232400	228400	224800	222100	212800	205900	e196200	187700	187700
12	244500	237200	231700	232100	228400	224800	221500	212600	205700	e196100	187800	187400
13	243500	237200	231800	232300	228900	223600	221700	212600	205400	e195900	187400	187300
14	243700	237400	230300	231200	228300	223900	220800	212800	206500	e196200	187100	186800
15	243400	236900	230000	232100	226100	223600	220800	212600	205700	e197400	187000	190300
16	243200	237100	230500	232100	228400	223100	220300	211500	205200	e198100	186900	191400
17	242900	236800	231500	230500	228300	221800	219400	211800	205700	e197300	187100	191800
18	242600	236900	231500	231100	228300	222800	219900	211600	205100	e196700	186000	192100
19	242000	237100	231400	230600	228700	222500	219300	210700	205100	e196200	186800	192200
20	241700	236600	231800	231500	228600	223000	219400	210000	204300	e195300	186000	192500
21	241800	236800	231500	231500	228400	223000	219400	209000	204100	e194200	185700	193000
22	240800	235700	231400	231800	228300	223300	219200	208700	203300	e193000	185500	192200
23	240400	236300	231400	231400	227800	222200	219000	206900	203300	e193000	185200	193300
24	240300	236600	232400	232100	227000	220600	219900	207200	202800	192100	185200	193400
25	240400	236000	232400	232100	227800	220000	218400	207700	202400	191800	185300	193600
26	241100	237400	231400	230300	228000	221500	218400	207600	201900	191800	184700	194300
27	240300	233800	230900	230500	226500	223900	218700	207300	e202400	191300	186500	195000
28	240000	233900	231800	231200	224000	224500	215700	206600	e202000	191200	186900	194700
29	239800	234400	231800	230200	224600	224600	216200	206400	e201400	190300	187400	194500
30	239400	233000	232100	229000	---	223300	215900	206600	e200600	190300	187700	194300
31	239500	---	231500	229700	---	224200	---	207000	---	190400	187800	---
MAX	246600	240400	233600	233000	230300	227100	223600	215900	206900	200600	190100	195000
MIN	239400	233000	230000	229000	224000	220000	215700	206400	200600	190300	184700	186800
(+)	924.96	924.53	924.43	924.31	923.96	923.93	923.36	922.73	922.26	921.50	921.30	921.80
(@)	-5700	-6500	-1500	-1800	-5100	-400	-8300	-8900	-6400	-10200	-2600	+6500
(++)	1053	611	814	372	1092	687	847	2077	1811	2886	1474	927

CAL YR 1995 MAX 266900 MIN 215600 (@) +12800 (++) 12752
WTR YR 1996 MAX 246600 MIN 184700 (@) -50900 (++) 14651

e Estimated
(+) 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, and for wholesale customer use.

07314900 LITTLE WICHITA RIVER ABOVE HENRIETTA, TX

LOCATION.--Lat 33°49'36", long 98°14'23", Clay County, Hydrologic Unit 11130209, on right bank at downstream side of bridge on U.S. Highways 822 and 287, 1.0 mi downstream from Duck Creek, 2.8 mi west of Henrietta, 6.6 mi upstream from Turkey Creek, and 7.6 mi upstream from Dry Fork Little Wichita River.

DRAINAGE AREA.--1,037 mi².

PERIOD OF RECORD.--January 1953 to current year. Prior to October 1974, published as "near Henrietta".
Water-quality records.--Chemical analyses: December 1952 to January 1956, November 1959 to September 1966. January 1968 to September 1985.

REVISED RECORDS.--WDR TX-93-1: Daily discharge.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 831.57 ft above sea level. Prior to June 26, 1953, nonrecording gage. Prior to July 11, 1975, at site 2.6 mi downstream at same datum.

REMARKS.--Records fair. Flow largely regulated by Lake Arrowhead, 39 mi upstream (capacity, 262,100 acre-feet). The city of Wichita Falls diverted 14,270 acre-ft from Lake Kickapoo and 14,650 acre-ft from Lake Arrowhead for municipal uses, and returned 13,174 acre-ft as wastewater effluent and filter plant wash water to the Wichita River below station
07312500 at Wichita Falls and above station 07312700 near Charlie. The city of Henrietta diverted 634 acre-ft from pool at gage for municipal use. Records of diversions were furnished by the cities of Wichita Falls and Henrietta.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--13 years (water years 1954-66) prior to completion of Lake Arrowhead, 124 ft³/s (89,840 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1954-66).--Maximum discharge, 6,390 ft³/s May 2, 1957; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 21 ft at former site, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	14
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	71
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	66
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	29
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	24
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	18
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.6
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.1
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.9
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	5.2
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	23
27	.00	.00	.00	.00	.00	.38	.00	.00	.00	e.00	.00	25
28	.00	.00	.00	.00	.00	5.6	.00	.00	.00	e.00	.00	17
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	17
30	.00	.00	.00	.00	---	.00	.00	.00	.00	e.00	.00	13
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	5.98	0.00	0.00	0.00	0.00	10.00	349.80
MEAN	.000	.000	.000	.000	.000	.19	.000	.000	.000	.000	.32	11.7
MAX	.00	.00	.00	.00	.00	5.6	.00	.00	.00	.00	10	71
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	12	.00	.00	.00	.00	20	694

07314900 LITTLE WICHITA RIVER ABOVE HENRIETTA, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996#, BY WATER YEAR (WY)

MEAN	30.8	13.4	24.5	15.7	30.8	90.2	90.6	229	217	32.2	5.77	54.1
MAX	329	141	251	131	275	937	2169	2272	1652	549	76.6	549
(WY)	1982	1987	1992	1992	1987	1990	1990	1982	1992	1992	1995	1989
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1968	1967	1967	1967	1967	1967	1971	1971	1977	1968	1967	1967

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996#	
ANNUAL TOTAL	12339.81		365.78			
ANNUAL MEAN	33.8		1.00		69.5	
HIGHEST ANNUAL MEAN					498	1990
LOWEST ANNUAL MEAN					1.00	1996
HIGHEST DAILY MEAN	1640	May 26	71	Sep 16	10500	May 3 1990
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 16 1966
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 19 1966
INSTANTANEOUS PEAK FLOW			97	Sep 17	14200	May 3 1990
INSTANTANEOUS PEAK STAGE			10.36	Sep 17	24.96	May 3 1990
ANNUAL RUNOFF (AC-FT)	24480		726		50390	
10 PERCENT EXCEEDS	38		.00		52	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
Period of regulated streamflow.

07315200 EAST FORK LITTLE WICHITA RIVER NEAR HENRIETTA, TX

LOCATION.--Lat 33°48'46", long 98°05'05", Clay County, Hydrologic Unit 11130209, at downstream side of bridge on U.S. Highway 82, 5.8 mi upstream from Little Wichita River, 6.4 mi east of Henrietta, and 8.9 mi west of Ringgold.

DRAINAGE AREA.--178 mi².

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

REVISED RECORDS.--WRD TX-72-1: 1966(M).

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

REMARKS.--No estimated daily discharges. Records good. There are no known diversions upstream from this station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1941 reached a stage of 28.8 ft, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
No peak greater than base discharge.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.03	.02	.09	.11	.09	.90	.11	.05	.00	.00	.62
2	.08	.04	.03	.06	.11	.10	.61	.12	.04	.00	.00	.39
3	.11	.04	.02	.01	.11	.08	.46	.12	.02	.00	.00	.12
4	.11	.04	.02	.03	.11	.10	.35	.12	.03	.00	.00	.07
5	.11	.04	.02	.02	.12	.10	.28	.12	.02	.00	.00	.03
6	.08	.04	.03	.02	.12	.10	.24	.11	.01	.00	.00	.00
7	.07	.04	.02	.02	.11	.09	.22	.10	.01	.00	.00	.00
8	.05	.03	.04	.02	.10	.08	.20	.07	.01	.00	.01	.09
9	.04	.02	.04	.01	.11	.07	.19	.06	.01	.00	.02	.10
10	.03	.03	.04	.01	.11	.08	.19	.05	.01	.00	.00	.04
11	.02	.02	.05	.01	.10	.08	.18	.04	.01	.00	.00	.01
12	.02	.02	.06	.02	.10	.10	2.8	.05	.00	.00	.00	.00
13	.02	.03	.07	.02	.10	.10	5.3	.18	.00	.00	.00	.00
14	.02	.02	.07	.03	.10	.10	.66	.18	.00	.00	.00	.00
15	.02	.02	.09	.04	.11	.11	.41	.15	.00	.00	.00	.52
16	.02	.02	.09	.06	.11	.10	.30	.14	.00	.00	.00	4.5
17	.02	.01	.08	.08	.11	.10	.24	.14	.00	.00	.00	4.8
18	.01	.01	.05	.10	.10	.12	.20	.13	.00	.00	.00	1.7
19	.01	.02	.03	.10	.11	.12	.16	.12	.00	.00	.00	.77
20	.01	.01	.02	.09	.11	.11	.15	.11	.00	.00	.00	.51
21	.01	.01	.05	.08	.11	.11	.13	.10	.00	.00	.00	.37
22	.01	.01	.06	.09	.11	.11	.28	.09	.00	.00	.00	.31
23	.01	.01	.06	.11	.09	.11	.27	.08	.00	.00	.00	.19
24	.01	.01	.06	.11	.08	.11	.19	.06	.00	.00	.00	.14
25	.01	.01	.06	.11	.08	.11	.14	.05	.00	.00	.00	.13
26	.01	.01	.06	.11	.09	.09	.12	.03	.00	.00	.00	.31
27	.01	.01	.06	.11	.10	1.3	.12	.03	.00	.00	.04	.61
28	.01	.01	.06	.11	.09	66	.11	.02	.00	.00	.24	10
29	.01	.01	.06	.11	.08	26	.11	.02	.00	.00	.13	3.2
30	.02	.01	.08	.11	---	4.5	.11	.02	.00	.00	.10	1.5
31	.02	---	.09	.11	---	1.7	---	.03	---	.00	.19	---
TOTAL	1.05	0.63	1.59	2.00	2.99	102.07	15.62	2.75	0.22	0.00	0.73	31.03
MEAN	.034	.021	.051	.065	.10	3.29	.52	.089	.007	.000	.024	1.03
MAX	.11	.04	.09	.11	.12	66	5.3	.18	.05	.00	.24	10
MIN	.01	.01	.02	.01	.08	.07	.11	.02	.00	.00	.00	.00
AC-FT	2.1	1.2	3.2	4.0	5.9	202	31	5.5	.4	.00	1.4	62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	39.5	12.5	22.1	12.6	17.7	46.2	42.9	110	69.5	6.51	5.89	13.4
MAX	902	97.3	303	139	143	295	686	453	508	123	48.7	102
(WY)	1982	1974	1992	1985	1987	1985	1990	1989	1992	1973	1995	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1979	1972	1966	1966	1966	1967	1971	1971	1971	1964	1969	1979

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	8817.67		160.68			
ANNUAL MEAN	24.2		.44		34.1	
HIGHEST ANNUAL MEAN					128	1982
LOWEST ANNUAL MEAN					.44	1996
HIGHEST DAILY MEAN	1240	May 26	66	Mar 28	16900	Oct 13 1981
LOWEST DAILY MEAN	.01	Sep 4	.00	Jun 12	.00	Dec 1 1963
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 18	.00	Jun 12	.00	Dec 1 1963
INSTANTANEOUS PEAK FLOW			103	Mar 28	32500	Oct 13 1981
INSTANTANEOUS PEAK STAGE			9.77	Mar 28	31.70	Oct 13 1981
ANNUAL RUNOFF (AC-FT)	17490		319		24710	
10 PERCENT EXCEEDS	18		.21		19	
50 PERCENT EXCEEDS	.94		.05		.15	
90 PERCENT EXCEEDS	.02		.00		.00	

07315500 RED RIVER NEAR TERRAL, OK

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, Hydrologic Unit 11130201, on left bank at downstream side of bridge abutment on U.S. Highway 81, 0.5 mi downstream from Chicago, Rock Island, and Railroad Co. bridge, 1.2 mi south of Terral, 3.6 mi downstream from Little Wichita River, and at mile 872.

DRAINAGE AREA.--28,723 mi², of which 5,936 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1211: Drainage area.

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

REMARKS.--Records fair. There are many small diversions upstream from station for irrigation, oil field operations, and for municipal uses. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1935, reached a stage of 27.2 ft, although floods in 1891 and on May 1, 1908, are reported to have reached about the same stage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 21,000 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4330	1740	885	1130	789	e713	1070	518	508	613	1070	12500
2	4010	2200	874	1450	766	e706	888	505	945	572	1320	8000
3	3650	2580	862	1530	e766	e706	802	490	1270	578	1330	5990
4	4130	2170	876	1460	780	e700	749	477	1480	592	1000	6360
5	5330	1910	905	1420	e1110	e693	875	463	2090	547	1170	11500
6	6250	1720	866	1260	752	709	803	448	2050	521	1310	17000
7	4970	1490	849	1220	e799	685	750	431	2250	524	1160	8910
8	4040	1390	849	1150	816	671	740	422	1850	502	918	6000
9	3580	1360	849	1150	920	696	717	419	1520	497	808	4960
10	3250	1320	849	1140	936	725	693	425	1250	493	766	6050
11	3060	1240	849	1060	946	772	683	413	1090	493	874	5780
12	2930	1230	849	1060	1060	787	715	405	998	4630	1760	5380
13	2850	1260	841	1020	936	754	689	453	987	7650	2330	4200
14	2680	1300	841	991	891	727	661	465	936	4540	1650	3350
15	2600	1180	841	991	832	692	638	505	842	3140	2260	3700
16	2520	1140	841	981	793	679	609	487	797	2430	2460	6470
17	2400	1130	912	963	772	666	584	468	877	2420	1850	5030
18	2380	1110	1210	963	784	e673	575	449	1110	2270	1400	7120
19	2200	1100	1290	927	812	e679	564	436	1120	1680	1460	9190
20	2030	1110	1280	918	816	e686	549	420	1480	1630	1740	8970
21	1920	1180	1140	866	811	759	574	415	2300	1520	1470	8040
22	1830	1100	1090	866	796	819	755	390	2240	1120	1110	6470
23	1750	1040	1120	866	778	793	2010	377	2090	947	1000	5430
24	1710	1030	1110	900	758	759	1870	379	e1620	835	874	5010
25	1690	989	1100	900	753	782	1140	382	e1270	764	858	4930
26	1660	965	1100	883	753	793	813	396	1050	735	772	4010
27	1600	927	1060	874	769	950	655	402	835	719	818	4340
28	1590	923	1060	883	747	1730	578	407	752	697	1010	4970
29	1570	913	1060	883	e706	2350	541	413	704	770	6290	6360
30	1560	897	1010	874	---	1560	524	407	659	876	14200	5040
31	1570	---	1010	874	---	1360	---	436	---	1040	16700	---
TOTAL	87640	39644	30278	32453	23947	26774	23814	13503	38970	46345	73738	201060
MEAN	2827	1321	977	1047	826	864	794	436	1299	1495	2379	6702
MAX	6250	2580	1290	1530	1110	2350	2010	518	2300	7650	16700	17000
MIN	1560	897	841	866	706	666	524	377	508	493	766	3350
AC-FT	173800	78630	60060	64370	47500	53110	47240	26780	77300	91930	146300	398800

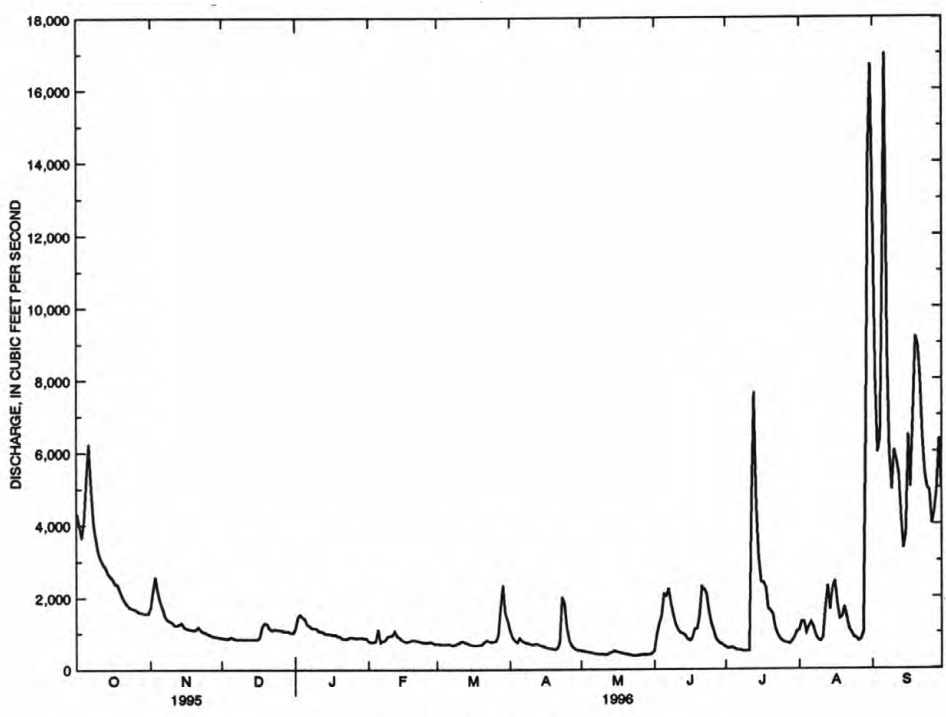
07315500 RED RIVER NEAR TERRAL, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	3089	1510	1108	889	1234	1789	2463	6728	6456	1686	1342	2094
MAX	23900	9713	11810	5306	9320	12560	18080	43580	37460	8077	14730	9653
(WY)	1987	1987	1992	1992	1987	1990	1990	1957	1941	1950	1995	1986
MIN	108	102	91.2	76.5	136	66.1	142	134	517	158	155	109
(WY)	1953	1940	1939	1940	1953	1940	1971	1971	1966	1964	1970	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996	
ANNUAL TOTAL	2409585		638166			
ANNUAL MEAN	6602		1744		2532	
HIGHEST ANNUAL MEAN					8925	1987
LOWEST ANNUAL MEAN					523	1953
HIGHEST DAILY MEAN	215000	Jun 7	17000	Sep 6	215000	Jun 7 1995
LOWEST DAILY MEAN	344	Feb 14	377	May 23	46	Mar 20 1940
ANNUAL SEVEN-DAY MINIMUM	351	Feb 11	390	May 22	47	Mar 18 1940
INSTANTANEOUS PEAK FLOW			19100	Sep 6	236000	Jun 7 1995
INSTANTANEOUS PEAK STAGE			14.43	Sep 6	33.60	Oct 22 1983
ANNUAL RUNOFF (AC-FT)	4779000		1266000		1834000	
10 PERCENT EXCEEDS	10700		4240		5510	
50 PERCENT EXCEEDS	1640		963		588	
90 PERCENT EXCEEDS	435		520		174	

e Estimated



07315500 RED RIVER NEAR TERRAL, OK
MEAN DAILY DISCHARGE (CFS)

07315500 RED RIVER NEAR TERRAL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to current year.
WATER TEMPERATURE: October 1967 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 13,000 microsiemens June 15, 1984; minimum daily, 255 microsiemens Jan. 1, 1985.
WATER TEMPERATURE: Maximum daily, 35.0°C Aug. 13, 16, 17, 1983, July 6, 1996; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 7,780 microsiemens Aug. 1; minimum daily, 772 microsiemens Sept. 5.
WATER TEMPERATURE: Maximum daily, 35.0°C July 6: minimum daily, 0.0°C. on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC										
07...	0845	858	5790	8.4	8.0	13.6	120	1100	930	280
JAN										
22...	1345	870	6250	8.4	9.0	14.4	131	1300	1000	320
MAR										
05...	1320	696	6400	8.5	18.5	14.6	165	--	--	--
JUN										
21...	1015	2260	4280	7.7	27.5	6.3	83	910	810	240
JUL										
31...	1105	1060	5890	8.0	26.0	7.6	98	1100	1000	290
AUG										
05...	0950	1170	5950	8.2	26.0	9.4	122	1000	910	280

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC										
07...	100	830	11	7.5	180	930	1300	0.50	6.5	3560
JAN										
22...	110	920	11	7.4	200	950	1500	0.40	8.8	3940
MAR										
05...	--	960	--	7.8	170	1100	1600	0.50	4.8	--
JUN										
21...	75	530	8	8.8	98	740	950	0.50	9.4	2610
JUL										
31...	93	860	11	10	67	1000	1400	0.50	8.0	3700
AUG										
05...	76	910	12	11	100	940	1400	0.50	11	3690

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	87640	4290	2560	607000	950	224900	620	147600	780
NOV.	1995	39644	5190	3160	338000	1200	128400	770	82700	950
DEC.	1995	30278	6030	3740	306000	1500	118700	920	75100	1100
JAN.	1996	32453	5160	3170	278000	1200	106300	780	68000	940
FEB.	1996	23947	6140	3810	247000	1500	95800	940	60600	1100
MAR.	1996	26774	5470	3370	244000	1300	93700	830	59700	1000
APR.	1996	23814	4020	2410	155000	890	57500	590	37700	730
MAY	1996	13503	5780	3570	130000	1400	50000	870	31900	1100
JUNE	1996	38970	5060	3080	324000	1200	122700	750	79200	920
JULY	1996	46345	4890	2970	372000	1100	140900	730	90900	890
AUG.	1996	73738	3480	2070	413000	760	151900	500	100300	640
SEPT	1996	201060	1670	943	512000	320	176000	230	122800	310
TOTAL		638166	**	**	3924000	**	1467000	**	956000	**
WTD.AVG.		1744	3780	2280	**	850	**	560	**	690

07315500 RED RIVER NEAR TERRAL, OK--Continued

FROM DAILY OBSERVER
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY EQUIVALENT MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3300	5200	e5950	1740	6110	6010	e3560	5380	5140	5660	7780	1400
2	3580	5110	e5960	2830	6180	6070	e3180	5840	5170	5910	6490	1380
3	3720	3610	e5770	2690	e6180	6140	2810	5480	6060	6010	6580	1420
4	4400	4160	e5800	2260	6190	6420	2540	5810	5300	6010	6740	1520
5	3570	4770	e5820	2760	6570	6450	2300	5790	6310	6390	6100	772
6	3820	4930	e5830	4320	5530	6170	e2500	5740	4220	7350	6400	e850
7	3350	4660	5790	e5250	e5780	5900	e2700	5770	5380	7130	5460	1030
8	3820	4960	e5900	6230	6130	6250	2900	5860	4550	6940	4530	1160
9	3950	5090	6220	6270	6460	6090	3660	6120	3840	6850	4650	1500
10	3770	e5320	e6150	5920	6020	6690	e3140	6110	3650	e6550	4810	1250
11	3790	5580	6090	5850	6100	6700	e2600	5930	3800	6300	e4640	1570
12	3980	5470	6240	5680	6080	6440	2050	5960	4410	5760	4470	2460
13	4230	5730	6040	5680	5820	6140	e2650	5800	5570	4060	3550	3380
14	e4570	5620	5900	5730	6020	5800	e3290	5730	6530	4020	3170	3450
15	4870	5320	5890	5920	6220	5930	e4150	5500	6030	3780	4280	2730
16	4860	5240	5840	5770	6600	5660	e4750	5630	5780	3550	3890	1740
17	4980	5350	e5680	5770	6720	5750	e5400	5770	5010	3620	3290	1280
18	5200	5620	5510	e6000	6490	5970	e5900	5370	5760	3550	e3520	3650
19	4600	5550	5510	6230	6480	6190	e5950	5630	5370	3870	3760	2920
20	4820	5570	4740	6410	6560	6280	e6000	5910	5490	4660	3650	1320
21	5120	5810	4960	6430	6040	6120	e5950	5810	4270	6440	e3800	1140
22	e5300	5600	5080	e6250	5740	6250	e5900	5700	4440	6600	e3900	1460
23	5450	5360	5680	6660	5780	6190	e5850	5740	5230	5550	4040	1790
24	4500	5350	e6700	6290	5990	e6480	e5800	6000	4480	5590	4320	2000
25	5400	5610	7590	e5800	6020	6760	e2700	6080	e5000	5720	4270	2250
26	e5420	5350	6980	5730	5930	6140	e3150	6130	5760	5790	5020	e1850
27	5450	5890	6820	5860	6150	5740	e3650	6170	5400	6060	5060	1690
28	5480	5990	6830	6020	6050	3710	e4100	5850	5480	6600	4550	2150
29	5230	5970	6750	5820	5770	3110	e4500	5840	5500	6110	3620	1580
30	5230	5940	6520	6000	---	3360	e4900	5530	5670	6120	3130	1680
31	5390	---	6500	6110	---	3940	---	5570	---	6030	1340	---
MEAN	4550	5320	6030	5360	6130	5830	3950	5790	5150	5630	4540	1810
MAX	5480	5990	7590	6660	6720	6760	6000	6170	6530	7350	7780	3650
MIN	3300	3610	4740	1740	5530	3110	2050	5370	3650	3550	1340	772

WTR YR 1996 MEAN 5010 MAX 7780 MIN 772

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	16.0	10.0	4.0	.0	5.0	---	23.0	23.0	30.0	30.0	25.0
2	24.0	15.0	10.0	4.0	.0	8.0	---	24.0	29.0	33.0	32.0	24.0
3	21.0	11.0	13.0	4.0	---	13.0	15.0	29.0	25.0	33.0	30.0	25.0
4	20.0	11.0	12.0	4.0	.0	12.0	15.0	18.0	26.0	32.0	27.0	25.0
5	18.0	14.0	12.0	4.0	.0	18.0	10.0	16.0	26.0	29.0	27.0	25.0
6	18.0	14.0	11.0	2.0	5.0	4.0	---	18.0	25.0	35.0	26.0	---
7	18.0	15.0	8.0	---	---	5.0	---	19.0	25.0	34.0	29.0	26.0
8	20.0	13.0	9.0	2.0	9.0	5.0	13.0	24.0	25.0	32.0	27.0	27.0
9	19.0	14.0	3.0	4.0	10.0	4.0	16.0	23.0	28.0	29.0	26.0	28.0
10	21.0	---	---	5.0	13.0	6.0	---	23.0	23.0	---	26.0	26.0
11	22.0	11.0	3.0	7.0	10.0	8.0	---	22.0	29.0	29.0	---	27.0
12	22.0	14.0	7.0	7.0	9.0	10.0	19.0	23.0	29.0	27.0	26.0	26.0
13	21.0	11.0	9.0	8.0	9.0	13.0	---	21.0	28.0	27.0	25.0	24.0
14	---	14.0	10.0	10.0	14.0	13.0	---	23.0	28.0	29.0	26.0	24.0
15	19.0	13.0	10.0	7.0	12.0	14.0	---	28.0	28.0	28.0	26.0	26.0
16	19.0	12.0	10.0	7.0	10.0	14.0	---	27.0	30.0	28.0	26.0	23.0
17	19.0	13.0	---	11.0	9.0	2.0	---	24.0	29.0	27.0	26.0	22.0
18	19.0	15.0	7.0	---	10.0	12.0	---	22.0	28.0	30.0	---	23.0
19	20.0	15.0	5.0	4.0	10.0	13.0	---	26.0	30.0	30.0	25.0	22.0
20	19.0	15.0	4.0	4.0	11.0	8.0	---	24.0	30.0	30.0	26.0	21.0
21	16.0	14.0	5.0	6.0	13.0	8.0	---	24.0	30.0	28.0	---	21.0
22	---	14.0	5.0	8.0	14.0	12.0	---	26.0	30.0	30.0	---	24.0
23	17.0	13.0	4.0	7.0	15.0	10.0	---	25.0	30.0	30.0	26.0	26.0
24	19.0	11.0	---	5.0	11.0	---	---	24.0	30.0	26.0	27.0	23.0
25	15.0	12.0	4.0	8.0	15.0	9.0	---	24.0	---	29.0	26.0	22.0
26	---	13.0	4.0	5.0	17.0	9.0	---	25.0	31.0	26.0	25.0	---
27	18.0	15.0	4.0	4.0	15.0	8.0	---	24.0	32.0	30.0	25.0	22.0
28	16.0	9.0	4.0	8.0	8.0	9.0	---	24.0	28.0	28.0	25.0	16.0
29	16.0	9.0	4.0	6.0	5.0	10.0	---	21.0	28.0	29.0	25.0	21.0
30	15.0	9.0	5.0	3.0	---	14.0	---	28.0	32.0	27.0	24.0	18.0
31	16.0	---	9.0	.0	---	15.0	---	28.0	---	26.0	25.0	---
MEAN	19.0	12.9	7.2	5.4	9.4	9.7	14.7	23.5	28.1	29.4	26.4	23.6
MAX	25.0	16.0	13.0	11.0	17.0	18.0	19.0	29.0	32.0	35.0	32.0	28.0
MIN	15.0	9.0	3.0	.0	.0	2.0	10.0	16.0	23.0	26.0	24.0	16.0

WTR YR 1996 MEAN 17.7 MAX 35.0 MIN .0

07315950 MOSS LAKE NEAR GAINESVILLE, TX

LOCATION.--Lat 33°46'26", long 97°12'50", Cooke County, Hydrologic Unit 11130201, on top of upstream side of dam adjacent to guardrail of roadway about 250 ft from right end of Fish Creek dam on Fish Creek, 1.6 mi upstream from Bearhead Creek, 3.7 mi upstream from mouth, and 10 mi northwest of Gainesville.

DRAINAGE AREA.--65.0 mi².

PERIOD OF RECORD.--October 1967 to current year.
Water-quality records.--Chemical analyses: October 1969 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Apr. 20, 1979, recording gage at site about 150 ft upstream at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 1,460 ft long. The dam was completed and storage began Dec. 2, 1966. An uncontrolled morning-glory-type spillway with a 7- by 7-foot opening is designed to discharge 2,500 ft³/s at a 10-foot head. A 400-foot-wide spillway has been cut through natural ground, and is located about 100 ft to 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. Figures given herein represent total contents. Satellite telemeter at station. 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 morning-glory type (top of conservation pool)	715.0	23,210
Lowest gated outlet (invert)	666.0	78

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 50,990 acre-ft Oct. 13, 1981 (elevation, 733.72 ft); minimum since lake filled in May 1968, 11,490 acre-ft Jan. 18, 1990 (elevation, 702.08 ft, from graph).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 24,360 acre-ft Sept. 15 at 1700 hours (elevation, 716.00 ft); minimum, 18,190 acre-ft Dec. 11 (elevation, 710.15 ft).

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

702.0	11,400	716.0	24,400	727.0	39,600
707.0	15,300	718.0	26,800	730.0	44,400
710.0	18,000	720.0	29,300	733.0	49,700
712.0	20,000	722.0	32,100	734.0	51,500
714.0	22,100	724.0	35,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22300	22020	18260	18550	18660	18680	19480	22140	22100	21640	21190	22090
2	22320	21960	18270	18580	18640	18670	19490	22160	22130	21630	21170	22090
3	22320	21940	18270	18590	18660	18680	19530	22180	22130	21600	21150	22090
4	22310	21950	18260	18610	18680	18700	19490	22190	22120	21570	21110	22080
5	22260	21940	18260	18590	18660	18690	19460	22200	22120	21530	21080	22070
6	22230	21960	18250	18590	18670	18640	19490	22200	22120	21500	21050	22060
7	22220	21930	18240	18600	18700	18630	19510	22200	22120	21470	21010	22050
8	22210	21920	18210	18600	18710	18630	19520	22200	22100	21440	21020	22040
9	22220	21940	18210	18610	18710	18610	19510	22200	22090	21380	21100	22020
10	22210	21860	18200	18630	18710	18620	19520	22160	22080	21350	21100	22000
11	22210	21870	18200	18630	18700	18610	19530	22150	22090	21340	21100	21980
12	22190	21870	18230	18620	18700	18620	19540	22150	22070	21500	21090	21960
13	22160	21860	18230	18640	18710	18650	19560	22200	22060	21500	21080	21990
14	22120	21750	18250	18640	18720	18630	19530	22200	22050	21490	21050	21980
15	22130	21510	18230	18640	18690	18630	19540	22190	22040	21480	21050	24230
16	22120	21310	18250	18660	18680	18640	19530	22180	22040	21460	21060	23780
17	22100	21100	18330	18700	18690	18630	19540	22160	22020	21440	21060	23570
18	22080	20890	18420	18650	18710	18640	19540	22140	21980	21410	21040	23460
19	22050	20690	18410	18650	18710	18630	19520	22120	21960	21380	21020	23410
20	22010	20470	18410	18660	18710	18630	19520	22100	21920	21370	21000	23310
21	22000	20260	18430	18660	18720	18630	20030	22090	21900	21340	20970	23260
22	21980	20050	18430	18700	18730	18640	21900	22080	21860	21320	20980	23220
23	21940	19810	18420	18690	18700	18650	22050	22050	21830	21300	20970	23200
24	21920	19610	18430	18680	18700	18630	22120	22010	21810	21290	20940	23150
25	21920	19400	18430	18710	18730	18610	22130	22000	21780	21250	20970	23140
26	21940	19210	18430	18670	18750	18620	22140	21980	21770	21220	20970	23150
27	21900	18950	18430	18680	18700	19180	22180	21970	21750	21200	21400	23150
28	21870	18710	18430	18690	18670	19370	22140	21970	21700	21210	21990	23140
29	21850	18520	18440	18690	18670	19460	22130	21940	21680	21180	22080	23120
30	21890	18320	18460	18660	---	19460	22150	21950	21670	21160	22080	23100
31	21910	---	18470	18660	---	19480	---	21950	---	21180	22090	---
MAX	22320	22020	18470	18710	18750	19480	22180	22200	22130	21640	22090	24230
MIN	21850	18320	18200	18550	18640	18610	19460	21940	21670	21160	20940	21960
(+)	713.81	710.29	710.44	710.64	710.65	711.47	714.04	713.85	713.59	713.13	713.98	714.90
(@)	-390	-3590	+150	+190	+10	+810	+2670	-200	-280	-490	+910	+1010

CAL YR 1995 MAX 25610 MIN 15640 (@) -2380
WTR YR 1996 MAX 24230 MIN 18200 (@) +800

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07316000 RED RIVER NEAR GAINESVILLE, TX

LOCATION.--Lat 33°43'40", long 97°09'35", in SW 1/4 sec.36, T.9 S., R.1 E., Love County, OK, Hydrologic Unit 11130201, on downstream right bank at end of bridge on Interstate 35, 0.2 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 5.0 mi downstream from Fish Creek, 4.5 mi southwest of Thackerville, OK, 7.0 mi north of Gainesville, and at mile 791.5.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--30,782 mi² of which 5,936 mi² probably is noncontributing.

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

REVISED RECORDS.--WSP 1211: Drainage area.

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

REMARKS.--Records poor. Flow slightly regulated by Lake Kemp (station 07312000), since 1943 by Lake Altus (station 07302500 in Oklahoma), since 1946 by Lake Kickapoo (station 07314000), since 1967 by Lake Arrowhead (station 07314800 in Texas) and Moss Lake (station 07315950). U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 1	0230	38,100	19.81	Sept. 7	0700	38,700	19.94

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8120	2050	1200	1620	1350	e1150	3100	e970	741	751	e1500	36100
2	6860	2010	1120	1860	1290	e1140	2540	932	1430	678	e1500	25100
3	5970	1940	1110	2220	e1200	e1130	2080	882	1660	e670	e2000	16500
4	5270	2790	1110	2460	e1150	e1110	1730	866	1690	e650	e2400	e10500
5	5040	3230	1110	2830	e1170	1090	1480	799	2060	e640	e2100	e9800
6	6890	2770	1090	2440	1150	1070	1320	785	2060	e680	e1400	23100
7	9210	2450	1170	2090	1140	1020	1530	716	e2600	e650	e1300	34900
8	8790	2120	1150	1940	1130	1040	1480	681	e3100	e630	e1700	17800
9	6110	1910	1100	1860	1190	1050	1230	667	e3000	e620	e1700	11500
10	5100	1840	1080	1870	1230	1030	1140	642	e2700	e610	e2400	e8700
11	4420	1760	1090	1810	1410	1070	1050	618	e2000	e600	e2600	e8700
12	4020	1700	1100	1720	1450	1110	1020	620	1590	e600	e1400	e8400
13	3620	1690	1120	1680	1540	1200	2240	639	1380	e750	1000	e7700
14	3270	1660	1140	1640	1670	1240	3260	691	1210	10500	e1300	e6600
15	3020	1430	1120	1610	1490	1180	2100	674	1150	e8600	e2500	e7500
16	2840	1500	1110	1590	1380	1110	1320	671	1130	5470	e2200	e8000
17	2680	1390	1240	1580	1310	1060	1080	699	974	e5000	e2800	e7300
18	2540	1360	1380	1520	1260	1060	963	725	869	e4500	e3400	e8800
19	2570	1340	1570	1520	1220	1080	884	683	874	e4300	e2200	8250
20	2570	1340	1830	1470	1240	1040	811	653	1160	e3800	e1800	e16600
21	2320	1320	2020	1430	1270	1030	817	635	1150	e2800	e1600	e16000
22	2170	1330	2010	1410	1290	1050	1660	616	1330	e2400	e2000	e13000
23	2040	1420	1810	1400	1280	1110	2300	582	2280	e2000	e1700	e10000
24	1990	1360	1700	1380	1240	1190	1710	e550	2630	e1700	e1300	e7700
25	1940	1310	1710	1420	1210	1260	3190	e540	2370	e1300	e1200	e6200
26	1880	1300	1740	1430	1220	1180	e3050	e530	1830	e1250	e1100	e6500
27	1870	1280	1710	1420	1210	1520	e2100	e520	1420	e1150	e1500	e6100
28	1830	1250	1640	1390	e1180	3620	e1600	e520	1160	e1100	e1800	e6300
29	1790	1240	1580	1400	e1170	3440	e1300	e510	982	e1000	2350	e6700
30	1850	1250	1560	1390	---	3900	e1150	e510	836	e1100	6140	e7100
31	1990	---	1560	1360	---	4470	---	e500	---	e1400	31000	---
TOTAL	120580	51340	42980	52760	37040	45750	51235	20626	49366	67899	90890	367450
MEAN	3890	1711	1386	1702	1277	1476	1708	665	1646	2190	2932	12250
MAX	9210	3230	2020	2830	1670	4470	3260	970	3100	10500	31000	36100
MIN	1790	1240	1080	1360	1130	1020	811	500	741	600	1000	6100
AC-FT	239200	101800	85250	104600	73470	90750	101600	40910	97920	134700	180300	728800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1996, BY WATER YEAR (WY)

MEAN	3883	1985	1592	1199	1670	2599	3396	8184	8535	2212	1633	2580
MAX	31080	14020	14990	7152	9984	14690	27400	47780	43510	9857	20730	12880
(WY)	1942	1942	1992	1985	1987	1987	1990	1957	1941	1950	1995	1986
MIN	119	137	125	82.4	151	90.5	153	204	640	166	163	108
(WY)	1953	1955	1940	1940	1953	1940	1971	1971	1966	1964	1970	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1937 - 1996	
ANNUAL TOTAL	3224145		997916			
ANNUAL MEAN	8833		2727		3292	
HIGHEST ANNUAL MEAN					11890	1987
LOWEST ANNUAL MEAN					651	1953
HIGHEST DAILY MEAN	159000	Jun 13	36100	Sep 1	232000	May 31 1987
LOWEST DAILY MEAN	689	Feb 26	500	May 31	48	Jan 18 1940
ANNUAL SEVEN-DAY MINIMUM	713	Feb 16	519	May 25	48	Jan 18 1940
INSTANTANEOUS PEAK FLOW			38700	Sep 7	265000	May 31 1987
INSTANTANEOUS PEAK STAGE			19.94	Sep 7	40.08	May 31 1987
ANNUAL RUNOFF (AC-FT)	6395000		1979000		2385000	
10 PERCENT EXCEEDS	17000		6230		7200	
50 PERCENT EXCEEDS	2750		1440		835	
90 PERCENT EXCEEDS	948		736		215	

e Estimated

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1994 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1994 to current year.
WATER TEMPERATURE: October 1994 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1994

REMARKS.--Samples were collected monthly, and specific conductance, pH, water temperature, alkalinity and dissolved oxygen were determined in the field.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 7,420 microsiemens Feb. 15, 1996; minimum, 402 microsiemens Nov. 14, 1994.
WATER TEMPERATURE: Maximum, 35.5°C July 2, 1996; minimum, 0.0°C several days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded (greater than 20 percent missing record), 7,420 microsiemens Feb. 15; minimum recorded, 775 microsiemens Sept. 7.
WATER TEMPERATURE: Maximum, 35.5°C July 2; minimum, 0.0°C Jan. 6, 7, Feb. 1-6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)
OCT											
11...	1445	1028	80020	4360	3920	8.1	29.0	23.0	280	749	8.3
NOV											
29...	1400	1028	80020	1240	4890	8.4	15.0	9.0	9.4	754	11.9
JAN											
11...	1330	1028	80020	1790	5940	8.4	16.0	7.0	8.6	750	12.5
22...	1330	1028	80020	1410	5460	8.4	13.0	7.0	3.2	748	12.8
FEB											
27...	1300	1028	80020	1230	5320	8.4	15.0	16.0	6.7	744	10.3
MAR											
20...	1230	1028	80020	1050	5150	8.3	7.5	9.5	3.2	760	10.3
APR											
10...	1045	1028	80020	1140	4360	8.2	16.5	17.5	23	750	9.4
MAY											
15...	1045	1028	80020	673	5170	8.3	27.5	23.5	3.0	743	8.5
JUN											
12...	1135	1028	80020	1590	3870	8.0	29.0	27.5	160	744	6.6
JUL											
02...	1500	1028	80020	662	5220	8.2	40.5	32.5	5.0	746	8.0
AUG											
13...	1230	1028	80020	1000	3830	8.4	34.0	27.5	220	755	7.2
29...	1330	1028	80020	2350	3100	8.1	27.0	26.5	330	749	7.3

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3
OCT										
11...	100	780	640	210	62	560	61	9	7.7	171
NOV										
29...	106	960	790	240	87	700	61	10	6.7	200
JAN										
11...	107	1100	920	300	97	850	62	11	7.0	263
22...	110	1100	790	290	97	790	60	10	6.8	--
FEB										
27...	109	1000	900	250	99	770	62	10	7.4	154
MAR										
20...	92	990	840	240	95	730	62	10	--	185
APR										
10...	102	770	640	180	78	620	63	10	6.9	161
MAY										
15...	105	940	780	230	88	690	61	10	7.7	188
JUN										
12...	87	810	700	230	57	520	58	8	8.2	137
JUL										
02...	115	1100	980	300	79	770	61	10	10	111
AUG										
13...	93	700	580	190	55	580	64	10	8.6	143
29...	93	550	450	150	42	450	64	8	6.9	124

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CARBONATE WATER DIS IT FIELD MG/L AS CO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT										
11...	0	140	580	840	0.20	11	2470	2350	3.36	29100
NOV										
29...	*0	164	770	1100	0.30	7.0	3080	3010	4.19	10300
JAN										
11...	5	224	820	1300	0.50	10	3690	3520	5.02	17800
22...	--	**199	770	1200	0.40	8.6	3370	3360	4.58	12800
FEB										
27...	5	135	780	1200	0.40	3.4	3310	3190	4.50	11000
MAR										
20...	0	152	800	1200	0.40	2.8	3240	3160	4.41	9190
APR										
10...	0	132	640	1000	0.40	0.90	2710	2610	3.69	8340
MAY										
15...	0	154	770	1200	0.40	5.8	3310	3080	4.50	6010
JUN										
12...	0	112	670	810	0.50	10	2520	2370	3.43	10800
JUL										
02...	0	91	870	1200	0.40	9.6	3510	3290	4.77	6270
AUG										
13...	0	117	540	860	0.50	10	2400	2310	3.26	6480
29...	0	102	410	720	0.30	9.5	1890	1850	2.57	12000

* Filtered pH <8.3 units for alkalinity titration; therefore, no carbonate value.
** ALKALINITY, LAB (MG/L AS CaCO3)

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3210	3030	3130	4980	4470	4680	5580	5060	5260	---	---	e6180
2	3030	2940	2970	4830	4770	4800	5610	5430	5540	---	---	e5560
3	3250	2990	3130	5030	4830	4940	5570	5440	5520	---	---	e5190
4	3540	3250	3430	5440	5020	5210	5730	5570	5650	---	---	e5530
5	3780	3540	3620	5440	3940	4760	5780	5720	5750	5670	4310	4750
6	4560	3770	4160	4200	3900	4060	---	---	e5800	4380	4250	4310
7	4330	3350	3680	4640	4120	4350	---	---	e5790	4630	4380	4560
8	3910	3380	3720	5050	4640	4870	---	---	e5750	5090	4610	4900
9	3730	3410	3530	5230	5050	5150	---	---	e5690	5810	5090	5440
10	3810	3410	3570	5230	5030	5130	---	---	e5570	6250	5810	6040
11	3950	3810	3900	5330	5050	5190	---	---	e5510	6460	6250	6400
12	3920	3820	3870	5540	5330	5420	---	---	e5510	6500	6430	6470
13	3860	3790	3810	5930	5500	5680	---	---	e5570	6490	6310	6410
14	4020	3850	3930	6130	5620	5970	---	---	e5500	6310	6070	6130
15	4240	4020	4100	5630	5460	5540	---	---	e5360	6160	5960	6090
16	4520	4240	4380	5690	5480	5570	---	---	e5230	5960	5810	5870
17	4700	4520	4600	5880	5680	5790	---	---	e4750	5810	5690	5760
18	4930	4700	4820	5760	5240	5480	---	---	e4410	5850	5690	5770
19	5050	4880	4960	5250	4860	5010	---	---	e4100	5820	5560	5700
20	5300	5040	5180	4960	4860	4910	---	---	e4140	5560	5450	5490
21	5320	5050	5220	5250	4920	5070	---	---	e4420	5600	5450	5510
22	5060	4740	4870	5270	5070	5210	---	---	e4200	5790	5430	5560
23	4860	4720	4800	5230	5070	5140	---	---	e3690	5630	5480	5550
24	5080	4850	4990	5310	5100	5220	---	---	e3820	5850	5620	5730
25	5120	5020	5080	5300	4940	5130	---	---	e4050	5870	5680	5820
26	5270	5120	5210	5000	4740	4870	---	---	e4600	5830	5670	5760
27	5260	5190	5230	4810	4690	4760	---	---	e5350	5830	5330	5580
28	5220	5110	5140	4800	4640	4730	---	---	e6510	5340	4990	5190
29	5230	5110	5170	4980	4250	4840	---	---	e6610	4990	4920	4940
30	5210	5030	5130	5070	4980	5040	---	---	e6240	5200	4960	5070
31	5070	4930	5020	---	---	---	---	---	e6400	5330	5190	5260
MONTH	5320	2940	4330	6130	3900	5080	---	---	5240	---	---	5570

e Estimated

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5700	5330	5490	5690	5590	5640	2610	1820	2310	3890	3520	3700
2	---	---	e5760	5810	5630	5750	3260	2600	2980	4340	3890	4100
3	---	---	e6660	5630	5400	5580	3570	3260	3460	4710	4340	4560
4	---	---	e6590	5400	5290	5320	3760	3520	3620	4690	4590	4640
5	---	---	e6550	5490	5330	5420	4040	3720	3920	4790	4610	4690
6	---	---	e6660	5570	5340	5470	4470	4040	4220	---	---	e4700
7	---	---	e6880	5720	5520	5600	4900	4440	4630	---	---	e4800
8	---	---	e6400	5890	5710	5800	4740	4310	4550	---	---	e4900
9	---	---	e6170	6110	5880	6010	4310	3850	4020	---	---	e5000
10	---	---	e5760	6110	5910	6060	4980	4230	4590	---	---	e5100
11	---	---	e5460	5960	5790	5900	5110	4930	5060	---	---	e5200
12	---	---	e6100	6060	5850	5960	5390	5110	5280	---	---	e5000
13	6370	6190	6240	6060	5840	5930	5420	3270	4560	---	---	e4800
14	7100	6370	6820	6120	5880	5990	3340	1610	2110	---	---	e4700
15	7420	7100	7300	6330	6120	6260	4070	2390	3490	---	---	e4500
16	---	---	e7000	6230	5950	6110	3400	2680	2960	---	---	e4700
17	---	---	e7050	5970	5480	5730	4240	3400	3870	---	---	e5000
18	---	---	e7240	5550	5110	5370	4530	4240	4380	---	---	e4800
19	---	---	e7030	5350	5060	5230	5080	4530	4870	---	---	e4900
20	---	---	e6800	5240	5070	5150	5030	4910	4970	---	---	e5200
21	---	---	e6510	5480	5090	5290	5130	2650	4980	---	---	e5400
22	---	---	e5970	5780	5470	5620	4510	2040	3330	5690	5440	5540
23	---	---	e5600	6010	5770	5910	4570	2690	3300	5590	5430	5490
24	---	---	e5280	6060	5830	5980	4250	2840	3180	5670	5570	5630
25	---	---	e5040	5860	5780	5810	4560	3500	4020	5610	5360	5510
26	---	---	e5020	5820	5590	5700	3810	2370	2620	5380	5230	5320
27	---	---	e5280	5590	3450	5040	2550	2360	2430	5290	5100	5210
28	5430	5320	5390	3660	2700	3290	2780	2550	2670	5280	5110	5200
29	5590	5390	5500	3230	2580	2900	3160	2780	2960	5440	5230	5320
30	---	---	---	3910	3180	3670	3520	3160	3330	5390	5150	5250
31	---	---	---	3180	1990	2650	---	---	---	5370	5210	5310
MONTH	---	---	6190	6330	1990	5360	5420	1610	3760	---	---	4970

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e5200	---	---	e5100	7310	5560	5660	2160	1430	1670
2	---	---	e5000	---	---	e5260	6060	5590	5750	1440	1380	1410
3	---	---	e4800	5420	5300	5360	5760	5420	5530	1430	1360	1390
4	4890	3310	4250	5520	5170	5430	7560	5550	6860	1400	1360	1390
5	4160	3580	3860	5750	5430	5600	7180	6230	6750	1560	1390	1440
6	---	---	e4800	6200	5720	5920	6230	5510	5770	1590	791	1230
7	---	---	e4400	6240	5930	6110	6560	5620	6200	1220	775	1080
8	---	---	e3800	---	---	e5950	6530	5650	6240	1110	1000	1040
9	---	---	e3200	---	---	e5380	6160	5660	5980	1080	1030	1070
10	---	---	e3200	---	---	e4940	5660	2760	4240	1230	1060	1140
11	---	---	e3800	---	---	e5110	4830	2030	3080	1470	1230	1370
12	---	---	e3800	---	---	e4670	3560	2440	3040	1390	1290	1320
13	4610	3660	3800	---	---	e4500	4240	3610	3910	1890	3610	1540
14	---	---	e3800	---	---	e3940	5100	4230	4540	2450	1890	2300
15	4030	3670	3780	---	---	e3060	5090	3170	3790	2360	1430	1980
16	4950	4030	4430	---	---	e3700	3770	3230	3600	2160	1780	1980
17	5930	4960	5530	4080	3440	3850	3790	3440	3310	2500	1920	2300
18	6350	5830	6050	3480	3270	3380	4630	3790	4360	2400	1170	1590
19	6200	5900	6050	3600	3230	3320	4140	3610	3900	1790	1160	1250
20	6190	5740	5980	3950	3580	3810	3700	3480	3550	3960	1790	3360
21	5920	5600	5740	3880	3650	3740	4020	3700	3900	2990	1420	2090
22	5860	4340	5330	4220	3880	4030	4010	3780	3900	1420	1120	1230
23	5160	4730	4950	5400	4220	4690	3790	3180	3570	1240	1120	1160
24	5040	3890	4220	6370	5400	6000	3730	3540	3680	1500	1200	1340
25	4890	3900	4420	6530	6370	6450	3640	3370	3470	1800	1500	1650
26	---	---	e4900	6370	5740	6060	3840	3410	3630	1960	1770	1870
27	---	---	e4550	5770	5270	5480	4000	1590	3310	2120	1850	2040
28	---	---	e4820	5400	5290	5360	2260	927	1660	1970	1890	1940
29	---	---	e5020	5540	5320	5450	3170	1890	2650	1960	1740	1810
30	---	---	e4900	5710	5500	5600	3850	2550	3040	1930	1770	1840
31	---	---	---	5690	5480	5590	3420	2160	3020	---	---	---
MONTH	---	---	4610	---	---	4930	7560	927	4250	3960	775	1630

e Estimated

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.5	23.0	24.0	19.5	16.5	18.0	12.5	9.5	11.0	9.0	6.0	8.0
2	24.0	22.5	23.0	18.5	13.0	16.0	15.5	11.0	13.0	6.5	4.5	5.5
3	23.0	21.0	22.0	13.0	11.5	12.0	15.5	13.0	14.0	5.5	3.5	4.5
4	22.5	20.5	21.5	11.5	10.0	11.0	14.5	12.5	13.5	5.5	4.0	4.5
5	21.5	20.0	20.5	11.5	10.0	11.0	14.0	12.5	13.0	5.0	3.5	4.5
6	20.0	18.5	19.0	13.0	11.0	12.0	13.5	11.5	12.5	3.5	1.5	2.5
7	19.5	18.0	18.5	15.5	13.0	14.0	12.0	10.0	11.0	2.0	.0	1.0
8	19.5	18.0	18.5	15.0	12.5	14.0	10.5	8.0	10.0	2.5	.0	1.5
9	21.0	18.5	19.5	15.0	12.0	13.5	8.0	4.0	5.5	5.0	1.5	3.0
10	22.5	20.0	21.0	18.0	14.0	16.0	4.5	2.5	3.5	6.5	3.0	4.5
11	23.5	21.0	22.0	14.0	11.0	12.0	6.5	2.5	4.5	8.5	5.5	7.0
12	24.0	21.5	22.5	12.5	9.5	11.0	9.5	5.5	7.5	9.0	6.0	7.5
13	23.5	21.0	22.5	13.5	10.5	12.0	13.0	9.0	11.0	10.0	6.5	8.0
14	21.5	19.5	20.5	14.0	11.0	12.5	14.5	11.5	12.5	11.0	8.0	9.5
15	21.0	18.0	19.5	15.0	12.0	13.0	14.0	12.5	13.0	9.5	8.5	9.0
16	21.0	18.0	19.5	14.5	11.5	13.0	13.0	12.0	12.5	10.0	7.5	8.5
17	20.5	18.0	19.5	14.0	11.5	13.0	12.0	11.5	12.0	13.5	9.5	12.0
18	21.0	18.0	19.5	15.0	12.0	13.0	11.5	8.5	10.5	13.5	4.0	7.5
19	22.0	19.0	20.0	15.5	12.0	14.0	8.5	6.0	7.0	4.5	2.0	3.0
20	19.5	17.5	18.5	16.5	14.0	15.0	6.0	5.0	5.5	5.0	1.5	3.0
21	18.0	15.5	17.0	16.0	13.5	14.5	5.5	4.5	5.0	6.0	2.5	4.5
22	19.0	15.0	17.0	16.0	13.0	14.5	5.5	5.0	5.0	9.0	5.0	7.0
23	18.5	17.0	18.0	15.0	12.5	13.5	6.0	4.0	5.0	10.0	8.0	9.0
24	18.0	15.0	16.5	13.5	11.0	12.0	6.0	3.5	4.5	9.0	6.0	7.5
25	17.0	15.5	16.0	14.0	11.0	12.0	6.0	4.0	5.0	9.0	5.5	7.0
26	20.0	15.5	17.5	14.5	11.5	13.0	5.5	4.0	5.0	8.5	6.0	7.5
27	20.5	18.0	19.0	14.0	11.0	13.0	6.5	4.0	5.0	7.0	4.5	5.5
28	19.0	16.5	18.0	11.0	8.5	10.0	6.5	4.0	5.0	6.5	4.5	5.5
29	18.0	16.0	17.0	10.0	7.5	9.0	6.0	4.0	5.0	7.0	6.0	6.5
30	16.0	15.5	15.5	11.0	8.0	9.5	6.5	5.5	6.0	6.0	3.0	5.0
31	17.0	15.0	16.0	---	---	---	9.0	6.5	8.0	3.0	.5	1.5
MONTH	24.5	15.0	19.3	19.5	7.5	12.9	15.5	2.5	8.4	13.5	.0	5.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	0.0	0.5	9.5	5.0	7.5	17.0	12.5	14.5	23.0	16.0	19.0
2	0.5	0.0	0.0	12.0	7.0	9.0	17.5	13.5	15.5	24.5	19.5	21.5
3	1.0	0.0	0.0	14.0	9.0	11.5	19.5	14.5	17.0	26.5	21.0	23.5
4	1.0	0.0	0.0	15.0	11.5	13.5	19.0	16.5	17.5	26.5	22.5	24.5
5	3.5	0.0	1.0	19.0	15.0	17.0	17.0	11.5	13.5	28.0	23.0	25.5
6	4.5	0.0	2.0	16.5	8.5	13.0	15.5	10.5	13.0	28.5	23.5	26.0
7	11.5	4.0	8.0	8.5	4.5	6.5	17.5	12.0	14.5	27.5	24.0	25.5
8	14.5	10.0	12.0	7.0	3.0	5.0	20.0	14.5	17.0	27.0	23.0	25.0
9	16.0	12.0	14.0	8.5	3.5	6.0	21.5	16.5	19.0	26.5	22.5	24.5
10	17.0	13.0	14.5	10.0	5.0	7.5	21.5	17.0	19.0	26.5	23.0	24.5
11	14.0	11.0	12.0	11.0	6.5	9.0	22.5	18.0	20.0	24.0	21.0	22.5
12	12.5	9.0	10.5	14.0	8.5	11.0	20.0	17.0	19.0	24.5	20.0	22.0
13	12.5	8.5	10.5	17.5	11.5	14.5	19.0	15.0	17.0	23.0	21.5	22.0
14	14.0	9.5	11.5	19.5	15.5	17.0	19.5	16.0	17.5	27.0	21.0	23.5
15	13.5	10.5	12.0	19.5	15.5	17.0	17.5	14.0	16.0	---	---	---
16	11.0	7.0	9.0	20.0	14.5	17.0	19.0	14.0	16.5	---	---	---
17	11.0	6.5	8.5	20.0	15.5	17.5	21.0	15.5	18.0	---	---	---
18	12.0	7.5	10.0	17.5	12.5	14.5	23.5	17.5	20.0	28.5	23.0	25.5
19	15.0	11.0	12.5	13.5	10.5	12.0	25.0	19.0	22.0	27.5	23.0	25.0
20	15.5	12.0	13.5	12.5	8.0	10.5	24.0	19.5	21.5	29.0	22.5	25.5
21	17.0	12.5	14.5	14.5	8.5	11.5	23.0	15.5	20.5	31.0	25.0	27.5
22	18.0	14.0	16.0	17.0	11.0	14.0	19.0	15.5	18.0	30.5	26.5	28.5
23	17.0	14.5	16.0	17.0	14.5	15.5	20.0	15.5	18.0	29.5	24.5	27.0
24	14.5	12.0	13.5	18.5	14.5	16.5	20.5	16.5	18.5	29.0	24.0	26.5
25	15.0	12.0	13.5	14.5	10.0	12.0	20.5	16.5	18.5	29.5	25.0	27.0
26	18.0	14.5	16.0	11.0	8.5	10.0	22.5	18.0	20.0	27.0	25.0	26.0
27	17.5	14.0	16.0	9.5	7.5	8.0	23.5	19.0	21.0	30.0	24.0	26.5
28	14.0	9.0	11.0	8.5	7.0	7.5	22.0	19.0	21.0	30.0	23.5	26.5
29	9.0	6.5	7.5	12.5	7.5	10.0	19.0	16.0	17.0	29.0	24.5	26.5
30	---	---	---	16.0	12.0	14.0	19.5	14.0	16.5	30.0	24.0	27.0
31	---	---	---	15.5	12.5	14.0	---	---	---	27.0	24.5	25.0
MONTH	18.0	0.0	9.9	20.0	3.0	11.9	25.0	10.5	17.9	---	---	---

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	34.5	29.0	31.5	30.0	26.0	28.0	25.5	24.5	24.5
2	---	---	---	34.5	29.0	31.5	32.5	27.0	29.5	26.0	24.5	25.0
3	---	---	---	35.0	30.0	32.0	30.5	28.0	29.5	26.0	25.0	25.5
4	---	---	---	35.5	29.0	32.0	30.5	27.0	28.5	27.0	25.5	26.0
5	30.5	26.0	28.0	32.5	28.0	30.5	30.5	26.5	28.5	27.5	26.0	26.5
6	30.5	26.5	28.0	34.0	27.5	30.5	31.0	27.0	28.5	27.0	26.0	26.5
7	29.0	26.5	27.5	35.0	28.0	31.0	32.0	27.0	29.0	27.0	25.5	26.5
8	27.0	24.5	25.5	33.0	29.0	31.0	31.0	28.0	29.5	27.5	26.0	27.0
9	28.0	23.5	25.5	31.0	28.0	29.5	30.5	28.0	28.5	28.5	26.5	27.5
10	28.0	24.5	26.0	29.0	25.5	27.0	29.0	25.5	27.5	29.0	26.5	27.5
11	30.5	25.5	28.0	28.5	25.0	26.5	30.0	26.0	27.5	29.0	27.0	28.0
12	30.5	27.0	28.5	29.5	25.5	27.5	29.0	26.5	27.5	28.5	27.0	27.5
13	32.5	27.0	29.5	34.0	26.5	29.5	30.0	25.5	27.5	28.0	26.5	27.0
14	33.5	28.5	30.5	31.0	27.5	29.0	30.0	26.5	28.5	26.5	25.5	26.0
15	32.5	29.0	30.5	30.5	28.0	29.0	30.0	27.0	28.5	25.5	24.0	25.0
16	33.0	28.5	30.5	30.5	28.5	29.5	29.0	26.5	27.5	25.5	24.5	25.0
17	34.0	29.0	31.5	30.5	28.0	29.0	28.0	26.5	27.0	26.0	23.5	25.0
18	35.5	29.5	32.5	31.0	28.0	29.5	29.5	26.0	27.5	25.0	23.5	24.0
19	35.0	29.5	32.0	31.5	28.5	30.0	30.5	27.0	28.5	24.0	22.5	23.5
20	35.0	30.5	32.5	32.0	29.0	30.5	31.0	27.5	29.5	23.5	22.5	23.0
21	33.5	29.0	31.5	32.0	28.0	30.0	31.0	28.0	29.5	23.0	21.5	22.5
22	33.0	29.0	31.0	32.5	28.5	30.0	30.5	28.0	29.5	23.5	22.0	22.5
23	32.0	28.5	30.0	30.5	29.0	29.5	29.0	27.5	28.5	25.0	23.0	24.0
24	32.0	28.0	30.0	30.5	27.5	28.5	30.0	27.0	28.5	25.0	24.5	24.5
25	32.5	29.0	30.5	31.0	27.0	29.0	29.0	27.0	28.0	24.5	23.5	24.0
26	31.5	29.0	30.0	30.5	27.5	29.0	30.0	26.5	27.5	24.0	21.0	23.0
27	32.0	28.0	30.0	31.0	26.5	28.5	28.5	26.0	27.0	21.0	18.5	19.5
28	33.0	28.5	30.5	32.0	27.0	29.5	26.0	25.0	25.5	19.5	17.0	18.5
29	33.5	28.5	31.0	31.5	28.0	30.0	26.0	25.5	25.5	20.0	18.0	19.0
30	34.0	29.0	31.0	30.0	28.0	28.5	27.5	25.0	26.0	21.0	19.0	20.0
31	---	---	---	29.0	26.5	27.5	26.0	24.5	25.5	---	---	---
MONTH	---	---	---	35.5	25.0	29.6	32.5	24.5	28.0	29.0	17.0	24.5

07335390 PAT MAYSE LAKE NEAR CHICOTA, TX

LOCATION.--Lat 33°51'09", long 95°32'40", Lamar County, Hydrologic Unit 11140101, on upstream side of dam on Sanders Creek, 2,800 ft to right of outlet channel, 2.0 mi southeast of Chicota, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--175 mi².

PERIOD OF RECORD.--October 1967 to current year. Prior to October 1970, published as Pat Mayse Reservoir.
Water-quality records.--Chemical analyses: October 1969 to September 1984.

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

REMARKS.--The lake is formed by a rolled earthfill dam about 7,080 ft long, including a spillway 100 ft 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 concrete conduit through the dam. Two low-flow pipes, with 24- and 12-inch diameters, provide 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. Water is diverted from the lake for municipal and industrial uses by the city of Paris. Any resultant effluent is discharged into Pine Creek below Lake Crook (capacity, 11,010 acre-ft), which is located in another drainage basin. The capacity table was prepared by the U.S. Army Corps of Engineers, Tulsa District. Rain gage at station. Satellite telemeter at station. 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	345,300
Top of flood-control pool	460.5	182,900
Crest of morning-glory drop-inlet spillway (top of conservation pool)	450.6	115,800
Streambed	393.0	0

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 208,000 acre-ft Dec. 11, 12, 1971 (elevation, 462.87 ft); minimum since conservation pool was first reached on Apr. 20, 1968, 100,900 acre-ft Nov. 10, 1978 (elevation, 446.80 ft), based on Capacity Table 1-C.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 128,400 acre-ft Sept. 28 at 1400 hours (elevation, 452.68 ft); minimum, 98,550 acre-ft Jan. 11 (elevation, 447.53 ft).

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

446.0	90,440	456.0	150,400	460.0	179,100
449.0	106,600	458.0	164,400	463.0	203,000
452.0	124,200				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112600	109900	107200	107300	106500	104700	104300	103000	102400	120000	121900	122400
2	112900	109500	107200	107300	106400	104600	104200	102900	102500	119900	122100	122200
3	112900	109400	107100	107300	106400	104600	104200	102900	102500	119500	122100	121900
4	112700	109400	107100	104900	106300	104500	104000	102900	102500	119300	122000	121700
5	112600	109300	106900	103400	106400	104600	103900	102900	102500	119100	121700	121500
6	112400	109300	106800	102500	106300	104300	104000	102800	102300	119000	121400	121300
7	112300	109300	106700	101600	106400	104100	103900	102800	102400	118800	121300	121100
8	112200	109100	107000	100800	106300	104100	103800	102700	102100	118600	121000	120900
9	112000	109100	106800	99910	106400	103900	103600	102600	102100	118600	120600	120600
10	111900	108900	106700	99310	106300	103900	103600	102500	102000	118400	121400	120400
11	111900	108800	106600	99250	106200	103800	103600	102600	101800	118300	121400	120400
12	111800	108700	106700	101000	106100	103700	104300	102500	102300	119200	122500	120200
13	111700	108600	106800	102900	106000	103700	104100	102500	115500	119200	122300	120000
14	111600	108500	106700	104600	105800	103700	104500	102600	123500	119400	122000	119700
15	111400	108400	106600	106400	105700	103600	104200	102500	124200	119300	121700	120200
16	111400	108300	106400	107200	105600	103600	104200	102400	124000	119200	121500	119900
17	111200	108100	106900	107600	105600	103500	104200	102300	123700	119000	121300	119700
18	111100	108100	107300	107300	105400	104000	104100	102200	123300	118800	121300	119800
19	111000	108100	107100	107200	105500	103800	104100	102000	123100	118700	121100	120200
20	110700	108100	107000	107200	105400	103700	103900	101900	122800	118500	121000	121300
21	110600	108000	106900	107200	105400	103700	103900	101800	122500	118300	120600	121600
22	110500	108000	106900	107200	105300	103600	104000	101700	122300	118200	120400	121700
23	110400	107800	106800	107200	105200	103600	104000	101600	121900	118000	120000	121600
24	110200	107700	106800	107200	105200	103800	103800	101500	121600	118000	119900	123700
25	110100	107700	106700	107200	105200	103600	103700	101400	121300	117900	119900	123700
26	110300	107700	106500	107200	105200	103500	103600	101400	121100	118600	119700	126200
27	110000	107400	106500	107000	105000	104100	103500	101500	120900	118500	120400	127800
28	109900	107300	106400	106800	104800	104200	103500	101400	120600	118500	122200	128400
29	109700	107300	106400	106900	104700	104200	103200	101200	120500	118300	122500	128000
30	109600	107200	106500	106700	---	104500	103100	101400	120300	118300	122500	127500
31	109500	---	106600	106700	---	104300	---	101300	---	120600	122500	---
MAX	112900	109900	107300	107600	106500	104700	104500	103000	124200	120600	122500	128400
MIN	109500	107200	106400	99250	104700	103500	103100	101200	101800	117900	119700	119700
(+)	449.51	449.11	449.00	449.01	448.66	448.58	448.37	448.04	451.36	451.42	451.72	452.53
(@)	-3200	-2300	-600	+100	-2000	-400	-1200	-1800	+19000	+300	+1900	+5000

CAL YR 1995 MAX 158500 MIN 106400 (@) -19500
WTR YR 1996 MAX 128400 MIN 99250 (@) +14800

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07335500 RED RIVER AT ARTHUR CITY, TX

LOCATION.--Lat 33°52'30", long 95°30'06", in NW 1/4 sec.11, T.8 S., R.17 E., Choctaw County, OK, Hydrologic Unit 11140101, on right downstream bank of bridge on U.S. Highway 271 at Arthur City, 10.6 mi downstream from Muddy Boggy River, 26.0 mi upstream from Kiamichi River, and at mile 633.1.

DRAINAGE AREA.--44,531 mi², of which 5,936 mi² probably is 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.

REVISED RECORDS.--WSP 1241: Drainage area. WSP 1311: 1906-11.

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

REMARKS.--No estimated daily discharges. Records fair. Flow regulated since October 1943 by Lake Texoma (station 07331500), 92.8 mi upstream from station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--13 years (water years 1906-11, 1937-43) prior to regulation by Lake Texoma, 9,266 ft3/s (6,713,000 acre-ft/yr.).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1906-11, 1937-43).--Maximum discharge, 400,000 ft3/s May 28, 1908 (gage height, 43.2 ft), on basis of records for later years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16300	2060	2350	6210	6260	4370	6980	5250	3890	2980	5550	14600
2	16300	2250	1830	6980	6320	3610	3700	4830	5070	2620	6000	12500
3	17000	3030	2080	6730	7450	2640	3210	5100	3930	2850	5110	15400
4	16800	3000	1920	9070	9390	1500	3850	5450	2830	2920	4820	16600
5	13100	2710	1010	8520	8010	970	4030	4940	3860	2900	6110	16000
6	12600	2570	1350	7600	9100	1320	3940	3730	3780	2670	6520	15700
7	12000	2200	2600	6980	8420	2470	3790	2630	3890	3450	6050	15600
8	10900	2010	2720	4300	6670	2350	3050	3550	3430	2100	4920	11600
9	10600	2630	2780	2940	4230	3160	1830	3310	3160	1310	4280	8850
10	10500	2690	3440	3590	3840	3660	2540	2940	2560	2390	4040	8560
11	10200	2650	2930	3880	3580	3450	2600	3280	1830	3290	5520	8630
12	7590	2530	3190	3810	2190	1490	2800	3300	1540	3540	6260	8560
13	6770	2020	3210	3820	1470	1760	6270	2640	9380	4950	5810	8510
14	6580	1170	3200	3870	4740	2660	9220	1420	11700	8950	4680	8450
15	5850	1290	3330	2480	5990	2280	7860	1890	6690	7120	4800	7990
16	4650	2430	3160	1590	4160	2300	5060	3030	4630	4760	4330	12400
17	4350	2790	3250	2570	3580	2310	3820	2230	3530	5110	4550	12900
18	4490	3000	3320	4850	3450	1940	4200	1810	2500	5940	4720	11100
19	4490	2660	6760	5970	2070	1050	4300	1700	2600	5490	4270	13600
20	4400	1820	7080	6300	1280	1250	4680	1570	3610	5040	4190	21600
21	4180	1070	5300	4710	2090	2690	4440	1390	3820	4350	4530	30100
22	4290	1810	4110	2910	2980	2980	3900	1350	3810	3240	4960	26600
23	4050	2620	3820	2000	3010	3010	12300	1700	3760	1950	5980	22000
24	3830	2640	3720	5120	3120	2780	17200	2240	3370	1790	6680	22200
25	2770	1890	3290	6660	3150	2040	13000	2500	2810	3090	6730	22200
26	3050	1550	1870	6950	1830	1030	13600	3110	3210	3290	6380	22300
27	2790	1270	2500	6760	1120	1290	15700	2720	3500	4090	7340	32800
28	3510	877	3400	6370	1970	5510	16700	2180	3440	4020	16800	31800
29	3550	1450	3380	3020	3060	11100	14000	2050	3600	4130	17800	25700
30	2210	1980	5550	3470	---	11700	9530	2600	3450	1780	14000	23700
31	1390	---	6220	5500	---	10100	---	2930	---	3540	16900	---
TOTAL	231090	64667	104670	155530	124530	100770	208100	89370	119180	115650	210630	508550
MEAN	7455	2156	3376	5017	4294	3251	6937	2883	3973	3731	6795	16950
MAX	17000	3030	7080	9070	9390	11700	17200	5450	11700	8950	17800	32800
MIN	1390	877	1010	1590	1120	970	1830	1350	1540	1310	4040	7990
AC-FT	458400	128300	207600	308500	247000	199900	412800	177300	236400	229400	417800	1009000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996#, BY WATER YEAR (WY)

MEAN	7040	7275	7101	6507	8149	10280	11390	17370	18780	7967	4977	5005
MAX	40240	37170	32340	39930	24200	38610	55500	103900	83820	27700	34840	19010
(WY)	1982	1975	1992	1992	1946	1987	1990	1990	1957	1989	1950	1950
MIN	263	242	894	1126	1138	1118	1343	2837	2074	1586	1108	859
(WY)	1957	1957	1957	1964	1959	1967	1956	1980	1956	1956	1972	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996#	
ANNUAL TOTAL	6469027		2032737			
ANNUAL MEAN	17720		5554		9315	
HIGHEST ANNUAL MEAN					23290	1990
LOWEST ANNUAL MEAN					2754	1964
HIGHEST DAILY MEAN	71000	May 9	32800	Sep 27	269000	May 4 1990
LOWEST DAILY MEAN	877	Nov 28	877	Nov 28	134	bDec 11 1956
ANNUAL SEVEN-DAY MINIMUM	1620	Nov 26	1620	Nov 26	134	Dec 11 1956
INSTANTANEOUS PEAK FLOW			34600	Sep 27	275000	May 4 1990
INSTANTANEOUS PEAK STAGE			14.16	Sep 27	34.21	May 4 1990
INSTANTANEOUS LOW FLOW			907	Nov 28	907	Nov 28 1995
ANNUAL RUNOFF (AC-FT)	12830000		4032000		6748000	
10 PERCENT EXCEEDS	49600		12400		24300	
50 PERCENT EXCEEDS	9890		3780		4260	
90 PERCENT EXCEEDS	2680		1830		1340	

Period of regulated streamflow.

07336820 RED RIVER NEAR DE KALB, TX

LOCATION.--Lat 33°40'59", long 94°41'39", Bowie County, Hydrologic Unit 11140106, on right bank at downstream side of bridge on U.S. Highway 259, 4.8 mi upstream from North Mill Creek, 13 mi north of De Kalb, and at mile 556.9.

DRAINAGE AREA.--47,348 mi², of which 5,936 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--No estimated daily discharges. Records good. At times, flood peaks may be affected by Lake Texoma (station 07331500) located approximately 169 mi upstream, and low flows may be affected by releases for the generation of electric power. Storage and/or releases from Lake Hugo on the Kiamichi River, a tributary to the Red River about 45 mi upstream, may also affect flows. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1957, 205,000 ft³/s June 1957 (gage height, 32.2 ft), from rating curve extended above 186,500 ft³/s. The greatest flood since 1936 occurred in February 1938, stage unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16400	2440	1640	5560	6200	2620	19600	19300	4930	3710	8450	20100
2	15800	2170	2090	6290	7050	3670	17200	13400	4120	3530	10200	18800
3	16000	2470	2260	7270	6510	4410	13700	7910	5020	3110	10900	16600
4	16200	2510	1960	8470	6920	3590	11800	6400	5850	2990	9330	16900
5	16300	3180	2190	10800	9000	2620	10600	6460	5500	3100	6840	19100
6	13600	3020	1880	11500	9030	1820	7160	6240	5530	3110	6220	18100
7	12100	2800	1300	10600	8850	1380	6640	5680	5830	3060	6880	17600
8	11700	2570	1780	9730	9240	1920	6370	4350	4440	3100	6500	17400
9	10700	2240	2710	7190	7780	2720	5970	3920	4020	3450	5850	15000
10	10200	2340	2800	3970	5530	2870	4870	4720	3640	2620	5310	11100
11	10000	2700	2870	3360	4220	3680	4260	9040	3450	2150	6130	10100
12	9810	2700	3050	3910	3820	4210	3970	11200	2900	3370	8650	9960
13	8190	2650	2870	4150	3120	3220	4070	7340	2670	5350	11300	9920
14	6820	2510	3280	3770	2090	1880	7470	14500	5760	6350	11600	9860
15	6380	1960	3180	3740	2710	2620	17200	13600	14200	12900	10800	9840
16	6020	1520	3320	3200	5530	3030	19600	13200	11300	12500	9120	10100
17	5090	1750	3610	2160	5310	2750	16600	13000	7040	10900	5990	11700
18	4550	2450	4900	2230	4150	2930	14500	10000	5170	12800	5230	14500
19	4460	2830	6070	5210	3870	3120	12100	5030	3990	14400	5370	13400
20	4450	2960	6790	7840	3300	2400	8870	4120	3160	13300	5310	14800
21	4360	2520	7000	8570	2210	1810	8760	3750	3530	10600	4880	26600
22	4200	1820	6120	7770	1690	2840	8720	3340	3910	9570	4700	34800
23	4230	1420	4730	6190	2690	4040	8440	3670	3980	8900	5100	31500
24	4150	2040	3950	5330	3060	3890	15900	9100	3940	7080	5410	27700
25	3970	2540	3740	7110	3090	3800	26300	11100	3840	4660	6250	28500
26	3580	2460	3540	10200	3330	3500	25100	8440	3430	4330	6650	29000
27	3200	1930	2830	10300	2900	2550	24300	8520	3200	3920	6660	35400
28	3120	1700	2040	8970	1860	2680	24400	8570	3560	4460	8580	43800
29	3140	1450	2850	8560	1450	6150	25800	8020	3620	4380	16500	42900
30	3630	1220	3280	6600	---	16100	23600	6920	3610	4790	21900	34800
31	3300	---	3890	5120	---	20300	---	5020	---	5510	18500	---
TOTAL	245650	68870	104520	205670	136510	125120	403870	255860	145140	194000	261110	619880
MEAN	7924	2296	3372	6635	4707	4036	13460	8254	4838	6258	8423	20660
MAX	16400	3180	7000	11500	9240	20300	26300	19300	14200	14400	21900	43800
MIN	3120	1220	1300	2160	1450	1380	3970	3340	2670	2150	4700	9840
AC-FT	487200	136600	207300	407900	270800	248200	801100	507500	287900	384800	517900	1230000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	8997	13860	14090	11420	14120	19630	18700	25530	26870	9787	5836	6233
MAX	39980	53170	45440	49500	31000	48590	62330	125500	67360	35030	21150	24010
(WY)	1982	1975	1972	1992	1969	1987	1990	1990	1987	1982	1995	1974
MIN	1783	2105	1608	1699	2876	2492	3005	4707	2909	2598	1418	1368
(WY)	1979	1980	1978	1981	1976	1980	1981	1972	1988	1972	1972	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	7425930		2766200			
ANNUAL MEAN	20350		7558		14520	
HIGHEST ANNUAL MEAN					30100	1990
LOWEST ANNUAL MEAN					4690	1980
HIGHEST DAILY MEAN	77800	May 10	43800	Sep 28	278000	May 7 1990
LOWEST DAILY MEAN	1220	Nov 30	1220	Nov 30	254	Nov 29 1979
ANNUAL SEVEN-DAY MINIMUM	1760	Nov 27	1760	Nov 27	529	Aug 31 1972
INSTANTANEOUS PEAK FLOW			45300	Sep 28	279000	May 6 1990
INSTANTANEOUS PEAK STAGE			21.51	Sep 28	34.42	May 6 1990
ANNUAL RUNOFF (AC-FT)	14730000		5487000		10520000	
10 PERCENT EXCEEDS	48800		16200		40200	
50 PERCENT EXCEEDS	12200		5190		6970	
90 PERCENT EXCEEDS	2800		2430		2180	

07336820 RED RIVER NEAR DE KALB, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: October 1970 to July 1981. Sediment analyses: November 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1968 to September 1991.
WATER TEMPERATURE: January 1968 to September 1991.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,140 microsiemens July 13, 1980; minimum daily, 114 microsiemens Oct. 31, 1984.
WATER TEMPERATURE (1968-89): Maximum daily, 4.0°C on several days during July and August of 1969 and 1970; minimum daily, 0.0°C Jan. 11, 1977.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 02...	1430	1030	1480	8.3	21.5	8.2	94	1.2	310	210	83
DEC 15...	1000	3130	1620	8.1	12.5	10.7	101	0.9	360	200	95
FEB 13...	1412	3000	1640	8.3	13.0	12.4	119	1.8	400	260	110
MAR 22...	0945	2620	1410	8.0	14.0	11.7	114	2.8	320	150	87
MAY 07...	0859	5920	1250	7.9	24.0	8.9	107	1.0	290	150	78
JUN 18...	0830	5330	910	8.0	29.0	6.4	85	1.6	210	120	59

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT 02...	25	160	4	5.7	98	230	260	0.20	7.8	832	0.130
DEC 15...	29	170	4	5.6	150	240	270	0.40	4.7	907	0.240
FEB 13...	31	180	4	5.9	150	260	280	0.40	6.1	964	0.160
MAR 22...	26	140	3	4.6	170	210	220	0.30	5.0	797	--
MAY 07...	23	130	3	4.0	140	200	210	0.30	5.5	733	0.130
JUN 18...	16	91	3	4.9	93	140	130	0.30	6.2	505	0.200

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)
OCT 02...	--	<0.010	0.130	0.130	0.400	0.40	0.80	0.010	0.010	0.03	--
DEC 15...	--	<0.010	0.240	0.240	<0.015	--	0.30	0.020	<0.010	--	--
FEB 13...	--	<0.010	0.160	0.160	<0.015	--	0.30	<0.010	<0.010	--	240
MAR 22...	--	<0.010	--	<0.050	<0.015	--	0.40	0.030	0.010	0.03	61
MAY 07...	--	<0.010	0.130	0.130	0.050	0.25	0.30	0.020	<0.010	--	309
JUN 18...	0.200	0.010	0.210	0.210	0.030	0.17	0.20	0.040	0.040	0.12	213

DATE	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 02...	--	--	--	--	--	--	--	--	--	--	--
DEC 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 13...	1940	20	1	180	0.70	<1.0	<5.0	<3.0	<10	<3.0	<10
MAR 22...	432	74	--	--	--	--	--	--	--	--	--
MAY 07...	4940	40	--	--	--	--	--	--	--	--	--
JUN 18...	3070	80	1	120	<0.50	<1.0	<5.0	<3.0	<10	38	<10

07336820 RED RIVER NEAR DE KALB, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
02...	--	--	--	--	--	--	--	--	--	--
DEC										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
13...	19	27	<0.1	<10	<10	<1	<1.0	1200	7	<3.0
MAR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
07...	--	--	--	--	--	--	--	--	--	--
JUN										
18...	13	2.0	<0.1	<10	<10	<1	<1.0	600	<6	<3.0

07337000 RED RIVER AT INDEX, AK

LOCATION.--Lat 33°33'07", long 94°02'28", in NW1/4, SW1/4 sec.7, T.14 S., R.28 W., Miller County, Hydrologic Unit 11140106, near right bank on downstream side of southbound bridge on U.S. Highway 71 at Index, 2.2 mi south of Ogden, 20.6 mi upstream from Little River, and at mile 485.3.

DRAINAGE AREA.--48,030 mi², of which 5,936 mi² probably is noncontributing.

PERIOD OF RECORD.--July 1936 to current year. Gage-height records collected at same site since 1917 are contained in reports of National Weather Service.
Water-quality records.--Chemical and biochemical analyses: Water years 1947-56, April 1980 to September 1994.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 246.87 ft above sea level. Prior to Dec. 12, 1939, nonrecording gage, and Dec. 12, 1939, to July 19, 1979, water-stage recorder, at site 500 ft downstream at present datum.

REMARKS.--Records good, except those for estimated daily discharges which are fair. Some regulation since Oct. 31, 1943, by Lake Texoma, 241 mi upstream, capacity, 5,392,900 acre-ft, since Sept. 28, 1967, by Pat Mayse Lake, capacity, 352,700 acre-ft, and since Jan. 18, 1974, by Hugo Lake (Oklahoma) capacity, 966,700 acre-ft. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17600	3940	1890	3960	6300	2330	17700	21500	6670	4120	8680	18800
2	17600	3350	1720	5280	6500	2240	17400	17900	6160	4160	10300	19200
3	16800	2780	2040	e5520	7510	3250	15200	13800	5600	4170	11800	18900
4	16700	2580	2480	7330	7400	4230	12600	9610	5360	3910	13600	17200
5	16900	2730	2570	8680	7390	4340	11000	7600	6130	3540	12500	17000
6	17200	2980	2440	10600	8660	3750	10100	7170	6480	3520	9800	19000
7	14600	3400	2530	11800	9640	3210	7730	7130	6240	3590	7760	18700
8	12600	3220	2330	11300	9470	2490	6420	6480	6690	3570	7700	18000
9	12100	3020	1940	10600	9720	2070	6060	5370	5870	3560	8000	17900
10	11200	2790	2310	8940	9150	2540	5770	4430	4930	3860	7250	16400
11	10500	2560	3030	5990	7390	2960	5130	5790	4550	3800	7080	e13100
12	10300	2730	3180	4350	5520	3280	4380	9060	4310	3230	7940	e12000
13	10100	2960	3280	4410	4780	3900	4290	12500	4180	3210	11500	11600
14	8910	2970	3390	4890	4340	4060	4470	10200	4810	5250	13600	11600
15	7220	2920	3400	4750	3430	3090	5600	12800	4820	8500	13500	11500
16	6620	2750	3710	4520	2790	2400	12900	14200	11900	13100	12800	11500
17	6330	2300	3680	4320	4890	2970	16400	13700	12900	14300	11300	11500
18	5530	1970	3860	3550	6210	3160	15000	13300	9440	12600	8650	12100
19	4840	2230	3800	2940	5370	3110	13200	12000	7210	12600	6660	14800
20	4580	2820	4050	4090	4720	3200	11800	7460	5610	14500	6270	15200
21	4580	3140	4380	7440	4390	3150	9290	5310	4360	14400	6290	16200
22	4530	3130	6370	8750	3520	2560	8230	4630	3850	12200	5950	26200
23	4420	2740	6870	8700	2710	2300	8160	4180	4280	11000	5610	32000
24	4330	2160	5860	7590	2590	3210	7940	3690	4500	10300	5670	30600
25	4360	1890	4880	6410	3340	3790	12500	7060	4510	9340	6020	29100
26	4230	e2450	4400	6880	3510	3770	22000	11100	4450	6810	6550	29400
27	4060	e2970	4220	9350	3620	3640	22500	10100	4340	5300	7360	30100
28	3490	e2800	3830	10500	3750	3280	21900	9160	3880	4950	7590	36500
29	3380	2360	3030	9860	3100	2760	22100	9530	3830	4700	8440	43300
30	3230	2090	2780	9300	---	3750	23200	9070	4110	5210	15600	40600
31	3540	---	3560	8210	---	12200	---	8230	---	5900	21100	---
TOTAL	272380	82730	107810	220810	161710	106990	360970	294060	171970	219200	292870	620000
MEAN	8786	2758	3478	7123	5576	3451	12030	9486	5732	7071	9447	20670
MAX	17600	3940	6870	11800	9720	12200	23200	21500	12900	14500	21100	43300
MIN	3230	1890	1720	2940	2590	2070	4290	3690	3830	3210	5610	11500
AC-FT	540300	164100	213800	438000	320800	212200	716000	583300	341100	434800	580900	1230000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	8225	10440	11530	10510	13700	16300	17030	24490	22890	10010	5876	6155
MAX	41690	47140	47910	52290	38960	67730	61460	121000	94400	33990	39230	30340
(WY)	1946	1975	1992	1992	1946	1945	1990	1990	1957	1989	1950	1950
MIN	716	642	1206	1360	2127	2233	2096	4199	3098	1162	1025	909
(WY)	1957	1957	1957	1964	1964	1967	1956	1972	1988	1944	1944	1944

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	7407690		2911500			
ANNUAL MEAN	20300		7955		a13080	
HIGHEST ANNUAL MEAN					30420	1990
LOWEST ANNUAL MEAN					4383	1964
HIGHEST DAILY MEAN	88100	May 10	43300	Sep 29	268000	May 10 1990
LOWEST DAILY MEAN	1720	Dec 2	1720	Dec 2	384	Nov 28 1956
ANNUAL SEVEN-DAY MINIMUM	2160	Nov 29	2160	Nov 29	397	Oct 19 1956
INSTANTANEOUS PEAK FLOW			44000	Sep 29	b270000	May 10 1990
INSTANTANEOUS PEAK STAGE			11.84	Sep 29	c32.30	May 10 1990
INSTANTANEOUS LOW FLOW			1690	Dec 2	378	Nov 28 1956
ANNUAL RUNOFF (AC-FT)	14690000		5775000		9477000	
10 PERCENT EXCEEDS	49700		16300		35200	
50 PERCENT EXCEEDS	13400		5820		5870	
90 PERCENT EXCEEDS	3030		2780		2280	

a Prior to regulation, water years 1937-43, 11,970 ft³/s.
b Maximum discharge for period of record, 297 ft³/s Feb. 22, 1938.
c Maximum gage height for period, 34.25 ft Feb. 22, 1938, from graph based on gage readings.
e Estimated

07342465 SOUTH SULPHUR RIVER AT COMMERCE, TX

LOCATION.--Lat 33°12'42", long 95°54'50", Hunt County, Hydrologic Unit 11140301, on right bank at downstream side of bridge on south-bound State Highway 50, 13 mi. upstream from Dunbar Creek, and 2.8 mi. south of Commerce.

DRAINAGE AREA.--150 mi².

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 460.74 ft above sea level.

REMARKS.--Records fair. Rain gage at station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.01	.01	2.0	e.37	.07	4.7	.00	1.3	.00	37	10
2	.05	.00	.04	14	e.44	.17	2.3	.00	1.2	.00	4.1	4.3
3	.31	.00	.04	e172	e.42	.13	1.0	.00	9.7	.00	1.8	2.5
4	.50	.00	.01	e52	e.32	.06	.82	.00	4.8	.00	.88	1.5
5	.43	.00	.01	e14	e.31	.04	28	.00	2.3	.00	.26	e.84
6	.39	1.1	.31	e7.0	e.31	.09	141	.00	1.1	.00	.07	e.49
7	.31	.83	.21	e3.8	e.33	.13	64	.00	1.2	.00	.02	e.30
8	.03	.44	.18	e2.5	.24	.08	18	.02	.31	.00	.01	e.12
9	.01	.14	.16	e1.4	.09	.05	8.1	.01	.10	.00	.01	e.06
10	.00	.11	.24	e.65	.04	.03	3.8	.00	.03	.00	.01	e.04
11	.26	.04	.20	e.48	.04	.02	1.6	280	.01	.00	6.8	.01
12	.46	.03	.25	e.39	.02	.01	.87	165	.01	.00	6.5	.01
13	.57	.03	.21	e.27	.03	.01	.84	23	.00	.00	1.8	.00
14	.30	.01	.26	e.16	.03	.01	.33	8.6	.00	.00	.60	.00
15	.07	.01	.22	e.09	.16	.01	15	4.3	.00	.00	.69	.01
16	.01	.01	.21	e.07	.04	.07	12	2.7	.05	.00	.40	.01
17	.34	.01	.31	e.06	.05	.04	4.8	1.4	.04	.00	.18	.00
18	.10	.01	.53	e.53	.03	11	2.0	.69	2.6	.00	.22	.00
19	.01	.01	.42	e.35	.02	20	.74	.27	1.8	.00	.29	136
20	.00	.00	.18	e.33	.01	7.5	.95	.09	.77	.00	.17	680
21	.06	.00	.81	e.30	.01	4.5	.34	.05	.30	.00	.06	150
22	.08	.00	1.1	e.35	.01	2.0	.29	.03	.11	.00	.02	25
23	.02	.00	.92	e.55	.01	.73	.19	.01	.03	.00	.01	8.8
24	.00	.00	.65	e.27	.01	.42	.19	.00	.01	.00	.00	4.3
25	.00	.00	.47	e.25	.01	.30	.08	.00	.00	.00	.00	2.6
26	.00	.00	.49	e.24	.01	.15	.03	.00	.00	.00	.00	2.0
27	.00	.00	.42	e.29	.03	3.4	.02	.00	.00	.00	.00	4.1
28	.00	.00	.35	e.25	.02	67	.01	.00	.00	.00	25	12
29	.00	.00	.27	e.36	.01	99	.00	.00	.00	.00	92	8.3
30	.00	.01	.26	e.39	---	22	.00	.00	.00	.00	68	4.2
31	.00	---	.35	e.36	---	9.4	---	.00	---	150	34	---
TOTAL	4.43	2.80	10.09	275.69	3.42	248.42	312.00	486.17	27.77	150.00	280.90	1057.49
MEAN	.14	.093	.33	8.89	.12	8.01	10.4	15.7	.93	4.84	9.06	35.2
MAX	.57	1.1	1.1	172	.44	99	141	280	9.7	150	92	680
MIN	.00	.00	.01	.06	.01	.01	.00	.00	.00	.00	.00	.00
AC-FT	8.8	5.6	20	547	6.8	493	619	964	55	298	557	2100
CFSM	.00	.00	.00	.06	.00	.05	.07	.10	.01	.03	.06	.23
IN.	.00	.00	.00	.07	.00	.06	.08	.12	.01	.04	.07	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	205	136	300	102	15/	195	142	346	109	99.8	8.46	26.5
MAX	451	401	804	224	477	346	391	734	433	333	32.0	91.5
(WY)	1994	1995	1992	1992	1993	1992	1993	1992	1992	1994	1992	1994
MIN	.008	.093	.33	8.89	.12	8.01	10.4	15.7	.93	.009	.005	.002
(WY)	1993	1996	1996	1996	1996	1996	1996	1996	1996	1993	1993	1993

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	37721.63		2859.18			
ANNUAL MEAN	103		7.81		153	
HIGHEST ANNUAL MEAN					297	1992
LOWEST ANNUAL MEAN					7.81	1996
HIGHEST DAILY MEAN	4000	May 8	680	Sep 20	8230	Oct 20 1993
LOWEST DAILY MEAN	.00	Aug 25	.00	Oct 10	.00	Oct 2 1991
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 25	.00	Oct 24	.00	Oct 7 1991
INSTANTANEOUS PEAK FLOW			1080	Sep 20	11400	Oct 20 1993
INSTANTANEOUS PEAK STAGE			10.08	Sep 20	27.60	Oct 20 1993
ANNUAL RUNOFF (AC-FT)	74820		5670		110700	
ANNUAL RUNOFF (CFSM)	.69		.052		1.02	
ANNUAL RUNOFF (INCHES)	9.35		.71		13.84	
10 PERCENT EXCEEDS	197		7.7		267	
50 PERCENT EXCEEDS	.99		.10		2.9	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

07342470 SOUTH SULPHUR RIVER NEAR COMMERCE, TX

LOCATION.--Lat 33°13'11", long 95°51'45", Hunt County, Hydrologic Unit 11140301, at State Highway 11, 0.7 mi upstream from St. Louis Southwestern Railroad bridge, 1.8 mi downstream from Dunbar Creek, and 3.0 mi southeast of Commerce.

DRAINAGE AREA.--189 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1987 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLVED FLD. AS CACO3 (MG/L)
OCT 12...	1323	1.6	713	8.4	25.0	33	49	10.2	123	--	68	0
DEC 12...	1307	1.3	746	7.3	11.0	--	--	10.0	91	2.2	100	0
JAN 17...	0845	1.2	704	7.4	12.5	68	47	7.6	73	2.0	100	0
APR 12...	1305	2.9	412	9.4	27.0	100	28	12.2	156	8.6	110	0
MAY 06...	1121	1.2	810	8.4	27.0	10	33	6.9	88	3.0	95	0
JUN 17...	1200	2.4	233	7.3	31.0	120	--	4.8	65	3.8	58	0

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)
OCT 12...	23	2.6	110	6	7.0	150	60	53	0.30	5.5	416	102
DEC 12...	34	4.1	110	5	7.3	150	75	46	0.40	7.0	375	--
JAN 17...	34	4.0	100	4	6.4	160	65	49	0.30	7.9	414	83
APR 12...	37	3.7	45	2	5.2	120	44	21	0.30	8.0	251	72
MAY 06...	32	3.5	130	6	8.1	180	78	63	0.40	5.0	508	124
JUN 17...	19	2.6	22	1	6.1	60	20	13	0.30	10	143	136

DATE	RESIDUE VOLATILE, SUSPENDED (MG/L)	RESIDUE FIXED NON FILTERABLE (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)
OCT 12...	12	90	13.9	13.9	0.070	14.0	14.0	<0.015	--	0.90	1.70
DEC 12...	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	9	74	10.9	10.9	0.090	11.0	11.0	0.300	0.80	1.1	1.40
APR 12...	26	46	3.24	3.24	0.060	3.30	3.30	0.020	1.2	1.2	0.470
MAY 06...	28	96	16.8	16.8	0.170	17.0	17.0	0.200	0.90	1.1	2.00
JUN 17...	32	104	2.72	2.72	0.080	2.80	2.80	0.280	0.92	1.2	0.370

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT 12...	1.10	3.4	11	10	32	<0.50	<1.0	<5.0	<3.0	<10	8.0
DEC 12...	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	1.30	4.0	14	4	42	<0.50	<1.0	<5.0	<3.0	<10	23
APR 12...	0.430	1.3	35	3	46	<0.50	<1.0	<5.0	<3.0	<10	19
MAY 06...	1.90	5.8	11	5	43	<0.50	<1.0	<5.0	<3.0	<10	3.0
JUN 17...	0.410	1.3	16	2	34	<0.50	<1.0	<5.0	3.0	<10	150

07342470 SOUTH SULPHUR RIVER NEAR COMMERCE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
12...	20	10	2.0	<0.1	30	<10	<1	<1.0	170	<6	26
DEC											
12...	--	--	--	--	--	--	--	--	--	--	--
JAN											
17...	<10	11	90	<0.1	10	<10	<1	<1.0	290	<6	42
APR											
12...	<10	4	6.0	<0.1	<10	<10	<1	<1.0	340	7	20
MAY											
06...	<10	13	7.0	<0.1	80	<10	<1	<1.0	250	<6	25
JUN											
17...	30	5	33	<0.1	<10	<10	<1	<1.0	130	<6	17

07342480 MIDDLE SULPHUR RIVER AT COMMERCE, TX

LOCATION.--Lat 33°15'59", long 95°54'55", Hunt County, Hydrologic Unit 11140301, at right end of bridge on State Highway 11 at downstream side of highway embankment, 1.5 mi upstream from Willow Creek and 1.5 mi northwest of Post Office in Commerce.

DRAINAGE AREA.--44.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage not determined.

REMARKS.--No estimated daily discharges. Records fair except those for daily discharges below 5 ft³/s, which are poor. Rain gage at station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.01	.00	.10	.61	.00	1.3	.07	9.1	.00	6.5	.98
2	.14	4.6	.00	72	.45	.00	.74	.07	24	.00	.94	.20
3	.20	6.1	.00	28	.25	.02	.42	.05	3.7	.00	.31	.12
4	.12	.12	.00	3.5	.09	.03	.41	.06	1.2	.00	.13	.07
5	.08	.63	.00	.33	.05	.06	24	.04	.52	.00	.05	.04
6	.07	.38	.00	.05	.04	.21	94	.04	.21	.00	.01	.02
7	.02	.06	.00	.01	.05	.05	30	.04	.82	.00	.00	.01
8	.01	.07	.00	.00	.05	.03	8.6	.03	2.8	.00	.00	.01
9	.01	.07	.00	.01	.05	.02	2.4	.02	.69	.00	.00	.00
10	.00	.04	.00	.01	.05	.01	.91	.02	.33	.00	.00	.00
11	.00	.04	.00	.01	.04	.00	.52	94	.23	.00	.01	.00
12	.00	.03	.00	.00	.04	.00	.32	32	.09	.00	.00	.00
13	.00	.03	.00	.00	.10	.00	.28	5.3	.07	.00	.00	.00
14	.00	.03	.00	.00	.15	.00	19	1.5	.06	.00	.00	.00
15	.00	.03	.00	.00	.18	.00	24	.80	.05	.00	.00	.00
16	.00	.02	.00	.00	.15	.00	4.9	.54	.04	.00	.00	.00
17	.00	.01	.00	.00	.15	.00	.94	.34	.03	.00	.00	.00
18	.00	.00	.00	.09	.11	6.8	.41	.26	.02	.00	.00	.00
19	.00	.00	.00	.38	.08	8.3	.34	.20	.01	.00	.00	15
20	.00	.00	.00	.25	.05	.10	.88	.16	.01	.00	.00	80
21	.00	.00	.00	.22	.03	.00	.32	.13	.00	.00	.00	12
22	.00	.00	.00	.17	.01	.00	.57	.12	.00	.00	.00	.90
23	.00	.00	.00	.09	.01	.00	.82	.06	.00	.00	.00	.25
24	.00	.00	.00	.08	.01	.00	.34	.04	.00	.00	.00	.09
25	.00	.00	.00	.05	.00	.17	.17	.03	.00	.00	.00	.05
26	.00	.00	.00	.04	.00	.16	.11	.04	.00	.00	.00	.04
27	.00	.00	.00	.04	.15	.01	.08	.09	.00	.00	.00	.34
28	.00	.00	.00	.13	.02	95	.07	.06	.00	.00	.77	.13
29	.00	.00	.00	.28	.07	41	.07	.07	.00	.00	25	.07
30	.00	.00	.00	.45	---	12	.07	.07	.00	.01	11	.03
31	.00	---	.00	.61	---	3.6	---	.07	---	21	3.0	---
TOTAL	0.79	12.27	0.00	106.90	3.04	167.57	216.99	136.32	43.98	21.01	47.72	110.35
MEAN	.025	.41	.000	3.45	.10	5.41	7.23	4.40	1.47	.68	1.54	3.68
MAX	.20	6.1	.00	72	.61	95	94	94	24	21	25	80
MIN	.00	.00	.00	.00	.00	.00	.07	.02	.00	.00	.00	.00
AC-FT	1.6	24	.00	212	6.0	332	430	270	87	42	95	219

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	62.4	48.2	107	40.5	55.3	72.4	60.6	120	33.2	41.5	6.88	4.84
MAX	179	149	257	81.1	165	130	171	247	126	119	31.6	11.5
(WY)	1994	1995	1992	1992	1993	1992	1993	1992	1992	1994	1992	1995
MIN	.001	.41	.000	3.45	.10	5.41	2.02	3.37	1.20	.000	.000	.000
(WY)	1993	1996	1996	1996	1996	1996	1992	1993	1994	1993	1993	1993

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	15131.59		866.94			
ANNUAL MEAN	41.5		2.37		54.6	
HIGHEST ANNUAL MEAN					99.8	1992
LOWEST ANNUAL MEAN					2.37	1996
HIGHEST DAILY MEAN	1660	May 8	95	Mar 28	2670	Oct 20 1993
LOWEST DAILY MEAN	.00	Jul 15	.00	Oct 10	.00	Oct 1 1991
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 23	.00	Oct 10	.00	Oct 1 1991
INSTANTANEOUS PEAK FLOW			223	May 11	4990	May 12 1992
INSTANTANEOUS PEAK STAGE			7.68	May 11	16.08	May 12 1992
ANNUAL RUNOFF (AC-FT)	30010		1720		39520	
10 PERCENT EXCEEDS	74		1.2		78	
50 PERCENT EXCEEDS	.42		.02		.58	
90 PERCENT EXCEEDS	.00		.00		.00	

07342480 MIDDLE SULPHUR RIVER AT COMMERCE, TX--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1987 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
06...	1515	0.03	300	7.6	9.0	54	7.4	9.8	86	1.3	130	14
APR												
12...	1700	0.51	246	7.8	23.5	250	39	7.8	94	2.8	96	7
MAY												
15...	1458	0.80	201	7.6	24.0	300	53	4.9	59	3.0	77	3
AUG												
05...	1545	0.03	203	8.5	30.0	95	16	10.4	140	3.0	72	7
29...	1015	45	160	7.8	24.0	240	310	6.8	82	4.1	64	0
SEP												
04...	1056	0.08	208	7.6	22.5	140	33	5.0	58	2.6	86	2

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB												
06...	45	4.0	12	0.5	4.3	120	28	6.6	0.20	8.8	178	8
APR												
12...	34	2.7	12	0.5	3.9	89	21	6.8	0.20	10	145	68
MAY												
15...	27	2.2	7.9	0.4	4.6	74	15	4.8	0.20	8.3	118	78
AUG												
05...	25	2.3	8.2	0.4	4.3	65	21	4.7	0.20	8.0	115	25
29...	23	1.7	6.2	0.3	3.4	64	15	6.2	0.20	8.4	104	790
SEP												
04...	30	2.6	7.1	0.3	4.7	84	17	3.8	0.20	11	128	82

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB											
06...	8	0	--	--	<0.010	--	<0.050	0.040	0.66	0.70	0.080
APR											
12...	16	52	0.130	0.130	0.010	0.140	0.140	0.020	0.88	0.90	0.100
MAY											
15...	32	46	0.540	--	<0.010	0.540	0.540	0.180	0.82	1.0	0.180
AUG											
05...	8	17	0.380	0.380	0.050	0.430	0.430	0.030	0.47	0.50	0.090
29...	140	650	0.250	0.250	0.020	0.270	0.270	0.060	0.64	0.70	0.090
SEP											
04...	24	58	0.170	0.170	0.020	0.190	0.190	0.100	0.80	0.90	0.080

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB											
06...	0.060	0.18	14	--	--	--	--	--	--	--	--
APR											
12...	0.090	0.28	28	3	49	<0.50	<1.0	<5.0	<3.0	<10	82
MAY											
15...	0.140	0.43	17	5	45	<0.50	<1.0	<5.0	<3.0	<10	61
AUG											
05...	0.120	0.37	12	8	37	<0.50	<1.0	<5.0	<3.0	<10	22
29...	0.090	0.28	31	--	--	--	--	--	--	--	--
SEP											
04...	0.080	0.25	16	--	--	--	--	--	--	--	--

07342480 MIDDLE SULPHUR RIVER AT COMMERCE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	<10	<4	29	<0.1	<10	<10	<1	<1.0	260	<6	10
MAY											
15...	<10	<4	38	<0.1	<10	<10	<1	<1.0	220	6	5.0
AUG											
05...	<10	<4	17	<0.1	<10	<10	<1	1.0	220	<6	32
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--

07342495 COOPER LAKE NEAR COOPER, TX

LOCATION.--Lat 33°20'00", long 95°37'30", Delta-Hopkins County line, Hydrologic Unit 11140301, in control room near center of dam on South Sulphur River, about 4.0 mi southeast of Cooper, and at river mile 23.2.

DRAINAGE AREA.--479.0 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--October 1991 to current year.

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

REMARKS.--The lake is formed by a rolled earthfill dam, 28,070 ft long, including the dike. Closure of dam and deliberate impoundment of water began Sept. 28, 1991. The spillway is a 700-foot wide vertical faced uncontrolled ogee weir located near the right abutment of the dam. The service spillway (outlet works) consists of both service and emergency gates and low-flow release facilities. The outlet works structures is 452 feet long, and consists of an approach channel, approach channel U-frame structure, intake structure and service bridge, over 10.5-foot diameter conduits, and a stilling basin and discharge channel. The emergency part of the outlet structure consists of five 40- x 20-foot tainter gates. The dam was built, and is owned by the U.S. Army Corps of Engineers in cooperation with the North Texas Municipal Water District, the Sulphur River Municipal Water District, and the city of Irving. The principal uses of the dam and lake are for flood control, water supply, and recreation. Satellite telemeter at station. 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	459.0	-
Top of Flood Control Pool	446.2	441,400
Top of Conservation Pool	440.0	310,000
Invert, lowest gated outlet	398.0	-

COOPERATION.--Area and capacity tables provided by the U.S. Army Corps of Engineers. Records of elevations and contents provided by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 441,900 acre-ft May 10, 1995 (elevation, 445.05 ft); minimum since first appreciable storage and after deliberate impoundment, 77 acre-ft Oct. 1-3, 1991 (elevation, 395.00 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 307,000 acre-ft Oct. 2 (elevation, 439.83 ft); minimum, 288,600 acre-ft July 25 (elevation, 438.85 ft).

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

395.0	77	425.0	102,500	435.0	222,800
405.0	5,970	430.0	155,100	440.0	310,300
413.0	26,210	444.0	392,000	448.0	482,500
419.0	57,050				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306700	300700	294700	297900	298300	297000	298500	300600	301300	295600	294500	293400
2	307000	300600	294900	299000	298500	296400	298300	300400	301700	295500	294300	293400
3	306700	300000	294900	298700	298300	296200	298100	300400	301500	294900	294000	293000
4	306500	299600	294500	299000	297900	296200	298100	300400	301300	294700	293400	292800
5	306300	299200	294500	299200	297900	297700	300700	300400	300900	294500	292800	292700
6	305500	299400	294100	299000	297900	297300	302300	300400	300700	294100	292700	292300
7	305100	299200	294000	298700	298100	296600	302500	300200	301100	293600	292300	292100
8	304700	298900	295500	298700	298300	296400	302500	300200	300600	293200	292800	292300
9	304600	298700	294900	298700	298300	295800	302500	300000	300000	292500	294100	291900
10	304400	300200	294500	298700	298100	295500	302100	300900	299600	291700	294900	291500
11	304400	298500	294300	298700	298300	295300	302100	303600	299200	291500	296400	291200
12	304000	297900	294300	298500	297900	295300	303000	304200	299800	291700	295800	291000
13	304000	297900	294700	298500	297900	295300	303000	304400	299600	291500	295600	290400
14	303400	297700	294500	298300	297700	295500	304000	304600	299400	292800	295100	289900
15	303200	297300	294700	298500	297700	295500	302800	304400	299200	292500	294900	291200
16	302800	297200	294500	298300	297200	295300	302600	304200	298900	292100	294500	290600
17	302500	297200	295800	299800	297200	295100	302300	304000	298700	291500	294300	290000
18	302300	297000	298500	300200	297000	297700	302300	303800	298300	291300	294100	290200
19	302300	297000	296800	299200	297000	297900	303000	303400	297900	291000	294000	291500
20	301700	296800	296400	299400	297000	297200	302800	303200	297500	290800	293600	293200
21	300900	296600	296400	299200	296800	296800	302500	299200	297200	290400	293200	294100
22	300400	296800	296200	299400	297000	296600	303800	298900	297200	289900	293000	294000
23	300600	296400	296000	299800	297000	296400	303200	298500	296400	289500	292700	294000
24	300000	296000	296000	299400	296600	297700	302600	298100	296000	288900	292700	294000
25	299800	295800	295600	299200	296600	296800	302500	297700	296400	288600	292500	293600
26	299800	296200	295600	299400	296800	296000	302300	297700	297200	288900	292500	294100
27	299600	295600	295300	299000	297300	297500	301700	298700	297000	290400	292800	294000
28	299200	295500	295100	299000	297200	298300	302500	298500	296600	290000	293400	293600
29	298700	295100	294900	299000	296800	298500	301500	297900	296400	289700	293800	293200
30	298500	294700	295300	298700	---	299600	300900	297500	296000	289700	293800	292800
31	298500	---	295300	298500	---	298700	---	297200	---	293800	293800	---
MAX	307000	300700	298500	300200	298500	299600	304000	304600	301700	295600	296400	294100
MIN	298500	294700	294000	297900	296600	295100	298100	297200	296000	288600	292300	289900
(+)	439.38	439.18	439.21	439.38	439.29	439.39	439.51	439.31	439.25	439.13	439.13	439.08
(@)	-8300	-3800	+600	+3200	-1700	+1900	+2200	-3700	-1200	-2200	0	-1000

CAL YR 1995 MAX 414000 MIN 294000 @ -25700
WTR YR 1996 MAX 307000 MIN 288600 @ -14000

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07342495 COOPER LAKE NEAR COOPER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: September 1992 to current year.

331938095374701 - COOPER LAKE SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
JAN										
30...	1225	300000	1.00	227	8.5	6.5	1.01	11.3	93	K1
30...	1229	--	10.0	228	8.4	6.5	--	11.3	93	--
30...	1234	--	20.0	230	8.4	6.5	--	11.3	93	--
30...	1238	--	30.0	239	8.3	6.5	--	11.2	93	--
30...	1243	--	43.0	237	8.2	6.5	--	10.8	89	--
MAY										
15...	1432	305000	1.00	229	7.9	22.5	0.91	7.4	87	--
15...	1435	--	10.0	229	7.9	22.5	--	7.4	87	--
15...	1439	--	20.0	229	7.8	22.5	--	7.3	86	--
15...	1443	--	30.0	229	7.8	22.5	--	7.3	86	--
15...	1446	--	42.0	230	7.8	22.5	--	7.2	85	--
AUG										
07...	1044	294000	1.00	256	8.5	30.0	1.00	5.8	78	K1
07...	1046	--	10.0	256	8.4	29.5	--	5.4	72	--
07...	1048	--	20.0	260	7.7	29.0	--	3.4	45	--
07...	1050	--	30.0	261	7.2	28.5	--	0.3	4	--
07...	1052	--	41.0	277	7.1	28.0	--	0	0	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)
JAN										
30...	K1	80	0	27	3.1	12	0.6	3.5	90	12
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	83	0	28	3.2	11	0.5	6.0	91	12
MAY										
15...	K1	91	0	31	3.3	11	0.5	3.3	94	13
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	91	0	31	3.3	11	0.5	3.4	94	13
AUG										
07...	K1	89	0	30	3.4	13	0.6	3.7	100	12
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	92	0	31	3.5	13	0.6	3.6	110	10

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
JAN										
30...	6.9	0.30	0.10	119	0.080	--	<0.010	0.080	0.080	<0.015
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	9.3	0.30	0.20	125	0.080	--	<0.010	0.080	0.080	<0.015
MAY										
15...	6.9	0.20	0.50	126	0.150	--	<0.010	0.150	0.150	<0.015
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	7.1	0.20	0.50	127	0.150	0.150	0.010	0.160	0.160	0.020
AUG										
07...	7.6	0.20	2.4	133	0.050	--	<0.010	0.050	0.050	0.020
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	0.050	--	<0.010	0.050	0.050	0.030
07...	7.3	0.20	3.6	141	0.060	--	<0.010	0.060	0.060	0.290

07342495 COOPER LAKE NEAR COOPER, TX--Continued

331938095374701 - COOPER LAKE SITE AC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN									
30...	--	0.40	<0.010	<0.010	--	<1	--	20	<10
30...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
30...	--	0.50	<0.010	<0.010	--	<1	7	20	20
MAY									
15...	--	0.40	0.020	0.010	0.03	--	--	6	13
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	0.38	0.40	0.030	0.010	0.03	--	--	5	28
AUG									
07...	0.38	0.40	<0.010	0.010	0.03	--	--	5	6
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	0.37	0.40	<0.010	0.010	0.03	--	--	--	--
07...	0.41	0.70	0.030	0.060	0.18	--	--	1000	1500

332110095422201 - COOPER LAKE SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
30...	1306	1.00	226	8.5	7.0	11.0	92
30...	1308	10.0	225	8.5	7.0	11.0	92
30...	1310	23.0	226	8.5	6.5	11.0	91
MAY							
15...	1507	1.00	231	8.2	23.5	8.4	101
15...	1509	10.0	231	8.0	23.0	7.8	93
15...	1511	20.0	234	7.5	22.5	5.2	61
AUG							
07...	1126	1.00	258	8.4	30.0	5.0	67
07...	1128	10.0	258	8.1	30.0	4.3	58
07...	1130	19.0	262	7.3	29.5	0.7	9

331818095422501 - COOPER LAKE SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JAN										
30...	1405	1.00	227	8.4	7.0	0.85	11.0	92	K1	K2
30...	1411	10.0	228	8.4	7.0	--	11.6	97	--	--
30...	1417	20.0	228	8.4	7.0	--	11.6	97	--	--
30...	1422	34.0	228	8.4	6.5	--	11.4	94	--	--
MAY										
15...	1607	1.00	233	7.8	23.0	0.91	7.0	83	--	K3
15...	1611	10.0	232	7.8	22.5	--	6.7	79	--	--
15...	1615	20.0	232	7.5	21.0	--	5.1	58	--	--
15...	1619	34.0	268	7.1	19.0	--	0.5	5	--	--
AUG										
07...	1233	1.00	260	8.2	30.0	1.20	5.2	70	K1	25
07...	1235	10.0	260	7.7	29.0	--	4.2	55	--	--
07...	1237	20.0	261	7.2	28.0	--	1.8	23	--	--
07...	1239	32.0	306	6.7	27.0	--	0.1	1	--	--

07342495 COOPER LAKE NEAR COOPER, TX--Continued

331818095422501 - COOPER LAKE SITE CC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)
JAN									
30...	83	0	28	3.1	11	0.5	3.3	90	12
30...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
30...	83	0	28	3.1	11	0.5	3.4	90	12
MAY									
15...	91	0	31	3.3	11	0.5	3.4	95	13
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	99	0	34	3.4	13	0.6	3.5	120	10
AUG									
07...	89	0	30	3.4	13	0.6	3.7	100	12
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	98	0	33	3.7	13	0.6	4.2	130	4.8

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
JAN									
30...	6.1	0.30	0.10	118	0.060	<0.010	0.060	0.060	<0.015
30...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
30...	6.5	0.30	0.10	119	0.080	<0.010	0.080	0.080	<0.015
MAY									
15...	7.4	0.20	0.50	127	0.080	<0.010	0.080	0.080	0.020
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	7.6	0.20	2.3	149	--	<0.010	--	<0.050	0.590
AUG									
07...	7.2	0.20	2.6	134	0.060	<0.010	0.060	0.060	0.030
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	6.9	0.20	6.6	158	0.050	<0.010	0.050	0.050	1.50

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN									
30...	--	0.40	0.020	<0.010	--	1	--	30	20
30...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
30...	--	0.50	0.030	<0.010	--	2	10	30	20
MAY									
15...	0.38	0.40	0.010	<0.010	--	--	--	7	21
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	0.51	1.1	0.380	0.390	1.2	--	--	1900	770
AUG									
07...	0.27	0.30	<0.010	0.030	0.09	--	--	4	22
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	0.80	2.3	0.880	0.790	2.4	--	--	3800	1400

332019095441901 - COOPER LAKE SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
30...	1333	1.00	237	8.5	7.0	10.4	87
30...	1336	12.0	237	8.4	6.5	10.3	85
MAY							
15...	1547	1.00	247	8.3	24.5	8.8	107
15...	1550	13.0	264	7.6	23.0	5.5	65
AUG							
07...	1210	1.00	270	8.2	31.0	4.6	63
07...	1212	10.0	280	7.3	30.0	0.7	9

07342495 COOPER LAKE NEAR COOPER, TX--Continued

331630095462901 - COOPER LAKE SITE FC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JAN										
30...	1608	1.00	478	8.0	6.0	0.24	7.4	60	460	350
MAY										
15...	1751	1.00	316	7.5	24.5	0.15	4.5	55	--	790
AUG										
07...	1330	1.00	221	7.2	29.5	--	4.8	64	180	250

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
JAN										
30...	96	0	32	3.9	59	3	5.7	130	44	26
MAY										
15...	110	11	37	3.3	19	0.8	4.7	95	27	11
AUG										
07...	60	0	20	2.5	18	1	4.8	65	20	8.2

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
JAN									
30...	0.40	7.4	278	4.45	4.45	0.050	4.50	4.50	0.190
MAY									
15...	0.30	8.6	185	3.46	3.46	0.140	3.60	3.60	0.280
AUG									
07...	0.20	10	126	0.510	0.510	0.040	0.550	0.550	0.120

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JAN									
30...	0.91	1.1	0.670	0.580	1.8	7	10	30	<10
MAY									
15...	0.92	1.2	0.190	0.120	0.37	--	--	25	13
AUG									
07...	0.68	0.80	0.290	0.270	0.83	--	--	42	57

331718095480601 - COOPER LAKE SITE GC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
JAN							
30...	1555	1.00	647	8.0	5.0	8.6	69
MAY							
15...	1730	1.00	221	7.6	26.5	6.1	78
AUG							
07...	1200	1.00	394	7.2	28.0	4.2	54

07342495 COOPER LAKE NEAR COOPER, TX--Continued

Cooper Lake Site AC (331938095374701)

Phytoplankton Analyses October 1995 to September 1996

Date	1-30-96
Time	1225
TOTAL CELLS/mL	11,034
NUMBER OF SPECIES	12
DEPTH COLLECTED (ft.)	1.65

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	773
Order Pennales	
Fragialria crotonensis var. *crotonensis*	833
CHLOROPHYTA	
Ankistrodesmus falcatus	625
Chlamydomonas sp.	714
Scenedesmus opoliensis	89
Scenedesmus quadricauda	119
Selenastrum Westii	327
CYANOPHYTA	
Aphanocapsa delicatissima	5,948
Aphanocapsa elachista	1,190
CHRYSOPHYTA	
Mallomonas sp.	30
EUGLENOPHYTA	
Trachelomonas sp.	297
CRYPTOPHYTA	
Cryptomonas erosa	89

07342495 COOPER LAKE NEAR COOPER, TX--Continued

Cooper Lake Site FC (331630095462901)

Phytoplankton Analyses October 1995 to September 1996

Date	1-30-96
Time	1608
TOTAL CELLS/mL	4,253
NUMBER OF SPECIES	5
DEPTH COLLECTED (ft.)	0.40

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	119
Order Pennales	
Fragilaria crotonensis var. *crotonensis*	15
Navicula sp.	15
CYANOPHYTA	
Aphanocapsa delicatissima	3,569
EUGLENOPHYTA	
Trachelomonas sp.	535

07342495 COOPER LAKE NEAR COOPER, TX--Continued

Cooper Lake Site AC (331938095374701)

Phytoplankton Analyses October 1995 to September 1996

Date	5-15-96
Time	1432
TOTAL CELLS/mL	**10,440**
NUMBER OF SPECIES	**11**
DEPTH COLLECTED (ft.)	**1.50**

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	98
Stephanodiscus astraea	327
Stephanodiscus hantzschii	349
CHLOROPHYTA	
Cosmarium sp.	30
Scenedesmus opoliensis	30
Scenedesmus quadricauda	119
CYANOPHYTA	
Aphanocapsa delicatissima	8,327
Chroococcus limneticus	238
Merismopedia tenuissima	476
EUGLENOPHYTA	
Trachelomonas sp.	149
CRYPTOPHYTA	
Cryptomonas erosa	297

07342495 COOPER LAKE NEAR COOPER, TX--Continued

Cooper Lake Site FC (331630095462901)

Phytoplankton Analyses October 1995 to September 1996

Date	5-15-96
Time	1751
TOTAL CELLS/mL	2,677
NUMBER OF SPECIES	5
DEPTH COLLECTED (ft.)	0.25

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Navicula circumtexta	37
Synedra ulna	112
CYANOPHYTA	
Aphanocapsa delicatissima	2,379
EUGLENOPHYTA	
Trachelomonas sp.	119
CRYPTOPHYTA	
Cryptomonas erosa	30

07342495 COOPER LAKE NEAR COOPER, TX--Continued

Cooper Lake Site AC (331938095374701)

Phytoplankton Analyses October 1995 to September 1996

Date	8-7-96
Time	1044
TOTAL CELLS/mL	21,562
NUMBER OF SPECIES	12
DEPTH COLLECTED (ft.)	1.50

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	30
Order Pennales	
Cymbella inelegans var. *inelegans*	23
Fragilaria crotonensis var. *crotonensis*	162
Navicula sp.	23
CHLOROPHYTA	
Ankistrodesmus falcatus	149
Cosmarium sp.	30
Scenedesmus opoliensis	59
Scenedesmus quadricauda	30
CYANOPHYTA	
Aphanizomenon flos-aquae	2,974
Aphanocapsa delicatissima	15,465
Merismopedia tenuissima	2,379
EUGLENOPHYTA	
Trachelomonas sp.	238

07342495 COOPER LAKE NEAR COOPER, TX--Continued

Cooper Lake Site FC (331630095462901)

Phytoplankton Analyses October 1995 to September 1996

Date	8-7-96
Time	1330
TOTAL CELLS/mL	7,764
NUMBER OF SPECIES	16
DEPTH COLLECTED (ft.)	0.50

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cymbella inelegans var. *inelegans*	21
Cymbella minuta var. *minuta*	55
Fragilaria crotonensis var. *crotonensis*	7
Navicula sp.	7
CHLOROPHYTA	
Ankistrodesmus falcatus	89
Chlamydomonas sp.	59
Pediastrum duplex	30
Scenedesmus bijuga	30
Scenedesmus opoliensis	89
CYANOPHYTA	
Anabaena spiroides	357
Aphanizomenon flos-aquae	1,190
Aphanocapsa delicatissima	3,569
Chroococcus limneticus	595
Merismopedia tenuissima	1,428
CHRYSOPHYTA	
Mallomonas sp.	30
EUGLENOPHYTA	
Trachelomonas sp.	208

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TX

LOCATION.--Lat 33°21'23", long 95°35'41", Delta County, Hydrologic Unit 11140301, on levee on left bank 110 ft downstream from bridge on State Highways 19 and 154, 1.0 mi downstream from Big Creek, 1.0 mi upstream from Brushy Creek, 4.5 mi downstream from Doctors Creek, and 5.6 mi southeast of Cooper.

DRAINAGE AREA.--527 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 371.91 ft above sea level. Prior to Feb. 15, 1985, at site 360 ft to right and 90 ft upstream at same datum. Oct. 1, 1970, at datum 3.00 ft higher. May 9, 1942, to Nov. 8, 1949, nonrecording gage, and Nov. 9, 1949, to May 13, 1955, water-stage recorder at site 1,060 ft to right of present gage. Satellite telemeter at station.

REMARKS.--Records good. Construction of Cooper Dam, 13.4 miles upstream from station, was begun during the 1988 water year. Deliberate impoundment began Sept. 28, 1991.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--49 years (water years 1943-91), 416 ft³/s (10.72 in/yr), 301,400 acre-ft/yr.

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1943-1991),--Maximum discharge 47,200 ft³/s May 13, 1982 (gage height, 27.21 ft, from floodmark in gage well); no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	4.8	3.9	4.4	1.1	1.9	3.1	1.5	33	1.1	26	2.0
2	3.3	2.7	3.5	28	.93	1.2	2.0	1.5	66	1.2	2.9	1.5
3	3.4	2.3	3.3	13	.67	1.1	1.6	1.5	6.6	1.1	1.4	1.2
4	2.4	2.5	3.1	7.7	.50	1.1	1.7	1.5	2.7	.82	1.4	2.8
5	2.1	2.7	3.2	4.9	.71	.89	13	1.5	1.8	.81	1.3	1.5
6	2.2	2.9	3.3	4.0	.74	1.2	37	1.7	1.4	1.0	1.4	.61
7	2.5	3.0	3.3	3.0	.67	.71	9.9	1.8	1.9	1.3	.88	3.8
8	2.4	3.1	4.8	2.2	.49	.67	7.6	1.6	1.7	1.4	.84	2.7
9	2.4	e2.9	3.4	2.4	.48	.60	5.0	1.4	1.6	1.3	1.0	3.4
10	2.4	e2.8	2.9	2.2	e.47	.55	3.6	1.4	1.5	1.3	1.3	3.7
11	2.7	e2.9	3.2	1.9	e.47	.59	2.6	316	1.3	1.4	33	4.2
12	2.0	e3.0	3.3	1.8	e.46	.57	2.4	18	1.4	1.6	7.2	4.4
13	2.1	e3.0	3.3	1.8	e.46	.66	17	5.8	94	1.7	6.3	4.5
14	1.8	e3.0	3.3	1.9	e.45	.69	12	3.9	7.3	2.1	1.8	4.4
15	1.8	e3.0	3.3	2.2	e.45	1.0	8.4	3.1	2.6	1.6	1.2	4.6
16	2.0	e3.0	3.3	2.0	e.45	1.4	3.4	3.1	1.9	1.5	1.1	3.4
17	1.6	e3.2	3.7	1.2	e.45	1.0	2.0	2.6	1.4	1.4	1.0	4.1
18	1.7	e3.4	6.8	2.8	e.44	7.1	1.9	1.3	1.1	1.4	.75	4.9
19	1.8	e3.6	4.4	4.2	e.44	19	1.6	1.5	.89	1.3	.76	15
20	1.8	e3.8	4.0	3.2	e.44	4.9	1.8	1.6	.91	1.0	.73	52
21	1.9	3.6	4.4	3.0	e.44	2.5	1.6	1.7	1.2	1.2	.68	8.7
22	2.0	3.3	4.2	1.9	e.43	1.3	2.5	1.5	1.3	1.2	.70	5.5
23	2.0	3.3	3.7	2.1	e.43	1.1	2.3	1.3	1.3	1.0	.65	4.9
24	2.0	3.3	3.1	2.2	e.43	1.2	2.2	1.5	1.3	1.2	.89	5.0
25	2.1	3.1	2.9	1.7	.58	1.4	1.9	1.5	1.2	1.2	.86	4.8
26	1.9	3.1	2.9	1.7	.61	1.9	1.3	1.5	1.8	1.2	1.3	5.3
27	2.0	3.1	2.8	1.8	.57	1.9	1.1	85	1.4	1.5	1.5	4.9
28	2.1	3.1	2.2	1.3	3.1	47	1.2	16	1.4	1.3	128	4.8
29	2.2	3.0	1.6	1.3	2.8	12	1.5	2.8	1.2	1.5	109	4.8
30	2.6	3.2	1.8	1.2	---	7.6	1.5	1.4	1.1	1.4	13	4.5
31	2.6	---	2.1	1.2	---	4.6	---	1.2	---	33	4.2	---
TOTAL	68.9	93.7	105.0	114.2	20.66	129.33	154.7	487.7	244.20	72.03	353.04	177.91
MEAN	2.22	3.12	3.39	3.68	.71	4.17	5.16	15.7	8.14	2.32	11.4	5.93
MAX	3.4	4.8	6.8	28	3.1	47	37	316	94	33	128	52
MIN	1.6	2.3	1.6	1.2	.43	.55	1.1	1.2	.89	.81	.65	.61
AC-FT	137	186	208	227	41	257	307	967	484	143	700	353
CFSM	.00	.01	.01	.01	.00	.01	.01	.03	.02	.00	.02	.01
IN.	.00	.01	.01	.01	.00	.01	.01	.03	.02	.01	.02	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996#, BY WATER YEAR (WY)

MEAN	164	527	707	535	408	1187	654	807	374	318	273	23.6
MAX	551	1280	1499	748	753	2768	1261	1902	939	839	1205	99.5
(WY)	1994	1995	1994	1993	1993	1992	1993	1995	1995	1992	1992	1994
MIN	2.22	3.12	3.39	3.68	.71	4.17	5.16	15.7	5.95	2.32	3.07	.96
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1993	1996	1993	1993

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996#	
ANNUAL TOTAL	187200.4		2021.37			
ANNUAL MEAN	513		5.52		500	
HIGHEST ANNUAL MEAN					745	1995
LOWEST ANNUAL MEAN					5.52	1996
HIGHEST DAILY MEAN	3800	May 14	316	May 11	4240	Mar 9 1992
LOWEST DAILY MEAN	1.6	Oct 17	.43	Feb 22	.00	Oct 1 1991
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 14	.44	Feb 18	.00	Oct 1 1991
INSTANTANEOUS PEAK FLOW			844	May 11	5500	Mar 9 1992
INSTANTANEOUS PEAK STAGE			10.27	May 11	19.90	May 14 1995
ANNUAL RUNOFF (AC-FT)	371300		4010		362100	
ANNUAL RUNOFF (CFSM)	.97		.010		.95	
ANNUAL RUNOFF (INCHES)	13.21		.14		12.89	
10 PERCENT EXCEEDS	1850		5.9		1620	
50 PERCENT EXCEEDS	20		1.9		21	
90 PERCENT EXCEEDS	2.7		.72		1.1	

e Estimated
Period of regulated streamflow.

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1966, October 1967 to current year. Chemical and biochemical analyses: December 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1958 to September 1966, October 1967 to September 1989.
WATER TEMPERATURE: October 1958 to September 1966, October 1967 to September 1989.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,710 microsiemens Aug. 14, 1973; minimum daily, 82 microsiemens July 2, 1976, July 12, 1988.
WATER TEMPERATURE: Maximum daily, 36.0°C Aug. 6, 1960, Aug. 10, 1962; minimum daily, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
OCT 03...	1459	3.4	250	8.1	23.5	45	24	9.2	109	1.8	86	0
DEC 13...	1100	3.3	274	7.5	19.0	23	26	9.8	106	1.4	93	0
JAN 30...	1655	1.1	367	8.0	7.0	33	26	10.7	90	1.0	110	7
MAR 21...	0930	2.9	658	7.3	10.0	110	31	9.2	82	2.8	160	62
MAY 15...	0900	3.1	364	7.3	23.5	300	57	5.2	62	2.2	120	7
AUG 07...	1030	0.88	250	8.0	29.5	5	4.3	7.3	97	1.8	84	0

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)
OCT 03...	29	3.4	14	0.7	3.7	180	17	9.8	0.20	2.9	191	51
DEC 13...	31	3.7	16	0.7	3.4	98	17	12	0.30	1.7	144	50
JAN 30...	37	4.1	27	1	3.3	100	25	30	0.30	0.73	190	54
MAR 21...	54	5.9	64	2	4.8	97	55	100	0.30	7.0	354	82
MAY 15...	40	3.9	28	1	3.8	110	27	29	0.30	4.5	204	134
AUG 07...	28	3.4	14	0.7	2.7	92	13	7.9	0.20	2.4	127	22

DATE	RESIDUE VOLATILE, SUSPENDED (MG/L)	RESIDUE FIXED NON FILTERABLE (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
OCT 03...	6	45	0.070	--	<0.010	0.070	0.070	<0.015	--	0.60	0.010	0.020
DEC 13...	9	41	0.100	--	<0.010	0.100	0.100	<0.015	--	0.40	0.030	0.010
JAN 30...	14	40	0.070	--	<0.010	0.070	0.070	<0.015	--	0.50	0.040	0.020
MAR 21...	18	64	0.910	0.910	0.040	0.950	0.950	0.070	0.93	1.0	0.140	0.110
MAY 15...	40	94	0.190	0.190	0.030	0.220	0.220	0.090	0.51	0.60	0.020	<0.010
AUG 07...	9	13	0.060	--	<0.010	0.060	0.060	0.020	0.38	0.40	<0.010	0.010

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT 03...	0.06	8.4	--	--	--	--	--	--	--	--	--
DEC 13...	0.03	10	--	--	--	--	--	--	--	--	--
JAN 30...	0.06	7.2	<1	9	59	<0.50	<1.0	<5.0	<3.0	<10	16
MAR 21...	0.34	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	14	2	--	76	<0.50	<1.0	<5.0	<3.0	<10	6.0
AUG 07...	0.03	9.8	3	--	51	0.90	<1.0	<5.0	<3.0	<10	5.0

07342500 SOUTH SULPHUR RIVER NEAR COOPER, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 03...	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--
JAN 30...	<10	<4	38	<0.1	<10	<10	<1	<1.0	360	<6	<3.0
MAR 21...	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	<10	<4	61	<0.1	<10	<10	<1	<1.0	410	<6	3.0
AUG 07...	<10	<4	<1.0	<0.1	<10	<10	<1	<1.0	260	<6	<3.0

07343000 NORTH SULPHUR RIVER NEAR COOPER, TX

LOCATION.--Lat 33°28'29", long 95°35'15", Lamar County, Hydrologic Unit 11140301, on left bank at downstream side of highway embankment near left end of downstream bridge on State Highways 19 and 24, 2.3 mi upstream from Auds Creek, 5.5 mi upstream from Hickory Creek, 8.7 mi northeast of Cooper, and 15.6 mi upstream from mouth.

DRAINAGE AREA.--276 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--No estimated daily discharges. Records fair. In 1928-29, the channel was rectified for a distance of 28 mi upstream and 18 mi downstream from this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 2, 1944, reached a stage of 35.6 ft, present datum, and flood in 1932 reached about same stage, from information by U.S. Army Corps of Engineers and local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.4	1.3	13	5.5	3.4	17	7.4	150	1.2	293	8.3
2	3.1	74	1.4	428	5.6	2.8	14	6.7	190	.95	20	4.1
3	3.5	14	1.7	244	5.5	2.4	12	6.5	16	.76	8.3	2.5
4	3.0	6.1	1.7	37	4.9	2.3	12	6.7	7.3	.63	7.1	1.4
5	3.2	4.4	1.8	18	5.2	2.5	16	6.8	4.7	.65	3.3	.85
6	2.4	3.7	1.7	12	5.7	3.4	32	6.5	3.1	.67	1.9	.61
7	1.8	3.2	1.4	8.5	6.2	3.3	27	6.7	3.0	.50	1.2	.46
8	1.6	2.9	3.1	6.7	6.5	2.4	17	6.5	1.7	.43	.82	.37
9	1.6	2.5	3.4	7.5	6.2	2.0	13	6.1	1.1	2.4	.67	.28
10	1.6	2.2	2.4	8.0	5.6	1.8	12	5.6	.87	2.0	1.7	.18
11	1.6	1.6	2.2	7.6	4.9	1.8	10	1020	1.4	1.4	357	.14
12	1.6	1.4	2.2	6.6	4.0	1.8	11	85	30	1.4	27	.23
13	1.6	1.5	2.1	6.0	3.4	1.8	30	25	2280	1.5	6.4	.30
14	1.3	1.4	1.8	5.6	3.1	1.8	38	17	102	2.1	2.8	.30
15	1.3	1.3	2.2	5.5	3.0	1.8	27	13	22	1.9	1.1	.69
16	1.2	1.1	2.3	5.4	2.3	1.6	18	11	12	1.2	.70	.51
17	1.2	1.1	4.2	5.6	2.2	1.4	14	8.5	8.5	.85	1.5	.27
18	1.2	1.3	13	10	2.1	9.6	12	6.8	19	.67	2.7	.28
19	1.2	1.4	20	14	2.5	15	11	5.4	12	.58	.95	176
20	.94	1.5	10	13	2.4	8.6	12	4.2	7.9	.47	.52	259
21	.85	1.6	5.9	11	2.6	5.8	9.5	3.7	5.5	.33	.28	17
22	.69	1.5	4.3	8.8	2.5	5.0	10	3.4	3.9	.21	.19	2.8
23	.78	1.3	3.4	8.4	2.3	4.1	12	3.3	2.9	.14	.16	.94
24	.95	1.2	2.9	8.2	1.9	4.4	13	2.8	2.5	.15	.12	1.8
25	1.2	1.0	2.6	9.2	1.9	4.7	12	2.6	2.0	.14	.09	.76
26	1.6	1.1	2.3	7.6	2.0	6.2	10	2.6	1.9	.14	.08	4.4
27	1.5	1.0	2.3	5.9	3.0	6.9	8.3	9.2	3.1	.29	.39	149
28	1.3	.96	2.2	5.8	5.8	247	8.0	6.7	3.3	.40	1320	26
29	1.1	.97	2.0	5.7	4.0	82	8.2	4.8	2.3	.36	1040	13
30	1.2	1.2	3.2	5.5	---	34	8.3	4.3	1.7	.38	833	8.9
31	1.1	---	4.8	5.1	---	22	---	4.2	---	1510	38	---
TOTAL	50.51	141.83	115.8	943.2	112.8	493.6	454.3	1309.0	2901.67	1534.80	3970.97	681.37
MEAN	1.63	4.73	3.74	30.4	3.89	15.9	15.1	42.2	96.7	49.5	128	22.7
MAX	3.5	74	20	428	6.5	247	38	1020	2280	1510	1320	259
MIN	.69	.96	1.3	5.1	1.9	1.4	8.0	2.6	.87	.14	.08	.14
AC-FT	100	281	230	1870	224	979	901	2600	5760	3040	7880	1350
CFSM	.01	.02	.01	.11	.01	.06	.05	.15	.35	.18	.46	.08
IN.	.01	.02	.02	.13	.02	.07	.06	.18	.39	.21	.54	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

MEAN	227	239	274	200	349	334	397	492	316	104	21.8	116
MAX	1784	1406	1527	1172	1483	1223	3017	2461	1792	872	160	584
(WY)	1972	1958	1992	1950	1950	1968	1966	1982	1989	1976	1971	1973
MIN	.000	.000	.000	.16	.81	4.43	2.97	2.43	.28	.000	.000	.000
(WY)	1953	1956	1956	1964	1976	1954	1972	1972	1988	1954	1952	1952

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1950 - 1996	
ANNUAL TOTAL	87645.99		12709.85			
ANNUAL MEAN	240		34.7		255	
HIGHEST ANNUAL MEAN					541	1957
LOWEST ANNUAL MEAN					34.7	1996
HIGHEST DAILY MEAN	14500	May 8	2280	Jun 13	40900	Oct 19 1971
LOWEST DAILY MEAN	.05	Aug 29	.08	Aug 26	.00	Oct 1 1949
ANNUAL SEVEN-DAY MINIMUM	.06	Aug 24	.19	Aug 21	.00	Aug 2 1951
INSTANTANEOUS PEAK FLOW			5600	Jun 13	90600	Oct 19 1971
INSTANTANEOUS PEAK STAGE			9.06	Jun 13	36.16	Oct 19 1971
ANNUAL RUNOFF (AC-FT)	173800		25210		184700	
ANNUAL RUNOFF (CFSM)	.87		.13		.92	
ANNUAL RUNOFF (INCHES)	11.81		1.71		12.55	
10 PERCENT EXCEEDS	335		19		282	
50 PERCENT EXCEEDS	10		3.1		11	
90 PERCENT EXCEEDS	.62		.66		.00	

07343000 NORTH SULPHUR RIVER NEAR COOPER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: July 1950 to September 1958, January 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to September 1990.
WATER TEMPERATURES: October 1968 to September 1990.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,000 microsiemens July 2, 3, 1988; minimum daily, 191 microsiemens Oct. 12, Dec. 10, 1971.
WATER TEMPERATURES: Maximum daily, 39.0°C June 1, 1977; minimum daily, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
03...	1205	3.8	890	8.1	23.5	7.8	92	1.2	230	160	74
DEC											
13...	0930	2.2	1550	7.6	14.0	7.2	70	0.9	380	250	120
JAN											
30...	1012	6.1	1000	8.1	5.5	11.0	87	0.8	290	150	93
MAR											
21...	1042	6.6	1130	8.2	11.0	9.2	84	1.8	310	170	98
MAY											
14...	1059	20	622	8.0	25.5	8.8	109	1.9	200	73	67
JUN											
20...	1059	8.5	499	8.3	31.5	8.1	111	3.3	150	49	49

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
03...	11	89	3	3.6	74	260	53	0.30	2.3	538
DEC										
13...	20	170	4	4.1	130	460	110	0.40	1.6	965
JAN										
30...	13	100	3	3.5	130	300	55	0.50	0.65	650
MAR										
21...	15	120	3	3.8	140	340	71	0.40	3.2	734
MAY										
14...	8.7	48	1	5.4	130	150	24	0.40	6.5	396
JUN										
20...	5.7	40	1	5.0	98	110	22	0.60	7.2	306

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
03...	--	--	<0.010	--	<0.050	<0.015	--	0.30	<0.010	<0.010
DEC										
13...	--	--	<0.010	--	<0.050	<0.015	--	0.20	<0.010	<0.010
JAN										
30...	0.510	0.510	0.010	0.520	0.520	0.020	0.48	0.50	0.010	<0.010
MAR										
21...	--	--	<0.010	--	<0.050	0.020	0.48	0.50	<0.010	<0.010
MAY										
14...	1.62	1.62	0.080	1.70	1.70	0.040	0.66	0.70	0.070	0.050
JUN										
20...	1.36	1.36	0.040	1.40	1.40	0.100	0.70	0.80	<0.010	<0.010

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
DEC										
13...	--	--	--	--	--	--	--	--	--	--
JAN										
30...	--	<1	54	<0.50	<1.0	<5.0	<3.0	<10	5.0	<10
MAR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
14...	0.15	--	--	--	--	--	--	--	--	--
JUN										
20...	--	1	48	<0.50	<1.0	<5.0	<3.0	<10	<3.0	<10

07343000 NORTH SULPHUR RIVER NEAR COOPER, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
DEC										
13...	--	--	--	--	--	--	--	--	--	--
JAN										
30...	35	55	<0.1	<10	<10	2	<1.0	1900	<6	4.0
MAR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
14...	--	--	--	--	--	--	--	--	--	--
JUN										
20...	17	7.0	<0.1	<10	<10	1	<1.0	940	9	64

07343200 SULPHUR RIVER NEAR TALCO, TX

LOCATION.--Lat 33°23'10", long 95°07'56", Franklin County, Hydrologic Unit 11140302, at downstream side of highway embankment near right end of bridge on U.S. Highway 271, 2.2 mi northwest of Talco, 3.2 mi downstream from Mustang Creek, and 162 mi upstream from mouth.

DRAINAGE AREA.--1,365 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR TX-76-1: (P).

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. The River Crest Stream Electric Generating Plant diverts water (amount unknown) upstream from station. Deliberate impoundment of water upstream from station in Cooper Lake (station 07342500) began on Sept. 28, 1991. Flow may be slightly affected at times by discharge from the flood-detention pools of 14 floodwater-retarding structures with a combined detention capacity of 8,210 acre-ft. These structures control runoff from 23.4 mi² in the Auds and Depot Creek drainage basin. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--35 years (water years 1957-1991) prior to regulation by Cooper Lake, 1,408 ft³/s (14.01 in/yr), 1,020,000 acre-ft/yr.

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1957-91).--Maximum discharge, 77,000 ft³/s Dec. 11, 1971 (gage height, 29.40 ft, from floodmark); no flow at times in 1957, 1964-65, 1970, and 1979-80.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in 1908 and 1914 each reached a stage of 27.5 ft, and flood in 1945 reached a stage of 26.5 ft, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e19	9.1	12	15	17	16	107	12	100	13	4350	492
2	e20	8.6	13	33	16	14	71	11	868	12	3270	270
3	e20	16	17	475	15	13	52	11	759	11	933	181
4	e20	34	22	420	14	15	39	11	322	9.6	530	140
5	e20	30	21	168	14	14	36	10	174	8.8	305	119
6	e19	26	18	99	13	14	80	9.9	108	9.4	185	81
7	e20	22	17	70	13	13	255	9.6	390	6.6	118	58
8	e20	19	17	52	13	14	179	9.1	469	5.4	74	49
9	e19	16	16	40	13	14	108	8.8	190	4.7	94	45
10	e17	14	16	34	13	14	75	8.4	125	3.9	124	44
11	e16	12	17	30	14	13	53	1870	81	3.6	278	43
12	e15	10	17	28	19	13	40	6510	82	3.3	512	40
13	e14	11	16	25	18	12	120	2300	980	3.1	257	37
14	e13	11	16	23	16	12	317	822	3960	4.0	137	35
15	e12	11	17	21	14	11	278	456	839	4.1	85	36
16	e11	10	16	20	13	11	180	232	283	4.6	54	52
17	e11	9.6	17	19	12	10	113	123	163	5.4	37	60
18	e10	9.1	20	21	12	12	77	76	114	5.5	27	63
19	e9.7	8.6	37	22	11	13	56	53	169	5.7	21	67
20	e9.2	8.5	65	30	11	61	44	39	143	5.2	19	340
21	8.8	8.3	64	36	10	70	34	29	91	4.6	16	836
22	8.3	8.7	53	36	9.7	55	31	22	59	4.2	14	1020
23	7.9	9.3	44	33	9.3	43	26	17	43	4.0	13	507
24	e7.6	8.9	37	31	8.9	33	22	19	34	4.4	12	532
25	e7.4	9.0	30	28	8.7	27	21	18	28	5.9	11	1140
26	e8.1	9.1	25	26	9.1	23	19	12	25	6.4	9.6	576
27	e7.4	9.1	21	25	9.4	22	17	9.9	21	9.5	9.2	607
28	6.6	9.3	19	23	9.0	28	16	266	18	7.7	11	779
29	6.8	9.5	16	21	13	441	14	327	16	7.9	1320	464
30	6.9	11	15	20	---	334	13	183	14	7.5	2650	261
31	7.3	---	14	18	---	175	---	111	---	465	1770	---
TOTAL	398.0	387.7	745	1942	368.1	1560	2493	13595.7	10668	656.0	17245.8	8974
MEAN	12.8	12.9	24.0	62.6	12.7	50.3	83.1	439	356	21.2	556	299
MAX	20	34	65	475	19	441	317	6510	3960	465	4350	1140
MIN	6.6	8.3	12	15	8.7	10	13	8.4	14	3.1	9.2	35
AC-FT	789	769	1480	3850	730	3090	4940	26970	21160	1300	34210	17800
CFSM	.01	.01	.02	.05	.01	.04	.06	.32	.26	.02	.41	.22
IN.	.01	.01	.02	.05	.01	.04	.07	.37	.29	.02	.47	.24

07343200 SULPHUR RIVER NEAR TALCO, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996#, BY WATER YEAR (WY)

MEAN	899	1465	2864	1430	1267	2277	1229	2511	950	965	530	158
MAX	2208	2854	5315	2416	2612	4213	2688	6191	1799	3164	1832	299
(WY)	1994	1995	1992	1995	1993	1992	1995	1995	1992	1992	1992	1996
MIN	12.8	12.9	24.0	62.6	12.7	50.3	83.1	439	133	4.39	2.15	2.18
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1993	1993	1993	1993

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996#	
ANNUAL TOTAL	480512.5		59033.3			
ANNUAL MEAN	1316		161		1384	
HIGHEST ANNUAL MEAN					2207	1992
LOWEST ANNUAL MEAN					161	1996
HIGHEST DAILY MEAN	25500	May 9	6510	May 12	31200	Oct 30 1991
LOWEST DAILY MEAN	4.3	Aug 18	3.1	Jul 13	1.0	Aug 31 1993
ANNUAL SEVEN-DAY MINIMUM	5.0	Aug 14	3.8	Jul 10	1.1	Aug 27 1993
INSTANTANEOUS PEAK FLOW			7780	May 12	35800	Oct 30 1992
INSTANTANEOUS PEAK STAGE			22.73	May 12	26.42	Dec 4 1993
ANNUAL RUNOFF (AC-FT)	953100		117100		1003000	
ANNUAL RUNOFF (CFSM)	.96		.12		1.01	
ANNUAL RUNOFF (INCHES)	13.10		1.61		13.78	
10 PERCENT EXCEEDS	3710		329		3470	
50 PERCENT EXCEEDS	89		19		332	
90 PERCENT EXCEEDS	8.6		8.6		9.1	

e Estimated
Period of regulated streamflow.

07343200 SULPHUR RIVER NEAR TALCO, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: January 1965 to current year. Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: January 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to September 1991.
WATER TEMPERATURE: October 1966 to September 1991.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,800 microsiemens Feb. 17, 1976; minimum daily, 65 microsiemens Jan. 15, 1989.
WATER TEMPERATURE (1966-89): Maximum daily, 39.0°C Aug. 13, 1987; minimum daily, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
05...	0920	20	380	7.8	19.5	4.5	50	1.2	130	28	47
DEC											
13...	1355	16	734	7.9	13.0	10.0	95	1.1	210	59	74
JAN											
31...	1000	19	661	7.9	4.0	11.1	85	1.6	170	53	59
MAR											
20...	1352	72	834	7.7	11.0	9.8	89	1.1	260	68	88
MAY											
08...	0819	8.7	571	7.6	23.0	5.8	69	2.0	170	47	60
JUN											
19...	1030	162	304	7.7	30.5	4.6	63	1.0	110	13	40

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
05...	4.2	19	0.7	4.0	110	57	12	0.30	6.5	216
DEC										
13...	7.3	64	2	4.2	160	130	51	0.40	4.3	429
JAN										
31...	6.0	61	2	3.7	120	84	71	0.40	6.9	378
MAR										
20...	8.9	74	2	3.7	190	150	62	0.30	3.5	503
MAY										
08...	5.7	42	1	4.3	130	110	28	0.30	4.9	331
JUN										
19...	3.0	13	0.5	4.3	100	28	9.2	0.40	9.8	173

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
05...	0.460	0.460	0.010	0.470	0.470	<0.015	--	0.40	<0.010	0.010
DEC										
13...	--	--	<0.010	--	<0.050	<0.015	--	0.40	<0.010	<0.010
JAN										
31...	2.75	2.75	0.050	2.80	2.80	0.050	0.65	0.70	0.030	0.020
MAR										
20...	--	--	<0.010	--	<0.050	<0.015	--	0.40	0.010	<0.010
MAY										
08...	0.140	0.140	0.010	0.150	0.150	0.060	0.44	0.50	0.030	<0.010
JUN										
19...	0.960	0.960	0.040	1.00	1.00	0.060	0.34	0.40	0.040	0.050

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT										
05...	0.03	--	--	--	--	--	--	--	--	--
DEC										
13...	--	--	--	--	--	--	--	--	--	--
JAN										
31...	0.06	<1	70	<0.50	<1.0	<5.0	<3.0	<10	17	<10
MAR										
20...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
19...	0.15	2	53	<0.50	<1.0	<5.0	<3.0	<10	20	<10

07343200 SULPHUR RIVER NEAR TALCO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
DEC										
13...	--	--	--	--	--	--	--	--	--	--
JAN										
31...	9	20	<0.1	<10	<10	1	<1.0	920	<6	8.0
MAR										
20...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
19...	<4	6.0	<0.1	<10	<10	<1	<1.0	410	<6	<3.0

07343500 WHITE OAK CREEK NEAR TALCO, TX

LOCATION.--Lat 33°19'20", long 95°05'33", Titus County, Hydrologic Unit 11140303, near center of main channel at downstream side of bridge on U.S. Highway 271, 0.8 mi downstream from Lewis Creek, 2.4 mi upstream from Ripley Creek, 2.7 mi south of Talco, and 38.4 mi upstream from mouth.

DRAINAGE AREA.--494 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1711: Elevation of historical maximum.

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

REMARKS.--No estimated daily discharges. Records good. There are several small diversions upstream from station for municipal supply. The cities of Sulphur Springs and Mount Vernon discharged wastewater effluent into tributaries above this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1870, 22.9 ft Mar. 31, 1945, from floodmarks and from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	3.7	2.6	5.2	9.9	4.9	73	6.3	5.7	3.3	1290	104
2	5.1	4.9	2.7	6.4	9.1	4.8	47	5.3	22	3.1	2090	61
3	5.2	3.6	3.0	9.3	7.8	5.1	29	5.1	103	3.2	2190	38
4	5.1	3.3	4.0	33	7.4	5.1	19	5.1	79	3.9	1440	24
5	4.6	3.4	3.7	186	7.0	7.2	18	5.0	74	3.9	630	15
6	4.0	3.3	3.2	160	6.2	9.0	36	4.8	39	3.6	157	9.9
7	3.4	4.5	4.1	82	5.8	6.7	74	4.8	187	3.4	60	7.0
8	7.4	5.8	4.9	44	6.2	5.3	151	4.5	223	3.3	36	5.4
9	9.5	5.0	4.4	28	7.1	4.7	192	4.1	114	3.0	33	5.4
10	7.5	4.0	3.7	19	7.2	4.4	104	3.9	47	2.9	138	5.9
11	6.0	2.9	3.5	14	6.7	4.9	53	449	24	2.8	518	6.4
12	5.2	4.1	3.8	11	5.9	5.0	33	764	14	2.5	632	6.4
13	4.4	4.4	4.1	9.0	5.8	4.4	29	497	9.8	2.4	730	5.2
14	3.7	3.8	8.7	8.0	6.6	3.8	29	180	8.5	5.3	755	4.7
15	3.2	3.2	9.6	7.3	7.2	3.4	74	62	7.2	5.9	510	7.2
16	2.8	2.8	9.1	7.0	6.9	3.3	53	32	6.1	4.6	158	6.7
17	2.6	2.3	11	6.3	5.9	3.3	33	19	5.9	18	63	5.3
18	2.4	2.0	13	6.7	5.3	4.2	22	12	6.5	53	39	5.0
19	2.4	2.1	14	7.3	4.7	5.6	15	8.8	9.8	36	27	5.8
20	2.2	2.5	15	7.4	4.7	6.2	12	7.3	12	21	19	6.9
21	2.1	2.6	23	9.6	4.6	17	11	6.4	7.6	12	15	16
22	2.3	2.7	48	18	4.2	23	11	5.6	6.3	8.3	13	56
23	2.9	2.5	38	25	4.2	22	50	5.1	15	6.2	13	67
24	2.7	2.3	22	22	3.9	17	47	4.8	11	5.1	11	158
25	2.9	2.2	15	20	3.7	12	26	4.0	7.3	4.5	9.6	95
26	3.3	2.9	12	15	4.1	8.4	17	3.4	5.3	3.8	9.2	253
27	2.8	3.0	9.3	11	4.2	6.8	16	3.0	4.1	5.8	9.3	314
28	2.2	2.9	7.4	11	4.4	15	15	3.2	3.3	5.9	12	165
29	2.0	2.8	6.1	12	4.5	20	11	3.0	3.5	11	15	73
30	1.9	2.8	5.8	13	---	64	8.1	3.8	3.5	29	94	47
31	2.0	---	5.5	12	---	72	---	3.5	---	287	164	---
TOTAL	119.5	98.3	320.2	825.5	171.2	378.5	1308.1	2125.8	1064.4	563.7	11880.1	1579.2
MEAN	3.85	3.28	10.3	26.6	5.90	12.2	43.6	68.6	35.5	18.2	383	52.6
MAX	9.5	5.8	48	186	9.9	72	192	764	223	287	2190	314
MIN	1.9	2.0	2.6	5.2	3.7	3.3	8.1	3.0	3.3	2.4	9.2	4.7
AC-FT	237	195	635	1640	340	751	2590	4220	2110	1120	23560	3130
CFSM	.01	.01	.02	.05	.01	.02	.09	.14	.07	.04	.78	.11
IN.	.01	.01	.02	.06	.01	.03	.10	.16	.08	.04	.89	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

MEAN	208	513	741	507	747	716	820	848	360	236	58.6	107
MAX	1744	2984	3986	3222	3593	3491	3784	3166	2620	3743	898	1064
(WY)	1982	1975	1972	1980	1950	1990	1957	1990	1981	1992	1992	1950
MIN	.000	.34	1.12	1.82	5.90	11.8	4.97	7.35	.83	.35	.000	.000
(WY)	1979	1976	1966	1964	1996	1956	1956	1988	1988	1956	1978	1969

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1950 - 1996	
ANNUAL TOTAL	157298.0		20434.5			
ANNUAL MEAN	431		55.8		480	
HIGHEST ANNUAL MEAN					1160	1992
LOWEST ANNUAL MEAN					55.8	1996
HIGHEST DAILY MEAN	11000	May 10	2190	Aug 3	38000	Dec 11 1971
LOWEST DAILY MEAN	1.9	Oct 30	1.9	Oct 30	.00	Aug 8 1954
ANNUAL SEVEN-DAY MINIMUM	2.4	Nov 17	2.4	Nov 17	.00	Aug 8 1954
INSTANTANEOUS PEAK FLOW			2410	Aug 2	48000	Dec 11 1971
INSTANTANEOUS PEAK STAGE			16.43	Aug 2	21.20	Dec 11 1971
ANNUAL RUNOFF (AC-FT)	312000		40530		347800	
ANNUAL RUNOFF (CFSM)	.87		.11		.97	
ANNUAL RUNOFF (INCHES)	11.85		1.54		13.20	
10 PERCENT EXCEEDS	1390		80		1270	
50 PERCENT EXCEEDS	53		6.9		36	
90 PERCENT EXCEEDS	2.9		3.0		1.1	

07343500 WHITE OAK CREEK NEAR TALCO, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1967 to June 1989. Chemical and biochemical analyses: November 1982 to September 1985, October 1991 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1989.
WATER TEMPERATURES: October 1967 to September 1989.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,220 micromhos June 15, 1972; minimum daily 33 micromhos May 16, 1969.
WATER TEMPERATURE: Maximum daily, 37.0°C July 18, Aug. 3, 15, 1975, and Aug. 7, 1986; minimum daily, 0.0°C on several days during January 1968, 1970, 1978, and 1984.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
OCT 05...	1145	4.6	194	7.2	21.0	130	44	3.5	39	1.1	48	6
DEC 14...	0900	9.0	595	7.3	11.0	48	13	8.6	78	1.2	86	0
JAN 31...	1401	11	456	7.8	5.0	90	27	11.1	88	2.4	80	10
MAR 20...	1009	6.3	553	7.5	11.5	44	19	6.3	57	1.3	100	0
MAY 08...	1012	3.8	363	7.4	23.0	160	38	4.2	50	2.4	84	6
JUN 19...	0800	7.4	255	7.2	27.5	130	--	2.8	36	2.1	62	2

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
OCT 05...	11	5.0	15	0.9	7.1	42	26	12	0.10	9.1	112	45
DEC 14...	20	8.8	76	4	11	97	79	60	0.70	0.70	316	11
JAN 31...	20	7.3	53	3	12	70	63	43	0.50	8.2	265	31
MAR 20...	25	9.6	65	3	12	100	72	57	0.60	0.90	306	46
MAY 08...	21	7.7	35	2	11	78	43	33	0.40	6.7	207	54
JUN 19...	15	5.8	21	1	9.2	60	26	20	0.30	9.1	145	36

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
OCT 05...	6	39	0.330	0.330	0.010	0.340	0.340	0.100	0.90	1.0	0.110
DEC 14...	4	7	0.220	--	<0.010	0.220	0.220	<0.015	--	0.70	0.350
JAN 31...	16	15	2.90	--	<0.010	2.90	2.90	0.020	0.88	0.90	0.960
MAR 20...	6	40	0.210	--	<0.010	0.210	0.210	0.030	0.77	0.80	0.170
MAY 08...	28	26	0.300	0.300	0.010	0.310	0.310	0.070	0.73	0.80	0.120
JUN 19...	44	0	0.200	0.200	0.020	0.220	0.220	0.070	0.53	0.60	0.090

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 05...	0.100	0.31	14	--	--	--	--	--	--	--	--
DEC 14...	0.290	0.89	11	--	--	--	--	--	--	--	--
JAN 31...	0.880	2.7	14	1	39	<0.50	<1.0	<5.0	<3.0	<10	16
MAR 20...	0.130	0.40	7.6	--	--	--	--	--	--	--	--
MAY 08...	0.080	0.25	14	1	55	<0.50	<1.0	<5.0	<3.0	<10	17
JUN 19...	0.100	0.31	16	2	51	<0.50	<1.0	<5.0	<3.0	<10	97

07343500 WHITE OAK CREEK NEAR TALCO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN											
31...	<10	<4	40	<0.1	<10	10	<1	<1.0	160	<6	12
MAR											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
08...	<10	<4	540	<0.1	<10	<10	<1	<1.0	170	<6	5.0
JUN											
19...	10	5	470	<0.1	<10	<10	<1	<1.0	130	9	6.0

07343850 WHITE OAK CREEK NEAR OMAHA, TX

LOCATION.--Lat 33°16'30", long 94°44'30", Morris County, Hydrologic Unit 11140303, at bridge, on U.S Highway 259, 6.2 mi north of Omaha, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--772 mi².

PERIOD OF RECORD.--Occasional discharge measurements: February 1965 to August 1967.
Water-quality records.--Chemical and biochemical analyses: October 1968 to September 1977, October 1991 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
OCT												
05...	1358	8.5	178	7.4	22.0	44	61	4.9	56	1.0	41	3
DEC												
14...	1411	7.9	380	7.0	11.5	56	40	10.2	93	1.2	91	22
FEB												
14...	0910	11	396	7.3	9.5	88	36	10.0	89	0.6	89	33
MAR												
19...	1420	7.0	512	7.6	15.0	53	26	6.1	60	1.3	110	31
MAY												
07...	1426	9.6	406	7.5	23.0	300	42	7.1	83	2.6	92	24
JUN												
18...	1310	14	196	7.2	30.0	160	--	4.3	58	2.0	50	11

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
OCT												
05...	9.5	4.3	13	0.9	6.1	38	20	12	0.20	8.8	98	62
DEC												
14...	20	10	37	2	6.5	69	38	41	0.30	13	207	63
FEB												
14...	21	8.8	36	2	7.4	56	55	47	0.30	13	222	39
MAR												
19...	26	12	52	2	7.2	83	66	63	0.30	7.4	284	66
MAY												
07...	22	9.0	38	2	8.2	68	53	45	0.30	11	230	38
JUN												
18...	12	4.9	15	0.9	6.0	39	21	18	0.20	9.6	113	24

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
OCT											
05...	12	50	0.280	--	<0.010	0.280	0.280	0.040	0.66	0.70	0.090
DEC											
14...	7	56	--	--	<0.010	--	<0.050	<0.015	--	0.40	0.040
FEB											
14...	12	27	--	--	--	--	--	--	--	--	--
MAR											
19...	<1	--	--	--	<0.010	--	<0.050	<0.015	--	0.40	0.030
MAY											
07...	4	34	0.360	--	<0.010	0.360	0.360	0.050	0.65	0.70	0.090
JUN											
18...	12	12	0.290	0.290	0.010	0.300	0.300	0.090	0.41	0.50	0.030

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT											
05...	0.070	0.21	13	--	--	--	--	--	--	--	--
DEC											
14...	0.020	0.06	9.3	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	<1	49	<0.50	<1.0	<5.0	<3.0	<10	28
MAR											
19...	0.030	0.09	10	--	--	--	--	--	--	--	--
MAY											
07...	0.050	0.15	14	<1	70	<0.50	<1.0	<5.0	<3.0	<10	410
JUN											
18...	0.050	0.15	17	<1	44	<0.50	<1.0	<5.0	<3.0	<10	190

07343850 WHITE OAK CREEK NEAR OMAHA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	<10	7	110	<0.1	<10	<10	<1	<1.0	200	<6	5.0
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	<10	4	600	<0.1	<10	<10	<1	<1.0	210	<6	13
JUN											
18...	<10	11	530	<0.1	<10	<10	<1	<1.0	110	<6	12

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX

LOCATION.--Lat 33°18'16", long 94°09'38", Bowie-Cass County line, Hydrologic Unit 11140302, in intake structure of Wright Patman Dam on the Sulphur River, 0.5 mi upstream from U.S. Highway 59, 10 mi southwest of Texarkana, and 44.5 mi upstream from mouth.

DRAINAGE AREA.--3,443 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--July 1953 to current year. Published as Texarkana Reservoir prior to October 1970 and as Lake Texarkana from October 1970 to September 1972.

REVISED RECORDS.--WSP 1561: 1957(M). WSP 1711: 1959(M).

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

REMARKS.--The lake is formed by a rolled earthfill dam 18,500 ft long, including a 200-foot uncontrolled spillway and a 1-mile 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 conduits controlled by four 10.0- by 20.0-foot electrically driven broome-type gates. Flow is affected at times by discharge from the flood-detention pools of 25 floodwater-retarding structures with a combined detention capacity of 13,450 acre-ft. These structures control runoff from 40.0 mi² in the Sulphur River and Langford Creek drainage basins. Outflow discharging over the spillway passes into an outlet channel and then to the Sulphur River. The lake was built for flood control and for conservation. An unknown amount of water is diverted for industrial and municipal uses. The capacity table is based on a 1948 survey. 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	286.0	-
Crest of spillway	259.5	2,654,300
Top of conservation pool	220.0	145,300
Lowest gated outlet (invert)	200.0	2,600

COOPERATION.--Records of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,912,100 acre-ft May 9, 1966 (elevation, 252.64 ft); minimum since first appreciable storage and after deliberate impoundment began, 137,500 acre-ft Sept. 5, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 358,600 acre-ft Aug. 13 (elevation, 227.84 ft); minimum, 157,800 acre-ft Mar. 26 (elevation, 220.60 ft).

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

220.0	145,300	226.0	298,500	232.0	518,400
222.0	189,300	228.0	364,100	234.0	607,900
224.0	240,200	230.0	437,200	235.0	655,900

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262600	230800	194500	189100	186000	164900	161400	168400	254600	277300	283600	303200
2	262400	230500	193600	190500	185800	163600	161900	168200	253500	276400	286900	305000
3	261200	228900	190700	188600	187600	163600	162300	168000	252100	275500	293900	306600
4	260900	227600	190200	187900	187200	163800	160100	167100	251800	274000	300000	306600
5	261200	226800	187200	187900	186700	163400	164900	166900	252100	273700	306300	304700
6	259200	227600	185800	189100	186900	162900	166000	167100	252100	273400	313900	302200
7	258100	226300	185300	189300	186700	161900	166200	166900	256600	272300	321600	299400
8	256900	225200	188300	189500	186200	162900	165300	166000	256900	272000	329000	296600
9	256600	224900	187400	189800	185800	160600	165100	166000	256100	274600	339900	293600
10	255800	226800	187600	189800	185100	159900	166000	166900	256600	274900	349000	291400
11	254900	224200	187200	190200	185100	159500	166700	167300	262900	274600	355100	290200
12	253500	222900	186700	190000	184600	159500	169100	169100	262900	274300	357900	289000
13	251500	222100	187200	189800	184100	159300	168900	173100	270500	274600	358600	287200
14	248700	220800	186900	189500	182300	159300	173800	177700	274300	277000	357200	285700
15	246800	218700	186000	189300	180900	159100	170200	186000	276400	276100	354800	287200
16	245400	217400	185500	189800	178100	158200	171100	195300	277900	275500	348700	285700
17	244300	216100	186500	190200	175600	158200	171500	201400	280000	274600	342300	283600
18	243200	214400	193600	192600	173100	163200	173100	211800	283000	274300	335600	282400
19	242700	213100	188800	189100	171500	162500	174000	223100	283000	273700	328700	282700
20	241300	211300	188100	189300	169800	161900	177200	236100	283300	273400	324500	285100
21	239400	210300	187400	189100	168900	161000	174000	248200	283000	272500	318300	285400
22	237700	208800	187900	189300	168200	160400	172700	255800	282700	271100	313200	285400
23	237500	206800	187600	190500	167100	160400	173100	257200	281800	270500	310100	286000
24	235900	205300	187900	189300	165300	161400	173100	256100	281200	272500	306900	295400
25	234500	204300	187200	189300	164900	159500	170400	255800	280900	272300	304400	299700
26	235000	203800	187200	190000	164500	157800	170000	255500	280600	272000	301000	306000
27	234000	200600	185500	188600	165600	160400	169500	254900	279700	272300	300400	309400
28	232400	199400	185500	188300	164300	160800	170900	253500	279400	272300	299100	309700
29	230800	197700	185800	188300	164300	159900	170000	252700	278800	272500	301600	309400
30	229700	196200	186700	188800	---	161900	168700	250700	278200	273100	301600	307200
31	228900	---	186700	187200	---	161000	---	249600	---	280900	302500	---
MAX	262600	230800	194500	192600	187600	164900	177200	257200	283300	280900	358600	309700
MIN	228900	196200	185300	187200	164300	157800	160100	166000	251800	270500	283600	282400
(+)	223.58	222.29	221.89	221.91	220.90	220.75	221.10	224.34	225.33	225.42	226.13	226.28
(@)	-33500	-32700	-9500	+500	-22900	-3300	+7700	+80900	+28600	+2700	+21600	+4700

CAL YR 1995 MAX 603700 MIN 184400 @ -208300
WTR YR 1996 MAX 358600 MIN 157800 @ +44800

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1967 to September 1984 and February 1992 to current year.

REVISED RECORDS.--WDR TX-93-1: Phytoplankton.

331838094095901 - WRIGHT PATMAN LAKE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
MAY												
21...	0939	243000	1.00	340	7.9	26.5	0.55	7.3	92	K9	20	100
21...	0942	--	10.0	341	7.8	26.0	--	6.7	84	--	--	--
21...	0946	--	20.0	342	7.7	26.0	--	6.4	80	--	--	--
21...	0950	--	26.0	340	7.2	25.5	--	3.0	37	--	--	100
AUG												
06...	0826	311000	1.00	272	8.2	29.5	0.70	6.4	85	K1	K7	81
06...	0828	--	10.0	275	7.6	29.0	--	4.6	60	--	--	--
06...	0830	--	20.0	275	7.3	28.5	--	1.7	22	--	--	--
06...	0832	--	28.0	292	7.2	28.0	--	0.1	1	--	--	86

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAY												
21...	39	34	3.8	23	1	3.8	62	57	22	0.20	1.8	183
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	36	35	3.8	22	0.9	3.8	67	55	21	0.20	3.1	185
AUG												
06...	9	27	3.2	16	0.8	3.8	72	22	15	0.20	8.3	139
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	3	29	3.3	16	0.8	4.1	83	21	16	0.20	9.3	151

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY												
21...	--	0.020	--	<0.050	0.020	0.38	0.40	0.010	<0.010	--	5	6
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	<0.010	--	<0.050	0.100	0.40	0.50	<0.010	0.010	0.03	8	340
AUG												
06...	0.050	<0.010	0.050	0.050	0.030	0.37	0.40	0.010	0.040	0.12	<3	4
06...	0.060	<0.010	0.060	0.060	0.030	0.37	0.40	<0.010	0.030	0.09	10	13
06...	--	<0.010	--	<0.050	0.020	0.38	0.40	0.030	0.040	0.12	20	360
06...	0.060	<0.010	0.060	0.060	0.330	0.37	0.70	0.050	0.070	0.21	97	1300

332142094115001 - WRIGHT PATMAN LAKE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
MAY										
21...	1009	1.00	312	7.8	27.0	7.1	91	--	--	<0.010
21...	1014	8.00	315	7.7	26.5	6.8	86	--	--	<0.010
AUG										
06...	0926	1.00	265	8.9	30.5	8.5	115	0.050	0.050	0.010
06...	0928	14.0	265	8.8	30.5	8.1	109	0.060	--	<0.010

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

332142094115001 - WRIGHT PATMAN LAKE BC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY										
21...	--	<0.050	0.020	0.38	0.40	0.020	<0.010	--	<3	<1
21...	--	<0.050	0.020	0.38	0.40	<0.010	<0.010	--	<3	<1
AUG										
06...	0.060	0.060	0.040	0.36	0.40	<0.010	0.030	0.09	5	<1
06...	0.060	0.060	0.030	0.37	0.40	0.030	0.030	0.09	5	2

331935094112901 - WRIGHT PATMAN LAKE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAY										
21...	1031	1.00	321	7.8	26.5	7.0	89	--	<0.010	--
21...	1033	10.0	322	7.6	26.5	6.4	81	--	--	--
21...	1035	18.0	324	7.4	26.0	5.5	69	--	<0.010	--
AUG										
06...	0944	1.00	267	8.6	29.0	7.2	95	0.050	<0.010	0.050
06...	0946	10.0	271	8.0	29.0	5.4	71	--	--	--
06...	0948	20.0	271	7.7	29.0	3.5	46	0.060	<0.010	0.060

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY									
21...	<0.050	0.020	0.28	0.30	<0.010	<0.010	--	<3	2
21...	--	--	--	--	--	--	--	--	--
21...	<0.050	0.020	0.18	0.20	<0.010	<0.010	--	<3	3
AUG									
06...	0.050	0.020	0.38	0.40	0.020	0.040	0.12	4	22
06...	--	--	--	--	--	--	--	--	--
06...	0.060	0.070	0.33	0.40	0.010	0.050	0.15	7	84

331706094130501 - WRIGHT PATMAN LAKE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
21...	1237	1.00	210	7.9	27.5	7.9	101
21...	1239	10.0	250	7.5	26.5	6.2	78
21...	1241	20.0	286	7.5	26.5	6.0	75
21...	1244	27.0	292	7.3	26.5	4.1	52
AUG							
06...	1014	1.00	271	8.6	29.5	7.6	101
06...	1016	12.0	271	8.1	29.0	5.9	78

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

331519094141101 - WRIGHT PATMAN LAKE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
MAY												
21...	1203	1.00	272	8.3	27.5	0.30	8.6	110	K3	100	86	20
21...	1207	10.0	277	7.8	26.5	--	6.9	87	--	--	--	--
21...	1211	18.0	279	7.6	26.5	--	6.3	79	--	--	86	20
AUG												
06...	1042	1.00	267	8.9	30.0	0.40	7.9	106	K2	K2	86	2
06...	1044	8.00	267	8.5	29.5	--	6.0	80	--	--	83	3

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
MAY												
21...	29	3.3	18	0.8	4.4	66	36	17	0.20	4.7	152	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	29	3.4	18	0.8	4.4	66	34	17	0.20	4.7	150	--
AUG												
06...	29	3.3	15	0.7	3.8	84	18	13	0.20	7.1	140	0.060
06...	28	3.2	15	0.7	3.7	80	18	13	0.20	7.3	137	0.050

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAY											
21...	<0.010	--	<0.050	0.020	0.38	0.40	0.020	0.020	0.06	23	2
21...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.010	--	<0.050	0.030	0.37	0.40	0.010	0.020	0.06	11	19
AUG											
06...	<0.010	0.060	0.060	0.020	0.38	0.40	0.040	0.030	0.09	7	3
06...	<0.010	0.050	0.050	0.020	0.68	0.70	0.020	0.040	0.12	3	12

331533094210901 - WRIGHT PATMAN LAKE GC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
MAY												
21...	1428	1.00	178	6.7	26.0	0.34	1.6	20	100	1100	62	10
21...	1435	14.0	179	6.7	26.0	--	1.9	24	--	--	62	10
AUG												
06...	1250	1.00	200	7.3	27.5	0.20	2.4	31	570	K910	68	7
06...	1252	10.0	200	7.4	27.5	--	3.0	38	--	--	--	--
06...	1254	18.0	200	7.3	27.5	--	3.0	38	--	--	69	3

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
MAY												
21...	21	2.3	7.4	0.4	5.2	52	16	7.0	0.20	9.2	100	--
21...	21	2.4	7.4	0.4	5.1	52	16	7.4	0.10	9.1	100	--
AUG												
06...	24	2.0	7.0	0.4	4.1	61	15	5.6	0.20	8.3	104	0.110
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	24	2.1	7.1	0.4	4.6	66	15	5.7	0.20	8.3	108	0.120

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

331533094210901 - WRIGHT PATMAN LAKE GC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY												
21...	--	<0.010	--	<0.050	0.040	0.66	0.70	0.170	0.140	0.43	110	110
21...	--	<0.010	--	<0.050	0.040	0.66	0.70	0.170	0.150	0.46	130	110
AUG												
06...	0.110	0.020	0.130	0.130	0.020	0.48	0.50	0.070	0.080	0.25	57	46
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	0.120	0.020	0.140	0.140	0.040	0.46	0.50	0.040	0.080	0.25	50	41

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

Wright Patman Lake Site AC (331838094095901)

Phytoplankton Analyses October 1995 to September 1996

Date	5-21-96
Time	939
TOTAL CELLS/mL	43,033
NUMBER OF SPECIES	18
DEPTH COLLECTED (ft.)	0.90

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	43
Stephanodiscus astraea	431
Stephanodiscus hantzschii	388
Order Pennales	
Synedra ulna var. *ulna*	339
CHLOROPHYTA	
Ankistrodesmus falcatus	89
Chlamydomonas sp.	59
Cosmarium sp.	30
Pediastrum duplex	30
Scenedesmus bijuga	59
Scenedesmus opoliensis	89
Selenastrum Westii	149
Staurastrum sp.	30
CYANOPHYTA	
Aphanocapsa delicatissima	39,257
Aphanocapsa elachista	1,190
Chroococcus limneticus	238
Merismopedia tenuissima	238
EUGLENOPHYTA	
Trachelomonas sp.	59
CRYPTOPHYTA	
Cryptomonas erosa	178

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

Wright Patman Lake Site GC (331533094210901)

Phytoplankton Analyses October 1995 to September 1996

Date	5-21-96
Time	1428
TOTAL CELLS/mL	4,135
NUMBER OF SPECIES	9
DEPTH COLLECTED (ft.)	0.55

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	45
Stephanodiscus astraea	45
Order Pennales	
Fragilaria virescens var. *virescens*	119
Navicula sp.	119
CHLOROPHYTA	
Chlamydomonas sp.	89
Scenedesmus opoliensis	30
CYANOPHYTA	
Aphanocapsa delicatissima	3,569
EUGLENOPHYTA	
Trachelomonas sp.	89
CRYPTOPHYTA	
Cryptomonas erosa	30

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

Wright Patman Lake Site AC (331838094095901)

Phytoplankton Analyses October 1995 to September 1996

Date	8-6-96
Time	0826
TOTAL CELLS/mL	100,788
NUMBER OF SPECIES	18
DEPTH COLLECTED (ft.)	1.20

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	357
Order Pennales	
Cymbella inelegans var. *inelegans*	67
Cymbella minuta var. *minuta*	20
Fragilaria crotonensis var. *crotonensis*	20
Navicula sp.	67
CHLOROPHYTA	
Ankistrodesmus falcatus	297
Chlamydomonas sp.	59
Cosmarium sp.	30
Scenedesmus bijuga	59
Scenedesmus opoliensis	119
Scenedesmus quadricauda	59
CYANOPHYTA	
Aphanizomenon flos-aquae	7,732
Aphanocapsa delicatissima	44,015
Aphanocapsa elachista	1,190
Chroococcus limneticus	357
Merismopedia tenuissima	29,502
Oscillatoria sp.	14,870
EUGLENOPHYTA	
Trachelomonas sp.	1,606

07344200 WRIGHT PATMAN LAKE NEAR TEXARKANA, TX--Continued

Wright Patman Lake Site GC (331533094210901)

Phytoplankton Analyses October 1995 to September 1996

Date	8-6-96
Time	1250
TOTAL CELLS/mL	4,580
NUMBER OF SPECIES	9
DEPTH COLLECTED (ft.)	0.40

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cymbella inelegans var. *inelegans*	21
Cymbella minuta var. *minuta*	146
Fragilaria crotonensis var. *crotonensis*	31
Synedra ulna var. *ulna*	10
CHLOROPHYTA	
Chlamydomonas sp.	59
Scenedesmus opoliensis	119
CYANOPHYTA	
Aphanizomenon flos-aquae	595
Aphanocapsa delicatissima	3,569
EUGLENOPHYTA	
Trachelomonas sp.	30

07344210 SULPHUR RIVER NEAR TEXARKANA, TX

LOCATION.--Lat 33018'20", long 94009'03", Bowie County, Hydrologic Unit 11140302, on downstream side of highway embankment near left end of stream (northbound) bridge on U.S. Hwy 59, 0.4 mi downstream from Texarkana dam, 1.4 mi upstream from Elliott Creek, 11.7 mi southwest of Texarkana, end at mi 44.1.

DRAINGAGE AREA.--3,433 mi2.

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1983 to September 1985, October 1991 to current year. Water-elevation records.--October 1985 to September 1995 (mid night elevations). August 1937 to July 1953 and October 1953 to September 1979 (daily gage heights): January to December 1933, January 1937 to December 1942, and January 1945 to September 1979 (discharge measurements): January to December 1939, January 1945 to September 1979 (daily discharges) published by U.S. Army Corps of Engineers: October 1979 to September 1985 (daily discharges).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
MAY												
21...	1434	81	334	8.2	30.0	30	6.5	7.7	102	3.2	110	46
AUG												
06...	1230	209	254	7.7	29.5	30	3.6	8.2	108	3.6	78	8

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAY											
21...	36	4.0	22	0.9	4.4	61	58	24	0.30	2.0	188
AUG											
06...	26	3.1	15	0.7	3.6	70	22	16	0.20	7.8	136

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
MAY											
21...	10	6	4	0.080	<0.010	0.080	0.080	0.090	0.61	0.70	<0.010
AUG											
06...	14	8	6	0.060	<0.010	0.060	0.060	0.030	0.37	0.40	0.040

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
MAY											
21...	<0.010	--	10	<1	61	0.60	2.0	<5.0	<3.0	10	<3.0
AUG											
06...	0.050	0.15	14	3	42	<0.50	<1.0	<5.0	<3.0	<10	4.0

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY											
21...	<10	5	7.0	<0.1	<10	<10	<1	<1.0	310	<6	17
AUG											
06...	<10	<4	18	<0.1	<10	<10	<1	1.0	240	<6	3.0

07344486 BRUSHY CREEK AT SCROGGINS, TX

LOCATION.--Lat 32°58'32", long 95°11'03", Franklin County, Hydrologic Unit 11140305, at downstream side of highway embankment near left end of bridge on Farm Road 115, 0.1 mi north of Scroggins, 0.3 mi downstream from Briary Creek, 2.5 mi upstream from South Brushy Creek, and 9.5 mi upstream from mouth.

DRAINAGE AREA.--23.4 mi².

PERIOD OF RECORD.--December 1977 to current year.

REVISED RECORDS.--WDR TX-89-1: 1983-88 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 343.90 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	24	9.1	e18	e4.5	e7.2	5.9	1.4	4.3	.69	7.8	3.3
2	7.3	12	9.3	e31	e5.9	e7.0	5.1	.89	12	.83	6.3	2.7
3	6.1	7.1	9.5	e20	e5.2	e6.8	4.8	.88	4.6	.93	3.7	2.5
4	3.1	5.8	9.6	e8.8	e4.1	e6.2	5.9	.89	2.7	.82	2.3	1.8
5	2.1	5.7	9.7	4.9	e4.2	e5.7	22	.76	1.4	1.3	1.9	1.6
6	1.6	6.1	9.4	4.2	e4.1	e6.5	24	1.8	1.2	1.8	1.1	1.2
7	1.5	8.6	9.4	4.4	e4.4	e7.3	12	3.0	1.7	1.2	.98	1.1
8	1.4	7.5	20	5.4	e4.3	e6.3	8.5	1.1	1.9	.86	.97	1.1
9	1.4	6.0	12	5.0	e4.8	e5.9	6.6	.74	.99	.99	1.1	4.6
10	1.4	5.9	8.9	4.4	e4.2	e5.7	5.0	.58	.83	1.7	7.2	2.2
11	2.0	6.1	8.5	4.6	e4.2	e5.6	4.4	31	.63	3.4	7.5	1.3
12	1.5	6.3	8.5	4.8	e5.9	e5.4	4.3	13	.67	1.5	7.2	1.1
13	1.6	6.3	8.6	4.2	e5.0	e5.3	13	11	.64	1.1	4.0	.93
14	1.6	6.5	8.1	e4.0	e6.3	e5.4	7.9	19	1.5	26	2.3	.91
15	1.4	6.4	8.0	e4.0	e7.0	e5.5	4.8	8.5	1.1	16	3.3	1.1
16	1.3	6.7	8.6	e4.0	e5.7	8.1	3.3	5.4	.96	4.4	1.0	1.9
17	1.3	7.2	9.4	e3.9	e5.7	8.3	2.8	3.9	1.0	2.3	.65	1.4
18	1.2	7.3	24	e4.2	e5.8	10	2.6	2.4	.89	1.5	.74	1.2
19	1.3	7.5	12	e4.4	e5.6	18	2.1	2.0	1.1	1.1	.92	2.5
20	1.2	7.7	8.2	e4.7	e5.4	10	1.7	1.1	.96	.98	.99	9.7
21	1.3	7.5	7.4	e4.8	e5.2	8.4	1.2	1.1	.87	.76	.94	7.8
22	1.6	7.3	6.6	e5.3	e5.0	7.9	2.6	1.0	.79	.63	.93	4.5
23	1.7	7.7	6.5	e4.7	e5.2	7.6	7.5	.96	.83	.54	.97	2.6
24	2.0	7.7	e6.2	e4.6	e5.5	7.7	3.0	.89	2.4	4.7	.99	7.9
25	2.6	7.9	e6.2	e4.9	e5.6	7.6	1.6	.76	1.4	3.4	.85	9.9
26	3.6	8.2	e6.2	e4.2	e5.9	6.1	1.1	.78	1.6	2.2	.97	6.0
27	4.4	8.4	e6.2	e4.7	e6.6	5.9	.78	.80	1.8	38	2.2	4.7
28	2.7	8.1	e6.1	e5.1	e6.5	32	.78	.73	1.2	7.9	6.7	4.9
29	2.3	8.1	e6.2	e6.1	e6.3	14	5.1	.77	.85	3.6	11	3.4
30	4.0	8.8	e6.6	e6.1	---	9.9	3.8	1.1	.82	2.0	9.3	2.5
31	3.3	---	e10	e4.9	---	7.6	---	1.4	---	12	5.6	---
TOTAL	71.5	236.4	285.0	204.3	154.1	260.9	174.16	119.63	53.63	145.13	102.40	98.34
MEAN	2.31	7.88	9.19	6.59	5.31	8.42	5.81	3.86	1.79	4.68	3.30	3.28
MAX	7.3	24	24	31	7.0	32	24	31	12	38	11	9.9
MIN	1.2	5.7	6.1	3.9	4.1	5.3	.78	.58	.63	.54	.65	.91
AC-FT	142	469	565	405	306	517	345	237	106	288	203	195

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

MEAN	14.2	20.6	31.3	20.4	25.7	27.2	20.0	25.9	15.2	7.83	2.87	4.09
MAX	80.5	143	103	62.7	47.5	66.1	54.9	68.2	70.0	32.2	17.4	41.7
(WY)	1992	1995	1983	1993	1991	1990	1990	1991	1981	1981	1992	1979
MIN	.68	2.51	2.99	6.33	5.31	8.15	3.64	1.64	.26	.007	.003	.14
(WY)	1979	1990	1979	1981	1996	1986	1978	1988	1984	1978	1985	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1978 - 1996	
ANNUAL TOTAL	6681.48		1905.49			
ANNUAL MEAN	18.3		5.21		18.4	
HIGHEST ANNUAL MEAN					35.6	1995
LOWEST ANNUAL MEAN					5.21	1996
HIGHEST DAILY MEAN	346	May 8	38	Jul 27	2800	Nov 5 1994
LOWEST DAILY MEAN	.80	Aug 13	.54	Jul 23	.00	Jun 28 1978
ANNUAL SEVEN-DAY MINIMUM	.90	Aug 7	.81	May 23	.00	Jun 28 1978
INSTANTANEOUS PEAK FLOW			64	May 11	7520	Dec 2 1982
INSTANTANEOUS PEAK STAGE			10.66	May 11	14.39	Dec 2 1982
ANNUAL RUNOFF (AC-FT)	13250		3780		13320	
10 PERCENT EXCEEDS	32		9.4		29	
50 PERCENT EXCEEDS	9.3		4.4		6.8	
90 PERCENT EXCEEDS	1.5		.93		.46	

e Estimated

07344489 LAKE BOB SANDLIN NEAR MOUNT PLEASANT, TX

LOCATION.--Lat 33°04'48", long 95°00'07", Titus County, Hydrologic Unit 11140305, in control room in left abutment of service spillway at left end of Fort Sherman Dam on Big Cypress Creek, 1.7 mi upstream from Tankersley Creek, 3.5 mi upstream from bridge on U.S. Highway 271, 5.7 mi southwest of the county courthouse in Mount Pleasant, and 129.2 mi upstream from mouth.

DRAINAGE AREA.--239 mi².

PERIOD OF RECORD.--August 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Apr. 12, 1978, a nonrecording gage was located at same site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam 10,800 ft long, including spillways. Deliberate impoundment began Aug. 8, 1977, and dam was completed by April 1978. The spillway is an excavated channel cut through natural ground. The spillway is 4,500 ft wide, located to the left of the left end of the dam. The service spillway is 289.5 ft wide with 160 ft of net flow width controlled by four 40- by 22.5-foot tainter gates. The dam was built, and is owned, maintained, and operated by the Titus County Fresh Water Supply District No. 1 to provide water for municipal use. Flow from 75.0 mi² above this station is controlled by Lake Cypress Springs on Big Cypress Creek and 36.0 mi² is controlled by Montecello Reservoir on Blundell Creek, a tributary to Big Cypress Creek. Rain gage at station. Satellite telemeter at station. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-ft)
Top of dam	349.0	-
Crest of uncontrolled spillway	341.3	251,000
Crest of gated spillway	316.5	64,740
Lowest gated outlet (invert)	294.5	3,280

COOPERATION.-Capacity table 1-C was compiled by Forest and Cotton, Inc., Consulting Engineers. A new capacity table, 2-C, was prepared by the U.S. Army Corps of Engineers, and put into effect October 1, 1996.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 224,400 acre-ft Nov. 5, 1994 (elevation, 338.65 ft); minimum, 516 acre-ft Aug. 8-1/, 1977 (elevation, 290.00 ft) using previous capacity table 1-C.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 202,300 acre-ft Oct. 2 at 1600 hours (elevation, 336.32 ft); minimum, 171,300 acre-ft July 23 (elevation, 332.80 ft).

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

290.0	514	310.0	37,850	330.0	148,700
300.0	11,000	320.0	82,660	339.0	227,800

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202100	197800	192500	192700	192100	190600	188900	186500	181900	176600	176100	183600
2	202200	197600	192400	192700	192200	190400	188700	186300	181700	176300	176000	183500
3	202100	197300	192200	192500	192200	190200	188600	186200	181400	176000	175900	183400
4	201800	197200	192100	192500	192100	190200	188500	185800	181200	175900	175700	183400
5	201700	197100	191900	192600	192000	190400	189300	185600	181000	175800	175500	183300
6	201400	197200	191700	192500	192000	190200	189300	185800	180500	175500	175300	183100
7	201100	197100	191400	192400	192200	189900	189200	185600	181100	175100	175200	183000
8	201100	197000	192000	192300	192200	189700	189100	185500	180800	175600	175200	183400
9	200900	196800	191700	192300	192200	189500	189000	185100	180700	175100	176200	183400
10	200800	197100	191700	192300	192200	189300	188900	185000	180400	174800	177100	183300
11	200700	196500	191600	192300	192200	189200	188900	185500	180200	174400	179400	183100
12	200600	196200	191600	192300	192100	189200	189400	185400	180000	174100	179400	183000
13	200600	196000	191700	192200	192100	189100	189400	185500	180100	173800	179200	182700
14	200300	195800	191700	192200	191900	189200	189600	185600	180000	174300	179100	182500
15	200100	195500	191700	192300	191800	189100	189100	185500	180000	174100	178800	182700
16	200000	195300	191700	192400	191700	189000	189000	185300	180000	173700	178800	182400
17	199800	195200	191900	192600	191700	188800	188900	185300	179600	173300	178600	182200
18	199600	195000	192800	193000	191700	190200	188700	185100	179600	172900	178400	182100
19	199600	194800	192300	192700	191700	190000	188800	184900	179500	172500	178300	182500
20	199200	194600	192100	192600	191400	189900	188700	184600	179400	172200	178200	183000
21	199000	194400	192000	192600	191300	189700	188600	184400	179200	171800	178100	183000
22	198900	194400	192000	192700	191200	189500	188900	184100	178800	171600	178100	182900
23	198700	194100	191900	192800	191000	189500	188600	183800	178500	171900	178000	182800
24	198500	193900	191900	192700	190800	189600	188300	183500	178200	171700	177900	183900
25	198300	193700	191700	192600	190700	189300	187900	183200	178100	171700	177900	184100
26	198200	193600	191700	192600	190700	189100	187700	182900	178000	172300	178300	184300
27	198000	193300	191600	192500	191000	189500	187400	182600	177700	172500	179700	184100
28	197800	193000	191600	192500	190800	189700	187200	182200	177400	172400	183400	183900
29	197400	192800	191600	192500	190600	189500	187100	181900	177100	172300	183800	183700
30	197100	192600	191900	192500	---	189400	186800	181400	176900	172300	183700	183600
31	196900	---	192000	192200	---	189100	---	181100	---	175700	183700	---
MAX	202200	197800	192800	193000	192200	190600	189600	186500	181900	176600	183800	184300
MIN	196900	192600	191400	192200	190600	188800	186800	181100	176900	171600	175200	182100
(+)	335.72	335.25	335.18	335.20	335.02	334.85	334.59	333.94	333.45	333.31	334.24	334.23
(@)	-4200	-4300	-600	+200	-1600	-1500	-2300	-5700	-4200	-1200	+8000	-100

CAL YR 1995 MAX 217800 MIN 191400 (@) -21400
WTR YR 1996 MAX 202200 MIN 171600 (@) -17500

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07344500 BIG CYPRESS CREEK NEAR PITTSBURG, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 33°01'15", long 94°52'55", Camp-Titus County line, Hydrologic Unit 11140305, near center of stream at downstream side of bridge on State Highway 11, 0.5 mi upstream from Louisiana & Arkansas Railway Co. bridge, 1.4 mi upstream from Williamson Creek, 5.2 mi east of Pittsburg, 19.2 mi downstream from Lake Bob Sandlin, and 110.0 mi upstream from mouth.

DRAINAGE AREA.--366 mi^2.

PERIOD OF RECORD.--March 1943 to January 1963 (published as Cypress Creek near Pittsburg), October 1967 to September 1989. October 1989 to current year, (peak discharges greater than base discharge). Gage-height records collected at this site from September 1963 to December 1967, are published in reports by the U.S. Army Corps of Engineers.
Water-quality records.--Chemical analyses: March 1965 to August 1989. Chemical and biochemical analyses: January 1983 to September 1985.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 247.49 ft above sea level. Prior to Nov. 12, 1954, water-stage recorder at site 1,900 ft downstream at present datum.

REMARKS.--Records fair. Daily values and peak discharges less than 2,500 ft^3/s are not published. Flow partly regulated by Lake Cypress Springs (station 07344484, discontinued) since July 1970, and by Monticello Reservoir (on Blundell Creek) since August 1972. Flow largely regulated by Lake Bob Sandlin (station 07344489) since August 1977. Wastewater effluent was returned to a tributary above this station by the city of Mount Pleasant, and wastewater effluent was returned to a tributary below this station by the city of Pittsburg. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE.--24 years (water years 1944-62, 1968-72), prior to combined regulation by Lake Cypress Springs and Monticello Reservoir, 327 ft^3/s (12.13 in/yr), 236,900 acre-ft/yr; 17 years (water years 1973-89) regulated, 255 ft^3/s (184,700 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,500 ft^3/s Mar. 30, 1945 (gage height, 28.3 ft, from floodmark, and adjusted to present site on basis of record for flood of Apr. 27, 1958), from rating curve extended above 20,000 ft^3/s; no flow Aug. 20 to Oct 3, 1954, July 19 to Nov. 4, 1956. Maximum stage since at least 1895, that of Mar. 30, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1938 reached a stage of about 25 ft from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

07345900 LAKE O' THE PINES NEAR JEFFERSON, TX

LOCATION.--Lat 32°45'90", long 94°29'57", Marion County, Hydrologic Unit 11140305, on left bank 1,500 ft upstream from left end of Ferrell's Bridge Dam on Big Cypress Creek, on Farm Road 726, 9.0 mi west of Jefferson, and 80.1 mi upstream from mouth.

DRAINAGE AREA.--850 mi².

PERIOD OF RECORD.--August 1957 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1969 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Nov. 12, 1957, non-recording gage at same site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam 10,600 ft long, including a 200-foot-wide 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 conduits that are controlled by two 8.0- by 12.5-foot electrically driven broome-type gates. The low-flow outlet works consist of a controlled 14-inch pipe. Flow over the spillway is discharged into a 2,000-foot-long rectified channel and then into Cypress Creek. The capacity table is based on a survey made in 1950. The lake was built for conservation, flood control, and water supply. During the current year, an unknown amount of water was diverted from the lake for municipal and industrial uses. 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	277.0	-
Crest of spillway	249.5	842,100
Top of conservation pool	228.5	254,900
Crest of intake to wet well (14 in)	202.5	5,760
Lowest gated outlet (invert)	200.0	2,860

COOPERATION.--Records of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 694,360 acre-ft May 5, 1966 (elevation, 245.41 ft); minimum since December 1959, 210,100 acre-ft Oct. 6, 1984 (elevation, 225.98 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 262,600 acre-ft Sep. 27 (elevation, 228.91 ft); minimum, 242,900 acre-ft Dec. 7 (elevation, 227.85 ft).

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

227.0	227,600	231.0	303,800	234.0	369,100
228.0	245,600	232.0	324,800	235.0	392,700
229.0	264,300	233.0	346,500	236.0	417,100
230.0	283,700				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260500	250400	244700	248500	250800	247200	247600	254500	255800	251500	246100	251500
2	260300	251300	244500	248900	250400	247100	247200	254300	256000	251100	246000	251500
3	260100	249500	244700	248000	249800	246900	247400	253900	255800	250600	245400	251100
4	259000	248900	244500	247600	249500	246100	247800	254100	255000	249500	245400	250900
5	259500	248900	244100	247400	249100	247100	250400	253700	254500	249500	245000	250800
6	257700	249300	243800	247400	249300	250200	250800	254100	255000	248900	244900	250400
7	257300	249800	242900	247400	249600	248200	251100	253900	255800	248400	244700	249800
8	256700	249300	243200	247400	249800	246500	251300	253500	255000	248700	244500	250600
9	256500	248500	243200	247400	249800	245600	251300	253200	254300	248200	245200	249500
10	256300	250000	243200	247400	250800	245200	251300	253400	253900	248900	245600	248700
11	256200	248700	245000	247400	249600	244900	251100	256500	253700	248200	246000	248400
12	256000	248000	244100	247400	249300	244900	253000	256000	253500	248200	246700	247800
13	256300	248200	244700	247400	248900	244900	252800	256500	255200	247600	247100	247100
14	255200	247600	244900	248500	249100	245000	255800	256500	255600	249100	247400	246500
15	254500	247800	245600	248700	249600	245400	253000	256200	255800	248700	248000	246700
16	254100	247200	245000	248200	248000	245400	252600	256000	255400	248000	247800	246500
17	253700	247200	246100	248000	248000	245200	252200	255600	255600	247600	247800	245400
18	253400	247200	250000	249100	247200	249100	252600	255200	255400	247400	247600	245000
19	253200	247100	248500	248900	247800	248200	252400	254700	255000	247100	247200	245800
20	252400	247100	247400	249300	247600	247600	252400	254500	254700	246500	246900	248900
21	251700	246900	247400	249300	247600	247100	251500	254100	254500	246100	246300	250400
22	250900	246300	247600	249500	247600	246900	254300	253500	253900	245600	246100	250400
23	251700	246700	248200	252600	248000	246300	253200	253000	253200	245200	245800	250600
24	250900	246000	247800	250200	247200	248200	252400	252400	252800	246000	245400	257700
25	251100	245800	246900	249600	247200	247400	253000	252100	253000	245800	245000	258400
26	251100	245400	246500	253400	247200	246900	252400	251300	253400	245600	244700	261400
27	251500	246300	246300	249800	248500	247400	251500	251100	252800	246100	246300	262600
28	250800	245400	246100	249600	247800	247200	253700	251100	252400	245800	249300	262000
29	249800	244900	246700	249800	247800	247100	255200	250200	252400	245200	250600	261600
30	249600	244700	247200	252200	---	247100	254500	249600	251900	245000	250900	261100
31	249500	---	247400	251300	---	247100	---	248900	---	246300	250900	---
MAX	260500	251300	250000	253400	250800	250200	255800	256500	256000	251500	250900	262600
MIN	249500	244700	242900	247400	247200	244900	247200	248900	251900	245000	244500	245000
(+)	228.21	227.95	228.10	228.31	228.12	228.08	228.48	228.18	228.34	228.04	228.29	228.83
(@)	-10800	-4800	+2700	+3900	-3500	-700	+7400	-5600	+3000	-5600	+4600	+10200

CAL YR 1995 MAX 400900 MIN 242900 @ -141900
WTR YR 1996 MAX 262600 MIN 242900 @ +800

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

07346000 BIG CYPRESS CREEK NEAR JEFFERSON, TX

LOCATION.--Lat 32°44'58", long 94°29'55", Marion County, Hydrologic Unit 11140306, on left bank 950 ft downstream from Ferrell's Bridge Dam, 7.6 mi upstream from French Creek, and 8.5 mi west of Jefferson.

DRAINAGE AREA.--850 mi².

PERIOD OF RECORD.--July 1924 to September 1959 (published as Cypress Creek), October 1979 to current year. Records of stage and discharge for the period October 1959 to September 1979 published by the U.S. Army Corps of Engineers, New Orleans District.

GAGE.--Water-stage recorder. Datum of gage is 180.00 ft above sea level (U.S. Army Corps of Engineers benchmark). Prior to Nov. 2, 1933, staff gage, and Nov. 2, 1933, to Dec. 8, 1955, water-stage recorder, at site about 950 ft upstream at datum 3.70 ft higher. After Dec. 9, 1955, at site about 550 ft downstream or at present site at datum 180.00 ft lower.

REMARKS.--Records good. Flow completely regulated by Lake O' the Pines (station 07345900), 950 ft upstream, since August 1957. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--33 years (water years 1925-57), prior to completion of Ferrell's Bridge Dam, 660 ft³/s (478,500 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION, (WATER YEARS, 1925-57).--Maximum discharge, 57,100 ft³/s Apr. 1, 1945 (gage height, 28.78. ft, site and datum then in use), from rating curve extended above 29,000 ft³/s; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	13	11	10	31	38	37	67	98	67	66	72
2	61	12	12	9.6	54	37	37	66	104	67	65	72
3	61	11	12	9.3	54	37	37	67	78	67	64	71
4	60	11	12	9.1	54	37	37	67	74	66	64	70
5	60	11	12	9.0	54	37	40	67	75	65	64	71
6	58	12	12	9.2	48	37	40	67	73	66	64	77
7	57	12	12	9.2	41	35	38	66	73	66	64	72
8	58	12	13	9.2	40	35	37	66	72	67	68	70
9	59	12	13	9.2	39	35	37	66	71	67	75	68
10	59	12	21	9.2	39	36	37	66	71	81	66	67
11	59	12	17	9.2	39	36	37	70	71	75	66	67
12	59	13	12	9.2	39	36	40	68	71	69	64	67
13	59	14	12	8.9	39	37	51	66	76	66	64	67
14	59	14	11	8.5	39	37	52	66	75	67	64	67
15	59	13	11	8.2	39	38	50	65	73	66	64	67
16	64	13	12	7.3	36	38	51	66	72	66	64	67
17	76	13	12	7.2	37	38	56	65	72	66	64	65
18	77	13	12	11	38	41	57	64	72	66	64	65
19	66	22	11	8.7	38	41	53	64	71	66	64	66
20	6.5	24	10	e13	38	38	52	e64	70	66	67	71
21	4.4	19	15	e13	38	38	52	e64	70	65	75	104
22	4.4	12	19	e13	38	38	52	e64	69	64	70	79
23	4.2	12	19	e14	38	38	51	e64	69	64	78	47
24	8.3	16	19	e15	38	37	27	e64	70	65	71	15
25	11	23	19	e16	38	37	23	e64	70	66	71	8.8
26	12	22	20	8.1	38	37	75	e64	69	64	71	39
27	10	22	20	8.1	38	37	68	e64	69	67	71	216
28	11	18	16	8.1	38	37	68	e64	69	66	74	346
29	12	11	10	8.2	38	37	71	e65	67	64	75	340
30	12	11	10	8.4	---	37	68	e66	67	64	74	335
31	12	---	10	8.3	---	37	---	66	---	65	73	---
TOTAL	1279.8	435	427	304.4	1178	1154	1431	2032	2201	2066	2108	2908.8
MEAN	41.3	14.5	13.8	9.82	40.6	37.2	47.7	65.5	73.4	66.6	68.0	97.0
MAX	77	24	21	16	54	41	75	70	104	81	78	346
MIN	4.2	11	10	7.2	31	35	23	64	67	64	64	8.8
AC-FT	2540	863	847	604	2340	2290	2840	4030	4370	4100	4180	5770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996#, BY WATER YEAR (WY)

MEAN	232	453	678	891	1281	1227	1011	820	861	431	207	111
MAX	728	2690	1946	2685	2687	2645	2669	2979	3209	3057	2349	482
(WY)	1995	1958	1958	1993	1993	1988	1990	1958	1958	1958	1958	1958
MIN	3.35	4.82	4.13	4.16	40.6	37.2	47.7	32.4	32.5	19.9	16.2	8.70
(WY)	1981	1989	1982	1981	1996	1996	1996	1992	1987	1980	1982	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1958 - 1996#	
ANNUAL TOTAL	287289.8		17525.0			
ANNUAL MEAN	787		47.9		683	
HIGHEST ANNUAL MEAN					1859	1958
LOWEST ANNUAL MEAN					47.9	1996
HIGHEST DAILY MEAN	2840	Jan 26	346	Sep 28	4500	May 20 1958
LOWEST DAILY MEAN	4.2	Oct 23	4.2	Oct 23	.00	Jul 26 1987
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 20	7.3	Oct 20	1.4	Oct 18 1979
INSTANTANEOUS PEAK FLOW			347	Sep 28	3220	Dec 29 1991
INSTANTANEOUS PEAK STAGE			9.30	Sep 28	19.97	Dec 29 1991
ANNUAL RUNOFF (AC-FT)	569800		34760		494700	
10 PERCENT EXCEEDS	2560		71		2520	
50 PERCENT EXCEEDS	61		52		170	
90 PERCENT EXCEEDS	12		11		22	

e Estimated
Period of regulated streamflow.

07346045 BLACK CYPRESS BAYOU AT JEFFERSON, TX

LOCATION.--Lat 32°46'40", long 94°21'26", Marion County, Hydrologic Unit 11140306 near center of channel at downstream side of bridge on U.S. Highway 59, 1.1 mi north of Jefferson, 2.0 mi upstream from Texas and Pacific Railway Co. bridge, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--365 mi².

PERIOD OF RECORD.--September 1968 to current year. May 1938 to September 1955 (daily gage heights) and November 1956 to August 1968 (daily gage heights and discharge measurements) published by U.S. Army Corps of Engineers as "Black Cypress Creek at Jefferson". September 1964 to August 1968 operated as low-flow partial-record station only.
Water-quality records.--Chemical analyses: October 1967 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is 171.47 ft above sea level (U.S. Army Corps of Engineers benchmark).

REMARKS.--Records good, except those for estimated daily discharges, which are fair. No known regulation or diversion in vicinity of the gage. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1938, 22.42 ft Apr. 29, 1958, from records by U.S. Army Corps of Engineers.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	9.3	18	76	86	50	128	224	80	32	62	231
2	9.0	13	18	93	84	54	125	166	159	27	56	317
3	15	13	18	105	82	64	121	131	77	e23	46	357
4	14	11	19	108	79	80	116	110	56	e19	39	348
5	9.8	11	19	117	77	89	133	92	73	e16	39	291
6	7.3	12	20	130	79	92	180	80	74	e13	34	208
7	5.5	17	20	132	84	89	191	73	87	e11	27	139
8	4.3	23	31	126	86	80	202	61	98	e10	e21	100
9	4.2	21	e65	118	87	70	253	49	82	e9.6	17	76
10	4.6	18	e65	109	87	65	291	41	81	e9.4	52	59
11	4.4	19	e58	102	87	60	288	44	125	e15	102	45
12	4.1	18	67	96	85	56	266	60	156	e14	93	35
13	3.8	24	74	91	81	54	236	58	205	e17	124	27
14	3.6	17	68	86	78	52	208	54	234	13	201	e20
15	3.2	15	61	81	75	51	192	63	221	20	244	e15
16	3.1	13	59	76	71	51	197	76	246	39	246	e13
17	3.0	14	55	72	65	50	215	98	290	35	212	11
18	2.9	14	75	83	62	68	209	118	321	42	155	11
19	2.9	14	105	97	60	106	185	121	284	54	108	12
20	2.9	15	111	95	59	115	161	112	214	50	79	24
21	2.8	15	104	96	58	129	140	99	166	39	61	167
22	2.8	15	115	114	55	184	128	80	134	27	58	161
23	3.0	17	124	131	54	225	132	61	105	20	47	108
24	3.1	17	119	144	51	234	116	47	78	19	39	215
25	3.3	19	109	134	49	222	101	36	62	30	32	353
26	3.5	19	96	122	48	199	92	29	54	23	26	378
27	5.0	20	84	119	49	176	84	22	46	24	22	449
28	7.4	20	73	115	51	159	78	e18	43	24	30	546
29	7.7	19	64	108	50	152	116	e14	40	23	86	579
30	7.8	18	61	99	---	141	234	e11	36	34	119	520
31	8.3	---	66	91	---	132	---	e8.8	---	48	141	---
TOTAL	169.9	490.3	2041	3266	2019	3349	5118	2256.8	3927	780.0	2618	5815
MEAN	5.48	16.3	65.8	105	69.6	108	171	72.8	131	25.2	84.5	194
MAX	15	24	124	144	87	234	291	224	321	54	246	579
MIN	2.8	9.3	18	72	48	50	78	8.8	36	9.4	17	11
AC-FT	337	973	4050	6480	4000	6640	10150	4480	7790	1550	5190	11530
CFSM	.02	.04	.18	.29	.19	.30	.47	.20	.36	.07	.23	.53
IN.	.02	.05	.21	.33	.21	.34	.52	.23	.40	.08	.27	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996, BY WATER YEAR (WY)

MEAN	79.1	262	544	513	617	699	588	472	292	93.7	46.6	56.1
MAX	415	1344	2157	1508	1612	1606	2006	1934	1321	576	623	581
(WY)	1974	1975	1988	1991	1975	1990	1973	1991	1974	1992	1979	1974
MIN	.009	13.6	62.1	99.0	69.6	108	109	50.8	4.68	.97	.060	.000
(WY)	1979	1984	1990	1971	1996	1996	1971	1984	1984	1978	1969	1969

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1969 - 1996	
ANNUAL TOTAL	137417.02		31850.0			
ANNUAL MEAN	376		87.0		354	
HIGHEST ANNUAL MEAN					647	1991
LOWEST ANNUAL MEAN					78.3	1971
HIGHEST DAILY MEAN	2720	May 11	579	Sep 29	10700	Dec 28 1987
LOWEST DAILY MEAN	.29	Aug 28	2.8	Oct 21	.00	Aug 10 1969
ANNUAL SEVEN-DAY MINIMUM	.40	Aug 24	2.9	Oct 17	.00	Aug 10 1969
INSTANTANEOUS PEAK FLOW			591	Sep 29	11600	Dec 28 1987
INSTANTANEOUS PEAK STAGE			10.61	Sep 29	19.34	Dec 28 1987
ANNUAL RUNOFF (AC-FT)	272600		63170		256300	
ANNUAL RUNOFF (CFSM)	1.03		.24		.97	
ANNUAL RUNOFF (INCHES)	14.01		3.25		13.17	
10 PERCENT EXCEEDS	1150		206		873	
50 PERCENT EXCEEDS	105		65		162	
90 PERCENT EXCEEDS	3.1		11		1.8	

e Estimated

07346050 LITTLE CYPRESS CREEK NEAR ORE CITY, TX

LOCATION.--Lat 32°40'21", long 94°45'03", Upshur County, Hydrologic Unit 11140307, on right bank at downstream side of bridge on U.S. Highway 259, 4 mi downstream from Clear Creek, 9 mi south of Ore City, and 12 mi north of Longview.

DRAINAGE AREA.--383 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 232.67 ft above sea level.

REMARKS.--Records poor. Major beaver dam activity during the water year 400 ft downstream of gage. No known diversions above station. During the year, the city of Gilmer discharged a small amount of wastewater effluent into tributary above this station. Several observations of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1902 occurred in March 1945; maximum stage since 1945, that of Apr. 24, 1966. The flood in April 1958 reached a stage of 19.4 ft, or 1.3 ft lower than the flood of March 1945 at a point 6 mi upstream, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	3.9	8.0	25	e51	44	e62	82	141	3.5	12	36
2	13	5.1	8.5	22	e52	e47	e57	51	737	1.5	13	29
3	12	5.2	8.7	20	e52	e48	54	32	669	1.6	16	34
4	26	4.8	7.4	22	e50	e49	53	27	294	.69	19	24
5	29	4.6	6.1	24	e48	e50	66	30	45	.33	22	18
6	23	4.8	5.8	27	e46	e48	168	33	17	.27	20	16
7	19	13	6.2	31	e46	e46	200	30	12	.41	19	18
8	18	19	5.6	34	46	44	156	27	11	.44	19	20
9	19	21	3.7	36	45	42	144	24	12	.36	20	23
10	22	21	4.4	38	44	41	127	21	12	.35	59	24
11	24	16	5.7	40	42	42	96	36	9.2	.38	83	24
12	23	12	6.9	42	40	44	69	110	8.3	1.0	75	22
13	21	12	9.4	43	40	44	65	128	6.9	2.1	50	23
14	20	12	12	45	39	44	67	155	5.9	3.0	29	23
15	19	11	13	47	37	46	61	199	9.5	14	22	20
16	18	12	13	48	37	46	53	198	7.8	21	20	17
17	16	13	11	49	37	52	45	191	7.7	21	18	14
18	15	12	10	42	36	68	40	132	8.2	19	18	11
19	15	11	7.5	33	36	71	35	66	9.3	13	18	9.7
20	14	11	9.2	35	36	69	e32	43	6.3	11	24	20
21	12	10	12	37	38	67	e30	32	6.0	6.7	21	147
22	10	10	15	40	41	64	29	25	4.4	2.0	20	180
23	8.7	11	19	45	40	59	37	21	1.9	.68	15	47
24	7.6	10	22	47	e37	56	47	19	1.2	.33	11	81
25	6.9	10	24	46	e36	60	41	20	1.1	.23	8.7	248
26	6.8	11	25	51	e38	61	37	28	1.1	.20	7.0	107
27	6.1	11	27	54	e41	59	30	29	17	1.5	11	50
28	5.2	9.7	28	e55	43	67	25	29	15	33	42	31
29	4.5	8.5	30	e45	44	71	48	31	13	22	61	11
30	3.9	8.0	29	e50	---	e67	113	25	9.5	14	50	4.9
31	3.4	---	28	e51	---	e63	---	21	---	11	45	---
TOTAL	455.1	323.6	421.1	1224	1218	1679	2087	1895	2099.3	206.57	867.7	1332.6
MEAN	14.7	10.8	13.6	39.5	42.0	54.2	69.6	61.1	70.0	6.66	28.0	44.4
MAX	29	21	30	55	52	71	200	199	737	33	83	248
MIN	3.4	3.9	3.7	20	36	41	25	19	1.1	.20	7.0	4.9
AC-FT	903	642	835	2430	2420	3330	4140	3760	4160	410	1720	2640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	55.0	189	375	354	458	549	560	463	204	67.0	24.7	56.9
MAX	412	1508	1965	1275	1321	1478	3007	1834	905	426	392	614
(WY)	1994	1975	1988	1991	1975	1987	1966	1968	1974	1992	1979	1974
MIN	.000	1.10	3.70	25.6	42.0	40.9	54.3	23.9	2.09	.005	.000	.000
(WY)	1964	1966	1990	1964	1996	1966	1971	1984	1971	1984	1984	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996	
ANNUAL TOTAL	99717.90		13808.97			
ANNUAL MEAN	273		37.7		283	
HIGHEST ANNUAL MEAN					599	1975
LOWEST ANNUAL MEAN					35.7	1964
HIGHEST DAILY MEAN	3410	May 11	737	Jun 2	21000	Apr 24 1966
LOWEST DAILY MEAN	.00	Sep 1	.20	Jul 26	.00	Aug 16 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 1	.36	Jul 5	.00	Aug 16 1963
INSTANTANEOUS PEAK FLOW			835	Jun 2	23500	Apr 24 1966
INSTANTANEOUS PEAK STAGE			9.00	Jun 2	20.20	Apr 24 1966
ANNUAL RUNOFF (AC-FT)	197800		27390		204900	
10 PERCENT EXCEEDS	893		66		751	
50 PERCENT EXCEEDS	59		24		69	
90 PERCENT EXCEEDS	4.4		5.2		.25	

e Estimated

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TX

LOCATION.--Lat 32°42'46", long 94°20'45", Harrison County, Hydrologic Unit 11140307, at downstream side of upstream bridge on U.S. Highway 59, 0.3 mi downstream from Texas and Pacific Railway Co. bridge, 3.3 mi downstream from Grays Creek, 3.5 mi south of Jefferson, and 6.8 mi upstream from mouth.

DRAINAGE AREA.--675 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 174.60 ft above sea level. Prior to Sept. 19, 1947, nonrecording gage at upstream side of bridge at same datum.

REMARKS.--Records good. There are no known diversions above station. Wastewater effluent is discharged into tributaries that enter Little Cypress Creek above this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1944 reached a stage of 21.1 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	e11	36	70	77	71	109	76	193	31	57	703
2	38	e12	38	86	84	71	111	111	673	26	41	518
3	27	e14	40	91	93	67	99	138	510	22	29	245
4	18	e17	42	94	94	64	92	128	320	18	22	141
5	18	e20	43	97	94	62	102	96	329	16	18	101
6	19	e22	48	97	95	62	163	67	366	12	15	87
7	19	e24	48	94	95	66	195	51	405	9.6	13	74
8	21	25	53	86	92	67	211	43	404	8.7	12	53
9	29	26	69	81	90	65	219	42	251	9.6	13	42
10	21	27	68	75	88	63	221	41	107	13	51	35
11	15	27	67	70	86	61	215	57	63	36	41	29
12	15	28	75	66	84	58	199	63	48	41	68	27
13	10	29	78	64	84	56	186	71	76	44	122	25
14	6.6	29	76	62	77	53	174	91	213	27	152	23
15	6.4	29	70	60	71	54	160	126	128	19	150	22
16	7.3	31	68	58	65	54	143	138	69	14	120	22
17	7.5	34	65	58	61	52	126	146	46	12	78	23
18	8.1	35	87	61	59	60	113	156	70	14	51	24
19	9.1	34	134	67	61	73	98	161	140	26	38	24
20	9.0	33	114	72	59	88	85	159	93	28	31	38
21	9.0	33	111	81	57	92	87	142	62	26	25	445
22	8.9	33	110	96	56	101	98	100	47	21	23	652
23	9.0	34	103	105	55	106	117	63	33	16	21	483
24	9.5	36	89	135	53	103	134	44	24	14	22	467
25	9.4	36	77	141	52	98	125	33	19	33	23	622
26	e9.9	36	66	138	52	95	103	26	31	35	21	637
27	e10	36	60	118	55	88	86	20	58	43	22	926
28	e10	36	55	101	65	86	74	17	34	34	37	1370
29	e9.8	36	54	93	66	95	67	14	21	38	279	1320
30	e9.6	35	54	86	---	108	70	12	19	50	486	1100
31	e10	---	60	81	---	109	---	13	---	61	664	---
TOTAL	424.1	858	2158	2684	2120	2348	3982	2445	4852	797.9	2745	10278
MEAN	13.7	28.6	69.6	86.6	73.1	75.7	133	78.9	162	25.7	88.5	343
MAX	38	36	134	141	95	109	221	161	673	61	664	1370
MIN	6.4	11	36	58	52	52	67	12	19	8.7	12	22
AC-FT	841	1700	4280	5320	4210	4660	7900	4850	9620	1580	5440	20390
CFSM	.02	.04	.10	.13	.11	.11	.20	.12	.24	.04	.13	.51
IN.	.02	.05	.12	.15	.12	.13	.22	.13	.27	.04	.15	.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1996, BY WATER YEAR (WY)

MEAN	111	311	647	722	894	977	1016	1005	454	130	48.1	103
MAX	927	2709	3391	2664	2853	2367	4584	4212	2525	689	667	941
(WY)	1950	1958	1961	1991	1950	1969	1966	1958	1946	1992	1979	1979
MIN	.000	.017	.53	8.33	73.1	75.7	117	61.6	4.67	.24	.000	.000
(WY)	1953	1957	1957	1957	1996	1996	1972	1971	1971	1964	1956	1952

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1946 - 1996	
ANNUAL TOTAL	195136.0		35692.0			
ANNUAL MEAN	535		97.5		530	
HIGHEST ANNUAL MEAN					1260	1958
LOWEST ANNUAL MEAN					67.3	1964
HIGHEST DAILY MEAN	3240	Apr 24	1370	Sep 28	32700	Apr 26 1966
LOWEST DAILY MEAN	2.3	Sep 11	6.4	Oct 15	.00	Sep 20 1948
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 6	7.7	Oct 14	.00	Sep 20 1948
INSTANTANEOUS PEAK FLOW			1440	Sep 28	35500	Apr 26 1966
INSTANTANEOUS PEAK STAGE			10.29	Sep 28	22.28	Apr 26 1966
ANNUAL RUNOFF (AC-FT)	387100		70800		383700	
ANNUAL RUNOFF (CFSM)	.79		.14		.78	
ANNUAL RUNOFF (INCHES)	10.75		1.97		10.66	
10 PERCENT EXCEEDS	1760		160		1370	
50 PERCENT EXCEEDS	132		61		173	
90 PERCENT EXCEEDS	6.7		14		1.5	

e Estimated

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: June 1964 to current year. Pesticide analyses: January 1968 to June 1981.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1990.
WATER TEMPERATURE: October 1967 to September 1990.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,350 microsiemens Nov. 9, 1969; minimum, 20 microsiemens Mar. 29, 30, 1989.
WATER TEMPERATURE (water years 1967-87, 1989-90): Maximum, 32.5°C on several days during July and August 1987; minimum, 0.0°C on several days during winter months of 1983, 1985.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
04...	1420	19	120	6.8	24.0	7.0	85	1.2	24	5	5.5
DEC											
07...	1040	21	160	8.1	11.0	7.0	63	0.8	30	2	6.8
JAN											
31...	1335	80	144	7.6	8.0	10.4	87	0.2	22	9	5.1
MAR											
27...	1550	86	171	7.4	3.0	9.2	69	0.8	24	1	5.3
MAY											
09...	1515	42	175	7.0	25.0	5.6	68	0.6	31	6	7.0
JUN											
25...	1600	33	164	6.7	28.5	2.3	30	2.5	32	4	7.6

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
04...	2.5	9.1	0.8	4.0	19	15	12	<0.10	13	73
DEC										
07...	3.2	15	1	5.5	28	14	18	0.10	16	95
JAN										
31...	2.3	16	1	3.3	13	15	23	<0.10	16	90
MAR										
27...	2.6	21	2	3.5	23	14	24	0.10	12	96
MAY										
09...	3.2	18	1	3.9	25	14	26	0.10	18	107
JUN										
25...	3.1	15	1	4.6	28	9.7	22	0.10	18	99

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
04...	0.120	--	<0.010	0.120	0.120	0.030	0.37	0.40	0.030	0.020
DEC										
07...	--	--	<0.010	--	<0.050	<0.015	--	0.30	<0.010	0.010
JAN										
31...	--	--	<0.010	--	<0.050	<0.015	--	0.30	0.040	0.020
MAR										
27...	--	--	<0.010	--	<0.050	<0.015	--	0.40	0.060	0.050
MAY										
09...	0.250	0.250	0.010	0.260	0.260	0.080	0.42	0.50	0.060	0.050
JUN										
25...	0.180	0.180	0.020	0.200	0.200	0.060	0.44	0.50	0.020	0.020

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT										
04...	0.06	--	--	--	--	--	--	--	--	--
DEC										
07...	0.03	--	--	--	--	--	--	--	--	--
JAN										
31...	0.06	<1	48	<0.50	<1.0	<5.0	6.0	<10	760	<10
MAR										
27...	0.15	--	--	--	--	--	--	--	--	--
MAY										
09...	0.15	--	--	--	--	--	--	--	--	--
JUN										
25...	0.06	<1	89	<0.50	<1.0	<5.0	<3.0	<10	320	<10

07346070 LITTLE CYPRESS CREEK NEAR JEFFERSON, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
07...	--	--	--	--	--	--	--	--	--	--
JAN										
31...	14	37	<0.1	<10	<10	<1	<1.0	100	<6	<3.0
MAR										
27...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	--	--	--	--	--	--	--	--	--
JUN										
25...	8	760	<0.1	<10	<10	<1	<1.0	150	<6	17

SABINE RIVER MAIN STEM

08017200 COWLEECH FORK SABINE RIVER AT GREENVILLE, TX

LOCATION.--Lat 33°07'58", long 96°04'36", Hunt County, Hydrologic Unit 12010001, on left bank 103 ft downstream from centerline of downstream bridge on Interstate Highway 30 (U.S. Highway 67), 0.3 mi downstream from Horse Creek, 0.9 mi downstream from Louisiana and Arkansas Railroad Co. bridge, 1.8 mi east of Greenville, and at mile 558.3.

DRAINAGE AREA.--77.7 mi².

PERIOD OF RECORD.--February 1959 to current year. Prior to October 1963, published as Sabine River at Greenville.

REVISED RECORDS.--WSP 1732: Drainage area. WSP 2122: 1960, 1963-65.

GAGE.--Water-stage recorder. Datum of gage is 485.07 ft above sea level.

REMARKS.--No estimated daily discharges. Records poor. The city of Greenville diverted water from city lakes upstream from gage and from Lake Tawakoni for municipal use. Wastewater effluent was returned to a tributary downstream from gage. Extreme low flows are largely sustained by return water from a water treatment plant upstream. Several observations of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1895, 22 ft in May 1935, from information by local resident and city engineer of Greenville. Flood of July 3, 1913, reached a stage of 20 ft, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
No peak greater than base discharge.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.39	.00	1.6	.18	.14	.24	.02	1.3	.00	4.5	.65
2	.00	.09	.00	2.5	.19	.11	.14	.02	.21	.00	.21	.20
3	.00	.04	.00	.85	.26	.10	.07	.02	.05	.00	.09	.12
4	.01	.07	.00	.59	.33	.09	2.5	.02	.00	.00	.04	.09
5	.01	.05	.00	.51	.36	.10	11	.01	.00	.00	.01	.07
6	.00	.04	.00	.46	.34	.09	31	.02	.00	.00	.00	.03
7	.00	.03	.00	.43	.34	.07	9.5	.03	.00	.00	.00	.02
8	.00	.02	.55	.41	.36	.06	1.7	.01	.00	.00	.00	.01
9	.00	.01	.38	.44	.30	.06	.69	.01	.00	.00	.00	.00
10	.00	.01	.17	.45	.26	.06	.39	.01	.00	.00	.00	.00
11	.00	.00	.12	.45	.22	.06	.22	282	.00	.00	.77	.00
12	.00	.00	.06	.48	.19	.06	.14	29	.00	.00	.14	.00
13	.00	.00	.04	.47	.17	.06	.19	3.0	.00	.00	.09	.00
14	.00	.00	.04	.46	.15	.06	.17	1.3	.00	1.3	.08	.00
15	.00	.00	.03	.46	.15	.06	.23	.72	.02	.08	.06	.09
16	.00	.00	.02	.49	.14	.06	.12	.41	3.2	.02	.04	.16
17	.00	.00	1.3	.54	.14	.06	.09	.27	2.2	.00	.02	.11
18	.00	.00	2.6	3.0	.14	3.4	.05	.12	.14	.00	.69	.66
19	.00	.00	1.2	.46	.15	.59	1.9	.07	.03	.00	.53	75
20	.00	.00	.62	.23	.15	.19	1.0	.04	.00	.00	.12	230
21	.00	.00	.44	.21	.16	.09	.20	.02	.00	.00	.02	17
22	.00	.00	.42	.20	.19	.06	2.0	.01	.00	.00	.00	2.7
23	.00	.00	.41	.19	.17	.06	.67	.00	.00	.00	.00	.38
24	.00	.00	.41	.20	.17	.06	.21	.00	.00	.00	.00	.23
25	.00	.00	.41	.19	.17	.39	.12	.00	.00	.00	.00	.15
26	.00	.00	.45	.19	.17	.16	.07	.00	.00	.00	.00	.94
27	.00	.00	.43	.18	.23	.93	.04	.00	.00	.01	.00	.60
28	.00	.00	.41	.18	.34	3.0	.03	.00	.00	.00	41	.33
29	.00	.00	.39	.19	.22	1.0	.02	.00	.00	.00	145	.14
30	.00	.00	.46	.19	---	2.8	.02	.00	.00	.03	40	.09
31	.00	---	.57	.18	---	.78	---	.00	---	34	3.3	---
TOTAL	0.02	0.75	11.93	17.38	6.34	14.81	64.72	317.13	7.15	35.44	236.71	329.77
MEAN	.001	.025	.38	.56	.22	.48	2.16	10.2	.24	1.14	7.64	11.0
MAX	.01	.39	2.6	3.0	.36	3.4	31	282	3.2	34	145	230
MIN	.00	.00	.00	.18	.14	.06	.02	.00	.00	.00	.00	.00
AC-FT	.04	1.5	24	34	13	29	128	629	14	70	470	654
CFSM	.00	.00	.00	.01	.00	.01	.03	.13	.00	.01	.10	.14
IN.	.00	.00	.01	.01	.00	.01	.03	.15	.00	.02	.11	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

MEAN	55.9	49.5	92.0	56.1	80.1	94.4	95.6	145	60.6	24.1	6.07	30.3
MAX	354	344	573	193	273	390	431	540	353	264	95.2	258
(WY)	1972	1995	1972	1969	1970	1984	1966	1982	1981	1989	1977	1974
MIN	.001	.025	.11	.24	.22	.48	.85	.33	.032	.023	.000	.012
(WY)	1996	1996	1990	1986	1996	1996	1971	1988	1988	1991	1985	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1996	
ANNUAL TOTAL	34746.92		1042.15			
ANNUAL MEAN	95.2		2.85		66.6	
HIGHEST ANNUAL MEAN					146	1995
LOWEST ANNUAL MEAN					2.85	1996
HIGHEST DAILY MEAN	4240	May 6	282	May 11	9730	May 13 1982
LOWEST DAILY MEAN	.00	Aug 15	.00	Oct 1	.00	Aug 4 1964
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 2	.00	Oct 6	.00	Aug 4 1972
INSTANTANEOUS PEAK FLOW			679	Sep 19	15300	May 13 1982
INSTANTANEOUS PEAK STAGE			13.46	Sep 19	18.47	May 13 1982
ANNUAL RUNOFF (AC-FT)	68920		2070		48250	
ANNUAL RUNOFF (CFSM)	1.23		.037		.86	
ANNUAL RUNOFF (INCHES)	16.64		.50		11.65	
10 PERCENT EXCEEDS	59		.96		53	
50 PERCENT EXCEEDS	.55		.06		1.4	
90 PERCENT EXCEEDS	.00		.00		.04	

08017300 SOUTH FORK SABINE RIVER NEAR QUINLAN, TX

LOCATION.--Lat 32°53'52", long 96°15'11", Hunt County, Hydrologic Unit 12010001, on right bank at downstream side of bridge on Farm Road 1565, 2.4 mi upstream from Dry Creek, 6.2 mi upstream from Bearpen Creek, 7 mi southwest of Quinlan, and 25 mi upstream from mouth.

DRAINAGE AREA.--78.7 mi².

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

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 461.40 ft above sea level.

REMARKS.--Records fair. Wastewater effluent was discharged by Royse City into the river above this station during the water year. Several observations of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1890, 21 ft July 29, 1902, from information by local resident. Flood of Apr. 27, 1957, reached a stage of 17.76 ft, from floodmarks.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.18	2.3	4.7	4.9	.83	2.6	1.5	.06	.85	.35	57	7.6
2	e.11	3.0	5.4	12	.88	2.7	1.2	.15	2.1	.26	8.2	5.4
3	e.07	1.8	5.8	7.3	.84	3.4	1.1	.29	2.2	.20	2.4	1.4
4	e.03	1.5	5.9	2.7	.75	2.6	1.3	.22	2.7	.12	.46	.39
5	e.33	1.4	5.7	2.0	.76	2.8	33	.20	2.3	.07	.22	.21
6	.29	1.8	5.8	1.8	.88	2.8	132	.31	2.4	.03	.17	.18
7	.20	2.2	6.2	1.9	.96	2.6	26	.33	5.0	.01	.37	.15
8	.18	3.2	6.5	1.9	.97	2.5	7.4	.37	3.5	.00	.28	.14
9	.30	2.6	6.2	1.8	.87	2.7	3.2	.36	1.8	.00	.24	.12
10	.38	2.5	6.4	1.9	.72	3.2	2.0	.38	2.7	.00	.23	.07
11	.42	2.4	6.6	2.1	.67	3.2	1.3	27	5.5	.00	.13	.02
12	.33	2.5	6.7	1.8	.59	3.1	.82	25	4.0	.00	.20	.00
13	.29	2.5	6.8	1.6	.51	2.8	.55	2.2	2.8	.03	.15	.01
14	.28	2.5	6.8	1.7	.58	2.8	.44	84	1.5	.95	.12	.09
15	.26	2.8	6.6	1.8	.72	1.9	.35	14	12	1.4	.14	.64
16	.30	2.6	6.3	2.0	.59	1.8	.34	2.7	14	.88	.17	.20
17	.22	2.3	6.7	1.7	.59	1.5	.37	1.3	3.1	.48	.15	.17
18	.23	2.8	7.0	4.9	.64	2.1	.36	.99	1.3	.36	.23	.22
19	.27	3.3	11	4.2	.85	1.8	.49	.68	.65	.24	.28	.45
20	.28	3.6	6.4	1.4	.82	2.3	21	.47	.32	.33	.24	.60
21	.27	3.7	3.8	.96	1.1	1.9	4.5	.26	.18	.24	.23	.40
22	.25	3.9	5.0	.91	1.5	2.0	1.3	.22	.11	.18	.24	.42
23	.20	4.0	4.9	.91	2.3	1.6	17	.15	.16	.81	.23	.28
24	.27	4.0	4.7	.84	1.1	1.8	3.4	.20	.32	6.3	.15	.25
25	.60	4.2	4.7	.84	1.1	2.5	.83	.37	.41	.76	.14	.34
26	1.1	4.3	4.7	.81	1.1	3.4	.41	.25	.74	.13	.16	.33
27	1.1	4.3	4.6	.88	1.2	2.5	.15	.26	.83	15	.20	.51
28	1.2	4.3	4.5	.93	2.0	7.7	.12	.33	.84	2.2	1.4	1.1
29	1.2	4.7	4.4	.99	2.3	5.4	.10	.26	.73	.23	19	.76
30	1.0	4.8	4.3	.97	---	2.4	.07	.12	.54	.04	36	.43
31	1.3	---	4.3	.86	---	2.1	---	.36	---	43	6.2	---
TOTAL	13.44	91.8	179.4	71.30	28.72	84.5	262.60	163.79	75.58	74.60	135.33	22.88
MEAN	.43	3.06	5.79	2.30	.99	2.73	8.75	5.28	2.52	2.41	4.37	.76
MAX	1.3	4.8	11	12	2.3	7.7	132	84	14	43	57	7.6
MIN	.03	1.4	3.8	.81	.51	1.5	.07	.06	.11	.00	.12	.00
AC-FT	27	182	356	141	57	168	521	325	150	148	268	45
CFSM	.01	.04	.07	.03	.01	.03	.11	.07	.03	.03	.06	.01
IN.	.01	.04	.08	.03	.01	.04	.12	.08	.04	.04	.06	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

MEAN	102	58.5	96.7	61.4	107	107	123	152	90.7	30.0	5.26	26.8
MAX	656	655	459	277	556	572	693	674	1128	490	96.8	353
(WY)	1982	1995	1972	1974	1983	1977	1966	1979	1981	1981	1974	1974
MIN	.000	.000	.000	.000	.000	.11	.062	.038	.000	.000	.000	.000
(WY)	1964	1964	1964	1976	1976	1972	1971	1988	1977	1964	1965	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1996	
ANNUAL TOTAL	31400.60		1203.94			
ANNUAL MEAN	86.0		3.29		80.9	
HIGHEST ANNUAL MEAN					187	1995
LOWEST ANNUAL MEAN					3.29	1996
HIGHEST DAILY MEAN	6140	May 8	132	Apr 6	13300	Jun 16 1981
LOWEST DAILY MEAN	.00	May 21	.00	Jul 8	.00	Mar 3 1959
ANNUAL SEVEN-DAY MINIMUM	.00	May 21	.01	Jul 6	.00	Apr 5 1959
INSTANTANEOUS PEAK FLOW			191	Apr 6	23000	Jun 16 1981
INSTANTANEOUS PEAK STAGE			10.89	Apr 6	18.77	Apr 5 1986
ANNUAL RUNOFF (AC-FT)	62280		2390		58600	
ANNUAL RUNOFF (CFSM)	1.09		.042		1.03	
ANNUAL RUNOFF (INCHES)	14.84		.57		13.97	
10 PERCENT EXCEEDS	68		6.2		55	
50 PERCENT EXCEEDS	1.5		1.0		.38	
90 PERCENT EXCEEDS	.00		.15		.00	

e Estimated

08017400 LAKE TAWAKONI NEAR WILLS POINT, TX

LOCATION.--Lat 32°48'31", long 95°55'10", Rains County, Hydrologic Unit 12010001, in stairwell at left end of spillway of Iron Bridge Dam on Sabine River, 750 ft upstream from bridge on Farm Road 47, 3.8 mi upstream from McBee Creek, 9.0 mi northeast of Wills Point, and at mile 514.5.

DRAINAGE AREA.--756 mi².

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

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

REMARKS.--The lake is formed by a rolled earthfill dam 29,500 ft long, including a 480-foot uncontrolled concrete ogee spillway. Outlet works consist of two 4- by 6-foot sluice gates and two 20-inch 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 a 1984 survey. Diversions are made for municipal use by the city of Dallas and various other users in the Sabine River basin. The lake was built for water conservation. Figures given herein represent total contents. Gage-height telemeter at station. 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	947,700
Lowest intake to wet well (invert)	416.5	335,600
Lowest gated outlet (invert)	378.0	0

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,130,000 acre-ft May 1, 1966 (elevation, 442.58 ft); minimum since lake first filled in May 1965, 802,700 acre-ft Oct. 21, 1972 (elevation, 433.65 ft) using Capacity Table 1-C.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 868,100 acre-ft Oct. 5 at 2200 hours (elevation, 435.65 ft); minimum daily, 664,800 acre-ft Sept. 30 (elevation, 429.60 ft).

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

429.0	647,500	435.0	839,500	441.0	1,087,000
431.0	710,600	437.0	927,400	443.0	1,166,000
433.0	775,000	439.0	1,008,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	866300	837500	816900	814300	798200	783700	769200	766000	757600	729300	708500	685300
2	865400	838500	815900	812700	798500	783100	768900	765700	756600	728000	707500	684200
3	865900	835900	816900	809800	797600	782100	768900	764400	755700	726700	705800	683900
4	863700	834600	815600	810800	795300	781400	770500	764700	754700	724400	704800	683200
5	865900	833700	815600	812400	795000	782400	775300	764700	752100	724100	703400	682500
6	863200	832400	814300	809500	794700	787300	775300	764400	751500	722500	702400	681800
7	860100	834000	812400	806600	794700	782700	775600	763700	752800	721200	701300	680800
8	858400	832100	818800	806600	794700	780800	775300	763100	751200	720200	701000	679800
9	858400	830800	814000	806000	794300	778900	775000	762800	749600	718300	699300	678800
10	857100	836900	810800	807900	796900	777900	774000	762400	749200	717000	698600	677400
11	856600	830100	811800	806000	793700	777300	773100	769800	748600	716100	694800	676400
12	856200	828200	810800	805300	792700	776900	775600	771500	748000	717000	697200	675500
13	858800	829200	811400	804000	792700	776600	773100	772700	746700	717000	695200	674600
14	853100	827500	811400	804300	793100	775600	775300	772700	746000	719300	693800	673800
15	852200	827500	812100	804300	796000	776300	772400	772400	746300	718300	692100	673800
16	850500	825900	811100	802700	790200	776000	771100	771500	745400	716700	691400	673500
17	849100	825600	813400	814300	789500	775300	769200	770500	745100	715700	690000	671700
18	848300	825300	816300	805300	788200	776300	770500	769500	743400	714400	689700	672300
19	852200	825000	814000	803400	788900	776300	772100	768200	743100	713800	689400	672300
20	844700	825300	812400	803400	788500	774000	770800	767600	741500	712500	687600	672600
21	841200	824000	812100	802700	788500	772400	769200	767600	740200	710900	686600	671200
22	840400	822700	811800	802400	787300	772100	774400	765700	738900	709600	686300	669400
23	842500	823000	810800	803100	787600	769800	771800	763400	736400	708500	685300	668900
24	839500	821400	810100	801400	786600	772100	769200	762800	736400	707500	684600	671400
25	838200	820800	809800	801100	785600	772100	770800	761200	734700	706100	685300	670300
26	837900	819200	809200	801800	786000	769800	769500	759900	735100	705800	684200	670600
27	837500	821100	809500	800200	787900	771500	766900	759500	734100	706100	683500	669100
28	835900	818500	807600	799500	786900	770500	770200	759500	732800	705100	684900	667100
29	834300	817600	807200	800200	784700	770200	767600	757600	731200	704100	686300	665400
30	833700	816900	807600	801100	---	771500	766000	755000	730600	703700	686300	664800
31	834000	---	807900	798500	---	769800	---	755700	---	707800	685600	---
MAX	866300	838500	818800	814300	798500	787300	775600	772700	757600	729300	708500	685300
MIN	833700	816900	807200	798500	784700	769800	766000	755000	730600	703700	683500	664800
(+)	434.83	434.30	434.02	433.73	433.30	432.84	432.72	432.40	431.62	430.92	430.27	429.60
(@)	-31860	-17100	-9000	-9400	-13800	-14900	-3800	-10300	-25100	-22800	-22200	-20800

CAL YR 1995 MAX 1065000 MIN 807200 (@) -150360
WTR YR 1996 MAX 866300 MIN 664800 (@) -201060

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08017410 SABINE RIVER NEAR WILLS POINT, TX

LOCATION.--Lat 32°48'22", long 95°55'09", Van Zandt County, Hydrologic Unit 12010001, on right bank at downstream side of bridge on Farm Road 47, 750 ft downstream from Iron Bridge Dam that forms Lake Tawakoni, 3.6 mi upstream from McBee Creek, 9.0 mi northeast of Wills Point, and at mile 514.3.

DRAINAGE AREA.--756 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 370.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Tawakoni (see station 08017400) 750 ft upstream. Several observations of water temperature were obtained during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since construction of Iron Bridge Dam in 1960, about 21,000 ft³/s May 1, 1966, from theoretical rating curve of flow over dam 750 ft upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	4.1	1.5	.24	4.6	.28	4.4	3.2	6.5	2.8	2.3	4.4
2	4.6	3.9	1.6	.95	4.5	.20	4.4	3.2	6.6	2.4	1.4	4.4
3	3.0	4.0	1.6	.10	4.6	.15	4.4	3.2	6.8	2.5	1.8	5.0
4	2.7	2.3	1.6	1.1	4.5	.14	4.4	3.2	6.2	2.7	1.7	5.1
5	5.8	2.3	1.8	2.1	4.5	.21	5.1	3.3	6.5	2.9	1.6	3.3
6	4.4	2.3	1.9	1.9	4.5	3.5	5.1	3.2	5.7	3.1	1.6	3.2
7	2.2	2.6	1.9	1.8	4.6	4.7	4.2	3.3	3.1	3.3	1.7	3.9
8	2.4	2.6	2.2	1.7	4.4	4.1	3.1	3.2	2.5	3.6	1.5	3.8
9	2.6	2.7	3.1	1.7	4.2	4.1	3.4	3.3	5.9	3.5	1.9	4.0
10	2.5	4.6	1.8	1.8	4.3	4.1	3.3	3.2	5.1	3.5	2.2	4.6
11	2.4	19	1.8	1.8	4.3	4.1	3.3	3.9	4.7	3.4	2.2	5.1
12	2.7	.48	1.8	1.8	4.2	4.2	3.3	5.0	4.2	3.8	1.9	5.9
13	2.7	.49	1.9	1.7	4.2	3.7	3.3	5.3	4.5	3.3	2.2	6.7
14	4.3	.61	1.7	1.6	4.3	3.9	3.3	5.7	4.6	4.0	2.1	7.4
15	3.2	.63	1.8	1.6	4.6	4.0	3.3	6.0	5.2	3.4	2.3	8.5
16	3.0	.73	1.6	1.6	4.2	4.0	3.3	6.3	5.1	3.4	2.4	9.4
17	3.0	.95	1.5	1.7	4.2	4.3	3.3	6.4	5.4	3.2	2.5	11
18	2.9	.86	1.5	14	4.3	5.2	3.3	6.3	6.0	3.1	2.9	11
19	3.6	.89	2.1	4.9	4.2	3.7	3.3	6.4	5.7	3.2	2.5	11
20	6.2	.93	1.2	4.2	4.2	3.7	3.3	6.4	6.5	2.9	2.4	11
21	2.2	1.1	1.1	4.2	4.5	3.7	3.3	6.4	7.0	3.0	2.9	10
22	2.1	1.1	1.1	4.4	4.4	3.9	3.3	6.7	7.1	3.0	3.4	10
23	2.5	1.3	.98	4.4	4.7	4.2	3.3	7.5	6.9	3.2	3.6	10
24	2.8	1.3	.75	4.4	4.5	4.2	3.3	7.3	6.2	3.3	3.7	7.9
25	2.9	1.2	.75	4.5	4.4	3.9	3.2	7.4	6.0	3.1	4.0	1.7
26	2.9	1.3	.75	4.7	4.4	4.1	3.3	6.4	6.6	3.2	3.3	1.5
27	3.3	1.4	.48	4.4	4.5	4.5	3.2	6.4	6.7	3.0	3.4	1.3
28	3.4	1.5	.04	4.5	4.8	4.5	3.2	7.0	6.6	2.6	4.6	1.1
29	3.5	1.3	.03	4.5	2.1	4.6	3.3	7.1	5.9	2.9	4.7	.88
30	3.5	1.3	.04	4.6	---	4.6	3.2	6.9	3.0	3.0	3.3	1.0
31	3.6	---	.03	4.6	---	4.4	---	6.7	---	4.7	4.0	---
TOTAL	99.1	69.77	41.95	97.49	125.7	108.88	107.4	165.8	168.8	99.0	82.0	174.08
MEAN	3.20	2.33	1.35	3.14	4.33	3.51	3.58	5.35	5.63	3.19	2.65	5.80
MAX	6.2	19	3.1	14	4.8	5.2	5.1	7.5	7.1	4.7	4.7	11
MIN	2.1	.48	.03	.10	2.1	.14	3.1	3.2	2.5	2.4	1.4	.88
AC-FT	197	138	83	193	249	216	213	329	335	196	163	345

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996#, BY WATER YEAR (WY)

MEAN	215	413	518	313	516	659	690	969	620	191	36.3	53.0
MAX	1726	2539	3377	1606	2482	1911	2090	3888	2825	1229	332	868
(WY)	1974	1975	1992	1995	1975	1990	1986	1990	1989	1981	1979	1974
MIN	.21	.76	.16	3.14	1.87	2.84	1.31	5.35	.81	.56	.12	.25
(WY)	1991	1979	1991	1996	1976	1976	1971	1996	1972	1972	1986	1987

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1971 - 1996#	
ANNUAL TOTAL	226854.22		1339.97			
ANNUAL MEAN	622		3.66		432	
HIGHEST ANNUAL MEAN					1064	1992
LOWEST ANNUAL MEAN					3.66	1996
HIGHEST DAILY MEAN	8640	May 10	19	Nov 11	20000	May 4 1990
LOWEST DAILY MEAN	.03	Dec 29	.03	Dec 29	.00	Oct 1 1971
ANNUAL SEVEN-DAY MINIMUM	.30	Dec 25	.20	Dec 28	.00	Oct 6 1971
INSTANTANEOUS PEAK FLOW			70	Nov 11	20600	May 4 1990
INSTANTANEOUS PEAK STAGE			3.01	Nov 11	19.11	May 4 1990
ANNUAL RUNOFF (AC-FT)	450000		2660		313000	
10 PERCENT EXCEEDS	2030		6.4		1340	
50 PERCENT EXCEEDS	39		3.3		22	
90 PERCENT EXCEEDS	1.6		1.3		.25	

Period of regulated streamflow.

08018500 SABINE RIVER NEAR MINEOLA, TX

LOCATION.--Lat 32°36'49", long 95°29'08", Wood County, Hydrologic Unit 12010001, on left bank at downstream side of highway embankment 3 ft downstream from left end of bridge on U.S. Highway 69, 3.5 mi south of Mineola, 4.5 mi upstream from Missouri Pacific Railway Lines bridge, 16.2 mi upstream from Lake Fork Creek, and at mile 461.1.

DRAINAGE AREA.--1,357 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1939 to September 1959, October 1967 to current year. Gage-height records collected at this site since July 1946 are contained in reports published by the National Weather Service.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 304.16 ft above sea level. May 12, 1939, to Dec. 11, 1955, at site 55 ft 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; Sept. 13, 1968, to Oct. 23, 1974, water-stage recorder at downstream side of bridge; Oct. 24, 1974, to Oct. 16, 1975, at site on right bank 75 ft downstream from bridge. All gages at present datum.

REMARKS.--No estimated daily discharges. Records good. Since October 1960, flow partly regulated by Lake Tawakoni (see station 08017400), capacity 936,200 acre-ft, 53 mi upstream, and since September 1962, by Lake Holbrook (capacity, 7,990 acre-ft), located on Keys Creek, a tributary to the Sabine River 8.0 mi upstream. Flow may also be slightly affected at times by discharge from one floodwater-retarding structure with a detention capacity of 3,570 acre-ft. This structure controls runoff from a 9.70 mi² area in the Mill Creek drainage basin. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--20 years (water years 1940-59) prior to regulation by Lake Tawakoni, (station 08017400) 1,054 ft³/s (763,600 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1940-59).--Maximum discharge 76,000 ft³/s Apr. 1, 1945 (gage height, 24.00 ft); maximum gage height, 24.37 ft June 8, 1943; no flow at times.
Maximum stage since at least 1890, that of June 8, 1943.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	31	33	34	19	30	34	22	15	18	21	40
2	11	33	34	44	20	34	32	19	25	15	20	41
3	10	35	36	40	21	28	29	17	18	12	15	33
4	14	42	36	36	21	25	28	15	17	9.4	17	22
5	14	42	36	37	20	25	69	14	16	7.9	13	14
6	8.1	38	37	40	22	25	177	14	15	6.7	9.8	9.8
7	7.2	36	38	39	23	23	223	15	13	5.2	7.4	7.3
8	7.0	35	41	34	23	21	175	14	11	3.9	7.0	5.4
9	6.8	33	52	33	24	19	109	13	10	3.5	7.5	4.8
10	7.3	35	43	32	24	18	68	13	9.8	3.4	6.3	6.9
11	7.6	36	38	32	23	18	45	80	9.8	4.0	7.4	5.5
12	8.7	37	38	32	21	19	34	422	9.2	4.9	17	4.3
13	8.9	36	37	31	19	19	29	473	13	6.0	11	3.1
14	8.4	36	35	31	19	19	27	301	32	8.8	9.9	2.7
15	8.0	45	34	32	19	19	24	191	18	10	11	2.7
16	7.6	43	37	33	20	23	21	152	14	15	9.0	4.8
17	8.0	39	38	33	19	24	20	75	11	13	7.0	5.6
18	9.0	38	40	38	18	33	21	40	9.0	12	5.8	7.8
19	11	35	46	42	18	42	20	27	7.4	11	4.9	9.3
20	11	34	42	37	18	36	18	20	10	8.9	5.0	27
21	13	33	38	32	19	29	17	16	17	7.0	5.8	41
22	15	31	36	42	19	27	16	13	12	5.6	6.1	37
23	17	30	32	35	19	28	25	12	8.8	6.2	4.3	25
24	20	31	29	33	19	27	28	11	6.9	21	3.7	80
25	20	32	29	29	19	29	37	11	8.6	26	3.4	223
26	22	32	29	26	19	28	33	11	17	13	4.2	220
27	24	34	28	23	20	28	25	11	16	18	8.7	150
28	27	33	29	21	22	42	21	10	15	27	21	72
29	28	32	28	21	23	50	22	11	14	24	25	37
30	28	33	31	20	---	42	25	11	15	16	42	24
31	29	---	33	20	---	37	---	11	---	15	41	---
TOTAL	427.6	1060	1113	1012	590	867	1452	2065	413.5	357.4	377.2	1166.0
MEAN	13.8	35.3	35.9	32.6	20.3	28.0	48.4	66.6	13.8	11.5	12.2	38.9
MAX	29	45	52	44	24	50	223	473	32	27	42	223
MIN	6.8	30	28	20	18	18	16	10	6.9	3.4	3.4	2.7
AC-FT	848	2100	2210	2010	1170	1720	2880	4100	820	709	748	2310

08018500 SABINE RIVER NEAR MINEOLA, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996#, BY WATER YEAR (WY)

MEAN	301	839	1199	842	1256	1571	1343	2135	1037	285	60.0	65.6
MAX	2158	5296	5873	3174	4334	4175	4086	6934	4083	1626	419	616
(WY)	1974	1975	1992	1995	1975	1969	1990	1968	1973	1992	1979	1974
MIN	3.42	9.88	10.9	28.8	20.3	28.0	31.8	29.6	5.72	4.87	.071	.048
(WY)	1988	1990	1990	1981	1996	1996	1971	1988	1971	1969	1987	1987

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996#	
ANNUAL TOTAL	448318.5		10900.7			
ANNUAL MEAN	1228		29.8		910	
HIGHEST ANNUAL MEAN					1904	1968
LOWEST ANNUAL MEAN					29.8	1996
HIGHEST DAILY MEAN	14400	May 11	473	May 13	36200	Dec 11 1971
LOWEST DAILY MEAN	6.8	Oct 9	2.7	Sep 14	.00	Aug 13 1970
ANNUAL SEVEN-DAY MINIMUM	7.5	Oct 6	4.1	Sep 11	.00	Sep 15 1971
INSTANTANEOUS PEAK FLOW			522	May 12	37700	Dec 11 1971
INSTANTANEOUS PEAK STAGE			7.82	May 12	21.53	Dec 11 1971
ANNUAL RUNOFF (AC-FT)	889200		21620		659000	
10 PERCENT EXCEEDS	3760		41		2770	
50 PERCENT EXCEEDS	101		21		141	
90 PERCENT EXCEEDS	11		7.1		7.6	

Period of regulated streamflow.

08018500 SABINE RIVER NEAR MINEOLA, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year. Biochemical analyses: October 1973 to September 1996 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1991.
WATER TEMPERATURE: October 1967 to September 1991.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 11,400 microsiemens June 3, 1971; minimum daily, 64 microsiemens May 5, 1990.
WATER TEMPERATURE: Maximum daily, 36.0°C Aug. 21, 1984; minimum daily, 0.0°C Jan. 15, Feb. 1, 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
06...	1000	7.8	440	7.1	19.0	7.1	77	1.8	82	38	23
DEC											
07...	1715	8.5	467	7.2	12.5	8.6	80	0.4	100	46	29
FEB											
09...	1015	24	685	7.6	12.0	10.8	101	1.7	97	53	26
MAR											
29...	1030	50	806	7.0	11.0	9.6	87	1.8	110	87	30
MAY											
10...	1116	12	1750	7.2	26.0	7.0	87	1.6	190	150	52
JUL											
01...	1445	20	1360	8.0	30.0	8.0	107	3.5	120	34	34

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
06...	6.0	48	2	4.9	44	40	77	0.10	15	240
DEC										
07...	7.5	44	2	4.5	57	58	61	0.10	16	254
FEB										
09...	7.9	85	4	6.3	44	63	130	0.10	14	359
MAR										
29...	8.5	100	4	6.8	23	71	170	0.20	10	410
MAY										
10...	14	260	8	8.8	37	93	430	0.20	11	891
JUL										
01...	8.9	210	8	9.6	88	61	320	0.30	7.6	704

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT										
06...	--	<0.010	--	<0.050	<0.015	--	0.40	0.010	0.010	0.03
DEC										
07...	--	<0.010	--	<0.050	<0.015	--	0.20	<0.010	0.010	0.03
FEB										
09...	0.070	<0.010	0.070	0.070	<0.015	--	0.30	0.030	0.020	0.06
MAR										
29...	--	<0.010	--	<0.050	<0.015	--	0.40	0.020	<0.010	--
MAY										
10...	0.060	<0.010	0.060	0.060	0.030	0.37	0.40	0.020	<0.010	--
JUL										
01...	0.060	<0.010	0.060	0.060	0.020	0.48	0.50	0.020	<0.010	--

08018800 LAKE FORK RESERVOIR NEAR QUITMAN, TX

LOCATION.--Lat 32°48'48", long 95°31'40", Wood County, Hydrologic Unit 12010003, in room at left end of gated concrete spillway structure of Lake Fork Dam on Lake Fork Creek, 2,000 ft upstream from bridge on State Highway 182, 2.3 mi upstream from Alum Branch, and 4.4 mi west-northwest of the county courthouse in Quitman.

DRAINAGE AREA.--490 mi².

PERIOD OF RECORD.--October 1979 to current year.
Water-quality records.--Chemical analyses: October 1980 to September 1984.

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

REMARKS.--The lake is formed by a rolled earthfill dam 12,660 ft long, including a 260-foot gated concrete spillway. The outlet works consist of two 5- by 8-foot low flow sluice gates, five 40- by 20-foot taintor gates, and two 5- by 6-foot sluice gates that open into a wet well where there are two 36-inch and one 10-inch valve-controlled and metered-outlet pipes. Deliberate impoundment began June 29, 1979, and closure of the dam was completed in January 1980. The lake was built for water conservation and is owned by the Sabine River Authority. No known diversions were made from the lake this year. Flow is affected at times by discharge from the flood-detention pools of 21 floodwater-retarding structures with a combined detention capacity of 20,270 acre-ft. These structures control runoff 60 mi² above the lake. Figures given herein represent total contents. Satellite telemeter at station. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	419.5	1,270,000
Top of tainter gates	405.0	733,000
Crest of gated spillway	385.0	291,900
Invert of upper sluice gate	383.0	260,400
Invert of lower sluice gate	360.5	43,120
Invert of sluice gate in two center pieces	360.0	40,620

COOPERATION.--Area and capacity tables 1-A and 1-C were prepared and provided by URS/Forest and Cotton, Inc., Consulting Engineers for the Sabine River Authority. Observed elevations for the period Oct. 31, 1979, to Jan. 31, 1980, were provided by the Sabine River Authority. A new capacity table, Table 2-C, provided by the Sabine River Authority was put into use beginning Oct. 1, 1996.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 737,300 acre-ft May 4, 1990 (elevation, 405.15 ft); minimum observed, 46,140 acre-ft Dec. 11-14, 1979 (elevation, 361.10 ft) using Table 1-C.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 639,300 acre-ft Oct. 1 at 0230 hours (elevation 401.65 ft); minimum, 588,600 acre-ft Sept. 24 (elevation, 399.69).

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

361.0	45,600	391.0	396,900	404.0	703,900
371.0	114,700	401.0	622,100	405.0	733,000
381.0	230,700	402.0	648,500	406.0	762,700

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637400	622900	613300	616100	612000	607900	603000	603800	608700	602800	601200	597900
2	637400	623900	613600	614900	612300	607600	602800	603500	608400	602500	601200	597600
3	637200	622100	614100	613600	612300	606900	602800	603300	608200	602200	601000	597100
4	636100	621300	613800	613800	611000	606900	603800	603500	607600	601500	600400	597100
5	635600	620800	613600	614300	611000	607900	605600	603300	606900	601500	599900	596600
6	634800	620300	613600	614300	610700	609500	605300	603500	608200	601000	599400	596300
7	634000	621300	612500	613100	611000	607600	605100	603300	607900	600700	599200	596100
8	633400	620300	616700	612500	611500	606900	605300	603000	607400	600200	599400	595800
9	633200	619200	614100	612800	611500	606400	604800	603000	606900	600200	599700	596100
10	632900	625800	612800	612500	613300	605800	604800	602800	606400	600200	599400	591600
11	632700	619500	612500	612500	611500	605600	604600	606400	606100	599700	599400	591300
12	630000	618500	612300	612500	611000	605300	605600	606400	605800	600200	599900	590800
13	630800	618700	612800	612300	610000	605600	605100	610700	606400	599700	599400	590600
14	628900	618200	612800	612000	608900	605300	606600	611500	606100	602200	599200	590100
15	628100	618200	613800	612300	610500	605600	604600	611500	606100	602000	598600	590300
16	627400	617700	613600	612500	608400	605300	604300	611500	605800	601500	598100	590300
17	627100	617700	614100	612300	608200	605600	603800	611300	605600	601200	597900	589800
18	626600	617400	615600	614900	607900	607100	604000	611000	605600	600700	598400	590100
19	627400	617400	615100	613300	608200	606100	604600	610700	605300	600200	598100	590300
20	625200	617700	614300	613600	607600	605800	604000	610700	604800	599900	597600	590600
21	623900	617200	614100	612800	607600	605100	603500	610500	604600	599700	597100	590100
22	623100	616700	613800	613300	607600	604800	606100	610200	604300	599200	597100	589600
23	623900	617200	613300	614100	607900	604600	605100	609700	603800	598900	596800	589300
24	622900	616100	613300	613600	607400	605800	604000	609500	603500	598600	596600	594600
25	622600	615600	613300	613100	607100	604800	604800	609200	603300	598100	596100	595600
26	622100	614600	612800	613800	607600	603800	604300	608700	604000	598600	596300	596100
27	622600	616100	612800	612500	609500	605300	603300	608700	603500	598600	596800	595800
28	621800	614900	612300	612300	608900	605100	605300	608900	603800	598600	597900	595100
29	620800	614100	612000	613100	607900	605100	604300	608200	603300	598100	598600	594800
30	620500	613600	612500	613600	---	606600	603800	607600	603000	598400	598600	594600
31	620300	---	612800	612000	---	604800	---	607400	---	600200	598100	---
MAX	637400	625800	616700	616100	613300	609500	606600	611500	608700	602800	601200	597900
MIN	620300	613600	612000	612000	607100	603800	602800	602800	603000	598100	596100	589300
(+)	400.93	400.67	400.64	400.61	400.45	400.33	400.29	400.43	400.26	400.15	400.07	399.93
(@)	-15800	-6700	-800	-800	-4100	-3100	-1000	+3600	-4400	-2800	-2100	-3500

WTR YR 1996 MAX 637400 MIN 589300 (@) -41500
CAL YR 1995 MAX 709100 MIN 612000 (@) -63600

(+) Elevations, in feet, at end of month.
(@) Change in contents, in acre-feet.

08019000 LAKE FORK CREEK NEAR QUITMAN, TX

LOCATION.--Lat 32°45'47", long 95°27'46", Wood County, Hydrologic Unit 12010003, at downstream side of highway embankment near left end of bridge on State Highway 37, 0.3 mi downstream from Dry Creek, 2.4 mi south of Quitman, and 23.4 mi upstream from mouth.

DRAINAGE AREA.--585 mi².

PERIOD OF RECORD.--June 1924 to April 1926, February 1939 to current year. Discharge from 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 records.--Chemical analyses: December 1961 to August 1989. Specific Conductance: November 1967 to September 1989. Water Temperature: December 1967 to September 1989.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 317.42 ft above sea level. From June 27, 1924, to Apr. 30, 1926, a nonrecording gage was located at site 1,000 ft downstream at same datum. Prior to Sept. 5, 1978, nonrecording gage at present site and datum.

REMARKS.--Records good. Since May 1962, flow from 31.0 mi² above this station has been controlled by Lake Quitman (capacity, 7,440 acre-ft) on Dry Creek, a tributary above this station and below Lake Fork Reservoir. Construction of Lake Fork Dam and Reservoir (capacity, 675,800 acre-ft), located about 5 mi upstream from this station, began in 1975. Deliberate impoundment began June 29, 1979, and the dam was completed in January 1980. Lake Fork Reservoir controls runoff from 490 mi² above this station. The city of Quitman discharges wastewater effluent into a tributary above this station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--41 years (water years 1925, 1940-79), prior to regulation by Lake Fork Reservoir, 432 ft³/s (313,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1925, 1940-79).--Maximum discharge, 75,600 ft³/s Mar. 30, 1945 (gage height, 29.85 ft, from floodmark), from rating curve extended above 49,000 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1895 reached a stage of about 25.9 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	76	32	29	26	25	32	33	45	43	152	122
2	72	76	32	32	27	24	35	32	48	45	135	120
3	73	49	32	31	27	24	36	32	45	43	127	120
4	73	30	32	30	26	24	38	31	45	42	124	120
5	73	28	32	28	27	24	e86	31	44	42	124	119
6	74	27	32	28	27	23	e94	35	44	43	125	118
7	74	28	32	28	27	23	e73	46	45	43	125	118
8	74	29	34	28	26	23	e53	34	43	43	125	119
9	74	27	36	28	26	23	43	32	42	48	123	119
10	74	27	35	28	26	24	39	32	43	102	122	119
11	75	27	33	28	26	24	36	112	43	121	137	118
12	75	28	33	28	26	24	35	133	42	123	138	118
13	75	28	32	29	27	24	37	85	45	121	124	118
14	75	29	31	28	26	24	37	307	79	127	120	120
15	75	29	32	28	25	23	35	137	50	132	119	121
16	76	28	33	29	25	23	35	66	45	115	119	122
17	76	29	30	29	25	23	34	53	44	115	119	118
18	75	29	30	33	25	26	34	49	44	120	120	117
19	72	29	32	35	25	26	33	47	49	120	119	119
20	71	29	32	31	24	24	32	45	46	121	118	122
21	72	30	29	29	25	24	32	45	43	120	117	120
22	73	30	28	28	25	29	34	45	43	121	117	118
23	73	29	28	28	24	24	39	44	43	137	118	117
24	73	31	27	28	24	23	36	43	42	162	118	263
25	73	31	27	28	24	22	33	43	44	145	117	323
26	73	31	28	30	25	24	37	43	51	143	118	145
27	74	32	28	35	25	25	36	44	52	143	119	110
28	74	36	28	35	27	35	30	43	45	143	121	103
29	74	33	27	32	25	40	35	44	43	142	123	101
30	75	33	28	28	---	30	35	43	42	142	128	99
31	75	---	29	26	---	30	---	43	---	147	124	---
TOTAL	2287	998	954	915	743	784	1224	1852	1379	3254	3835	3886
MEAN	73.8	33.3	30.8	29.5	25.6	25.3	40.8	59.7	46.0	105	124	130
MAX	76	76	36	35	27	40	94	307	79	162	152	323
MIN	71	27	27	26	24	22	30	31	42	42	117	99
AC-FT	4540	1980	1890	1810	1470	1560	2430	3670	2740	6450	7610	7710

08019000 LAKE FORK CREEK NEAR QUITMAN, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996#, BY WATER YEAR (WY)

MEAN	74.0	303	592	449	743	739	503	706	321	275	82.0	34.0
MAX	603	1551	2853	1480	2326	2938	1991	2807	1280	1795	940	167
(WY)	1994	1989	1992	1995	1986	1990	1990	1990	1986	1994	1992	1992
MIN	1.23	2.92	9.31	4.43	14.1	25.3	4.29	13.1	8.51	1.43	.13	.76
(WY)	1983	1981	1982	1981	1981	1996	1981	1988	1984	1985	1980	1982

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1980 - 1996#	
ANNUAL TOTAL	190559		22111			
ANNUAL MEAN	522		60.4		400	
HIGHEST ANNUAL MEAN					1006	1992
LOWEST ANNUAL MEAN					43.2	1984
HIGHEST DAILY MEAN	12100	May 9	323	Sep 25	23600	May 18 1989
LOWEST DAILY MEAN	27	Nov 6	22	Mar 25	.00	Aug 23 1980
ANNUAL SEVEN-DAY MINIMUM	28	Nov 5	23	Mar 3	.00	Aug 23 1980
INSTANTANEOUS PEAK FLOW			435	Sep 24	24200	May 18 1989
INSTANTANEOUS PEAK STAGE			7.85	Sep 24	21.75	May 18 1989
ANNUAL RUNOFF (AC-FT)	378000		43860		290100	
10 PERCENT EXCEEDS	2020		122		1160	
50 PERCENT EXCEEDS	75		41		36	
90 PERCENT EXCEEDS	31		25		4.0	

e Estimated
Period of regulated streamflow.

08019500 BIG SANDY CREEK NEAR BIG SANDY, TX

LOCATION.--Lat 32°36'14", long 95°05'29", Upshur County, Hydrologic Unit 12010002, on downstream side of highway embankment near left end of bridge on State Highway 155, 0.5 mi upstream from St. Louis Southwestern Railway Lines bridge, 1.6 mi northeast of Big Sandy, and 6.5 mi upstream from mouth.

DRAINAGE AREA.--231 mi².

PERIOD OF RECORD.--February 1939 to current year.
Water-quality records.--Chemical analyses: March 1961 to September 1986. Chemical and biochemical analyses: October 1984 to September 1986.

REVISED RECORDS.--WSP 1732: 1941(M), 1945-46, 1956, drainage area. WSP 1922: 1944(M), 1945-46.

GAGE.--Water-stage recorder. Datum of gage is 278.38 ft above sea level. Prior to Oct. 5, 1940, nonrecording gage, and Oct. 5, 1940, to Nov. 26, 1951, water-stage recorder at site 1.3 mi upstream at datum 3.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since June 1962, streamflow has been affected by Lake Winnsboro, about 27 miles upstream (capacity 8,100 acre-ft, drainage area 27.1 mi²) and by several other smaller lakes. Several observations of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	31	e42	60	45	39	93	62	58	12	55	82
2	52	32	e45	78	47	43	75	55	103	12	66	76
3	43	33	e47	86	47	42	63	52	65	12	67	57
4	41	33	e46	85	47	38	62	47	45	10	79	42
5	42	34	46	85	47	36	103	42	36	9.7	77	33
6	42	38	45	82	48	36	151	38	32	11	59	28
7	40	40	44	69	49	39	170	37	28	13	e36	25
8	37	48	49	55	49	35	195	38	25	11	e23	22
9	35	48	75	49	50	33	215	37	29	11	e16	21
10	34	45	78	48	53	33	179	35	30	34	e18	20
11	32	41	76	48	54	32	116	87	24	38	e26	19
12	32	43	77	46	49	36	85	139	21	37	e42	16
13	32	40	71	45	46	33	85	150	18	29	e67	16
14	31	39	62	45	44	32	81	160	18	49	e75	16
15	33	39	59	47	42	32	70	178	21	88	e68	17
16	31	e38	71	51	41	38	63	166	22	112	45	19
17	29	e40	67	59	39	36	60	164	28	107	34	24
18	26	e44	79	66	38	41	54	137	28	92	30	23
19	27	e49	98	81	43	67	50	84	26	66	31	27
20	33	e52	96	83	43	84	45	58	22	42	28	82
21	28	e51	95	88	40	91	40	e47	17	30	24	61
22	27	e51	93	87	39	91	41	e39	14	25	20	52
23	24	e49	82	80	37	79	54	e35	12	21	18	45
24	23	e46	63	70	36	64	58	e31	12	35	17	76
25	26	e45	51	61	38	58	57	e28	11	42	17	94
26	36	e44	46	62	38	57	51	e26	16	49	16	103
27	39	e44	44	54	38	58	46	e24	19	70	17	100
28	42	e46	43	47	40	65	39	e23	17	70	26	96
29	40	e44	41	46	39	73	67	e23	15	57	41	75
30	34	e43	41	45	---	83	76	22	15	45	55	53
31	30	---	50	45	---	94	---	22	---	44	70	---
TOTAL	1067	1270	1922	1953	1266	1618	2544	2086	827	1283.7	1263	1420
MEAN	34.4	42.3	62.0	63.0	43.7	52.2	84.8	67.3	27.6	41.4	40.7	47.3
MAX	52	52	98	88	54	94	215	178	103	112	79	103
MIN	23	31	41	45	36	32	39	22	11	9.7	16	16
AC-FT	2120	2520	3810	3870	2510	3210	5050	4140	1640	2550	2510	2820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	66.6	140	229	240	281	313	319	313	165	78.5	33.4	49.9
MAX	469	884	884	798	915	1746	1068	977	704	416	150	441
(WY)	1994	1975	1988	1993	1950	1945	1973	1953	1946	1994	1979	1974
MIN	8.38	19.2	24.6	32.3	43.7	47.5	42.2	35.1	9.61	6.99	4.65	8.51
(WY)	1957	1956	1957	1957	1996	1966	1956	1984	1984	1984	1984	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	71856		18519.7			
ANNUAL MEAN	197		50.6		186	
HIGHEST ANNUAL MEAN					415	1945
LOWEST ANNUAL MEAN					40.6	1956
HIGHEST DAILY MEAN	2110	May 11	215	Apr 9	17900	Mar 31 1945
LOWEST DAILY MEAN	18	Aug 27	9.7	Jul 5	3.5	Jul 24 1984
ANNUAL SEVEN-DAY MINIMUM	18	Aug 27	11	Jul 3	4.0	Aug 16 1984
INSTANTANEOUS PEAK FLOW			218	Apr 9	24000	Mar 31 1945
INSTANTANEOUS PEAK STAGE			7.66	Apr 9	24.10	Mar 31 1945
ANNUAL RUNOFF (AC-FT)	142500		36730		134900	
10 PERCENT EXCEEDS	504		85		414	
50 PERCENT EXCEEDS	82		44		79	
90 PERCENT EXCEEDS	29		21		17	

e Estimated

08020000 SABINE RIVER NEAR GLADEWATER, TX

LOCATION.--Lat 32°31'37", long 94°57'36", Gregg County, Hydrologic Unit 12010002, on right bank 46 ft downstream from bridge on U.S. Highway 271, 0.4 mi downstream from Glade Creek, 1.2 mi southwest of Gladewater, and at mile 397.5.

DRAINAGE AREA.--2,791 mi².

PERIOD OF RECORD.--October 1932 to current year.

REVISED RECORDS.--WSP 1732: Drainage area. WRD TX-73-1: 1972.

GAGE.--Water-stage recorder. Datum of gage is 243.85 ft above sea level. Prior to Oct. 13, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow partially regulated by Lake Tawakoni (station 08017400), capacity 936,200 acre-ft, by Lake Fork Creek Reservoir (station 08018800), capacity 675,800 acre-ft, and by five tributary reservoirs with a total combined capacity of 42,370 acre-ft. There are many diversions above station for oil field operations and municipal supply. Several observations of water temperature were obtained during the year. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--28 years (water years 1933-60) prior to regulation by Lake Tawakoni, 2,012 ft³/s (1,458,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1933-60).--Maximum discharge, 138,000 ft³/s Apr. 2, 1945 (gage height, 44.16 ft, from floodmark), from rating curve extended above 91,000 ft³/s; minimum, 5.6 ft³/s Aug. 16, 1939. Maximum stage since at least 1892, that of Apr. 2, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1914 reached a stage of about 41.7 ft (discharge, 85,900 ft³/s), from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	105	105	211	e153	198	359	230	327	86	191	272
2	160	109	122	253	e151	193	311	189	1040	73	194	273
3	167	109	123	294	e151	191	250	164	745	71	206	248
4	150	113	118	314	e160	194	218	142	397	64	204	210
5	144	121	113	323	e176	199	365	121	245	59	202	182
6	138	127	111	e314	e179	200	650	104	171	54	179	162
7	130	133	110	e297	e176	199	784	98	140	47	155	144
8	127	134	128	e280	e173	189	917	96	118	42	138	129
9	122	135	167	e271	e176	182	861	97	101	38	153	116
10	113	134	229	e265	e180	169	727	97	95	43	271	107
11	109	128	279	e259	e188	159	570	285	90	50	414	100
12	105	120	289	e251	e201	154	430	601	80	60	311	95
13	104	116	259	e272	e213	157	378	804	72	63	222	92
14	104	108	224	e306	217	154	367	1010	67	102	197	91
15	104	104	197	e316	198	150	342	1020	64	175	190	90
16	105	103	187	e300	178	148	268	926	73	247	168	92
17	103	107	194	e278	160	152	224	812	110	290	136	91
18	100	120	222	e269	153	169	198	666	127	267	140	114
19	97	153	278	e296	155	198	176	477	118	229	137	142
20	96	154	363	e334	160	238	159	306	106	180	124	401
21	99	139	396	e352	168	268	150	209	90	142	112	571
22	96	126	386	e350	172	272	159	159	71	122	104	335
23	98	116	354	e322	167	250	205	128	59	135	97	271
24	94	103	318	e274	159	209	236	107	55	152	93	339
25	88	99	272	e233	158	188	224	92	77	156	91	619
26	91	99	245	e202	159	181	200	81	88	153	95	738
27	103	105	225	e178	173	196	169	e75	84	190	110	849
28	110	109	212	e165	205	230	148	e70	68	258	114	751
29	115	102	195	e158	198	262	200	e67	68	251	146	579
30	112	97	183	e156	---	309	233	64	82	219	202	413
31	109	---	195	e153	---	364	---	61	---	196	244	---
TOTAL	3552	3528	6799	8246	5057	6322	10478	9358	5028	4214	5340	8616
MEAN	115	118	219	266	174	204	349	302	168	136	172	287
MAX	167	154	396	352	217	364	917	1020	1040	290	414	849
MIN	88	97	105	153	151	148	148	61	55	38	91	90
AC-FT	7050	7000	13490	16360	10030	12540	20780	18560	9970	8360	10590	17090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996#, BY WATER YEAR (WY)

MEAN	460	1315	2485	2015	2534	3254	2816	4129	1876	688	198	285
MAX	3361	7839	10580	6693	9664	9717	9644	17100	6745	4261	1291	2566
(WY)	1974	1975	1972	1992	1975	1992	1990	1966	1973	1994	1992	1974
MIN	29.4	86.9	101	199	174	204	241	188	49.0	17.9	18.1	27.0
(WY)	1964	1964	1966	1964	1996	1996	1971	1988	1971	1964	1964	1985

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996#	
ANNUAL TOTAL	927215		76538			
ANNUAL MEAN	2540		209		1836	
HIGHEST ANNUAL MEAN					3831	1992
LOWEST ANNUAL MEAN					209	1996
HIGHEST DAILY MEAN	23900	May 15	1040	Jun 2	51000	May 22 1989
LOWEST DAILY MEAN	88	Oct 25	38	Jul 9	7.4	Jul 20 1971
ANNUAL SEVEN-DAY MINIMUM	95	Oct 20	48	Jul 5	9.5	Jul 16 1971
INSTANTANEOUS PEAK FLOW			1090	Jun 2	52300	May 22 1989
INSTANTANEOUS PEAK STAGE			10.29	Jun 2	38.98	Apr 30 1966
ANNUAL RUNOFF (AC-FT)	1839000		151800		1330000	
10 PERCENT EXCEEDS	6780		353		5350	
50 PERCENT EXCEEDS	505		161		531	
90 PERCENT EXCEEDS	105		90		58	

e Estimated
Period of regulated streamflow.

08020450 SABINE RIVER ABOVE LONGVIEW, TX

LOCATION.--Lat 32°28'47", long 94°48'15", Gregg County, Hydrologic Unit 12010002, on left bank at city of Longview pumping station at the end of Swinging Bridge Road, 1.4 mi southwest of the intersection of Swinging Bridge Road and Farm Road 2206 in Longview, 2.5 mi downstream from Hawkins Creek, 2.6 mi upstream from U.S. Highway 259, and at mile 357.4.

DRAINAGE AREA.--2,943 mi².

PERIOD OF RECORD.--August 1983 to current year (low flow).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 230.00 ft above sea level.

REMARKS.--Records poor. Daily discharges below 500 ft³/s are published. Flow partially regulated by Lake Tawakoni (station 08017400), capacity 936,200 acre-ft, by Lake Fork Reservoir (station 08018800), capacity 675,800 acre-ft, and by five tributary reservoirs with a combined capacity of 42,370 acre-ft. There are many diversions above station for municipal and industrial supply, and for oil field operations. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 31.64 ft May 10, 1990; minimum daily discharge, 0.50 ft³/s Sept. 4, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.22 ft June 2 at 0415 hours; minimum daily discharge, e61 ft³/s July 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	113	100	237	e411	223	401	363	e219	e90	e204	291
2	162	116	102	303	e412	221	400	339	---	e77	e208	302
3	156	120	101	321	e395	228	352	291	---	e73	e220	282
4	156	123	99	322	e357	235	319	225	---	e69	e215	244
5	140	123	100	317	e318	241	435	175	388	e68	e210	209
6	124	121	102	304	e281	240	---	146	250	e67	e190	188
7	111	119	112	287	e267	235	---	135	194	e65	e163	163
8	121	114	162	263	e272	234	---	153	154	e64	e148	145
9	123	107	221	243	278	232	---	186	117	e63	e160	128
10	121	101	225	225	286	227	---	230	e105	e62	e212	110
11	118	94	254	211	288	219	---	350	e98	e61	354	114
12	113	89	280	197	285	214	---	---	e84	e65	457	107
13	109	88	260	187	264	208	---	---	e78	e87	313	98
14	106	87	221	180	248	207	490	---	e72	e119	203	90
15	103	87	191	187	229	206	444	---	e70	e280	e200	92
16	101	92	183	200	209	206	370	---	e75	e315	191	93
17	99	97	196	216	202	214	329	---	e115	e310	175	92
18	100	105	270	246	197	228	304	---	e135	e290	160	107
19	103	115	345	279	193	249	288	---	127	e240	155	167
20	104	119	370	294	193	277	280	381	120	e210	147	352
21	103	118	399	314	199	304	280	260	e98	e175	133	---
22	100	116	382	333	203	327	300	195	e90	e132	118	---
23	99	112	343	e350	212	325	326	133	e75	e142	110	347
24	100	107	298	e379	221	288	349	e112	e65	e170	103	406
25	103	104	251	e395	228	260	325	e98	e84	e180	100	---
26	106	102	195	e401	230	241	291	e84	91	e190	104	---
27	109	100	165	e390	234	248	255	e80	e88	e210	131	---
28	112	98	157	e377	232	279	257	e74	e75	e290	231	---
29	115	93	152	e377	229	309	319	e72	e75	e270	280	---
30	117	95	160	e387	---	342	365	e70	e85	e240	282	---
31	117	---	185	e402	---	369	---	e82	---	e210	272	---
TOTAL	3652	3175	6581	9124	7573	7836	---	---	---	4884	6149	---
MEAN	118	106	212	294	261	253	---	---	---	158	198	---
MAX	201	123	399	402	412	369	---	---	---	315	457	---
MIN	99	87	99	180	193	206	---	---	---	61	100	---
AC-FT	7240	6300	13050	18100	15020	15540	---	---	---	9690	12200	---

e Estimated

08022040 SABINE RIVER NEAR BECKVILLE, TX

LOCATION.--Lat 32°19'38", long 94°21'12", Panola County, Hydrologic Unit 12010002, on downstream side of highway embankment near right end of downstream bridge on U.S. Highway 59, 0.9 mi upstream from Eightmile Creek, 6.0 mi upstream from Farm Road 1794, 8.4 mi northeast of Beckville, 12.4 mi downstream from State Highway 43 and at mile 327.0.

DRAINAGE AREA.--3,589 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1978, published as "near Tatum" (station 08022000).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 190.00 ft above sea level. Prior to Oct. 1, 1978, at site 12.4 mi upstream at datum 14.18 ft higher. Prior to Sept. 21, 1945, nonrecording gage.

REMARKS.--No estimated daily discharges. Records good. Eight major upstream reservoirs, with a combined capacity of 1,701,000 acre-ft, largely regulate the flow. There are several diversions above this station and below Lake Tawakoni for municipal, industrial and for oil field operations. Low flows are sustained by wastewater effluents tha are returned to the river above the station. For statement regarding regulation by Natural Resource Conservation Service floodwater-retarding structures, see station 08018500. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--22 years (water years 1939-60) prior to regulation by Lake Tawakoni, 2,663 ft³/s (1,929,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD PRIOR TO REGULATION (WATER YEARS 1939-60).--Maximum discharge, 123,000 ft³/s Apr. 4, 1945 (gage height, 33.80 ft), site and datum then in use, from graph based on gage readings, from rating curve extended above 66,000 ft³/s on basis of partly estimated discharge measurement of 88,900 ft³/s; minimum observed, 2.4 ft³/s Aug. 11, 1964. Maximum stage since at least 1884, that of Apr. 4, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1884 reached a stage of about 2 ft lower than flood of Apr. 4, 1945. These dates and gage heights are based on information for stations near Tatum (08022000, discontinued) and at Logansport, La. (08022500).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	152	130	372	358	321	404	639	98	87	321	661
2	205	151	132	461	369	294	454	522	411	82	294	537
3	243	165	126	529	365	285	443	431	1480	73	271	474
4	274	160	135	512	357	295	402	384	1290	70	259	434
5	261	158	149	459	354	275	412	346	871	67	257	393
6	222	158	153	415	352	283	797	290	558	84	263	354
7	185	164	140	400	355	311	1100	267	374	85	268	425
8	186	165	155	392	361	406	1030	280	286	76	284	378
9	179	154	259	385	368	355	1010	266	237	76	321	275
10	164	165	429	347	378	306	1010	240	172	88	309	231
11	173	169	355	336	367	272	941	253	142	89	302	205
12	161	166	313	350	340	273	843	484	134	127	482	173
13	152	149	317	339	355	263	727	742	127	101	604	170
14	144	140	326	325	359	258	719	864	128	76	482	188
15	154	145	314	315	348	267	666	1040	166	86	359	180
16	147	142	322	294	337	252	605	1120	129	112	292	189
17	131	134	339	270	307	254	525	1090	124	164	255	282
18	142	130	615	274	276	257	455	984	134	214	241	246
19	146	128	1070	352	256	265	415	849	210	289	236	188
20	138	131	988	413	267	318	376	715	177	332	222	310
21	121	133	683	409	272	319	351	574	144	276	199	908
22	125	154	509	394	274	332	411	427	138	228	186	1400
23	128	151	485	407	258	355	483	306	131	191	172	1180
24	115	141	457	604	278	367	619	249	103	259	156	815
25	116	143	399	789	331	366	518	210	113	964	142	1820
26	123	135	353	594	311	377	444	169	152	867	143	1860
27	125	119	323	502	277	350	419	139	240	524	170	1870
28	119	124	313	451	242	346	379	124	181	384	416	3520
29	126	124	296	418	277	378	352	114	122	427	1830	2760
30	118	120	267	372	---	406	575	108	88	435	2160	1540
31	127	---	291	349	---	415	---	99	---	385	1140	---
TOTAL	4975	4370	11143	12829	9349	9821	17885	14325	8660	7318	13036	23966
MEAN	160	146	359	414	322	317	596	462	289	236	421	799
MAX	274	169	1070	789	378	415	1100	1120	1480	964	2160	3520
MIN	115	119	126	270	242	252	351	99	88	67	142	170
AC-FT	9870	8670	22100	25450	18540	19480	35470	28410	17180	14520	25860	47540

08022040 SABINE RIVER NEAR BECKVILLE, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996#, BY WATER YEAR (WY)

MEAN	601	1660	3210	3129	3837	4287	3901	4857	2828	947	319	436
MAX	4325	8221	9866	10960	11930	12240	11330	21010	11580	3834	1725	3434
(WY)	1974	1975	1975	1992	1975	1992	1990	1966	1989	1992	1979	1974
MIN	42.5	82.1	144	239	322	317	355	317	77.5	32.1	36.7	33.8
(WY)	1964	1964	1966	1964	1996	1996	1971	1972	1971	1964	1969	1985

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996#	
ANNUAL TOTAL	1235339		137677			
ANNUAL MEAN	3384		376		2494	
HIGHEST ANNUAL MEAN					4857	1992
LOWEST ANNUAL MEAN					311	1964
HIGHEST DAILY MEAN	17300	Jan 1	3520	Sep 28	48100	May 2 1966
LOWEST DAILY MEAN	115	Oct 24	67	Jul 5	2.4	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	120	Oct 24	76	Jul 3	3.8	Aug 7 1964
INSTANTANEOUS PEAK FLOW			3710	Sep 28	49400	May 2 1966
INSTANTANEOUS PEAK STAGE			14.17	Sep 28	38.87	Mar 30 1989
ANNUAL RUNOFF (AC-FT)	2450000		273100		1807000	
10 PERCENT EXCEEDS	10000		721		7290	
50 PERCENT EXCEEDS	632		289		850	
90 PERCENT EXCEEDS	137		125		88	

08022040 SABINE RIVER NEAR BECKVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: February 1952 to current year. Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: March 1968 to June 1981.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1952 to current year.
WATER TEMPERATURE: February 1952 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request. Formerly published as 08022000 Sabine River near Tatum.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,040 microsiemens Jan. 13, 1966; minimum daily, 53 microsiemens Mar. 31, 1979, Mar. 30, 1989.
WATER TEMPERATURE: Maximum daily, 38.0°C July 8, 1969; minimum daily, 0.0°C on several days during December 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,290 microsiemens July 12; minimum daily, 166 microsiemens Apr. 19.
WATER TEMPERATURE: Maximum daily, 35.0°C July 20 and 22; minimum daily, 4.5°C Feb. 3 and 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
04...	1002	266	431	7.9	24.0	8.0	97	2.5	66	13	19
DEC											
07...	1400	136	586	7.8	14.0	10.8	104	0.5	81	4	25
JAN											
31...	0940	345	344	7.4	9.0	11.0	95	1.2	58	26	17
MAR											
28...	1045	344	392	7.7	13.0	10.0	95	3.1	67	23	20
MAY											
09...	1040	262	438	7.8	26.0	7.8	97	1.4	66	0	18
JUN											
25...	1010	142	639	8.7	29.0	7.9	103	1.5	65	0	18

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
04...	4.6	55	3	5.6	53	62	55	0.10	9.9	246
DEC										
07...	4.6	85	4	5.1	77	78	73	0.30	14	338
JAN										
31...	3.8	42	2	4.0	32	41	54	0.20	13	197
MAR										
28...	4.1	47	3	4.0	44	44	58	0.20	7.4	212
MAY										
09...	5.1	59	3	4.5	66	44	66	0.20	7.9	247
JUN										
25...	4.9	97	5	6.5	100	56	93	0.40	0.15	340

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS, (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
04...	0.570	0.570	0.010	0.580	0.580	<0.015	--	0.40	0.040	0.030
DEC										
07...	1.50	--	<0.010	1.50	1.50	<0.015	--	0.40	0.200	0.170
JAN										
31...	0.390	0.390	0.010	0.400	0.400	<0.015	--	0.40	0.080	0.060
MAR										
28...	0.200	--	<0.010	0.200	0.200	<0.015	--	0.30	0.050	0.040
MAY										
09...	0.500	0.500	0.010	0.510	0.510	0.020	0.38	0.40	0.050	0.030
JUN										
25...	0.480	0.480	0.030	0.510	0.510	<0.015	--	0.40	0.070	0.040

08022040 SABINE RIVER NEAR BECKVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 04...	0.09	--	--	--	--	--	--	--	--	--
DEC 07...	0.52	--	--	--	--	--	--	--	--	--
JAN 31...	0.18	<1	52	<0.50	<1.0	<5.0	<3.0	<10	420	<10
MAR 28...	0.12	--	--	--	--	--	--	--	--	--
MAY 09...	0.09	--	--	--	--	--	--	--	--	--
JUN 25...	0.12	1	58	<0.50	<1.0	<5.0	<3.0	<10	40	<10

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 04...	--	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--	--
JAN 31...	11	79	<0.1	<10	<10	<1	<1.0	180	<6	6.0
MAR 28...	--	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	--	--	--	--	--	--	--
JUN 25...	32	36	<0.1	10	<10	<1	<1.0	280	<6	14

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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. 1995	4975	495	273	3670	75	1010	44	591	73
NOV. 1995	4370	540	297	3500	83	982	46	548	75
DEC. 1995	11143	396	220	6630	57	1720	38	1140	66
JAN. 1996	12829	417	232	8020	60	2080	40	1370	69
FEB. 1996	9349	435	241	6080	63	1600	41	1030	70
MAR. 1996	9821	455	252	6680	67	1780	42	1110	72
APR. 1996	17885	272	153	7390	36	1750	29	1380	54
MAY 1996	14325	384	214	8270	55	2110	37	1440	66
JUNE 1996	8660	370	205	4800	54	1260	35	808	60
JULY 1996	7318	481	264	5220	75	1480	41	806	65
AUG. 1996	13036	400	222	7810	58	2040	38	1330	66
SEPT 1996	23966	439	242	15700	67	4330	39	2500	63
TOTAL	137677	**	**	83700	**	22100	**	14100	**
WTD.AVG.	376	406	225	**	60	**	38	**	65

08022040 SABINE RIVER NEAR BECKVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY EQUIVALENT MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	372	555	558	555	307	455	e400	347	488	468	436	324
2	370	545	560	494	e315	484	e390	340	626	446	383	341
3	396	547	585	e455	325	457	e300	391	235	364	381	377
4	423	634	571	441	421	457	220	388	266	333	460	380
5	500	563	619	391	430	555	e240	397	204	369	494	352
6	478	527	601	389	449	511	363	367	241	413	455	334
7	479	585	586	403	467	471	306	393	284	488	430	338
8	451	571	609	383	463	527	e260	412	301	604	455	405
9	415	565	568	390	467	464	e250	435	306	671	492	464
10	430	553	534	405	503	422	e240	473	325	627	533	e430
11	453	530	556	416	476	397	e237	447	e340	598	534	410
12	469	e515	352	391	444	443	e229	490	352	1290	549	423
13	519	499	371	482	417	458	222	418	372	768	529	443
14	556	543	431	503	411	471	e216	365	378	778	380	452
15	563	504	408	503	383	456	e200	390	415	735	414	468
16	511	507	426	473	400	453	e185	297	854	678	404	515
17	542	495	378	465	403	480	e178	267	609	1040	369	605
18	539	521	334	442	405	458	e170	334	494	676	358	770
19	569	542	282	433	404	482	166	549	581	685	401	e775
20	562	513	337	452	408	541	447	441	570	504	471	e750
21	556	524	302	395	436	503	401	359	603	504	507	711
22	545	544	335	361	445	490	e380	346	563	456	532	e695
23	562	550	387	421	448	444	360	373	625	501	556	e711
24	508	553	377	432	458	443	356	381	621	594	483	e700
25	501	537	350	e395	452	420	195	383	639	427	479	e690
26	538	525	357	416	582	428	336	410	639	254	479	e420
27	565	497	356	332	572	361	e300	431	570	305	492	e315
28	609	535	372	340	515	379	251	437	638	336	496	e200
29	577	533	391	352	466	415	e285	447	552	380	428	e290
30	595	532	409	360	---	420	303	471	468	479	197	e400
31	608	---	433	354	---	420	---	481	---	472	301	---
MEAN	508	538	443	420	437	457	280	402	472	556	448	483
MAX	609	634	619	555	582	555	447	549	854	1290	556	775
MIN	370	495	282	332	307	361	166	267	204	254	197	200

WTR YR 1996 MEAN 454 MAX 1290 MIN 166

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	19.5	11.5	10.0	7.5	12.5	15.0	23.0	28.0	30.0	30.0	26.0
2	27.0	20.0	13.0	9.0	---	12.0	17.5	23.0	26.0	30.0	33.0	26.0
3	21.5	17.5	15.5	---	4.5	14.5	17.0	24.0	26.0	31.0	32.0	27.0
4	23.0	15.0	16.0	7.5	4.5	13.5	18.5	26.5	26.0	31.0	31.0	28.0
5	23.0	15.0	16.5	8.0	5.0	16.0	16.0	25.0	28.0	30.0	31.0	28.0
6	23.5	17.0	15.5	7.0	6.0	17.5	14.5	25.0	27.0	29.0	31.0	29.0
7	20.0	17.5	14.0	5.5	8.0	13.0	15.0	27.0	29.5	30.0	31.0	27.0
8	20.0	17.0	12.0	5.0	10.0	12.0	16.5	26.5	27.0	32.0	31.0	28.0
9	20.0	15.5	10.0	6.0	11.5	12.0	16.0	26.5	28.0	33.0	31.0	29.0
10	22.0	17.0	9.0	7.0	12.5	11.0	19.0	27.0	28.0	30.0	30.0	---
11	22.5	14.5	9.0	8.5	13.0	14.0	---	26.5	---	29.0	29.0	28.0
12	22.0	---	10.5	8.5	12.0	14.0	19.0	26.5	27.0	32.0	28.0	28.0
13	22.0	15.0	12.5	8.0	12.0	15.0	21.5	25.0	27.5	32.0	29.0	27.0
14	21.0	14.9	14.0	9.0	13.0	17.0	23.0	24.5	31.0	32.0	28.0	26.0
15	20.5	15.0	15.0	10.0	14.0	18.0	19.0	24.5	28.0	31.0	28.0	27.0
16	21.5	14.0	15.0	12.2	11.0	17.5	---	24.5	33.0	33.0	29.0	27.0
17	20.0	13.5	14.5	14.0	10.5	18.5	20.0	25.0	29.5	30.0	31.0	26.0
18	20.0	11.5	14.5	10.0	11.0	18.0	21.0	26.0	29.0	32.0	29.0	26.0
19	20.0	13.5	12.0	8.0	14.0	15.0	25.0	27.0	27.0	34.0	29.0	---
20	20.0	15.0	10.5	7.0	14.5	13.0	26.0	27.0	32.0	35.0	29.0	---
21	16.5	15.0	10.0	10.0	15.0	13.5	24.0	27.5	28.5	32.0	29.0	27.0
22	18.0	15.5	10.0	10.0	16.5	15.0	25.0	29.0	30.0	35.0	28.0	---
23	19.0	15.5	10.0	12.5	18.0	17.0	24.0	31.5	30.0	32.0	28.0	---
24	18.5	15.5	9.0	10.0	17.0	18.0	23.0	29.0	29.0	30.0	29.0	---
25	17.5	13.5	9.0	---	17.5	16.0	23.0	29.0	30.0	31.0	28.0	---
26	17.0	14.0	8.0	10.5	20.0	14.0	26.0	29.0	29.0	30.0	28.0	---
27	20.0	16.0	8.5	10.0	20.0	14.0	25.0	28.5	34.0	30.0	28.0	---
28	13.0	14.0	8.0	9.0	16.0	14.0	23.0	29.0	32.0	32.0	27.0	---
29	17.5	14.0	7.0	10.0	12.5	14.5	---	30.0	30.0	32.0	26.0	---
30	17.0	10.5	7.0	11.0	---	15.0	18.0	30.5	29.0	32.0	25.0	---
31	17.0	---	10.0	9.0	---	11.0	---	28.0	---	30.0	26.0	---
MEAN	20.2	15.2	11.5	9.0	12.4	14.7	20.4	26.8	28.9	31.4	29.1	27.2
MAX	27.0	20.0	16.5	14.0	20.0	18.5	26.0	31.5	34.0	35.0	33.0	29.0
MIN	13.0	10.5	7.0	5.0	4.5	11.0	14.5	23.0	26.0	29.0	25.0	26.0

WTR YR 1996 MEAN 20.4 MAX 35.0 MIN 4.5

08022060 MARTIN LAKE NEAR TATUM, TX

LOCATION.--Lat 32°15'42", long 94°34'23", Rusk County, Hydrologic Unit 12010002, on retaining wall, 30 ft to right of intake to generating plant No. 1, 1.9 mi upstream from Martin Dam on Martin Creek, 5.8 mi southwest of Tatum and 21.9 mi upstream from mouth.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--April 1974 to current year.
Water-quality records.--Chemical analyses: October 1974 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to May 15, 1976, non-recording gage near left end of dam 1.9 mi downstream at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 8,675 ft long, including a 1,000-foot uncontrolled spillway. Deliberate impoundment began in April 1974. The uncontrolled 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 14.0- by 40.0-foot-wide tainter gates located near the left end of the dam. The low-flow outlet works consist of a 3.0- by 5.0-foot conduit with a sluice gate located in one of the gate piers. There is an 8-inch pipe with sluice gate. The area and capacity tables are based on an aerial survey made in October 1971. There are no known diversions. Satellite telemeter at station. 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	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.--Area and capacity tables provided by Forrest and Cotton, Consulting Engineers, for Texas Utilities Services, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 118,000 acre-ft Mar. 29, 1989 (elevation, 313.00 ft); minimum since first appreciable storage, 45,230 acre-ft Sept. 18, 1996 (elevation, 298.45 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 63,230 acre-ft Oct. 3 at 0100 hours (elevation, 302.97 ft); minimum, 45,230 acre-ft Sept. 18 (elevation, 298.45 ft).

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

298.0	43,620	304.0	67,880	310.0	99,300
300.0	50,960	306.0	77,500	312.0	111,500
302.0	59,040	308.0	87,960	313.0	118,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63100	60740	57440	57690	59460	59290	56040	55590	54500	50610	47970	46730
2	63140	60700	57400	57650	59460	59030	55920	55590	54380	50460	47860	46660
3	63100	60570	57570	57570	59420	58870	55920	55550	54300	50340	47750	46620
4	62960	60530	57570	57570	59370	58700	56200	55510	53300	50380	47600	46510
5	62790	60440	57690	57690	59330	58490	58490	55470	52550	50270	47450	46480
6	62570	60360	58070	57830	59330	58320	58910	55430	52390	50070	47340	46370
7	62480	60230	57980	57770	59500	58110	58910	55020	52310	49960	47270	46300
8	62390	60100	57650	57730	59420	57900	58870	55260	52080	49880	47310	46230
9	62260	59930	60270	57820	59370	57730	55880	55300	52000	49770	47340	46120
10	62170	59800	60400	57770	59290	57570	55920	55300	51880	49540	47310	46010
11	62040	59670	60440	57820	59460	57400	55960	55260	51770	49470	47310	45910
12	61960	59540	60440	57860	59540	57320	55830	55260	51650	49240	47190	45800
13	61830	59420	60440	57860	59500	57280	55830	55220	51690	49170	47090	45690
14	61610	59290	60530	57900	59590	57230	55670	55260	51730	49050	46980	45620
15	61520	59160	60400	57820	60010	57150	56080	55350	51650	49050	46870	45620
16	61430	59030	60400	57770	59840	57150	56160	55390	51570	48940	46770	45440
17	61300	58910	60100	57650	59880	57110	56200	55430	51960	48790	46660	45330
18	61220	58820	58190	57940	59800	57070	56330	55510	52040	48750	46550	45370
19	61040	58650	57940	57860	59930	57030	56280	55550	51920	48680	46440	45690
20	60870	58570	57820	57900	59970	56990	56200	55630	51880	48570	46340	46260
21	60780	58530	57820	57900	59970	56940	56160	55710	51770	48380	46190	46480
22	60660	58440	57820	57820	59930	57150	56000	55750	51610	48230	46090	46510
23	60480	58400	57900	57820	60140	57400	56080	55630	51530	48120	45940	46480
24	60360	58320	57900	57570	60180	57690	56120	55510	51420	48270	45870	47970
25	60180	58280	57980	57480	60230	57940	56200	55350	51300	48420	45800	48710
26	60230	58190	57980	57650	60230	58240	56330	55180	51190	48530	45690	49010
27	60440	57570	58070	57650	60230	58490	56330	55020	51190	48490	46010	49580
28	60530	57280	58110	57690	59930	58190	56330	54900	51070	48380	46440	50150
29	60570	57320	58190	57690	59590	57650	55790	54780	50920	48270	46770	50270
30	60610	57360	57900	59540	---	57150	55710	54620	50760	48120	46840	50230
31	60660	---	57860	59500	---	56610	---	54540	---	48040	46800	---
MAX	63140	60740	60530	59540	60230	59290	58910	55750	54500	50610	47970	50270
MIN	60180	57280	57400	57480	59290	56610	55670	54540	50760	48040	45690	45330
(+)	302.38	301.60	301.72	302.11	302.13	301.42	301.20	300.91	299.95	299.23	298.89	299.81
(@)	-2080	-3300	+500	+1640	+90	-2980	-900	-1170	-3780	-2720	-1240	+3430

WTR YR 1996 MAX 63140 MIN 45330 (@) -12510
CAL YR 1995 MAX 79070 MIN 57280 (@) -19540

(+) Elevations, in feet, at end of month.
(@) Change in contents, in acre-feet.

08022070 MARTIN CREEK NEAR TATUM, TX

LOCATION.--Lat 32°17'44", long 94°29'29", Panola County, Hydrologic Unit 1201002, on right bank, 35 ft downstream from right abutment, 360 ft to right of bridge on State Highway 149, 50 ft upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.7 mi upstream from Hogan Creek, 2.0 mi southeast of Tatum, 5.0 mi downstream from Martin Lake and 15.0 mi upstream from mouth.

DRAINAGE AREA.--148 mi².

PERIOD OF RECORD.--April 1974 to September 1996 (discontinued).

REVISED RECORDS.--WDR TX-76-1: 1975; WDR TX-91-1: 1989 & 1990; WDR TX-93-1: 1988 - 1992.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 240.26 ft above sea level. Prior to Mar. 31, 1978, at site 50 ft upstream at same datum.

REMARKS.--Records good. Flow is largely regulated by Martin Lake, located 5 mi upstream. Several observations of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The third highest stage since 1948 occurred in April 1969 and reached a stage of 18.15 ft. A flood in April 1957 reached a stage of 13.95 ft, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	6.0	e6.0	19	8.0	4.9	8.1	5.3	.36	.00	.00	.06
2	6.8	11	e6.0	23	9.7	5.5	7.3	4.3	.39	.00	.00	.07
3	10	9.6	e6.4	12	9.4	5.8	7.3	4.0	.42	.00	.00	.08
4	7.3	8.2	e6.4	9.6	8.9	6.0	7.3	3.4	.40	.00	.00	.07
5	5.9	9.3	e6.5	9.1	9.1	6.5	25	3.6	.36	.00	.00	.08
6	5.7	11	6.8	8.9	9.3	7.3	21	4.2	.29	.00	.00	.07
7	5.3	9.9	6.8	8.4	10	7.4	11	4.8	.25	.00	.00	.03
8	5.6	e9.9	20	8.1	9.8	7.1	7.4	4.3	.25	.00	.00	.01
9	5.5	e10	20	8.4	9.0	7.4	5.9	4.4	.23	.00	.00	.00
10	5.1	e10	9.5	8.3	8.8	7.4	4.9	4.6	.19	.00	.00	.00
11	5.0	e10	7.7	7.8	8.1	7.5	4.4	26	.17	.00	.00	.00
12	4.9	e10	7.4	7.3	7.7	7.5	5.3	11	.15	.00	.00	.00
13	5.0	e10	7.3	8.0	7.7	7.9	9.6	3.1	.13	.00	.00	.00
14	4.7	e10	7.3	7.6	8.3	7.9	8.4	2.6	.10	.00	.00	.00
15	4.6	e10	8.1	7.6	7.9	7.3	6.6	2.6	.09	.00	.00	.00
16	4.8	e10	12	8.0	7.2	6.8	6.3	2.6	.08	.00	.00	.01
17	4.6	e10	17	8.0	7.2	6.1	6.5	2.6	.07	.00	.00	.04
18	4.5	e10	183	14	7.5	7.2	6.4	2.4	.06	.00	.00	.10
19	4.8	e10	71	11	7.7	7.2	6.6	2.2	.05	.00	.00	.18
20	4.6	e10	16	8.6	7.6	6.7	6.1	2.0	.05	.00	.00	38
21	4.9	e11	11	8.5	7.5	6.3	14	1.8	.04	.00	.00	11
22	5.1	e10	9.1	8.9	7.4	6.4	15	1.5	.03	.00	.00	.59
23	5.4	e9.4	8.5	13	6.5	6.5	21	1.2	.02	.00	.00	.11
24	4.8	e8.0	8.0	19	4.7	6.8	9.3	1.0	.02	.01	.00	52
25	5.4	e7.4	7.8	11	4.2	15	6.7	.88	.01	.09	.00	32
26	5.7	e7.0	7.6	8.9	4.3	10	5.9	.76	.00	.00	.00	4.0
27	5.6	e6.8	7.5	7.8	4.3	8.1	5.3	.64	.00	.00	.00	14
28	5.6	e5.4	7.3	7.4	4.2	11	4.9	.52	.00	.00	1.3	21
29	5.7	e5.6	7.3	7.8	4.3	10	8.2	.45	.00	.00	.38	3.7
30	5.7	e5.8	8.9	8.1	---	9.0	7.5	.41	.00	.00	.15	1.2
31	5.3	---	18	8.0	---	8.5	---	.38	---	.00	.02	---
TOTAL	169.4	271.3	532.2	311.1	216.3	235.0	269.2	109.54	4.21	0.10	1.85	178.40
MEAN	5.46	9.04	17.2	10.0	7.46	7.58	8.97	3.53	.14	.003	.060	5.95
MAX	10	11	183	23	10	15	25	26	.42	.09	1.3	52
MIN	4.5	5.4	6.0	7.3	4.2	4.9	4.4	.38	.00	.00	.00	.00
AC-FT	336	538	1060	617	429	466	534	217	8.4	.2	3.7	354

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996#, BY WATER YEAR (WY)

MEAN	19.3	40.6	174	179	292	222	170	154	171	20.6	10.8	7.51
MAX	151	323	852	713	880	1045	1098	617	1360	198	119	37.4
(WY)	1992	1991	1995	1991	1983	1989	1991	1990	1993	1976	1977	1979
MIN	1.40	2.15	3.72	3.07	7.46	5.46	4.12	3.53	.14	.003	.060	1.37
(WY)	1981	1978	1981	1981	1996	1986	1981	1996	1996	1996	1996	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1975 - 1996#	
ANNUAL TOTAL	62334.0		2298.60			
ANNUAL MEAN	171		6.28		121	
HIGHEST ANNUAL MEAN					280	1991
LOWEST ANNUAL MEAN					6.28	1996
HIGHEST DAILY MEAN	6980	Apr 23	183	Dec 18	22900	Jun 21 1993
LOWEST DAILY MEAN	2.5	Jul 26	.00	Jun 26	.00	Jun 26 1996
ANNUAL SEVEN-DAY MINIMUM	2.7	Aug 8	.00	Jun 26	.00	Jun 26 1996
INSTANTANEOUS PEAK FLOW			293	Dec 18	31900	Jun 21 1993
INSTANTANEOUS PEAK STAGE			9.65	Dec 18	20.09	Jun 21 1993
ANNUAL RUNOFF (AC-FT)	123600		4560		87470	
10 PERCENT EXCEEDS	550		10		273	
50 PERCENT EXCEEDS	9.9		5.6		9.7	
90 PERCENT EXCEEDS	4.0		.00		2.6	

e Estimated
Period of regulated streamflow.

08022500 SABINE RIVER AT LOGANSPORT, LA

LOCATION.--Lat 31°58'20", long 94°00'22", De Soto Parish, Louisiana-Shelby County, Texas State line at Logansport, Hydrologic Unit 12010004, on left bank just upstream from bridge on U.S. Highway 84, 3 mi upstream from Bayou Castor, 111 mi upstream from Toledo Bend Dam and at mile 267.1.

DRAINAGE AREA.--4,842 mi².

PERIOD OF RECORD.--Gage-height record March 1968 to current year. Daily discharge record July 1903 to February 1968.

REVISED RECORDS.--WSP 1312: 1903-6 (monthly and annual means). WSP 1732: 1929(M), 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 147.72 ft above sea level. July 1, 1903, to Sept. 30, 1956, nonrecording gage. Oct. 1, 1956, to Jan. 16, 1964, water-stage recorder 4,600 ft upstream. Jan. 16, 1964, to Dec. 10, 1968, water-stage recorder 4,700 ft upstream. All gages to present datum except prior to Dec. 31, 1906 when datum was 2.00 ft lower.

REMARKS.--Records good. Station discontinued as a daily streamflow station on Mar. 1, 1968, due to backwater from storage in Toledo Bend Reservoir (station 08025350). Ten major reservoirs, with a combined capacity of 1,824,000 acre-ft, largely regulate the flow. For statement regarding regulation by Natural Resource Conservation Service floodwater-retarding structures, see station 08018500. Numerous diversions above station for oil field operations, municipal and industrial uses. Satellite telemeter at station.

AVERAGE DISCHARGE.--64 years (water years 1904-67), 3,208 ft³/s (2,324,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height (1968-91), 34.78 ft Apr. 16. 1991; minimum since initial filling of Toledo Bend Reservoir in June 1968, 16.85 ft Nov. 9, 1987. Maximum discharge (1903-67), 92,000 ft³/s Apr. 8, 1945 (gage height, 44.07 ft, from floodmark); minimum, 16 ft³/s Sept. 26-28, Oct. 3, 4, 1939. Maximum stage since at least 1884, that of Apr. 8, 1945.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1884 reached a stage of 39.4 ft, present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 19.75 ft Sept. 30 at 0530 hours; minimum, 16.96 ft at 1300 on Dec. 9.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.40	18.13	17.54	18.26	18.14	18.11	18.13	18.68	18.37	17.96	17.82	17.75
2	18.43	17.43	17.65	18.02	18.05	18.12	18.20	18.92	18.18	17.93	17.80	17.68
3	18.40	17.80	17.43	18.41	18.18	18.31	18.28	18.89	18.24	17.88	17.75	17.67
4	18.49	18.02	17.49	18.41	18.55	18.42	17.98	18.84	18.40	17.84	17.78	17.62
5	18.39	18.04	17.46	18.09	18.42	18.24	17.87	18.75	18.51	18.00	17.77	17.62
6	18.33	18.12	17.34	17.79	18.37	17.27	18.22	18.68	18.35	17.85	17.54	17.61
7	18.32	17.95	17.51	18.22	18.47	17.58	18.17	18.79	17.97	17.95	17.66	17.64
8	18.30	18.08	17.15	18.51	18.36	17.90	18.19	18.66	17.91	17.77	17.49	17.63
9	18.28	18.51	17.23	18.31	18.35	17.92	18.20	18.61	18.06	17.69	17.52	17.53
10	18.26	18.25	17.52	18.43	18.32	17.94	18.36	18.55	17.99	17.68	17.55	17.50
11	18.28	18.06	17.58	18.40	18.26	17.92	18.50	18.39	18.01	17.73	17.59	17.48
12	18.25	18.32	17.66	18.37	18.40	18.15	18.45	18.48	18.13	17.68	17.63	17.51
13	18.22	17.78	17.57	18.39	18.39	18.00	18.31	18.56	18.12	17.67	17.51	17.46
14	18.11	18.03	17.51	18.34	18.34	17.91	18.15	18.86	18.08	17.91	17.50	17.56
15	18.21	17.92	17.35	18.35	18.22	17.87	18.31	18.75	18.09	17.81	17.53	17.52
16	18.17	17.93	17.45	18.58	18.34	17.89	18.46	18.72	17.94	17.83	17.49	17.33
17	18.16	17.92	17.58	18.78	18.22	17.85	18.68	18.80	17.91	17.71	17.52	17.31
18	18.20	17.88	17.94	17.67	18.49	17.70	18.58	18.70	18.15	17.68	17.50	17.44
19	18.09	17.84	18.12	18.39	18.28	17.65	18.77	18.76	17.98	17.75	17.39	17.36
20	18.09	17.84	18.33	18.21	18.34	17.89	18.39	18.65	18.08	17.74	17.37	17.69
21	18.27	17.87	18.28	18.33	18.47	17.82	18.84	18.39	18.12	17.63	17.66	17.52
22	18.34	18.21	18.17	18.46	18.49	17.95	18.50	18.50	18.11	17.70	17.43	17.68
23	17.79	17.65	18.18	17.97	17.98	18.04	18.59	18.69	18.25	17.29	17.28	17.81
24	18.03	17.70	18.26	18.39	18.26	17.89	18.76	18.49	18.15	---	17.28	17.77
25	18.04	17.66	17.94	18.72	18.30	17.66	18.77	18.46	18.17	17.78	17.22	18.02
26	18.19	17.90	18.23	17.96	18.42	17.96	18.52	18.63	18.05	17.85	17.32	18.34
27	17.85	17.13	18.15	18.44	17.86	17.83	18.91	18.41	18.05	17.74	17.21	18.63
28	18.02	17.40	18.22	18.52	18.13	17.85	18.80	18.32	18.02	17.74	17.50	19.31
29	18.04	17.48	18.28	18.36	18.00	18.31	18.27	18.31	18.00	17.81	17.88	19.71
30	17.91	17.49	18.40	17.85	---	18.13	18.69	18.23	17.96	17.83	18.56	19.58
31	17.99	---	18.24	18.34	---	17.94	---	18.23	---	17.82	18.14	---
MAX	18.49	18.51	18.40	18.78	18.55	18.42	18.91	18.92	18.51	18.00	18.56	19.71
MIN	17.79	17.13	17.15	17.67	17.86	17.27	17.87	18.23	17.91	17.29	17.21	17.31

CAL YR 1995 MAX 29.91 MIN 17.13
WTR YR 1996 MAX 19.71 MIN 17.13

08025350 TOLEDO BEND RESERVOIR NEAR BURKEVILLE, TX

LOCATION.--Lat 31°10'25", long 93°33'57", Newton County, Hydrologic Unit 12010004, in powerhouse at right end of Toledo Bend Dam on Sabine River, 15 mi northeast of Burkeville and at mile 156.5.

DRAINAGE AREA.--7,178 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Sabine River Authority). Prior to July 20, 1967, nonrecording gage at same site and datum. July 20, 1967, to June 30, 1973, recording gage at right end of spillway 1.6 mi north of present site and at same datum.

REMARKS.--The reservoir is formed by a rolled earthfill dam. Closure of embankment completed and deliberate impoundment began Oct. 3, 1966. The reservoir is operated for hydro-electric power generation and water conservation. Releases during high inflow periods are controlled by eleven 40 x 28-foot tainter gates. An 8.33 x 12-foot gated conduit through the dam is used for low-flow releases. Two additional 20-inch-diameter conduits, that bypass the larger conduit, may also be used for low-flow releases. Water for turbines is admitted through four 16.75 x 29-foot penstocks and controlled by vertically operated caterpillar-type gates. The capacity table is based on U.S. Geological Survey topographic maps. For statement regarding regulation by upstream reservoirs, see station 08020000. Figures given herein represent total contents. Satellite telemeter at station. 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 the Sabine River Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,840,000 acre-ft May 18, 1989 (elevation, 173.95 ft); minimum since initial filling of reservoir in June 1968, 3,290,000 acre-ft Nov. 14, 15, 1987 and Oct. 20, 1994 (elevation, 164.78 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,535,000 acre-ft Jan. 6 at 1830 hours (elevation, 166.40 ft); minimum, 3,290,000 acre-ft Aug. 26 (elevation, 164.78 ft).

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

164.0	3,175,000	170.0	4,123,000	173.0	4,660,000
166.0	3,473,000	172.0	4,476,000	174.0	4,849,000
168.0	3,788,00				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3464000	3413000	3358000	3475000	3495000	3435000	3399000	3465000	3440000	3397000	3352000	3370000
2	3504000	3441000	3358000	3498000	3492000	3435000	3390000	3455000	3440000	3399000	3357000	3372000
3	3489000	3434000	3360000	3456000	3482000	3426000	3384000	3446000	3429000	3397000	3348000	3372000
4	3487000	3413000	3367000	3459000	3441000	3423000	3397000	3456000	3425000	3393000	3343000	3372000
5	3484000	3407000	3357000	3501000	3444000	3435000	3419000	3462000	3414000	3384000	3339000	3355000
6	3476000	3404000	3367000	3532000	3444000	3476000	3396000	3462000	3414000	3384000	3348000	3352000
7	3471000	3413000	3349000	3498000	3447000	3475000	3390000	3452000	3438000	3372000	3343000	3349000
8	3465000	3397000	3394000	3456000	3449000	3426000	3402000	3458000	3431000	3370000	3348000	3342000
9	3462000	3385000	3367000	3470000	3456000	3419000	3402000	3453000	3414000	3372000	3354000	3349000
10	3462000	3394000	3349000	3468000	3459000	3414000	3393000	3444000	3413000	3378000	3340000	3351000
11	3461000	3399000	3330000	3476000	3468000	3414000	3382000	3475000	3404000	3366000	3349000	3340000
12	3459000	3378000	3327000	3470000	3458000	3394000	3401000	3470000	3391000	3357000	3349000	3336000
13	3458000	3414000	3327000	3462000	3449000	3408000	3402000	3470000	3399000	3357000	3349000	3343000
14	3470000	3396000	3333000	3468000	3455000	3416000	3441000	3435000	3399000	3358000	3345000	3330000
15	3449000	3396000	3343000	3468000	3464000	3410000	3426000	3443000	3399000	3354000	3340000	3321000
16	3443000	3396000	3354000	3459000	3449000	3410000	3419000	3449000	3397000	3351000	3336000	3339000
17	3443000	3394000	3382000	3444000	3447000	3411000	3420000	3435000	3396000	3352000	3333000	3330000
18	3440000	3387000	3443000	3527000	3431000	3420000	3416000	3443000	3394000	3352000	3333000	3327000
19	3432000	3385000	3459000	3453000	3450000	3425000	3410000	3437000	3390000	3346000	3324000	3322000
20	3426000	3394000	3450000	3475000	3443000	3414000	3425000	3435000	3431000	3340000	3319000	3331000
21	3404000	3385000	3458000	3470000	3440000	3396000	3410000	3452000	3425000	3337000	3319000	3349000
22	3402000	3369000	3462000	3468000	3435000	3390000	3461000	3441000	3426000	3334000	3319000	3349000
23	3426000	3397000	3464000	3519000	3458000	3381000	3464000	3425000	3414000	3348000	3319000	3331000
24	3411000	3382000	3456000	3476000	3443000	3397000	3443000	3431000	3413000	3366000	3315000	3367000
25	3401000	3370000	3471000	3467000	3440000	3411000	3447000	3425000	3420000	3363000	3316000	3349000
26	3388000	3357000	3461000	3524000	3434000	3408000	3468000	3413000	3419000	3363000	3316000	3360000
27	3407000	3413000	3468000	3473000	3476000	3411000	3438000	3425000	3416000	3363000	3321000	3423000
28	3397000	3381000	3464000	3478000	3465000	3410000	3452000	3425000	3413000	3364000	3325000	3401000
29	3385000	3372000	3458000	3485000	3444000	3397000	3501000	3444000	3410000	3336000	3352000	3414000
30	3397000	3361000	3458000	3516000	---	3407000	3468000	3438000	3410000	3364000	3361000	3419000
31	3387000	---	3459000	3487000	---	3422000	---	3425000	---	3360000	3366000	---
MAX	3504000	3441000	3471000	3532000	3495000	3476000	3501000	3475000	3440000	3399000	3366000	3423000
MIN	3385000	3357000	3327000	3444000	3431000	3381000	3382000	3413000	3390000	3334000	3315000	3321000
(+)	165.43	165.26	165.91	166.09	165.81	165.66	165.97	165.68	165.58	165.25	165.29	165.64
(@)	-74000	-26000	+98000	+28000	-43000	-22000	+46000	-43000	-15000	-50000	+6000	+53000

CAL YR 1995 MAX 4677000 MIN 3327000 (@) -678000
WTR YR 1996 MAX 3532000 MIN 3315000 (@) -42000

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08025360 SABINE RIVER AT TOLEDO BEND RESERVOIR NEAR BURKEVILLE, TX

LOCATION.--Lat 31°10'25", long 93°33'57", Newton County, Hydrologic Unit 12010005, in powerhouse at right end of Toledo Bend Dam, 10 mi upstream from Sabine River near Burkeville gage and at mile 156.5.

DRAINAGE AREA.--7,178 mi².

PERIOD OF RECORD.--October 1971 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1967 to September 1986.

GAGE.--Water-stage recorders. Datum of gage is at sea level (levels by Sabine River Authority).

REMARKS.--No estimated daily discharges. Records fair. Daily discharges are a combination of releases from various outlets at the dam. Discharges for releases through the turbines are computed using scroll case differential relationships and operation logs. Tainter gate releases, low-flow sluiceway releases, bypass gate releases, and turbine leakages are based on discharge measurements and operation logs. Satellite telemeter at gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	1060	843	204	2620	1310	900	204	204	718	204	204
2	174	1140	849	204	2730	204	204	204	204	204	1110	204
3	156	907	864	204	1750	204	962	739	829	717	204	204
4	170	204	565	204	2780	204	204	204	204	204	204	802
5	204	204	826	204	2650	204	887	204	763	1000	723	204
6	204	1220	788	204	204	696	204	727	204	204	204	1120
7	204	204	827	204	204	1620	204	204	963	204	798	204
8	204	204	859	2690	204	2770	801	866	204	721	204	204
9	204	204	814	204	204	1430	204	204	204	204	1080	824
10	204	204	859	204	204	204	204	1020	726	736	204	204
11	204	204	775	204	204	818	811	204	204	204	204	818
12	1190	204	895	204	204	204	890	204	707	1040	714	204
13	1200	204	937	204	204	736	204	922	204	204	204	1150
14	204	204	779	204	204	204	204	204	922	204	725	204
15	204	204	674	204	204	850	204	741	204	811	204	204
16	1320	204	827	204	204	204	204	204	204	204	898	886
17	1340	204	828	204	729	204	204	989	982	742	204	204
18	1150	204	204	204	841	770	204	204	748	204	204	789
19	1140	204	204	3970	628	204	747	204	1880	1120	703	204
20	1210	204	204	204	758	872	204	829	204	204	204	1150
21	204	204	204	204	655	204	204	204	899	204	662	204
22	204	204	204	204	688	707	703	862	204	730	204	204
23	1180	204	204	204	774	204	204	204	204	204	936	792
24	1280	204	204	204	204	204	204	755	727	813	204	204
25	1260	204	204	204	204	631	204	733	204	204	204	970
26	1340	204	204	204	494	204	204	204	706	1120	665	204
27	1020	675	204	204	204	808	204	204	204	204	204	1080
28	204	941	204	204	204	204	204	773	918	204	726	204
29	204	955	204	204	1340	840	204	741	204	720	204	204
30	1150	835	204	204	---	204	204	204	204	204	204	1080
31	1180	---	204	204	---	204	---	953	---	821	1170	---
TOTAL	20286	12221	16665	12576	22497	18326	11189	15118	15238	15277	14582	15133
MEAN	654	407	538	406	776	591	373	488	508	493	470	504
MAX	1340	1220	937	3970	2780	2770	962	1020	1880	1120	1170	1150
MIN	156	204	204	204	204	204	204	204	204	204	204	204
AC-FT	40240	24240	33060	24940	44620	36350	22190	29990	30220	30300	28920	30020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	1219	2270	5587	9022	9610	9816	8095	8024	6252	4723	3573	3006
MAX	6809	13340	17720	27680	20510	21450	19270	22170	24960	18790	6732	7323
(WY)	1992	1995	1975	1974	1975	1992	1991	1991	1989	1989	1976	1991
MIN	59.0	50.7	74.5	90.0	339	231	247	311	508	493	470	424
(WY)	1976	1976	1976	1978	1981	1972	1978	1984	1996	1996	1996	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996	
ANNUAL TOTAL	2949618		189108			
ANNUAL MEAN	8081		517		5917	
HIGHEST ANNUAL MEAN					10370	1995
LOWEST ANNUAL MEAN					517	1996
HIGHEST DAILY MEAN	32900	Apr 26	3970	Jan 19	114000	May 19 1989
LOWEST DAILY MEAN	156	Oct 3	156	Oct 3	30	Oct 1 1972
ANNUAL SEVEN-DAY MINIMUM	184	Oct 1	184	Oct 1	34	Nov 21 1975
ANNUAL RUNOFF (AC-FT)	5851000		375100		4287000	
10 PERCENT EXCEEDS	15600		1080		14900	
50 PERCENT EXCEEDS	4810		204		3790	
90 PERCENT EXCEEDS	204		204		130	

08026000 SABINE RIVER NEAR BURKEVILLE, TX

LOCATION.--Lat 31°03'50", long 93°31'10", Newton County, Texas-Vernon Parish, Louisiana State line, Hydrologic Unit 12010005, near left edge of low-water channel on downstream side of bridge on State Highway 63, about 200 ft downstream from Pearl Creek, 10 mi northeast of Burkeville, 16 mi downstream from Bayou Toro and at mile 139.7.

DRAINAGE AREA.--7,482 mi².

PERIOD OF RECORD.--September 1955 to current year. Published as "below Toledo Bend near Burkeville" for period 1955-75. Water-quality records.--Chemical and biochemical analyses: May 1968 to September 1986. Pesticide analyses: October 1972 to September 1981.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 60.59 ft above sea level. Prior to Aug. 23, 1958, nonrecording gage at current site. Prior to Jan. 1, 1989, at datum 10.00 ft higher.

REMARKS.--Records fair. Flow regulated by Toledo Bend Reservoir (station 08025350) 16.8 mi upstream. Telephone telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--11 years (water years 1956-66) prior to completion of Toledo Bend Reservoir, 4,653 ft³/s (3,371,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1956-66).--Maximum discharge, 52,900 ft³/s May 15, 1957 (gage height, 32.43 ft); minimum, 60 ft³/s Sept. 26-30, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860: Flood in May 1884 reached a stage of 45.9 ft, current datum, from information by local resident. Flood of Apr. 15, 1945, reached a stage of 45.8 ft, current datum. Flood of May 23, 1953, reached a stage of 45.3 ft, current datum, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2850	1330	797	394	2740	1710	522	294	671	626	625	632
2	375	1130	467	374	3230	591	982	289	347	651	752	378
3	435	884	885	365	1090	439	565	488	544	621	702	336
4	320	890	837	351	2480	426	1020	602	548	633	308	586
5	350	349	728	363	5400	445	555	283	524	887	549	604
6	350	393	811	966	940	936	1040	420	501	860	593	767
7	325	1500	796	749	523	931	445	585	715	390	552	705
8	308	593	901	2830	498	3190	459	480	633	654	594	302
9	299	602	1070	698	483	2800	1060	605	254	696	770	561
10	294	645	893	448	472	659	420	539	476	601	725	586
11	292	721	861	399	458	955	887	728	509	602	365	538
12	733	615	891	371	438	500	586	311	491	778	615	570
13	1230	604	963	358	439	920	1680	545	516	736	654	748
14	735	612	877	353	437	515	674	731	682	342	588	677
15	284	620	820	339	437	1050	509	498	657	614	604	279
16	882	633	734	346	e430	534	455	608	274	655	733	645
17	1370	472	1080	347	e500	427	444	667	664	621	693	512
18	1240	262	2570	350	e815	934	397	736	967	644	300	541
19	1200	261	2310	2270	e1090	499	616	289	1650	823	541	590
20	1240	251	965	2510	e985	1010	643	530	2330	744	582	850
21	765	246	541	442	e1040	493	349	558	2250	318	561	792
22	308	238	414	383	e1030	906	764	536	1190	557	628	336
23	766	238	370	377	e1070	481	1400	598	524	592	775	606
24	973	238	352	409	e1040	397	924	530	714	565	723	636
25	1230	239	347	414	e725	489	644	980	707	605	310	795
26	1250	243	340	509	e680	750	453	e810	678	798	562	707
27	1350	280	329	581	e745	604	391	e550	663	936	605	1050
28	845	1120	334	410	e550	922	363	e620	840	445	584	938
29	299	942	341	381	e825	533	368	841	725	619	661	426
30	411	869	333	369	---	966	337	859	362	615	443	853
31	1220	---	396	351	---	434	---	791	---	592	1440	---
TOTAL	24529	18020	24353	19807	31590	26446	19952	17901	22606	19820	19137	18546
MEAN	791	601	786	639	1089	853	665	577	754	639	617	618
MAX	2850	1500	2570	2830	5400	3190	1680	980	2330	936	1440	1050
MIN	284	238	329	339	430	397	337	283	254	318	300	279
AC-FT	48650	35740	48300	39290	62660	52460	39570	35510	44840	39310	37960	36790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996#, BY WATER YEAR (WY)

MEAN	1259	2142	5507	8451	8964	9861	8518	8166	6185	4568	3294	2884
MAX	6846	12880	17940	28510	21470	22180	26530	23660	25310	23750	6662	7099
(WY)	1992	1995	1975	1974	1975	1969	1969	1991	1989	1989	1976	1991
MIN	82.5	86.2	247	484	266	485	231	471	400	292	91.7	77.6
(WY)	1968	1968	1968	1968	1968	1968	1971	1967	1970	1967	1967	1967

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996#	
ANNUAL TOTAL	3264460		262707			
ANNUAL MEAN	8944		718		5803	
HIGHEST ANNUAL MEAN					11190	1995
LOWEST ANNUAL MEAN					548	1967
HIGHEST DAILY MEAN	32800	Apr 28	5400	Feb 5	111000	May 20 1989
LOWEST DAILY MEAN	238	Nov 22	238	Nov 22	38	Sep 14 1967
ANNUAL SEVEN-DAY MINIMUM	242	Nov 20	242	Nov 20	41	Sep 9 1967
INSTANTANEOUS PEAK FLOW			7950	Feb 5	116000	May 20 1989
INSTANTANEOUS PEAK STAGE			21.57	Feb 5	47.45	May 20 1989
ANNUAL RUNOFF (AC-FT)	6475000		521100		4204000	
10 PERCENT EXCEEDS	17900		1070		15300	
50 PERCENT EXCEEDS	5310		604		2950	
90 PERCENT EXCEEDS	435		336		262	

e Estimated
Period of regulated streamflow.

08028500 SABINE RIVER NEAR BON WIER,TX

LOCATION.--Lat 30°44'49", long 93°36'30", Beauregard Parish, Louisiana-Newton County, Texas State line, Hydrologic Unit 12010005, near left bank on downstream side of bridge on U.S. Highway 190, 0.7 mi upstream from Quicksand Creek, 0.8 mi upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.0 mi east of Bon Wier, 2.4 mi upstream from Caney Creek and at mile 97.7.

DRAINAGE AREA.--8,229 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1312. Gage-height records collected in this vicinity since 1913 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1342: 1953. WSP 1442: 1924, 1926-27(M), 1929(M), 1939. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 33.42 ft above sea level. Prior to July 8, 1931, nonrecording gage at site 0.8 mi downstream at datum 13.00 ft higher. July 8, 1931, to Oct. 15, 1958, nonrecording gage at present site at datum 13.00 ft higher. Oct. 16, 1958, to Sept. 30, 1975, water-stage recorder at present site at datum 13.00 ft higher. Oct. 1, 1975, to Dec. 31, 1988, at present site at datum 10.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Since October 1966, flow regulated by Toledo Bend Reservoir (station 08025350) 58.8 mi upstream. Telephone telemeter at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--43 years (water years 1924-66) prior to completion of Toledo Bend Reservoir, 6,846 ft³/s (4,960,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1924-66).--Maximum discharge, 115,000 ft³/s May 19, 1953 (gage height, 38.70 ft, current datum); minimum, 160 ft³/s Sept. 29, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1833, 43.5 ft Apr. 23 or 24, 1913, from information by Gulf, Colorado, and Santa Fe Railway Co. and local residents. Flood in May 1884 reached a stage of 39 ft. Floods occurring about 1844 and 1860 were higher than flood in May 1884, from information by local residents. All flood data referenced to current datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5730	1700	1430	1660	1300	1570	1160	1210	1450	763	869	1760
2	2980	2150	1340	1670	3110	1880	1110	1040	1340	788	998	1360
3	1840	2310	1120	1530	3820	1130	1370	940	948	936	910	937
4	2430	2560	1400	1400	2480	840	1080	1010	1070	764	1060	801
5	1850	2060	1380	1340	3420	801	1330	1170	1140	905	694	838
6	1440	1300	1340	2290	4620	814	1080	839	965	859	752	1150
7	1310	1340	1400	4510	1890	1190	1420	859	1030	1040	961	1050
8	1140	1690	1400	3480	1240	1590	1070	1060	942	627	847	1230
9	1010	1100	1590	4030	1140	3160	1050	872	1060	687	1010	838
10	950	1010	1870	2330	1080	2760	1360	1060	666	894	936	904
11	925	1350	1720	1750	1030	1320	935	926	717	730	1160	1090
12	898	2210	1590	1610	979	1270	1150	1200	914	892	905	893
13	1190	1670	1530	1510	933	1040	2350	845	747	816	1060	1060
14	1680	1200	1540	1440	904	1190	4720	902	914	1010	1240	982
15	1370	1060	1460	1390	891	1010	3310	1130	1080	644	962	1170
16	909	1040	1390	1350	873	1240	2360	855	1200	707	1030	797
17	1240	1040	1400	1300	843	1010	1630	1010	816	908	914	895
18	1750	1030	3590	1090	1120	1000	1400	910	962	823	1080	1040
19	1680	1030	9830	1020	1400	1480	1240	1110	1340	1000	697	871
20	1630	1010	7260	2870	1160	1230	1260	695	2450	965	737	1240
21	1610	995	4170	2490	1310	1400	1320	759	4140	1090	927	1920
22	1320	975	2520	1200	1340	1180	980	919	3280	671	812	1920
23	864	956	1880	1020	1330	1250	1740	803	2030	706	1080	1160
24	1090	880	1650	1060	1340	1100	3070	957	1270	1030	992	1160
25	1470	789	1520	1230	1280	896	3120	745	1210	1160	1130	1540
26	1620	762	1420	1300	867	906	2800	1150	1250	1480	729	1380
27	1670	749	1360	3390	839	1260	2150	817	1100	1250	774	2530
28	1650	779	1330	3890	1050	1430	1610	597	1160	1410	1090	5950
29	1310	1460	1350	2550	854	1530	1330	715	1100	913	1180	3550
30	844	1450	1380	1800	---	1280	1290	2090	1200	874	1570	1720
31	936	---	1420	1410	---	1530	---	2150	---	986	1340	---
TOTAL	48336	39655	65580	60910	44443	41287	51795	31345	39491	28328	30446	43736
MEAN	1559	1322	2115	1965	1533	1332	1726	1011	1316	914	982	1458
MAX	5730	2560	9830	4510	4620	3160	4720	2150	4140	1480	1570	5950
MIN	844	749	1120	1020	839	801	935	597	666	627	694	797
AC-FT	95870	78660	130100	120800	88150	81890	102700	62170	78330	56190	60390	86750

08028500 SABINE RIVER NEAR BON WIER,TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996#, BY WATER YEAR (WY)

MEAN	1824	2864	6815	10120	10750	11490	10110	9372	7179	5424	3804	3394
MAX	7315	13250	21420	30930	23200	24470	27370	28150	26340	31490	7288	8247
(WY)	1992	1995	1983	1974	1975	1992	1969	1991	1989	1989	1976	1991
MIN	188	217	822	1000	746	1288	634	1011	663	621	211	206
(WY)	1968	1968	1981	1981	1968	1981	1971	1996	1970	1967	1967	1967

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996#	
ANNUAL TOTAL	3772281		525352			
ANNUAL MEAN	10340		1435		6912	
HIGHEST ANNUAL MEAN					12670	1975
LOWEST ANNUAL MEAN					1172	1967
HIGHEST DAILY MEAN	49100	Jan 28	9830	Dec 19	98000	Jul 4 1989
LOWEST DAILY MEAN	749	Nov 27	597	May 28	134	Nov 9 1966
ANNUAL SEVEN-DAY MINIMUM	841	Nov 22	808	Jul 8	142	Nov 3 1966
INSTANTANEOUS PEAK FLOW			10400	Dec 19	98200	Jul 4 1989
INSTANTANEOUS PEAK STAGE			22.76	Dec 19	37.90	Jul 4 1989
ANNUAL RUNOFF (AC-FT)	7482000		1042000		5007000	
10 PERCENT EXCEEDS	22800		2350		17000	
50 PERCENT EXCEEDS	5830		1170		3940	
90 PERCENT EXCEEDS	1330		817		760	

Period of regulated streamflow.

08028500 SABINE RIVER NEAR BON WIER,TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1969 to current year. Chemical and biochemical analyses: October 1969 to May 1973. Sediment analyses: April 1957 to September 1962.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1969 to June 1983.
WATER TEMPERATURE: November 1969 to June 1983.
COLOR: November 1969 to June 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 407 microsiemens Aug. 31, 1978; minimum daily, 34 microsiemens Feb. 3, 1983.
WATER TEMPERATURE: Maximum daily, 33.0°C July 17, 1978, and July 14, 26, 1980; minimum daily, 4.0°C Feb. 2, 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT							
05...	1730	1650	160	24.0	120	17	14
14...	1447	1640	155	26.0	50	14	15
21...	1815	1790	154	20.0	40	17	15
29...	1255	1270	103	19.0	20	7.2	9.3
NOV							
07...	0950	1140	139	20.0	70	19	13
13...	1420	1590	142	18.0	80	19	13
20...	1140	1010	142	18.0	50	14	14
26...	1240	759	176	18.0	60	20	16
DEC							
05...	1410	1380	140	20.0	20	13	14
12...	1410	1590	145	15.0	70	17	14
23...	1335	1880	144	12.0	70	17	13
27...	1335	1360	146	15.0	75	17	13
JAN							
03...	1530	1530	142	12.0	65	17	13
12...	1610	1590	148	11.0	70	21	14
16...	1730	1340	157	16.0	70	20	14
24...	1215	1050	180	14.0	55	21	17
31...	1625	1380	137	12.0	80	16	13
FEB							
09...	1745	1120	142	16.0	50	14	13
14...	1605	901	203	18.0	65	24	19
22...	1325	1250	166	22.0	30	21	17
MAR							
01...	1610	1840	150	14.0	35	18	15
03...	1250	1060	147	16.0	35	18	15
10...	1640	2580	168	14.0	50	22	17
20...	1845	1170	199	16.0	75	29	20
30...	1225	1160	198	19.0	80	29	19
APR							
03...	1835	1220	151	19.0	55	19	15
12...	1200	1240	98	19.0	75	13	8.4
17...	1015	1650	120	19.0	80	18	11
27...	1855	1980	100	20.0	80	14	8.8
30...	1850	1320	144	20.0	75	22	12
MAY							
08...	1245	1050	176	28.0	65	25	16
19...	1915	890	147	28.0	10	17	14
26...	1230	1200	211	29.0	90	34	19
JUN							
01...	1335	1370	238	28.0	100	41	23
08...	1610	1040	160	29.0	40	20	15
15...	1215	980	162	30.0	50	21	16
22...	1915	3230	144	27.0	140	23	13
26...	1215	1220	148	30.0	60	21	13
JUL							
07...	1525	920	126	30.0	10	13	12
17...	1950	768	154	31.0	20	17	15
27...	1300	1090	209	29.0	70	32	20
AUG							
10...	1905	1230	143	31.0	25	16	13
17...	1735	1060	211	31.0	50	30	19
24...	1450	960	156	30.0	30	18	14
31...	1705	1270	137	28.0	70	17	13
SEP							
05...	1915	1020	86	29.0	90	11	7.3
13...	1250	1040	85	29.0	90	11	7.0
21...	1830	2490	84	28.0	100	11	7.1
28...	1445	6180	90	27.0	120	13	7.9

08029500 BIG COW CREEK NEAR NEWTON, TX

LOCATION.--Lat 30°49'08", long 93°47'07", Newton County, Hydrologic Unit 12010005, near center of span on downstream side of bridge on State Highway 87, 2.6 mi southwest of Newton, 5.0 mi downstream from Melhomes Creek, and 8.0 mi upstream from White Oak Creek.

DRAINAGE AREA.--128 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 134.69 ft above sea level. Prior to Dec. 19, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. No known diversion above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1907, 27.5 ft in April 1922, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 19	1500	1,320	14.56	Sep. 28	1000	1,520	14.85

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	75	47	118	70	48	44	e80	62	38	29	114
2	43	149	47	95	74	47	40	e65	61	30	27	66
3	66	126	48	83	85	45	39	e55	61	28	26	52
4	103	89	49	77	74	44	39	e50	48	27	24	46
5	73	72	48	81	67	45	39	e42	40	26	23	42
6	52	57	48	363	65	47	41	e40	36	33	23	39
7	47	60	49	388	66	53	56	e39	33	30	23	38
8	45	56	55	168	65	50	48	e38	31	26	26	37
9	44	49	66	109	63	45	41	e37	29	26	27	38
10	43	49	103	97	62	44	39	e36	28	27	80	40
11	43	49	64	89	60	43	38	e36	28	28	103	41
12	42	55	54	84	58	44	41	e35	29	31	356	36
13	43	55	52	79	55	44	489	e34	29	26	210	34
14	45	49	52	76	54	44	338	e34	31	27	95	33
15	47	47	51	75	54	45	110	e33	71	27	55	34
16	45	46	51	74	53	45	74	e32	55	27	43	36
17	42	45	88	74	51	44	e50	e32	39	28	38	38
18	42	46	649	77	51	43	e45	e31	32	42	36	35
19	41	47	1220	85	52	50	e40	e30	30	39	35	34
20	42	48	546	81	52	45	e38	e30	104	37	33	44
21	43	51	159	73	51	41	e36	e29	184	37	32	99
22	43	49	119	73	50	40	e35	e29	88	31	42	71
23	42	47	102	74	49	41	e80	e28	49	27	122	46
24	42	46	93	87	48	41	e90	e28	46	42	94	51
25	41	46	87	105	47	42	e75	e27	44	92	53	121
26	40	46	83	105	47	44	e65	e27	47	100	41	91
27	41	46	80	97	47	57	e55	e27	46	55	41	660
28	43	47	78	81	47	67	e50	26	35	38	174	1320
29	42	47	76	74	48	51	e45	27	32	32	265	417
30	42	46	78	72	---	51	e40	227	40	29	162	120
31	44	---	93	71	---	47	---	216	---	31	272	---
TOTAL	1453	1740	4435	3285	1665	1437	2260	1500	1488	1117	2610	3873
MEAN	46.9	58.0	143	106	57.4	46.4	75.3	48.4	49.6	36.0	84.2	129
MAX	103	149	1220	388	85	67	489	227	184	100	356	1320
MIN	40	45	47	71	47	40	35	26	28	26	23	33
AC-FT	2880	3450	8800	6520	3300	2850	4480	2980	2950	2220	5180	7680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1996, BY WATER YEAR (WY)

MEAN	67.7	103	158	186	207	169	165	155	112	71.1	55.7	63.6
MAX	278	440	489	645	743	345	533	817	414	426	221	353
(WY)	1995	1987	1983	1974	1984	1990	1953	1953	1993	1989	1973	1961
MIN	17.4	27.3	39.3	42.2	57.4	46.4	29.4	31.7	16.6	14.2	14.5	17.3
(WY)	1957	1968	1982	1982	1996	1996	1971	1971	1971	1971	1956	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1952 - 1996	
ANNUAL TOTAL	59955		26863			
ANNUAL MEAN	164		73.4		126	
HIGHEST ANNUAL MEAN					246	1973
LOWEST ANNUAL MEAN					46.1	1965
HIGHEST DAILY MEAN	4510	Apr 11	1320	Sep 28	9720	Feb 12 1984
LOWEST DAILY MEAN	40	Sep 12	23	Aug 5	10	Jul 7 1971
ANNUAL SEVEN-DAY MINIMUM	42	Sep 8	25	Aug 2	11	Jul 17 1971
INSTANTANEOUS PEAK FLOW			1520	Sep 28	20200	Apr 29 1953
INSTANTANEOUS PEAK STAGE			14.85	Sep 28	19.45	Apr 29 1953
ANNUAL RUNOFF (AC-FT)	118900		53280		91080	
10 PERCENT EXCEEDS	243		103		220	
50 PERCENT EXCEEDS	78		47		63	
90 PERCENT EXCEEDS	45		29		27	

e Estimated

08030500 SABINE RIVER NEAR RULIFF, TX

LOCATION.--Lat 30°18'13", long 93°44'37", Calcasieu Parish, Louisiana-Newton County, Texas State line, Hydrologic Unit 12010005, on downstream side of bridge on State Highway 12, 2.4 mi north of Ruliff, 4.2 mi upstream from the Kansas City Southern Railway Co. bridge, 4.5 mi downstream from Cypress Creek and at mile 40.2.

DRAINAGE AREA.--9,329 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1924 to current year.

REVISED RECORDS.--WSP 1282: 1941(M), 1942. WSP 1442: 1925-29, 1937-39, 1943. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5.92 ft below sea level. Prior to Mar. 1, 1941, nonrecording gage at Kansas City Southern Railway Co. bridge, 4.2 mi downstream and at datum 7.98 ft higher than current datum. Mar. 1, 1941, to Dec. 8, 1948, nonrecording gage at present site and at datum 10.00 ft higher than current datum. Dec. 9, 1948, to Dec. 31, 1989, recording gage at present site and at datum 10.00 ft higher than current datum.

REMARKS.--Records good. Flow is partly regulated by Toledo Bend Reservoir (station 08025350) 116.3 mi upstream. Telephone telemeter at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--42 years (water years 1925-66) prior to completion of Toledo Bend Reservoir, 8,422 ft³/s (6,102,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1925-66).--Maximum discharge, 121,000 ft³/s May 22, 1953, (gage-height, 29.98 ft, current datum); minimum, 270 ft³/s Sept. 27-30, Oct. 1-3, 17-20, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1835, 32.2 ft in May or June 1884 (adjusted to present site and datum on basis of slope of flood of June 8, 9, 1950); flood of Apr. 26-29, 1913, reached a stage of 29.5 ft, present site and datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5360	1270	1560	2560	4290	1460	1720	2080	2570	1800	1360	3180
2	5470	3200	1620	2980	3300	1570	1630	1990	2410	1550	1260	3050
3	6080	5640	1600	3100	3540	2080	1440	1840	2100	1260	1270	2890
4	6680	6710	1520	2830	4540	2010	1550	1850	1690	1300	1200	2070
5	7180	6750	1490	2500	4400	1560	1490	1440	1450	1230	1290	1550
6	6700	6090	1590	2430	4180	1360	1520	1520	1570	1240	1180	1310
7	4780	4680	1580	3420	5020	1300	1450	1420	1430	1180	973	1350
8	3110	3370	1580	5470	4420	1380	1530	1240	1420	1310	1100	1310
9	2300	2960	1630	6570	3010	1720	1530	1340	1300	1220	1120	1420
10	1830	2440	1730	6640	2290	2640	1360	1310	1400	1010	1190	1330
11	1570	1940	2020	5910	2030	3210	1440	1380	1250	1110	1180	1130
12	1430	1840	2160	4340	1870	2620	1410	1350	1030	1100	1330	1230
13	1350	2360	2060	3270	1760	1830	1300	1480	1150	1140	1420	1180
14	1370	2550	1920	2770	1670	1670	1870	1460	1140	1100	1540	1160
15	1710	2090	1850	2480	1580	1520	3830	1380	e1200	1240	1810	1130
16	1860	1710	1820	2280	1520	1570	4720	1440	e1300	1170	1580	1250
17	1510	1540	1930	2160	1470	1490	4000	1370	e1400	989	1410	1180
18	1290	1530	3950	2080	1430	1590	2920	1330	e1500	1120	1250	970
19	1670	1520	7160	1930	1460	1400	2180	1270	e1200	1140	1300	1110
20	1880	1540	11600	1770	1710	1550	1820	1360	e1400	1240	1190	1130
21	1840	1540	16000	2260	1780	1680	1600	1280	e2000	1240	974	1420
22	1790	1480	16200	3250	1720	1590	1640	1060	3950	1380	1070	1870
23	1750	1400	13900	2620	1770	1640	2070	1190	4650	1240	1100	2310
24	1390	1350	9900	1980	1770	1480	2470	1150	4310	1060	1210	1910
25	1180	1300	6460	1860	1770	1530	3190	1250	3420	1330	1290	1500
26	1450	1220	4190	2340	1770	1370	3330	1170	2950	1540	1430	1600
27	1660	1150	3080	3420	1560	1240	3400	1230	2970	2160	1290	1940
28	1790	1120	2590	4950	1380	1380	3220	1370	2610	2250	1060	3210
29	1850	1090	2300	6680	1440	1580	2640	1130	2180	2170	1250	5930
30	1710	1270	2160	7180	---	1810	2250	1080	1830	1800	1800	7420
31	1380	---	2240	5980	---	1710	---	1500	---	1410	2850	---
TOTAL	82920	74650	131390	110010	70450	52540	66520	43260	60780	42029	41277	60040
MEAN	2675	2488	4238	3549	2429	1695	2217	1395	2026	1356	1332	2001
MAX	7180	6750	16200	7180	5020	3210	4720	2080	4650	2250	2850	7420
MIN	1180	1090	1490	1770	1380	1240	1300	1060	1030	989	973	970
AC-FT	164500	148100	260600	218200	139700	104200	131900	85810	120600	83360	81870	119100

08030500 SABINE RIVER NEAR RULIFF, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996#, BY WATER YEAR (WY)

MEAN	2617	3666	8364	12010	12500	13170	12020	10560	8607	6512	4386	3922
MAX	9591	14910	22070	32800	27990	27480	33240	29510	26240	42320	7982	10530
(WY)	1995	1995	1983	1974	1974	1969	1969	1991	1989	1989	1975	1973
MIN	292	327	1366	1422	1559	1695	1030	1395	1428	805	382	333
(WY)	1968	1968	1981	1981	1968	1996	1971	1996	1970	1967	1967	1967

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996#	
ANNUAL TOTAL	4265400		835866			
ANNUAL MEAN	11690		2284		8174	
HIGHEST ANNUAL MEAN					14210	1975
LOWEST ANNUAL MEAN					1959	1967
HIGHEST DAILY MEAN	62200	Jan 30	16200	Dec 22	108000	Jul 6 1989
LOWEST DAILY MEAN	1090	Nov 29	970	Sep 18	278	Oct 28 1967
ANNUAL SEVEN-DAY MINIMUM	1210	Nov 24	1120	Jul 11	282	Oct 9 1967
INSTANTANEOUS PEAK FLOW			16800	Dec 22	109000	Jul 6 1989
INSTANTANEOUS PEAK STAGE			24.08	Dec 22	29.15	Jul 6 1989
ANNUAL RUNOFF (AC-FT)	8460000		1658000		5922000	
10 PERCENT EXCEEDS	22600		4320		18700	
50 PERCENT EXCEEDS	6830		1590		5040	
90 PERCENT EXCEEDS	1690		1180		1220	

e Estimated
Period of regulated streamflow.

08030500 SABINE RIVER NEAR RULIFF, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: September 1945 to September 1946, October 1947 to current year. Chemical and biochemical analyses: February 1968 to current year. Pesticide analyses: January 1968 to May 1982. Radiochemical analyses: October 1969 to 1995. Sediment analyses: October 1974 to 1995.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1945 to September 1946, October 1947 to current year.
WATER TEMPERATURE: October 1947 to current year.
COLOR: November 1969 to December 1975.

INSTRUMENTATION.--From October 31, 1992 to current a water-quality monitor continuously recorded specific conductance and water temperature at this station.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constiuent and specific conductance. Regression equation developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 779 microsiemens Aug. 31, 1966; minimum daily, 27 microsiemens Feb. 16, 1984.
WATER TEMPERATURE: Maximum daily, 36.0°C Aug. 14, 1962; minimum daily, 1.0°C Jan. 28, 1948.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 442 microsiemens Sept. 27; minimum, 65 microsiemens Nov. 5.
WATER TEMPERATURE: Maximum, 33.5°C July. 6-8; minimum, 11.0°C Nov. 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 28...	1135	1490	136	7.1	20.0	7.8	85	28	7	7.2
JUL 16...	0950	1190	140	7.2	30.0	6.4	84	26	2	6.9
SEP 05...	0930	1570	150	6.7	27.5	6.8	86	22	0	6.1

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
FEB 28...	2.4	14	1	2.3	21	13	16	<0.10	12	79
JUL 16...	2.2	15	1	2.6	24	16	14	0.10	10	81
SEP 05...	1.7	18	2	2.7	26	20	14	<0.10	12	90

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	164	150	157	139	101	133	99	82	89
2	---	---	---	150	91	120	137	103	122	92	81	85
3	---	---	---	91	79	83	139	101	113	101	91	96
4	---	---	---	85	78	79	136	128	132	99	91	95
5	---	---	---	85	65	76	128	108	120	---	---	---
6	---	---	---	106	73	95	130	105	118	---	---	---
7	---	---	---	95	92	93	119	95	106	---	---	---
8	---	---	---	98	79	86	122	94	109	---	---	---
9	---	---	---	116	86	102	115	92	102	---	---	---
10	---	---	---	125	105	114	103	86	95	---	---	---
11	---	---	---	128	103	107	99	89	94	---	---	---
12	185	184	184	150	107	133	101	88	95	---	---	---
13	184	180	181	168	131	157	97	87	91	---	---	---
14	184	181	182	167	100	142	121	93	107	---	---	---
15	183	153	161	117	96	110	106	94	100	---	---	---
16	165	121	150	129	116	123	118	99	109	---	---	---
17	149	116	125	147	128	138	111	101	107	---	---	---
18	149	119	124	168	135	156	133	104	120	---	---	---
19	128	119	122	186	140	171	128	104	114	---	---	---
20	159	128	139	190	186	189	139	100	120	---	---	---
21	151	122	134	---	---	---	134	116	122	---	---	---
22	130	123	126	200	181	188	134	109	123	---	---	---
23	134	126	130	184	158	170	131	105	113	---	---	---
24	136	128	132	198	130	176	129	109	118	---	---	---
25	164	134	139	137	102	119	122	104	112	---	---	---
26	164	133	144	120	101	110	108	99	104	---	---	---
27	174	136	153	136	101	121	106	86	95	---	---	---
28	163	131	141	137	108	120	109	81	96	---	---	---
29	157	126	137	139	103	124	105	83	94	---	---	---
30	158	126	135	139	103	117	103	81	90	---	---	---
31	161	126	141	---	---	---	96	80	86	---	---	---
MONTH	185	116	144	200	65	127	139	80	108	101	81	91

08030500 SABINE RIVER NEAR RULIFF, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	147	145	145
17	---	---	---	---	---	---	---	---	---	154	145	150
18	---	---	---	---	---	---	---	---	---	154	134	141
19	---	---	---	---	---	---	---	---	---	160	135	144
20	---	---	---	---	---	---	---	---	---	163	148	155
21	---	---	---	---	---	---	---	---	---	160	148	154
22	---	---	---	---	---	---	---	---	---	159	157	157
23	---	---	---	---	---	---	---	---	---	148	145	147
24	---	---	---	---	---	---	---	---	---	155	145	151
25	---	---	---	---	---	---	---	---	---	154	138	145
26	---	---	---	---	---	---	---	---	---	147	138	141
27	---	---	---	---	---	---	---	---	---	149	140	144
28	---	---	---	---	---	---	---	---	---	150	139	144
29	---	---	---	---	---	---	---	---	---	150	140	145
30	---	---	---	---	---	---	---	---	---	143	139	140
31	---	---	---	---	---	---	---	---	---	152	142	144
MONTH	---	---	---	---	---	---	---	---	---	163	134	147

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	160	123	149	182	175	178	198	179	188	163	156	159
2	140	122	132	182	175	179	201	196	199	156	151	153
3	210	133	167	179	170	174	199	177	186	171	152	161
4	234	210	225	174	171	173	177	168	173	175	117	153
5	221	215	218	171	167	169	181	174	176	167	134	151
6	223	213	220	171	161	167	188	180	184	199	166	181
7	235	213	224	162	155	156	194	188	190	209	192	201
8	242	215	228	160	156	159	196	193	195	193	185	191
9	251	242	248	160	156	158	195	149	174	189	153	163
10	247	206	222	164	159	161	171	166	169	174	157	166
11	210	201	205	168	162	164	183	170	174	167	149	154
12	211	200	204	176	167	172	193	183	190	169	153	161
13	202	199	200	---	---	---	203	193	199	187	167	176
14	210	200	206	---	---	---	202	193	198	191	172	181
15	209	203	205	---	---	---	193	185	188	191	172	178
16	---	---	---	---	---	---	206	188	195	203	190	197
17	---	---	---	---	---	---	217	206	212	217	194	205
18	---	---	---	---	---	---	247	217	228	218	198	208
19	---	---	---	---	---	---	252	241	247	199	196	198
20	---	---	---	---	---	---	246	239	242	205	197	200
21	202	186	199	---	---	---	245	228	235	207	176	194
22	193	153	183	---	---	---	228	220	224	176	159	168
23	162	147	150	148	139	141	220	212	216	163	157	160
24	164	151	160	146	136	141	212	199	207	169	161	166
25	153	146	148	140	136	138	201	197	199	188	160	168
26	157	147	150	159	139	153	201	191	196	244	188	214
27	171	155	164	147	105	118	195	191	193	442	244	369
28	172	167	171	135	110	119	194	190	192	362	289	308
29	174	166	168	153	135	144	194	190	192	300	232	270
30	183	173	179	171	153	165	194	186	193	232	200	211
31	---	---	---	179	158	166	186	162	171	---	---	---
MONTH	251	122	189	182	105	157	252	149	198	442	117	192
YEAR	442	65	157									

08030500 SABINE RIVER NEAR RULIFF, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	29.0	28.5	29.0	19.0	18.0	18.5	18.0	18.0	18.0	---	---	---
2	29.0	28.5	29.0	18.5	18.0	18.0	18.5	18.0	18.0	---	---	---
3	28.5	27.0	28.0	17.5	15.5	17.0	18.5	17.5	18.0	---	---	---
4	27.0	25.5	25.5	17.0	15.0	16.0	17.5	17.5	17.5	---	---	---
5	---	---	---	15.0	13.0	14.5	20.5	17.0	18.5	---	---	---
6	---	---	---	---	---	---	21.0	20.0	20.5	---	---	---
7	---	---	---	---	---	---	21.0	20.5	20.5	---	---	---
8	---	---	---	15.5	12.0	12.5	21.0	16.0	19.0	---	---	---
9	---	---	---	16.0	15.5	16.0	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	16.5	15.0	16.0	---	---	---	---	---	---
12	22.0	20.5	21.0	15.5	13.0	15.0	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	20.0	19.0	19.5	---	---	---	---	---	---	---	---	---
15	21.0	20.0	21.0	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	20.0	20.0	20.0	---	---	---	---	---	---	---	---	---
21	20.5	19.0	19.5	---	---	---	---	---	---	---	---	---
22	20.0	20.0	20.0	19.0	17.0	17.5	---	---	---	---	---	---
23	---	---	---	18.0	17.5	17.5	---	---	---	---	---	---
24	---	---	---	18.5	17.5	18.0	---	---	---	---	---	---
25	---	---	---	18.0	17.5	17.5	---	---	---	---	---	---
26	---	---	---	18.0	17.5	18.0	---	---	---	---	---	---
27	---	---	---	18.0	17.0	17.5	---	---	---	---	---	---
28	---	---	---	18.5	17.0	18.0	---	---	---	---	---	---
29	---	---	---	18.0	17.5	17.5	---	---	---	---	---	---
30	---	---	---	18.5	17.5	18.0	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	29.0	19.0	23.0	19.0	11.0	16.5	21.0	16.0	18.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	28.0	27.5	28.0
17	---	---	---	---	---	---	---	---	---	29.0	27.0	28.0
18	---	---	---	---	---	---	---	---	---	29.0	27.5	28.0
19	---	---	---	---	---	---	---	---	---	29.0	27.5	28.5
20	---	---	---	---	---	---	---	---	---	29.5	28.0	28.5
21	---	---	---	---	---	---	---	---	---	29.5	28.0	29.0
22	---	---	---	---	---	---	---	---	---	29.5	27.5	29.0
23	---	---	---	---	---	---	---	---	---	30.5	29.0	29.5
24	---	---	---	---	---	---	---	---	---	30.5	29.5	30.0
25	---	---	---	---	---	---	---	---	---	30.5	29.5	30.0
26	---	---	---	---	---	---	---	---	---	30.0	29.5	30.0
27	---	---	---	---	---	---	---	---	---	30.0	29.5	29.5
28	---	---	---	---	---	---	---	---	---	30.5	29.0	30.0
29	---	---	---	---	---	---	---	---	---	31.0	29.0	30.0
30	---	---	---	---	---	---	---	---	---	30.0	28.5	29.0
31	---	---	---	---	---	---	---	---	---	29.5	28.5	29.0
MONTH	---	---	---	---	---	---	---	---	---	31.0	27.0	29.0

08030500 SABINE RIVER NEAR RULIFF, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29.5	28.0	29.0	31.5	30.0	31.0	31.5	30.5	31.0	26.5	26.0	26.0
2	29.0	27.5	28.0	32.0	30.5	31.5	32.0	30.5	31.5	27.0	25.5	26.0
3	29.5	27.5	28.5	32.5	31.0	31.5	32.5	31.0	31.5	27.5	26.0	26.5
4	29.0	28.0	28.5	32.5	31.5	32.0	32.5	31.0	31.5	28.5	27.0	27.5
5	29.0	28.0	28.5	33.0	31.5	32.0	32.5	31.5	32.0	29.0	27.5	28.5
6	29.0	28.0	28.5	33.5	32.0	33.0	32.5	31.5	32.0	29.5	28.0	29.0
7	29.5	28.0	28.5	33.5	32.5	33.0	32.5	31.0	31.5	30.0	28.5	29.0
8	30.5	28.0	29.0	33.5	32.0	32.5	32.0	31.0	31.5	29.5	28.5	29.0
9	29.0	27.5	28.0	32.5	31.5	32.0	32.5	31.0	31.5	29.0	28.5	28.5
10	28.0	27.5	27.5	32.5	31.0	31.5	32.5	31.0	31.5	29.5	28.0	29.0
11	28.5	27.0	27.5	33.0	31.0	32.0	31.5	30.5	31.0	29.5	28.0	29.0
12	28.5	27.5	28.0	33.0	32.0	32.5	31.0	29.5	30.0	29.5	28.5	29.0
13	29.5	28.0	28.5	33.0	32.0	32.5	30.0	29.0	29.5	29.0	28.5	28.5
14	30.0	28.5	29.0	32.5	31.0	32.0	30.5	29.0	29.5	29.0	28.0	28.5
15	30.0	29.0	30.0	31.5	30.5	31.0	30.0	28.5	29.5	28.5	28.5	28.5
16	---	---	---	31.0	30.0	30.0	30.5	29.0	29.5	29.5	28.5	28.5
17	---	---	---	---	---	---	31.0	29.5	30.0	30.0	28.5	29.0
18	---	---	---	---	---	---	31.0	29.5	30.0	29.5	28.5	29.0
19	---	---	---	---	---	---	31.5	30.0	30.5	29.5	28.5	29.0
20	---	---	---	---	---	---	31.5	30.0	31.0	28.5	28.0	28.5
21	29.5	28.5	29.0	---	---	---	31.0	29.5	30.0	28.5	27.5	28.0
22	29.0	27.5	28.5	---	---	---	29.5	28.5	29.0	28.0	27.0	27.5
23	28.0	27.0	27.5	32.5	32.0	32.5	28.5	27.5	28.0	27.5	26.5	27.0
24	27.0	26.5	27.0	32.0	30.5	31.5	29.0	27.5	28.0	26.5	26.0	26.0
25	27.0	26.5	26.5	30.5	29.0	29.5	29.5	28.0	28.5	26.5	25.5	26.0
26	28.0	26.5	27.0	29.0	28.0	28.5	30.5	28.5	29.5	27.0	26.0	26.5
27	29.5	27.5	28.0	28.5	27.5	28.0	30.0	29.5	29.5	26.5	24.5	26.0
28	30.5	28.5	29.0	29.0	27.5	28.0	29.5	28.0	29.0	24.5	23.0	23.5
29	30.5	29.5	30.0	30.5	28.5	29.5	28.5	27.5	28.0	23.0	21.5	22.0
30	31.0	29.5	30.0	30.5	29.5	30.0	27.5	27.0	27.5	21.5	21.0	21.0
31	---	---	---	31.5	30.0	30.5	27.0	26.0	26.5	---	---	---
MONTH	31.0	26.5	28.5	33.5	27.5	31.0	32.5	26.0	30.0	30.0	21.0	27.5
YEAR	33.5	11.0	27.0									

08032000 NECHES RIVER NEAR NECHES, TX

LOCATION.--Lat 31°53'32", long 95°25'50", Anderson-Cherokee County line, Hydrologic Unit 12020001, on left bank just downstream from bridge on U.S. Highway 79, 1.0 mi downstream from Missouri Pacific Railroad Co. bridge, 1.4 mi downstream from Walnut Creek, 4.4 mi northeast of Neches and at mile 333.2.

DRAINAGE AREA.--1,145 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1939 to current year.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 264.06 ft above sea level. Prior to Oct. 27, 1945, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Some regulation by Lake Palestine (station 08031400) 11 mi upstream and by Lake Athens 50 mi upstream (combined capacity 454,600 acre-ft). There are no large diversions above station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--22 years (water years 1940-61) unregulated, 804 ft³/s (502,500 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1940-61).--Maximum discharge, 45,500 ft³/s Apr. 2, 1945 (gage height, 22.07 ft); no flow Oct. 3-5, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1908 (stage 24.3 ft) was the highest since flood in May 1884, which was probably higher.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	162	170	211	193	163	169	154	78	72	48	355
2	192	173	172	225	194	163	158	126	83	68	46	226
3	192	170	178	232	197	162	151	116	83	64	47	156
4	195	162	179	229	198	162	135	111	82	60	47	128
5	191	163	176	220	195	162	155	107	80	58	46	114
6	186	173	174	210	197	167	292	106	80	57	45	102
7	182	176	174	204	204	176	322	191	79	57	45	95
8	181	179	180	200	207	173	301	268	77	58	46	91
9	180	175	258	197	205	164	224	252	77	56	47	89
10	179	171	263	197	200	161	179	189	79	68	56	89
11	178	171	231	198	197	160	158	143	84	75	115	88
12	176	171	215	197	195	160	145	144	82	78	136	84
13	175	168	206	196	186	163	145	148	78	67	109	81
14	174	167	202	196	180	167	151	142	81	62	87	90
15	172	164	205	195	177	150	141	130	77	58	70	103
16	172	164	217	194	173	132	131	118	80	56	60	94
17	172	167	218	196	174	128	124	109	77	55	57	90
18	172	166	282	217	171	128	121	102	72	52	60	86
19	173	167	381	241	172	130	117	97	73	51	56	89
20	153	167	327	230	174	126	114	94	78	50	51	141
21	161	168	277	223	173	124	111	91	78	48	48	152
22	149	169	246	218	170	124	111	89	67	47	47	144
23	147	169	227	213	172	124	127	87	63	46	46	117
24	147	171	215	219	170	123	130	86	63	47	46	108
25	147	170	208	220	167	159	120	84	63	49	46	133
26	147	168	203	215	167	205	116	82	65	52	46	120
27	134	169	201	211	167	218	110	81	69	78	47	110
28	146	170	198	204	166	218	106	81	84	79	78	111
29	151	170	195	199	164	219	133	81	85	58	281	109
30	151	170	194	198	---	196	194	80	75	52	660	99
31	155	---	204	197	---	183	---	78	---	49	505	---
TOTAL	5222	5070	6776	6502	5305	4990	4691	3767	2292	1827	3124	3594
MEAN	168	169	219	210	183	161	156	122	76.4	58.9	101	120
MAX	195	179	381	241	207	219	322	268	85	79	660	355
MIN	134	162	170	194	164	123	106	78	63	46	45	81
AC-FT	10360	10060	13440	12900	10520	9900	9300	7470	4550	3620	6200	7130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996#, BY WATER YEAR (WY)

MEAN	228	421	789	814	1049	1234	1243	1288	784	215	121	202
MAX	2064	2559	3344	3097	3097	2879	4162	5289	4129	1076	617	1313
(WY)	1974	1975	1992	1991	1992	1987	1966	1968	1973	1976	1979	1973
MIN	12.8	16.0	82.1	102	180	92.0	60.1	43.3	23.7	12.5	9.70	8.37
(WY)	1964	1964	1990	1981	1981	1972	1972	1972	1971	1964	1964	1964

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996#	
ANNUAL TOTAL	341459		53160			
ANNUAL MEAN	936		145		697	
HIGHEST ANNUAL MEAN					1358	1995
LOWEST ANNUAL MEAN					106	1972
HIGHEST DAILY MEAN	7580	May 12	660	Aug 30	26200	May 13 1968
LOWEST DAILY MEAN	134	Oct 27	45	Aug 6	3.3	Nov 1 1963
ANNUAL SEVEN-DAY MINIMUM	145	Oct 22	46	Aug 2	3.4	Oct 29 1963
INSTANTANEOUS PEAK FLOW			686	Aug 30	26900	May 13 1968
INSTANTANEOUS PEAK STAGE			9.23	Aug 30	19.46	May 13 1968
ANNUAL RUNOFF (AC-FT)	677300		105400		504700	
10 PERCENT EXCEEDS	2280		216		1710	
50 PERCENT EXCEEDS	287		154		258	
90 PERCENT EXCEEDS	170		58		54	

Period of regulated streamflow.

08032000 NECHES RIVER NEAR NECHES, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: December 1969 to current year. Biochemical analyses: October 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1969 to September 1991.
WATER TEMPERATURES: December 1983 to September 1991.

INSTRUMENTATION.--Specific conductance was recorded from December 1969 to September 1991. Water temperature was recorded continuously from December 1983 to September 1991.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (1974-88): Maximum, 1,190 microsiemens Aug. 29, 1976; minimum 65 microsiemens June 1, 1990.
WATER TEMPERATURE: Maximum, 36.0°C July 16, 1985; minimum, 0.0°C Dec. 24, 25, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB											
08...	1130	207	177	6.7	9.5	11.0	97	--	37	16	8.7
MAR											
07...	1315	176	181	7.7	14.0	10.2	98	--	39	14	9.2
APR											
19...	1415	117	185	7.2	22.0	8.5	98	1.2	42	12	9.9
MAY											
09...	1410	252	155	6.8	23.5	6.3	75	0.9	36	11	8.2
JUL											
24...	1010	46	214	7.1	28.0	6.2	80	2.3	45	19	11
AUG											
28...	1050	81	235	7.1	26.0	5.6	69	2.3	45	19	11
SEP											
10...	1106	89	218	7.4	26.0	6.6	82	1.9	48	14	12

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
FEB										
08...	3.6	15	1	3.8	21	17	24	0.10	14	100
MAR										
07...	4.0	15	1	3.8	25	16	23	0.10	12	98
APR										
19...	4.3	16	1	4.1	30	17	24	0.10	7.7	101
MAY										
09...	3.8	13	0.9	4.2	25	13	19	0.10	14	91
JUL										
24...	4.1	16	1	4.6	26	24	24	0.20	6.1	106
AUG										
28...	4.1	21	1	6.5	26	22	34	0.10	13	129
SEP										
10...	4.3	17	1	5.2	34	17	26	0.10	14	117

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
FEB										
08...	0.180	--	<0.010	0.180	0.180	<0.015	--	0.30	0.020	<0.010
MAR										
07...	--	--	0.010	--	<0.050	<0.015	--	0.30	0.020	0.020
APR										
19...	--	--	<0.010	--	<0.050	0.020	0.28	0.30	<0.010	<0.010
MAY										
09...	0.120	--	<0.010	0.120	0.120	0.050	0.45	0.50	0.010	0.010
JUL										
24...	0.080	0.080	0.010	0.090	0.090	0.020	0.28	0.30	<0.010	0.020
AUG										
28...	0.290	0.290	0.030	0.320	0.320	0.200	0.40	0.60	<0.010	<0.010
SEP										
10...	0.140	0.140	0.010	0.150	0.150	0.020	0.38	0.40	<0.010	<0.010

08032000 NECHES RIVER NEAR NECHES, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
FEB										
08...	--	<1	53	<0.50	<1.0	<5.0	<3.0	<10	210	20
MAR										
07...	0.06	--	--	--	--	--	--	--	--	--
APR										
19...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	0.03	--	--	--	--	--	--	--	--	--
JUL										
24...	0.06	1	64	<0.50	<1.0	<5.0	<3.0	<10	17	<10
AUG										
28...	--	<1	72	<0.50	<1.0	<5.0	<3.0	<10	15	<10
SEP										
10...	--	--	--	--	--	--	--	--	--	--

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB										
08...	6	85	<0.1	<10	<10	<1	2.0	100	<6	4.0
MAR										
07...	--	--	--	--	--	--	--	--	--	--
APR										
19...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	--	--	--	--	--	--	--	--	--
JUL										
24...	5	83	<0.1	<10	<10	<1	1.0	100	<6	11
AUG										
28...	6	190	<0.1	<10	<10	<1	<1.0	130	<6	15
SEP										
10...	--	--	--	--	--	--	--	--	--	--

08033000 NECHES RIVER NEAR DIBOLL, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 31°07'58", long 94°48'35", Angelina-Polk County line, Hydrologic Unit 12020002, near center of main span of downstream bridge on U.S. Highway 59, 700 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.9 mi downstream from Alabama Creek, 3.8 mi south of Diboll and at mile 203.5

DRAINAGE AREA.--2,724 mi².

PERIOD OF RECORD.--October 1923 to September 1925, March 1939 to September 1985. Monthly discharge only for some periods, published in WSP 1312. October 1985 to September 1989 (annual maximum), October 1989 to present (peaks above base discharge).
Water-quality records: Chemical and biochemical analyses: October 1969 to September 1981.

REVISED RECORDS.--WSP 1242: 1950. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 136.46 ft above sea level. Prior to July 10, 1925, nonrecording gage at site 630 ft upstream; July 10 to Aug. 31, 1925, and Mar. 30, 1939, to Sept. 24, 1943, nonrecording gage at site 500 ft upstream; Sept. 25, 1943, to Aug. 16, 1973, nonrecording gage at site 70 ft upstream; all at present datum.

REMARKS.--Records good. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE.--24 years (water years 1923-25, 1939-61) unregulated, 1,807 ft³/s (1,309,000 acre-ft/yr); 24 years (water years 1962-85) regulated, 1,353 ft³/s (980,200 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,900 ft³/s May 4, 1944 (gage height, 18.70 ft); no flow Aug. 15-22, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1874, 21 ft in May 1884 (discharge, about 110,000 ft³/s) from rating curve extended above 40,000 ft³/s; flood in 1900 reached a stage of 19.9 ft (discharge, about 80,000 ft³/s), from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

08033500 NECHES RIVER NEAR ROCKLAND, TX
(Hydrologic index station)

LOCATION.--Lat 31°01'29", long 94°23'55", Tyler County, Hydrologic Unit 12020003, on downstream side of bridge at U.S. Highway 69, 2,200 ft upstream from abandoned ferry crossing, 0.8 mi upstream from Texas and New Orleans Railway Co. bridge, 1.2 mi north of Rockland, 3.2 mi downstream from Billiams Creek and 32.4 mi upstream from Angelina River.

DRAINAGE AREA.--3,636 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to current year.

REVISED RECORDS.--WSP 878: 1926-27. WSP 1342: 1922(M), 1935. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 88.41 ft above sea level. Prior to May 23, 1973, nonrecording gage located 2,200 ft downstream at datum 3.00 ft higher. May 23, 1973, to Sept. 30, 1975, recording gage at present site at datum 3.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. At times, low flow may be affected by regulation from Lake Athens, by Lake Palestine (station 08031400), and by Lake Jacksonville, with a combined capacity of 130,700 acre-ft. Between October and September of the current year, the Upper Neches Municipal Water Authority diverted 3,900 acre-ft from the Neches River at a diversion point about 10 mi downstream from station Neches River near Neches (08032000). This water is used for municipal and industrial purposes in the Palestine area. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--58 years (water years 1904-61) 2,362 (1,711,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1904-61).--Maximum discharge, 49,800 ft³/s May 6, 1944 (gage height, 35.04 ft), present site; minimum observed during period of daily records, 1.6 ft³/s Sept. 28-30, and Oct. 1, 2, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Historical flood information begins with flood in May 1884, which reached a stage of 38.0 ft, present site, from information by local resident (discharge, about 62,000 ft³/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e560	251	266	740	639	478	397	540	173	153	213	1790
2	e522	272	268	724	603	451	417	497	151	118	165	1610
3	e503	340	269	695	584	435	436	461	147	102	137	1460
4	e522	489	268	706	563	428	443	440	144	99	126	1190
5	680	507	268	702	548	424	440	446	145	114	119	928
6	942	465	272	803	539	418	520	446	139	131	116	756
7	987	445	271	1030	535	409	540	435	126	127	112	674
8	847	424	278	1070	538	396	523	408	119	123	106	598
9	674	391	300	941	537	390	503	370	117	116	106	499
10	541	359	317	819	539	394	482	333	119	110	106	411
11	446	342	339	733	542	395	504	308	121	114	413	337
12	393	325	348	674	544	393	529	281	116	104	973	281
13	361	322	358	630	538	393	546	273	108	100	1060	242
14	328	318	385	603	533	391	572	295	103	99	972	210
15	303	309	408	583	523	396	615	344	136	99	1000	185
16	291	294	475	575	503	394	554	371	268	99	922	169
17	287	288	1570	564	483	392	495	359	166	106	809	152
18	282	284	4640	563	468	386	454	324	121	123	667	144
19	274	284	6190	562	460	379	425	289	164	144	533	141
20	268	309	6300	574	446	378	399	264	275	150	427	136
21	253	304	6270	578	433	383	371	245	298	141	337	131
22	251	288	5690	594	426	386	352	226	263	124	284	135
23	247	276	4810	618	422	381	396	210	221	103	422	140
24	239	272	3730	669	416	369	433	195	198	129	515	277
25	235	274	2700	717	417	367	651	180	167	141	613	401
26	222	279	2030	875	417	362	859	168	154	118	568	371
27	219	274	1560	938	420	367	836	156	139	102	437	3680
28	211	269	1190	871	616	365	688	148	131	105	554	4030
29	208	266	964	809	572	374	612	142	145	203	1340	3590
30	208	266	835	760	---	379	550	178	182	298	1760	2650
31	209	---	774	692	---	385	---	194	---	281	1910	---
TOTAL	12513	9786	54343	22412	14804	12238	15542	9526	4856	4076	17822	27318
MEAN	404	326	1753	723	510	395	518	307	162	131	575	911
MAX	987	507	6300	1070	639	478	859	540	298	298	1910	4030
MIN	208	251	266	562	416	362	352	142	103	99	106	131
AC-FT	24820	19410	107800	44450	29360	24270	30830	18890	9630	8080	35350	54190

08033500 NECHES RIVER NEAR ROCKLAND, TX--Continued
(Hydrologic index station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996#, BY WATER YEAR (WY)

MEAN	820	1143	2440	3504	3693	3846	3708	3961	2656	1169	396	480
MAX	10620	6142	8982	12850	13930	13750	11990	12730	10360	11260	2673	3042
(WY)	1995	1974	1995	1995	1992	1992	1979	1969	1990	1989	1991	1979
MIN	36.6	65.8	213	263	368	395	282	307	102	42.9	34.2	43.1
(WY)	1964	1965	1981	1981	1971	1996	1971	1996	1971	1971	1964	1964

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996#	
ANNUAL TOTAL	1322730		205236			
ANNUAL MEAN	3624		561		2311	
HIGHEST ANNUAL MEAN					5328	1995
LOWEST ANNUAL MEAN					352	1971
HIGHEST DAILY MEAN	21300	Jan 22	6300	Dec 20	41600	Jul 2 1989
LOWEST DAILY MEAN	202	Sep 15	99	Jul 4	18	Aug 30 1970
ANNUAL SEVEN-DAY MINIMUM	215	Sep 11	103	Jul 11	23	Jul 21 1971
INSTANTANEOUS PEAK FLOW			6380	Dec 21	42300	Oct 20 1994
INSTANTANEOUS PEAK STAGE			14.63	Dec 21	33.29	Oct 20 1994
ANNUAL RUNOFF (AC-FT)	2624000		407100		1674000	
10 PERCENT EXCEEDS	10900		889		6120	
50 PERCENT EXCEEDS	1460		386		887	
90 PERCENT EXCEEDS	269		127		107	

e Estimated
Period of regulated streamflow.

08033500 NECHES RIVER NEAR ROCKLAND, TX--Continued
(Hydrologic index station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: April 1941 to September 1942, September 1945 to September 1947. Chemical and biochemical analyses: December 1967 to current year. Sediment analyses: 1961 to 1963.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1941 to September 1942, and September 1945 to September 1947.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR											
05...	1030	426	232	7.4	15.5	10.6	107	1.4	45	12	11
APR											
24...	1600	436	278	7.1	24.0	8.8	104	1.4	49	19	12
JUN											
13...	1317	99	430	7.3	28.0	6.9	89	2.1	50	0	12
JUL											
23...	1515	99	295	7.4	30.0	7.0	93	2.3	40	0	9.5
AUG											
22...	0950	278	173	7.6	28.0	6.0	77	2.1	27	2	6.5
SEP											
10...	1625	396	199	7.5	29.0	7.2	94	1.7	38	18	9.3

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAR										
05...	4.3	26	2	3.5	33	24	31	0.10	11	131
APR										
24...	4.6	30	2	4.2	30	38	42	<0.10	14	163
JUN										
13...	4.8	64	4	5.6	80	33	55	0.30	13	237
JUL										
23...	4.0	35	2	5.2	43	25	36	0.20	12	153
AUG										
22...	2.7	17	1	6.7	25	21	19	0.10	10	100
SEP										
10...	3.6	19	1	4.9	20	29	23	<0.10	16	118

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
MAR										
05...	--	--	<0.010	--	<0.050	<0.015	--	0.30	0.030	<0.010
APR										
24...	0.130	--	<0.010	0.130	0.130	0.030	0.27	0.30	<0.010	<0.010
JUN										
13...	0.230	0.230	0.010	0.240	0.240	0.040	0.46	0.50	0.030	0.020
JUL										
23...	0.080	0.080	0.010	0.090	0.090	0.020	0.28	0.30	<0.010	0.020
AUG										
22...	0.300	0.300	0.010	0.310	0.310	0.060	0.44	0.50	0.030	0.030
SEP										
10...	0.250	--	<0.010	0.250	0.250	<0.015	--	0.30	<0.010	<0.010

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
MAR										
05...	--	<1	48	<0.50	2.0	<5.0	<3.0	<10	380	30
APR										
24...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	0.06	--	--	--	--	--	--	--	--	--
JUL										
23...	0.06	--	--	--	--	--	--	--	--	--
AUG										
22...	0.09	2	42	<0.50	<1.0	<5.0	<3.0	<10	24	<10
SEP										
10...	--	--	--	--	--	--	--	--	--	--

08033500 NECHES RIVER NEAR ROCKLAND, TX--Continued
(Hydrologic index station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR										
05...	9	62	<0.1	<10	<10	<1	1.0	110	<6	15
APR										
24...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
22...	8	59	<0.1	<10	<10	<1	<1.0	76	<6	46
SEP										
10...	--	--	--	--	--	--	--	--	--	--

08036500 ANGELINA RIVER NEAR ALTO, TX

LOCATION.--Lat 31°40'10", long 94°57'24", Nacogdoches-Cherokee County line, Hydrologic Unit 12020004, near center of rectified channel on downstream side of bridge on State Highway 21, 0.4 mi upstream from Allen Creek, 1.5 mi upstream from Bingham Creek, 7.5 mi east of Alto, and 149.3 mi upstream from mouth.

DRAINAGE AREA.--1,276 mi².

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.
Water-quality records.--Chemical analyses: November 1961 to September 1963.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 204.30 ft above sea level. May 9, 1940, to Mar. 31, 1949, nonrecording gage on bridge at natural channel 1,400 ft to right at same datum. Feb. 18 to Sept. 15, 1959, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. No large diversions above station. Flow partly regulated since May 1957 by Lake Striker, 35.5 mi upstream and by Lake Tyler, 69.9 mi upstream since January 1949 (combined capacity, 110,700 acre-ft). Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1905, that of Mar. 31, 1989. A flood in May 1908 reached a stage of about 22 ft, from information by local residents. Flood in 1932 reached a stage of 21.5 ft, from floodmarks and from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	63	97	355	236	176	282	145	64	74	189	689
2	147	79	102	421	233	165	253	152	76	66	123	715
3	148	101	104	480	229	160	225	171	73	56	80	628
4	115	107	104	529	223	158	196	178	69	56	59	490
5	144	126	106	569	219	158	183	156	75	53	47	377
6	172	131	112	507	217	157	215	133	73	49	40	264
7	146	122	113	366	217	156	266	120	71	50	37	152
8	116	118	116	287	227	156	358	112	65	46	39	108
9	97	117	129	248	295	156	402	112	56	52	47	90
10	87	114	145	225	356	157	367	130	50	48	51	78
11	80	115	166	211	372	155	341	144	46	39	107	69
12	75	112	211	205	310	162	364	175	43	34	176	62
13	72	103	216	200	233	160	429	174	42	45	282	57
14	72	103	197	195	206	157	429	230	47	89	319	56
15	70	104	190	192	194	157	414	231	81	109	325	53
16	67	99	230	188	187	159	352	215	99	124	247	49
17	66	93	262	187	180	162	266	200	82	115	138	47
18	64	92	412	195	176	165	227	164	84	113	85	74
19	61	92	598	207	174	166	201	125	91	118	63	110
20	58	93	644	221	172	165	179	103	83	119	56	171
21	55	97	754	256	172	168	216	90	80	127	79	200
22	52	98	864	268	183	169	243	82	82	120	78	351
23	52	96	899	256	188	162	264	74	69	108	65	432
24	51	96	774	338	180	156	258	68	64	110	55	543
25	50	95	527	436	191	153	304	64	60	136	46	626
26	50	95	343	542	258	159	288	60	54	205	45	622
27	52	95	264	607	302	223	239	56	48	313	48	714
28	53	95	232	581	303	379	206	54	59	371	49	948
29	55	95	256	444	224	479	178	50	76	357	134	1100
30	57	94	298	309	---	486	157	47	77	343	391	1180
31	58	---	332	255	---	374	---	46	---	279	558	---
TOTAL	2593	3040	9797	10280	6657	6115	8302	3861	2039	3924	4058	11055
MEAN	83.6	101	316	332	230	197	277	125	68.0	127	131	368
MAX	172	131	899	607	372	486	429	231	99	371	558	1180
MIN	50	63	97	187	172	153	157	46	42	34	37	47
AC-FT	5140	6030	19430	20390	13200	12130	16470	7660	4040	7780	8050	21930

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

MEAN	276	501	1172	1372	1543	1562	1480	1385	836	284	135	192
MAX	2350	2081	4836	4874	4642	4622	4301	4484	4316	1718	519	950
(WY)	1974	1986	1961	1991	1983	1969	1969	1966	1993	1976	1979	1973
MIN	5.56	18.0	67.8	150	158	183	172	119	34.2	18.0	22.4	16.2
(WY)	1968	1968	1965	1981	1967	1967	1972	1972	1971	1971	1972	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1996	
ANNUAL TOTAL	492711		71721			
ANNUAL MEAN	1350		196		888	
HIGHEST ANNUAL MEAN					1917	1991
LOWEST ANNUAL MEAN					154	1964
HIGHEST DAILY MEAN	7400	Apr 27	1180	Sep 30	41600	Mar 31 1989
LOWEST DAILY MEAN	43	Sep 1	34	Jul 12	2.1	Aug 14 1964
ANNUAL SEVEN-DAY MINIMUM	49	Aug 26	45	Jul 7	3.5	Aug 8 1964
INSTANTANEOUS PEAK FLOW			1210	Sep 30	42500	Mar 31 1989
INSTANTANEOUS PEAK STAGE			9.74	Sep 30	23.20	Mar 31 1989
ANNUAL RUNOFF (AC-FT)	977300		142300		643600	
10 PERCENT EXCEEDS	4130		405		2260	
50 PERCENT EXCEEDS	301		154		325	
90 PERCENT EXCEEDS	66		53		49	

08036700 LAKE NACOGDOCHES NEAR NACOGDOCHES, TX

LOCATION.--Lat 31°35'19", long 94°49'31", Nacogdoches County, Hydrologic Unit 12020004, at upstream side of dam on Bayou Loco near service outlet tower and 10 mi west of Nacogdoches.

DRAINAGE AREA.--87.9 mi².

PERIOD OF RECORD.--March 1977 to current year.

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

REMARKS.--The lake is formed by a rolled earthfill dam. Deliberate impoundment began July 14, 1976. Water is used for industrial and municipal supply by the city of Nacogdoches. The spillway is an uncontrolled 500-foot-wide cut through natural ground located near the right end of dam. There is an uncontrolled drop inlet with a 20.5-foot-diameter top opening that is connected to an 8 x 7-foot conduit that extends through the dam. A separate multi-gated inlet tower is connected to a valve by a 30-inch conduit through the dam. The valve box directs water to a purification plant. 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	303.0	-
Top of design flood	298.5	100,100
Crest of spillway	286.0	56,770
Crest of drop inlet (top of conservation pool)	279.0	39,520
Lowest gated outlet (invert of 30 in. conduit)	238.25	15

COOPERATION.--The capacity table, furnished by the Texas Water Development Board, dated June 16, 1994, is from a March 1994 survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 54,640 acre-ft Oct. 17, 1994 (elevation, 284.18 ft); minimum since first appreciable storage, 20,540 acre-ft Nov. 26, 1977 (elevation, 266.62 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 35,950 acre-ft Oct. 3 at 0300 hours (elevation, 277.30 ft); minimum, 31,750 acre-ft Aug. 26 (elevation, 275.14 ft).

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

266.0	17,360	274.0	29,680	282.0	46,340
268.0	20,130	276.0	33,370	284.0	51,360
270.0	23,100	278.0	37,390	285.0	54,020
272.0	26,250	280.0	41,700		

(ADR/DCP)
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35670	34930	34260	35340	35360	35220	34810	35100	34200	33490	32450	32710
2	35870	34890	34240	35360	35340	35120	34750	35080	34140	33450	32410	32670
3	35870	34870	34260	35340	35380	35120	34710	35060	34100	33430	32350	32660
4	35890	34850	34280	35380	35380	35100	34710	35020	34060	33390	32340	32620
5	35790	34850	34260	35360	35380	35120	34810	35040	34000	33310	32200	32580
6	35670	34790	34260	35300	35380	34970	34810	35020	33960	33290	32170	32540
7	35650	34790	34260	35320	35380	35020	34790	35010	33920	33220	32110	32490
8	35610	34730	34260	35300	35400	35060	34790	34950	33860	33180	32050	32450
9	35570	34750	34240	35280	35400	35020	34770	34950	33800	33200	32070	32430
10	35540	34750	34200	35280	35400	34970	34730	34910	33800	33160	32040	32410
11	35520	34750	34240	35300	35440	34930	34710	35060	36590	33090	32300	32370
12	35520	34690	34220	35300	35440	34890	34830	35040	33700	33090	32300	32320
13	35500	34710	34160	35260	35380	34870	34810	35020	33700	32990	32280	32280
14	35440	34690	34180	35280	35380	34910	34930	34970	33700	32980	32220	32240
15	35340	34650	34300	35280	35380	34890	34890	34930	33760	32940	32190	32200
16	35320	34610	34570	35300	35340	34910	34810	34910	33740	32960	32150	32130
17	35280	34590	34870	35240	35320	34910	34790	34850	33760	32920	32090	32150
18	35260	34530	35220	35300	35300	34950	34770	34790	33860	32920	32050	32190
19	35220	34530	35340	35360	35340	34930	34770	35040	33900	32860	32020	32150
20	35180	34550	35320	35360	35260	34870	34990	34870	33900	32790	32040	32200
21	35120	34530	35320	35360	35260	34810	34970	34810	33860	32730	31960	32660
22	35080	34510	35320	35360	35260	34790	35240	34730	33820	32690	31960	32670
23	35060	34470	35320	35300	35260	34730	35220	34670	33760	32690	31920	32660
24	35040	34470	35300	35460	35260	34810	35200	34610	33740	32660	31880	32880
25	35010	34410	35280	35460	35220	34770	35180	34570	33780	32670	31850	32880
26	34930	34390	35260	35420	35260	34810	35200	34530	33720	32620	31830	33110
27	34970	34340	35300	35440	35220	34810	35100	34470	33670	32640	31810	33470
28	34950	34370	35280	35420	35240	34830	35180	34390	33690	32660	31870	33690
29	34930	34300	35240	35420	35220	34830	35200	34350	33650	32580	32540	33760
30	34910	34280	35280	35400	---	34810	35180	34300	33630	32540	32730	33720
31	34870	---	35260	35400	---	34810	---	34240	---	32520	32730	---
MAX	35890	34930	35340	35460	35440	35220	35240	35100	36590	33490	32730	33760
MIN	34870	34280	34160	35240	35220	34730	34710	34240	33630	32520	31810	32130
(+)	276.76	276.46	276.96	277.03	276.94	276.73	276.92	276.44	276.13	275.55	275.66	276.18
(@)	-3640	-590	+980	+140	-180	-410	+370	-940	-610	-1110	+210	+990
(++)	298	251	213	205	235	276	303	452	378	446	437	342

CAL YR 1995 MAX 49900 MIN 34160 (@) -9240 (++) 2926
WTR YR 1996 MAX 36590 MIN 31810 (@) -4790 (++) 3836

(+) Elevation in feet, at end of month.
(@) Change in contents, in acre-feet.
(++) Diversions, in acre-feet, by the city of Nacogdoches.

08037000 ANGELINA RIVER NEAR LUFKIN, TX

LOCATION.--Lat 31°27'26", long 94°43'34", Angelina-Nacogdoches County line, Hydrologic Unit 12020004, near right bank on downstream side of bridge on U.S. Highway 59, 100 ft upstream from Procella Creed, 1.5 mi downstream from Bayou Loco, 1.5 mi upstream from Southern Pacific Transportation Co. (formerly Southern Pacific Lines) bridge, 8 mi north of Lufkin and 109.5 mi upstream from mouth.

DRAINAGE AREA.--1,600 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1954 to September 1978, January 1994 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1954 to September 1978.
WATER TEMPERATURES: October 1954 to September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,090 microsiemens Nov. 10, 11, 1963; minimum 38 microsiemens Sept. 21, 1958, May 2, 1962.
WATER TEMPERATURE: Maximum, 32.0°C on several day during July 1966; minimum, 0.0°C Jan. 11, 12, 1962, Jan. 19, 1977.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB 15...	0920	309	186	7.1	12.0	62	18	9.6	89	2.3	32	16
APR 25...	1405	391	157	6.7	22.0	250	28	7.6	87	1.4	33	12
JUN 13...	0918	56	172	7.0	25.0	360	--	6.4	78	0.7	34	0
JUL 23...	1110	115	280	6.7	30.0	110	38	6.0	80	1.4	38	17
AUG 21...	1200	72	155	7.4	27.0	140	33	6.3	79	1.2	23	7
SEP 10...	1305	80	151	7.1	25.5	250	33	6.2	76	1.4	28	9

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB 15...	6.7	3.6	19	1	2.8	16	22	26	<0.10	14	105	33
APR 25...	7.3	3.6	16	1	3.9	21	22	18	0.10	14	99	33
JUN 13...	7.7	3.7	19	1	3.4	37	11	18	0.20	17	104	52
JUL 23...	8.7	4.0	33	2	4.0	21	23	47	0.20	17	150	48
AUG 21...	5.2	2.5	16	1	5.1	16	25	13	<0.10	15	94	30
SEP 10...	7.2	2.5	14	1	4.6	19	22	15	<0.10	18	96	20

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB 15...	<1	--	0.100	0.100	0.010	0.110	0.110	<0.015	--	<0.20	0.010
APR 25...	15	18	0.210	--	<0.010	0.210	0.210	0.040	0.36	0.40	0.030
JUN 13...	18	34	0.310	0.310	0.010	0.320	0.320	0.070	0.33	0.40	0.040
JUL 23...	6	42	0.160	0.160	0.010	0.170	0.170	0.020	0.28	0.30	<0.010
AUG 21...	10	20	0.430	--	<0.010	0.430	0.430	0.030	0.37	0.40	<0.010
SEP 10...	10	10	0.220	--	<0.010	0.220	0.220	0.020	0.48	0.50	0.020

08037000 ANGELINA RIVER NEAR LUFKIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB 15...	<0.010	--	5.7	<1	40	<0.50	<1.0	<5.0	3.0	<10	180
APR 25...	0.020	0.06	13	1	51	<0.50	<1.0	<5.0	<3.0	<10	220
JUN 13...	0.030	0.09	8.5	--	--	--	--	--	--	--	--
JUL 23...	0.010	0.03	16	--	--	--	--	--	--	--	--
AUG 21...	0.020	0.06	9.7	<1	40	<0.50	<1.0	<5.0	<3.0	<10	62
SEP 10...	0.020	0.06	13	--	--	--	--	--	--	--	--

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB 15...	<10	11	54	<0.1	<10	<10	<1	<1.0	100	<6	<3.0
APR 25...	<10	9	190	<0.1	<10	<10	<1	<1.0	98	<6	6.0
JUN 13...	--	--	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	10	8	36	<0.1	<10	10	<1	1.0	77	<6	7.0
SEP 10...	--	--	--	--	--	--	--	--	--	--	--

08038000 ATTOYAC BAYOU NEAR CHIRENO, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 31°30'15", long 94°18'15", Nacogdoches-San Augustine County Line, Hydrologic Unit 12020005, near right bank on downstream side of bridge on State Highway 21, 2.2 mi upstream from Amaladeros Creek, 2.8 mi east of Chireno, 5.4 mi downstream from Arenoso Creek and 41 mi upstream from mouth.

DRAINAGE AREA.--503 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1924 to September 1925, July 1939 to November 1954, and October 1955 to Sept. 30, 1985. Monthly discharge only for some periods, published in WSP 1312 and 1732. October 1985 to September 1989 (annual maximum). October 1989 to current year (peak discharges greater than base discharge).

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 169.58 ft above sea level. Jan. 24, 1924, to Aug. 29, 1925, and Sept. 6, 1957, to Oct. 27, 1958, nonrecording gage at same site and datum.

REMARKS.--Flow is affected at times by discharge from the flood-detention pools of twelve floodwater-retarding structures with a combined detention capacity of 15,870 acre-ft. These structures control runoff from 46.7 mi^2 above this station. Satellite telemeter at station.

AVERAGE DISCHARGE.--45 years (water years 1940-54, 1956-1985) 479 ft^3/s (12.93 in/yr), 347,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,900 ft^3/s Nov. 24, 1940 (gage height, 25.97 ft); minimum, 0.8 ft^3/s Aug. 26, 27, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1865, 29.9 ft June 29, 1902, from information by local residents. Flood in July 1933 reached a stage of 25.2 ft from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

08038000 ATTOYAC BAYOU NEAR CHIRENO, TX

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1994 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
15...	1220	122	105	6.8	11.0	76	15	10.0	90	2.3	25	7
APR												
26...	1010	220	142	6.7	19.5	200	40	8.2	89	1.5	35	14
JUN												
13...	1110	34	110	6.8	23.0	170	--	6.8	80	0.9	27	1
JUL												
23...	1320	34	115	6.7	29.0	130	35	6.5	84	1.1	26	0
AUG												
21...	1500	22	104	6.9	27.0	110	22	6.5	82	1.0	25	4
SEP												
10...	1450	58	100	7.3	25.0	120	30	7.0	85	1.3	25	2

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB												
15...	5.0	3.1	8.2	0.7	1.8	18	12	9.8	<0.10	13	67	21
APR												
26...	6.9	4.3	11	0.8	3.0	21	21	15	<0.10	13	90	60
JUN												
13...	5.4	3.2	8.4	0.7	2.0	26	6.1	8.1	<0.10	16	68	34
JUL												
23...	5.4	3.1	9.8	0.8	2.5	28	8.6	9.4	0.10	14	72	28
AUG												
21...	4.9	3.0	8.3	0.7	3.0	21	10	8.9	<0.10	13	66	19
SEP												
10...	5.1	2.9	7.5	0.7	2.9	23	8.3	8.1	<0.10	16	67	30

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB											
15...	2	19	0.570	0.570	0.020	0.590	0.590	<0.015	--	<0.20	<0.010
APR											
26...	18	42	0.380	0.380	0.020	0.400	0.400	0.090	0.41	0.50	0.050
JUN											
13...	20	14	0.590	0.590	0.010	0.600	0.600	0.060	0.14	0.20	0.030
JUL											
23...	<1	--	0.460	0.460	0.010	0.470	0.470	0.030	--	<0.20	<0.010
AUG											
21...	11	8	0.460	--	<0.010	0.460	0.460	<0.015	--	0.30	<0.010
SEP											
10...	10	20	0.490	--	<0.010	0.490	0.490	0.020	0.18	0.20	<0.010

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB											
15...	<0.010	--	4.2	<1	38	<0.50	<1.0	<5.0	5.0	<10	610
APR											
26...	0.030	0.09	11	<1	54	<0.50	<1.0	<5.0	<3.0	<10	660
JUN											
13...	0.020	0.06	5.7	--	--	--	--	--	--	--	--
JUL											
23...	0.010	0.03	7.6	--	--	--	--	--	--	--	--
AUG											
21...	0.010	0.03	6.5	<1	44	<0.50	<1.0	<5.0	<3.0	<10	41
SEP											
10...	<0.010	--	7.4	--	--	--	--	--	--	--	--

08038000 ATTOYAC BAYOU NEAR CHIRENO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB											
15...	10	6	52	<0.1	<10	<10	<1	<1.0	70	<6	6.0
APR											
26...	<10	5	83	<0.1	10	<10	<1	<1.0	97	<6	6.0
JUN											
13...	--	--	--	--	--	--	--	--	--	--	--
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
AUG											
21...	<10	6	65	<0.1	<10	<10	<1	<1.0	71	<6	9.0
SEP											
10...	--	--	--	--	--	--	--	--	--	--	--

08039100 AYISH BAYOU NEAR SAN AUGUSTINE, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 31°23'46", long 94°09'03", San Augustine County, Hydrologic Unit 12020005, near center of span on downstream side of bridge on State Highway 103, 3.0 mi upstream from Turkey Creek and 9.5 mi south of San Augustine.

DRAINAGE AREA.--89.0 mi².

PERIOD OF RECORD.--February 1959 to September 1985. October 1985 to September 1989 (annual maximum), October 1989 to current year (peak discharges greater than base discharge).

REVISED RECORDS.--WSP 1922: 1959(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 190.22 ft above sea level. Prior to June 2, 1959, nonrecording gage at same site and datum.

REMARKS.--Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE.--26 years (water years 1960-85), 83.7 ft³/s, 12.77 in/yr, 60,640 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft³/s Sept. 14, 1978 (gage height, 18.02 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since October 1957, 15,900 ft³/s on Sept. 21 or 22, 1958 (gage height, 17.5 ft, from floodmarks).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX

LOCATION.--Lat 31°03'38", long 94°06'21", Jasper County, Hydrologic Unit 12020005, in the powerhouse-intake structure of Sam Rayburn Dam on the Angelina River, 10 mi northwest of Jasper and 25.2 mi upstream from mouth.

DRAINAGE AREA.--3,449 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--January 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers). Prior to Apr. 20, 1965, nonrecording gage at same site and datum.

REMARKS.--The reservoir is formed by a rolled earthfill dam 19,430 ft long, including spillway and dikes. The dam was completed and deliberate impoundment began Mar. 29, 1965. The spillway is an uncontrolled broad-crested weir 2,200 ft wide, on right bank 7,000 ft to right of outlet works and is designed to discharge 125,300 ft³/s at maximum flood design. The flood-control outlet works consists of two 10.0 x 20.0-foot rectangular concrete-lined conduits controlled by two 10.0 x 20.0-foot tractor-type service gates and one 10.0 x 20.0-foot tractor-type emergency gate. Water for turbines is admitted through four 18.0 x 26.0-foot 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 U.S. Army Corps of Engineers and detailed sedimentation ranges established in 1961 and dated February 1965. For statement regarding regulation by Natural Resource Conservation Service flood-water-retarding structures, see station 08038000. Satellite telemeter at station. Figures given herein represent total contents. 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 of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,881,000 acre-ft Feb. 7, 1974 (elevation, 172.17 ft); minimum since conservation storage was reached in 1968, 1,585,000 acre-ft Aug. 10, 1996 (elevation, 150.74 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,350,000 acre-ft Oct. 1 (elevation, 159.30 ft); minimum, 1,585,000 acre-ft Aug. 10 (elevation, 150.74 ft).

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

150.0	1,527,000	166.0	3,085,000	171.0	3,720,000
155.0	1,941,000	168.0	3,329,000	172.0	3,857,000
158.0	2,221,000	170.0	3,586,000	173.0	3,998,000
162.0	2,631,000				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2350000	2176000	2023000	2096000	2093000	2005000	1878000	1826000	1761000	1698000	1603000	1621000
2	2347000	2182000	2013000	2095000	2090000	2002000	1872000	1824000	1759000	1697000	1601000	1622000
3	2347000	2176000	2014000	2083000	2087000	2000000	1866000	1822000	1755000	1695000	1597000	1622000
4	2339000	2170000	2008000	2084000	2074000	1995000	1865000	1822000	1750000	1692000	1595000	1622000
5	2337000	2163000	2004000	2091000	2072000	1996000	1871000	1823000	1745000	1688000	1593000	1623000
6	2330000	2159000	2001000	2095000	2070000	2012000	1861000	1822000	1742000	1684000	1592000	1622000
7	2321000	2158000	1991000	2088000	2068000	1994000	1856000	1819000	1745000	1680000	1592000	1622000
8	2314000	2147000	1992000	2080000	2067000	1985000	1852000	1817000	1740000	1676000	1589000	1622000
9	2309000	2137000	1989000	2081000	2065000	1973000	1846000	1816000	1731000	1673000	1588000	1623000
10	2302000	2146000	1977000	2080000	2063000	1967000	1842000	1815000	1728000	1668000	1585000	1623000
11	2300000	2135000	1971000	2083000	2062000	1962000	1836000	1823000	1724000	1663000	1600000	1622000
12	2294000	2125000	1964000	2079000	2055000	1956000	1837000	1818000	1721000	1659000	1599000	1622000
13	2289000	2126000	1960000	2077000	2051000	1954000	1834000	1816000	1718000	1656000	1600000	1620000
14	2286000	2114000	1960000	2076000	2051000	1952000	1846000	1812000	1715000	1654000	1598000	1617000
15	2277000	2113000	1952000	2075000	2056000	1948000	1834000	1810000	1712000	1650000	1597000	1616000
16	2270000	2105000	1956000	2072000	2045000	1946000	1827000	1808000	1708000	1646000	1596000	1619000
17	2265000	2101000	1983000	2069000	2040000	1940000	1823000	1804000	1703000	1644000	1595000	1616000
18	2260000	2098000	2034000	2083000	2034000	1941000	1820000	1804000	1703000	1642000	1594000	1615000
19	2254000	2094000	2041000	2074000	2035000	1938000	1817000	1799000	1701000	1638000	1595000	1618000
20	2248000	2090000	2069000	2079000	2032000	1929000	1820000	1797000	1714000	1634000	1594000	1621000
21	2234000	2084000	2076000	2078000	2028000	1922000	1816000	1796000	1710000	1630000	1595000	1624000
22	2226000	2071000	2076000	2075000	2025000	1916000	1830000	1791000	1707000	1626000	1596000	1626000
23	2227000	2071000	2076000	2089000	2026000	1908000	1826000	1787000	1704000	1625000	1596000	1626000
24	2217000	2063000	2076000	2086000	2021000	1909000	1822000	1782000	1700000	1625000	1596000	1640000
25	2208000	2056000	2076000	2084000	2018000	1908000	1824000	1779000	1707000	1622000	1595000	1641000
26	2200000	2050000	2076000	2098000	2012000	1903000	1826000	1774000	1704000	1618000	1594000	1656000
27	2200000	2050000	2079000	2087000	2020000	1901000	1819000	1771000	1701000	1615000	1600000	1686000
28	2192000	2042000	2086000	2084000	2016000	1894000	1821000	1768000	1701000	1612000	1605000	1690000
29	2181000	2034000	2084000	2084000	2010000	1890000	1834000	1771000	1700000	1609000	1613000	1696000
30	2178000	2027000	2086000	2096000	---	1890000	1827000	1766000	1700000	1607000	1619000	1699000
31	2169000	---	2085000	2089000	---	1886000	---	1761000	---	1605000	1619000	---
MAX	2350000	2182000	2086000	2098000	2093000	2012000	1878000	1826000	1761000	1698000	1619000	1699000
MIN	2169000	2027000	1952000	2069000	2010000	1886000	1816000	1761000	1700000	1605000	1585000	1615000
(+)	157.46	155.95	156.57	156.62	155.76	154.37	153.69	152.92	152.18	151.00	151.18	152.17
(@)	-185000	-142000	+58000	+4000	-79000	-124000	-59000	-66000	-61000	-95000	+14000	+80000

CAL YR 1995 MAX 3853000 MIN 1952000 @ -1274000
WTR YR 1996 MAX 2350000 MIN 1585000 @ -655000

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1984, September 1993 to current year. Biochemical analyses: November 1967 to September 1984, September 1993 to current year.

310816094041401 - SAM RAYBURN RESERVOIR SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB									
13...	1340	2000000	1.00	130	7.3	11.0	2.00	11.0	99
13...	1342	--	10.0	130	7.2	10.0	--	10.8	95
13...	1344	--	20.0	130	7.0	9.5	--	10.4	90
13...	1346	--	30.0	130	7.0	9.5	--	10.3	89
13...	1348	--	40.0	130	6.9	9.5	--	9.3	81
13...	1350	--	47.0	130	6.9	9.5	--	9.2	80
APR									
23...	1408	1800000	1.00	130	7.2	21.0	--	7.8	87
23...	1410	--	10.0	130	7.1	20.5	--	7.6	84
23...	1412	--	20.0	130	7.0	20.0	--	7.4	82
23...	1414	--	30.0	130	6.9	17.5	--	6.6	69
23...	1416	--	45.0	130	6.9	17.5	--	6.5	68
AUG									
21...	1236	1600000	1.00	155	8.1	30.0	1.80	7.0	93
21...	1238	--	10.0	155	7.8	30.0	--	6.7	89
21...	1240	--	20.0	155	7.0	29.5	--	5.2	68
21...	1242	--	30.0	180	6.9	27.5	--	0.5	6
21...	1244	--	40.0	210	6.9	25.0	--	0.5	6

310437094065501 - SAM RAYBURN RESERVOIR SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
FEB											
14...	0846	1.00	135	7.4	10.0	2.60	11.2	99	K1	K1	29
14...	0848	10.0	135	7.3	9.5	--	11.0	96	--	--	--
14...	0850	20.0	135	7.2	9.5	--	10.9	95	--	--	--
14...	0852	30.0	135	7.1	9.0	--	10.8	93	--	--	--
14...	0854	40.0	135	7.1	9.0	--	10.7	93	--	--	--
14...	0856	50.0	135	7.0	9.0	--	10.5	91	--	--	--
14...	0858	60.0	135	7.0	9.0	--	10.4	90	--	--	--
14...	0900	73.0	135	6.9	9.0	--	10.2	88	--	--	29
APR											
23...	1600	1.00	130	7.4	19.5	2.40	8.2	89	K1	K1	29
23...	1602	10.0	130	7.4	19.5	--	8.2	89	--	--	--
23...	1604	20.0	135	7.4	19.5	--	8.1	88	--	--	--
23...	1606	30.0	135	7.3	19.0	--	8.0	86	--	--	--
23...	1608	40.0	135	7.2	19.0	--	7.9	85	--	--	--
23...	1610	50.0	135	7.0	17.0	--	7.2	74	--	--	--
23...	1612	60.0	135	6.8	16.5	--	6.5	66	--	--	--
23...	1614	72.0	135	6.8	15.5	--	5.7	57	--	--	30
AUG											
21...	1530	1.00	160	7.5	29.5	2.00	6.6	87	K1	K4	29
21...	1532	10.0	160	7.4	29.0	--	6.1	80	--	--	--
21...	1534	20.0	160	7.3	29.0	--	6.0	78	--	--	--
21...	1536	30.0	160	7.0	29.0	--	5.9	77	--	--	--
21...	1538	40.0	160	6.9	28.5	--	5.1	66	--	--	--
21...	1540	50.0	165	6.7	23.0	--	0.5	6	--	--	--
21...	1542	60.0	165	6.9	22.0	--	0.6	7	--	--	--
21...	1544	66.0	165	6.8	20.5	--	0.7	8	--	--	33

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

310437094065501 - SAM RAYBURN RESERVOIR SITE CC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB											
14...	9	6.3	3.1	12	1	2.5	20	14	15	<0.10	6.3
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	9	6.4	3.1	12	1	2.5	20	15	15	<0.10	6.3
APR											
23...	4	6.6	3.0	13	1	2.7	25	17	13	<0.10	4.3
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	7	6.8	3.1	13	1	2.6	23	17	14	<0.10	5.7
AUG											
21...	8	6.4	3.1	16	1	2.7	21	19	18	0.10	6.2
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	0	7.6	3.3	13	1	2.8	40	9.3	18	<0.10	12

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB											
14...	71	0.010	<0.050	<0.015	--	0.20	<0.010	<0.010	--	20	<10
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	<0.010	<0.050	<0.015	--	0.30	<0.010	<0.010	--	30	<10
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	72	<0.010	<0.050	<0.015	--	0.30	<0.010	<0.010	--	40	10
APR											
23...	75	<0.010	<0.050	0.020	0.18	0.20	<0.010	<0.010	--	36	3.0
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	<0.010	<0.050	0.020	0.18	0.20	<0.010	<0.010	--	39	6.0
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	<0.010	<0.050	<0.015	--	0.20	<0.010	<0.010	--	40	12
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	76	<0.010	<0.050	0.060	0.24	0.30	0.010	<0.010	--	90	160
AUG											
21...	84	<0.010	<0.050	<0.015	--	0.20	<0.010	<0.010	--	6.0	45
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	<0.010	<0.050	<0.015	--	<0.20	<0.010	<0.010	--	130	330
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	<0.010	<0.050	0.360	0.24	0.60	0.050	0.070	0.21	2000	3100
21...	--	--	--	--	--	--	--	--	--	--	--
21...	98	<0.010	<0.050	0.900	0.20	1.1	0.140	0.180	0.55	2800	3600

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

310802094112201 - SAM RAYBURN RESERVOIR SITE FC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
14...	0920	1.00	135	7.4	10.0	--	11.0	97
14...	0922	10.0	135	7.4	10.0	--	11.0	97
14...	0924	20.0	135	7.3	9.5	--	10.8	95
14...	0926	30.0	135	7.1	9.5	--	10.6	93
14...	0928	40.0	135	7.1	9.0	--	10.4	90
14...	0930	50.0	135	7.1	9.0	--	10.4	90
14...	0932	60.0	135	7.1	9.0	--	10.3	89
14...	0934	65.0	135	7.1	9.0	--	10.3	89
APR								
24...	0930	1.00	135	7.1	19.5	--	7.5	81
24...	0932	10.0	135	7.1	19.5	--	7.5	81
24...	0934	20.0	135	7.0	19.5	--	7.4	80
24...	0936	30.0	135	6.9	19.0	--	7.0	75
24...	0938	40.0	135	6.8	17.5	--	5.8	60
24...	0940	50.0	135	6.8	17.0	--	5.4	56
24...	0942	65.5	135	6.7	16.5	--	5.3	54
AUG								
22...	1325	1.00	165	7.3	29.5	1.20	4.3	57
22...	1327	10.0	165	7.2	29.0	--	4.2	55
22...	1329	20.0	165	7.0	29.0	--	4.2	55
22...	1331	30.0	165	6.9	29.0	--	4.0	52
22...	1333	40.0	180	6.8	24.0	--	0.5	6
22...	1335	50.0	180	6.8	22.0	--	0.6	7
22...	1337	58.0	180	6.8	21.5	--	0.7	8

311039094141201 - SAM RAYBURN RESERVOIR SITE GC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
14...	0950	1.00	135	7.4	10.0	2.48	11.0	97
14...	0952	10.0	135	7.3	10.0	--	10.8	96
14...	0954	20.0	135	7.2	9.5	--	10.5	92
14...	0956	30.0	135	7.1	9.5	--	10.2	89
14...	0958	40.0	135	7.1	9.5	--	10.2	89
14...	1000	50.0	140	7.0	9.0	--	10.1	87
14...	1002	60.0	140	7.0	9.0	--	10.0	86
APR								
24...	1030	1.00	140	7.1	20.5	--	7.2	80
24...	1032	10.0	140	7.0	20.0	--	7.2	79
24...	1034	20.0	140	6.8	20.0	--	6.9	76
24...	1036	30.0	140	6.6	19.5	--	6.3	68
24...	1038	40.0	150	6.6	18.5	--	5.4	57
24...	1040	55.0	160	6.5	18.0	--	4.4	46
AUG								
22...	1258	1.00	170	7.3	29.5	1.88	5.6	74
22...	1300	10.0	175	7.1	29.5	--	5.4	71
22...	1302	20.0	175	7.1	29.0	--	5.0	65
22...	1304	30.0	175	7.1	29.0	--	4.8	63
22...	1306	40.0	175	7.0	29.0	--	4.7	61
22...	1308	53.0	175	6.9	22.5	--	0.6	7

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

311828094191801 - SAM RAYBURN RESERVOIR SITE IC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)
FEB											
14...	1042	1.00	165	7.5	10.5	1.42	11.2	100	K1	K1	29
14...	1044	10.0	165	7.5	10.0	--	11.0	97	--	--	--
14...	1046	20.0	165	7.1	10.0	--	10.7	95	--	--	--
14...	1048	30.0	160	7.0	9.5	--	10.3	90	--	--	--
14...	1050	40.0	160	6.9	9.0	--	10.2	88	--	--	--
14...	1052	54.0	165	6.9	9.0	--	9.9	86	--	--	30
APR											
24...	1110	1.00	190	7.2	21.0	1.60	7.3	82	K1	K1	30
24...	1112	10.0	190	6.9	20.5	--	6.9	76	--	--	--
24...	1114	20.0	190	6.7	20.5	--	6.3	70	--	--	--
24...	1116	30.0	190	6.6	20.0	--	5.8	64	--	--	--
24...	1118	40.0	200	6.4	19.0	--	4.1	44	--	--	--
24...	1120	--	210	6.4	18.5	--	3.1	33	--	--	33
AUG											
22...	1150	1.00	200	7.2	29.5	1.20	4.9	65	K3	48	32
22...	1152	10.0	200	7.1	29.5	--	4.7	62	--	--	--
22...	1154	20.0	200	7.0	29.5	--	4.6	61	--	--	--
22...	1156	30.0	250	7.0	27.5	--	0.5	6	--	--	--
22...	1158	40.0	270	7.1	25.0	--	0.5	6	--	--	--
22...	1200	47.0	280	7.0	24.0	--	0.5	6	--	--	45

DATE	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB											
14...	9	6.3	3.1	18	1	2.6	20	19	20	<0.10	6.7
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	9	6.6	3.3	18	1	2.6	21	19	20	<0.10	7.8
APR											
24...	9	6.7	3.2	25	2	2.8	21	27	25	<0.10	5.6
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	12	7.5	3.5	26	2	3.0	21	30	27	<0.10	8.1
AUG											
22...	8	7.2	3.3	23	2	3.0	24	21	26	0.10	9.1
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	0	11	4.3	19	1	3.4	61	7.2	31	0.10	13

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB											
14...	88	<0.010	<0.050	<0.015	--	0.20	0.030	<0.010	--	50	<10
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	<0.010	<0.050	<0.015	--	0.30	<0.010	<0.010	--	80	<10
14...	--	--	--	--	--	--	--	--	--	--	--
14...	90	0.020	<0.050	0.020	0.18	0.20	0.010	<0.010	--	90	10
APR											
24...	108	<0.010	<0.050	<0.015	--	0.30	<0.010	<0.010	--	15	6.0
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	<0.010	<0.050	0.020	0.28	0.30	<0.010	<0.010	--	21	20
24...	--	--	--	--	--	--	--	--	--	--	--
24...	118	<0.010	<0.050	0.120	0.28	0.40	<0.010	<0.010	--	86	340
AUG											
22...	107	<0.010	<0.050	0.020	0.28	0.30	<0.010	<0.010	--	43	160
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	<0.010	<0.050	1.50	0.10	1.6	0.020	0.020	0.06	3600	5200
22...	--	--	--	--	--	--	--	--	--	--	--
22...	144	<0.010	<0.050	3.50	0.30	3.8	0.040	0.060	0.18	6200	7500

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

311804094234901 - SAM RAYBURN RESERVOIR SITE JC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
14...	1200	1.00	280	7.2	10.0	0.68	10.3	92
14...	1202	10.0	275	7.1	10.0	--	10.2	91
14...	1204	20.0	275	7.0	10.0	--	9.9	88
14...	1206	30.0	275	7.0	10.0	--	9.8	87
APR								
24...	1305	1.00	305	7.7	22.5	--	7.3	84
24...	1307	10.0	300	7.0	21.5	--	6.5	74
24...	1309	25.0	300	7.0	21.5	--	6.5	74
AUG								
22...	1045	1.00	315	7.3	29.0	0.80	4.6	60
22...	1047	10.0	315	7.3	29.0	--	4.5	59
22...	1049	20.0	325	7.3	29.0	--	4.3	56
22...	1051	26.0	325	7.2	29.0	--	3.7	48

312216094280601 - SAM RAYBURN RESERVOIR SITE KC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
14...	1245	1.00	365	7.2	14.0	0.50	9.6	93	K8	44	40	9
14...	1247	10.0	370	7.2	13.0	--	9.6	91	--	--	--	--
14...	1249	21.0	370	7.2	12.5	--	9.5	89	--	--	40	9
APR												
25...	0800	1.00	435	6.6	20.0	1.00	5.4	60	90	74	46	7
25...	0802	18.0	435	6.5	20.0	--	5.4	60	--	--	47	6

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
FEB												
14...	9.0	4.2	52	4	3.9	31	46	53	<0.10	15	203	0.250
14...	--	--	--	--	--	--	--	--	--	--	--	0.260
14...	9.1	4.2	54	4	3.9	31	46	54	<0.10	15	207	0.240
APR												
25...	11	4.6	64	4	4.0	39	50	69	0.10	13	242	0.250
25...	11	4.8	66	4	5.3	41	50	66	0.10	13	244	0.250

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB												
14...	0.250	0.020	0.270	0.270	0.040	0.16	0.20	0.020	0.020	0.06	290	120
14...	0.260	0.020	0.280	0.280	0.040	0.26	0.30	0.040	0.020	0.06	330	120
14...	0.240	0.020	0.260	0.260	0.050	0.25	0.30	0.030	0.030	0.09	410	120
APR												
25...	0.250	0.020	0.270	0.270	0.130	0.57	0.70	0.080	0.070	0.21	950	280
25...	0.250	0.030	0.280	0.280	0.140	0.56	0.70	0.130	0.130	0.40	1600	290

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

311000094010301 - SAM RAYBURN RESERVOIR SITE LC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
FEB									
13...	1445	1.00	130	7.4	12.5	1.58	10.9	102	<0.010
13...	1447	10.0	130	7.2	10.5	--	10.8	97	--
13...	1449	20.0	130	7.1	10.5	--	10.6	95	--
13...	1451	29.0	130	7.0	10.5	--	10.4	93	<0.010
APR									
23...	1515	1.00	135	7.3	23.0	2.40	7.3	85	<0.010
23...	1517	10.0	135	7.2	22.5	--	7.1	82	--
23...	1519	15.0	135	7.2	22.5	--	7.0	81	<0.010
AUG									
21...	1435	1.00	150	7.6	31.0	1.60	6.6	89	<0.010
21...	1437	10.0	150	6.9	29.5	--	5.0	66	--
21...	1439	18.0	150	6.8	29.5	--	4.0	53	<0.010

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
13...	<0.050	0.020	0.18	0.20	<0.010	<0.010	280	410
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	<0.050	0.050	0.25	0.30	0.030	<0.010	120	50
APR								
23...	<0.050	0.030	0.27	0.30	<0.010	<0.010	32	2.0
23...	--	--	--	--	--	--	--	--
23...	<0.050	<0.015	--	0.30	0.020	<0.010	41	2.0
AUG								
21...	<0.050	0.020	0.18	0.20	<0.010	<0.010	5.0	56
21...	--	--	--	--	--	--	--	--
21...	<0.050	0.090	0.21	0.30	<0.010	<0.010	29	420

31113/094051401 - SAM RAYBURN RESERVOIR SITE MC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
FEB									
13...	1406	1.00	125	7.2	12.0	1.45	10.9	100	<0.010
13...	1408	10.0	125	7.1	10.5	--	10.8	96	--
13...	1410	20.0	125	7.0	10.5	--	10.7	95	--
13...	1412	25.0	125	7.1	10.5	--	10.6	94	0.010
APR									
23...	1430	1.00	135	7.2	21.5	1.00	7.6	86	<0.010
23...	1432	10.0	135	7.1	21.0	--	7.5	84	--
23...	1434	20.0	135	7.0	20.5	--	7.0	77	--
23...	1436	27.5	135	6.9	20.5	--	7.0	77	<0.010
AUG									
21...	1325	1.00	155	8.2	30.5	1.76	7.0	94	<0.010
21...	1327	10.0	155	7.9	30.5	--	6.6	88	--
21...	1329	20.0	155	6.5	29.5	--	2.3	30	--
21...	1331	30.0	155	6.5	29.5	--	2.3	30	<0.010

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

311137094051401 - SAM RAYBURN RESERVOIR SITE MC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
13...	<0.050	0.030	0.17	0.20	<0.010	<0.010	130	<10
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	<0.050	<0.015	--	0.30	<0.010	<0.010	130	<10
APR								
23...	<0.050	0.020	0.28	0.30	<0.010	<0.010	37	2.0
23...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
23...	<0.050	0.020	0.28	0.30	<0.010	<0.010	44	3.0
AUG								
21...	<0.050	0.020	0.18	0.20	<0.010	<0.010	4.0	31
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
21...	<0.050	0.060	0.24	0.30	<0.010	<0.010	10	320

311817094190701 - SAM RAYBURN RESERVOIR SITE NC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
FEB									
14...	1120	1.00	145	7.4	11.0	1.00	10.8	98	0.010
14...	1122	10.0	145	7.3	11.0	--	10.6	96	--
14...	1124	20.0	140	7.3	11.0	--	10.6	96	--
14...	1126	26.0	140	7.2	11.0	--	10.1	92	0.010
APR									
24...	1205	1.00	145	6.9	22.5	1.00	6.6	76	<0.010
24...	1207	10.0	145	6.8	22.5	--	6.5	75	--
24...	1209	22.0	150	6.7	22.0	--	5.8	66	<0.010
AUG									
22...	0940	1.00	190	6.9	29.5	0.60	4.8	63	<0.010
22...	0942	10.0	190	6.9	29.5	--	4.7	62	--
22...	0944	20.0	190	6.8	29.0	--	4.5	59	<0.010

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
14...	<0.050	0.020	0.28	0.30	0.020	<0.010	140	<10
14...	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--
14...	<0.050	0.020	--	<0.20	<0.010	<0.010	160	<10
APR								
24...	<0.050	0.020	0.28	0.30	<0.010	<0.010	95	4.0
24...	--	--	--	--	--	--	--	--
24...	<0.050	<0.015	--	0.30	0.020	<0.010	81	10
AUG								
22...	<0.050	0.020	0.38	0.40	<0.010	<0.010	14	8.0
22...	--	--	--	--	--	--	--	--
22...	<0.050	0.020	0.28	0.30	<0.010	<0.010	18	28

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site CC (310437094065501)

Phytoplankton Analyses October 1995 to September 1996

Date	2-14-96
Time	846
TOTAL CELLS/mL	10,587
NUMBER OF SPECIES	9
DEPTH COLLECTED (ft.)	4.3

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Fragilaria sp.	125
Synedra delicatissima var. *angustissima*	291
CHLOROPHYTA	
Ankistrodesmus falcatus var. *falcatus*	208
Chlamydomonas sp.	178
Mougeotia sp.	506
CYANOPHYTA	
Aphanocapsa delicatissima	7,138
Oscillatoria amoena	1,487
EUGLENOPHYTA	
Trachelomonas sp.	416
CRYPTOPHYTA	
Cryptomonas erosa	238

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site IC (311828094191801)

Phytoplankton Analyses October 1995 to September 1996

Date	2-14-96
Time	1042
TOTAL CELLS/mL	29,502
NUMBER OF SPECIES	22
DEPTH COLLECTED (ft.)	2.3

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Melosira granulata	309
Melosira juergensii	464
Order Pennales	
Cocconeis placentula var. *placentula*	31
Fragilaria crotonensis var. *crotonensis*	528
Fragilaria sp.	528
Synedra delicatissima var. *angustissima*	2,362
CHLOROPHYTA	
Ankistrodesmus falcatus var. *falcatus*	268
Chlamydomonas sp.	476
Cosmarium sp.	30
Micractinium pusillum	268
Mougeotia sp.	3,212
Pediastrum sp.	119
Scenedesmus opoliensis	59
Scenedesmus quadrimaculatus	89
Selenastrum Westii	238
CYANOPHYTA	
Anabaena planctonica	1,190
Aphanocapsa delicatissima	17,249
Aphanocapsa elachista	1,190
CHRYSOPHYTA	
Mallomonas sp.	59
EUGLENOPHYTA	
Trachelomonas sp.	446
PYRRHOPHYTA	
Peridinium pusillum	30
CRYPTOPHYTA	
Cryptomonas erosa	357

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site KC (312216094280601)

Phytoplankton Analyses October 1995 to September 1996

Date	2-14-96
Time	1245
TOTAL CELLS/mL	4,995
NUMBER OF SPECIES	13
DEPTH COLLECTED (ft.)	0.8

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cocconeis placentula var. *placentula*	31
Fragilaria sp.	125
Navicula lanceolata	125
Stauroneis obtusa var. *obtusa*	845
Surirella guatemalensis	31
Synedra delicatissima var. *angustissima*	31
CHLOROPHYTA	
Ankistrodesmus falcatus var. *falcatus*	387
Chlamydomonas sp.	89
Micractinium pusillum	30
Mougeotia sp.	59
CYANOPHYTA	
Aphanocapsa delicatissima	2,974
EUGLENOPHYTA	
Trachelomonas sp.	238
CRYPTOPHYTA	
Cryptomonas erosa	30

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site CC (310437094065501)

Phytoplankton Analyses October 1995 to September 1996

Date	4-23-96
Time	1600
TOTAL CELLS/mL	9,279
NUMBER OF SPECIES	8
DEPTH COLLECTED (ft.)	3.9

Organisms	Cells/mL
BACILLARIOPHYTA	
Centrales	
Melosira varians	773
Pennales	
Fragilaria crotonensis var. *crotonensis*	446
CHLOROPHYTA	
Ankistrodesmus falcatus	268
Scenedesmus opoliensis	30
CYANOPHYTA	
Anabaena sp.	297
Aphanizomenon flos-aquae	1,487
Aphanocapsa delicatissima	5,948
CHRYSOPHYTA	
Dinobryon sociale	30

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site IC (311828094191801)

Phytoplankton Analyses October 1995 to September 1996

Date	4-24-96
Time	1110
TOTAL CELLS/mL	18,618
NUMBER OF SPECIES	11
DEPTH COLLECTED (ft.)	2.6

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	25
Melosira varians	124
Order Pennales	
Navicula sp.	149
Synedra ulna var. *ulna*	149
BACILLARIOPHYTA	
Ankistrodesmus falcatus	446
Pediastrum duplex	30
Scenedesmus opoliensis	387
BACILLARIOPHYTA	
Aphanizomenon flos-aquae	3,271
Aphanocapsa delicatissima	5,948
Chroococcus limneticus	238
Merismopedia teniussima	7,851

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site KC (312216094280601)

Phytoplankton Analyses October 1995 to September 1996

Date	4-25-96
Time	0800
TOTAL CELLS/mL	**6,871**
NUMBER OF SPECIES	**7**
DEPTH COLLECTED (ft.)	**1.6**

Organisms	Cells/mL
BACILLARIOPHYTA	
Pennales	
Fragilaria crotonensis var. *crotonensis*	880
Navicula sp.	220
CHLOROPHYTA	
Scenedesmus opoliensis	30
CYANOPHYTA	
Aphanizomenon flos-aquae	1,190
Aphanocapsa delicatissima	3,569
Merismopedia tenuissima	952
EUGLENOPHYTA	
Trachelomonas sp.	30

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site CC (310437094065501)

Phytoplankton Analyses October 1995 to September 1996

Date	8-21-96
Time	1530
TOTAL CELLS/mL	49,933
NUMBER OF SPECIES	16
DEPTH COLLECTED (ft.)	3.3

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Amphora ovalis var. *ovalis*	65
Cocconeis placentula var. *placentula*	8
Fragilaria crotonensis var. *crotonensis*	4
Navicula sp.	4
Pinnularia acuminata var. *acuminata*	219
Pinnularia parvula var. *parvula*	56
CHLOROPHYTA	
Ankistrodesmus falcatus	3,569
Chlamydomonas sp.	178
Cosmarium sp.	30
Scenedesmus opoliensis	119
Staurastrum sp.	30
CYANOPHYTA	
Aphanizomenon flos-aquae	2,379
Aphanocapsa delicatissima	37,472
Aphanocapsa elachista	5,651
EUGLENOPHYTA	
Trachelomonas sp.	30
PYRRHOPHYTA	
Glenodinium gymnodinium	119

08039300 SAM RAYBURN RESERVOIR NEAR JASPER, TX--Continued

Sam Rayburn Reservoir Site IC (311828094191801)

Phytoplankton Analyses October 1995 to September 1996

Date	8-22-96
Time	1150
TOTAL CELLS/mL	99,152
NUMBER OF SPECIES	16
DEPTH COLLECTED (ft.)	2.0

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Amphora ovalis var. *ovalis*	26
Cocconeis placentula var. *placentula*	26
Fragilaria crotonensis var. *crotonensis*	131
Pinnularia acuminata var. *acuminata*	445
Pinnularia parvula var. *parvula*	26
CHLOROPHYTA	
Ankistrodesmus falcatus	2,201
Chlamydomonas sp.	89
Scenedesmus opoliensis	178
Staurastrum sp.	30
CYANOPHYTA	
Aphanizomenon flos-aquae	5,056
Aphanocapsa delicatissima	68,402
Aphanocapsa elachista	19,628
Chroococcus limneticus	714
Merismopedia tenuissima	1,903
EUGLENOPHYTA	
Trachelomonas sp.	238
PYRRHOPHYTA	
Glenodinium gymnodinium	59

08039500 ANGELINA RIVER AT HWY 63 NEAR HORGER, TX

LOCATION.--Lat 31°00'54", long 94°09'07", Jasper County, Hydrologic Unit 1202005, at bridge on state highway 63, 0.25 mile east of Horger, 7 miles upstream from Indian Creek and 20 miles upstream from mouth.

DRAINAGE AREA.--3,435 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1994 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)
FEB 13...	1250	3140	126	7.6	10.0	12	1.3	11.0	96	1.0	27
APR 25...	1900	2600	128	7.4	19.5	20	2.8	8.2	90	0.8	27
AUG 22...	0830	--	139	7.7	25.0	25	2.6	6.3	76	1.4	27

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB 13...	7	6.1	2.9	11	0.9	2.5	20	15	12	<0.10	6.0
APR 25...	7	6.2	2.7	12	1	2.3	20	17	13	<0.10	4.3
AUG 22...	6	6.1	2.8	14	1	2.6	21	16	15	<0.10	7.6

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
FEB 13...	68	17	3	14	0.010	<0.050	<0.015	--	0.20	<0.010	<0.010
APR 25...	70	5	13	0	<0.010	<0.050	<0.015	--	0.30	0.010	<0.010
AUG 22...	77	6	9	0	<0.010	<0.050	0.020	0.28	0.30	<0.010	<0.010

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
FEB 13...	--	<1	36	<0.50	<1.0	<5.0	<3.0	<10	19	30
APR 25...	6.1	<1	40	<0.50	<1.0	<5.0	<3.0	<10	9.0	<10
AUG 22...	7.1	2	35	<0.50	<1.0	<5.0	<3.0	<10	23	<10

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB 13...	6	3.0	<0.1	<10	<10	<1	<1.0	79	<6	<3.0
APR 25...	5	<1.0	<0.1	<10	<10	<1	<1.0	77	<6	10
AUG 22...	6	1.0	<0.1	<10	<10	<1	1.0	77	<6	12

08040000 B.A. STEINHAGEN LAKE AT TOWN BLUFF, TX

LOCATION.--Lat 30°47'43", long 94°10'48", Tyler County, Hydrologic Unit 12020003, near right bank 70 ft upstream from outlet structure of Town Bluff Dam on Neches River, 0.4 mi north of Town Bluff and at mile 113.7.

DRAINAGE AREA.--7,573 mi².

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1967, published as Dam B Reservoir at Town Bluff.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Oct. 25, 1954, at site 450 ft upstream at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam with concrete spillway sections. The total length of dam is 6,698 ft, including a concrete spillway and non-overflow section. Deliberate impoundment of water began Apr. 16, 1951, and the dam was completed in June 1951. The uncontrolled spillway is 6,100 ft long. A 326-foot-long gated service spillway with six 40.0- by 35.0-foot tainter gates is located near right end of dam. The capacity of the spillways at maximum flood design is 218,300 ft³/s. The capacity table is based on a survey made in 1945. Water is used for industrial, municipal and irrigation supplies. Satellite telemeter at station. 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 (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 of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 128,400 acre-ft May 22, 1953 (elevation, 85.21 ft); no storage Sept. 18 to Oct. 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 94,390 acre-ft Aug. 30 (elevation, 83.01 ft); minimum, 23,370 acre-ft Feb. 4 (elevation, 75.20 ft).

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

75.0	22,310	79.0	50,090	82.0	81,280
76.0	27,960	80.0	59,320	83.0	94,250
77.0	34,460	81.0	69,680	84.0	108,700
78.0	41,830				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86160	84130	84890	73020	26770	36730	46090	73700	79090	82880	79210	91540
2	85400	85010	82260	72230	26650	35230	46760	74390	78970	80060	78970	89940
3	84510	86420	83000	70110	23750	30720	47510	74960	78610	79090	78970	89680
4	83000	86550	83250	70550	23370	27600	48960	74270	78490	77540	78370	88890
5	82630	86290	83750	73700	25540	26180	50700	72680	78010	76600	77780	87320
6	84130	85520	84380	77420	27840	28150	51410	72570	77900	75890	77540	85400
7	84760	85910	86930	76240	28820	26830	53020	72790	78010	76010	78490	84260
8	85140	85650	89410	75660	26710	29760	53750	73020	77420	76130	78490	84000
9	85400	85270	87970	75780	26590	33710	54210	73020	76600	76600	78970	83630
10	85270	85910	86680	74960	28150	35090	53840	73360	76360	76830	79930	83250
11	85140	85010	86290	74850	29630	36300	52750	74850	76010	76950	84510	82880
12	84760	86290	85910	73130	32160	36730	54390	74730	75430	76480	86800	82510
13	83880	86800	85520	71890	32030	37160	54210	74730	74730	76480	88360	82010
14	83250	86420	85400	70890	31500	37670	55690	74500	74850	75890	89020	81150
15	82510	86030	85400	69670	31040	34670	54210	74390	74850	74960	89680	80660
16	81890	85140	85270	67720	30850	35300	53300	74500	75200	74500	90070	80420
17	81150	84380	92890	64660	31110	35800	52390	74960	75430	75540	90340	79690
18	80540	83630	93840	64140	30850	36510	53110	75200	77420	75540	90340	78970
19	80540	82750	85520	59620	31700	37020	56540	75080	77420	75430	90200	78730
20	80660	81770	78130	56260	31760	40590	59030	74850	81520	75200	89540	78610
21	80300	81640	74850	52660	31370	40750	58740	74850	82010	74960	89540	78250
22	80420	81520	75540	48530	30910	40360	60800	74500	82630	75660	90600	77540
23	80910	82140	76010	46340	30910	37310	61500	74270	83130	75540	90470	76600
24	81030	81770	77780	42220	30330	38330	62910	74040	84000	78610	90200	77660
25	81150	81520	79090	38330	27660	39980	64660	73470	87580	79450	90070	77660
26	81030	81150	78010	35870	28390	44860	66760	72790	88750	79570	89940	78730
27	81640	82630	76830	32560	30330	45930	67830	72790	89410	79450	90600	102200
28	80300	81890	74730	34050	34600	42690	69890	73250	88490	78970	92080	90740
29	80660	84260	74270	35300	35660	43490	72340	76600	86930	78610	94110	89410
30	81270	84510	74040	32620	---	44530	72790	77660	85270	78970	94390	91810
31	81520	---	73250	28090	---	45760	---	78370	---	79330	93160	---
MAX	86160	86800	93840	77420	35660	45930	72790	78370	89410	82880	94390	102200
MIN	80300	81150	73250	28090	23370	26180	46090	72570	74730	74500	77540	76600
(+)	82.02	82.26	81.32	76.02	77.17	78.49	81.28	81.76	82.32	81.84	82.92	82.82
(@)	-5930	+2990	-11260	-45160	+7570	+10100	+27030	+5580	+6900	-5940	+13830	-1350

CAL YR 1995 MAX 100900 MIN 70440 @ -10250
WTR YR 1996 MAX 94390 MIN 23370 @ +4360

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08040600 NECHES RIVER NEAR TOWN BLUFF, TX

LOCATION.--Lat 30°47'27", long 94°09'03", Jasper-Tyler County line, Hydrologic Unit 12020003, on left bank 1.8 mi downstream from Town Bluff Dam, 2.0 mi northeast of Town Bluff, 1.0 mi upstream from Walnut Run, 6.5 mi downstream from Wolf Creek and at mile 114.9.

DRAINAGE AREA.--7,574 mi².

PERIOD OF RECORD.--March 1951 to current year. Prior to Oct. 27, 1989, published as Neches River at Town Bluff.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Dec. 4, 1954 to Oct. 27, 1989, water-stage recorder at site 1.5 mi upstream at same datum. Prior to May 21, 1953, water-stage recorder, and May 21, 1953, to Dec. 3, 1954, nonrecording gage at former site at same datum.

REMARKS.--Records good. Flow regulated by B. A. Steinhagen Lake (station 08040000) 1.8 mi upstream and by Sam Rayburn Reservoir (station 08039300) 37.9 mi upstream. There are some diversions upstream from station. Prior to October 1989, published as 08040500 Neches River at Town Bluff, Tx. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--13 years (water years 1952-64) prior to regulation by Sam Rayburn Reservoir, 4,406 ft³/s (3,192,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1952-64).--Maximum discharge, 90,900 ft³/s May 21, 22, 1953 (elevation, 82.85 ft) at former site; no flow at times due to regulation of B. A. Steinhagen Lake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1884 reached a stage about 86.8 ft (discharge, about 120,000 ft³/s) and is the highest since that date, from information by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3300	3440	3220	3010	2760	2710	2790	1210	1700	1300	1220	2940
2	3650	3450	3230	2710	2730	2720	2800	1190	1550	1420	1170	2730
3	4470	3340	3240	2660	3010	2710	2810	1180	1390	1560	1050	2020
4	4230	3380	3230	2710	3070	2710	2800	1160	1370	1660	1070	1890
5	3950	3380	3230	2780	2750	2640	2780	1150	1420	1690	1070	1900
6	3360	3380	3230	2660	2530	2500	2750	1180	1430	1720	1070	1910
7	3360	3410	3220	2570	2750	2650	2720	1240	1390	1730	1070	1530
8	3360	3400	3250	2300	2810	2930	2810	1260	1380	1740	1020	1020
9	3370	3370	3250	2420	2710	2690	2780	1290	1390	1720	859	851
10	3320	3350	3260	2670	2700	2700	2900	1360	1390	1720	913	795
11	3260	3300	3270	2760	2670	2710	3270	1430	1400	1730	942	619
12	3310	3310	3260	2730	2650	2700	3280	1430	1520	1740	958	e554
13	3310	3300	3290	2710	2680	2670	3420	1430	1650	1730	872	e555
14	3320	3360	3300	2720	2680	2620	3400	1430	1600	1740	848	e549
15	3330	3290	3290	2670	2660	2620	3290	1430	1660	1740	814	e544
16	3330	3340	3250	2850	2670	2600	3270	1420	1660	1730	823	e538
17	3340	3310	3090	2660	2680	2600	3320	1420	1650	1590	807	e531
18	3330	3330	4830	2730	2710	2570	3050	1420	1550	1610	805	530
19	3320	3320	6530	2800	2720	2610	1700	1420	1690	1610	803	527
20	3380	3330	5900	2800	2710	2620	1640	1420	1530	1610	802	526
21	3400	3330	5190	2790	2720	2640	1610	1550	2070	1580	803	523
22	3390	3330	4610	2850	2710	2750	1570	1700	1740	1520	818	523
23	3400	3330	3970	2850	2710	2670	1410	1880	1730	1420	808	521
24	3400	3340	3110	2800	2660	2740	1050	1880	1510	1340	828	530
25	3320	3340	2610	2800	2650	2780	1060	1890	1230	1390	803	550
26	3350	3340	2400	2770	2640	2790	1180	1890	1150	1440	790	547
27	3360	3360	2360	2740	2620	2830	1260	1890	975	1470	794	8770
28	3290	3350	2420	2740	2670	2810	1250	1800	977	1460	803	17300
29	3200	3230	2360	2750	2710	2820	1200	1640	967	1440	1200	8570
30	3390	3220	2610	2720	---	2800	1220	1780	1060	1370	2400	3540
31	3390	---	2930	2780	---	2790	---	1740	---	1220	3080	---
TOTAL	106490	100260	106940	84510	78740	83700	70390	46110	43729	48740	32113	64433
MEAN	3435	3342	3450	2726	2715	2700	2346	1487	1458	1572	1036	2148
MAX	4470	3450	6530	3010	3070	2930	3420	1890	2070	1740	3080	17300
MIN	3200	3220	2360	2300	2530	2500	1050	1150	967	1220	790	521
AC-FT	211200	198900	212100	167600	156200	166000	139600	91460	86740	96680	63700	127800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996#, BY WATER YEAR (WY)

MEAN	2590	2776	4278	6243	7452	8668	8191	8387	7060	4746	3103	2680
MAX	13040	10570	14580	19660	20800	26430	20220	22560	17000	22870	8252	6652
(WY)	1995	1974	1974	1995	1974	1992	1969	1969	1979	1989	1979	1973
MIN	186	94.0	131	600	252	1178	1231	1003	1281	896	338	313
(WY)	1965	1965	1965	1965	1981	1971	1981	1971	1971	1967	1971	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996#	
ANNUAL TOTAL	3712470		866155			
ANNUAL MEAN	10170		2367		5504	
HIGHEST ANNUAL MEAN					12010	1995
LOWEST ANNUAL MEAN					961	1971
HIGHEST DAILY MEAN	25100	Jan 28	17300	Sep 28	46600	Jul 3 1989
LOWEST DAILY MEAN	2360	Dec 27	521	Sep 23	2.0	Dec 12 1965
ANNUAL SEVEN-DAY MINIMUM	2530	Dec 25	526	Sep 18	2.4	Dec 11 1965
INSTANTANEOUS PEAK FLOW			19800	Sep 28	49200	Jul 2 1989
INSTANTANEOUS PEAK STAGE			67.27	Sep 28	78.49	Jul 2 1989
ANNUAL RUNOFF (AC-FT)	7364000		1718000		3987000	
10 PERCENT EXCEEDS	20000		3360		15200	
50 PERCENT EXCEEDS	4060		2650		3100	
90 PERCENT EXCEEDS	3070		933		962	

e Estimated
Period of regulated streamflow.

08041000 NECHES RIVER AT EVADALE, TX

LOCATION.--Lat 30°21'20", long 94°05'35", Jasper-Hardin County line, Hydrologic Unit 12020003, near right bank on downstream side of bridge on U.S. Highway 96 at Evadale, 0.8 mi upstream from Mill Creek, 16 mi upstream from Village Creek, and at mile 55.6.

DRAINAGE AREA.--7,951 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to December 1906, April 1921 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 718: 1929. WSP 1342: 1905-07, 1924. WSP 1732: Drainage area at former site.

GAGE.--Water-stage recorder. Datum of gage is 8.25 ft above sea level. July 1, 1904, to Dec. 31, 1906, nonrecording gage on Gulf, Colorado, and Santa Fe Railway Co. bridge at site 1.2 mi downstream at datum 5.50 ft lower; Apr. 1, 1921, to Dec. 7, 1948, nonrecording gages at site 1.2 mi downstream at present datum; Dec. 8, 1948, to Nov. 8, 1963, water-stage recorder at site 1.2 mi downstream at present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by B. A. Steinhagen Lake (station 08040000) 58.1 mi upstream, and by Sam Rayburn Reservoir (station 08039300) 95.7 mi upstream. There are some diversions upstream for municipal use. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--45 years (water years 1905-06, 1922-64) 6,308 ft³/s (4,570,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1905-06, 1922-64).--Maximum discharge, 92,100 ft³/s May 11, 1944 (gage height, 23.58 ft, from floodmark), at site then in use; minimum daily, 63 ft³/s Nov. 26-28, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1884 reached a stage of 26.2 ft, at former site (discharge, about 125,000 ft³/s), and flood in August 1915 reached a stage of 24.5 ft, at former site (discharge, about 102,000 ft³/s). These are the highest floods since at least 1884. Stages furnished by Gulf, Colorado, and Santa Fe Railway Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3180	3390	2880	2860	e2830	2590	2780	1290	1610	1110	1210	2640
2	3210	3840	2870	2860	2880	2580	2800	1300	1530	1250	1150	2740
3	3930	3990	2880	2860	2820	2580	2820	1290	1500	1340	1130	2610
4	4550	3770	2890	2910	2880	2590	2840	1280	1480	1450	e1020	2070
5	4640	3610	2890	2970	3190	2590	2840	1270	1470	1540	e908	1640
6	4360	3520	2890	3240	2970	2590	2820	1270	1480	1560	e866	1550
7	3740	3420	2890	3620	2770	2500	2790	1270	1500	1590	e820	1530
8	3370	3350	2890	3720	2780	2500	2740	1330	1480	1590	e806	1420
9	3260	3260	2980	3430	2800	2740	e2750	1360	1460	1600	e782	1080
10	3230	3210	2980	3220	2750	2660	e2670	1370	1460	1600	e777	846
11	3180	3170	2950	3080	2760	2600	e2710	1380	1460	1580	e763	765
12	3110	3110	2940	3010	2740	2610	e3400	1400	1460	1570	e758	692
13	3130	3070	2950	2920	2720	2630	e3600	1380	1500	1580	e749	603
14	3180	3050	2950	2880	2710	2680	e3700	1370	1640	1590	e744	572
15	3150	3060	2970	2850	2690	2720	3580	1360	1660	1560	e735	558
16	3140	3020	3030	2800	2660	2710	3540	1350	1640	1550	e721	555
17	3140	3010	3160	2870	2640	2670	3440	1350	1660	1570	e717	539
18	3140	3060	5010	2840	2630	2630	3450	1350	1650	1490	e712	528
19	3130	3070	7840	2830	2650	2620	3320	1340	1630	1440	e708	532
20	3130	3060	11000	e2800	2650	2620	2260	1340	1680	1430	e703	540
21	3140	3060	13200	e2800	2620	2610	1680	1330	1620	1420	e699	530
22	3150	3050	13600	e2800	2630	2620	1600	1370	1930	1410	e694	530
23	3160	3040	11600	e2850	2610	2640	1720	1490	1840	1380	e694	526
24	3170	3050	8980	e2850	2590	2670	1640	1640	1770	1370	e685	527
25	3180	3020	7030	e2800	2570	2730	1260	1720	1680	1350	e685	546
26	3140	3010	5030	e2750	2530	2780	1070	1720	1470	1330	e681	581
27	3100	3020	4000	e2740	2510	2820	1140	1730	1370	1340	e672	737
28	3100	3030	3350	e2740	2530	2860	1270	1730	1210	1340	678	4050
29	3080	3010	3020	e2740	2560	2870	1310	1710	1140	1310	704	8230
30	3010	2940	2910	e2740	---	2840	1300	1610	1130	1320	892	11100
31	3060	---	2870	e2800	---	2800	---	1590	---	1310	1710	---
TOTAL	103190	96270	149430	91180	78670	82650	74840	44290	46110	44870	25573	51367
MEAN	3329	3209	4820	2941	2713	2666	2495	1429	1537	1447	825	1712
MAX	4640	3990	13600	3720	3190	2870	3700	1730	1930	1600	1710	11100
MIN	3010	2940	2870	2740	2510	2500	1070	1270	1130	1110	672	526
AC-FT	204700	191000	296400	180900	156000	163900	148400	87850	91460	89000	50720	101900

08041000 NECHES RIVER AT EVADALE, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996#, BY WATER YEAR (WY)

MEAN	2880	3059	4833	7044	8340	9587	9224	9069	7862	5436	3384	2872
MAX	15780	11800	15240	23810	22720	28790	21440	24120	19920	25680	9644	7090
(WY)	1995	1974	1974	1995	1995	1992	1995	1969	1991	1989	1979	1979
MIN	268	188	301	628	614	1352	1432	1220	1397	1118	396	398
(WY)	1965	1965	1965	1965	1981	1971	1981	1981	1971	1967	1971	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996#	
ANNUAL TOTAL	4192450		888440			
ANNUAL MEAN	11490		2427		6120	
HIGHEST ANNUAL MEAN					13480	1995
LOWEST ANNUAL MEAN					1128	1971
HIGHEST DAILY MEAN	32000	Jan 29	13600	Dec 22	47400	Jul 6 1989
LOWEST DAILY MEAN	2870	Dec 2	526	Sep 23	82	Aug 14 1971
ANNUAL SEVEN-DAY MINIMUM	2880	Dec 1	530	Sep 18	126	Nov 18 1965
INSTANTANEOUS PEAK FLOW			14000	Dec 21	47900	Jul 6 1989
INSTANTANEOUS PEAK STAGE			15.21	Dec 21	20.79	Jul 6 1989
ANNUAL RUNOFF (AC-FT)	8316000		1762000		4434000	
10 PERCENT EXCEEDS	22900		3360		16900	
50 PERCENT EXCEEDS	4550		2630		3410	
90 PERCENT EXCEEDS	3060		773		1150	

e Estimated
Period of regulated streamflow.

08041000 NECHES RIVER AT EVADALE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: September 1939 to August 1994. Pesticide analyses: February 1968 to July 1981. Sediment analyses: October 1960 to August 1994.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1947 to current year.
WATER TEMPERATURE: October 1947 to current year.

INSTRUMENTATION.--From October 1954 to September 1963, water temperature was continuously recorded at this station.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationship between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 670 microsiemens Mar. 21, 25, 31, 1994; minimum daily, 23 microsiemens Sept. 19, 1963.
WATER TEMPERATURE (1947-85, 1987 to current year): Maximum daily, 35.0°C Aug. 1, 1996; minimum daily, 3.0°C Jan. 30, 31, 1948, Jan. 31, 1949, and Jan 24, 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 190 microsiemens July 11; minimum daily, 43 microsiemens Apr. 13, 14.
WATER TEMPERATURE: Maximum daily, 35.0°C Aug. 1; minimum daily, 7.0'C many days during Feb. and March.

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	103190	135	84	23300	17	4730	19	5380	29
NOV.	1995	96270	129	81	21000	16	4220	19	4820	29
DEC.	1995	149430	120	76	30600	15	6050	17	6950	27
JAN.	1996	91180	132	82	20200	17	4100	19	4670	29
FEB.	1996	78670	157	94	19900	20	4270	22	4770	33
MAR.	1996	82650	155	93	20700	20	4430	22	4950	33
APR.	1996	74840	158	94	19000	20	4090	23	4560	33
MAY	1996	44290	184	105	12500	24	2850	26	3110	36
JUNE	1996	46110	166	98	12100	21	2660	24	2940	34
JULY	1996	44870	169	99	12000	22	2630	24	2910	34
AUG.	1996	25573	164	97	6690	21	1460	23	1610	34
SEPT	1996	51367	145	88	12200	18	2560	21	2880	31
TOTAL		888440	**	**	210000	**	44100	**	49600	**
WTD.AVG.		2427	144	88	**	18	**	21	**	31

08041000 NECHES RIVER AT EVADALE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY EQUIVALENT MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	92	114	121	152	151	152	174	200	167	164	154
2	142	100	134	116	151	152	145	169	169	163	159	153
3	137	124	e134	110	148	149	156	173	164	161	160	166
4	137	131	e135	112	210	156	e152	174	170	163	170	165
5	142	122	e134	132	148	157	148	175	167	162	165	164
6	134	129	135	111	149	160	149	158	171	162	164	164
7	133	132	134	116	187	159	152	178	168	174	166	189
8	138	131	135	156	149	160	148	180	181	172	167	178
9	136	134	136	147	150	160	158	179	175	185	165	166
10	133	126	131	133	175	151	158	180	165	169	175	165
11	133	126	131	129	163	156	155	180	165	204	163	165
12	146	129	134	124	153	147	156	186	162	173	163	168
13	135	133	132	130	152	145	163	183	168	172	165	169
14	140	129	73	142	150	146	168	185	162	170	173	170
15	135	132	134	138	153	146	159	181	160	170	162	167
16	137	134	74	138	153	147	163	186	161	194	159	193
17	136	133	134	140	152	147	152	181	164	172	160	167
18	133	130	76	147	154	228	157	187	160	168	168	167
19	134	130	133	142	154	150	153	189	177	176	164	187
20	135	131	108	146	155	151	185	203	158	164	170	179
21	138	132	134	158	150	161	177	196	159	163	167	182
22	135	135	105	152	154	169	171	210	164	170	167	157
23	134	139	135	145	157	156	172	191	154	167	165	114
24	132	144	108	e149	156	147	160	196	157	158	166	160
25	132	136	112	152	156	147	159	187	162	158	172	160
26	128	135	111	107	155	156	165	186	156	157	167	80
27	128	137	116	107	165	150	160	189	157	153	166	81
28	128	133	115	108	160	157	160	184	180	177	165	150
29	128	134	116	120	151	150	165	188	175	163	162	126
30	127	133	133	131	---	150	163	183	158	161	156	116
31	125	---	119	134	---	159	---	176	---	155	154	---
MEAN	134	130	121	132	157	155	159	183	166	168	165	157
MAX	146	144	136	158	210	228	185	210	200	204	175	193
MIN	125	92	73	107	148	145	145	158	154	153	154	80

WTR YR 1996 MEAN 152 MAX 228 MIN 73

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	17.0	12.0	9.0	7.0	8.0	8.0	13.0	22.0	30.0	35.0	32.0
2	29.0	16.0	12.0	9.0	7.0	8.0	8.0	13.0	22.0	30.0	34.0	34.0
3	27.0	16.0	---	9.0	7.0	8.0	8.0	13.0	22.0	31.0	34.0	34.0
4	27.0	16.0	---	9.0	7.0	8.0	---	13.0	22.0	31.0	34.0	32.0
5	26.0	16.0	---	9.0	7.0	8.0	8.0	15.0	22.0	31.0	34.0	32.0
6	25.0	15.0	13.0	9.0	7.0	7.0	8.0	15.0	22.0	31.0	34.0	32.0
7	24.0	15.0	14.0	8.0	7.0	7.0	8.0	16.0	22.0	31.0	34.0	32.0
8	20.0	15.0	14.0	8.0	7.0	7.0	8.0	16.0	24.0	31.0	34.0	32.0
9	22.0	15.0	12.0	8.0	7.0	7.0	9.0	16.0	24.0	32.0	34.0	31.0
10	22.0	15.0	12.0	8.0	7.0	7.0	9.0	18.0	24.0	32.0	34.0	31.0
11	20.0	15.0	12.0	8.0	7.0	7.0	9.0	18.0	24.0	32.0	34.0	31.0
12	20.0	15.0	13.0	8.0	7.0	8.0	9.0	18.0	24.0	32.0	34.0	31.0
13	20.0	14.0	12.0	8.0	7.0	7.0	10.0	18.0	24.0	32.0	34.0	31.0
14	20.0	14.0	12.0	8.0	7.0	8.0	10.0	18.0	24.0	33.0	34.0	31.0
15	20.0	14.0	12.0	8.0	7.0	8.0	10.0	18.0	24.0	33.0	34.0	30.0
16	20.0	14.0	12.0	8.0	7.0	8.0	10.0	18.0	26.0	33.0	34.0	31.0
17	20.0	14.0	12.0	8.0	7.0	8.0	10.0	18.0	26.0	33.0	34.0	31.0
18	20.0	14.0	12.0	8.0	7.0	8.0	10.0	18.0	26.0	33.0	34.0	31.0
19	20.0	14.0	12.0	8.0	7.0	8.0	10.0	20.0	26.0	33.0	34.0	31.0
20	19.0	14.0	12.0	8.0	7.0	8.0	11.0	20.0	26.0	33.0	34.0	30.0
21	19.0	14.0	13.0	8.0	8.0	8.0	11.0	20.0	26.0	33.0	34.0	30.0
22	19.0	14.0	12.0	8.0	8.0	8.0	11.0	20.0	26.0	34.0	34.0	30.0
23	19.0	14.0	13.0	8.0	8.0	8.0	11.0	20.0	28.0	34.0	34.0	30.0
24	19.0	14.0	11.0	---	8.0	8.0	10.0	20.0	28.0	34.0	34.0	30.0
25	19.0	12.0	10.0	8.0	8.0	8.0	11.0	20.0	28.0	34.0	34.0	30.0
26	19.0	12.0	10.0	8.0	8.0	8.0	11.0	22.0	28.0	34.0	34.0	30.0
27	19.0	12.0	10.0	8.0	8.0	8.0	11.0	22.0	28.0	34.0	32.0	30.0
28	18.0	12.0	10.0	8.0	8.0	8.0	13.0	22.0	28.0	34.0	32.0	30.0
29	18.0	12.0	10.0	8.0	8.0	8.0	13.0	22.0	28.0	34.0	34.0	29.0
30	18.0	12.0	13.0	8.0	---	8.0	13.0	22.0	28.0	34.0	32.0	29.0
31	18.0	---	10.0	8.0	---	8.0	---	22.0	---	34.0	32.0	---
MEAN	21.0	14.0	12.0	8.0	7.5	8.0	10.0	18.0	25.0	32.5	34.0	31.0
MAX	29.0	17.0	14.0	9.0	8.0	8.0	13.0	22.0	28.0	34.0	35.0	34.0
MIN	18.0	12.0	10.0	8.0	7.0	7.0	8.0	13.0	22.0	30.0	32.0	29.0

WTR YR 1996 MEAN 18.5 MAX 35.0 MIN 7.0

08041500 VILLAGE CREEK NEAR KOUNTZE, TX

LOCATION.--Lat 30°23'52", long 94°15'48", Hardin County, Hydrologic Unit 12020006, on downstream side of bridge on Farm Road 418, 1.6 mi upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.1 mi upstream from Cypress Creek, 3.4 mi northeast of Kountze and 4.3 mi downstream from Beech Creek.

DRAINAGE AREA.--860 mi².

PERIOD OF RECORD.--May 1924 to September 1927, October 1927 to November 1929 (discharge measurements only), April 1939 to current year.
Water-quality records: November 1967 to September 1985.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 25.12 ft above sea level. Prior to Apr. 30, 1939, nonrecording gage at site 1.6 mi downstream at different datum. Apr. 30, 1939, to Sept. 30, 1966, water-stage recorder at site 2,000 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. There are small diversions above station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1884, about 34 ft in August 1915 at site 2,000 ft downstream at present datum; stage was determined on basis of information by engineers of Gulf, Colorado, and Santa Fe Railway Co. for site 1.6 mi downstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 19	1300	5,330	15.89	Sep. 29	2100	20,700	21.64

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e100	165	180	591	422	256	209	278	174	323	e106	984
2	e120	291	178	629	418	259	194	352	181	293	e90	1100
3	708	559	173	605	461	281	181	270	160	215	e81	1010
4	1010	758	172	528	447	270	175	222	164	166	e75	807
5	695	530	174	478	424	250	166	192	217	140	e71	406
6	487	419	176	807	389	238	164	174	159	122	69	260
7	327	366	175	1240	367	236	178	161	139	111	68	215
8	249	330	178	1260	357	246	181	152	123	105	62	191
9	206	292	231	1120	354	266	185	146	116	98	61	177
10	183	259	229	840	350	247	191	139	108	92	90	184
11	168	236	204	647	342	225	178	134	102	84	109	219
12	162	220	204	556	329	213	166	130	95	77	119	177
13	157	222	203	501	312	209	163	127	93	77	219	149
14	150	e210	197	455	295	208	251	124	116	93	436	133
15	149	e200	192	421	280	208	532	123	125	91	509	126
16	148	e195	194	400	271	209	500	119	108	80	380	123
17	147	e190	260	386	264	210	361	117	95	78	234	120
18	147	e200	2010	384	255	207	265	112	95	135	170	117
19	138	e230	5200	396	248	201	218	108	88	89	140	112
20	134	239	4870	416	245	194	195	105	98	79	122	108
21	132	e230	4270	429	244	185	180	102	132	83	110	103
22	131	e220	3930	415	243	176	176	99	220	83	107	101
23	127	e215	3290	404	239	169	349	97	269	74	125	103
24	128	e210	2200	437	235	166	462	94	234	83	132	111
25	127	e206	1220	480	230	166	501	e92	213	110	145	126
26	125	e203	722	574	225	167	439	e90	416	153	166	138
27	123	e200	594	859	221	169	318	e88	511	187	171	681
28	120	199	534	771	222	178	244	e100	412	213	165	3260
29	117	e190	491	578	240	211	212	e120	319	201	144	18400
30	118	183	463	496	---	238	204	132	251	162	399	15700
31	121	---	497	448	---	227	---	131	---	e128	946	---
TOTAL	6954	8167	33611	18551	8929	6685	7738	4430	5533	4025	5821	45441
MEAN	224	272	1084	598	308	216	258	143	184	130	188	1515
MAX	1010	758	5200	1260	461	281	532	352	511	323	946	18400
MIN	100	165	172	384	221	166	163	88	88	74	61	101
AC-FT	13790	16200	66670	36800	17710	13260	15350	8790	10970	7980	11550	90130
CFSM	.26	.32	1.26	.70	.36	.25	.30	.17	.21	.15	.22	1.76
IN.	.30	.35	1.45	.80	.39	.29	.33	.19	.24	.17	.25	1.97

08041500 VILLAGE CREEK NEAR KOUNTZE, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1996h, BY WATER YEAR (WY)

MEAN	385	715	1059	1487	1435	1194	1166	1178	868	492	258	322
MAX	4743	6430	5835	5693	4420	3311	6733	6932	6668	4963	1580	2111
(WY)	1995	1941	1941	1974	1966	1992	1979	1953	1950	1989	1975	1961
MIN	22.8	34.9	115	113	169	206	104	89.5	69.5	31.1	28.8	26.5
(WY)	1968	1968	1955	1957	1968	1940	1971	1963	1956	1971	1956	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1924 - 1996h	
ANNUAL TOTAL	400119		155885			
ANNUAL MEAN	1096		426		879	
HIGHEST ANNUAL MEAN					2248	1950
LOWEST ANNUAL MEAN					190	1971
HIGHEST DAILY MEAN	13400	Jan 29	18400	Sep 29	62200	Nov 26 1940
LOWEST DAILY MEAN	100	Oct 1	61	Aug 9	16	Oct 1 1956
ANNUAL SEVEN-DAY MINIMUM	122	Oct 25	70	Aug 3	18	Sep 28 1956
INSTANTANEOUS PEAK FLOW			20700	Sep 29	67200	Nov 26 1940
INSTANTANEOUS PEAK STAGE			21.64	Sep 29	27.60	Nov 26 1940
ANNUAL RUNOFF (AC-FT)	793600		309200		637100	
ANNUAL RUNOFF (CFSM)	1.27		.50		1.02	
ANNUAL RUNOFF (INCHES)	17.31		6.74		13.89	
10 PERCENT EXCEEDS	3230		563		2120	
50 PERCENT EXCEEDS	437		200		327	
90 PERCENT EXCEEDS	150		100		80	

e Estimated
h See PERIOD OF RECORD paragraph.

08041700 PINE ISLAND BAYOU NEAR SOUR LAKE, TX

LOCATION.--Lat 30°06'21", long 94°20'04", Jefferson-Hardin County line, Hydrologic Unit 12020007, on right bank on downstream side of bridge on county road and 5.1 mi southeast of Sour Lake.

DRAINAGE AREA.--336 mi².

PERIOD OF RECORD.--October 1967 to current year.
Water-quality records.--Chemical analyses: February 1968 to June 1989. Specific conductance: February 1968 to September 1989. Water temperature: February 1968 to September 1989.

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

REMARKS.--No estimated daily discharges. Records fair. Low flow for period March through September is affected by small diversions and return flow from irrigated fields. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s :

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sep. 30	1315	4,040	27.71				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	233	9.4	104	392	27	16	34	36	511	25	182
2	11	963	9.4	98	253	24	22	18	26	198	29	306
3	362	1040	9.3	86	183	33	18	14	19	95	27	345
4	469	875	8.6	74	145	36	14	43	15	64	31	368
5	540	679	7.9	62	119	34	12	37	16	45	28	379
6	579	531	7.9	234	99	30	13	29	18	34	21	334
7	462	361	9.0	380	79	23	12	23	16	33	25	321
8	262	216	8.2	490	65	17	10	31	16	34	38	196
9	115	132	7.5	533	54	14	7.5	22	17	32	31	109
10	61	88	7.1	470	45	13	6.7	30	19	31	45	142
11	41	70	6.8	392	39	11	6.3	22	18	32	176	86
12	30	53	6.8	305	32	9.7	6.1	24	19	42	151	61
13	41	39	6.8	202	24	8.8	9.9	30	19	52	1010	52
14	38	28	6.9	130	19	8.3	16	20	24	60	753	43
15	23	21	6.6	92	16	8.0	14	17	27	63	345	38
16	18	17	7.9	70	14	8.0	17	13	32	85	113	38
17	15	14	134	55	12	7.8	18	12	32	83	46	53
18	13	17	1460	48	11	7.5	19	12	31	65	29	82
19	13	22	2050	38	9.9	7.1	26	15	33	52	20	89
20	13	25	2750	34	8.7	6.6	24	15	107	49	16	103
21	12	22	3210	30	8.2	5.9	12	17	400	45	14	79
22	11	17	3050	28	11	5.9	17	17	398	40	32	49
23	11	15	2660	27	9.9	5.5	80	20	344	30	108	33
24	9.5	13	2250	27	8.3	6.7	80	18	610	25	230	26
25	8.2	12	1890	26	7.8	12	55	23	809	24	154	23
26	7.8	12	1500	280	7.5	12	40	19	1070	27	83	21
27	8.0	12	1100	828	7.6	12	31	20	1210	35	55	735
28	5.8	12	738	845	9.8	12	26	36	1370	37	36	2090
29	5.5	11	383	864	14	16	23	22	1300	36	32	2900
30	8.3	9.7	169	754	---	18	27	57	951	31	33	3910
31	8.3	---	115	575	---	17	---	45	---	26	84	---
TOTAL	3210.2	5559.7	23585.1	8181	1703.7	456.8	678.5	755	9002	2016	3820	13193
MEAN	104	185	761	264	58.7	14.7	22.6	24.4	300	65.0	123	440
MAX	579	1040	3210	864	392	36	80	57	1370	511	1010	3910
MIN	5.5	9.7	6.6	26	7.5	5.5	6.1	12	15	24	14	21
AC-FT	6370	11030	46780	16230	3380	906	1350	1500	17860	4000	7580	26170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	484	378	573	709	618	570	613	544	663	405	188	212
MAX	8080	2095	2158	2206	1850	1838	4972	3589	2795	3291	1660	1487
(WY)	1995	1987	1987	1974	1992	1993	1979	1989	1981	1989	1983	1979
MIN	2.90	2.48	12.4	4.75	13.5	14.7	21.4	24.4	37.8	33.4	12.3	10.1
(WY)	1970	1989	1990	1971	1989	1996	1987	1996	1984	1980	1977	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	180972.0		72161.0			
ANNUAL MEAN	496		197		496	
HIGHEST ANNUAL MEAN					1167	1979
LOWEST ANNUAL MEAN					133	1970
HIGHEST DAILY MEAN	4120	Jan 31	3910	Sep 30	47400	Oct 20 1994
LOWEST DAILY MEAN	5.5	Oct 29	5.5	Oct 29	.00	Oct 21 1979
ANNUAL SEVEN-DAY MINIMUM	6.9	Dec 9	6.5	Mar 18	.62	Sep 14 1984
INSTANTANEOUS PEAK FLOW			4040	Sep 30	48800	Oct 20 1994
INSTANTANEOUS PEAK STAGE			27.71	Sep 30	37.50	Oct 20 1994
ANNUAL RUNOFF (AC-FT)	359000		143100		359300	
10 PERCENT EXCEEDS	1510		532		1360	
50 PERCENT EXCEEDS	135		30		87	
90 PERCENT EXCEEDS	12		8.3		9.6	

08042000 TAYLOR BAYOU NEAR LABELLE, TX

LOCATION.--Lat 29°52'30", long 94°09'34", Jefferson County, Hydrologic Unit 12040201, near center of stream on downstream side of bridge on county road, 0.7 mi south of LaBelle, 6.0 mi upstream from Hillebrandt Bayou, 7.2 mi upstream from State Highway 73 and 11.2 mi upstream from saltwater gates and barge locks. Distances are measured along rectified channel.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--April 1954 to September 1984 (daily mean and peak discharge for storms of 1.0 inch or more runoff, except for period Sept. 10-22, 1961). October 1984 to current year (gage heights only).

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4.63 ft below sea level, originally determined by several comparisons of water surface with auxiliary water-stage recorder 7.2 mi downstream during times of no flow and ideal weather conditions. Prior to October 1984, auxiliary water-stage recorder 7.2 mi downstream.

REMARKS.--Records good. Prior to October 1984, records were computed using fall as a factor. Low flow is regulated by drainage from ricefields and operation of saltwater gates and barge locks. An unknown amount of water is diverted above and below gage for irrigation of ricefields.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,590 ft³/s Sept. 22, 1963, and Apr. 23, 1979; maximum gage height, 11.78 ft Sept. 20, 1963 (backwater from Hillebrandt Bayou); minimum discharge not determined (affected by tides and pumping); minimum gage height, 2.31 ft July 17, 1954. Maximum stage since at least 1941, that of Sept. 20, 1963, and Apr. 23, 1979. Flood of Sept. 13, 1961 (Hurricane Carla), reached a stage of 11.51 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1941 reached a stage of 11.3 ft, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.9 ft Dec. 18 at 2100 hours; minimum, 4.9 ft Jan. 3 at 1600 hours.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	6.4	5.8	6.5	5.7	5.7	5.4	5.5	5.8	5.9	5.9	6.5
2	---	7.0	5.8	6.5	5.8	5.8	5.4	5.5	5.9	6.0	5.8	6.4
3	---	7.4	5.6	5.8	5.7	5.8	5.4	5.5	5.8	6.0	5.6	6.1
4	7.3	7.2	5.7	5.4	5.8	5.8	5.4	5.5	5.8	5.8	5.7	5.9
5	7.2	7.0	5.7	5.6	5.4	5.9	5.4	5.5	5.9	5.8	5.7	6.0
6	7.0	6.8	5.8	6.0	5.6	5.9	5.4	5.6	5.9	5.8	5.8	5.9
7	6.5	6.7	5.8	5.9	5.8	5.9	5.4	5.6	5.9	5.8	5.9	6.2
8	6.5	6.3	5.7	5.6	5.8	5.8	5.4	5.7	5.8	5.8	5.9	6.3
9	6.3	6.0	5.7	5.7	5.7	5.7	5.4	5.7	5.7	5.8	5.8	6.0
10	6.2	6.2	5.6	5.5	5.7	5.6	5.5	5.8	5.7	5.8	5.9	6.0
11	6.0	6.4	5.6	5.6	5.6	5.6	5.6	6.0	5.6	5.9	6.0	5.6
12	6.0	6.0	5.7	5.5	5.6	5.6	5.7	5.8	5.6	5.9	5.8	5.7
13	6.1	6.1	5.8	5.4	5.7	5.7	5.7	5.7	5.6	5.9	6.3	5.8
14	6.2	5.9	5.8	5.6	5.7	5.7	5.8	5.8	5.7	5.8	6.2	5.9
15	6.2	5.9	5.7	5.7	5.7	5.7	5.8	5.6	5.7	5.9	5.8	6.0
16	6.1	5.8	5.8	5.8	5.5	5.7	5.1	5.6	5.8	6.0	5.9	6.1
17	6.2	5.8	7.6	5.9	5.5	5.7	5.2	5.6	5.8	6.2	5.9	5.8
18	6.2	5.8	8.9	5.8	5.5	5.7	5.3	5.6	5.7	6.2	5.9	5.9
19	6.2	6.0	8.9	5.2	5.6	5.6	5.4	5.6	---	6.3	5.8	6.2
20	6.3	6.2	8.3	5.4	5.6	5.5	5.4	5.6	---	6.2	5.9	6.3
21	5.8	6.2	7.7	5.6	5.6	5.3	5.6	5.6	---	5.9	6.0	6.2
22	5.9	5.8	7.2	5.7	5.7	5.3	5.8	5.6	---	5.9	6.4	5.8
23	6.0	5.8	6.6	5.9	5.7	5.3	5.9	5.6	---	5.7	6.7	5.6
24	6.0	5.8	6.4	5.9	5.7	5.4	5.8	5.6	---	5.9	6.7	5.8
25	6.0	5.6	6.2	5.6	5.6	5.5	5.8	5.6	---	5.8	6.5	6.0
26	5.8	5.8	5.9	7.1	5.7	5.4	5.8	5.6	---	6.0	6.4	6.1
27	5.9	5.8	5.8	7.1	5.7	5.4	5.7	5.7	---	5.9	6.1	8.5
28	6.0	5.9	5.9	7.1	5.7	5.4	5.8	5.8	5.8	5.9	6.1	8.9
29	6.0	5.9	5.8	7.2	5.7	5.4	5.9	5.8	5.8	6.0	6.5	8.8
30	6.1	5.7	6.0	6.6	---	5.4	5.4	5.8	5.9	5.8	6.9	8.5
31	6.1	---	6.4	6.0	---	5.4	---	5.8	---	5.9	6.8	---
MAX	---	7.4	8.9	7.2	5.8	5.9	5.9	6.0	---	6.3	6.9	8.9

08042500 HILLEBRANDT BAYOU NEAR LOVELL LAKE, TX

LOCATION.--Lat 29°55'44", long 94°06'35", Jefferson County, Hydrologic Unit 12040201, near center of stream on downstream side of bridge on county road, 1.3 mi southeast of Lovell Lake and 4.4 mi upstream (along rectified channel) from Taylor Bayou.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--April 1954 to September 1984 (daily mean and peak discharge for storms of 1.0 inch or more runoff, except for the period Sept. 11-18, 1961). October 1984 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 4.63 ft below sea level, originally determined by comparisons of water surface with Taylor Bayou near LaBelle, an auxiliary gage 5.6 mi downstream, during times of no flow and calm wind conditions. Prior to Aug. 28. 1963, auxiliary water-stage recorder on Taylor Bayou, 1.2 mi downstream from Hillebrandt Bayou, nonrecording gages on Taylor Bayou 2.3 and 5.2 mi downstream from Hillebrandt Bayou; Aug. 28, 1963, to Sept. 30, 1984, auxiliary water-stage recorder 3.0 mi downstream. Gage was destroyed on Aug. 24, 1991 and re-installed on Mar. 4, 1992.

REMARKS.--Records good. Prior to October 1984, records were computed using fall as a factor. Low flow regulated by drainage from ricefields and operation of saltwater gates and barge locks. An unknown amount of water is diverted above and below gage for rice irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s Sept. 18, 1963; maximum gage height, 12.34 ft Sept. 19, 1963; minimum discharge not determined (affected by tides and pumping); minimum gage height, 2.33 ft July 17, 1954 Maximum stage since at least 1941, 12.34 ft Sept. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.3 ft Sept. 27, at 2300 hours; minimum, 4.9 ft Jan. 7, at 1800 hours.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	6.6	5.9	6.7	5.8	5.9	5.6	5.7	6.0	6.1	6.1	6.5
2	---	7.1	5.9	6.7	5.9	6.0	5.5	5.7	6.0	6.1	6.0	6.5
3	---	7.1	5.8	6.0	5.9	6.0	5.5	5.7	6.0	6.1	5.8	6.3
4	---	6.8	5.8	5.6	5.9	6.0	5.6	5.7	6.0	6.0	5.8	6.1
5	7.3	6.8	5.8	5.8	5.5	6.1	5.6	5.7	6.0	6.0	5.9	6.2
6	7.0	7.0	5.9	6.1	5.8	6.1	5.6	5.8	6.1	6.0	5.9	6.1
7	6.7	6.8	5.9	5.9	5.9	6.0	5.6	5.8	6.1	5.9	6.1	6.4
8	6.6	6.4	5.7	5.7	6.0	5.9	5.6	5.9	5.9	6.0	6.1	6.5
9	6.4	6.2	5.7	5.9	5.9	5.9	5.6	5.9	5.9	6.0	6.0	6.3
10	6.4	6.4	5.7	5.7	5.9	5.8	5.7	6.0	5.8	6.0	6.1	6.1
11	6.1	6.5	5.8	5.8	5.8	5.8	5.7	6.2	5.8	6.0	6.2	5.8
12	6.2	6.1	5.8	5.6	5.8	5.8	5.9	6.0	5.8	6.0	6.1	5.9
13	6.3	6.3	5.9	5.5	5.9	5.9	5.9	5.9	5.8	6.1	6.4	6.0
14	6.4	6.0	5.9	5.7	5.9	5.9	6.0	5.9	5.8	6.0	6.1	6.1
15	6.4	6.1	5.9	5.8	5.9	5.9	6.0	5.8	5.9	6.1	6.0	6.2
16	6.3	5.9	5.9	6.0	5.7	5.9	5.3	5.8	6.0	6.2	6.0	6.3
17	6.3	5.9	7.9	6.0	5.7	5.9	5.4	5.8	5.9	6.3	6.0	6.0
18	6.4	6.0	8.5	6.0	5.7	5.9	5.5	5.8	6.0	6.4	6.1	6.0
19	6.4	6.0	8.2	5.4	5.8	5.8	5.6	5.8	6.1	6.4	6.0	6.4
20	6.4	6.3	6.1	5.6	5.8	5.7	5.7	5.8	6.1	6.3	6.1	6.5
21	6.0	6.3	6.5	5.7	5.8	5.5	5.8	5.8	6.2	6.0	6.2	6.3
22	6.1	5.9	6.4	5.9	5.8	5.5	6.0	5.8	6.2	6.0	6.6	6.0
23	6.2	5.9	6.3	6.0	5.9	5.5	6.0	5.8	6.3	5.9	6.8	5.8
24	6.2	6.0	6.5	6.0	5.9	5.6	5.9	5.8	6.4	6.0	6.9	6.0
25	6.2	5.8	6.4	5.8	5.8	5.7	6.0	5.8	6.4	5.9	6.7	6.3
26	6.0	5.9	6.0	7.5	5.9	5.6	6.0	5.8	6.1	6.2	6.6	6.3
27	6.1	6.0	5.9	7.5	5.9	5.6	5.9	5.9	6.3	6.0	6.3	9.3
28	6.1	6.0	6.0	6.7	5.9	5.6	6.0	5.9	6.0	6.1	6.3	9.3
29	6.2	6.0	5.9	7.0	5.8	5.6	6.1	6.0	5.9	6.2	6.7	8.1
30	6.3	5.8	6.2	6.6	---	5.6	5.6	6.0	6.1	5.9	7.0	7.3
31	6.3	---	6.5	6.2	---	5.6	---	6.0	---	6.1	6.7	---
MAX	---	7.1	8.5	7.5	6.0	6.1	6.1	6.2	6.4	6.4	7.0	9.3

08042800 WEST FORK TRINITY RIVER NEAR JACKSBORO, TX

LOCATION.--Lat 33°17'30", long 98°04'49", Jack County, Hydrologic Unit 12030101, on upstream side of bridge on State Highway 59, 4 mi downstream from Big Cleveland Creek, 7 mi upstream from Carroll Creek, 7 mi northeast of Jacksboro and at mile 660.

DRAINAGE AREA.--685 mi².

PERIOD OF RECORD.--March 1956 to current year.
Water-quality records.--Sediment records: October 1976 to September 1978.

GAGE.--Water-stage recorder. Datum of gage is 869.28 ft above sea level, from Texas Department of Transportation. Sept. 20, 1960, to May 30, 1961, nonrecording gage at same site and datum.

REMARKS.--Records fair. At end of year, flow from 70.9 mi² upstream from this station was partly controlled by 21 floodwater-retarding structures with a combined detention capacity of 19,780 acre-ft. No flow at times. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1941 reached a stage of 30 ft, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 19	1000	1730	17.42				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	e.00	e.00	39	.95	.00	.00	.18	394
2	.09	.00	.00	.31	e.00	e.00	23	2.3	.00	.00	.54	468
3	1.0	.00	.00	.70	e.00	e.00	15	1.8	.00	.00	.81	236
4	.69	.00	.00	.43	e.00	e.00	12	.98	.00	.00	.48	185
5	.33	.00	.00	.23	e.00	e.00	15	.57	.00	.00	.09	87
6	.00	.00	.00	.14	e.00	.00	24	.25	.00	.00	.02	44
7	.00	.00	.00	.07	e.00	.00	14	.09	.00	.00	.01	20
8	.00	.00	.00	.01	e.00	.00	9.8	.03	.00	.00	.03	12
9	.00	.00	.00	.01	e.00	.00	8.2	.00	.00	.00	.22	8.6
10	.00	.00	.00	.04	e.00	.00	5.7	.00	.00	.00	64	5.2
11	.00	.00	.00	.02	e.00	.00	4.2	.00	.00	.00	66	3.3
12	.00	.00	.00	.02	e.00	.00	12	.00	.00	.00	164	2.5
13	.00	.00	.00	.01	e.00	.00	8.2	.00	.00	.00	82	3.3
14	.00	.00	.00	.01	e.00	.00	2.8	.00	.00	23	44	6.3
15	.00	.00	.00	.00	e.00	.00	1.8	.00	.00	55	30	228
16	.00	.00	.00	.00	e.00	.00	1.5	.00	.00	134	14	442
17	.00	.00	.00	.00	e.00	.00	1.5	.00	.00	50	6.2	669
18	.00	.00	.00	e.00	e.00	.00	1.4	.00	.00	19	2.2	1100
19	.00	.00	.00	e.00	e.00	.00	1.4	.00	.00	7.8	1.1	1620
20	.00	.00	.00	e.00	e.00	.00	1.3	.00	.00	2.4	.61	1200
21	.00	.00	.00	e.00	e.00	.00	1.0	.00	.00	.98	.13	1030
22	.00	.00	.00	e.00	e.00	.00	3.6	.00	.00	.34	.05	875
23	.00	.00	.00	e.00	e.00	.00	23	.00	.00	.04	.01	232
24	.00	.00	.00	e.00	e.00	.00	30	.00	.00	.01	2.6	62
25	.00	.00	.00	e.00	e.00	.00	15	.00	.00	.01	5.0	41
26	.00	.00	.00	e.00	e.00	.00	7.6	.00	.00	.01	11	60
27	.00	.00	.00	e.00	e.00	29	4.3	.00	.00	.02	1.4	272
28	.00	.00	.00	e.00	e.00	203	2.5	.00	.00	.77	142	397
29	.00	.00	.00	e.00	e.00	284	2.3	.00	.00	4.1	187	157
30	.00	.00	.00	e.00	---	175	1.4	.00	.00	.30	318	91
31	.00	---	.00	e.00	---	77	---	.00	---	.29	242	---
TOTAL	2.11	0.00	0.00	2.00	0.00	768.00	292.5	6.97	0.00	298.07	1385.68	9951.2
MEAN	.068	.000	.000	.065	.000	24.8	9.75	.22	.000	9.62	44.7	332
MAX	1.0	.00	.00	.70	.00	284	39	2.3	.00	134	318	1620
MIN	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.01	2.5
AC-FT	4.2	.00	.00	4.0	.00	1520	580	14	.00	591	2750	19740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996, BY WATER YEAR (WY)

MEAN	127	56.4	53.6	36.0	44.3	92.2	204	402	215	34.0	19.6	64.0
MAX	2363	498	1025	369	303	697	3186	3127	1689	251	134	416
(WY)	1982	1958	1992	1985	1992	1990	1957	1989	1989	1975	1989	1962
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1978	1978	1959	1959	1959	1956	1956	1984	1984	1963	1972	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1956 - 1996	
ANNUAL TOTAL	18906.79		12706.53			
ANNUAL MEAN	51.8		34.7		114	
HIGHEST ANNUAL MEAN					564	1957
LOWEST ANNUAL MEAN					.072	1984
HIGHEST DAILY MEAN	1470	May 10	1620	Sep 19	29200	Apr 27 1957
LOWEST DAILY MEAN	.00	Aug 31	.00	Oct 1	.00	Mar 1 1956
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 31	.00	Oct 6	.00	Mar 1 1956
INSTANTANEOUS PEAK FLOW			1730	Sep 19	35100	Apr 27 1957
INSTANTANEOUS PEAK STAGE			17.42	Sep 19	32.10	Apr 27 1957
ANNUAL RUNOFF (AC-FT)	37500		25200		82770	
10 PERCENT EXCEEDS	88		44		133	
50 PERCENT EXCEEDS	.84		.00		.79	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08043000 BRIDGEPORT RESERVOIR ABOVE BRIDGEPORT, TX

LOCATION.--Lat 33°13'22", long 97°49'54", Wise County, Hydrologic Unit 12030101, in brick valve house on upstream side and near left end of Bridgeport Dam on West Fork Trinity River, 4.6 mi west of Bridgeport, 13 mi upstream from Big Sandy Creek and at mile 626.

DRAINAGE AREA.--1,111 mi².

PERIOD OF RECORD.--April 1932 to current year. Prior to October 1950, end-of-month values only.
Water-quality records.--Chemical analyses: October 1969 to September 1984.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Jan. 12, 1988, nonrecording gages at various sites in vicinity of present gage at present datum.

REMARKS.--The reservoir is formed by a rolled earthfill dam 2,040 ft long. The dam was completed in December 1931 and storage began Apr. 1, 1932. The original dam was 1,900 ft long, but was lengthened to the present length (2,040 ft) in 1971-72. 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 from the left end of dam. The new spillway is 90 ft wide and has eight vertical lift gates that are 11.25 x 22-ft. The controlled outlet works consist of a 48-inch diameter and an 18-inch diameter pipe encased in a concrete conduit extending through the dam. In addition, a controlled 60-inch diameter steel pipe extends through the service spillway wall to the spillway discharge basin. For elevations of outlet works, see table below. Capacity tables are based on surveys made in 1956 and 1968. Figures given herein represent total contents. Data 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	889,700
Top of gates	842.0	456,900
Top of conservation pool	836.0	374,800
Sill of gates	820.0	202,200
Lowest value outlet (invert)	751.4	0

COOPERATION.--Capacity table No. 5-C was provided by Tarrant Regional Water District. The table was put into use Oct. 1 1988.

EXTREMES FOR PERIOD OF RECORD.--Prior to Jan. 12, 1988, once-daily reading of nonrecording gage at 0700 hours; maximum contents observed, 491,700 acre-ft May 5, 1990 (elevation, 844.36 ft); minimum contents observed since first appreciable storage in 1935, 7,170 acre-ft Oct. 12-16, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 366,300 acre-ft Oct. 3 at 1700 hours (elevation, 835.33 ft); minimum 268,300 acre-ft Aug. 27 (elevation, 826.89 ft).

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

820.0	202,200	832.0	325,300	840.0	428,500
823.0	229,500	834.0	349,500	842.0	457,000
827.0	269,400	836.0	374,800	844.0	486,300
830.0	302,100	838.0	401,200	845.0	501,400

FROM EDI
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	365800	355400	341400	336000	332400	327600	324900	323200	309400	297100	282700	272400
2	365900	354400	338600	336000	332300	323600	324500	323100	308700	296500	282000	273200
3	366300	353500	340800	336200	332100	325700	324600	322700	308500	296100	281200	273600
4	365800	352600	340600	336100	331900	324900	324900	322500	308000	295600	280600	274100
5	365100	351800	339900	335900	332100	327800	326000	322700	307300	295200	280300	274100
6	364700	351400	339500	335500	332400	327300	325200	320900	307000	294600	279800	274200
7	364400	351400	339300	335500	332300	326400	325800	320500	307000	294100	279100	274300
8	364100	350600	338800	334500	332400	326000	325900	320500	306400	293400	278500	274100
9	363700	348300	338900	334100	332300	325500	326000	320300	305900	292400	278000	274000
10	363900	349600	338600	334100	332300	322500	325700	320300	305400	291500	277700	273700
11	363900	349100	337900	334100	332000	325200	322800	321100	304900	290000	277400	273500
12	363900	348900	337400	334100	332000	322500	325900	320200	304700	289900	277000	273400
13	363900	348900	337500	334100	331700	324700	326100	320100	304500	290200	276400	274900
14	363600	347300	337800	334100	331500	325500	325700	319500	304200	290100	275900	277200
15	363500	347700	337700	334100	331900	325100	325400	319600	303800	289800	275300	279500
16	363000	347200	337400	334500	328800	325200	325200	319500	303500	289500	274700	280700
17	363500	347100	338000	334500	331900	325100	324400	319400	303000	288900	274000	281700
18	363200	346400	337400	334400	328800	321100	324900	319300	302700	288600	273300	284100
19	362400	346400	337500	334200	331300	320800	325100	319300	302400	288100	272700	287100
20	361500	346200	337400	333800	331100	324000	324600	319200	302000	287600	271900	289500
21	360100	345600	337300	333600	331400	324100	324200	319200	301400	287000	271200	291100
22	358100	345400	336800	333800	331100	321200	324500	317900	300900	286700	270400	292800
23	359100	345000	336800	333700	330800	320800	324600	316000	300300	286300	269600	294300
24	358800	344500	336800	333500	329300	323800	321200	314100	299700	285600	269000	295000
25	357600	342500	336200	333300	330600	323400	324100	313000	299200	285100	268800	294800
26	355800	340700	336200	333200	329400	323200	324000	312300	299000	284700	268400	295000
27	356900	343200	336100	333200	329100	324600	321600	311600	298600	284500	268600	295400
28	356300	342700	336100	333300	327600	324600	323800	311000	298300	284200	268900	295800
29	354300	342500	336100	333100	327900	324500	323300	310800	297800	283900	269200	296200
30	354900	340300	336100	332900	---	325100	322600	310400	297500	283800	269600	296400
31	354500	---	336000	332700	---	325200	---	309900	---	283300	271300	---
MAX	366300	355400	341400	336200	332400	327800	326100	323200	309400	297100	282700	296400
MIN	354300	340300	336000	332700	327600	320800	321200	309900	297500	283300	268400	272400
(+)	834.40	833.25	832.89	832.62	832.22	831.99	831.77	830.68	829.59	828.30	827.18	829.49
(@)	-14800	-14200	-4300	-3300	-4800	-2700	-2600	-12700	-12400	-14200	-12000	+25100

CAL YR 1995 MAX 389700 MIN 336000 (@) -38900
WTR YR 1996 MAX 366300 MIN 268400 (@) -72900

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08044500 WEST FORK TRINITY RIVER NEAR BOYD, TX

LOCATION.--Lat 33°05'07", long 97°33'30", Wise County, Hydrologic Unit 12030101, on right bank on downstream side of highway embankment, 10 ft right of right abutment of bridge on Farm Road 730, 0.6 mi northeast of Boyd, 3.5 mi downstream from Boggy Creek and at mile 602.

DRAINAGE AREA.--1,725 mi².

PERIOD OF RECORD.--January 1947 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 660.57 ft above sea level. Prior to Dec. 14, 1954, water-stage recorder at site 2.2 mi downstream at datum 5.48 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Bridgeport Reservoir (station 08043000) 25 mi upstream and by Lake Carter. In addition, flow from a 91.2 mi² area above station is affected at times by discharge from the flood- detention pools of 36 floodwater-retarding structures with a total combined detention capacity of 24,450 acre-ft in the Big Sandy and Salt Creek drainage basins. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1880, about 25 ft in May 1908, present site and datum, from information by local residents, who also reported a flood of about the same gage height between 1870-80. A flood in April 1942 reached a stage of 20.6 ft, present site and datum, from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	231	113	21	16	90	92	27	159	103	203	1040
2	15	228	113	24	16	75	75	27	163	100	205	419
3	18	219	113	28	16	59	42	27	154	98	209	94
4	18	220	122	28	17	55	38	31	161	99	205	58
5	17	211	96	25	19	54	49	103	153	98	206	37
6	15	202	68	23	20	56	125	102	150	98	206	30
7	16	201	68	21	19	56	86	99	217	99	203	27
8	16	158	58	21	20	54	54	99	172	98	203	26
9	16	116	30	20	18	53	44	101	166	161	205	26
10	17	121	27	20	19	53	41	99	157	233	210	25
11	16	118	29	20	18	53	36	97	135	283	208	25
12	15	119	29	19	17	53	36	101	107	353	205	24
13	15	118	29	19	17	52	37	104	103	192	207	23
14	13	117	28	19	17	57	45	103	124	117	200	23
15	13	117	29	19	17	64	50	96	151	114	198	367
16	14	119	29	19	16	62	40	107	116	110	201	1190
17	16	120	35	20	16	60	34	127	110	110	218	952
18	15	117	51	21	15	63	31	132	106	112	219	228
19	16	116	43	21	16	59	29	132	98	112	206	162
20	16	119	39	21	17	59	28	133	96	106	242	68
21	106	120	35	21	31	62	28	150	96	106	262	41
22	213	120	33	21	84	60	30	180	95	106	255	27
23	214	120	32	18	88	61	51	180	94	106	253	20
24	210	117	29	18	87	64	70	230	95	114	253	17
25	212	115	29	17	86	72	43	254	96	114	252	16
26	219	115	29	17	85	69	36	254	94	110	257	15
27	211	117	29	16	86	84	33	260	95	112	257	14
28	214	117	29	16	88	192	31	267	94	234	271	31
29	214	119	30	16	90	220	32	200	92	140	258	33
30	214	119	27	16	---	119	31	155	95	115	161	18
31	215	---	19	16	---	100	---	155	---	199	349	---
TOTAL	2553	4266	1470	621	1071	2290	1397	4132	3744	4252	6987	5076
MEAN	82.4	142	47.4	20.0	36.9	73.9	46.6	133	125	137	225	169
MAX	219	231	122	28	90	220	125	267	217	353	349	1190
MIN	13	115	19	16	15	52	28	27	92	98	161	14
AC-FT	5060	8460	2920	1230	2120	4540	2770	8200	7430	8430	13860	10070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1996#, BY WATER YEAR (WY)

MEAN	312	192	188	110	109	197	270	735	486	207	226	185
MAX	4063	1248	3073	929	944	1366	4339	5908	5439	1330	1157	1643
(WY)	1982	1982	1992	1992	1992	1987	1990	1990	1989	1950	1950	1962
MIN	2.96	4.81	2.21	.75	.10	.26	.59	25.2	2.76	7.11	.025	.23
(WY)	1957	1984	1953	1956	1953	1955	1955	1959	1953	1979	1980	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1947 - 1996#	
ANNUAL TOTAL	92601		37859			
ANNUAL MEAN	254		103		269	
HIGHEST ANNUAL MEAN					1094	1982
LOWEST ANNUAL MEAN					58.6	1953
HIGHEST DAILY MEAN	4220	May 13	1190	Sep 16	38800	Oct 14 1981
LOWEST DAILY MEAN	13	Oct 14	13	Oct 14	.00	Aug 6 1948
ANNUAL SEVEN-DAY MINIMUM	14	Oct 12	14	Oct 12	.00	Sep 25 1952
INSTANTANEOUS PEAK FLOW			1360	Sep 16	60400	Oct 14 1981
INSTANTANEOUS PEAK STAGE			15.34	Sep 16	25.87	Oct 14 1981
ANNUAL RUNOFF (AC-FT)	183700		75090		195100	
10 PERCENT EXCEEDS	563		214		493	
50 PERCENT EXCEEDS	84		87		67	
90 PERCENT EXCEEDS	19		17		3.8	

Period of regulated streamflow.

08044800 WALNUT CREEK AT RENO, TX

LOCATION.--Lat 32°56'44", long 97°34'58", Parker County, Hydrologic Unit 12030101, on left bank at abandoned bridge abutment, 100 ft upstream from bridge on FM 1542, 3,500 ft upstream from Cottonwood Branch and 2.4 mi west of intersection of FM 1542 and FM 730 in Center Point.

DRAINAGE AREA.--75.6 mi².

PERIOD OF RECORD.--April 1992 to September 1995 (annual maximum). October 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 681.11 ft above sea level. Prior to December 11, 1995, at site 100 ft downstream on FM 1542 bridge.

REMARKS.--Records fair. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 31	1845	970	7.98				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.85	e.98	e5.1	2.4	3.9	3.8	1.2	3.9	.50	.54	28
2	.26	.67	e.68	e6.8	2.3	4.2	3.9	1.3	2.9	.60	.42	1.9
3	.69	.42	e.98	e7.7	2.2	4.6	3.9	1.3	1.4	.58	.43	1.0
4	.27	.45	e1.2	e4.4	2.0	4.7	4.1	1.3	1.1	.51	.42	.83
5	.37	.42	e.96	e4.5	1.9	5.7	86	1.2	.89	1.0	.47	.70
6	.38	.45	e.96	e4.6	2.1	5.2	121	1.2	.82	.55	.46	.58
7	.36	.44	e.93	e4.6	2.4	4.7	13	1.2	23	.48	.59	.53
8	.39	.43	e1.2	e4.6	2.6	4.5	7.0	1.2	1.8	.44	.56	.43
9	.40	.36	e1.0	e4.6	2.4	4.7	6.0	1.3	.79	.39	.88	.42
10	.44	.37	e.86	e4.6	2.4	4.9	6.8	1.2	.49	.36	1.2	.41
11	.44	.38	e1.3	3.8	2.6	5.5	11	1.2	.41	.44	.94	.37
12	.49	.34	e3.4	3.5	2.3	5.1	9.2	1.6	.52	.79	.56	.39
13	.46	.38	e3.3	3.7	2.5	4.7	26	1.5	.55	1.6	.61	.45
14	.35	.67	e3.6	3.7	2.9	4.9	7.5	1.7	.57	1.2	.53	.65
15	.34	.62	e3.2	2.6	1.9	4.2	5.4	1.7	.61	1.0	.50	57
16	.36	.56	e3.2	2.6	1.4	4.4	4.3	1.6	.63	.89	.64	3.9
17	.44	.54	e4.5	3.2	1.7	4.4	1.9	1.6	.71	.85	.72	1.6
18	.42	.52	e6.3	4.1	1.8	4.0	1.8	1.7	.37	.51	.69	1.6
19	.38	.46	e6.4	3.0	1.3	4.3	1.3	1.6	.35	.52	.72	4.7
20	.34	.48	e3.8	2.9	1.1	3.9	1.3	1.5	.33	.53	.67	4.1
21	.29	.47	e3.5	3.1	1.7	3.8	1.2	1.4	.35	.54	.55	9.5
22	.33	.47	e3.8	3.3	2.1	4.0	1.4	1.3	.32	.50	.47	2.4
23	.28	.47	e3.7	3.3	2.2	4.1	1.7	1.3	.35	.49	.53	1.7
24	.28	.43	e3.6	3.4	2.2	4.3	1.8	1.2	.37	.53	.61	1.6
25	.28	e.43	e3.7	3.3	5.1	3.7	1.8	1.6	.49	.53	.67	1.8
26	.35	e.43	e3.8	3.3	8.4	3.7	1.6	1.3	.50	.51	.71	1.8
27	.31	e.79	e3.9	3.3	3.4	32	1.6	1.6	.45	.64	.82	1.8
28	.29	e.95	e3.8	3.3	3.9	53	1.6	2.1	.71	.84	56	1.7
29	.45	e.93	e4.0	3.3	3.8	6.1	1.5	1.6	.44	.63	105	1.8
30	.25	e.96	e3.9	2.8	---	4.5	1.5	1.2	.57	.62	31	1.9
31	.30	---	e4.0	2.7	---	3.8	---	1.5	---	.50	133	---
TOTAL	11.20	10.04	90.45	119.7	75.0	215.5	340.9	44.2	46.69	20.07	341.91	135.56
MEAN	.36	.53	2.92	3.86	2.59	6.95	11.4	1.43	1.56	.65	11.0	4.52
MAX	.69	.96	6.4	7.7	8.4	53	121	2.1	23	1.6	133	57
MIN	.21	.28	.68	2.6	1.1	3.7	1.2	1.2	.32	.36	.42	.37
AC-FT	22	32	179	237	149	427	676	88	93	40	678	269

SUMMARY STATISTICS FOR 1996 WATER YEAR

ANNUAL TOTAL	1457.22	
ANNUAL MEAN	3.98	
HIGHEST ANNUAL MEAN		
LOWEST ANNUAL MEAN		
HIGHEST DAILY MEAN	133	Aug 31
LOWEST DAILY MEAN	.21	Oct 1
ANNUAL SEVEN-DAY MINIMUM	.30	Oct 21
INSTANTANEOUS PEAK FLOW	970	Aug 31
INSTANTANEOUS PEAK STAGE	7.98	Aug 31
ANNUAL RUNOFF (AC-FT)	2890	
10 PERCENT EXCEEDS	4.7	
50 PERCENT EXCEEDS	1.3	
90 PERCENT EXCEEDS	.39	

e Estimated

08045000 EAGLE MOUNTAIN RESERVOIR ABOVE FORT WORTH, TX

LOCATION.--Lat 32°52'39", long 97°28'29", Tarrant County, Hydrologic Unit 12030101, at right end of main section of Eagle Mountain Dam on West Fork Trinity River, 11.8 mi northwest of Fort Worth and at mile 583.3.

DRAINAGE AREA.--1,970 mi².

PERIOD OF RECORD.--February 1934 to current year. Prior to October 1950, end-of-month values only.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Oct. 16, 1988, nonrecording gages at several sites within 1.0 mi of present site at present datum.

REMARKS.--The reservoir is formed by two sections of rolled earthfill and a concrete spillway separated by high natural ground. Total length of the dam including spillway is 4,800 ft. The dam was completed Oct. 24, 1932, and storage began Feb. 24, 1934. The spillway is a 1,300-foot-wide 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 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 to the left of the original service spillway and has six 11.25 x 22-foot-wide roller lift gates. The main section of the dam contains the outlet works that consist of two concrete conduits with two 48-inch diameter valves in each conduit. The reservoir is used for flood control and for part of the municipal water supply for the city of Fort Worth. Capacities are based on a survey made in 1968. For statement regarding regulation by Natural Resource Conservation Service floodwater-retarding structures, see station 08044500. For storage above the reservoir, see REMARKS for West Fork Trinity River near Boyd (station 08044500). Figures given herein represent total contents. Telephone telemeter at station. 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	545,900
Top of gates (new side-channel spillway)	659.0	283,200
Crest of (old service) spillway (top of conservation pool)	649.1	178,400
Crest of spillway (new side-channel spillway)	637.0	89,450
Lowest gated outlet (invert)	599.9	36

COOPERATION.--New capacity table, No. 4-C, furnished by Tarrant Regional Water District, was put into use Oct. 1, 1988.

EXTREMES FOR PERIOD OF RECORD.--Prior to Oct. 16, 1987, once-daily reading of nonrecording gage at 0700 hours, maximum contents observed, 333,500 acre-ft Apr. 26, 1942 (elevation, 659.9 ft); minimum observed since first appreciable storage in 1935, 57,690 acre-ft Nov. 19, 20, 1956 (elevation, 629.3 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 167,100 acre-ft Oct. 2 at 1515 hours (elevation, 647.81 ft); minimum, 136,500 acre-ft Aug. 21 (elevation, 643.97 ft).

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

631.0	57,400	646.0	152,100	655.0	237,300
641.0	115,400	649.0	177,500	658.0	271,300
644.0	136,700	652.0	206,000	660.0	295,500

RESERVOIR STORAGE (ACRE FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166300	161000	161500	162700	159800	157300	156500	155900	151500	148900	140200	143800
2	166700	161300	161500	162700	159600	157200	156500	155500	151500	148600	139900	145100
3	166700	160900	161600	162200	159400	157000	156300	155400	151300	148200	139300	145400
4	166200	160600	161600	162400	159100	157200	156700	154900	151500	147700	138800	145600
5	166000	160700	161700	162400	159200	157400	158500	154700	151100	147100	138500	145400
6	165600	160600	161700	162200	159200	157300	158500	154700	151200	146500	138000	145300
7	165400	161000	161700	162000	159100	156900	158700	154600	151500	146000	137800	145300
8	165000	161000	162300	161900	159200	156700	158800	154300	151500	145500	137900	145400
9	165000	160900	161600	162000	159000	156500	158800	154300	151300	145000	137900	145000
10	164700	162800	161300	161700	158800	156200	158700	154300	151500	144700	137900	144800
11	164200	161000	161300	161700	158700	155900	158500	154300	151600	144300	137800	144700
12	163800	160800	161400	161600	158700	155900	159300	154300	151800	144800	137600	144500
13	163700	161000	161100	161500	159000	155600	159500	154300	151900	144800	137500	144200
14	163100	160800	161300	161200	158100	156000	159400	153200	152000	145000	137200	144200
15	162800	160900	161500	161100	158100	155900	159200	153400	152100	145000	137000	144700
16	162400	161000	161500	161000	157700	155900	159000	152800	152200	145400	137000	145900
17	162100	161000	162300	161800	157900	155900	158500	152700	152200	145200	137000	147600
18	161700	161000	162500	162100	157800	155900	158800	152400	152100	145200	136800	148600
19	161900	161200	162400	161400	157600	155600	158500	152500	152300	145300	136800	149100
20	161000	161300	162200	161200	157600	155700	158300	152300	152100	145100	136800	149100
21	160500	161200	162100	161000	157500	155300	157400	152300	151900	145100	136600	149000
22	160000	161400	162200	161400	157700	154700	158100	152000	151600	145000	136600	148800
23	160400	161400	162000	161200	157600	154700	157800	151300	151400	144600	136600	148800
24	160400	161200	162000	160800	157600	155700	157300	151400	151100	144600	136600	148400
25	160200	161300	161800	160400	157600	155000	157700	151300	150600	143400	136600	148100
26	160000	161300	161800	160500	157900	154700	157400	151300	150400	143000	136900	148000
27	160300	161800	161800	160200	158100	155600	156800	151400	150400	142600	137800	147700
28	160300	161400	161700	160100	157700	155800	157200	151500	150000	142200	139100	147700
29	160100	161300	161700	160200	157500	155900	156500	151400	149500	141700	139900	148000
30	160200	161300	161800	160100	---	157300	155700	151500	149200	141300	140600	146700
31	160600	---	161900	159700	---	156500	---	151400	---	140700	142100	---
MAX	166700	162800	162500	162700	159800	157400	159500	155900	152300	148900	142100	149100
MIN	160000	160600	161100	159700	157500	154700	155700	151300	149200	140700	136600	143800
(+)	647.05	647.13	647.20	646.94	646.67	646.55	646.45	645.91	645.64	644.53	644.72	645.31
(@)	-6100	+700	+600	-2200	-2200	-1000	-800	-4300	-2200	-8500	+1400	+4600

CAL YR 1995 MAX 183200 MIN 160000 (@) -16800
WTR YR 1996 MAX 166700 MIN 136600 (@) -20000

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08045400 LAKE WORTH ABOVE FORT WORTH, TX

LOCATION.--Lat 32°47'21", long 97°24'58", Tarrant County, Hydrologic Unit 12030102, on top of Lake Worth Dam on West Fork Trinity River, 240 ft to right of right end of uncontrolled concrete spillway, 2.9 mi upstream from Farmer's Branch, 3.3 mi upstream from bridge on State Highway 183 crossing West Fork Trinity River, 5.3 mi northwest of Tarrant County Courthouse in Fort Worth and at river mile 572.0.

DRAINAGE AREA.--2,064 mi².

PERIOD OF RECORD.--October 1981 to current year.
Water-quality records.--Chemical analyses: January 1970 to September 1984.

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

REMARKS.--The lake is formed by a rolled earthfill dam 3,200 ft long, with an uncontrolled concrete spillway 700 ft long near the center of the dam. Deliberate impoundment began in June 1914 and the dam was completed in October 1914. There is a 48-inch diameter pipe controlled by a 36-inch valve, which may be used to make small releases through the dam. The dam is owned by the city of Fort Worth. Area-capacity curves are based on a survey made in 1968. Figures given herein represent total contents. Gage-height telemeter at station. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	606.3	-
Crest of concrete spillway	594.0	37,070
Lowest gated outlet (invert)	584.25	12,290

COOPERATION.--Copies of the capacity table (prepared by the U.S. Army Corps of Engineers) and area-capacity curves (prepared by Freese and Nichols Consulting Engineers Inc.) were provided by Tarrant Regional Water District Improvement.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 56,040 acre-ft May 3, 1990 (elevation, 598.70 ft); minimum, 24,730 acre-ft Sept. 9-10, 1985 (elevation, 589.95 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 36,660 acre-ft Dec. 18 at 1745 hours (elevation, 593.88 ft); minimum, 30,010 acre-ft July 9 (elevation, 591.82 ft).

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

589.0	22,300	594.0	37,070	598.0	52,890
592.0	30,540	596.0	44,520	599.0	57,400

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35520	35620	35720	36430	36020	35350	35240	33600	34160	30480	32900	34910
2	35580	35620	35790	36290	36020	35350	35140	33600	34230	30450	33090	34810
3	35620	35550	35850	36020	36020	35380	35110	33630	34260	30420	33220	34640
4	35550	35580	35820	36020	35920	35350	34940	33630	34370	30450	33310	34530
5	35350	35650	35720	35920	35890	35380	35410	33660	34260	30420	33370	34370
6	35240	35820	35680	35790	35850	35450	35280	33760	34160	30330	33530	34200
7	35080	35920	35620	35550	35890	35210	35140	33760	34230	30220	33630	33960
8	34940	35850	35820	35520	35890	35210	35040	33760	34160	30220	33660	33930
9	35010	35820	35680	35580	35820	35180	34910	33760	34100	30220	33720	33720
10	35010	36160	35620	35620	35950	35180	34740	33830	33960	30540	33790	33560
11	35140	35750	35650	35580	35750	35210	34500	33860	33790	30850	33830	33340
12	35280	35720	35720	35620	35720	35280	34700	33890	33560	32020	33790	33150
13	35310	35750	35750	35680	35680	35210	34530	33930	33410	32240	33760	33030
14	35240	35750	35750	35680	35750	35240	34470	33930	33220	32360	33720	32930
15	35240	35680	35790	35680	35620	35240	34160	33990	32990	32170	33660	33090
16	35210	35720	35850	35750	35480	35210	33990	33860	32770	32270	33660	32990
17	35180	35680	36330	36020	35450	35240	33790	33720	32550	32050	33720	32870
18	35140	35720	36630	35950	35480	35180	33930	33560	32240	31760	33760	32870
19	35140	35720	36360	35820	35450	35010	33960	33500	32050	31540	33760	32960
20	35010	35750	36330	35950	35450	35310	33890	33470	31700	31260	33760	32870
21	34940	35750	36330	35950	35450	35210	33830	33410	31360	30950	33720	32810
22	34940	35820	36390	35950	35450	35080	34100	33410	31200	30850	33720	32650
23	34970	35680	36360	36060	35410	35010	34100	33340	31170	30670	33830	32580
24	34910	35680	36430	36090	35380	35310	33860	33150	31040	30670	33860	32580
25	34910	35720	36430	35990	35410	35080	33830	33220	30920	31040	33890	32620
26	34970	35790	36460	36020	35350	35080	33690	33220	30980	31360	33930	32620
27	35080	35790	36530	36020	35410	35580	33660	33370	30980	31700	34160	32620
28	35080	35720	36530	36020	35310	35650	33720	33500	30760	32050	34700	32620
29	34940	35720	36430	36120	35350	35620	33600	33600	30670	32270	34670	32620
30	35080	35680	36430	36120	---	35680	33560	33500	30600	32460	34530	32680
31	35310	---	36360	36020	---	35380	---	33790	---	32650	35010	---
MAX	35620	36160	36630	36430	36020	35680	35410	33990	34370	32650	35010	34910
MIN	34910	35550	35620	35520	35310	35010	33560	33150	30600	30220	32900	32580
(+)	593.48	593.59	593.79	593.69	593.49	593.50	592.96	593.03	592.02	592.67	593.39	592.68
(@)	-240	+370	+680	-340	-670	+30	-1820	+230	-3190	+2050	+2360	-2330

CAL YR 1995 MAX 42480 MIN 34910 (@) -1430
WTR YR 1996 MAX 36630 MIN 30220 (@) -2870

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08045850 CLEAR FORK TRINITY RIVER NEAR WEATHERFORD, TX

(Flood-hydrograph partial-record station)

LOCATION.--Lat 32°44'25", long 97°39'06", Parker County, Hydrologic Unit 12030102, near left end of bridge on weigh station exit road associated with Interstate Highway 20, 150 ft downstream from Squaw Creek, 2.8 mi downstream from Lake Weatherford Dam on the Clear Fork Trinity River, 3.8 mi upstream from South Fork Trinity River and 8.5 mi east of county courthouse in Weatherford.

DRAINAGE AREA.--121 mi².

PERIOD OF RECORD.--July 1924 to September 1925, November 1947 to September 1985. May 1980 to September 1985. October 1985 to current year (peaks above base discharge).

REVISED RECORDS.--WSP 1312. 1925(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 810.00 ft above sea level.

REMARKS.--Records fair. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD (water years 1980-85).--23.0 ft³/s (16,660 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,080 ft³/s Nov. 1, 1981 (gage height, 21.58 ft); minimum, no flow Sept. 12-15, 1984.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 190 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 27	0130	422	11.99	Aug. 28	0900	801	13.14

08046020 CLEAR FORK TRINITY RIVER ABOVE BENBROOK NEAR ALEDO, TX

LOCATION.--Lat 32°37'14", long 97°31'46", Tarrant County, Hydrologic Unit 12030102, on U.S. Highway 377, over center of channel at upstream side of upstream bridge, 0.25 mi southwest of FM 2376, 0.25 mi northeast of FM 1187 and 6.5 mi southwest of Benbrook.

DRAINAGE AREA.--258 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1989 to September 1996 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
NOV												
30...	1416	18	819	8.3	11.5	13	3.3	11.0	103	2.6	310	27
FEB												
08...	1125	16	784	8.0	10.5	9	5.3	10.6	97	0.6	300	44
APR												
18...	1045	23	746	7.9	19.0	23	17	7.8	87	1.8	300	38
MAY												
14...	0952	12	830	8.2	21.5	40	17	7.1	82	1.0	300	50
JUN												
26...	1002	3.8	755	8.3	28.0	20	--	6.5	85	2.7	260	30
JUL												
15...	1409	18	300	7.9	27.0	100	66	6.8	87	2.3	110	13

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
NOV												
30...	100	15	52	1	5.6	290	59	57	0.80	13	478	4
FEB												
08...	100	13	41	1	3.5	260	56	50	0.50	8.6	438	9
APR												
18...	97	14	43	1	3.5	260	52	54	0.80	9.7	435	36
MAY												
14...	96	15	57	1	4.6	250	62	72	1.4	19	484	34
JUN												
26...	82	12	54	1	6.6	230	52	70	0.80	14	430	31
JUL												
15...	36	4.2	14	0.6	5.7	94	21	16	0.40	10	168	122

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
NOV											
30...	<1	--	0.660		<0.010	0.660	0.660	0.060	0.64	0.70	0.620
FEB											
08...	7	2	1.78	1.78	0.020	1.80	1.80	0.020	0.18	0.20	0.380
APR											
18...	11	25	0.550	0.550	0.020	0.570	0.570	0.060	0.34	0.40	0.390
MAY											
14...	18	16	0.570	0.570	0.030	0.600	0.600	0.080	0.42	0.50	0.710
JUN											
26...	<1	--	0.200	0.200	0.020	0.220	0.220	0.120	0.48	0.60	0.570
JUL											
15...	16	106	0.630	0.630	0.040	0.670	0.670	0.130	0.47	0.60	0.260

DATE	PHOS PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
NOV											
30...	0.590	1.8	8.3		--	--	--	--	--	--	--
FEB											
08...	0.350	1.1	4.2	1	83	<0.50	<1.0	<5.0	<3.0	<10	12
APR											
18...	0.390	1.2	6.2		--	--	--	--	--	--	--
MAY											
14...	0.590	1.8	8.0	4	90	<0.50	<1.0	<5.0	<3.0	<10	<3.0
JUN											
26...	0.560	1.7	8.8	5	95	<0.50	<1.0	<5.0	<3.0	<10	<3.0
JUL											
15...	0.290	0.89	14		--	--	--	--	--	--	--

08046020 CLEAR FORK TRINITY RIVER ABOVE BENBROOK NEAR ALEDO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
08...	<10	10	15	<0.1	<10	<10	<1	<1.0	650	<6	<3.0
APR											
18...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	<10	9	18	<0.1	20	<10	<1	<1.0	730	<6	10
JUN											
26...	<10	9	24	<0.1	10	<10	<1	<1.0	640	6	4.0
JUL											
15...	--	--	--	--	--	--	--	--	--	--	--

08046150 BEAR CREEK AT FM 1187 NEAR BENBROOK, TX

LOCATION.--Lat 32°35'38", long 97°30'47", Tarrant County, Hydrologic Unit 12030102, on FM 1187 bridge over center of channel at upstream side of bridge, 0.3 mi downstream from an unnamed tributary on left bank, 0.3 mi upstream from Benbrook Lake and 6.4 mi south of Benbrook.

DRAINAGE AREA.--62.8 mi².

PERIOD OF RECORD.- Chemical and biochemical analyses: October 1989 to September 1996 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
DEC												
01...	1319	2.2	442	8.2	13.5	8	0.80	13.3	131	0.1	200	12
FEB												
07...	1050	1.4	435	7.7	7.5	2	0.80	12.2	103	0.4	200	20
APR												
18...	0900	0.30	410	7.4	21.0	6	0.20	6.0	69	0.7	190	24
JUL												
15...	1132	0.26	331	7.8	27.0	15	1.1	2.9	37	2.3	160	39
SEP												
05...	0832	0.26	332	7.8	26.0	10	2.8	3.2	40	0.8	160	34

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
DEC												
01...	74	4.6	12	0.4	1.7	190	22	10	0.30	11	251	<2
FEB												
07...	75	4.1	10	0.3	0.90	180	23	9.1	0.30	8.5	243	2
APR												
18...	69	4.6	12	0.4	1.7	170	31	10	0.30	9.4	239	<7
JUL												
15...	58	3.3	5.1	0.2	3.3	120	32	4.5	0.40	12	192	7
SEP												
05...	59	3.4	6.4	0.2	2.2	130	42	4.0	0.30	11	206	4

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
DEC											
01...	2	--	--	--	<0.010	--	<0.050	<0.015	--	<0.20	0.030
FEB											
07...	1	1	0.080	--	<0.010	0.080	0.080	<0.015	--	<0.20	<0.010
APR											
18...	1	--	0.160	--	<0.010	0.160	0.160	<0.015	--	<0.20	<0.010
JUL											
15...	1	3	0.290	0.290	0.010	0.300	0.300	0.080	0.32	0.40	<0.010
SEP											
05...	1	2	0.080	--	<0.010	0.080	0.080	0.040	0.26	0.30	0.010

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
DEC											
01...	<0.010	--	5.0	--	--	--	--	--	--	--	--
FEB											
07...	<0.010	--	1.5	<1	50	<0.50	<1.0	<5.0	<3.0	<10	9.0
APR											
18...	<0.010	--	1.4	--	--	--	--	--	--	--	--
JUL											
15...	0.020	0.06	1.7	<1	60	<0.50	<1.0	<5.0	<3.0	<10	<3.0
SEP											
05...	0.010	0.03	2.4	2	60	<0.50	1.0	<5.0	<3.0	<10	<3.0

08046150 BEAR CREEK AT FM 1187 NEAR BENBROOK, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC											
01...	--	--	--	--	--	--	--	--	--	--	--
FEB											
07...	<10	9	1.0	<0.1	<10	<10	<1	<1.0	410	<6	<3.0
APR											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	<10	4	5.0	<0.1	<10	<10	<1	<1.0	360	<6	17
SEP											
05...	<10	<4	1.0	<0.1	<10	10	<1	1.0	340	<6	<3.0

08046500 BENBROOK LAKE NEAR BENBROOK, TX

LOCATION.--Lat 32°39'02", long 97°26'54", Tarrant County, Hydrologic Unit 12030102, in intake structure of Benbrook Dam on Clear Fork Trinity River, 2.5 mi south of Benbrook, 3.5 mi upstream from Marys Creek and 14.6 mi upstream from mouth.

DRAINAGE AREA.--429 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--September 1952 to current year. Prior to October 1970, published as Benbrook Reservoir.

REVISED RECORDS.--WSP 1922: Drainage area.

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

REMARKS.--The lake is formed by a rolled earthfill dam 9,130 ft long, including a 500-foot uncontrolled off-channel concrete-gravity spillway with a 100-foot notch in center of ogee weir section. The outlet works consist of a 13.0-foot-diameter concrete conduit controlled by two 6.5 x 13.0-foot broome-type gates and two 30-inch 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. Inflow is affected at times by the discharge from flood-detention pools of 12 floodwater-retarding structures with a combined detention capacity of 11,170 acre-ft. These structures control runoff from 37.6 mi². Satellite telemeter at station. 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	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 the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 212,200 acre-ft May 3, 1990 (elevation, 717.54 ft); minimum since lake first filled in 1957, 61,450 acre-ft Oct. 10, 1984 (elevation, 686.16 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,720 acre-ft Apr. 12 (elevation, 694.39 ft); minimum, 81,930 acre-ft Aug. 26 (elevation, 692.29 ft).

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

688.0	67,250	695.0	92,060	700.0	113,000
691.0	77,350	696.0	96,000	701.0	117,600
692.0	80,890	697.0	100,050	702.0	122,300
693.0	84,520	698.0	104,200	703.0	127,200
694.0	88,250	699.0	108,600		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88550	87420	85930	87310	87830	88250	88550	88130	86520	84740	83940	85820
2	88660	87420	85960	87460	87910	88250	88550	88130	86490	84600	83860	86300
3	88700	87310	85960	87460	87910	88320	88550	88320	86340	84560	83750	86520
4	88740	87310	85960	87460	87950	88360	88510	88210	86370	84450	83570	87500
5	88590	87310	85960	87460	87980	88280	89120	88170	86260	84300	83420	87680
6	88470	87310	85930	87420	88020	88210	89420	88510	86150	84120	83280	87830
7	88440	87270	85930	87420	88100	88100	89500	88510	86110	84010	83200	87910
8	88360	87230	85930	87420	88100	88100	89530	88550	86000	83860	83130	88210
9	88400	87380	85850	87420	88130	88100	89610	88470	85930	83720	83130	88170
10	88360	87160	85820	87420	88100	88060	89650	88250	85930	83830	83130	88170
11	88320	87050	85820	87420	88130	88060	89650	88250	85930	84080	83100	88170
12	88320	87120	85820	87420	88170	88170	89720	88210	86410	84120	82950	88780
13	88320	87010	85820	87420	88210	88250	89650	88170	86490	84270	82880	88780
14	88280	87010	85820	87460	88210	88100	89500	88360	86450	84450	82800	88660
15	88170	86970	85850	87460	88130	88100	89420	88170	86370	84450	82690	88960
16	88130	86930	85850	87530	88210	88130	89310	88210	86340	84380	82550	88960
17	87980	86930	86220	87910	88170	88100	89190	88060	86220	84300	82510	88960
18	87950	86930	86490	87830	88320	88130	89040	87910	86150	84230	82440	88930
19	87870	86930	86520	87870	88210	88100	89000	87830	86080	84120	82370	89080
20	87830	86930	86520	87870	88210	88060	88890	87610	85930	84010	82260	89120
21	87830	86930	86520	87870	88170	88100	88930	87530	85820	83860	82190	89120
22	87950	86900	86520	88100	88250	88250	88890	87420	85670	83790	82110	89080
23	87650	86860	86520	87980	88210	88360	88810	87310	85560	83720	82080	88930
24	87530	86860	86520	87980	88210	88060	88660	87200	85480	83680	82010	88810
25	87460	86860	86520	88130	88280	87950	88440	87080	85410	83570	81970	88740
26	87460	86820	86520	87910	88360	87950	88440	86970	85300	83500	81930	88510
27	87420	86750	86520	87950	88280	88320	88510	86930	85190	84230	81970	88320
28	87310	86710	87310	88020	88210	88440	88360	86820	85040	84270	83680	88130
29	87270	86710	87310	87950	88250	88550	88280	86670	84970	84160	84560	87980
30	87200	86710	87310	87950	---	88510	88360	86490	84850	84080	84630	87870
31	87160	---	87310	87910	---	88510	---	86520	---	84010	85110	---
MAX	88740	87420	87310	88130	88360	88550	89720	88550	86520	84740	85110	89120
MIN	87160	86710	85820	87310	87830	87950	88280	86490	84850	83500	81930	85820
(+)	693.71	693.59	693.75	693.91	694.00	694.07	694.03	693.54	693.09	692.86	693.16	693.90
(@)	-1390	-450	+600	+600	+340	+260	-150	-1840	-1670	-840	+1100	+2760

CAL YR 1995 MAX 125200 MIN 85820 @ -3020
WTR YR 1996 MAX 89720 MIN 81930 @ -680

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1982. February 1990 to September 1996 (discontinued).

REVISED RECORDS.--WDR TX-93-1: Phytoplankton.

32385809/265601 - BENBROOK LAKE SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
FEB										
22...	1155	88200	1.00	388	8.1	12.5	1.28	10.2	99	K4
22...	1200	--	10.0	388	8.0	11.0	--	10.2	95	--
22...	1205	--	20.0	389	8.0	10.0	--	10.1	92	--
22...	1210	--	30.0	389	7.9	9.5	--	10.0	90	--
22...	1215	--	40.0	389	7.9	9.5	--	9.8	88	--
22...	1220	--	50.0	391	7.8	9.5	--	9.4	85	--
22...	1225	--	58.0	392	7.7	9.5	--	9.0	81	--
APR										
18...	1132	89200	1.00	415	8.2	17.0	0.55	9.1	97	K6
18...	1136	--	10.0	416	8.2	17.0	--	9.1	97	--
18...	1140	--	20.0	416	8.2	17.0	--	8.9	95	--
18...	1144	--	30.0	416	8.2	17.0	--	8.9	95	--
18...	1148	--	40.0	414	8.2	17.0	--	8.8	94	--
18...	1152	--	50.0	415	8.2	17.0	--	8.8	94	--
18...	1156	--	57.0	416	8.1	17.0	--	8.3	89	--
JUL										
31...	1105	84100	1.00	323	8.3	30.0	0.98	8.4	115	--
31...	1109	--	10.0	323	8.3	30.0	--	8.1	111	--
31...	1113	--	20.0	348	7.3	29.0	--	0.8	11	--
31...	1118	--	30.0	352	7.2	28.0	--	0	0	--
31...	1122	--	40.0	392	7.0	26.0	--	0	0	--
31...	1126	--	50.0	410	6.9	25.5	--	0	0	--
31...	1130	--	54.0	415	6.9	25.5	--	0	0	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FIELD AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)
FEB									
22...	K1	150	15	46	7.5	21	0.8	3.5	130
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	150	18	48	7.6	21	0.7	3.5	130
APR									
18...	K6	150	17	49	7.7	22	0.8	3.6	140
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	150	15	48	7.5	22	0.8	3.8	140
JUL									
31...	--	100	11	28	7.6	24	1	4.0	90
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	150	0	47	7.9	23	0.8	4.1	160

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

32385809/265601 BENBROOK LAKE SITE AC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
FEB									
22...	27	24	0.40	7.2	216	0.180	0.180	0.010	0.190
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	26	23	0.40	8.4	219	0.160	--	<0.010	0.160
APR									
18...	30	26	0.40	6.1	228	0.190	--	<0.010	0.190
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	30	27	0.40	6.7	228	0.190	--	<0.010	0.190
JUL									
31...	29	27	0.40	3.8	178	0.110	--	<0.010	0.110
31...	--	--	--	--	--	0.110	--	<0.010	0.110
31...	--	--	--	--	--	0.110	--	<0.010	0.110
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	18	26	0.30	9.3	238	0.110	--	<0.010	0.110

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB									
22...	0.190	0.050	0.25	0.30	<0.010	<0.010	--	<10	<10
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	0.160	0.320	0.18	0.50	<0.010	0.010	0.03	<10	60
APR									
18...	0.190	0.050	0.35	0.40	<0.010	<0.010	--	<3.0	2.0
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	0.190	0.080	0.32	0.40	<0.010	<0.010	--	10	68
JUL									
31...	0.110	<0.015	--	0.20	0.010	0.010	0.03	<3.0	1.0
31...	0.110	0.020	0.18	0.20	<0.010	0.010	0.03	3.0	4.0
31...	0.110	0.030	0.17	0.20	<0.010	0.020	0.06	38	72
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	0.110	1.50	0.0	1.5	0.260	0.290	0.89	410	460

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

323908097273401 - BENBROOK LAKE SITE AL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
22...	1235	1.00	387	8.1	12.5	10.2	99
22...	1237	10.0	388	8.1	11.0	10.2	95
22...	1240	20.0	388	8.0	10.5	10.0	92
22...	1243	30.0	389	8.0	10.0	10.0	91
22...	1246	40.0	389	7.9	9.5	9.8	88
22...	1249	47.0	391	7.9	9.5	9.6	87
APR							
18...	1205	1.00	411	8.2	17.0	9.0	96
18...	1207	10.0	412	8.2	17.0	9.0	96
18...	1209	20.0	412	8.2	17.0	9.0	96
18...	1211	30.0	413	8.2	17.0	8.9	95
18...	1214	40.0	414	8.2	17.0	8.8	94
18...	1216	46.0	415	8.2	17.0	8.1	86
JUL							
31...	1146	1.00	321	8.5	30.0	9.0	123
31...	1149	10.0	321	8.4	30.0	8.1	111
31...	1152	20.0	342	7.6	29.0	3.0	40
31...	1155	30.0	351	7.3	28.0	0.1	1
31...	1159	43.0	398	7.0	26.0	0.2	3

323735097474701 - BENBROOK LAKE SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
22...	1308	1.00	390	8.2	12.5	0.85	10.3	100	K1	K1	150	18
22...	1312	10.0	390	8.1	11.0	--	10.1	94	--	--	--	--
22...	1316	20.0	389	8.0	10.5	--	10.0	92	--	--	--	--
22...	1321	30.0	390	7.9	9.5	--	9.6	87	--	--	--	--
22...	1326	41.0	391	8.0	9.5	--	9.5	86	--	--	150	19
APR												
18...	1234	1.00	411	8.2	17.5	0.55	9.0	97	K1	K1	150	18
18...	1238	10.0	411	8.2	17.0	--	8.9	95	--	--	--	--
18...	1242	20.0	411	8.2	17.0	--	8.8	94	--	--	--	--
18...	1247	30.0	412	8.2	17.0	--	8.7	93	--	--	--	--
18...	1250	40.0	412	8.1	16.5	--	8.5	90	--	--	150	16
JUL												
31...	1220	1.00	329	8.4	29.5	1.04	7.8	106	--	--	110	12
31...	1226	10.0	332	8.0	29.0	--	6.1	82	--	--	--	--
31...	1233	20.0	335	7.9	29.0	--	5.6	75	--	--	--	--
31...	1240	30.0	347	7.4	28.5	--	0.9	12	--	--	--	--
31...	1247	37.0	371	7.1	26.5	--	0.1	1	--	--	120	0

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
FEB												
22...	47	7.6	21	0.7	3.4	130	27	24	0.40	7.2	217	0.180
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	47	7.6	21	0.7	3.5	130	26	23	0.40	7.5	215	0.180
APR												
18...	49	7.7	22	0.8	3.9	140	29	26	0.30	6.3	227	0.190
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	48	7.6	22	0.8	3.5	130	29	25	0.40	6.2	224	0.250
JUL												
31...	30	7.5	24	1	3.9	94	29	27	0.40	3.9	183	0.110
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	0.110
31...	--	--	--	--	--	--	--	--	--	--	--	0.110
31...	38	6.4	19	0.8	4.2	130	17	24	0.30	8.7	200	0.120

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

32373509724701 - BENBROOK LAKE SITE BC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB											
22...	<0.010	0.180	0.180	<0.015	--	0.30	<0.010	<0.010	--	10	<10
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	<0.010	0.180	0.180	0.130	0.17	0.30	<0.010	0.010	0.03	<10	20
APR											
18...	<0.010	0.190	0.190	0.090	0.31	0.40	<0.010	0.010	0.03	<3.0	<1.0
18...		--	--	--	--	--	--	--	--	--	--
18...		--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	<0.010	0.250	0.250	0.110	0.29	0.40	<0.010	<0.010	--	<3.0	4.0
JUL											
31...	<0.010	0.110	0.110	0.020	0.28	0.30	<0.010	0.010	0.03	<3.0	1.0
31...	--	--	--	--	--	--	--	--	--	--	--
31...	<0.010	0.110	0.110	0.020	0.28	0.30	<0.010	0.010	0.03	4.0	25
31...	<0.010	0.110	0.110	0.300	0.20	0.50	0.030	0.020	0.06	23	81
31...	<0.010	0.120	0.120	1.10	0.10	1.2	0.180	0.230	0.71	900	720

32362809725101 - BENBROOK LAKE SITE CR

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
22...	1336	1.00	388	8.3	13.5	10.6	105
22...	1338	10.0	391	8.0	11.0	9.6	90
22...	1341	20.0	391	7.9	9.5	9.3	84
22...	1343	26.0	392	7.9	9.5	9.2	83
APR							
18...	1304	1.00	412	8.3	17.5	9.1	98
18...	1307	10.0	413	8.2	17.0	8.9	95
18...	1310	20.0	413	8.2	17.0	8.8	94
18...	1312	27.0	413	8.2	17.5	8.7	94
JUL							
31...	1259	1.00	335	8.6	29.5	9.1	123
31...	1302	10.0	337	8.2	29.0	6.7	90
31...	1304	23.0	349	7.4	29.0	4.6	62

32362909728090l - BENBROOK LAKE SITE CL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
22...	1352	1.00	388	8.3	13.5	10.2	101
22...	1354	10.0	391	8.0	10.5	9.7	90
22...	1356	23.0	392	8.0	10.0	9.3	85
APR							
18...	1320	1.00	412	8.3	17.5	9.2	99
18...	1323	10.0	413	8.2	17.0	8.7	93
18...	1325	23.0	413	8.2	17.0	8.6	92
JUL							
31...	1311	1.00	338	8.4	29.0	7.6	102
31...	1314	10.0	338	8.0	29.0	5.5	74
31...	1317	21.0	348	7.4	29.0	4.4	59

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

323652097291901 - BENBROOK LAKE SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
22...	1407	1.00	394	8.2	13.5	0.49	9.8	97	K3	K7	150	19
22...	1412	10.0	391	8.0	10.0	--	9.6	88	--	--	--	--
22...	1418	24.0	397	7.8	9.5	--	8.5	77	--	--	150	16
APR												
18...	1340	1.00	414	8.3	18.5	0.43	9.1	100	K5	K1	150	15
18...	1348	10.0	412	8.2	17.0	--	8.8	94	--	--	--	--
18...	1354	24.0	413	8.2	17.0	--	8.4	90	--	--	150	14
JUL												
31...	1337	1.00	328	8.6	30.0	0.76	8.6	118	--	--	110	10
31...	1343	10.0	330	8.5	30.0	--	8.1	111	--	--	--	--
31...	1350	20.0	335	8.0	29.0	--	5.3	71	--	--	--	--
31...	1357	25.0	340	7.6	29.0	--	2.7	36	--	--	110	10

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
FEB												
22...	49	7.8	22	0.8	3.5	140	28	25	0.40	7.0	225	0.190
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	47	7.6	21	0.7	3.6	130	27	23	0.40	7.8	218	0.200
APR												
18...	48	7.6	22	0.8	3.6	140	29	27	0.40	6.2	226	0.190
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	48	7.6	22	0.8	3.6	140	29	26	0.40	6.3	226	0.200
JUL												
31...	30	7.5	24	1	3.9	96	29	27	0.40	4.1	184	0.110
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	33	7.8	24	1	3.8	100	29	28	0.20	6.1	195	0.110

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB												
22...	--	<0.010	0.190	0.190	0.030	0.27	0.30	<0.010	0.010	0.03	10	<10
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	0.200	0.010	0.210	0.210	0.150	0.25	0.40	0.020	0.020	0.06	<10	<10
APR												
18...	--	<0.010	0.190	0.190	0.060	0.24	0.30	<0.010	<0.010	--	<3.0	<1.0
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	<0.010	0.200	0.200	0.090	0.31	0.40	<0.010	<0.010	--	<3.0	2.0
JUL												
31...	--	<0.010	0.110	0.110	0.020	0.28	0.30	<0.010	0.010	0.03	<3.0	<1.0
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	<0.010	0.110	0.110	0.060	0.24	0.30	0.010	0.010	0.03	<60	<20

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

Benbrook Lake Site AC (323858097265601)

Phytoplankton Analyses October 1995 to September 1996

Date	2-22-96
Time	1158
TOTAL CELLS/mL	**9,874**
NUMBER OF SPECIES	**7**
DEPTH COLLECTED (ft.)	**2.3**

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	30
Order Pennales	
Navicula sp.	30
CHLOROPHYTA	
Ankistrodesmus falcatus	892
CYANOPHYTA	
Anabaena spiroides	1,784
Aphanocapsa delicatissima	5,948
EUGLENOPHYTA	
Trachelomonas sp.	119
CRYPTOPHYTA	
Cryptomonas erosa	1,071

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

Benbrook Lake Site DC (323652097291901)

Phytoplankton Analyses October 1995 to September 1996

Date	2-22-96
Time	1410
TOTAL CELLS/mL	13,204
NUMBER OF SPECIES	11
DEPTH COLLECTED (ft.)	0.80

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	208
Order Pennales	
Cymbella sp.	119
CHLOROPHYTA	
Ankistrodesmus falcatus	2,141
Chlamydomonas sp.	297
Oocystis sp.	59
Scenedesmus quadricauda	30
CYANOPHYTA	
Aphanocapsa delicatissima	9,517
Chroococcus limneticus	119
CHRYSOPHYTA	
Mallomonas sp.	30
EUGLENOPHYTA	
Trachelomonas sp.	268
CRYPTOPHYTA	
Cryptomonas erosa	416

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

Benbrook Lake Site AC (323858097265601)

Phytoplankton Analyses October 1995 to September 1996

Date	4-18-96
Time	1132
TOTAL CELLS/mL	7,257
NUMBER OF SPECIES	9
DEPTH COLLECTED (ft.)	0.90

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	136
Stephanodiscus hantzschii	340
Order Pennales	
Navicula sp.	238
CHLOROPHYTA	
Ankistrodesmus falcatus	119
Chlamydomonas sp.	30
Scenedesmus quadricauda	30
CYANOPHYTA	
Aphanocapsa delicatissima	5,948
EUGLENOPHYTA	
Trachelomonas sp.	59
CRYPTOPHYTA	
Cryptomonas erosa	357

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

Benbrook Lake Site DC (323652097291901)

Phytoplankton Analyses October 1995 to September 1996

Date	4-18-96
Time	1340
TOTAL CELLS/mL	4,252
NUMBER OF SPECIES	10
DEPTH COLLECTED (ft.)	0.70

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	134
Stephanodiscus hantzschii	342
Order Pennales	
Meridion circulare	59
Navicula sp.	30
CHLOROPHYTA	
Ankistrodesmus falcatus	238
Chlamydomonas sp.	89
CYANOPHYTA	
Aphanocapsa delicatissima	2,974
Chroococcus limneticus	119
EUGLENOPHYTA	
Trachelomonas sp.	89
CRYPTOPHYTA	
Cryptomonas erosa	178

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

Benbrook Lake Site AC (323858097265601)

Phytoplankton Analyses October 1995 to September 1996

Date	7-31-96
Time	1105
TOTAL CELLS/mL	**83,065**
NUMBER OF SPECIES	**13**
DEPTH COLLECTED (ft.)	**1.60**

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cymbella inelegans var. *inelegans*	36
Fragilaria crotonenesis var. *crotonensis*	558
CHLOROPHYTA	
Ankistrodesmus falcatus	327
Chlamydomonas sp.	595
Cosmarium sp.	149
Pediastrum duplex	30
Staurastrum sp.	30
CYANOPHYTA	
Anabaena spiroides	595
Aphanizomenon flos-aquae	23,792
Aphanocapsa delicatissima	33,309
Chroococcus limneticus	238
Merismopedia tenuissima	21,413
EUGLENOPHYTA	
Trachelomonas sp.	1,993

08046500 BENBROOK LAKE NEAR BENBROOK, TX--Continued

Benbrook Lake Site DC (323652097291901)

Phytoplankton Analyses October 1995 to September 1996

Date	7-31-96
Time	1337
TOTAL CELLS/mL	54,663
NUMBER OF SPECIES	13
DEPTH COLLECTED (ft.)	1.25

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cymbella inelegans var. *inelegans*	68
Cymbella minuta var. *minuta*	23
Fragilaria crotonensis var. *crotonensis*	861
CHLOROPHYTA	
Chlamydomonas sp.	238
Scenedesmus bijuga	30
Scenedesmus opoliensis	59
Staurastrum sp.	30
CYANOPHYTA	
Anabaena spiroides	1,784
Aphanizomenon flos-aquae	8,922
Aphanocapsa delicatissima	24,982
Merismopedia tenuissima	17,130
EUGLENOPHYTA	
Phacus sp.	30
Trachelomonas sp.	506

08047000 CLEAR FORK TRINITY RIVER NEAR BENBROOK, TX

LOCATION.--Lat 32°39'54", long 97°26'30", Tarrant County, Hydrologic Unit 12030102, on left bank 1.5 mi downstream from Benbrook Dam, 1.7 mi southeast of Benbrook, 2.9 mi upstream from Marys Creek and 13.1 mi upstream from mouth.

DRAINAGE AREA.--431 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WDR TX-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 604.22 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Benbrook Lake (station 08046500), 1.5 mi upstream, since September 1952. There is a diversion 1.0 mi upstream for Pecan Valley Golf Course. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--5 years (water years 1948-52) prior to regulation by Benbrook Lake, 105 ft³/s (76,070 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1948-52).--Maximum discharge, 82,900 ft³/s May 17, 1949 (gage height, 28.72 ft), from rating curve extended above 11,000 ft³/s on basis of velocity-area studies and slope-area measurement of 82,900 ft³/s; no flow at times most years. Maximum stage since at least 1922, that of May 17, 1949.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	1.9	2.8	1.9	4.7	5.5	.38	1.8	55	5.4	3.9	5.0
2	7.0	.58	2.7	2.1	4.8	5.5	.31	2.2	53	5.4	4.1	5.3
3	5.8	.37	3.4	1.8	4.7	5.4	.46	2.1	52	4.9	3.7	5.8
4	5.4	.44	2.7	1.4	4.5	5.3	.89	2.4	59	5.6	3.8	6.3
5	5.2	.35	2.9	2.1	4.7	4.4	6.4	2.2	29	5.4	3.5	6.5
6	4.8	.42	3.0	2.1	4.9	4.4	1.5	2.0	4.3	6.0	3.2	5.9
7	4.3	.59	3.5	2.0	5.2	3.2	.84	2.2	4.6	6.2	3.3	7.0
8	4.1	.57	3.2	2.2	5.1	4.7	.90	2.5	4.9	5.5	3.5	7.2
9	3.7	.57	3.2	2.2	4.3	5.0	.71	2.3	4.6	5.3	3.6	6.4
10	3.2	.86	3.3	2.2	5.9	4.6	.50	1.8	5.1	6.1	3.7	7.1
11	3.5	.82	3.1	2.3	5.3	3.3	14	2.3	5.5	7.8	4.0	6.4
12	3.6	.86	2.8	1.4	5.0	3.0	32	2.4	6.2	8.4	4.0	6.4
13	3.6	.86	2.2	1.9	5.6	3.2	26	2.3	5.4	5.2	4.0	6.4
14	3.7	.79	2.3	2.0	5.5	3.1	27	2.0	5.1	5.6	3.3	7.4
15	3.6	.80	2.2	2.6	6.2	2.6	27	1.9	4.9	4.7	3.3	8.3
16	3.4	.58	2.2	2.1	5.4	2.6	28	2.0	4.7	4.4	3.4	6.3
17	3.2	.55	3.9	4.6	6.1	2.8	28	2.0	5.1	4.7	3.6	6.5
18	3.0	.53	2.6	2.8	6.2	2.9	29	2.2	4.8	4.0	3.7	6.8
19	2.6	.73	1.4	1.5	5.6	3.4	30	2.1	4.9	3.8	4.1	7.6
20	2.6	1.1	1.3	2.3	5.5	3.2	31	1.8	5.1	4.4	3.5	7.4
21	2.3	1.2	1.3	2.5	5.2	2.9	31	2.2	5.1	4.1	3.6	7.2
22	2.1	1.4	1.1	2.8	4.7	3.9	34	2.0	5.1	3.6	4.0	7.0
23	2.7	2.2	1.3	3.3	3.9	3.5	33	2.0	5.2	4.0	4.1	64
24	2.4	2.1	1.3	3.0	4.9	3.0	34	2.7	5.3	3.9	4.8	55
25	2.2	2.4	1.3	3.5	4.9	3.3	26	2.8	5.1	4.1	4.4	50
26	2.3	2.6	1.3	3.7	4.5	3.1	3.0	2.7	5.2	4.0	4.2	70
27	2.8	2.2	1.1	4.3	4.9	6.7	2.4	2.7	5.1	5.4	4.5	70
28	2.8	2.5	1.2	4.6	5.6	1.2	2.8	2.2	5.4	4.4	7.8	66
29	2.8	3.1	1.6	4.8	4.6	.66	2.6	22	5.4	4.4	5.6	66
30	2.7	2.8	1.7	4.3	---	.59	2.2	55	5.2	3.7	4.8	64
31	2.7	---	1.8	4.7	---	.72	---	53	---	3.8	16	---
TOTAL	109.8	36.77	69.7	85.0	148.4	107.67	455.89	191.8	375.3	154.2	137.0	651.2
MEAN	3.54	1.23	2.25	2.74	5.12	3.47	15.2	6.19	12.5	4.97	4.42	21.7
MAX	7.0	3.1	3.9	4.8	6.2	6.7	34	55	59	8.4	16	70
MIN	2.1	.35	1.1	1.4	3.9	.59	.31	1.8	4.3	3.6	3.2	5.0
AC-FT	218	73	138	169	294	214	904	380	744	306	272	1290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996#, BY WATER YEAR (WY)

MEAN	24.4	91.5	51.4	79.4	82.7	120	96.5	229	217	60.1	23.8	17.7
MAX	215	1479	680	1845	792	748	881	2351	1804	1070	198	164
(WY)	1994	1992	1992	1992	1992	1970	1977	1990	1957	1989	1979	1962
MIN	.000	.053	.042	.000	.000	.13	.10	.000	.000	.029	.000	.000
(WY)	1953	1971	1954	1953	1953	1953	1959	1959	1953	1953	1953	1953

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1953 - 1996#	
ANNUAL TOTAL	59893.57		2522.73			
ANNUAL MEAN	164		6.89		91.0	
HIGHEST ANNUAL MEAN					514	1992
LOWEST ANNUAL MEAN					.27	1953
HIGHEST DAILY MEAN	2240	May 19	70	Sep 26	6320	May 3 1990
LOWEST DAILY MEAN	.35	Nov 5	.31	Apr 2	.00	Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	.47	Nov 3	.47	Nov 3	.00	Oct 1 1952
INSTANTANEOUS PEAK FLOW			217	Aug 31	67400	May 3 1990
INSTANTANEOUS PEAK STAGE			4.09	Aug 31	14.71	May 3 1990
ANNUAL RUNOFF (AC-FT)	118800		5000		65950	
10 PERCENT EXCEEDS	436		7.7		177	
50 PERCENT EXCEEDS	11		3.7		6.3	
90 PERCENT EXCEEDS	2.1		1.3		.10	

Period of regulated streamflow.

08047000 CLEAR FORK TRINITY RIVER NEAR BENBROOK, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1980 to September 1982, October 1989 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
07...	1205	5.2	364	8.0	6.5	10	3.5	12.9	107	0.8	140	19
22...	1200	4.7	381	8.5	15.0	13	7.3	12.1	123	0.9	140	8
APR												
18...	1230	29	407	8.0	16.5	43	12	9.6	101	1.0	160	27
JUL												
31...	1115	4.0	425	7.5	24.0	22	1.5	6.5	79	1.0	150	1

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB												
07...	44	7.0	20	0.7	3.3	120	25	23	0.40	6.6	203	2
22...	44	6.8	21	0.8	4.1	130	26	24	0.30	6.7	212	16
APR												
18...	50	7.3	22	0.8	3.5	130	29	26	0.30	6.5	223	17
JUL												
31...	48	7.8	21	0.7	3.8	150	15	24	0.30	8.6	224	3

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB											
07...	2	0	0.180	0.180	0.010	0.190	0.190	0.050	0.25	0.30	<0.010
22...	6	10	0.170	0.170	0.010	0.180	0.180	0.140	0.46	0.60	0.020
APR											
18...	8	9	0.260	--	<0.010	0.260	0.260	0.060	0.34	0.40	<0.010
JUL											
31...	3	0	0.110	--	<0.010	0.110	0.110	1.50	0.20	1.7	0.160

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB											
07...	<0.010	--	7.1	1	48	<0.50	<1.0	6.0	<3.0	<10	<3.0
22...	0.020	0.06	--	<1	50	<0.50	<1.0	<5.0	<3.0	<10	6.0
APR											
18...	<0.010	--	5.4	1	56	<0.50	<1.0	<5.0	<3.0	<10	65
JUL											
31...	0.210	0.64	5.7	6	57	<0.50	<1.0	<5.0	<3.0	<10	47

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB											
07...	<10	6	2.0	<0.1	<10	<10	<1	<1.0	330	<6	<3.0
22...	10	5	5.0	<0.1	<10	<10	<1	<1.0	350	<6	7.0
APR											
18...	<10	5	3.0	<0.1	<10	<10	<1	<1.0	370	<6	91
JUL											
31...	<10	6	450	0.2	<10	<10	<1	<1.0	370	<6	<3.0

08047500 CLEAR FORK TRINITY RIVER AT FORT WORTH, TX

LOCATION.--Lat 32°43'56", long 97°21'31", Tarrant County, Hydrologic Unit 12030102, at Fort Worth pumping station on left bank, 240 ft upstream from the Texas and Pacific Railway Co. bridge in Fort Worth, 830 ft upstream from East West Expressway bridge, 2.5 mi upstream from mouth, 5 mi downstream from Marys Creek and 10 mi downstream from Benbrook Dam.

DRAINAGE AREA.--518 mi².

PERIOD OF RECORD.--March 1924 to current year.

REVISED RECORDS.--WSP 1392: 1924-25, 1927. WSP 1922: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 532.91 ft above sea level. Prior to Apr. 3, 1970, various nonrecording and recording gages were located within 650 ft of present site at different datums.

REMARKS.--Records good. Since September 1952, flow largely regulated by Benbrook Lake (station 08046500) 10 mi upstream. The city of Fort Worth diverted water from pool at gage during the current year. The Benbrook Water and Sewage Authority diverted water from the river upstream from station during the current year for municipal use. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--28 years (water years 1925-52) prior to regulation by Benbrook Lake, 112 ft³/s (81,140 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1925-52).--Maximum discharge, 107,000 ft³/s May 17, 1949 (gage height, 28.20 ft, present datum), from rating curve extended above 16,000 ft³/s on basis of contracted-opening measurement of 107,000 ft³/s; no flow at times. Maximum stage since at least 1900, that of May 17, 1949, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 25, 1922, reached a stage of 27.5 ft, present datum (discharge, 74,300 ft³/s, by slope-area measurement of peak flow); data furnished by Fort Worth city engineer.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	118	8.8	15	5.6	5.5	7.7	3.5	185	1.9	4.1	61
2	35	18	8.8	30	6.7	5.8	7.6	3.5	77	2.0	4.7	28
3	35	12	9.0	17	8.9	6.0	6.1	3.6	72	1.4	6.2	18
4	20	11	8.7	12	13	5.0	6.0	1.3	210	1.3	5.8	18
5	16	9.4	8.6	10	12	5.6	277	2.6	60	1.3	3.7	14
6	15	9.0	8.7	9.5	13	4.9	47	2.0	21	1.3	2.7	12
7	15	8.5	7.0	9.0	12	3.1	21	1.6	22	1.1	2.3	10
8	14	8.1	17	9.3	10	3.1	14	.80	14	1.0	9.1	18
9	11	8.0	13	10	8.2	3.3	10	.79	9.7	2.1	127	19
10	12	7.0	9.7	9.5	7.9	3.9	7.1	.75	14	10	26	11
11	11	4.0	8.6	8.7	8.9	4.4	7.5	26	15	60	19	9.4
12	10	3.6	9.1	8.2	9.9	3.7	121	12	12	243	12	8.6
13	10	4.4	9.5	7.4	8.5	3.6	57	5.2	40	46	9.6	18
14	10	6.3	8.9	7.7	6.4	3.8	50	3.6	68	108	7.6	15
15	12	6.8	8.9	7.5	5.4	3.9	45	e3.4	21	41	6.4	109
16	12	7.4	9.4	7.3	4.3	3.3	46	e3.2	11	68	5.7	23
17	11	8.0	138	29	5.6	3.3	46	e3.0	7.4	28	6.3	14
18	7.4	7.9	69	71	6.4	17	45	e2.9	5.5	17	10	20
19	7.6	8.6	26	14	6.0	9.1	45	e2.8	12	9.8	8.2	30
20	6.0	8.4	17	10	4.1	4.2	46	e5.0	5.0	8.1	7.8	22
21	6.2	11	14	8.6	5.5	2.7	48	e6.0	2.6	8.6	6.6	13
22	6.8	10	14	7.9	6.0	2.5	121	e4.8	1.5	5.2	5.3	12
23	7.0	7.9	13	8.4	5.7	3.3	41	e4.2	1.3	25	50	18
24	12	7.7	12	8.3	5.8	4.9	38	e3.4	2.4	20	25	56
25	7.9	7.7	11	7.7	7.2	6.2	38	e3.0	3.1	8.0	25	2.5
26	7.9	8.5	11	7.1	8.1	3.6	20	e2.6	1.5	4.7	12	21
27	7.7	8.3	11	5.6	13	176	8.4	e2.4	1.5	251	105	29
28	5.7	7.3	11	6.0	7.2	35	8.6	e2.0	2.3	22	169	25
29	4.1	9.2	11	6.8	5.5	12	6.9	e1.8	5.9	13	97	24
30	6.9	9.0	11	6.8	---	7.7	5.4	21	2.6	9.1	32	21
31	9.0	---	12	6.1	---	7.7	---	74	---	6.6	312	---
TOTAL	364.2	361.0	534.7	381.4	226.8	364.1	1247.3	212.74	906.3	1025.5	1123.1	699.5
MEAN	11.7	12.0	17.2	12.3	7.82	11.7	41.6	6.86	30.2	33.1	36.2	23.3
MAX	35	118	138	71	13	176	277	74	210	251	312	109
MIN	4.1	3.6	7.0	5.6	4.1	2.5	5.4	.75	1.3	1.0	2.3	2.5
AC-FT	722	716	1060	757	450	722	2470	422	1800	2030	2230	1390

08047500 CLEAR FORK TRINITY RIVER AT FORT WORTH, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996#, BY WATER YEAR (WY)

MEAN	59.2	109	80.5	109	122	183	159	326	273	77.2	32.5	32.9
MAX	353	1555	1118	2198	1019	1081	1012	3020	2219	1300	247	245
(WY)	1994	1992	1992	1992	1992	1990	1977	1990	1989	1989	1979	1962
MIN	.000	.84	1.68	2.28	2.84	.91	3.12	3.41	.27	.75	.54	.28
(WY)	1953	1955	1979	1957	1953	1956	1954	1959	1953	1954	1954	1954

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1953 - 1996#	
ANNUAL TOTAL	78437.8		7446.64			
ANNUAL MEAN	215		20.3		130	
HIGHEST ANNUAL MEAN					660	1992
LOWEST ANNUAL MEAN					4.55	1954
HIGHEST DAILY MEAN	2450	May 8	312	Aug 31	11000	Mar 11 1990
LOWEST DAILY MEAN	3.6	Nov 12	.75	May 10	.00	Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	5.6	Nov 10	1.3	Jul 2	.00	Oct 1 1952
INSTANTANEOUS PEAK FLOW			2620	Aug 31	20900	May 2 1990
INSTANTANEOUS PEAK STAGE			10.88	Aug 31	16.80	May 2 1990
ANNUAL RUNOFF (AC-FT)	155600		14770		94290	
10 PERCENT EXCEEDS	580		46		282	
50 PERCENT EXCEEDS	38		8.8		15	
90 PERCENT EXCEEDS	8.7		3.0		.80	

e Estimated
Period of regulated streamflow.

08048000 WEST FORK TRINITY RIVER AT FORT WORTH, TX

LOCATION.--Lat 32°45'39", long 97°19'56", Tarrant County, Hydrologic Unit 12030102, on left bank 125 ft upstream from Texas Electric Service Co. concrete dam, 980 ft downstream from centerline of Paddock Viaduct (North Main Street) at Fort Worth, 2,600 ft downstream from Clear Fork Trinity River and at mile 556.8.

DRAINAGE AREA.--2,615 mi².

PERIOD OF RECORD.--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 records.--Chemical and biochemical analyses: October 1967 to September 1976.

REVISED RECORDS.--WSP 1392: 1925. WSP 1922: Drainage area.

GAGE.--Water-stage recorder and concrete dam control with angle-iron-crested notch for flow below 50 ft³/s. Datum of gage is 519.24 ft above sea level. Prior to Aug. 22, 1954, at site 1,200 ft upstream at same datum. Aug. 22, 1954, to Oct. 15, 1955, at site 2,000 ft upstream at same datum.

REMARKS.--Records good. Flow is largely regulated by Lake Worth (station 08045400) on the West Fork Trinity River and by Benbrook Lake (station 08046500) on the Clear Fork Trinity River. At times, flow is sustained by releases from the flood-detention pool of Benbrook Lake. The city of Fort Worth diverts water from river upstream from station and from Cedar Creek Reservoir (station 08063010) for municipal and industrial uses and returns wastewater effluent to ri downstream from station 08048543. There are many small diversions upstream from station. Maximum stage since at least 1866, that of May 17, 1949. Maximum stages have been affected by levee construction, levee breaks and channel rectification. Rain gage at station. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	189	21	31	19	18	22	17	317	9.1	12	127
2	80	39	22	69	22	18	21	15	100	7.7	11	37
3	78	26	22	38	25	19	20	16	73	6.5	11	28
4	33	22	21	30	32	20	19	14	303	6.8	12	27
5	26	20	21	25	33	20	582	14	80	8.9	10	22
6	21	20	21	22	32	19	139	15	36	7.1	8.0	18
7	20	19	e21	21	29	17	44	14	35	6.5	6.3	16
8	23	17	e22	23	26	16	37	13	29	6.2	23	48
9	22	17	e33	24	23	17	33	12	22	36	156	36
10	21	18	e29	22	20	18	28	12	29	48	58	21
11	19	16	e25	21	18	18	27	40	32	100	36	15
12	17	15	e24	20	18	17	261	37	24	600	23	13
13	17	14	e24	18	18	16	136	26	42	105	17	25
14	16	15	e23	19	18	16	88	21	79	218	13	26
15	17	17	25	18	17	16	73	16	47	88	10	212
16	18	21	28	18	15	15	75	12	26	329	8.5	39
17	17	24	266	39	16	15	73	9.7	19	48	39	23
18	14	23	185	203	17	35	79	8.8	15	27	26	28
19	14	25	75	49	18	33	77	8.2	28	18	17	39
20	13	26	43	34	16	23	72	11	18	12	12	34
21	13	31	32	28	17	18	81	13	12	12	9.5	22
22	14	29	27	26	17	16	224	9.4	8.9	9.4	8.7	17
23	14	21	25	28	16	16	92	6.5	8.0	21	101	16
24	16	18	24	28	16	24	70	4.7	7.5	43	47	74
25	16	17	24	27	18	32	65	4.6	7.5	18	41	23
26	15	18	25	24	21	22	42	5.4	7.5	10	25	17
27	14	18	26	23	24	385	26	6.2	6.9	319	207	30
28	12	18	26	22	24	116	22	6.1	6.7	41	317	30
29	11	20	26	23	19	38	21	5.5	8.5	27	200	29
30	13	21	26	22	---	31	20	14	9.3	18	59	26
31	18	---	28	19	---	24	---	169	---	14	486	---
TOTAL	662	794	1240	1014	604	1108	2569	576.1	1436.8	2220.2	2010.0	1118
MEAN	21.4	26.5	40.0	32.7	20.8	35.7	85.6	18.6	47.9	71.6	64.8	37.3
MAX	80	189	266	203	33	385	582	169	317	600	486	212
MIN	11	14	21	18	15	15	19	4.6	6.7	6.2	6.3	13
AC-FT	1310	1570	2460	2010	1200	2200	5100	1140	2850	4400	3990	2220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996#, BY WATER YEAR (WY)

MEAN	301	281	269	247	336	452	599	1162	793	250	119	158
MAX	4548	3855	6071	3521	2412	3103	5595	12430	10240	3030	1447	2482
(WY)	1982	1982	1992	1992	1932	1945	1942	1990	1989	1941	1950	1962
MIN	.12	3.64	5.02	6.08	5.57	4.72	7.71	15.2	5.73	1.33	.000	.000
(WY)	1940	1956	1935	1930	1940	1940	1930	1959	1954	1956	1956	1930

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1921 - 1996#	
ANNUAL TOTAL	186756		15352.1			
ANNUAL MEAN	512		41.9		414	
HIGHEST ANNUAL MEAN					1823	1990
LOWEST ANNUAL MEAN					15.6	1956
HIGHEST DAILY MEAN	8080	May 8	600	Jul 12	47300	Apr 25 1922
LOWEST DAILY MEAN	11	Oct 29	4.6	May 25	.00	Aug 2 1924
ANNUAL SEVEN-DAY MINIMUM	14	Oct 24	5.6	May 23	.00	Jul 24 1925
INSTANTANEOUS PEAK FLOW			3300	Jul 12	85000	Apr 25 1922
INSTANTANEOUS PEAK STAGE			3.00	Jul 12	25.91	May 17 1949
ANNUAL RUNOFF (AC-FT)	370400		30450		300000	
10 PERCENT EXCEEDS	1440		79		1060	
50 PERCENT EXCEEDS	104		22		40	
90 PERCENT EXCEEDS	18		10		5.8	

e Estimated
Period of regulated streamflow.

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX

LOCATION.--Lat 32°45'06", long 97°17'21", Tarrant County, Hydrologic Unit 12030102, on downstream side of bridge on Beach Street, 1,700 ft downstream from Sycamore Creek, 0.9 mi downstream from Riverside Drive bridge, 2.6 mi east of the Tarrant County Courthouse and at mile 549.6.

DRAINAGE AREA.--2,685 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 478.70 ft above sea level.

REMARKS.--Records good. Flow is largely regulated by Lake Worth (station 08045400) on the West Fork Trinity River and by Benbrook Lake (station 08046500) on the Clear Fork Trinity River. At times, flow is sustained by releases from the flood-detention pool of Benbrook Lake. There are many diversions upstream from this station for municipal, industrial and other uses. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1866 probably occurred in May 1949 (stage and discharge unknown). Maximum stages have been affected by levee construction, levee breaks, and channel rectification.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	310	20	49	44	26	28	e19	465	3.7	3.9	e1280
2	39	75	13	109	48	22	24	e17	172	6.4	7.2	e120
3	127	47	24	81	60	20	19	e17	98	6.8	7.2	38
4	62	33	21	63	87	18	21	e16	409	5.9	8.0	36
5	44	26	20	54	123	18	991	e15	126	5.0	16	33
6	33	23	20	51	e60	22	341	e14	66	5.1	3.4	26
7	28	22	21	54	e50	e20	89	14	53	5.3	2.2	21
8	23	20	49	49	e40	e18	60	14	45	5.3	15	83
9	22	18	43	49	e32	e19	51	6.8	30	91	199	58
10	23	18	38	43	e25	e20	45	18	42	91	223	33
11	20	20	35	38	e22	e19	29	45	47	191	55	21
12	18	16	32	37	e20	e19	321	64	33	846	32	15
13	17	15	27	37	e19	e18	252	37	108	336	17	22
14	17	14	27	35	19	e18	110	23	160	293	8.0	39
15	17	14	27	37	19	e18	90	14	128	128	11	370
16	18	14	26	35	19	e17	88	15	41	563	6.0	91
17	18	15	346	46	18	e17	83	6.8	26	104	60	35
18	18	18	379	336	17	e55	87	4.9	17	51	47	38
19	16	17	141	132	18	e51	85	8.6	29	33	17	57
20	15	17	87	90	18	49	79	7.8	26	20	15	52
21	14	24	69	67	18	35	81	8.2	15	14	5.5	33
22	15	22	54	46	18	29	317	9.7	8.4	12	14	22
23	18	24	47	44	18	24	146	8.5	7.7	49	68	14
24	19	22	41	45	17	44	79	7.3	7.1	58	104	43
25	19	20	39	42	17	62	75	5.7	6.1	36	46	48
26	19	18	40	45	18	43	66	4.9	5.7	19	32	20
27	21	17	40	42	35	559	35	4.1	5.4	573	197	27
28	21	17	39	38	40	289	28	4.6	4.6	84	471	31
29	20	18	38	38	32	61	e24	8.8	6.0	33	339	29
30	23	19	36	42	---	42	e23	6.0	5.6	29	132	27
31	26	---	40	48	---	37	---	181	---	14	918	---
TOTAL	811	953	1879	1922	971	1709	3767	625.7	2192.6	3711.5	3079.4	2762
MEAN	26.2	31.8	60.6	62.0	33.5	55.1	126	20.2	73.1	120	99.3	92.1
MAX	127	310	379	336	123	559	991	181	465	846	918	1280
MIN	14	14	13	35	17	17	19	4.1	4.6	3.7	2.2	14
AC-FT	1610	1890	3730	3810	1930	3390	7470	1240	4350	7360	6110	5480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996#, BY WATER YEAR (WY)

MEAN	475	470	484	343	401	728	652	1839	1331	245	109	95.3
MAX	4881	3878	6459	4067	2924	2418	5668	12540	9448	1654	557	216
(WY)	1982	1982	1992	1992	1992	1992	1990	1990	1989	1982	1995	1980
MIN	9.82	23.8	13.7	30.2	33.5	43.9	35.3	20.2	22.4	5.67	9.21	9.27
(WY)	1978	1980	1978	1978	1996	1986	1983	1996	1978	1978	1985	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996#	
ANNUAL TOTAL	201106		24383.2			
ANNUAL MEAN	551		66.6		599	
HIGHEST ANNUAL MEAN					2071	1992
LOWEST ANNUAL MEAN					40.1	1978
HIGHEST DAILY MEAN	8950	May 8	1280	Sep 1	35200	May 3 1990
LOWEST DAILY MEAN	13	Sep 6	2.2	Aug 7	1.2	Jul 12 1978
ANNUAL SEVEN-DAY MINIMUM	15	Nov 12	5.3	Jun 25	2.3	Jul 8 1978
INSTANTANEOUS PEAK FLOW			3240	Jul 12	46600	May 2 1990
INSTANTANEOUS PEAK STAGE			10.41	Jul 12	38.02	May 2 1990
ANNUAL RUNOFF (AC-FT)	398900		48360		433700	
10 PERCENT EXCEEDS	1690		127		1500	
50 PERCENT EXCEEDS	96		28		50	
90 PERCENT EXCEEDS	18		8.3		15	

e Estimated
Period of regulated streamflow.

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
pH: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.
DISSOLVED OXYGEN: October 1976 to current year.

INSTRUMENTATION.--Since October 1976, a four-parameter water-quality monitor continuously records water temperature, dissolved oxygen, pH, and specific conductance at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument, pump, or power failure. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request. Dissolved oxygen values bypassing saturation can be attributed to algae blooms in close proximity to the well intake. NAWQA program data are included in this record.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,000 microsiemens Nov. 6, 1978; minimum, 90 microsiemens Sept. 10, 1992.
pH: Maximum, 9.8 units Aug. 8, Sept. 2. 1980; minimum, 6.6 units Aug. 15, 1987.
WATER TEMPERATURE: Maximum, 38.5°C Aug. 21, 1993; minimum, 0.0°C Jan. 31, Feb. 1, 2, 1985.
DISSOLVED OXYGEN: Maximum, 22.1 mg/L Oct. 4, 1983; minimum, 0.0 mg/L on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 687 microsiemens July 9; minimum, 114 microsiemens July 27.
pH: Maximum, 8.7 units July 18 and 30; minimum, 7.0 units on many days.
WATER TEMPERATURE: Maximum, 37.0°C July 4 and 7; minimum, 0.5°C Feb. 3.
DISSOLVED OXYGEN: Maximum, 17.0 mg/L Mar. 10; minimum, 2.1 mg/L June 1.

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	811	462	263	576	34	74	41	89	170
NOV.	1995	953	483	275	707	36	92	44	113	170
DEC.	1995	1879	511	291	1480	38	195	47	240	180
JAN.	1996	1922	509	290	1500	38	198	47	244	180
FEB.	1996	971	580	330	864	46	120	57	150	200
MAR.	1996	1709	540	307	1420	41	191	51	237	190
APR.	1996	3767	404	230	2340	28	286	33	339	150
MAY	1996	625.7	521	296	501	39	66	48	82	190
JUNE	1996	2192.6	357	203	1200	24	142	28	166	140
JULY	1996	3711.5	335	191	1920	22	223	26	258	130
AUG.	1996	3079.4	342	195	1620	23	189	26	218	130
SEPT	1996	2762	325	185	1380	21	159	24	183	130
TOTAL		24383.2	**	**	15500	**	1940	**	2320	**
WTD.AVG.		67	414	235	**	29	**	35	**	150

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	417	401	409	501	174	376	573	543	561	559	491	546
2	454	411	419	424	402	407	572	538	558	531	446	490
3	445	364	386	486	424	453	585	554	568	522	493	511
4	406	367	388	513	486	497	601	524	584	533	522	528
5	421	395	402	541	513	526	---	---	e588	534	526	530
6	432	413	421	556	541	550	---	---	e593	542	533	536
7	434	419	430	563	526	545	---	---	e585	550	542	546
8	450	423	440	547	534	540	596	468	533	560	543	552
9	458	425	447	552	546	548	674	509	586	567	556	562
10	462	432	449	561	544	552	666	593	611	574	553	562
11	466	443	456	587	558	564	605	596	601	561	547	556
12	471	454	463	593	570	577	618	604	609	571	558	564
13	479	461	471	627	587	601	614	601	608	559	550	555
14	483	473	478	606	502	556	615	594	607	560	549	557
15	486	474	481	567	515	537	623	591	603	564	555	559
16	482	459	474	583	561	572	611	605	608	568	554	563
17	479	465	475	597	565	580	610	350	500	568	319	544
18	494	474	485	605	577	592	499	407	441	489	305	435
19	499	481	491	601	571	584	484	465	478	496	442	458
20	499	488	495	603	567	588	483	467	475	511	487	504
21	514	499	507	619	583	600	467	456	461	517	489	509
22	522	484	508	620	567	586	507	464	481	519	497	510
23	525	491	510	636	576	612	530	507	521	534	506	521
24	542	525	535	583	541	564	544	530	538	546	517	531
25	546	536	542	573	524	552	551	542	545	536	496	518
26	552	535	544	535	498	524	554	546	550	523	490	513
27	537	518	529	550	521	532	546	530	537	538	501	523
28	521	513	517	577	550	566	546	534	538	536	510	524
29	524	511	518	598	567	582	545	533	539	537	513	526
30	523	483	509	582	536	569	551	539	545	541	514	533
31	521	491	504	---	---	---	552	539	545	562	540	554
MONTH	552	364	474	636	174	548	674	350	552	574	305	530

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	574	554	565	603	566	586	575	553	563	507	476	492
2	576	545	562	588	559	574	561	523	551	499	469	486
3	575	540	562	595	554	575	548	524	537	525	467	492
4	596	570	581	602	581	589	538	532	534	497	481	490
5	582	529	555	608	571	589	537	283	364	509	485	498
6	558	532	548	612	593	604	373	336	346	505	480	496
7	547	514	533	622	570	606	381	354	369	519	466	500
8	539	505	527	645	615	632	396	381	390	523	488	509
9	541	515	527	648	626	639	408	347	387	528	486	510
10	549	521	534	647	620	636	382	328	350	530	503	517
11	563	530	551	647	621	637	423	329	360	555	454	518
12	607	554	574	646	603	629	483	332	407	551	461	507
13	614	555	583	636	581	611	436	396	421	506	494	497
14	604	566	588	618	565	597	518	436	486	515	489	504
15	617	574	600	627	598	612	542	517	529	520	499	510
16	640	592	620	634	609	622	518	487	511	526	497	513
17	650	609	635	682	634	656	512	379	478	538	500	524
18	659	628	639	647	440	546	424	337	378	547	512	533
19	671	623	652	640	530	600	390	340	360	560	476	526
20	677	647	661	605	589	598	415	342	378	554	511	538
21	661	631	650	609	585	598	400	365	383	559	520	546
22	657	633	649	608	579	595	461	352	417	576	545	563
23	655	636	647	605	578	593	441	420	428	581	541	566
24	657	636	650	610	546	591	449	421	439	577	536	561
25	653	631	642	582	514	548	455	435	448	581	541	567
26	644	630	639	569	523	549	439	431	434	582	554	571
27	645	554	616	571	341	476	447	425	438	588	541	568
28	630	582	600	573	455	516	466	447	459	596	524	571
29	607	593	599	593	570	582	502	459	481	586	497	552
30	---	---	---	592	570	583	503	472	490	578	525	559
31	---	---	---	580	559	571	---	---	---	608	466	538
MONTH	677	505	596	682	341	592	575	283	437	608	454	527

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e297	587	561	573	432	395	417	300	253	286
2	---	---	e315	597	569	585	435	399	413	335	300	316
3	---	---	e280	606	589	597	456	431	442	349	332	341
4	---	---	e360	619	584	605	485	456	470	373	341	351
5	---	---	e395	625	593	611	482	441	464	363	313	341
6	400	376	391	642	609	628	490	453	476	339	290	332
7	420	398	404	657	633	645	524	481	498	359	338	345
8	444	404	424	675	645	662	530	239	462	380	310	349
9	429	420	426	687	315	559	496	175	370	371	302	321
10	437	408	425	406	213	347	358	299	327	---	---	e329
11	436	416	426	436	200	375	399	351	367	---	---	e347
12	433	399	416	431	213	376	449	348	402	378	353	362
13	422	179	361	---	---	e319	408	356	386	410	306	378
14	383	173	332	---	---	e285	418	386	402	394	375	387
15	393	342	384	---	---	e325	444	418	432	389	234	326
16	395	377	386	320	195	276	478	444	463	372	337	344
17	422	389	410	295	282	286	482	364	436	395	348	360
18	439	422	431	298	278	293	383	355	364	403	369	386
19	435	383	412	315	267	297	414	370	390	450	349	401
20	455	415	437	342	295	325	436	397	415	426	392	402
21	465	446	457	364	338	350	447	408	426	401	379	395
22	470	453	462	377	352	365	453	412	430	401	350	390
23	530	470	497	393	210	338	466	227	410	399	334	381
24	509	482	498	416	274	360	395	352	358	434	391	414
25	548	502	513	348	323	335	390	363	371	409	383	394
26	549	523	534	343	321	334	390	369	381	442	408	420
27	568	505	542	396	114	312	642	281	390	462	425	437
28	565	530	548	350	303	327	392	333	364	477	442	460
29	583	544	561	344	301	314	363	277	326	456	439	449
30	579	548	565	364	309	345	345	319	332	454	444	448
31	---	---	---	402	360	371	334	118	290	---	---	---
MONTH	583	173	430	687	114	410	642	118	402	477	234	373
YEAR	687	114	489									

e Estimated

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.8	8.1	7.8	7.3	7.6	8.1	7.9	8.0	7.7	7.6	7.7
2	8.1	7.8	7.9	7.8	7.5	7.6	8.1	7.8	7.9	7.8	7.7	7.7
3	8.3	7.6	7.9	8.0	7.8	7.9	8.1	7.8	7.9	7.9	7.8	7.9
4	8.2	7.7	7.9	8.1	7.9	8.0	8.0	7.7	7.9	7.9	7.8	7.9
5	8.2	7.5	7.9	8.1	7.9	8.0	---	---	---	8.0	7.8	7.9
6	8.3	7.7	8.0	8.1	7.9	8.0	---	---	---	8.1	7.9	7.9
7	8.3	7.8	8.0	8.1	7.8	7.9	---	---	---	8.0	7.9	7.9
8	8.2	7.7	7.9	8.1	7.8	7.9	8.0	7.8	7.9	8.0	7.8	7.9
9	8.3	7.6	8.0	7.9	7.7	7.8	8.1	7.7	7.9	8.1	7.9	8.0
10	8.3	7.7	7.9	7.9	7.7	7.8	8.1	7.9	8.0	8.1	7.9	8.0
11	8.2	7.6	7.9	8.1	7.8	7.9	8.1	8.0	8.0	8.2	7.9	8.0
12	8.3	7.7	7.9	8.0	7.9	7.9	8.1	8.0	8.0	8.1	8.0	8.0
13	8.4	7.9	8.1	8.0	7.9	7.9	8.2	7.9	8.0	8.2	8.0	8.1
14	8.5	8.0	8.2	8.2	7.8	8.0	8.1	7.8	8.0	8.2	8.0	8.1
15	8.4	8.1	8.3	8.1	7.9	8.0	8.4	7.8	8.0	8.2	8.0	8.1
16	8.5	8.3	8.4	8.2	7.9	8.0	7.9	7.7	7.8	8.2	8.0	8.1
17	8.6	8.3	8.5	8.1	7.9	8.0	7.8	7.6	7.7	8.3	8.0	8.2
18	8.5	8.3	8.4	8.0	7.9	7.9	7.8	7.7	7.7	8.2	8.0	8.1
19	8.5	8.3	8.4	8.0	7.8	7.9	7.8	7.8	7.8	8.3	8.1	8.2
20	8.6	8.3	8.4	8.1	7.9	8.0	7.8	7.8	7.8	8.3	8.3	8.3
21	8.6	8.4	8.5	8.1	7.8	7.9	7.8	7.7	7.8	8.3	8.2	8.3
22	8.5	8.2	8.3	8.3	7.8	8.0	7.8	7.7	7.8	8.3	8.1	8.2
23	8.4	8.3	8.3	8.3	7.8	8.0	7.8	7.8	7.8	8.2	8.0	8.1
24	8.4	8.2	8.2	8.6	8.0	8.2	7.8	7.8	7.8	8.3	8.1	8.2
25	8.3	8.2	8.3	8.4	8.1	8.2	7.8	7.8	7.8	8.3	8.1	8.2
26	8.3	8.2	8.2	8.3	8.0	8.1	7.8	7.8	7.8	8.4	8.1	8.2
27	8.4	8.2	8.3	8.3	7.9	8.1	7.8	7.7	7.8	8.4	8.2	8.3
28	8.3	8.1	8.2	8.3	8.0	8.1	7.8	7.7	7.7	8.4	8.2	8.3
29	8.2	8.0	8.1	8.2	8.0	8.1	7.8	7.7	7.7	8.4	8.2	8.2
30	8.1	7.7	7.9	8.1	8.0	8.0	7.8	7.7	7.7	8.3	8.1	8.2
31	7.9	7.6	7.7	---	---	---	7.8	7.7	7.7	8.5	8.2	8.3
MONTH	8.6	7.5	8.1	8.6	7.3	8.0	8.4	7.6	7.8	8.5	7.6	8.1

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.6	8.4	8.5	8.1	7.9	8.0	---	---	---	8.3	7.8	8.0
2	8.5	8.4	8.5	7.9	7.7	7.8	---	---	---	8.1	7.6	7.8
3	8.5	8.4	8.5	7.7	7.5	7.6	8.3	7.8	8.1	8.3	7.6	7.9
4	8.4	8.3	8.4	7.5	7.4	7.4	8.2	7.8	7.9	8.3	7.8	8.0
5	8.3	8.3	8.3	7.5	7.1	7.3	7.9	7.6	7.8	8.2	7.7	8.0
6	8.3	8.1	8.2	7.6	7.2	7.4	7.8	7.8	7.8	8.2	7.8	8.0
7	8.2	8.1	8.1	7.8	7.3	7.5	7.9	7.7	7.8	8.3	7.9	8.0
8	8.2	8.0	8.1	7.9	7.5	7.7	8.1	7.7	7.9	8.4	7.8	8.0
9	8.2	7.9	8.1	7.9	7.6	7.7	8.5	8.0	8.2	8.3	7.8	8.0
10	8.2	7.9	8.0	7.9	7.7	7.8	8.5	8.1	8.3	8.3	7.6	8.0
11	8.3	7.9	8.1	8.1	7.7	7.9	8.6	8.0	8.3	8.0	7.8	7.9
12	8.3	8.0	8.1	8.2	7.7	7.9	8.1	7.8	8.0	8.3	7.8	8.0
13	8.2	7.9	8.0	8.2	7.7	7.9	7.9	7.8	7.9	8.3	8.0	8.1
14	8.1	7.9	8.0	8.2	7.7	7.9	8.1	7.8	7.9	8.4	8.0	8.2
15	8.3	8.0	8.1	8.2	7.7	7.9	8.0	7.9	8.0	8.4	8.0	8.1
16	8.3	8.1	8.2	8.1	7.7	7.9	8.3	7.9	8.1	8.4	8.0	8.2
17	8.3	8.1	8.2	8.1	7.8	7.9	8.4	7.9	8.2	8.3	7.8	8.1
18	8.4	8.2	8.3	7.9	7.8	7.8	8.5	8.0	8.3	8.2	7.7	7.9
19	8.4	8.1	8.3	7.9	7.7	7.8	8.4	8.0	8.2	8.2	7.7	7.9
20	8.4	8.1	8.3	8.1	7.7	7.9	8.3	7.9	8.1	8.3	7.7	7.9
21	8.5	8.1	8.3	8.2	7.8	8.0	8.2	7.9	8.1	8.2	7.6	7.9
22	8.5	8.2	8.3	8.1	7.8	7.9	8.2	7.7	8.0	8.2	7.6	7.8
23	8.5	8.2	8.3	8.1	7.7	7.9	8.1	7.8	8.0	8.1	7.6	7.8
24	8.6	8.1	8.4	8.0	7.6	7.7	8.3	7.9	8.1	8.0	7.4	7.7
25	8.5	8.3	8.4	7.6	7.3	7.4	8.5	8.0	8.3	7.9	7.3	7.6
26	8.5	8.2	8.3	7.7	7.3	7.5	8.3	8.0	8.2	7.8	7.3	7.5
27	8.3	7.9	8.1	7.6	7.2	7.4	8.5	8.0	8.2	7.8	7.3	7.5
28	8.1	8.0	8.1	---	---	---	8.3	7.9	8.1	7.8	7.2	7.4
29	8.2	8.0	8.1	---	---	---	8.3	7.9	8.1	7.8	7.3	7.5
30	---	---	---	---	---	---	8.3	7.8	8.1	8.0	7.2	7.5
31	---	---	---	---	---	---	---	---	---	7.8	7.3	7.5
MONTH	8.6	7.9	8.2	8.2	7.1	7.7	8.6	7.6	8.1	8.4	7.2	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.7	7.0	7.3	7.7	7.0	7.3	8.2	7.6	7.8	7.6	7.5	7.6
2	---	---	---	7.9	7.1	7.4	8.2	7.6	7.8	7.8	7.4	7.6
3	---	---	---	7.7	7.0	7.3	8.5	7.6	8.0	8.2	7.6	7.8
4	---	---	---	7.7	7.0	7.3	8.4	7.7	8.0	8.4	7.7	8.0
5	---	---	---	7.8	7.0	7.3	8.3	7.8	8.0	8.5	7.6	8.0
6	7.9	7.4	7.6	7.9	7.0	7.4	8.2	7.6	7.8	8.4	7.5	7.9
7	7.7	7.4	7.5	7.9	7.1	7.4	8.1	7.5	7.8	8.5	7.8	8.1
8	7.8	7.4	7.5	8.0	7.1	7.5	8.0	7.6	7.8	8.0	7.2	7.7
9	7.6	7.4	7.5	7.7	7.1	7.3	8.0	7.6	7.7	8.0	7.2	7.6
10	7.4	7.3	7.3	7.6	7.0	7.2	8.0	7.6	7.8	---	---	---
11	8.2	7.3	7.6	7.7	7.2	7.4	8.5	7.7	8.0	---	---	---
12	7.9	7.4	7.6	---	---	---	8.6	7.8	8.2	8.5	8.0	8.2
13	---	---	---	---	---	---	8.5	7.5	7.9	8.2	7.8	8.0
14	---	---	---	---	---	---	8.1	7.4	7.7	8.1	7.7	8.0
15	---	---	---	---	---	---	8.2	7.5	7.8	8.1	7.9	8.0
16	---	---	---	7.8	7.4	7.6	8.2	7.5	7.8	8.4	7.5	8.0
17	---	---	---	8.3	7.5	7.8	7.7	7.5	7.6	8.4	7.9	8.1
18	8.0	7.4	7.7	8.7	7.8	8.2	7.9	7.5	7.6	8.0	7.7	7.8
19	8.0	7.6	7.7	8.6	7.8	8.2	8.4	7.6	7.9	8.0	7.7	7.8
20	8.3	7.5	7.9	8.1	7.5	7.8	8.2	7.7	7.9	8.0	7.8	7.9
21	7.8	7.5	7.6	8.2	7.5	7.8	8.3	7.6	7.9	8.2	7.6	7.9
22	7.7	7.6	7.6	8.2	7.4	7.7	8.1	7.6	7.7	8.1	7.7	7.9
23	8.0	7.7	7.8	8.1	7.4	7.7	7.8	7.5	7.6	8.1	7.5	7.7
24	8.2	7.6	7.9	8.3	7.5	7.8	8.2	7.6	7.9	7.8	7.5	7.6
25	8.1	7.5	7.8	8.3	7.8	8.0	8.1	7.7	7.9	8.3	7.6	7.9
26	7.9	7.6	7.7	8.3	7.6	7.9	8.2	7.6	7.9	8.1	7.7	7.9
27	7.7	7.5	7.5	8.3	7.4	7.7	7.9	7.6	7.7	8.0	7.7	7.8
28	7.6	7.1	7.5	8.1	7.5	7.7	7.8	7.6	7.6	8.3	7.9	8.1
29	7.8	7.0	7.3	7.9	7.6	7.7	7.7	7.6	7.7	8.3	8.0	8.1
30	7.8	7.0	7.4	8.7	7.6	7.9	7.9	7.6	7.8	8.2	7.9	8.0
31	---	---	---	8.3	7.7	7.9	8.3	7.6	7.8	---	---	---
MONTH	8.3	7.0	7.6	8.7	7.0	7.6	8.6	7.4	7.8	8.5	7.2	7.9
YEAR	8.7	7.0	7.9									

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	28.5	24.5	26.0	23.5	18.0	21.5	15.0	11.0	12.5	11.5	8.5	10.5
2	28.0	24.5	25.5	21.5	15.5	18.5	18.5	13.0	15.0	8.5	6.5	7.0
3	24.5	22.5	23.5	15.5	12.0	13.5	18.5	15.0	16.0	6.5	5.0	6.0
4	24.5	22.5	23.5	13.0	12.0	12.5	17.5	15.0	16.0	8.5	6.0	7.0
5	24.0	21.0	23.0	12.5	12.0	12.0	---	---	---	8.0	6.0	7.5
6	23.0	19.5	21.0	14.5	12.0	13.5	---	---	---	6.0	3.0	5.0
7	23.0	18.5	20.5	17.5	14.5	15.5	---	---	---	4.0	1.5	2.5
8	24.0	19.0	21.5	18.0	14.0	15.5	13.0	10.0	12.0	5.0	1.5	3.0
9	25.5	20.0	22.5	17.5	14.0	15.5	10.0	6.0	8.0	7.5	3.0	5.0
10	26.5	22.0	23.5	20.5	16.0	18.0	7.5	4.5	6.0	9.5	5.5	7.0
11	27.0	22.0	24.0	17.0	12.5	14.5	8.0	5.0	6.5	11.5	8.0	9.5
12	27.0	22.5	24.5	15.0	11.5	13.0	12.0	7.0	9.5	12.0	8.5	9.5
13	27.5	22.5	24.5	16.0	12.0	13.5	15.5	11.5	13.5	12.5	8.0	10.0
14	24.5	20.5	22.5	17.0	12.5	14.5	18.0	14.0	15.5	13.5	9.5	11.0
15	24.5	19.0	21.5	17.0	12.5	14.5	18.5	15.5	16.5	11.5	9.5	10.5
16	25.0	19.0	21.5	17.0	12.5	14.5	16.0	15.0	15.5	12.5	8.5	10.5
17	24.5	20.0	22.0	15.0	13.0	14.0	15.0	13.5	14.0	14.5	11.0	13.0
18	25.0	20.0	22.0	17.0	12.5	14.5	13.5	10.5	12.5	14.5	6.5	9.5
19	26.5	21.0	23.0	18.5	13.0	15.5	10.5	8.0	9.0	6.5	5.0	6.0
20	23.0	19.0	21.0	18.0	15.0	16.5	8.0	7.5	8.0	7.5	5.0	6.5
21	22.0	16.5	19.0	18.0	15.5	16.5	8.5	7.5	8.0	9.5	7.0	7.5
22	23.0	17.0	19.5	19.0	15.5	17.0	8.5	7.0	8.0	12.0	7.5	10.0
23	22.0	19.0	20.0	17.0	14.5	16.0	8.5	6.0	7.0	13.0	10.5	12.0
24	20.5	16.0	18.0	16.5	13.0	14.5	9.0	6.0	7.0	11.5	8.5	10.0
25	21.5	16.5	18.5	16.5	12.0	14.0	9.5	6.5	7.5	12.0	8.0	9.5
26	23.5	18.0	20.0	17.0	13.0	15.0	9.0	6.5	7.5	11.5	8.0	10.0
27	23.5	20.0	21.5	16.5	13.5	15.0	9.0	6.5	7.5	10.0	7.0	8.0
28	22.0	18.5	20.0	13.5	10.5	12.0	9.0	6.0	7.5	8.5	6.5	7.5
29	21.5	18.0	19.0	12.5	8.5	10.0	8.5	6.0	7.0	11.0	7.5	8.5
30	19.0	17.0	18.0	13.5	8.5	10.5	10.5	7.0	8.5	9.0	6.0	8.0
31	20.0	17.0	18.0	---	---	---	13.0	9.5	11.0	6.0	2.5	4.0
MONTH	28.5	16.0	21.5	23.5	8.5	14.5	18.5	4.5	10.5	14.5	1.5	8.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	1.5	2.0	14.0	7.5	10.0	18.0	13.5	15.5	25.0	17.0	20.5
2	2.5	1.0	1.5	17.5	10.5	13.5	20.0	14.5	17.0	25.0	20.5	22.5
3	3.0	.5	1.5	21.0	13.5	17.0	22.0	16.0	18.5	27.5	21.5	24.0
4	3.5	1.0	1.5	22.0	17.0	19.5	19.0	16.0	17.5	28.5	23.0	25.0
5	4.5	1.5	3.0	30.0	19.0	23.5	16.0	11.5	12.5	30.0	23.0	26.0
6	7.5	4.0	6.0	23.0	13.5	19.0	15.5	11.0	13.0	29.5	25.0	26.5
7	13.0	7.5	10.5	13.5	7.5	11.5	16.5	12.5	14.5	29.0	24.5	26.0
8	16.5	12.5	14.0	10.0	4.5	7.0	19.5	16.0	17.5	28.0	23.5	25.5
9	18.0	14.0	15.5	12.0	4.5	7.5	21.5	17.5	19.5	29.5	23.0	25.5
10	19.0	14.5	16.0	14.0	6.5	9.5	22.0	18.0	20.0	28.5	23.0	25.5
11	16.0	12.0	14.0	15.5	8.0	11.0	23.5	19.0	20.5	25.5	22.5	23.5
12	14.5	10.5	12.0	18.5	9.5	13.5	20.0	17.5	19.0	25.0	21.5	23.0
13	14.5	9.5	12.0	23.0	12.5	17.0	22.5	17.5	19.5	25.5	23.5	24.5
14	17.0	11.5	13.5	24.0	16.0	19.0	22.5	19.5	20.5	29.0	23.0	25.5
15	16.0	12.0	13.5	21.0	14.5	18.0	19.5	16.0	17.5	30.0	23.0	26.0
16	14.0	9.0	11.0	22.0	15.5	18.5	20.0	16.5	18.5	31.0	24.0	27.0
17	14.0	8.0	10.5	23.0	16.5	19.5	21.0	18.0	19.5	31.5	23.5	27.0
18	15.5	9.0	12.0	18.5	13.5	15.5	23.5	19.5	21.5	31.5	23.5	27.0
19	17.5	12.0	14.5	15.5	12.0	13.5	25.0	22.0	23.5	31.0	23.5	27.0
20	17.5	13.5	15.5	15.0	10.5	12.5	25.0	22.0	22.5	32.0	24.0	27.5
21	20.5	14.0	17.0	16.5	9.5	12.5	24.5	21.0	23.0	34.5	26.0	29.5
22	21.0	15.5	18.0	18.0	11.5	15.0	24.5	20.0	22.0	33.0	27.0	29.5
23	20.0	16.0	18.0	18.5	14.5	16.5	22.5	18.0	20.0	32.5	25.5	28.5
24	18.5	14.0	16.0	20.0	16.0	17.0	22.5	19.5	21.5	32.5	25.0	28.0
25	18.0	15.5	17.0	16.5	10.5	13.5	22.5	19.5	21.0	32.0	25.0	28.0
26	20.0	17.0	18.5	12.0	9.0	10.5	23.0	21.0	22.0	29.0	25.5	27.0
27	23.0	17.0	19.5	11.5	8.5	9.5	26.0	21.5	23.5	31.0	25.0	27.5
28	17.0	11.0	14.0	14.0	11.0	12.5	25.0	20.5	22.5	33.5	25.5	28.5
29	11.0	8.0	8.5	15.5	13.0	14.0	22.0	18.5	20.0	32.0	25.5	28.5
30	---	---	---	19.5	15.0	17.5	23.0	16.5	19.0	33.0	25.5	28.5
31	---	---	---	19.0	15.0	16.5	---	---	---	28.5	25.5	27.0
MONTH	23.0	.5	12.0	30.0	4.5	14.5	26.0	11.0	19.5	34.5	17.0	26.5

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.0	22.0	25.0	35.0	28.0	31.5	36.0	27.5	31.0	30.5	26.0	28.0
2	27.0	21.5	24.5	36.0	28.5	32.0	32.5	29.5	30.5	33.0	27.0	29.0
3	33.0	23.0	28.0	35.5	29.5	32.5	34.5	28.0	31.0	29.0	27.0	28.0
4	---	---	---	37.0	29.0	32.5	34.5	28.0	31.0	29.5	27.0	28.0
5	---	---	---	36.5	28.5	31.5	34.5	29.0	31.0	30.0	27.0	28.5
6	30.5	27.5	29.0	36.5	27.5	31.5	35.0	27.5	31.0	32.0	27.0	29.0
7	30.0	27.0	28.5	37.0	28.5	32.0	36.5	28.0	31.5	32.5	28.0	30.0
8	28.5	25.5	27.0	36.5	28.0	32.0	33.0	28.5	30.0	30.0	28.5	29.0
9	30.5	24.0	27.0	32.5	29.0	30.5	30.5	27.0	29.0	31.5	29.0	30.0
10	29.5	24.5	27.0	30.5	28.5	29.0	29.5	28.0	28.5	---	---	---
11	32.5	26.0	28.5	30.0	27.0	28.5	32.5	28.5	30.0	---	---	---
12	32.5	28.0	29.5	30.0	27.5	29.0	32.0	29.0	30.0	30.0	27.0	28.0
13	32.5	26.0	28.0	---	---	---	31.5	27.5	29.5	29.0	26.5	27.5
14	31.0	27.0	28.5	---	---	---	33.0	27.0	29.5	28.0	26.0	27.0
15	32.5	28.5	30.5	---	---	---	33.0	26.5	29.5	29.0	24.5	27.0
16	35.0	30.0	32.0	31.0	25.5	29.0	31.5	27.5	29.0	28.0	25.0	26.5
17	35.0	30.0	32.5	31.5	28.0	30.0	28.5	27.0	27.5	29.5	26.0	27.5
18	36.0	30.0	33.0	33.0	30.0	31.0	31.0	27.5	28.5	27.5	24.5	26.0
19	36.0	29.0	32.5	34.5	29.5	32.0	33.0	27.5	29.5	26.5	24.0	25.0
20	35.5	30.5	32.5	35.5	30.0	32.5	32.5	27.0	29.5	27.0	24.5	25.5
21	35.5	29.0	32.0	36.0	29.5	32.5	33.0	27.0	29.5	27.0	23.5	25.0
22	35.5	29.0	31.5	36.0	29.5	32.5	30.5	27.5	29.0	28.5	23.5	25.5
23	34.5	28.0	31.0	35.0	28.5	31.0	29.0	26.5	27.5	29.5	25.0	27.0
24	34.5	28.0	31.0	31.5	28.5	30.0	30.0	27.5	29.0	27.0	25.5	26.0
25	34.0	28.0	30.5	33.5	30.0	31.5	29.5	28.0	29.0	27.5	25.0	26.0
26	34.0	28.5	30.5	34.5	29.5	31.5	32.0	28.0	29.5	26.0	22.5	25.0
27	36.0	27.5	32.0	33.0	25.0	30.5	29.0	27.5	28.5	22.5	18.0	20.5
28	34.5	29.5	31.5	33.5	30.0	31.5	28.0	26.0	27.0	21.0	16.5	18.5
29	34.5	28.0	31.0	33.0	28.5	30.5	27.0	25.0	26.0	24.5	18.5	21.0
30	36.5	28.0	31.5	32.5	29.5	31.0	27.5	25.0	26.0	24.5	20.0	22.0
31	---	---	---	32.0	29.0	30.5	27.5	23.0	26.0	---	---	---
MONTH	36.5	21.5	30.0	37.0	25.0	31.0	36.5	23.0	29.0	33.0	16.5	26.5
YEAR	37.0	.5	20.0									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.2	6.5	8.1	8.2	3.9	6.5	12.8	9.5	10.9	10.6	9.4	10.1
2	9.2	6.8	7.7	7.4	5.6	6.3	12.4	8.1	10.0	11.4	9.4	10.3
3	10.5	4.0	7.4	10.0	7.4	8.9	12.2	8.8	10.1	12.5	11.2	11.8
4	10.8	6.8	8.8	11.4	9.8	10.6	12.4	8.4	10.0	12.5	11.8	12.2
5	10.4	8.1	9.3	12.1	10.1	11.0	---	---	---	12.5	11.3	12.0
6	10.9	8.3	9.5	11.7	9.9	10.7	---	---	---	13.4	11.4	12.5
7	12.5	8.5	10.2	10.7	9.1	9.8	---	---	---	14.3	12.5	13.4
8	14.1	8.9	11.0	10.9	8.7	9.7	11.4	8.9	10.2	15.0	13.4	14.1
9	12.8	8.6	10.5	9.9	7.3	8.9	11.1	8.8	9.8	14.6	13.2	13.8
10	12.8	7.9	9.9	---	---	---	12.3	10.0	11.4	14.9	12.7	13.6
11	12.3	7.5	9.6	---	---	---	12.8	11.3	11.9	13.4	11.3	12.5
12	10.9	7.2	9.0	---	---	---	12.8	10.7	11.8	13.5	11.0	11.9
13	10.3	6.7	8.5	---	---	---	12.2	9.8	10.9	13.8	11.1	12.1
14	9.6	6.9	8.1	---	---	---	12.8	9.3	10.7	13.6	11.2	12.1
15	9.6	6.6	8.0	13.1	10.8	11.8	13.9	9.3	10.9	13.2	10.9	11.7
16	10.0	7.3	8.7	13.6	11.0	11.9	11.1	8.4	9.8	13.8	10.6	11.8
17	10.4	7.0	8.7	13.0	11.0	11.7	8.8	7.4	8.2	12.4	7.6	10.7
18	10.3	6.7	8.3	13.1	10.6	11.6	9.2	8.6	8.8	10.7	7.8	9.6
19	8.7	6.3	7.5	13.3	10.4	11.5	9.9	9.0	9.5	13.2	9.8	11.2
20	8.9	6.2	7.5	12.9	10.0	11.2	10.1	9.6	9.9	13.1	12.3	12.7
21	8.3	6.4	7.3	11.0	8.2	9.7	10.3	9.8	10.1	13.0	12.0	12.5
22	8.5	6.4	7.3	11.5	7.5	9.1	10.3	9.9	10.1	12.5	10.5	11.8
23	8.6	6.0	7.1	11.6	7.3	9.1	11.4	10.2	10.8	11.7	9.6	10.4
24	8.5	6.2	7.2	13.6	9.1	10.9	11.9	10.9	11.4	13.2	9.6	11.3
25	8.2	5.8	7.1	12.6	8.9	10.5	12.1	11.0	11.5	14.2	11.8	12.7
26	7.7	5.4	6.4	12.0	8.7	10.0	12.2	11.0	11.4	13.8	11.2	12.2
27	7.9	5.3	6.5	11.7	8.0	9.5	12.2	11.1	11.5	14.8	11.4	12.9
28	8.0	5.9	6.8	12.1	8.0	9.7	12.5	11.1	11.7	15.1	12.5	13.4
29	8.2	5.7	6.9	12.4	9.0	10.5	12.9	11.3	11.9	14.4	12.0	13.0
30	11.5	5.6	7.9	12.9	9.8	11.0	12.6	10.6	11.6	14.2	11.6	12.6
31	10.6	7.6	8.7	---	---	---	12.1	10.2	11.0	14.7	12.0	13.3
MONTH	14.1	4.0	8.2	13.6	3.9	10.1	13.9	7.4	10.6	15.1	7.6	12.1

08048543 WEST FORK TRINITY RIVER AT BEACH STREET, FORT WORTH, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.8	13.3	14.4	14.7	12.2	13.4	13.5	11.3	12.2	13.2	9.3	11.1
2	15.9	11.9	13.9	14.5	12.2	13.3	13.9	11.0	12.0	13.3	8.7	10.7
3	16.2	11.6	13.6	13.2	10.7	12.1	14.2	10.2	12.1	12.3	7.7	9.9
4	15.7	11.8	13.8	11.3	8.4	10.1	12.3	9.1	10.5	11.5	6.9	9.0
5	14.7	13.4	14.3	9.9	2.8	6.9	10.4	8.4	9.8	11.1	6.1	8.4
6	14.2	12.6	13.3	12.7	6.8	10.2	10.3	9.6	10.1	9.6	5.2	7.2
7	12.6	11.2	12.1	15.6	10.2	12.6	9.9	9.3	9.5	10.9	4.5	7.3
8	12.1	10.3	11.1	16.1	12.4	14.1	10.2	8.8	9.5	11.4	5.9	8.3
9	13.0	9.9	11.2	16.5	12.6	14.4	11.9	9.5	10.6	11.9	5.4	8.3
10	13.5	10.0	11.4	17.0	13.5	15.1	12.0	9.6	10.7	11.2	4.7	8.0
11	13.7	10.1	11.6	16.0	11.8	14.1	12.1	8.1	10.1	8.0	4.3	6.4
12	14.7	10.9	12.6	14.2	8.9	11.9	---	---	---	8.5	4.4	6.6
13	14.7	10.4	12.9	14.6	7.5	10.6	---	---	---	8.4	5.9	7.0
14	14.0	10.9	12.3	14.2	6.8	9.7	---	---	---	10.9	5.8	8.1
15	13.9	10.2	11.8	14.1	6.4	10.3	---	---	---	10.2	5.0	7.6
16	14.9	11.0	12.7	13.6	8.3	10.8	---	---	---	9.5	5.5	7.3
17	15.6	12.0	13.6	12.6	6.9	9.2	9.5	6.7	8.0	9.1	4.1	6.4
18	15.4	11.7	13.5	7.7	4.6	6.3	9.2	6.1	7.6	9.2	4.1	6.4
19	13.9	10.7	12.0	9.6	5.0	7.3	8.9	6.0	7.5	8.7	4.3	6.2
20	14.0	10.2	11.8	12.3	8.8	10.5	7.7	5.7	6.8	9.9	4.3	6.6
21	14.3	10.3	12.0	14.7	10.6	12.4	7.5	5.5	6.5	9.0	3.9	6.3
22	14.5	10.1	12.0	15.5	11.6	13.3	9.5	6.2	7.7	7.7	4.1	5.8
23	13.2	9.5	11.2	14.3	10.0	12.1	9.0	7.2	8.1	---	---	---
24	13.6	9.0	10.9	13.4	9.1	10.7	10.0	7.2	8.5	---	---	---
25	12.6	9.4	10.9	10.0	7.7	8.5	10.9	7.5	9.2	9.8	4.1	6.7
26	12.1	9.0	10.3	13.0	9.1	11.5	10.5	7.9	9.2	9.2	3.8	6.2
27	9.1	3.8	7.4	12.8	6.2	10.8	11.7	8.2	9.7	9.4	3.3	6.2
28	10.7	5.8	8.1	6.8	4.9	5.9	10.4	7.0	8.4	9.0	2.4	4.9
29	13.8	9.9	12.1	8.6	4.9	6.5	11.5	6.9	9.1	7.7	3.0	5.1
30	---	---	---	9.3	7.3	8.1	12.9	8.6	10.8	8.2	2.2	4.5
31	---	---	---	11.3	8.6	10.0	---	---	---	5.4	3.3	4.2
MONTH	16.2	3.8	12.0	17.0	2.8	10.7	14.2	5.5	9.4	13.3	2.2	7.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.3	2.1	4.8	9.5	2.7	6.0	11.9	4.7	7.8	3.9	2.4	3.4
2	6.8	5.5	6.1	9.7	3.2	6.2	11.1	5.8	7.6	---	---	---
3	5.7	4.8	5.2	9.2	3.3	6.0	13.2	5.8	9.2	---	---	---
4	---	---	---	---	---	---	13.3	6.8	10.0	10.5	6.6	8.5
5	---	---	---	---	---	---	12.5	7.5	10.0	9.3	3.5	6.9
6	---	---	---	10.7	3.2	6.2	13.7	6.2	9.6	9.2	3.4	6.1
7	---	---	---	9.7	3.2	6.1	14.6	5.2	9.6	8.3	4.8	6.5
8	---	---	---	10.1	2.5	5.9	14.7	5.7	9.1	---	---	---
9	---	---	---	---	---	---	11.5	4.4	8.0	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	10.3	6.2	7.9	---	---	---	---	---	---	8.0	4.6	5.9
13	9.7	4.7	6.4	---	---	---	13.2	7.3	10.1	---	---	---
14	---	---	---	---	---	---	10.0	5.8	7.8	---	---	---
15	---	---	---	---	---	---	10.0	4.6	7.0	---	---	---
16	---	---	---	8.2	0.3	7.0	10.6	4.7	7.0	7.5	3.2	5.0
17	---	---	---	8.5	5.4	6.8	6.2	3.8	5.2	7.6	5.1	6.2
18	9.5	4.6	7.1	11.9	5.8	8.4	7.6	3.4	5.0	6.0	4.2	5.0
19	8.5	4.0	6.1	13.6	7.0	10.1	10.4	4.8	6.9	5.5	3.7	4.4
20	---	---	---	10.5	6.2	7.7	11.4	5.0	7.8	7.9	4.6	6.0
21	7.4	3.8	5.5	8.8	4.8	6.8	10.2	5.3	7.5	9.0	5.7	7.4
22	7.0	3.0	4.9	9.6	5.3	7.3	8.8	4.6	6.4	11.1	6.8	8.6
23	---	---	---	9.0	5.0	6.3	6.8	4.4	5.6	10.2	5.8	7.9
24	---	---	---	9.0	4.1	6.4	9.0	5.2	6.8	8.9	5.2	6.7
25	8.2	3.2	5.4	9.0	6.3	7.7	8.5	6.4	7.3	9.0	5.0	6.7
26	---	---	---	10.0	5.8	7.7	10.3	5.5	7.6	8.1	5.9	6.8
27	---	---	---	---	---	---	7.7	4.5	6.1	7.5	5.5	6.4
28	---	---	---	---	---	---	5.4	4.1	4.8	9.7	6.6	8.5
29	9.3	3.0	6.0	---	---	---	5.9	4.9	5.3	11.0	8.5	9.4
30	9.9	3.2	6.4	---	---	---	6.2	5.0	5.5	10.5	7.9	8.9
31	---	---	---	9.7	5.7	7.4	6.3	3.8	5.4	---	---	---
MONTH	10.3	2.1	6.0	13.6	2.5	7.0	14.7	3.4	7.4	11.1	2.4	6.7
YEAR	17.0	2.1	9.2									

08048970 VILLAGE CREEK AT EVERMAN, TX

LOCATION.--Lat 32°36'12", long 97°15'53", Tarrant County, Hydrologic Unit 12030102, at center of channel on downstream side of bridge on Rendon Road (Tarrant County Road 1015), 1.4 mi downstream from Deer Creek and 1.8 mi southeast of Everman High School.

DRAINAGE AREA.--84.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 589.93 ft above sea level (Tarrant County Public Works Department reference mark).

REMARKS.--Records good except those for estimated daily discharges and those less than 10 ft^3/s, which are poor. Peak discharge from rating extended above 7,700 ft^3/s on basis of area-velocity study. No flow at times. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since about 1930, 27.37 ft date uncertain, but may be same date, Mar. 27, 1977, as date of maximum stage at discontinued downstream station, Village Creek at Kennedale (08048980). Flood of May 18, 1989, may have equalled, or slightly exceeded, the indicated known maximum stage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.44	.64	e1.1	.59	.33	.36	.79	.35	.08	e.03	1.6
2	1.1	.69	.74	e1.1	1.1	.27	.24	.38	.66	.06	e.04	.71
3	.69	.69	1.0	e1.1	1.1	.27	.23	.59	2.0	.04	e.03	.37
4	1.5	.69	.99	e1.1	.83	.33	.16	.49	5.8	.02	e.04	.23
5	1.5	.41	.86	e.70	1.7	.41	33	.39	2.3	.01	e.04	.13
6	1.3	.41	.69	e.70	1.5	.44	10	.40	.57	.01	e.04	.10
7	.82	.41	.69	e.60	1.5	.42	5.6	.55	.30	e.00	e.03	.08
8	.69	.32	.75	e.60	1.1	.41	4.2	.65	.16	e.00	.03	.06
9	.69	.39	1.0	e.50	1.0	.40	3.0	.67	.10	e.00	39	.06
10	.94	.37	1.1	e.41	.96	.42	2.0	.76	.10	e.00	6.0	.05
11	1.3	.39	.97	.46	.97	.51	2.1	.92	1.4	3.4	.13	.04
12	1.1	.33	1.2	.40	1.1	.78	2.5	1.1	1.2	83	.07	.04
13	.73	.19	1.2	.38	1.1	1.1	2.9	1.2	2.6	3.0	e.04	.05
14	.69	.20	1.2	.41	1.2	.86	1.5	1.4	1.6	.42	e.03	.05
15	.70	.28	1.5	.46	1.4	1.1	.61	2.0	.43	.46	e.03	4.4
16	.82	.41	1.0	.38	1.4	1.1	.37	1.3	.19	e.05	e.03	1.7
17	1.1	.49	7.9	.64	1.4	1.2	.62	.66	.27	.03	e.03	.20
18	.97	.41	7.7	5.4	1.4	1.3	.49	.58	.18	e.03	e.03	.10
19	.69	.43	4.9	3.0	1.4	1.9	.46	.52	.15	e.03	e.03	.09
20	.56	.49	2.9	1.1	1.4	1.5	.73	.43	.12	e.03	e.03	.63
21	.41	.86	2.0	.54	1.4	.98	1.2	.25	.09	e.03	.03	.14
22	.41	1.4	1.2	.47	1.4	.37	1.5	.23	.09	e.03	.03	.10
23	.41	.56	.63	.41	1.4	.33	1.7	.19	.09	e.03	.03	.06
24	.50	.25	.42	.49	1.3	.41	1.4	.24	.07	e.03	.04	.06
25	.54	.48	.45	.50	1.1	.43	.49	.24	.07	e.03	3.1	.05
26	.69	.36	.37	.40	1.2	.45	.59	.33	.09	e.03	.23	.04
27	.59	.60	.38	.37	2.1	4.9	.47	.24	.11	3.4	.11	.04
28	.41	.60	.41	.38	3.2	6.6	.72	.17	.13	.14	11	.04
29	.41	.74	.40	.56	.90	3.0	1.1	.22	.13	e.04	22	.04
30	.41	.83	e.86	.64	---	1.5	.91	.24	.11	e.04	4.0	.04
31	.41	---	e1.2	.43	---	.87	---	.25	---	e.03	2.7	---
TOTAL	24.18	15.12	47.25	25.73	38.15	34.89	81.15	18.38	21.46	94.50	89.00	11.30
MEAN	.78	.50	1.52	.83	1.32	1.13	2.70	.59	.72	3.05	2.87	.38
MAX	1.5	1.4	7.9	5.4	3.2	6.6	33	2.0	5.8	83	39	4.4
MIN	.41	.19	.37	.37	.59	.27	.16	.17	.07	.00	.03	.04
AC-FT	48	30	94	51	76	69	161	36	43	187	177	22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	48.3	17.2	66.4	27.7	52.5	47.2	66.0	104	37.4	5.27	5.20	5.50
MAX	240	52.1	367	117	162	147	233	339	141	14.3	21.7	14.3
(WY)	1992	1995	1992	1992	1993	1995	1990	1990	1993	1993	1991	1995
MIN	.68	.50	.72	.83	1.32	1.13	2.70	.59	.72	2.15	.31	.19
(WY)	1990	1996	1991	1996	1996	1996	1996	1996	1996	1990	1994	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	15138.81		501.11			
ANNUAL MEAN	41.5		1.37		40.2	
HIGHEST ANNUAL MEAN					92.6	1992
LOWEST ANNUAL MEAN					1.37	1996
HIGHEST DAILY MEAN	3620	May 8	83	Jul 12	5990	Dec 20 1991
LOWEST DAILY MEAN	.00	Aug 10	.00	Jul 7	.00	Aug 18 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 10	.01	Jul 4	.00	Aug 25 1990
INSTANTANEOUS PEAK FLOW			847	Jul 12	11400	Dec 20 1991
INSTANTANEOUS PEAK STAGE			7.31	Jul 12	21.96	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	30030		994		29130	
10 PERCENT EXCEEDS	53		2.0		53	
50 PERCENT EXCEEDS	5.9		.49		3.8	
90 PERCENT EXCEEDS	.15		.04		.03	

e Estimated

08048970 VILLAGE CREEK AT EVERMAN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1989 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to September 1990.
pH: October 1989 to September 1990.
WATER TEMPERATURE: October 1989 to September 1990.
DISSOLVED OXYGEN: October 1989 to September 1990.

INSTRUMENTATION.--From October 1989 to September 1990, a four-parameter water-quality monitor continuously recorded specific conductance, pH, water temperature, and dissolved oxygen at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,000 microsiemens on several days during January and May 1990; minimum, 129 microsiemens May 3, 1990.
pH: Maximum, 9.1 units Jan. 13, 1990; minimum, 7.0 units Nov. 22, 1989.
WATER TEMPERATURE: Maximum, 34.5°C July 11, 1990; minimum, 0.5°C Dec. 22, 1989.
DISSOLVED OXYGEN: Maximum, 20.8 mg/L Feb. 25, 1990; minimum, 2.4 mg/L Nov. 8, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC											
11...	1012	0.68	884	8.0	4.5	16.8	131	0.2	250	12	75
MAR											
29...	1309	2.9	420	8.0	13.5	9.8	96	2.0	130	21	42
MAY											
02...	1043	0.38	610	7.6	20.5	3.8	43	1.1	180	35	57
09...	1245	0.67	613	7.7	25.0	3.4	42	3.0	170	30	53
JUN											
18...	1005	0.18	388	8.0	29.0	4.7	62	1.8	120	0	38
AUG											
28...	1107	4.2	362	8.0	25.0	4.8	59	3.9	99	0	33

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC										
11...	15	90	2	5.7	240	77	93	0.30	3.0	501
MAR										
29...	5.7	33	1	3.1	110	46	33	0.30	4.0	235
MAY										
02...	8.8	54	2	3.9	140	69	56	0.40	1.7	338
09...	9.9	57	2	3.8	140	68	60	0.40	2.6	341
JUN										
18...	6.5	29	1	4.0	120	36	24	0.50	7.0	220
AUG										
28...	4.0	34	1	4.9	120	28	19	0.40	6.3	203

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC										
11...	--	--	<0.010	--	<0.050	<0.015	--	0.30	<0.010	0.010
MAR										
29...	0.430	0.430	0.020	0.450	0.450	0.020	0.38	0.40	0.070	0.050
MAY										
02...	0.200	--	<0.010	0.200	0.200	0.020	0.28	0.30	0.050	0.050
09...	0.120	0.120	0.010	0.130	0.130	0.080	0.52	0.60	0.050	0.020
JUN										
18...	0.050	--	<0.010	0.050	0.050	0.090	0.21	0.30	0.040	0.060
AUG										
28...	--	--	<0.010	--	<0.050	0.020	0.38	0.40	0.030	0.030

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
DEC										
11...	0.03	--	--	--	--	--	--	--	--	--
MAR										
29...	0.15	1	35	<0.50	<1.0	<5.0	<3.0	<10	97	<10
MAY										
02...	0.15	--	--	--	--	--	--	--	--	--
09...	0.06	--	--	--	--	--	--	--	--	--
JUN										
18...	0.18	2	39	<0.50	<1.0	<5.0	<3.0	<10	6.0	10
AUG										
28...	0.09	--	--	--	--	--	--	--	--	--

08048970 VILLAGE CREEK AT EVERMAN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC										
11...	--	--	--	--	--	--	--	--	--	--
MAR										
29...	4	30	<0.1	<10	<10	<1	<1.0	350	<6	9.0
MAY										
02...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
JUN										
18...	7	9.0	<0.1	<10	<10	<1	<1.0	390	<6	19
AUG										
28...	--	--	--	--	--	--	--	--	--	--

08049200 LAKE ARLINGTON AT ARLINGTON, TX

LOCATION.--Lat 32°42'58", long 97°11'32", Tarrant County, Hydrologic Unit 12030102, in new pumphouse at right end of Arlington Dam on Village Creek near western boundary of Arlington, 1.5 mi upstream from the Texas and Pacific Railway Co. bridge and 7 mi upstream from mouth.

DRAINAGE AREA.--143 square miles.

WATER-CONTENT RECORDS

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Sept. 9, 1957, nonrecording gage at same site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam 6,482 ft long. The service spillway is a 10-foot diameter uncontrolled circular drop inlet. The spillway is an 882-foot-wide cut through natural ground near the right end of dam. The dam was completed and storage began Mar. 31, 1957. Capacities are based on a 1994 survey. The dam was built by the city of Arlington to impound water for municipal and industrial uses. Water is diverted from Cedar Creek Reservoir (station 08063010) into Lake Arlington. Water is pumped from the lake to a generating plant of Texas Electric Service Co. Gage-height telemeter at station. 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	572.0	-
Crest of Spillway	559.7	63,200
Crest of drop inlet (top of conservation pool)	550.0	38,800
Lowest gated outlet (invert)	505.0	45

COOPERATION.--Capacity table No. 2 provided by the city of Arlington. A new capacity table, Table No. 3, was provided by the Texas Water Development Board and put into effect October 1995.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 72,500 acre-ft May 17, 1989 (elevation, 562.42 ft); minimum since lake first filled in April 1957, 18,110 acre-ft Oct. 17, 1971 (elevation, 534.27) using capacity table No. 2.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 34,400 acre-ft Apr. 25 at 0800 hours (elevation, 547.68 ft); minimum, 22,200 acre-ft Dec. 16 (elevation, 540.67 ft).

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

534.0	13,200	546.0	31,400	557.0	55,800
538.0	18,200	550.0	38,800	560.0	64,100
542.0	24,400	554.0	48,100	563.0	73,200

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27640	24900	22910	23060	24510	27590	31350	34150	30690	28930	30630	29850
2	27560	24850	22930	23140	24740	27730	31480	34110	30740	28770	30490	29970
3	27560	24900	22810	23140	24880	27750	31570	34040	30780	28590	30240	29970
4	27610	24960	22710	23120	25070	27820	31710	34020	30960	28420	29990	30030
5	27520	25050	22650	23110	25150	27910	32420	33970	31030	28150	29700	30030
6	27440	25050	22650	23110	25290	27980	32590	33840	30830	27940	29310	29950
7	27380	24960	22570	23110	25470	28030	32510	33840	30830	27730	29030	29880
8	27260	24960	22490	23120	25630	28130	32420	33740	30780	27440	28860	29760
9	27140	24850	22420	23060	25730	28260	32420	33780	30690	27440	28930	29610
10	27040	24740	22390	22940	25870	28330	32510	33690	30600	27540	29080	29520
11	26810	24640	22340	22880	25980	28400	32620	33760	30650	27630	29010	29400
12	26660	24520	22340	22840	26050	28500	33040	33850	30600	29310	28870	29240
13	26380	24440	22260	22840	26190	28660	33260	33870	30740	29540	28800	29070
14	26260	24340	22250	22860	26350	28680	33430	33890	30850	29940	28590	29030
15	26160	24220	22200	22840	26400	28680	33520	33760	30920	30560	28350	29240
16	26020	24140	22180	22810	26490	28680	33600	33610	30960	30740	28220	29140
17	25810	24090	22600	22780	26640	28680	33720	33390	30900	30870	28290	29050
18	25700	23990	23010	22910	26730	28800	33710	33210	30810	30960	28240	29080
19	25560	23890	22980	22980	26760	29010	33710	32950	30630	30920	28190	29030
20	25470	23790	23010	22930	26810	29140	33710	32750	30400	30850	28080	29080
21	25370	23670	22980	22940	26900	29260	33850	32500	30150	30720	27940	29070
22	25220	23590	22980	23010	26930	29420	34090	32300	29970	30560	27840	29030
23	25050	23490	22980	23140	26900	29520	34260	32060	29770	30720	27940	28930
24	24950	23490	22980	23310	26900	29670	34340	31770	29580	30760	27960	28910
25	24910	23360	22990	23510	26990	29700	34320	31500	29520	30620	27940	28860
26	24810	23310	22990	23660	27040	29830	34300	31390	29450	30720	27940	28820
27	24680	23170	23010	23790	27230	30260	34320	31120	29420	30900	27990	28750
28	24620	23120	23010	24000	27300	30690	34320	30830	29330	30970	28280	28750
29	24450	23110	22980	24090	27400	30920	34280	30650	29240	30920	28570	28640
30	24390	23030	22990	24250	---	31130	34220	30510	29100	30850	28640	28540
31	24440	---	23010	24390	---	31220	---	30490	---	30720	29310	---
MAX	27640	25050	23010	24390	27400	31220	34340	34150	31030	30970	30630	30030
MIN	24390	23030	22180	22780	24510	27590	31350	30490	29100	27440	27840	28540
(+)	542.04	541.19	541.18	542.01	543.77	545.93	547.57	545.52	544.74	545.65	544.86	544.42
(@)	-3270	-1410	-20	+1380	+3010	+3820	+3000	-3730	-1390	+1620	-1410	-770

CAL YR 1995 MAX 51300 MIN 22180 (@) -10670
WTR YR 1996 MAX 34340 MIN 22180 (@) +830

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08049200 LAKE ARLINGTON AT ARLINGTON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1964 to current year.

324304097113601 - LAKE ARLINGTON SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB												
23...	0958	27100	1.00	331	8.5	16.0	0.85	10.7	112	120	9	39
23...	1002	--	10.0	336	8.3	14.5	--	9.6	97	--	--	--
23...	1007	--	20.0	336	8.2	14.0	--	9.3	93	--	--	--
23...	1011	--	30.0	344	7.7	12.5	--	7.2	70	--	--	--
23...	1016	--	38.0	345	7.7	12.5	--	7.0	68	120	12	40
MAY												
08...	1105	34400	1.00	319	8.1	25.5	0.67	7.2	90	110	9	38
08...	1108	--	10.0	319	8.1	25.0	--	7.0	87	--	--	--
08...	1111	--	20.0	319	8.1	25.0	--	7.0	87	--	--	--
08...	1114	--	30.0	320	7.9	24.5	--	0.6	7	--	--	--
08...	1117	--	41.0	327	7.4	22.5	--	0.6	7	110	5	39
JUL												
08...	1445	27800	1.00	304	8.5	34.0	1.43	7.4	108	100	11	33
08...	1449	--	10.0	306	8.3	32.5	--	6.3	90	--	--	--
08...	1453	--	20.0	317	7.2	30.5	--	0	0	--	--	--
08...	1458	--	30.0	343	7.0	27.5	--	0	0	--	--	--
08...	1502	--	37.0	352	7.0	27.5	--	0	0	130	1	42

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB												
23...	4.5	18	0.7	4.3	110	30	16	0.20	0.60	177	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	4.7	19	0.8	4.4	110	30	16	0.30	1.0	180	--	--
MAY												
08...	4.2	1/	0.7	4.3	100	32	17	0.30	2.0	177	0.050	0.050
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	4.2	1/	0.7	4.3	110	31	16	0.30	5.1	185	--	--
JUL												
08...	4.6	19	0.8	4.7	90	31	17	0.20	2.8	166	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	5.0	20	0.8	4.7	120	19	16	0.20	6.9	193	--	--

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB											
23...	<0.010	--	<0.050	<0.015	--	0.30	0.010	<0.010	--	<10	140
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	<0.010	--	<0.050	0.120	0.28	0.40	<0.010	0.010	0.03	10	40
MAY											
08...	0.030	0.080	0.080	0.100	0.30	0.40	<0.010	<0.010	--	4.0	7.0
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	0.030	--	<0.050	0.640	0.26	0.90	0.030	0.020	0.06	13	820
JUL											
08...	<0.010	--	<0.050	0.020	0.38	0.40	0.020	<0.010	--	4.0	4.0
08...	<0.010	--	<0.050	0.020	0.38	0.40	<0.010	<0.010	--	--	--
08...	<0.010	--	<0.050	0.030	0.37	0.40	0.010	0.020	0.06	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	<0.010	--	<0.050	1.30	0.30	1.6	0.280	0.280	0.86	550	1200

08049200 LAKE ARLINGTON AT ARLINGTON, TX--Continued

324320097121101 - LAKE ARLINGTON SITE AL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
23...	1023	1.00	332	8.5	16.5	10.3	109
23...	1025	10.0	333	8.4	15.0	10.0	102
23...	1027	20.0	340	8.0	13.0	8.8	86
23...	1029	28.0	343	7.9	12.5	8.0	77
MAY							
08...	1123	1.00	319	8.1	25.5	7.2	90
08...	1125	10.0	318	8.1	25.5	7.2	90
08...	1127	20.0	319	8.1	25.5	7.3	91
08...	1129	31.0	318	8.1	25.0	7.2	89
JUL							
08...	1511	1.00	306	8.5	34.0	7.1	104
08...	1514	10.0	306	8.3	32.5	6.3	90
08...	1517	20.0	321	7.3	30.5	0.1	1
08...	1520	26.0	335	7.2	29.0	0.2	3

324253097121801 - LAKE ARLINGTON SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
23...	1037	1.00	336	8.3	15.0	0.76	9.7	99
23...	1039	10.0	336	8.1	14.5	--	9.4	95
23...	1041	20.0	336	8.2	13.5	--	9.2	91
23...	1043	30.0	345	7.8	12.5	--	7.3	71
23...	1045	35.0	345	7.8	12.5	--	7.5	73
MAY								
08...	1138	1.00	318	8.1	25.5	0.67	7.3	91
08...	1140	10.0	319	8.1	25.0	--	7.2	89
08...	1142	20.0	319	8.1	25.0	--	7.1	88
08...	1145	30.0	316	7.9	24.0	--	6.4	78
08...	1147	37.0	324	7.5	23.5	--	3.0	36
JUL								
08...	1529	1.00	306	8.5	35.0	1.22	7.1	106
08...	1532	10.0	306	8.3	32.5	--	6.2	88
08...	1536	20.0	318	7.3	30.5	--	0	0
08...	1540	33.0	347	7.1	27.5	--	0.2	3

324301097123301 - LAKE ARLINGTON SITE BL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
23...	1051	1.00	333	8.5	15.5	10.5	109
23...	1053	10.0	336	8.2	14.5	9.6	97
23...	1055	20.0	340	8.1	13.0	8.6	84
23...	1057	26.0	344	7.8	12.5	7.7	74
MAY							
08...	1155	1.00	318	8.1	25.5	7.2	90
08...	1157	10.0	318	8.1	25.5	7.2	90
08...	1200	20.0	318	8.1	25.5	7.2	90
08...	1202	28.0	318	8.1	25.5	7.1	89
JUL							
08...	1547	1.00	306	8.5	34.0	7.1	104
08...	1550	10.0	305	8.4	32.5	6.7	96
08...	1553	20.0	317	7.4	30.5	0.6	8
08...	1556	26.0	339	7.2	29.0	0.1	1

08049200 LAKE ARLINGTON AT ARLINGTON, TX--Continued

324257097130301 - LAKE ARLINGTON SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
23...	1117	1.00	336	8.4	15.5	0.67	9.7	100
23...	1119	10.0	336	8.4	15.5	--	9.7	100
MAY								
08...	1212	1.00	320	8.1	28.0	0.60	7.1	93
08...	1214	14.0	320	8.1	28.0	--	7.1	93
JUL								
08...	1607	1.00	304	8.4	41.5	0.91	6.4	105
08...	1610	10.0	304	8.4	41.5	--	6.4	105
08...	1613	17.0	306	8.4	40.5	--	6.3	102

324228097130301 - LAKE ARLINGTON SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
23...	1133	1.00	337	8.3	14.5	0.64	9.5	96
23...	1135	10.0	337	8.2	13.5	--	9.2	91
23...	1137	15.0	338	8.2	13.5	--	8.8	87
MAY								
08...	1223	1.00	319	8.0	25.5	0.54	6.9	86
08...	1227	10.0	318	8.0	25.0	--	6.9	86
08...	1230	18.0	318	8.0	24.5	--	6.5	80
JUL								
08...	1622	1.00	307	8.3	38.0	1.10	6.4	100
08...	1625	10.0	306	8.3	33.0	--	6.4	92
08...	1628	15.0	309	7.8	33.0	--	4.3	62

324143097132201 - LAKE ARLINGTON SITE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
FEB											
23...	1149	1.00	333	8.3	14.0	9.3	93	110	11	38	4.6
23...	1153	10.0	333	8.2	14.0	9.0	90	--	--	--	--
23...	1158	19.0	344	7.9	13.0	7.5	73	120	8	39	4.6
MAY											
08...	1240	1.00	312	8.3	23.5	7.9	95	110	11	38	4.3
08...	1245	10.0	312	8.2	23.5	7.8	94	--	--	--	--
08...	1249	20.0	313	8.2	23.5	7.5	90	110	11	38	4.3
JUL											
08...	1643	1.00	305	8.6	34.5	8.1	119	100	15	34	4.6
08...	1649	10.0	294	8.6	32.0	8.3	117	--	--	--	--
08...	1654	19.0	289	8.4	31.0	7.0	97	98	5	32	4.3

08049200 LAKE ARLINGTON AT ARLINGTON, TX--Continued

324143097132201 - LAKE ARLINGTON SITE EC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB											
23...	18	0.7	4.2	100	30	15	0.20	0.90	173	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	19	0.8	4.3	110	31	16	0.30	0.80	180	--	--
MAY											
08...	18	0.7	4.3	100	31	16	0.30	1.4	175	0.040	0.040
08...	--	--	--	--	--	--	--	--	--	--	--
08...	18	0.7	4.3	100	32	17	0.20	1.4	177	0.050	0.050
JUL											
08...	19	0.8	4.6	89	30	17	0.30	3.0	166	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	1/	0.7	4.6	93	28	16	0.20	4.3	162	--	--

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
23...	<0.010	--	<0.050	<0.015	--	0.30	<0.010	<0.010	10	20
23...	--	--	--	--	--	--	--	--	--	--
23...	<0.010	--	<0.050	0.090	0.31	0.40	0.010	<0.010	10	130
MAY										
08...	0.020	0.060	0.060	0.040	0.26	0.30	<0.010	<0.010	5.0	<1.0
08...	--	--	--	--	--	--	--	--	--	--
08...	0.020	0.070	0.070	0.060	0.34	0.40	<0.010	<0.010	<3.0	3.0
JUL										
08...	<0.010	--	<0.050	0.020	0.38	0.40	<0.010	<0.010	<3.0	1.0
08...	--	--	--	--	--	--	--	--	--	--
08...	<0.010	--	<0.050	0.020	0.38	0.40	<0.010	<0.010	4.0	6.0

32413309/130601 - LAKE ARLINGTON SITE EL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
23...	1203	1.00	334	8.3	14.0	9.2	92
23...	1205	12.0	343	7.9	13.0	7.7	75
MAY							
08...	1255	1.00	311	8.3	23.5	8.0	97
08...	1257	10.0	311	8.3	23.5	7.9	95
08...	1259	16.0	311	8.2	23.5	7.8	94
JUL							
08...	1659	1.00	305	8.6	34.5	8.0	--
08...	1702	13.0	292	8.3	31.5	6.3	88

32404109/134601 - LAKE ARLINGTON SITE FC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB											
23...	1228	1.00	292	8.4	15.0	9.7	99	91	7	30	3.8
23...	1235	8.00	286	8.4	14.5	9.6	97	91	3	30	3.8
MAY											
08...	1316	1.00	302	8.4	24.0	8.4	102	110	13	37	4.2
08...	1323	13.0	302	8.3	24.0	8.0	97	110	13	37	4.2
JUL											
08...	1721	1.00	274	8.8	34.5	9.4	139	91	12	30	3.9
08...	1727	9.00	264	8.3	30.0	7.2	98	90	16	30	3.7

08049200 LAKE ARLINGTON AT ARLINGTON, TX--Continued

324041097134601 - LAKE ARLINGTON SITE FC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB											
23...	16	0.7	4.0	84	25	13	0.20	2.8	146	0.080	--
23...	15	0.7	4.0	88	25	13	0.20	2.8	147	0.080	--
MAY											
08...	17	0.7	4.2	97	31	16	0.20	1.6	170	0.050	0.050
08...	17	0.7	4.1	97	31	16	0.20	1.7	170	0.050	0.050
JUL											
08...	16	0.7	4.6	79	27	15	0.20	4.6	149	--	--
08...	15	0.7	4.4	74	25	14	0.20	5.2	143	0.150	0.150

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
23...	<0.010	0.080	0.080	<0.015	--	0.30	0.010	<0.010	10	<10
23...	<0.010	0.080	0.080	<0.015	--	0.30	<0.010	<0.010	<10	<10
MAY										
08...	0.010	0.060	0.060	0.030	0.37	0.40	<0.010	<0.010	5.0	1.0
08...	0.010	0.060	0.060	0.030	0.37	0.40	0.010	<0.010	5.0	2.0
JUL										
08...	<0.010	--	<0.050	0.020	0.28	0.30	<0.010	<0.010	<3.0	1.0
08...	0.010	0.160	0.160	0.040	0.36	0.40	<0.010	<0.010	4.0	2.0

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX

LOCATION.--Lat 32°45'46", long 96°59'42", Dallas County, Hydrologic Unit 12030102, on left bank at upstream side of bridge on Belt Line Road, 1.3 mi northeast of Grand Prairie, 3.7 mi upstream from Mountain Creek, and at mile 514.6.

DRAINAGE AREA.--3,065 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1925 to current year.

REVISED RECORDS.--WSP 628: 1925. WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 405.42 ft above sea level. Prior to Dec. 6, 1933, nonrecording gage at bridge on old channel 2,500 ft southeast of present site at datum 7.56 ft higher. Dec. 6, 1933, to May 24, 1956, water-stage recorder at site 440 ft downstream from site of nonrecording gage at datum 7.56 ft higher than present datum. May 25, 1956, to Apr. 18, 1957, nonrecording gage at site 1.5 mi downstream at different datum. Apr. 19 to Aug. 13, 1957, nonrecording gage on bridge at present site and at datum 5.00 ft higher than present datum. Aug. 14, 1957, to Sept. 30, 1982, water-stage recorder at present site and at datum 5.00 ft higher than present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow is affected at times by three upstream reservoirs with a combined capacity of 248,600 acre-ft, of which 76,550 acre-ft is for flood control. The city of Fort Worth discharges wastewater effluent into the river upstream from this station. There are many diversions upstream from station for municipal, industrial, and other uses. The river channel at this station was relocated and rectified in 1956. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900, 30.6 ft in May 1908 (former site and datum), from information by local resident. Flood in April 1922 reached a stage of 29.0 ft (former site and datum), from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	632	194	322	e275	e235	400	162	538	146	170	1140
2	218	481	188	522	e230	e230	407	160	756	158	150	465
3	265	281	188	484	e208	206	410	166	329	143	149	294
4	301	229	188	421	e212	e185	e415	151	503	142	146	269
5	231	212	183	388	e230	e180	e1100	149	543	134	138	228
6	201	208	184	e390	e245	e177	e1240	124	290	133	150	202
7	181	199	182	e340	257	e174	e880	132	241	133	145	183
8	176	195	233	e315	213	e176	e508	129	216	136	152	192
9	185	196	272	e300	e195	184	348	126	196	193	201	431
10	171	192	223	e288	e190	187	332	e190	206	793	411	267
11	165	182	237	e284	e187	198	340	e312	221	386	276	221
12	175	189	215	e280	e188	201	e440	e218	210	771	213	198
13	174	190	222	284	190	233	e600	e200	223	1100	181	186
14	163	184	215	294	221	223	e400	e188	323	846	158	183
15	163	185	228	300	174	195	e330	167	380	839	143	624
16	170	184	246	316	151	192	290	162	275	580	296	691
17	174	183	e943	301	186	186	288	158	203	703	261	305
18	171	171	e549	e810	201	e225	282	145	237	311	275	344
19	166	179	e324	516	212	e280	278	139	206	241	218	392
20	163	191	341	359	225	e218	244	135	191	202	167	319
21	151	193	262	302	213	e204	269	142	184	177	146	249
22	151	198	253	275	225	197	e440	145	164	160	149	209
23	159	199	229	277	189	198	e600	137	156	412	211	190
24	158	181	249	e272	189	204	e345	140	150	510	241	188
25	155	179	261	e270	227	e218	232	139	236	264	297	204
26	157	178	253	e290	237	e240	211	142	304	206	257	222
27	163	188	254	e305	e295	e640	210	138	204	651	280	184
28	152	187	256	e308	e320	e980	170	148	166	570	667	157
29	154	184	266	e310	e285	e630	136	155	159	264	1110	171
30	172	191	290	e305	---	417	160	142	152	204	729	177
31	172	---	292	e300	---	389	---	160	---	191	617	---
TOTAL	5545	6541	8420	10728	6370	8402	12305	4901	8162	11699	8704	9085
MEAN	179	218	272	346	220	271	410	158	272	377	281	303
MAX	301	632	943	810	320	980	1240	312	756	1100	1110	1140
MIN	151	171	182	270	151	174	136	124	150	133	138	157
AC-FT	11000	12970	16700	21280	12630	16670	24410	9720	16190	23200	17260	18020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996#, BY WATER YEAR (WY)

MEAN	504	439	468	439	603	728	824	1644	1095	394	244	331
MAX	5779	4472	8319	4504	3281	4521	7245	14030	11990	3475	1478	3094
(WY)	1982	1982	1992	1992	1992	1945	1942	1990	1989	1941	1950	1962
MIN	13.6	18.9	25.0	21.7	26.7	22.5	42.6	48.5	17.0	21.1	12.1	15.6
(WY)	1940	1940	1940	1930	1930	1940	1936	1937	1925	1939	1925	1931

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996#	
ANNUAL TOTAL	373161		100862			
ANNUAL MEAN	1022		276		646	
HIGHEST ANNUAL MEAN					2629	1992
LOWEST ANNUAL MEAN					79.3	1956
HIGHEST DAILY MEAN	16900	May 9	1240	Apr 6	48900	May 3 1990
LOWEST DAILY MEAN	90	Jul 30	124	May 6	4.5	Sep 7 1925
ANNUAL SEVEN-DAY MINIMUM	107	Jul 16	140	May 3	7.3	Jun 17 1925
INSTANTANEOUS PEAK FLOW			1680	Aug 31	64400	May 3 1990
INSTANTANEOUS PEAK STAGE			8.08	Aug 31	33.88	May 3 1990
ANNUAL RUNOFF (AC-FT)	740200		200100		467900	
10 PERCENT EXCEEDS	2440		490		1500	
50 PERCENT EXCEEDS	381		212		172	
90 PERCENT EXCEEDS	151		151		46	

e Estimated
Period of regulated streamflow.

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: January 1964 to current year. Chemical and biochemical analyses: January 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to September 1992, August 1993 to current year.
pH: October 1976 to September 1992, August 1993 to current year.
WATER TEMPERATURE: October 1966 to September 1992, August 1993 to current year.
DISSOLVED OXYGEN: October 1976 to September 1992, August 1993 to current year.

INSTRUMENTATION.--Since November 1976, a four-parameter water-quality monitor records water temperature, dissolved oxygen, pH, and specific conductance continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument, probe, or probeline. Where maximum or minimum specific conductance values are not shown, mean value is estimated. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance with the exception of the 1993 water year. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,320 microsiemens Dec. 12, 1978; minimum, 108 microsiemens May 1, 1986.
pH: Maximum, 8.6 units on several days during period of record; minimum, 6.6 units Jan. 6, 1979.
WATER TEMPERATURE: Maximum, 35.0°C Aug. 8, 1982; minimum, 3.0°C Jan. 9, 1973.
DISSOLVED OXYGEN: Maximum, 14.8 mg/L Dec. 14, 16, 1983; minimum, 0.0 mg/L on several days during period of record.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 984 microsiemens Aug. 25; minimum, 267 microsiemens July 27.
pH: Maximum, 8.5 units Apr. 21; minimum, 7.1 units on July 10-12.
WATER TEMPERATURE: Maximum, 33.0°C July 7 and 8; minimum, 7.5°C Feb. 4.
DISSOLVED OXYGEN: Maximum, 12.3 mg/L Feb. 13; minimum, 1.3 mg/L July 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB											
05...	1319	208	817	7.7	9.5	11.0	99	1.8	200	65	63
MAR											
29...	1046	160	573	7.7	13.0	9.6	92	3.1	180	53	59
MAY											
01...	1154	257	814	8.0	20.0	8.8	98	2.8	190	51	63
JUL											
03...	1054	166	819	7.9	30.5	6.8	92	2.7	160	40	50
SEP											
05...	1313	268	634	7.8	28.0	7.6	98	4.4	170	55	55
10...	1222	268	539	7.8	28.0	6.4	82	3.6	150	43	51

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
FEB											
05...	9.9	84	3	12	130	81	86	0.90	6.9	493	14.8
MAR											
29...	7.0	46	2	6.3	120	70	49	0.50	4.9	330	2.78
MAY											
01...	8.7	87	3	13	140	79	80	1.0	5.3	488	14.0
JUL											
03...	9.0	92	3	12	120	68	93	1.1	8.4	484	16.0
SEP											
05...	7.0	59	2	8.4	110	57	66	0.70	9.5	377	9.80
10...	6.0	47	2	8.0	110	46	52	0.50	8.7	311	5.41

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
FEB										
05...	14.8	0.180	15.0	15.0	0.150	1.1	1.3	1.60	1.10	3.4
MAR										
29...	2.78	0.020	2.80	2.80	0.130	0.67	0.80	0.270	0.240	0.74
MAY										
01...	14.0	0.020	14.0	14.0	0.050	1.0	1.1	1.40	1.30	4.0
JUL										
03...	16.0	0.050	16.0	16.0	0.120	1.2	1.3	2.10	2.20	6.7
SEP										
05...	9.80	0.100	9.90	9.90	0.200	1.1	1.3	1.10	1.10	3.4
10...	5.41	0.090	5.50	5.50	0.170	0.93	1.1	0.700	0.720	2.2

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	5545	817	463	6930	91	1360	81	1210	180
NOV.	1995	6541	805	456	8050	88	1560	79	1400	180
DEC.	1995	8420	773	437	9940	83	1890	76	1730	180
JAN.	1996	10728	776	439	12700	83	2410	76	2210	180
FEB.	1996	6370	819	464	7980	91	1560	81	1390	180
MAR.	1996	8402	762	431	9780	82	1850	75	1700	180
APR.	1996	12305	660	372	12400	64	2120	64	2120	180
MAY	1996	4901	816	462	6120	90	1190	81	1070	180
JUNE	1996	8162	693	391	8620	69	1530	67	1490	180
JULY	1996	11699	566	318	10100	51	1610	54	1710	170
AUG.	1996	8704	728	411	9670	75	1760	71	1670	180
SEPT	1996	9085	592	333	8180	55	1340	57	1400	170
TOTAL		100862	**	**	110000	**	20200	**	19100	**
WTD.AVG.		276	718	405	**	74	**	70	**	180

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	811	801	807	789	664	735	895	855	876	---	---	e801
2	813	754	791	---	---	e700	924	881	899	746	711	729
3	768	742	758	---	---	e731	925	887	904	730	656	681
4	790	681	734	762	697	725	898	886	893	717	655	685
5	723	681	705	790	748	780	900	840	863	---	---	e744
6	749	723	743	822	783	807	840	813	822	---	---	e779
7	786	735	768	805	756	783	941	829	879	---	---	e814
8	814	775	799	774	737	754	942	860	898	852	822	838
9	---	---	e810	821	774	808	901	874	885	834	792	812
10	---	---	e793	839	811	822	887	852	865	816	781	793
11	---	---	e776	851	821	835	883	854	870	826	816	822
12	846	776	809	874	844	858	854	812	833	845	821	834
13	863	831	851	872	846	853	819	806	812	846	834	842
14	876	849	861	855	800	819	849	819	830	868	836	852
15	879	862	868	800	777	791	869	849	861	880	851	866
16	869	853	861	874	796	835	908	862	888	877	825	843
17	861	801	826	885	872	878	904	675	777	825	756	814
18	813	784	794	886	868	875	---	---	e542	812	643	767
19	893	813	864	894	863	872	---	---	e556	649	568	606
20	893	860	873	903	878	891	---	---	e521	699	625	647
21	882	853	864	896	828	852	---	---	e622	750	699	736
22	887	871	879	843	807	820	---	---	e722	790	735	771
23	899	879	890	907	843	879	763	750	758	778	743	764
24	896	829	859	907	889	898	792	754	778	797	752	772
25	834	823	828	893	864	875	815	782	801	829	797	820
26	854	826	844	864	811	825	791	765	776	821	785	808
27	869	847	855	817	805	812	770	742	754	847	819	833
28	889	869	881	822	809	816	751	729	740	848	835	842
29	890	862	873	809	789	799	791	751	778	846	825	837
30	873	850	860	855	799	825	798	769	792	832	807	814
31	853	789	817	---	---	---	807	796	800	807	791	796
MONTH	899	681	824	907	664	818	942	675	793	880	568	786

e Estimated

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	845	795	820	872	836	850	754	723	746	828	804	812
2	845	831	839	904	872	888	744	736	741	884	828	858
3	847	830	839	905	879	889	749	736	740	887	874	879
4	840	820	830	888	853	872	781	749	763	887	871	877
5	820	769	799	853	826	833	781	547	642	883	850	862
6	769	738	750	857	811	823	547	470	482	855	833	844
7	766	732	748	---	---	e858	575	483	531	833	794	809
8	787	766	776	---	---	e882	639	575	598	826	782	799
9	824	787	814	915	885	901	687	639	661	870	826	839
10	827	818	821	916	884	898	733	687	719	873	838	855
11	823	795	812	884	864	872	759	733	752	852	821	835
12	849	815	833	864	815	832	768	746	761	865	848	857
13	827	785	799	822	810	814	746	536	625	858	767	823
14	790	772	777	861	822	847	618	534	566	767	734	751
15	841	786	817	881	861	874	661	598	623	793	733	760
16	881	841	854	902	881	891	679	642	663	809	793	803
17	882	862	871	914	893	902	732	679	708	847	809	823
18	871	854	862	896	814	851	773	732	754	854	820	838
19	870	843	856	817	754	785	776	753	763	837	827	832
20	843	808	820	807	789	801	772	754	763	835	826	830
21	817	783	793	834	801	825	801	758	786	827	800	809
22	827	797	816	860	825	844	788	695	737	800	776	784
23	835	817	825	865	848	855	696	550	592	822	792	814
24	848	835	844	867	833	851	662	545	583	836	813	822
25	856	839	844	837	774	809	738	662	709	859	827	847
26	863	855	859	774	700	724	771	738	754	827	799	810
27	856	784	815	762	575	698	791	763	778	811	779	802
28	848	790	814	575	498	532	803	766	792	779	723	747
29	852	833	845	616	529	574	841	794	825	745	714	726
30	---	---	---	687	616	650	826	803	815	764	743	752
31	---	---	---	723	687	712	---	---	---	804	764	780
MONTH	882	732	820	916	498	814	841	470	699	887	714	815

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	830	675	780	906	869	883	767	723	748	464	291	332
2	688	515	594	909	863	897	791	734	761	510	341	429
3	587	515	541	863	803	824	814	790	801	587	508	532
4	605	576	591	882	821	848	855	814	837	634	587	612
5	599	524	541	902	881	893	854	828	840	642	598	626
6	607	535	567	903	873	887	844	793	810	719	623	689
7	654	607	634	873	805	830	793	774	783	739	695	722
8	721	647	701	843	804	821	842	779	795	742	712	732
9	752	718	742	852	778	827	847	796	829	760	503	623
10	746	695	721	778	551	664	858	620	770	574	520	534
11	743	699	724	696	541	590	620	541	577	694	574	649
12	740	698	724	696	381	585	680	617	658	778	691	740
13	768	664	733	442	345	403	728	658	712	825	766	796
14	796	675	752	511	411	460	758	700	727	837	803	819
15	746	614	684	466	413	431	813	757	782	833	497	683
16	722	538	604	582	414	480	860	796	828	515	400	419
17	690	598	664	465	402	425	796	650	703	553	444	488
18	711	655	690	577	465	512	834	637	730	643	482	584
19	738	684	719	628	569	608	834	662	719	665	552	607
20	788	683	743	705	627	672	793	676	764	637	557	591
21	824	787	806	722	674	708	832	778	802	666	637	653
22	831	803	817	720	705	714	915	832	867	725	666	708
23	848	820	833	722	613	696	957	868	907	755	703	738
24	898	847	867	613	505	555	965	870	927	750	727	739
25	898	823	866	568	518	530	984	709	866	745	715	729
26	823	747	775	656	568	630	850	722	788	780	699	749
27	839	665	749	745	267	582	866	621	833	756	701	734
28	816	673	753	480	303	378	742	604	695	788	748	770
29	859	816	842	586	480	533	640	566	607	807	774	791
30	869	856	860	650	586	634	653	612	629	801	759	787
31	---	---	---	723	650	693	687	365	614	---	---	---
MONTH	898	515	721	909	267	651	984	365	765	837	291	653
YEAR	984	267	764									

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.8	7.9	7.7	7.2	7.5	7.9	7.8	7.8	---	---	---
2	7.8	7.7	7.7	7.4	7.2	7.3	7.8	7.7	7.8	7.9	7.8	7.9
3	7.7	7.6	7.7	7.4	7.3	7.3	7.8	7.8	7.8	8.0	7.5	7.8
4	7.9	7.5	7.6	7.5	7.4	7.4	7.8	7.7	7.8	7.5	7.4	7.5
5	7.9	7.7	7.8	7.5	7.4	7.4	7.8	7.7	7.7	---	---	---
6	8.0	7.6	7.8	7.5	7.3	7.4	7.8	7.7	7.7	---	---	---
7	8.1	7.7	7.9	7.5	7.3	7.4	7.8	7.7	7.8	---	---	---
8	8.0	7.7	7.8	7.4	7.3	7.4	7.8	7.8	7.8	7.6	7.5	7.6
9	---	---	---	7.4	7.3	7.4	7.8	7.7	7.8	7.7	7.5	7.6
10	---	---	---	7.6	7.4	7.4	7.9	7.8	7.9	7.7	7.6	7.6
11	---	---	---	7.6	7.5	7.5	7.9	7.8	7.8	7.8	7.7	7.7
12	7.8	7.6	7.7	7.6	7.5	7.5	7.9	7.8	7.8	7.8	7.7	7.7
13	7.8	7.7	7.7	7.6	7.5	7.5	7.8	7.8	7.8	7.8	7.7	7.7
14	7.8	7.7	7.7	7.5	7.4	7.5	7.9	7.8	7.8	7.8	7.7	7.7
15	7.8	7.7	7.7	7.6	7.4	7.5	7.8	7.8	7.8	7.8	7.7	7.7
16	7.8	7.7	7.7	7.6	7.5	7.6	7.8	7.7	7.8	7.7	7.7	7.7
17	7.8	7.7	7.7	7.6	7.5	7.6	7.9	7.7	7.8	7.8	7.7	7.7
18	7.8	7.7	7.7	7.6	7.5	7.6	7.8	7.7	7.8	7.9	7.6	7.7
19	7.9	7.7	7.8	7.6	7.5	7.6	---	---	---	7.9	7.7	7.8
20	7.9	7.7	7.8	7.7	7.6	7.7	---	---	---	7.8	7.6	7.7
21	7.9	7.7	7.8	7.7	7.6	7.7	---	---	---	7.9	7.8	7.8
22	7.9	7.7	7.8	7.8	7.6	7.6	---	---	---	7.9	7.8	7.8
23	7.8	7.7	7.8	7.7	7.6	7.6	---	---	---	7.9	7.8	7.8
24	7.8	7.7	7.8	7.7	7.6	7.7	7.9	7.8	7.8	7.8	7.8	7.8
25	7.8	7.7	7.7	7.8	7.7	7.7	7.9	7.8	7.8	7.9	7.8	7.8
26	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.8	7.8	8.0	7.4	7.7
27	7.8	7.6	7.7	7.8	7.7	7.7	7.8	7.8	7.8	7.6	7.4	7.5
28	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.8	7.8	7.5	7.5	7.5
29	7.8	7.6	7.7	7.8	7.7	7.8	7.8	7.8	7.8	7.5	7.4	7.5
30	7.8	7.6	7.7	7.9	7.7	7.8	7.8	7.8	7.8	7.6	7.4	7.5
31	7.8	7.6	7.6	---	---	---	7.8	7.8	7.8	7.6	7.5	7.6
MONTH	8.1	7.5	7.7	7.9	7.2	7.5	7.9	7.7	7.8	8.0	7.4	7.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.8	7.5	7.6	7.9	7.8	7.8	7.8	7.7	7.7	8.1	7.7	7.9
2	7.8	7.7	7.7	7.8	7.7	7.8	7.8	7.7	7.8	7.8	7.6	7.7
3	7.8	7.7	7.7	7.9	7.8	7.8	7.9	7.7	7.8	7.8	7.6	7.7
4	7.8	7.7	7.8	7.9	7.6	7.7	8.0	7.8	7.9	7.9	7.7	7.8
5	7.9	7.7	7.8	7.9	7.7	7.8	8.1	7.8	8.0	7.8	7.7	7.8
6	7.8	7.7	7.7	7.8	7.6	7.7	8.0	7.9	8.0	7.9	7.7	7.7
7	7.8	7.6	7.7	---	---	---	8.0	7.9	---	7.8	7.7	7.7
8	7.7	7.5	7.6	---	---	---	8.0	7.9	7.9	7.9	7.7	7.8
9	7.7	7.5	7.6	7.8	7.7	7.7	8.1	7.9	8.0	7.9	7.7	7.8
10	7.7	7.6	7.6	7.8	7.7	7.7	8.0	7.9	7.9	8.1	7.8	7.9
11	7.8	7.6	7.7	7.7	7.7	7.7	8.1	7.9	8.0	8.0	7.9	8.0
12	7.7	7.6	7.6	7.8	7.6	7.7	8.1	7.9	8.0	8.0	7.9	7.9
13	7.8	7.6	7.7	7.8	7.7	7.7	7.9	7.8	7.9	8.1	7.9	8.0
14	7.8	7.6	7.7	7.8	7.6	7.7	7.9	7.6	7.8	8.1	8.0	8.0
15	7.8	7.6	7.7	7.7	7.6	7.7	---	---	---	8.2	7.8	8.0
16	7.9	7.6	7.7	7.7	7.6	7.6	---	---	---	8.2	7.8	8.0
17	7.9	7.7	7.8	7.7	7.6	7.7	---	---	---	8.1	7.8	7.9
18	7.8	7.7	7.7	7.7	7.7	7.7	---	---	---	8.1	7.8	7.9
19	7.8	7.7	7.7	7.8	7.6	7.7	---	---	---	8.1	7.8	8.0
20	7.8	7.6	7.7	7.8	7.8	7.8	8.4	8.1	8.2	8.1	7.9	8.0
21	7.8	7.6	7.7	7.9	7.7	7.8	8.5	8.1	8.3	8.0	7.8	7.9
22	7.7	7.6	7.7	7.8	7.7	7.8	8.4	8.1	8.2	8.1	7.8	7.9
23	7.9	7.6	7.7	7.8	7.7	7.7	8.2	8.0	8.1	8.2	7.8	8.0
24	8.0	7.8	7.9	7.8	7.6	7.7	8.2	8.1	8.1	8.1	7.8	8.0
25	7.9	7.8	7.9	7.6	7.5	7.5	8.3	8.1	8.2	8.2	7.8	8.0
26	7.8	7.7	7.8	7.7	7.5	7.6	8.2	8.1	8.1	8.2	7.9	8.0
27	8.0	7.7	7.8	7.7	7.6	7.6	8.2	8.0	8.1	8.2	7.9	8.1
28	7.8	7.6	7.7	7.8	7.5	7.7	8.2	8.1	8.1	8.1	7.9	8.0
29	7.8	7.7	7.7	7.7	7.6	7.7	8.2	8.1	8.1	8.1	7.8	8.0
30	---	---	---	7.6	7.6	7.6	8.1	8.1	8.1	8.0	7.8	7.9
31	---	---	---	7.7	7.6	7.6	---	---	---	7.9	7.8	7.9
MONTH	8.0	7.5	7.7	7.9	7.5	7.7	8.5	7.6	8.0	8.2	7.6	7.9

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.9	7.7	7.8	8.2	7.9	8.0	8.0	7.5	7.7	7.8	7.5	7.7
2	7.8	7.7	7.8	8.2	7.9	8.0	7.9	7.8	7.8	7.8	7.7	7.7
3	8.1	7.8	7.9	8.0	7.6	7.8	7.9	7.7	7.8	7.9	7.7	7.8
4	8.2	7.9	8.0	7.8	7.5	7.7	7.9	7.8	7.8	7.8	7.7	7.7
5	8.0	7.8	7.9	7.8	7.6	7.7	8.0	7.8	7.9	7.9	7.7	7.7
6	8.2	7.8	8.0	7.8	7.5	7.6	8.0	7.8	7.9	8.1	7.6	7.8
7	8.1	7.9	8.0	7.6	7.5	7.6	7.9	7.6	7.8	8.1	7.6	7.9
8	8.1	7.7	7.9	7.6	7.4	7.5	7.8	7.6	7.7	7.9	7.7	7.8
9	7.9	7.5	7.7	7.6	7.3	7.5	7.8	7.5	7.7	7.9	7.6	7.7
10	7.8	7.5	7.6	7.4	7.1	7.2	7.8	7.5	7.7	7.8	7.5	7.7
11	7.6	7.5	7.6	7.2	7.1	7.2	7.8	7.7	7.7	7.7	7.4	7.5
12	7.6	7.4	7.5	7.7	7.1	7.2	8.0	7.7	7.8	7.8	7.5	7.6
13	7.6	7.4	7.5	7.8	7.4	7.5	8.1	7.7	7.9	7.7	7.5	7.6
14	7.6	7.5	7.5	7.7	7.4	7.5	8.2	7.7	7.9	7.7	7.5	7.6
15	7.7	7.5	7.6	7.4	7.4	7.4	8.1	7.8	7.9	7.6	7.2	7.5
16	8.0	7.6	7.8	7.4	7.4	7.4	7.9	7.5	7.7	7.3	7.2	7.2
17	8.1	7.6	7.8	7.5	7.4	7.4	7.6	7.3	7.4	7.4	7.3	7.3
18	7.9	7.5	7.7	7.7	7.4	7.5	7.4	7.3	7.3	7.4	7.3	7.3
19	8.1	7.5	7.7	8.1	7.6	7.8	7.8	7.3	7.5	7.4	7.2	7.3
20	8.0	7.7	7.8	8.3	7.7	8.0	7.7	7.5	7.6	7.4	7.3	7.3
21	8.0	7.7	7.8	8.4	7.8	8.1	7.9	7.5	7.7	7.4	7.3	7.4
22	8.1	7.7	7.9	8.3	7.9	8.1	7.7	7.5	7.6	7.5	7.3	7.4
23	8.1	7.8	7.9	8.1	7.8	7.9	7.5	7.4	7.4	7.6	7.4	7.5
24	8.0	7.8	7.9	7.8	7.4	7.5	7.4	7.3	7.4	7.5	7.4	7.5
25	7.9	7.7	7.8	7.5	7.4	7.4	7.6	7.2	7.4	7.5	7.4	7.4
26	7.8	7.6	7.6	8.1	7.5	7.7	7.5	7.3	7.4	7.5	7.3	7.4
27	7.9	7.7	7.8	8.0	7.3	7.6	7.6	7.3	7.4	7.5	7.4	7.5
28	8.1	7.9	8.0	7.5	7.4	7.4	7.6	7.4	7.5	7.5	7.4	7.5
29	8.1	7.9	8.0	7.9	7.5	7.6	7.6	7.4	7.5	7.5	7.4	7.5
30	8.1	7.9	8.0	8.0	7.5	7.7	7.5	7.4	7.4	7.5	7.4	7.4
31	---	---	---	7.8	7.5	7.6	7.6	7.4	7.4	---	---	---
MONTH	8.2	7.4	7.8	8.4	7.1	7.6	8.2	7.2	7.6	8.1	7.2	7.5
YEAR	8.5	7.1	7.7									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.5	26.0	27.0	23.0	19.0	21.0	17.0	15.0	16.5	---	---	---
2	27.0	25.0	26.0	21.0	18.5	19.5	19.0	17.0	18.0	12.0	11.0	11.5
3	26.0	24.5	25.5	18.5	16.5	17.0	19.5	18.5	19.0	12.0	10.0	10.5
4	25.5	24.0	25.0	16.5	16.0	16.5	19.0	18.0	18.5	11.0	10.0	10.5
5	24.5	23.0	24.0	16.5	16.0	16.5	19.0	18.0	18.5	---	---	---
6	23.5	22.5	23.0	18.0	16.5	17.0	18.0	17.5	18.0	---	---	---
7	23.0	21.0	22.0	19.5	17.5	18.5	17.5	16.5	17.0	---	---	---
8	23.5	21.5	22.5	19.0	18.0	18.5	16.5	15.0	16.0	---	---	---
9	---	---	---	19.0	17.5	18.5	15.0	12.5	14.0	12.0	9.0	10.5
10	---	---	---	21.0	18.5	19.5	12.5	10.5	11.5	13.0	11.0	12.0
11	---	---	---	19.5	17.0	18.0	12.5	10.5	11.5	14.0	12.5	13.0
12	25.5	24.0	25.0	17.0	16.0	16.5	15.5	12.5	14.0	14.0	12.5	13.0
13	25.5	23.5	24.5	17.5	15.5	16.5	17.5	15.0	16.5	14.5	12.5	13.5
14	24.5	23.0	23.5	18.0	16.0	17.0	18.5	17.0	18.0	15.0	13.5	14.0
15	23.0	21.0	22.5	18.5	17.0	17.5	19.0	18.0	18.5	14.5	14.0	14.5
16	23.0	21.0	22.0	18.0	16.5	17.5	18.5	18.0	18.0	14.5	13.0	14.0
17	23.5	21.5	22.5	17.5	17.0	17.5	18.0	16.0	16.5	16.5	14.5	15.5
18	23.5	22.0	22.5	18.5	16.5	17.5	16.5	12.5	14.0	16.0	10.5	13.5
19	24.5	22.5	23.0	19.0	17.5	18.0	---	---	---	10.5	9.0	9.5
20	23.5	21.5	22.5	20.0	18.5	19.0	---	---	---	10.5	9.0	9.5
21	21.5	20.0	21.0	20.0	19.0	19.5	---	---	---	11.5	10.5	10.5
22	22.0	20.0	21.0	19.5	18.0	19.0	---	---	---	13.5	11.0	12.0
23	22.5	21.5	21.5	19.0	18.0	18.5	---	---	---	14.5	13.5	14.0
24	21.5	19.5	20.5	18.0	17.0	17.5	12.5	11.5	12.0	13.5	12.5	13.0
25	21.0	19.5	20.0	18.0	16.0	17.0	12.5	11.5	12.0	13.5	12.0	13.0
26	22.5	20.0	21.0	18.5	16.5	17.5	12.5	11.5	12.0	13.5	12.5	13.5
27	23.5	22.0	22.5	18.5	17.0	18.0	13.0	11.5	12.5	13.0	11.5	12.5
28	22.5	21.0	22.0	17.0	14.5	16.0	13.0	11.5	12.0	12.0	11.5	12.0
29	21.5	20.5	21.0	15.0	14.0	14.5	12.5	11.5	12.0	14.0	12.0	13.0
30	20.5	19.5	20.0	15.5	14.0	15.0	13.5	12.0	12.5	13.5	11.5	13.0
31	21.0	19.5	20.0	---	---	---	15.0	13.0	14.0	11.5	9.5	10.5
MONTH	27.5	19.5	22.5	23.0	14.0	17.5	19.5	10.5	15.0	16.5	9.0	12.5

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	9.0	9.0	14.5	11.5	13.0	19.5	17.0	18.0	22.5	19.5	21.0
2	9.0	8.0	8.5	15.5	13.0	14.0	19.5	17.0	18.0	23.5	21.5	22.5
3	9.5	8.0	8.5	17.0	14.5	15.5	20.0	18.0	19.0	24.5	22.5	23.0
4	9.5	7.5	8.5	17.5	15.5	16.5	20.0	18.5	19.0	25.0	23.0	24.0
5	10.0	8.0	9.0	19.5	17.0	18.5	18.5	12.5	14.5	26.5	23.5	25.0
6	12.0	9.5	11.0	19.5	16.5	18.5	12.5	11.0	12.0	26.0	25.0	25.5
7	14.5	11.5	13.0	---	---	---	16.5	12.0	14.0	26.0	24.5	25.0
8	16.5	13.5	15.0	---	---	---	19.0	15.5	17.0	25.5	24.0	24.5
9	17.0	15.5	16.0	13.5	11.0	12.0	20.5	17.5	19.0	26.0	24.0	25.0
10	18.0	16.0	17.0	14.5	12.0	13.5	21.5	19.0	20.0	26.0	24.0	25.0
11	17.5	15.5	16.5	15.5	13.0	14.5	22.5	20.0	21.0	25.5	23.5	24.0
12	15.5	14.0	15.0	17.0	14.0	15.5	21.5	20.0	21.0	24.5	22.5	23.5
13	15.5	13.5	14.5	19.0	16.0	17.0	20.0	18.0	19.5	24.0	23.5	24.0
14	17.0	14.5	15.5	20.5	18.0	19.0	21.0	19.0	19.5	26.5	23.5	24.5
15	16.5	15.5	16.0	20.5	18.5	19.5	20.5	18.5	19.5	27.0	24.5	25.5
16	15.5	13.5	14.0	20.5	18.0	19.5	20.5	18.0	19.5	28.0	25.0	26.5
17	14.5	12.5	13.5	21.0	19.0	20.0	21.5	18.5	20.0	28.0	25.5	26.5
18	15.5	13.0	14.0	20.5	16.5	18.5	23.0	20.0	21.5	28.0	25.5	26.5
19	17.5	15.0	16.0	17.5	15.5	16.5	24.5	21.5	23.0	28.0	25.5	26.5
20	17.5	16.0	17.0	16.5	14.5	15.5	24.0	22.0	23.0	28.0	25.0	26.5
21	18.5	16.5	17.5	17.0	14.0	15.5	24.5	21.5	23.0	29.0	26.5	27.5
22	19.5	17.5	18.5	18.5	15.5	17.0	23.5	21.0	22.0	29.5	27.0	28.5
23	19.5	18.5	19.0	18.5	17.5	18.0	22.0	20.0	21.0	29.0	27.0	28.0
24	18.5	17.0	18.0	20.0	18.0	18.5	22.0	19.0	20.5	29.0	26.5	27.5
25	18.0	17.0	18.0	18.5	16.5	17.0	22.5	20.0	21.5	28.5	26.5	27.5
26	19.0	18.0	18.5	16.5	14.5	15.5	23.5	21.0	22.0	28.5	26.5	27.5
27	19.0	17.5	18.5	14.5	12.0	13.5	23.5	21.5	22.5	29.5	26.0	27.5
28	18.0	14.0	15.5	12.0	10.0	11.0	23.5	22.0	22.5	29.5	27.0	28.0
29	14.0	12.0	12.5	15.0	11.0	13.0	22.0	20.0	21.0	29.5	27.0	28.5
30	---	---	---	18.5	15.0	17.0	21.5	19.5	20.5	29.5	27.0	28.5
31	---	---	---	19.0	16.5	18.0	---	---	---	28.0	27.0	27.5
MONTH	19.5	7.5	14.5	21.0	10.0	16.0	24.5	11.0	20.0	29.5	19.5	26.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	25.5	26.5	32.0	29.5	31.0	31.0	28.5	29.5	25.5	24.0	25.0
2	29.0	25.5	26.5	32.0	29.5	31.0	30.5	29.5	30.0	27.5	25.0	26.0
3	29.0	26.0	27.0	32.5	30.0	31.0	31.5	29.0	30.0	27.5	26.5	27.0
4	29.0	26.0	27.5	32.5	30.0	31.0	31.5	29.0	30.0	28.5	26.5	27.5
5	29.0	27.0	28.0	32.5	30.0	31.0	31.5	29.0	30.5	29.0	27.0	28.0
6	29.5	27.0	28.0	32.5	30.0	31.0	31.5	29.5	30.5	29.5	27.5	28.5
7	29.0	27.0	28.0	33.0	30.0	31.5	32.0	29.5	30.5	30.0	27.5	28.5
8	28.0	26.0	27.0	33.0	30.0	31.5	31.0	29.5	30.0	30.5	28.5	29.5
9	28.5	25.0	26.5	32.0	30.0	31.0	30.0	28.5	29.5	30.0	28.5	29.0
10	27.5	25.5	26.5	30.0	28.5	29.0	29.5	28.5	29.0	29.5	27.0	28.0
11	29.0	26.0	27.5	29.5	28.0	28.5	30.5	28.5	29.0	29.5	27.0	28.5
12	29.5	27.5	28.5	29.0	27.0	28.5	30.0	28.0	29.0	28.5	27.5	28.0
13	29.5	28.0	28.5	28.5	27.0	28.0	30.5	28.0	29.0	28.0	27.5	27.5
14	29.5	27.5	28.5	28.5	27.5	28.0	30.0	28.0	29.0	28.0	27.0	27.5
15	30.5	27.5	28.5	29.0	27.5	28.0	30.5	28.5	29.5	28.0	26.0	27.0
16	31.0	28.5	29.5	30.0	27.5	28.5	29.5	28.5	29.0	27.5	26.0	26.5
17	31.5	29.0	30.0	30.0	27.0	28.5	28.5	26.5	27.5	28.0	25.5	27.0
18	31.5	29.5	30.5	31.5	28.5	29.5	29.0	27.0	28.0	27.5	25.5	26.5
19	32.0	29.0	30.5	32.0	29.0	30.5	29.5	27.5	28.5	26.0	25.0	25.5
20	32.5	30.0	31.0	32.5	30.0	31.0	30.5	28.0	29.0	26.5	25.5	26.0
21	32.0	30.0	30.5	32.5	30.0	31.5	30.5	29.0	29.5	27.0	25.0	26.0
22	31.5	29.5	30.5	32.5	30.5	31.5	29.5	28.5	29.0	27.5	25.0	26.0
23	31.5	29.0	30.0	32.0	29.5	31.0	29.0	28.0	28.5	28.0	26.0	27.0
24	31.0	29.0	30.0	29.5	28.0	28.5	29.5	28.0	28.5	27.5	26.5	27.0
25	31.0	29.0	29.5	31.5	29.0	30.0	29.0	28.0	28.5	27.5	26.0	27.0
26	30.5	29.0	29.5	31.5	29.0	30.5	29.0	27.0	28.0	27.0	25.0	26.5
27	31.0	29.0	30.0	31.0	28.0	30.0	29.0	27.0	28.0	25.0	22.0	23.5
28	31.5	29.5	30.5	30.0	27.5	28.5	27.5	26.0	27.5	23.5	21.0	22.0
29	31.5	29.5	30.5	31.5	29.0	30.5	27.0	26.0	26.5	24.0	21.5	23.0
30	31.5	29.5	30.5	31.0	29.5	30.0	27.0	26.0	26.5	24.5	22.5	23.5
31	---	---	---	30.0	29.0	29.5	27.0	24.5	26.0	---	---	---
MONTH	32.5	25.0	29.0	33.0	27.0	30.0	32.0	24.5	29.0	30.5	21.0	26.5
YEAR	33.0	7.5	22.0									

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.7	3.5	4.5	---	---	---	7.5	6.7	7.2	---	---	---
2	7.0	5.0	6.0	---	---	---	6.9	6.4	6.6	8.5	8.0	8.4
3	8.2	6.1	7.0	---	---	---	6.9	6.2	6.4	9.9	8.0	8.8
4	8.8	6.5	7.6	---	---	---	6.7	6.0	6.3	9.5	8.3	9.0
5	10.1	7.1	8.4	---	---	---	6.8	6.1	6.4	---	---	---
6	9.8	7.3	8.5	---	---	---	7.0	6.3	6.6	---	---	---
7	10.3	7.5	8.8	---	---	---	7.1	6.4	6.7	---	---	---
8	9.7	7.5	8.5	6.4	5.4	5.9	6.9	6.5	6.7	---	---	---
9	9.1	7.1	8.0	6.7	5.3	5.9	7.1	6.5	6.7	9.5	8.7	9.0
10	8.6	6.7	7.6	7.1	5.5	6.2	8.2	7.1	7.6	9.5	8.5	8.9
11	10.3	8.4	9.3	7.1	5.1	6.0	7.9	7.5	7.6	9.1	8.2	8.6
12	10.5	8.0	9.2	6.8	5.1	5.9	7.5	6.8	7.3	9.3	8.1	8.6
13	11.2	8.6	9.7	7.3	5.4	6.3	7.1	6.4	6.8	9.5	8.2	8.8
14	11.1	8.8	9.9	7.3	5.7	6.4	7.1	6.2	6.6	9.4	8.1	8.6
15	11.0	8.9	9.8	7.3	5.6	6.4	6.9	6.2	6.5	8.5	7.8	8.2
16	10.9	9.1	9.9	7.2	5.5	6.3	6.3	5.8	6.1	9.1	7.6	8.3
17	10.6	8.9	9.7	7.1	5.6	6.2	6.9	5.9	6.3	8.3	7.9	8.1
18	10.3	8.5	9.4	8.2	6.2	7.1	6.7	5.9	6.3	8.3	7.5	7.8
19	10.3	8.0	9.1	8.1	6.4	7.2	---	---	---	8.5	8.0	8.3
20	10.5	8.2	9.3	8.1	6.5	7.3	---	---	---	8.4	7.6	8.0
21	10.2	8.3	9.2	8.2	6.5	7.1	---	---	---	8.8	7.9	8.4
22	9.9	8.2	9.0	7.7	6.7	7.2	---	---	---	8.6	7.8	8.0
23	9.4	8.0	8.5	7.7	6.7	7.2	7.0	6.1	6.6	7.9	7.3	7.5
24	9.1	7.4	8.3	7.8	7.0	7.4	7.1	6.3	6.8	8.0	7.1	7.6
25	9.1	7.2	8.2	7.8	7.1	7.4	7.1	6.9	7.0	8.2	7.4	7.8
26	9.1	7.2	8.2	7.7	7.0	7.3	7.4	7.0	7.2	9.9	7.1	8.4
27	10.0	7.0	8.5	7.3	6.7	7.0	7.6	6.7	7.2	9.8	8.6	9.3
28	9.4	7.6	8.4	7.6	6.8	7.2	7.6	7.5	7.5	10.0	9.2	9.6
29	8.8	7.1	8.0	8.1	7.2	7.6	7.8	7.3	7.5	10.2	9.1	9.6
30	8.0	6.8	7.2	7.9	7.4	7.6	7.7	7.2	7.4	10.2	8.7	9.5
31	8.8	6.6	7.7	---	---	---	7.3	6.9	7.1	10.4	9.0	9.7
MONTH	11.2	3.5	8.4	8.2	5.1	6.8	8.2	5.8	6.9	10.4	7.1	8.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.0	9.5	9.8	---	---	---	6.0	4.8	5.5	---	---	---
2	11.2	9.7	10.5	---	---	---	6.7	5.1	6.0	9.0	6.3	7.8
3	11.4	10.1	10.8	---	---	---	7.3	4.5	6.1	8.9	6.3	7.6
4	11.8	10.4	11.0	---	---	---	6.5	4.2	5.7	9.0	5.6	7.5
5	11.9	10.0	11.0	7.3	4.8	5.9	7.6	6.0	6.7	8.5	6.0	7.3
6	11.8	9.5	10.6	6.8	4.7	5.6	7.4	6.5	7.1	7.5	4.9	5.9
7	11.5	10.0	10.8	---	---	---	7.3	5.8	6.6	6.1	3.6	4.9
8	11.8	9.6	10.7	---	---	---	---	---	---	6.0	2.6	4.6
9	11.1	8.6	9.6	10.7	8.8	9.9	---	---	---	6.1	3.2	4.8
10	10.1	8.4	9.2	10.4	8.7	9.7	---	---	---	6.8	4.3	5.3
11	10.2	8.3	9.2	9.9	8.1	9.2	---	---	---	6.7	4.4	5.5
12	11.4	8.2	9.6	9.7	7.9	9.0	---	---	---	6.8	4.8	5.8
13	12.3	9.0	10.3	9.3	7.8	8.6	---	---	---	7.1	5.5	6.2
14	12.0	9.3	10.5	8.7	7.2	8.0	---	---	---	7.2	2.3	5.6
15	11.3	8.6	9.7	8.1	6.4	7.4	---	---	---	7.2	3.9	5.6
16	11.2	8.3	9.6	7.8	6.1	7.2	10.4	7.0	8.9	7.9	3.4	6.0
17	11.9	9.0	10.0	7.5	6.0	7.0	11.3	7.6	9.4	7.1	3.5	5.5
18	11.9	9.4	10.5	7.5	6.0	6.7	12.2	7.5	9.9	6.7	3.1	5.4
19	10.3	8.4	9.3	8.4	5.0	7.1	10.2	8.2	9.1	6.5	3.5	5.0
20	9.7	8.5	8.9	9.6	6.7	8.0	9.1	6.4	7.7	6.5	3.1	5.3
21	9.6	8.3	8.8	9.8	6.1	8.5	8.8	6.4	7.6	6.7	4.6	5.7
22	9.4	7.5	8.5	9.2	6.1	8.3	7.8	6.1	6.5	---	---	---
23	9.9	6.0	8.1	8.2	5.9	7.4	---	---	---	---	---	---
24	9.8	5.4	7.8	7.5	5.4	6.6	---	---	---	---	---	---
25	8.9	5.9	7.7	6.5	4.2	5.8	---	---	---	---	---	---
26	8.1	6.0	7.1	7.4	3.5	6.3	---	---	---	---	---	---
27	8.3	6.8	7.3	8.7	5.8	7.2	---	---	---	---	---	---
28	8.7	6.7	7.6	7.6	6.4	7.0	---	---	---	---	---	---
29	9.7	7.7	8.7	7.5	6.6	7.1	---	---	---	---	---	---
30	---	---	---	6.6	5.2	5.9	---	---	---	---	---	---
31	---	---	---	5.5	4.4	5.0	---	---	---	---	---	---
MONTH	12.3	5.4	9.4	10.7	3.5	7.4	12.2	4.2	7.3	9.0	2.3	5.9

08049500 WEST FORK TRINITY RIVER AT GRAND PRAIRIE, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	6.0	3.3	4.1	---	---	---
3	---	---	---	---	---	---	4.6	3.0	3.8	---	---	---
4	---	---	---	7.7	6.0	6.8	4.2	2.7	3.5	---	---	---
5	---	---	---	6.7	5.1	6.0	4.6	2.6	3.5	---	---	---
6	---	---	---	6.3	4.1	5.1	5.2	3.0	4.1	9.3	5.6	7.2
7	---	---	---	4.9	4.1	4.5	6.3	3.4	4.8	7.9	5.0	6.4
8	9.0	6.2	7.3	5.3	4.0	4.4	6.7	4.4	5.6	6.2	3.3	4.5
9	8.1	5.9	6.9	5.2	3.1	4.0	7.9	4.7	6.8	---	---	---
10	7.2	4.3	5.6	4.5	2.4	3.3	---	---	---	---	---	---
11	6.8	5.6	6.1	3.9	2.7	3.3	---	---	---	6.5	3.0	5.2
12	7.3	4.4	5.8	4.7	3.2	3.9	---	---	---	6.9	4.0	5.6
13	6.8	4.7	5.4	3.4	1.3	2.7	8.1	3.8	6.1	6.2	3.6	4.9
14	8.3	4.8	5.2	4.1	3.3	3.6	8.3	3.9	6.3	4.8	4.0	4.4
15	7.4	5.0	5.9	3.8	3.4	3.7	8.1	5.1	6.6	4.5	4.0	4.2
16	8.4	4.8	6.4	4.2	2.8	3.4	6.2	2.6	4.5	5.6	4.1	4.9
17	9.4	4.3	6.5	3.5	3.0	3.2	---	---	---	5.4	4.0	4.7
18	8.0	4.4	6.2	4.4	3.1	3.7	---	---	---	5.8	4.0	4.5
19	10.2	5.5	7.3	7.0	4.0	5.3	---	---	---	4.7	4.2	4.4
20	8.4	5.1	6.8	7.7	4.8	6.0	---	---	---	4.9	4.0	4.5
21	7.9	5.2	6.4	6.7	4.2	5.3	---	---	---	4.7	4.2	4.5
22	8.0	5.4	6.6	---	---	---	---	---	---	4.6	4.0	4.3
23	---	---	---	---	---	---	---	---	---	4.9	3.6	4.0
24	---	---	---	---	---	---	---	---	---	4.5	3.7	4.3
25	---	---	---	---	---	---	---	---	---	4.8	3.8	4.3
26	---	---	---	---	---	---	---	---	---	4.8	3.8	4.3
27	---	---	---	7.5	3.7	5.6	---	---	---	5.2	3.6	4.4
28	---	---	---	4.2	3.2	3.8	---	---	---	5.4	4.2	4.8
29	---	---	---	5.7	3.7	4.5	---	---	---	5.4	4.2	4.9
30	---	---	---	5.4	3.5	4.3	---	---	---	5.4	3.8	4.6
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	10.2	4.3	6.3	7.7	1.3	4.4	8.3	2.6	5.0	9.3	3.0	4.8
YEAR	12.3	1.3	7.0									

08049580 MOUNTAIN CREEK NEAR VENUS, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 32°29'27", long 97°07'22", Johnson County, Hydrologic Unit 12030102, on right bank on downstream side of highway embankment near right end of bridge on Farm Road 157, 3.0 mi upstream from Grassy Creek, 3.2 mi upstream from Reece Branch, and 3.9 mi north of Venus.

DRAINAGE AREA.--25.5 mi^2.

PERIOD OF RECORD.--November 1985 to September 1987. October 1987 to current year (peaks above base discharge).
Water-quality records.--Chemical analyses: December 1985 to September 1993.

GAGE.--Water-stage recorder. Datum of gage is 580.49 ft above sea level.

REMARKS.--Records good. Daily values and peak discharges less than 580 ft^3/s are not published. Rain gage at station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 580 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

08049700 WALNUT CREEK NEAR MANSFIELD, TX

LOCATION.--Lat 32°34'51", long 97°06'06", Tarrant County, Hydrologic Unit 12030102, on right bank at downstream side of bridge on county road, 2.6 mi northeast of Mansfield, 3.3 mi downstream from Texas and New Orleans Railroad Co. bridge, and 10.2 mi upstream from mouth.

DRAINAGE AREA.--62.8 mi².

PERIOD OF RECORD.--October 1960 to current year.
Water-quality records.--Chemical and biochemical analyses: December 1985 to September 1993.

GAGE.--Water-stage recorder. Datum of gage is 531.08 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	63	.55	.50	.26	.46	.99	.32	1.3	.04	.09	6.9
2	.86	.99	.52	1.5	.28	.49	.93	.24	.56	.03	.12	.39
3	.65	.30	.45	.60	.33	.65	1.3	.26	.20	.02	.18	.13
4	.22	.36	.27	.44	.24	.69	.96	.32	1.3	.06	.17	.10
5	.15	.32	.27	.38	.30	.78	157	.45	.29	.11	.10	.09
6	.11	.21	.27	.35	.36	1.0	37	.30	.14	.09	.08	.08
7	.11	.35	.39	.33	.37	1.2	9.5	.29	.32	.09	.08	.13
8	.10	.45	.35	.35	.29	1.2	2.6	.18	.28	.03	.10	.14
9	.08	.53	.29	.40	.27	1.3	1.1	.19	.22	14	1.6	.06
10	.12	.36	.27	.40	.26	1.3	.87	.24	.22	2.0	.82	.07
11	.11	.53	.25	.40	.25	1.3	1.2	.29	.13	.23	.27	.06
12	.11	.50	.23	.39	.24	1.3	1.0	.20	.08	15	.12	.07
13	.11	.27	.21	.40	.24	1.2	1.2	.18	6.5	1.5	.10	.14
14	.10	.52	.19	.37	.26	1.1	.91	.23	1.8	11	.08	.18
15	.09	.41	.20	.40	.29	.74	.75	.18	.26	.84	.07	6.9
16	.11	.41	.46	.43	.26	.70	.87	.16	.17	.35	2.9	.32
17	.16	.26	102	.60	.17	.78	1.3	.21	.06	.19	.30	.09
18	.29	.47	69	8.5	.31	1.7	.73	.22	.04	.14	4.0	.15
19	.21	.51	5.7	.60	.23	.75	.76	.22	.04	.18	1.6	1.2
20	.11	.28	1.1	.41	.21	.63	.71	.18	.06	.24	.18	.21
21	.15	.41	.64	.34	.25	.74	.67	.17	.12	.22	.10	.12
22	.11	.39	.81	.32	.24	.74	29	.13	.14	.15	.07	.11
23	.13	.48	.48	.34	.28	.83	2.1	.11	.13	.12	.86	.06
24	.12	.24	.41	.26	.34	.97	2.0	.16	.41	.11	.45	.11
25	.29	.51	.38	.23	.36	.85	.88	.24	.04	.10	.24	.09
26	.23	.57	.38	.27	.41	.69	.68	.24	.03	.18	.11	.08
27	.09	.28	.38	.32	.55	30	.50	.11	.04	10	2.7	.13
28	.07	.24	.36	.22	.49	13	.39	.12	.04	.74	51	.13
29	.06	.29	.37	.22	.37	1.5	.36	.13	.10	.20	167	.11
30	.20	.27	.42	.22	---	1.1	.44	.08	.10	.10	7.5	.06
31	.11	---	.41	.23	---	1.1	---	.64	---	.10	4.1	---
TOTAL	5.54	74.71	188.01	20.72	8.71	70.79	258.70	6.99	15.12	58.16	247.09	18.41
MEAN	.18	2.49	6.06	.67	.30	2.28	8.62	.23	.50	1.88	7.97	.61
MAX	.86	63	102	8.5	.55	30	157	.64	6.5	15	167	6.9
MIN	.06	.21	.19	.22	.17	.46	.36	.08	.03	.02	.07	.06
AC-FT	11	148	373	41	17	140	513	14	30	115	490	37
CFSM	.00	.04	.10	.01	.00	.04	.14	.00	.01	.03	.13	.01
IN.	.00	.04	.11	.01	.01	.04	.15	.00	.01	.03	.15	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996, BY WATER YEAR (WY)

MEAN	18.3	5.00	16.4	7.08	19.1	26.2	38.5	54.5	29.6	4.04	2.47	6.29
MAX	272	50.1	326	64.5	157	184	174	378	300	57.1	21.8	67.4
(WY)	1992	1995	1992	1992	1993	1977	1990	1989	1986	1975	1979	1973
MIN	.000	.000	.000	.000	.014	.13	.40	.074	.030	.000	.000	.000
(WY)	1964	1961	1964	1981	1981	1963	1978	1962	1963	1964	1961	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996	
ANNUAL TOTAL	13320.45		972.95			
ANNUAL MEAN	36.5		2.66		18.9	
HIGHEST ANNUAL MEAN					82.2	1992
LOWEST ANNUAL MEAN					1.34	1978
HIGHEST DAILY MEAN	2650	May 8	167	Aug 29	7900	May 17 1989
LOWEST DAILY MEAN	.06	Oct 29	.02	Jul 3	.00	Oct 1 1960
ANNUAL SEVEN-DAY MINIMUM	.10	Oct 9	.05	Jun 27	.00	Oct 15 1960
INSTANTANEOUS PEAK FLOW			531	Aug 28	22800	May 17 1989
INSTANTANEOUS PEAK STAGE			11.04	Aug 28	33.77	May 17 1989
ANNUAL RUNOFF (AC-FT)	26420		1930		13720	
ANNUAL RUNOFF (CFSM)	.58		.042		.30	
ANNUAL RUNOFF (INCHES)	7.89		.58		4.10	
10 PERCENT EXCEEDS	53		1.4		12	
50 PERCENT EXCEEDS	2.8		.29		.25	
90 PERCENT EXCEEDS	.21		.09		.00	

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX

LOCATION.--Lat 32°38'36", long 97°00'03", Dallas County, Hydrologic Unit 12030102, in control room of outlet works tower located 285 ft upstream from centerline of Joe Pool Dam on Mountain Creek, 0.7 mi downstream from Walnut Creek, 0.7 mi upstream from bridge over Mountain Creek on Camp Wisdom Road, 1.0 mi downstream from John Penn Branch, 5.5 mi west of water towers in downtown Duncanville, 7.1 mi upstream from Mountain Creek Dam on Mountain Creek, and 11.2 mi upstream from mouth.

DRAINAGE AREA.--232 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--August 1985 to current year.
Water-quality records.--Chemical and biochemical analyses: January 1986 to September 1993.

GAGE.--Water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers benchmark).

REMARKS.--The lake is formed by a rolled earthfill dam 22,360 ft long, including a 50-foot uncontrolled broad-crested concrete spillway. Impoundment of water began Jan. 7, 1986, after closure of the dam was completed in December 1985. The flood-control outlet works consist of a 10.5-foot-diameter conduit that is controlled by two 4.75- by 10.5-foot slide gates. Above an elevation of 541 ft, water will flow over a 50-foot-long uncontrolled broad-crested concrete spillway located 0.5 mi to left of the outlet works tower. The low-flow outlet works consist of four 3- by 5-foot slide gates having invert elevations at 486.0, 495.0, 504.0, and 513.0 ft that open to a wet-well. Discharge from the wet-well to the 10.5-foot-diameter conduit is controlled by a 2- by 4-foot gate with invert at elevation 483.0 ft. A low-flow bypass system consisting of a turbine pump and 10-inch-diameter piping is also available for use if needed. The capacity table was provided by the U.S. Army Corps of Engineers. The lake was built for water supply, conservation, and flood control. 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	564.5	-
Crest of spillway	541.0	362,700
Top of conservation pool	522.0	176,900
Lowest gated outlet	466.0	1,095

COOPERATION.--Records of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 274,600 acre-ft May 20, 1990 (elevation, 533.21 ft); minimum since initial filling began, 1,595 acre-ft Jan. 24, 1986 (elevation, 467.65 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 170,300 acre-ft Oct. 1 (elevation, 521.11 ft); minimum, 141,000 acre-ft Aug. 26 (elevation, 516.88 ft).

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

516.0	135,300	520.0	162,300	523.0	184,500
517.0	141,800	521.0	169,500	524.0	192,200
518.0	148,500	522.0	176,900	525.0	200,200
519.0	155,300				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170300	166700	163400	161000	158900	156900	154400	153900	150800	147400	144400	145000
2	170300	166400	163400	160900	158900	156800	154300	153900	150700	147200	144300	145000
3	170200	166200	163200	160900	158700	156700	154200	153900	150600	147100	144100	145100
4	170000	166200	163200	160700	158600	156700	154100	153800	150600	147000	143700	145100
5	169800	166000	163000	160600	158600	156700	155600	153800	150500	146700	143500	144900
6	169500	166000	162900	160500	158500	156300	155900	153700	150400	146500	143300	144900
7	169400	165800	162800	160400	158500	156100	155900	153600	150200	146300	143100	144800
8	169200	165700	162700	160300	158500	156300	155800	153600	150000	146100	143100	144700
9	169100	165700	162600	160200	158500	156000	155700	153600	149800	146500	143000	144500
10	169000	165500	162500	160200	158300	155800	155600	153400	149800	146400	143000	144400
11	168900	165400	162200	160100	158400	155800	155600	153400	149800	146300	142900	144300
12	168800	165200	162200	160000	158300	155600	155700	153300	149600	147100	142700	144200
13	168600	165000	162200	160000	158200	155600	155700	153200	149600	147000	142500	144200
14	168400	165000	162100	159900	158000	155600	155400	153100	149600	147100	142300	144100
15	168400	164800	162100	159900	157800	155500	155300	153000	149500	147100	142100	144500
16	168100	164700	162200	159800	157800	155400	155200	152800	149300	146900	142100	144200
17	167900	164700	162700	160200	157700	155400	155000	152600	149300	146700	142000	144100
18	167800	164700	163200	160000	157700	155400	155000	152400	149300	146600	141800	144200
19	167600	164600	162700	159900	157700	155200	155000	152200	149100	146400	141700	144300
20	167400	164500	162400	159800	157600	155100	154800	152000	148900	146200	141600	144200
21	167100	164500	162200	159800	157600	155000	154800	151900	148700	146000	141400	144100
22	167000	164500	162000	159800	157500	154900	155200	151700	148600	145800	141400	144000
23	166800	164200	162000	159800	157500	154800	155200	151600	148500	145700	141300	143900
24	166600	164200	161700	159800	157400	154600	155000	151300	148300	145500	141200	143800
25	166400	164000	161600	159700	157400	154300	154800	151200	148100	145400	141100	143700
26	166400	164000	161500	159500	157400	154300	154700	151000	148000	145200	141000	143600
27	166200	163700	161300	159400	157200	154700	154700	150800	147900	145100	141000	143400
28	166000	163700	161300	159300	157000	154700	154500	150800	147800	145000	141400	143200
29	165800	163600	161100	159300	157000	154700	154300	150600	147700	144800	142100	143100
30	165700	163400	161000	159100	---	154500	154100	150600	147500	144600	143500	142900
31	166000	---	161000	159000	---	154500	---	150600	---	144500	144100	---
MAX	170300	166700	163400	161000	158900	156900	155900	153900	150800	147400	144400	145100
MIN	165700	163400	161000	159000	157000	154300	154100	150600	147500	144500	141000	142900
(+)	520.52	520.15	519.82	519.53	519.24	518.89	518.82	518.32	517.86	517.41	517.35	517.16
(@)	-4400	-2600	-2400	-2000	-2000	-2500	-400	-3500	-3100	-3000	-400	-1200

CAL YR 1995 MAX 211600 MIN 161000 @ -11200
WTR YR 1996 MAX 170300 MIN 141000 @ -27500

(+) Elevation, in feet at end of month.
(@) Change in contents, in acre-feet.

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1986 to September 1993, April 1996 (discontinued)

REVISED RECORDS.--WDR TX-93-1: Phytoplankton.

323812096591701 - JOE POOL LAKE SITE AR

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
APR							
26...	0919	1.00	516	8.3	18.5	8.7	95
26...	0921	10.0	516	8.3	18.5	8.7	95
26...	0924	20.0	516	8.2	18.0	8.6	93
26...	0927	30.0	516	8.2	18.0	8.6	93
26...	0929	38.0	513	8.2	18.5	8.5	93

323819096584801 - JOE POOL LAKE SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESERVOIR STORAGE (AC-FT)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)
APR												
26...	0854	154000	1.00	512	8.3	18.5	0.73	8.6	94	K1	K1	170
26...	0857	--	10.0	512	8.2	18.0	--	8.6	93	--	--	--
26...	0900	--	20.0	511	8.2	18.0	--	8.5	92	--	--	--
26...	0904	--	30.0	512	8.2	18.5	--	8.5	93	--	--	--
26...	0907	--	40.0	513	8.2	18.5	--	8.4	92	--	--	--
26...	0910	--	48.0	518	8.2	18.0	--	8.3	90	--	--	170

DATE	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
APR												
26...	56	59	6.0	32	1	8.5	120	110	20	0.40	1.8	308
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	57	59	6.0	32	1	8.4	120	110	20	0.40	1.8	307

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR											
26...	0.100	<0.010	0.100	0.100	0.030	0.27	0.30	<0.010	<0.010	<3	1
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	0.100	<0.010	0.100	0.100	0.030	0.27	0.30	<0.010	<0.010	<3	5

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX--Continued

323731097013901 - JOE POOL LAKE SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
APR											
26...	1154	1.00	519	8.3	19.5	9.0	100	K1	K1	180	67
26...	1157	10.0	519	8.3	19.0	8.8	97	--	--	--	--
26...	1201	20.0	514	8.2	18.5	8.4	91	--	--	--	--
26...	1205	30.0	517	8.2	18.5	8.4	91	--	--	--	--
26...	1209	40.0	518	8.2	19.0	8.2	90	--	--	--	--
26...	1212	48.0	520	8.2	18.5	8.0	87	--	--	170	60

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
APR											
26...	63	6.3	33	1	7.8	120	110	20	0.40	1.6	312
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	60	6.0	32	1	8.3	120	110	20	0.40	2.0	308

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR											
26...	0.080	<0.010	0.080	0.080	0.020	0.28	0.30	<0.010	<0.010	<3	<1
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	0.120	<0.010	0.120	0.120	0.030	0.27	0.30	<0.010	<0.010	6	4

323645097002001 - JOE POOL LAKE SITE CR

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
APR							
26...	1005	1.00	517	8.3	19.0	8.8	97
26...	1007	10.0	516	8.3	18.5	8.6	94
26...	1009	20.0	518	8.2	18.5	8.6	94
26...	1012	30.0	516	8.2	18.0	8.4	91
26...	1015	36.0	516	8.2	18.5	8.2	90

323646097005101 - JOE POOL LAKE SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
APR										
26...	0942	1.00	517	8.3	19.0	0.67	8.7	96	0.120	<0.010
26...	0945	10.0	516	8.2	18.5	--	8.6	94	--	--
26...	0948	20.0	516	8.2	18.5	--	8.5	93	--	--
26...	0952	30.0	516	8.2	18.0	--	8.3	90	--	--
26...	0955	40.0	517	8.1	18.0	--	7.7	83	--	--
26...	0958	47.0	519	8.0	18.0	--	6.9	75	0.100	<0.010

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX--Continued

323646097005101 - JOE POOL LAKE SITE CC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
APR									
26...	0.120	0.120	0.030	0.27	0.30	<0.010	<0.010	<3	9
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	0.100	0.100	0.060	0.34	0.40	<0.010	<0.010	<3	17

323503097012201 - JOE POOL LAKE SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
APR									
26...	1028	1.00	522	8.3	19.0	8.6	94	0.100	<0.010
26...	1031	10.0	520	8.2	18.5	8.3	90	--	--
26...	1035	20.0	520	8.1	18.5	7.7	84	--	--
26...	1038	27.0	525	7.9	18.5	6.0	65	0.110	<0.010

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
APR									
26...	0.100	0.100	0.020	0.28	0.30	<0.010	<0.010	<3	5
26...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
26...	0.110	0.110	0.110	0.29	0.40	<0.010	<0.010	<3	12

323329097024101 - JOE POOL LAKE SITE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
APR											
26...	1104	1.00	669	8.1	20.0	0.15	7.6	85	86	50	190
26...	1110	7.00	712	8.1	19.5	--	7.4	82	--	--	200

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR											
26...	80	65	6.8	51	2	17	110	150	46	0.50	1.3
26...	90	67	7.1	59	2	23	110	160	57	0.50	1.4

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX--Continued

323329097024101 - JOE POOL LAKE SITE EC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
APR										
26...	404	<0.010	<0.050	0.040	0.36	0.40	<0.010	<0.010	<3	2
26...	439	<0.010	<0.050	0.050	0.35	0.40	<0.010	<0.010	<3	5

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX--Continued

Joe Pool Lake Site AC (323819096584801)

Phytoplankton Analyses October 1995 to September 1996

Date	4-26-96
Time	854
TOTAL CELLS/mL	**4,819**
NUMBER OF SPECIES	**8**
DEPTH COLLECTED (ft.)	**0.36**

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	424
Stephanodiscus hantzschii	141
Order Pennales	
Navicula sp.	30
CHLOROPHYTA	
Ankistrodesmus falcatus	268
Scenedesmus quadricauda	30
CYANOPHYTA	
Aphanocapsa delicatissima	3,569
EUGLENOPHYTA	
Trachelomonas sp.	30
CRYPTOPHYTA	
Cryptomonas erosa	327

08049800 JOE POOL LAKE NEAR DUNCANVILLE, TX--Continued

Joe Pool Lake Site EC (323329097024101)

Phytoplankton Analyses October 1995 to September 1996

Date	4-26-96
Time	1104
TOTAL CELLS/mL	21,233
NUMBER OF SPECIES	16
DEPTH COLLECTED (ft.)	0.25

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	348
Stephanodiscus hantzschii	217
Order Pennales	
Cocconeis placentula	28
Cymaptopleura solea	28
Gyrosigma acuminatum	85
Navicula sp.	28
Nitzschia palea	57
Synedra ulna var. *ulna*	339
CHLOROPHYTA	
Ankistrodesmus falcatus	833
Scenedesmus bijuga	59
Scenedesmus quadricauda	59
CYANOPHYTA	
Aphanocapsa delicatissima	17,844
Aphanocapsa elachista	595
Chroococcus limneticus	476
EUGLENOPHYTA	
Trachelomonas sp.	59
CRYPTOPHYTA	
Cryptomonas erosa	178

08050050 MOUNTAIN CREEK LAKE NEAR GRAND PRAIRIE, TX

LOCATION.--Lat 32°43'55", long 96°56'35", Dallas County, Hydrologic Unit 12030102, at right end of spillway in Mountain Creek Dam on Mountain Creek, 2.5 mi upstream from Texas and Pacific Railway Co. bridge, and 3.7 mi southeast of Grand Prairie.

DRAINAGE AREA.--295 square miles.

PERIOD OF RECORD.--October 1960 to current year.
Water-quality records.--Chemical analyses: October 1969 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Oct. 21, 1960, non-recording gage at powerplant at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 5,800 ft long, including a controlled spillway with six 34 by 27 foot 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 Joe Pool Dam see station 08049900. Satellite telemeter at station. Rain gage at station. 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	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 provided by the Dallas Power and Light Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 28,430 acre-ft Mar. 13, 1995 (elevation 458.82 ft); minimum, 14,120 acre-ft Oct. 18, 1972 (elevation, 453.25 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 23,390 acre-ft Apr. 5 at 1900 hours (elevation, 457.19 ft); minimum, 18,930 acre-ft Aug. 7 (elevation, 455.44 ft).

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

453.0	13,600	456.0	20,260	458.0	25,720
454.0	15,670	457.0	22,840	459.0	29,020
455.0	17,890				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22270	22070	21370	22790	22090	22480	22560	22190	20930	20190	19500	20670
2	22270	21860	21340	22980	22120	22450	22560	22170	20900	20120	19450	20650
3	22300	22090	21290	23070	22170	22500	22530	22220	20880	20050	19480	20650
4	22300	22140	21320	23040	22170	22430	22450	22170	20980	19950	19290	20620
5	22190	22040	21400	22980	22350	22560	23040	22120	20930	19880	19150	20570
6	22090	21910	21400	22980	22430	22250	22300	22120	20960	19810	19100	20570
7	22070	21780	21450	22980	22530	22190	22350	22090	20750	19740	19030	20520
8	22040	21730	21420	23010	22500	22220	22350	22040	20650	19600	19070	20470
9	22010	21730	21450	22980	22560	22250	22350	21990	20600	19640	19070	20390
10	21990	21650	21520	23130	22610	22220	22350	21860	20650	19790	19760	20340
11	21940	21600	21580	22980	22560	22250	22430	21890	20600	19740	19740	20260
12	21940	21550	21650	22980	22560	22320	22430	21890	20540	20240	19670	20240
13	21830	21470	21760	22960	22630	22320	22500	21860	20670	20390	19600	20210
14	21810	21520	21760	22960	22530	22270	22380	21910	20750	20470	19530	20140
15	21780	21470	21730	23070	22450	22250	22400	21890	20720	20490	19480	20540
16	21760	21470	22090	23160	22530	22250	22350	21780	20670	20490	19500	20440
17	21680	21450	22450	23300	22530	22220	22400	21630	20850	20390	19500	20440
18	21650	21450	22840	22580	22580	22300	22320	21580	20960	20360	19500	20470
19	21520	21450	23100	21990	22560	22220	22320	21500	20830	20260	19450	20570
20	21500	21450	23360	21990	22560	22190	22270	21450	20700	20170	19380	20520
21	21470	21450	23070	22040	22560	22220	22270	21420	20670	20090	19310	20490
22	21500	21420	22980	22170	22610	22320	22580	21370	20570	20000	19290	20470
23	21320	21370	23010	22120	22480	22220	22610	21240	20470	20050	19260	20470
24	21520	21450	23070	22140	22530	22090	22710	21090	20410	19980	19240	20340
25	21520	21420	23130	22190	22580	22010	22500	20980	20520	19930	19290	20340
26	21630	21400	23190	22090	22580	21960	22480	21010	20520	19830	19260	20210
27	21450	21270	23210	22120	22450	22380	22530	20880	20470	19810	19310	20170
28	21370	21210	23270	22140	22350	22530	22300	20880	20390	19760	19530	20140
29	21320	21210	23360	22140	22430	22580	22300	20780	20340	19690	19830	20090
30	21290	21210	22900	22070	---	22580	22270	20700	20260	19570	19880	20070
31	21320	---	22690	22120	---	22560	---	20750	---	19530	20540	---
MAX	22300	22140	23360	23300	22630	22580	23040	22220	20980	20490	20540	20670
MIN	21290	21210	21290	21990	22090	21960	22270	20700	20260	19530	19030	20070
(+)	456.41	456.37	456.94	456.72	456.84	456.89	456.78	456.19	456.00	455.69	456.11	455.92
(@)	-980	-110	+1480	-570	+310	+130	-290	-1520	-490	-730	+1010	-470

CAL YR 1995 MAX 25950 MIN 19880 (@) +880
WTR YR 1996 MAX 23360 MIN 19030 (@) -2230

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

TRINITY RIVER BASIN
08050100 MOUNTAIN CREEK AT GRAND PRAIRIE, TX

LOCATION.--Lat 32°44'51", long 96°55'32", Dallas County, Hydrologic Unit 12030102, on roadway embankment at upstream right end of downstream bridge on Jefferson Street, 1,000 ft upstream from bridge on U.S. Highway 80, 1.2 mi upstream from Texas and Pacific Railroad Co. bridge, 1.5 mi downstream from Mountain Creek Lake Dam, and 4.4 mi east of Grand Prairie.

DRAINAGE AREA.--298 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 404.31 ft above sea level. Prior to Dec. 19, 1984, at datum 3.0 ft higher.

REMARKS.--No estimated daily discharges. Records fair except those below 5 ft³/s, which are poor. Since March 1937, flow regulated by Mountain Creek Lake (station 08050050), 1.5 mi upstream. Several observations of water temperature were made during the year. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.9	.32	3.0	1.0	1.5	1.7	2.1	2.1	1.5	1.5	8.2
2	1.6	2.2	.37	4.1	.98	1.4	1.6	1.7	1.9	1.4	1.1	1.4
3	2.0	3.3	.37	3.3	.86	1.2	2.5	1.7	1.3	1.4	1.3	1.0
4	2.0	1.8	.46	6.4	.75	1.4	1.7	1.9	1.6	1.5	1.1	.99
5	1.5	1.5	.55	3.7	.87	1.8	252	1.6	1.4	1.5	1.1	.93
6	1.6	1.2	.57	4.2	1.1	1.5	584	1.5	1.4	1.4	1.2	.95
7	1.8	1.0	.45	4.9	1.1	1.5	2.7	1.5	1.5	1.4	1.1	.99
8	1.8	.94	.92	4.1	1.2	1.7	1.5	1.5	1.5	1.3	1.2	.94
9	1.6	.88	1.4	4.0	1.2	1.7	1.7	1.5	1.7	1.3	1.5	1.1
10	1.4	1.1	1.3	3.6	1.2	1.6	1.6	1.6	2.0	1.8	3.2	1.3
11	1.5	.73	.75	3.8	.91	1.2	1.9	1.5	1.8	1.5	5.5	1.3
12	1.5	.88	.53	4.1	1.2	1.5	2.5	1.8	1.6	3.2	1.5	1.4
13	1.5	.59	.80	4.5	1.3	1.8	2.7	1.5	1.6	2.4	1.3	1.5
14	1.7	.46	.72	4.5	1.4	1.5	1.8	1.8	1.6	1.7	1.2	1.5
15	1.7	.55	.37	4.2	1.2	1.3	1.7	2.1	1.7	1.9	1.2	3.8
16	1.5	.74	.55	4.3	1.4	1.0	1.9	1.7	1.7	1.9	1.2	1.7
17	1.3	.68	4.2	27	1.9	.97	2.0	1.6	1.8	1.4	1.5	1.1
18	1.4	.77	22	780	1.9	1.3	2.4	1.5	2.5	1.2	1.3	1.4
19	1.3	.71	16	4.1	2.2	1.2	1.8	1.4	1.7	1.0	1.2	2.3
20	1.2	.52	16	1.4	1.3	1.1	1.4	1.6	1.5	1.0	1.1	1.9
21	1.5	.25	376	1.2	1.3	1.3	1.7	1.4	1.7	.92	1.1	1.7
22	1.4	.15	2.4	1.0	1.1	1.5	4.1	1.2	1.7	.93	1.2	1.7
23	1.7	.28	.99	.94	1.1	2.0	3.1	.98	1.6	.85	1.5	1.7
24	1.6	.23	.99	.87	1.2	3.0	2.9	1.0	1.4	1.1	1.4	1.5
25	1.4	.20	.98	.99	1.4	1.7	4.3	.96	1.3	1.0	1.5	1.6
26	1.4	.35	1.0	1.1	1.6	1.7	2.3	1.0	1.5	1.1	1.6	1.6
27	1.3	.46	1.2	.83	1.6	3.8	1.9	1.2	1.4	1.1	1.6	2.0
28	1.6	.38	1.4	.81	1.5	3.7	3.8	1.2	1.6	1.0	2.3	2.0
29	1.2	.56	1.6	.89	1.7	1.9	2.4	1.3	1.6	1.1	3.2	1.8
30	1.1	.56	430	.69	---	1.8	2.3	1.1	1.5	1.0	2.4	1.5
31	1.2	---	5.5	.92	---	1.7	---	1.5	---	1.4	22	---
TOTAL	46.9	26.87	890.69	889.44	37.47	52.27	899.9	45.94	49.2	43.20	71.1	52.80
MEAN	1.51	.90	28.7	28.7	1.29	1.69	30.0	1.48	1.64	1.39	2.29	1.76
MAX	2.0	3.3	430	780	2.2	3.8	584	2.1	2.5	3.2	22	8.2
MIN	1.1	.15	.32	.69	.75	.97	1.4	.96	1.3	.85	1.1	.93
AC-FT	93	53	1770	1760	74	104	1780	91	98	86	141	105

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996#, BY WATER YEAR (WY)

MEAN	74.2	67.3	81.1	97.2	135	190	212	314	145	34.1	9.68	20.6
MAX	785	1286	1102	1483	714	1104	1170	1941	1028	511	88.6	188
(WY)	1974	1992	1972	1992	1975	1977	1966	1969	1990	1989	1962	1973
MIN	.22	.30	.26	.11	.17	.30	.91	.68	.50	.21	.16	.36
(WY)	1989	1964	1976	1976	1964	1976	1987	1984	1971	1972	1972	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996#	
ANNUAL TOTAL	86497.09		3105.78			
ANNUAL MEAN	237		8.49		115	
HIGHEST ANNUAL MEAN					506	1992
LOWEST ANNUAL MEAN					4.39	1988
HIGHEST DAILY MEAN	5760	May 6	780	Jan 18	24700	May 7 1969
LOWEST DAILY MEAN	.15	Nov 22	.15	Nov 22	.00	Jan 25 1964
ANNUAL SEVEN-DAY MINIMUM	.27	Nov 21	.27	Nov 21	.02	Dec 23 1983
INSTANTANEOUS PEAK FLOW			1220	Dec 21	38100	Apr 19 1976
INSTANTANEOUS PEAK STAGE			8.16	Dec 21	25.12	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	171600		6160		83270	
10 PERCENT EXCEEDS	840		3.3		36	
50 PERCENT EXCEEDS	2.9		1.5		1.1	
90 PERCENT EXCEEDS	.87		.84		.30	

Period of regulated streamflow.

08050400 ELM FORK TRINITY RIVER AT GAINESVILLE, TX

LOCATION.--Lat 33°37'27", long 97°09'22", Cooke County, Hydrologic Unit 12030103, on downstream right bank at end of the bridge on Farm Road 51, 31 ft downstream from the centerline of the road, 0.6 mi west of Cooke County courthouse in Gainesville, 1.0 mi upstream from Interstate Highway 35, and 1.2 mi downstream from Dozier Creek.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above sea level.

REMARKS.--Records good. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1981 reached a peak stage of 28.1 ft, from information furnished by an employee of the Gainesville Department of Public Works.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	8.4	2.0	9.7	5.0	3.0	41	34	9.3	1.1	2.5	158
2	1.5	7.8	2.2	15	5.3	3.0	30	21	2.7	.77	2.1	32
3	1.3	3.5	2.2	16	5.0	3.0	25	14	1.9	.68	1.9	13
4	1.3	2.8	2.6	17	4.6	3.0	21	11	2.4	.69	1.8	7.5
5	1.2	2.6	3.1	14	4.4	3.0	19	8.4	2.2	.66	1.7	5.2
6	.98	2.6	2.6	12	4.4	3.0	17	6.7	2.6	.64	1.6	4.3
7	.98	2.3	2.4	11	4.6	3.0	16	5.9	18	.81	1.6	3.6
8	1.1	2.0	2.7	9.5	4.6	2.9	15	5.0	2.6	.64	1.6	3.1
9	1.2	2.2	2.5	9.8	4.6	2.7	13	4.6	2.3	.60	1.9	2.6
10	1.1	2.1	2.5	9.4	4.6	2.8	12	4.3	2.3	.64	2.0	2.4
11	1.0	1.9	2.8	8.8	4.4	2.9	12	3.9	1.9	1.0	3.5	2.3
12	1.0	2.0	2.8	7.9	4.2	2.9	12	3.6	1.9	16	2.0	2.0
13	.99	2.1	2.7	7.2	4.0	2.9	14	3.7	2.2	2.9	1.8	2.1
14	.87	2.0	2.5	6.6	3.6	2.9	21	3.7	1.9	2.0	1.8	2.0
15	.93	2.1	2.5	5.7	3.6	2.7	16	3.5	1.7	1.7	1.8	1700
16	1.1	2.1	2.8	5.8	3.1	2.7	13	3.2	1.6	1.6	2.5	757
17	1.1	2.1	4.9	6.4	3.1	2.8	11	2.9	2.8	1.5	3.1	279
18	1.0	2.1	20	5.9	3.1	3.7	9.8	2.6	2.2	1.5	2.9	189
19	1.1	2.1	17	5.2	3.0	3.0	8.7	2.4	1.7	1.5	4.0	148
20	1.0	2.1	10	5.3	3.0	2.9	7.7	2.3	1.5	1.5	8.1	99
21	1.1	2.0	8.1	6.2	3.1	2.9	12	2.1	1.4	1.5	3.8	76
22	1.1	2.1	7.0	6.4	3.0	3.0	1510	2.1	1.4	1.5	3.1	e46
23	1.1	2.0	6.0	7.2	3.0	3.0	459	1.9	1.3	1.5	4.8	e25
24	1.1	1.9	5.5	7.0	2.9	3.1	249	1.7	1.3	1.6	3.2	e14
25	1.1	1.9	5.0	6.7	2.9	2.8	181	1.6	1.3	1.7	12	9.6
26	1.2	1.9	5.0	6.4	3.2	3.0	131	1.5	1.3	1.7	3.3	20
27	1.3	1.9	4.8	5.7	3.7	69	109	1.4	1.3	1.7	7.7	34
28	1.3	1.9	4.6	5.8	3.3	400	91	1.4	1.2	6.1	30	26
29	1.3	1.9	4.6	5.9	3.0	161	59	1.4	.79	8.6	28	18
30	1.5	1.9	4.6	5.6	---	102	46	1.4	1.2	3.1	37	12
31	1.5	---	4.6	5.2	---	65	---	1.4	---	3.2	227	---
TOTAL	35.75	76.3	152.6	256.3	110.3	873.6	3181.2	164.6	78.19	70.63	410.1	3692.7
MEAN	1.15	2.54	4.92	8.27	3.80	28.2	106	5.31	2.61	2.28	13.2	123
MAX	1.5	8.4	20	17	5.3	400	1510	34	18	16	227	1700
MIN	.87	1.9	2.0	5.2	2.9	2.7	7.7	1.4	.79	.60	1.6	2.0
AC-FT	71	151	303	508	219	1730	6310	326	155	140	813	7320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	75.1	58.3	164	83.4	130	173	174	366	179	20.2	5.21	45.1
MAX	310	353	743	316	348	565	1063	1359	659	91.1	13.2	123
(WY)	1994	1995	1992	1992	1987	1990	1990	1990	1989	1987	1996	1996
MIN	.72	2.54	2.61	5.72	3.80	6.54	6.25	5.31	2.61	1.02	.025	1.40
(WY)	1989	1996	1991	1986	1996	1986	1991	1996	1996	1988	1988	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL TOTAL	25112.85		9102.27			
ANNUAL MEAN	68.8		24.9		123	
HIGHEST ANNUAL MEAN					277	1990
LOWEST ANNUAL MEAN					24.9	1996
HIGHEST DAILY MEAN	4740	May 8	1700	Sep 15	12500	May 2 1990
LOWEST DAILY MEAN	.8/	Oct 14	.60	Jul 9	.00	Aug 2 1988
ANNUAL SEVEN-DAY MINIMUM	1.0	Oct 10	.67	Jul 4	.00	Aug 2 1988
INSTANTANEOUS PEAK FLOW			6040	Sep 15	24000	May 16 1989
INSTANTANEOUS PEAK STAGE			14.99	Sep 15	25.33	May 16 1989
ANNUAL RUNOFF (AC-FT)	49810		18050		88930	
10 PERCENT EXCEEDS	110		21		230	
50 PERCENT EXCEEDS	12		3.0		14	
90 PERCENT EXCEEDS	1.4		1.3		1.4	

e Estimated

08050410 ELM FORK TRINITY RIVER NEAR GAINESVILLE, TX

LOCATION.--Lat 33°34'56", long 97°07'49", Cooke County, Hydrologic Unit 12030103, on Farm Road 2071 bridge, over center of channel at downstream side of bridge, 1.0 mi downstream from Atchison, Topeka, and Santa Fe Railroad Co. bridge, and 3.0 mi south of Cooke County Courthouse in Gainesville.

DRAINAGE AREA.--1.79 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1988 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
OCT 03...	1000	4.4	873	7.9	19.5	24	11	6.5	73	1.0	100	0
DEC 14...	1415	5.1	945	8.0	13.0	27	7.3	--	--	1.3	130	0
FEB 13...	1540	6.3	877	8.3	12.0	21	4.1	15.7	149	1.4	150	0
MAR 19...	1200	5.6	911	8.0	11.5	17	6.7	10.0	93	1.6	100	0
APR 23...	1300	509	354	7.8	16.0	60	71	9.0	93	2.6	130	13
JUN 27...	1200	3.6	998	8.2	28.0	--	--	5.8	76	2.1	68	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
OCT 03...	36	3.5	150	6	7.3	270	57	50	0.80	12	522	30
DEC 14...	46	4.7	150	6	7.0	300	54	60	1.1	9.8	556	8
FEB 13...	53	4.6	130	5	6.0	270	59	57	0.70	6.0	513	9
MAR 19...	35	4.0	150	6	6.0	270	62	65	1.0	8.4	528	19
APR 23...	47	2.6	19	0.7	4.4	120	21	24	0.20	8.4	199	198
JUN 27...	23	2.5	180	10	8.5	310	56	66	1.1	10	588	--

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
OCT 03...	9	21	7.97	7.97	0.030	8.00	8.00	0.030	0.77	0.80	1.90
DEC 14...	3	5	8.00	8.00	0.100	8.10	8.10	0.910	0.79	1.7	1.50
FEB 13...	8	1	6.56	6.56	0.040	6.60	6.60	0.050	0.65	0.70	1.30
MAR 19...	3	16	7.05	7.05	0.050	7.10	7.10	0.100	0.80	0.90	1.80
APR 23...	34	164	0.510	0.510	0.030	0.540	0.540	0.090	0.61	0.70	0.090
JUN 27...	--	--	10.9	10.9	0.080	11.0	11.0	0.060	0.74	0.80	11.0

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 03...	1.70	5.2	12	--	--	--	--	--	--	--	--
DEC 14...	1.40	4.3	12	--	--	--	--	--	--	--	--
FEB 13...	1.40	4.3	7.6	1	51	<0.50	6.0	<5.0	<3.0	<10	160
MAR 19...	1.70	5.2	7.7	--	--	--	--	--	--	--	--
APR 23...	0.080	0.25	17	1	50	<0.50	<1.0	<5.0	<3.0	<10	32
JUN 27...	2.90	8.9	10	3	32	<0.50	<1.0	<5.0	<3.0	<10	4.0

08050410 ELM FORK TRINITY RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 03...	--	--	--	--	--	--	--	--	--	--	--
DEC 14...	--	--	--	--	--	--	--	--	--	--	--
FEB 13...	20	11	38	<0.1	<10	20	<1	<1.0	330	<6	110
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
APR 23...	<10	<4	3.0	<0.1	<10	<10	<1	<1.0	170	<6	17
JUN 27...	<10	13	<1.0	0.2	<10	<10	<1	<1.0	160	<6	11

08050800 TIMBER CREEK NEAR COLLINSVILLE, TX

LOCATION.--Lat 33°33'16", long 96°56'49", Cooke County, Hydrologic Unit 12030103, on left bank 13 ft to the left of bridge on Farm Road 902 and 19 ft downstream from the centerline of the road, 2.1 mi west of Collinsville, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--38.8 mi².

PERIOD OF RECORD.--October 1985 to current year.
Water-quality records.--Chemical and biochemical analyses: April 1993 to September 1993

GAGE.--Water-stage recorder. Datum of gage is 640.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1981 reached a peak stage of 15.0 ft, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	1.2	.01	1.8	.39	.00	.00	.00	74
2	.00	.00	.00	1.1	1.6	.03	1.5	.29	.00	.00	.00	5.7
3	.00	.00	.00	5.4	1.4	.05	1.6	.24	.00	.00	.00	.72
4	.00	.00	.00	2.7	1.4	.08	1.3	.18	.00	.00	.00	.14
5	.00	.00	.00	1.9	.76	.50	1.7	.12	.00	.00	.00	.03
6	.00	.00	.00	1.3	.00	.56	1.9	.09	.00	.00	.00	.00
7	.00	.00	.00	.88	.00	2.6	2.6	.23	.00	.00	.00	.00
8	.00	.00	.00	.66	.00	1.1	2.1	.15	.00	.00	.00	.00
9	.00	.00	.00	.54	.00	.50	1.8	.06	.00	.00	.00	.00
10	.00	.00	.00	.45	.00	.73	2.0	.02	.00	.00	.00	.00
11	.00	.00	.00	.42	.00	2.1	1.9	.04	.00	.00	.00	.00
12	.00	.00	.00	.23	.04	1.4	1.8	.01	.00	.00	.00	.00
13	.00	.00	.00	.74	.13	1.1	3.0	.00	.00	.00	.00	.00
14	.00	.00	.00	.91	.12	.87	4.8	.00	.00	.00	.00	.00
15	.00	.00	.00	.87	.13	.27	2.5	.00	.00	.00	.00	28
16	.00	.00	.00	.58	.15	.06	1.6	.00	.00	.00	.00	30
17	.00	.00	.00	.35	.16	1.2	.64	.00	.00	.00	.00	1.9
18	.00	.00	.00	.53	.11	.64	.43	.00	.00	.00	.00	1.0
19	.00	.00	.01	1.5	.14	.73	.29	.00	.00	.00	.00	21
20	.00	.00	.55	2.8	.13	2.3	.24	.00	.00	.00	.00	37
21	.00	.00	.76	2.4	.19	1.6	.28	.00	.00	.00	.00	2.9
22	.00	.00	.67	2.2	.83	1.1	71	.00	.00	.00	.00	.65
23	.00	.00	.17	2.0	.69	.76	74	.00	.00	.00	.00	.08
24	.00	.00	.00	1.8	.34	.59	23	.00	.00	.00	.00	.01
25	.00	.00	.00	1.8	.25	1.3	10	.00	.00	.00	.00	.00
26	.00	.00	.00	2.0	.20	2.1	6.3	.00	.00	.00	.00	.00
27	.00	.00	.00	2.3	.12	12	3.2	.00	.00	.00	8.5	29
28	.00	.00	.00	2.1	.01	80	1.6	.00	.00	.00	111	15
29	.00	.00	.00	1.8	.01	29	.74	.00	.00	.00	13	1.7
30	.00	.00	.00	1.4	---	13	.46	.00	.00	.00	16	.26
31	.00	---	.00	1.0	---	3.7	---	.00	---	.00	61	---
TOTAL	0.00	0.00	2.16	44.66	10.11	161.98	226.08	1.82	0.00	0.00	209.50	249.09
MEAN	.000	.000	.070	1.44	.35	5.23	7.54	.059	.000	.000	6.76	8.30
MAX	.00	.00	.76	5.4	1.6	80	74	.39	.00	.00	111	74
MIN	.00	.00	.00	.00	.00	.01	.24	.00	.00	.00	.00	.00
AC-FT	.00	.00	4.3	89	20	321	448	3.6	.00	.00	416	494
CFSM	.00	.00	.00	.04	.01	.13	.19	.00	.00	.00	.17	.21
IN.	.00	.00	.00	.04	.01	.16	.22	.00	.00	.00	.20	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	30.4	14.6	53.2	20.2	35.6	36.3	51.3	75.7	39.4	32.0	1.49	8.65
MAX	135	54.5	326	73.1	95.3	89.6	259	168	193	293	6.76	32.0
(WY)	1992	1995	1992	1992	1993	1990	1990	1989	1989	1994	1996	1992
MIN	.000	.000	.070	.60	.35	2.72	1.82	.059	.000	.000	.000	.000
(WY)	1988	1990	1996	1986	1996	1986	1987	1996	1996	1988	1986	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL TOTAL	7806.70		905.40			
ANNUAL MEAN	21.4		2.47		33.3	
HIGHEST ANNUAL MEAN					72.7	1992
LOWEST ANNUAL MEAN					2.47	1996
HIGHEST DAILY MEAN	1030	May 8	111	Aug 28	5410	Jul 11 1994
LOWEST DAILY MEAN	.00	Jun 9	.00	Oct 1	.00	Oct 1 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 19	.00	Oct 1	.00	Oct 1 1985
INSTANTANEOUS PEAK FLOW			283	Aug 28	13300	Jul 10 1994
INSTANTANEOUS PEAK STAGE			11.89	Aug 28	14.94	Jul 10 1994
ANNUAL RUNOFF (AC-FT)	15480		1800		24100	
ANNUAL RUNOFF (CFSM)	.55		.064		.86	
ANNUAL RUNOFF (INCHES)	7.48		.87		11.65	
10 PERCENT EXCEEDS	41		2.2		30	
50 PERCENT EXCEEDS	.33		.00		2.0	
90 PERCENT EXCEEDS	.00		.00		.00	

08050815 JORDAN CREEK TRIBUTARY NEAR COLLINSVILLE, TX.

LOCATION.--Lat 33°32'15", long 96°55'22", Grayson County, Hydrologic Unit 12030103, at culvert on gravel road, 0.4 mi upstream from mouth of Jordan Creek, and 1.5 mi southwest of Collinsville.

DRAINAGE AREA.--1.65 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1988 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
06...	1140	0.12	1190	8.2	2.5	25	20	14.1	105	0.8	100	0
MAR												
14...	1300	0.11	1140	8.6	17.5	100	32	13.2	143	1.8	100	0
APR												
09...	1130	0.22	970	8.2	15.5	21	16	12.0	123	1.7	120	0
29...	1415	0.13	765	7.8	16.0	130	27	5.5	57	3.4	110	0
AUG												
28...	1315	8.8	187	7.5	23.5	240	130	6.8	82	4.4	34	0
SEP												
03...	1130	0.10	352	7.4	22.0	160	31	5.0	59	2.7	51	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB												
06...	31	6.0	230	10	11	390	68	95	0.50	6.2	691	12
MAR												
14...	31	5.5	210	9	8.4	400	52	91	0.50	1.5	643	12
APR												
09...	36	6.3	170	7	7.3	340	47	79	0.40	1.9	554	9
29...	33	5.6	120	5	8.0	280	26	54	0.40	11	431	26
AUG												
28...	11	1.5	22	2	4.6	66	7.8	11	0.20	4.9	105	168
SEP												
03...	16	2.6	53	3	6.9	110	24	23	0.20	9.2	206	26

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB											
06...	3	9	1.57	1.57	0.030	1.60	1.60	0.170	0.83	1.0	1.50
MAR											
14...	32	0	0.170	0.170	0.020	0.190	0.190	0.020	0.88	0.90	1.10
APR											
09...	7	2	0.240	0.240	0.050	0.290	0.290	0.060	0.84	0.90	1.20
29...	18	8	0.090	0.090	0.090	0.180	0.180	1.10	1.1	2.2	1.90
AUG											
28...	44	124	0.170	0.170	0.030	0.200	0.200	0.150	0.45	0.60	0.350
SEP											
03...	14	12	0.330	0.330	0.060	0.390	0.390	<0.015	--	0.60	0.370

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB											
06...	1.30	4.0	12	--	--	--	--	--	--	--	--
MAR											
14...	1.10	3.4	12	2	17	<0.50	2.0	<5.0	4.0	<10	37
APR											
09...	1.20	3.7	9.7	--	--	--	--	--	--	--	--
29...	1.70	5.2	14	2	26	<0.50	<1.0	<5.0	<3.0	<10	120
AUG											
28...	0.320	0.98	19	<1	20	<0.50	<1.0	<5.0	<3.0	<10	42
SEP											
03...	0.410	1.3	13	--	--	--	--	--	--	--	--

08050815 JORDAN CREEK TRIBUTARY NEAR COLLINSVILLE, TX.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB											
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
14...	20	14	10	<0.1	20	<10	<1	<1.0	220	6	18
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
29...	<10	8	360	<0.1	<10	<10	<1	<1.0	250	<6	<3.0
AUG											
28...	<10	7	37	0.3	<10	<10	<1	2.0	58	<6	11
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--

08050840 RANGE CREEK NEAR COLLINSVILLE, TX

LOCATION.--Lat 33°31'34", long 96°48'25", Delta County, Hydrologic Unit 12030103, on downstream left bank at bridge on Farm Road 902, 1.8 mi upstream from Case Creek, 2.5 mi downstream from Little Elm Creek, 6.5 mi east southeast from the Post Office in Collinsville.

DRAINAGE AREA.--29.2 mi².

PERIOD OF RECORD.--October 1992 to current year.
Water-quality records.--Chemical and biochemical analysis: October 1992 to September 1995.

GAGE.--Water-stage recorder. Datum of gage is 621.08 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Rain gage at station. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	89
2	.00	.00	.00	e31	.00	.00	.00	.00	.00	.00	.00	.93
3	.00	.00	.00	e13	.00	.00	.00	.00	.00	.00	.00	.02
4	.00	.00	.00	e3.1	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	e.62	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	e.11	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	e.03	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	108	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	71	.00	.00	.00	.00	.00	.00	.00	.00	52
20	.00	.00	3.7	.00	.00	.00	.00	.00	.00	.00	.00	33
21	.00	.00	.65	.00	.00	.00	.00	.00	.00	.00	.00	.55
22	.00	.00	e.10	.00	.00	.00	8.0	.00	.00	.00	.00	.18
23	.00	.00	e.03	.00	.00	.00	3.7	.00	.00	.00	.00	.03
24	.00	.00	e.01	.00	.00	.00	.06	.00	.00	.00	.00	.00
25	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	e.00	.00	.00	33	.00	.00	.00	.00	.00	16
28	.00	.00	e.00	.00	.00	156	.00	.00	.00	.00	9.7	10
29	.00	.00	e.00	.00	.00	4.4	.00	.00	.00	.00	27	1.0
30	.00	.00	e.00	.00	---	.58	.00	.00	.00	.00	1.2	.38
31	.00	---	e.00	.00	---	.07	---	.00	---	.00	6.6	---
TOTAL	0.00	0.00	183.49	47.87	0.00	194.05	13.84	0.00	0.00	0.00	44.50	203.09
MEAN	.000	.000	5.92	1.54	.000	6.26	.46	.000	.000	.000	1.44	6.77
MAX	.00	.00	108	31	.00	156	8.0	.00	.00	.00	27	89
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	364	95	.00	385	27	.00	.00	.00	88	403
CFSM	.00	.00	.20	.05	.00	.21	.02	.00	.00	.00	.05	.23
IN.	.00	.00	.23	.06	.00	.25	.02	.00	.00	.00	.06	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	34.6	30.6	27.5	4.80	13.6	24.0	20.0	39.2	8.78	9.18	1.54	4.69
MAX	107	119	57.7	10.4	33.7	65.9	52.6	86.5	28.3	36.7	4.72	9.54
(WY)	1994	1995	1993	1995	1993	1995	1993	1995	1993	1994	1994	1994
MIN	.000	.000	5.92	1.54	.000	4.01	.46	.000	.000	.000	.000	.17
(WY)	1993	1996	1996	1996	1996	1994	1996	1996	1996	1993	1993	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	6059.39		686.84			
ANNUAL MEAN	16.6		1.88		18.3	
HIGHEST ANNUAL MEAN					30.4	1995
LOWEST ANNUAL MEAN					1.88	1996
HIGHEST DAILY MEAN	1500	May 8	156	Mar 28	2580	Oct 19 1993
LOWEST DAILY MEAN	.00	Jun 5	.00	Oct 1	.00	Oct 1 1992
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 17	.00	Oct 1	.00	Oct 1 1992
INSTANTANEOUS PEAK FLOW			438	Mar 28	7640	Oct 19 1993
INSTANTANEOUS PEAK STAGE			11.01	Mar 28	23.32	Oct 19 1993
ANNUAL RUNOFF (AC-FT)	12020		1360		13230	
ANNUAL RUNOFF (CFSM)	.57		.064		.63	
ANNUAL RUNOFF (INCHES)	7.72		.88		8.50	
10 PERCENT EXCEEDS	9.0		.03		11	
50 PERCENT EXCEEDS	.00		.00		.04	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX

LOCATION.--Lat 33°21'19", long 97°02'59", Denton County, Hydrologic Unit 12030103, in control room of outlet works tower located 336 ft upstream from centerline of Ray Roberts Dam (and Farm Road 455 which is located on top of dam) on Elm Fork Trinity River, 3.7 mi upstream from Bray Branch, 5.7 mi southwest of Pilot Point, and at river mile 60.0.

DRAINAGE AREA.--692 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--July 1987 to current year.

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

REMARKS.--Lake is formed by a rolled earthfill dam 15,250 ft long. There is an uncontrolled, broad-crested spillway excavated in natural ground about 5,000 ft right of right end of dam. A reinforced concrete tower houses the flood-control and low-flow gates and operating equipment. Construction started Sept. 16, 1980, and closure was made in May 1986. The dam was built and is owned by the U.S. Army Corps of Engineers. Deliberate impoundment started June 30, 1987. The lake was built for water supply, flood control, and recreation purposes. 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	665.0	-
Spillway crest (uncontrolled)	645.5	1,262,000
Top of flood-control pool	640.5	1,065,000
Top of conservation pool	632.5	799,600
Invert, lowest gated outlet	551.0	990

COOPERATION.--Records of elevations and contents provided by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,219,000 acre-ft May 3, 1990 (elevation, 644.48 ft); minimum since initial filling began, 990 acre-ft July 1, 1987 (elevation, 551.00 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 776,000 acre-ft Oct. 2 (elevation, 631.68 ft); minimum, 706,000 acre-ft Aug. 24 (elevation, 629.15 ft).

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

620.0	491,200	628.0	675,800	633.0	814,500
622.0	533,300	630.0	729,000	634.0	844,800
624.0	578,100	631.0	756,700	635.0	876.000
626.0	625,500	632.0	785,200	636.0	908,100

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	774800	762300	751100	757200	753000	748600	749700	753900	743800	728200	714300	721100
2	776000	762000	751100	757000	753000	748600	749100	753600	743000	727300	713800	720800
3	775400	760900	751100	756400	752500	747700	750000	753000	743000	726800	712700	720300
4	774800	759800	750800	757000	751600	747700	751400	753000	742500	726000	711400	720300
5	773700	759200	750800	756700	751900	748300	751600	752800	741400	724600	710600	719700
6	773100	758900	750500	756400	751600	748800	751100	753600	742700	723800	709800	719200
7	772500	759200	750000	755600	751900	747500	751100	753000	743300	722700	709200	718900
8	771700	758400	750500	755300	752200	747200	751100	752800	742700	722500	708400	718400
9	771400	757500	749700	755600	752200	746300	751100	752500	741900	721600	708700	717900
10	771400	758900	748800	755300	752800	745800	750500	753000	742200	720600	708200	717300
11	771100	757000	748300	755300	751900	745500	750000	752500	741600	719700	709000	716800
12	770800	756400	748000	755000	751600	745200	751400	751900	741400	724100	710000	716200
13	770500	756100	748000	754700	751600	745200	751600	751900	740800	723500	709200	717000
14	769700	755600	748300	755000	751900	745500	751600	750800	740200	724900	708700	716800
15	769100	755600	748600	755000	751900	745500	751100	750200	739700	724600	707900	722500
16	768600	755000	749100	754400	750800	745500	750500	749700	739400	724100	710000	724100
17	768000	755000	755300	756100	750800	745800	750000	748800	738900	723000	709800	724100
18	767400	754700	757800	755600	750200	745800	750200	748000	737800	722200	709000	727100
19	767100	754700	757800	754700	750500	745500	750200	747200	737200	721600	708400	727600
20	766000	754700	757500	754700	750500	745000	750000	746900	736400	720800	707900	727600
21	764900	754400	757500	754400	750200	744400	748800	746900	735600	720000	707400	726800
22	763700	753600	757000	754400	750200	743800	754200	746100	734700	719200	706800	726000
23	764300	753900	756700	755000	750200	743300	755300	745000	733900	718700	706300	725700
24	763500	753300	756400	754700	750000	744700	754400	744400	733100	718400	706000	725400
25	762600	752800	756400	754200	750000	744400	755600	743800	732300	717300	706300	724600
26	762000	752200	756100	754400	750000	743600	755300	742700	731700	717300	706000	726000
27	762300	752800	756100	753900	750800	747700	754400	743300	730900	716500	708700	726300
28	761800	751900	755600	753600	749700	749400	755600	743000	730400	715700	711900	725700
29	760300	751400	755300	753900	748800	749700	754400	742500	729500	714900	714900	725200
30	760600	751100	755300	753900	---	750200	753900	741400	729000	714900	714900	724600
31	761200	---	755800	753300	---	750000	---	741100	---	714600	719700	---
MAX	776000	762300	757800	757200	753000	750200	755600	753900	743800	728200	719700	727600
MIN	760300	751100	748000	753300	748800	743300	748800	741100	729000	714600	706000	716200
(+)	631.16	630.80	630.97	630.88	630.72	630.76	630.90	630.44	630.00	629.47	629.66	629.84
(@)	-13900	-10100	+4700	-2500	-4500	+1200	+3900	-12800	-12100	-14400	+5100	+4900

CAL YR 1995 MAX 889700 MIN 748000 @ -48700
WTR YR 1996 MAX 776000 MIN 706000 @ -50500

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1989 to current year.

REVISED RECORDS.--TX-93-1 Phytoplankton.

332138097024101 - RAY ROBERTS LAKE SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
MAR										
21...	1225	745000	1.00	289	8.2	13.0	0.67	10.3	99	K1
21...	1228	--	10.0	285	8.1	11.0	--	10.2	94	--
21...	1231	--	20.0	285	8.1	11.0	--	10.2	94	--
21...	1234	--	30.0	285	8.1	11.0	--	10.2	94	--
21...	1237	--	40.0	285	8.1	11.0	--	10.2	94	--
21...	1240	--	50.0	285	8.1	11.0	--	10.2	94	--
21...	1243	--	60.0	285	8.1	11.0	--	10.2	94	--
21...	1247	--	70.0	284	8.1	11.0	--	10.3	95	--
21...	1251	--	75.0	285	8.1	11.0	--	10.2	94	--
MAY										
09...	1242	753000	1.00	307	8.1	20.0	1.07	8.4	95	K1
09...	1245	--	10.0	307	8.1	19.5	--	8.2	91	--
09...	1247	--	20.0	307	8.1	19.5	--	8.1	90	--
09...	1250	--	30.0	307	8.0	19.0	--	7.9	87	--
09...	1253	--	40.0	307	8.0	19.0	--	7.9	87	--
09...	1256	--	50.0	307	7.9	18.5	--	7.6	83	--
09...	1259	--	60.0	308	7.7	18.0	--	6.6	71	--
09...	1303	--	74.0	311	7.6	18.0	--	5.4	58	--
AUG										
14...	0902	709000	1.00	276	7.9	28.0	1.20	6.1	80	K1
14...	0904	--	10.0	276	7.8	28.0	--	6.0	79	--
14...	0906	--	20.0	276	7.8	27.5	--	5.7	74	--
14...	0908	--	30.0	276	7.8	27.5	--	5.8	75	--
14...	0910	--	40.0	288	7.0	26.5	--	0.1	1	--
14...	0912	--	50.0	303	7.0	24.0	--	0.1	1	--
14...	0914	--	60.0	309	7.0	23.0	--	0.1	1	--
14...	0916	--	73.0	315	7.0	22.0	--	0.1	1	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)
MAR									
21...	K1	110	0	37	3.9	17	0.7	5.3	110
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	110	0	37	3.9	17	0.7	4.2	110
MAY									
09...	K1	110	3	38	4.0	17	0.7	4.1	110
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	110	1	38	4.0	17	0.7	3.9	110
AUG									
14...	K17	100	0	34	4.1	18	0.8	4.5	100
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	--	130	0	43	4.4	17	0.7	4.5	130

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

332138097024101 - RAY ROBERTS LAKE SITE AC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR									
21...	17	20	0.20	2.4	171	0.220	0.220	0.010	0.230
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	17	20	0.20	2.4	169	0.210	0.210	0.010	0.220
MAY									
09...	18	19	0.20	0.60	167	0.330	--	<0.010	0.330
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	18	19	0.20	1.5	170	0.400	0.400	0.020	0.420
AUG									
14...	17	20	0.20	1.8	161	0.040	0.040	0.010	0.050
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	0.050	0.050	0.010	0.060
14...	--	--	--	--	--	--	--	0.010	--
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	12	20	0.20	5.2	189	--	--	0.010	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR									
21...	0.230	0.030	0.37	0.40	0.010	<0.010	--	<10	<10
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	0.220	0.040	0.36	0.40	<0.010	<0.010	--	<10	30
MAY									
09...	0.330	0.050	0.25	0.30	0.020	<0.010	--	<3.0	11
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	0.420	0.060	0.24	0.30	0.020	<0.010	--	<3.0	87
AUG									
14...	0.050	0.030	0.27	0.30	<0.010	0.010	0.03	<3.0	5.0
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	0.060	0.240	0.16	0.40	0.050	0.030	0.09	6.0	43
14...	<0.050	0.100	0.20	0.30	<0.010	0.010	0.03	13	860
14...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	<0.050	0.770	0.33	1.1	0.120	0.150	0.46	1300	1600

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

33220009/010001 - RAY ROBERTS LAKE SITE AL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
21...	1301	1.00	283	8.2	12.5	10.2	97
21...	1303	10.0	284	8.2	11.0	10.1	93
21...	1305	20.0	284	8.2	11.0	10.1	93
21...	1307	30.0	284	8.2	11.0	10.1	93
21...	1309	40.0	284	8.2	11.0	10.2	94
21...	1312	50.0	284	8.2	11.0	10.1	93
21...	1315	60.0	284	8.2	11.0	10.1	93
21...	1318	65.0	285	8.2	11.0	10.1	93
MAY							
09...	1309	1.00	307	8.2	20.0	8.4	95
09...	1311	10.0	307	8.2	20.0	8.4	95
09...	1313	20.0	307	8.1	19.5	8.2	91
09...	1316	30.0	307	8.0	19.0	8.1	89
09...	1318	40.0	307	8.0	19.0	8.0	88
09...	1321	50.0	307	8.0	18.5	7.7	84
09...	1324	61.0	310	7.7	18.0	6.2	67
AUG							
14...	1145	1.00	276	7.5	28.0	6.2	81
14...	1147	10.0	275	7.4	28.0	5.9	77
14...	1149	20.0	275	7.4	27.5	5.8	75
14...	1151	30.0	275	7.5	27.5	5.6	73
14...	1153	40.0	288	6.6	26.0	0.1	1
14...	1155	50.0	300	6.6	24.0	0.1	1
14...	1157	60.0	310	6.5	24.0	0.2	2

33230109/050601 - RAY ROBERTS LAKE SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
21...	0945	1.00	285	8.3	11.0	10.2	94
21...	0947	10.0	285	8.2	11.0	10.2	94
21...	0949	20.0	285	8.2	11.0	10.2	94
21...	0951	30.0	285	8.2	11.0	10.2	94
21...	0954	40.0	286	8.2	11.0	10.2	94
21...	0956	50.0	286	8.2	10.5	10.2	93
21...	0958	60.0	286	8.2	10.5	10.2	93
21...	1000	70.0	286	8.2	10.5	10.0	91
21...	1003	80.0	288	8.1	10.5	9.5	87
MAY							
09...	0932	1.00	307	8.2	20.0	8.4	95
09...	0935	10.0	308	8.1	20.0	8.4	95
09...	0937	20.0	307	8.1	20.0	8.4	95
09...	0939	30.0	307	8.1	19.5	8.3	93
09...	0941	40.0	307	8.0	19.5	8.2	91
09...	0943	50.0	307	8.0	19.0	8.0	88
09...	0945	60.0	309	7.7	18.5	6.4	70
09...	0948	70.0	309	7.6	18.0	5.9	64
09...	0951	78.0	310	7.6	18.0	5.6	61
AUG							
14...	1212	1.00	275	7.5	28.5	6.8	90
14...	1214	10.0	275	7.4	28.5	7.6	100
14...	1216	20.0	275	7.4	28.0	6.3	83
14...	1218	30.0	275	7.4	27.5	5.9	77
14...	1220	40.0	302	6.7	25.5	0.1	1
14...	1222	52.0	306	6.4	24.5	0.1	1

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

332353097020101 - RAY ROBERTS LAKE SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
21...	1018	1.00	285	8.3	11.5	10.2	95
21...	1020	10.0	285	8.3	11.0	10.2	94
21...	1022	20.0	285	8.3	11.0	10.2	94
21...	1024	30.0	285	8.3	11.0	10.2	94
21...	1026	40.0	285	8.3	11.0	10.2	94
21...	1028	60.0	285	8.3	11.0	10.2	94
21...	1030	60.0	284	8.2	10.5	10.2	93
21...	1032	70.0	284	8.2	10.5	10.0	91
21...	1035	80.0	286	8.1	10.5	9.3	85
MAY							
09...	1013	1.00	307	8.2	20.0	8.3	94
09...	1015	10.0	307	8.2	20.0	8.3	94
09...	1017	20.0	307	8.2	20.0	8.4	95
09...	1020	30.0	307	8.1	20.0	8.4	95
09...	1022	40.0	307	8.1	19.5	8.3	93
09...	1025	50.0	307	8.1	19.5	8.2	91
09...	1027	60.0	308	7.7	17.5	6.6	71
09...	1029	70.0	308	7.7	17.5	6.5	70
09...	1031	81.0	309	7.6	18.0	6.1	66
AUG							
14...	1332	1.00	272	7.9	28.5	7.0	93
14...	1334	10.0	272	7.9	28.5	7.0	93
14...	1336	20.0	273	7.7	28.0	6.5	85
14...	1338	30.0	273	7.5	27.5	5.5	71
14...	1340	40.0	302	6.8	26.0	0.2	3
14...	1342	47.0	304	6.6	25.0	0.2	2

332459097063001 - RAY ROBERTS LAKE SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLVED FLD. AS CACO3 (MG/L)
MAR												
21...	1342	1.00	284	8.2	11.5	0.52	10.4	97	K1	K1	110	1
21...	1345	10.0	289	8.2	11.0	--	10.2	94	--	--	--	--
21...	1348	20.0	289	8.2	10.5	--	10.2	93	--	--	--	--
21...	1351	30.0	285	8.2	10.5	--	10.2	93	--	--	--	--
21...	1355	40.0	287	8.2	10.5	--	10.1	92	--	--	--	--
21...	1359	53.0	288	8.2	10.5	--	10.0	91	--	--	110	0
MAY												
09...	1342	1.00	317	8.2	21.5	0.61	7.8	91	K7	K2	110	2
09...	1345	10.0	317	8.1	21.5	--	7.8	91	--	--	--	--
09...	1348	20.0	317	8.1	21.5	--	7.8	91	--	--	--	--
09...	1352	30.0	317	8.1	21.5	--	7.7	89	--	--	--	--
09...	1356	40.0	317	8.1	21.5	--	7.4	86	--	--	--	--
09...	1401	52.0	326	7.7	21.0	--	5.4	62	--	--	120	3
AUG												
14...	1247	1.00	275	8.1	29.0	1.20	7.2	96	K1	K1	100	2
14...	1249	10.0	275	7.9	29.0	--	6.4	85	--	--	--	--
14...	1251	20.0	275	7.6	28.5	--	5.4	71	--	--	--	--
14...	1253	30.0	283	7.0	28.0	--	1.0	13	--	--	--	--
14...	1255	40.0	284	6.9	28.0	--	1.0	13	--	--	--	--
14...	1257	47.0	284	6.9	28.0	--	0.9	12	--	--	110	0

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

332459097063001 - RAY ROBERTS LAKE SITE DC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
MAR												
21...	37	3.9	17	0.7	4.3	110	17	19	0.20	2.6	166	0.230
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	37	3.8	18	0.8	3.9	110	17	20	0.30	2.5	170	0.210
MAY												
09...	39	4.0	18	0.7	4.0	110	19	19	0.20	0.90	173	0.310
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	41	4.0	18	0.7	4.0	120	19	19	0.20	1.7	178	0.350
AUG												
14...	35	4.1	19	0.8	4.6	100	17	21	0.20	2.0	164	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	0.040
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	36	4.2	18	0.8	4.6	110	17	20	0.20	2.6	167	0.040

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR												
21...	0.230	0.010	0.240	0.240	0.040	0.36	0.40	0.020	<0.010	--	<10	<10
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	0.210	0.020	0.230	0.230	0.040	0.36	0.40	<0.010	<0.010	--	<10	20
MAY												
09...	0.310	0.020	0.330	0.330	0.060	0.24	0.30	0.030	<0.010	--	<3.0	3.0
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	0.350	0.040	0.390	0.390	0.120	0.28	0.40	0.040	0.010	0.03	8.0	31
AUG												
14...	--	0.010	--	<0.050	0.020	0.28	0.30	<0.010	0.010	0.03	<3.0	3.0
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	0.010	--	<0.050	0.040	0.26	0.30	<0.010	<0.010	--	<3.0	9.0
14...	0.040	0.020	0.060	0.060	0.070	0.23	0.30	<0.010	<0.010	--	14	120
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	0.040	0.020	0.060	0.060	0.090	0.31	0.40	<0.010	0.010	0.03	8.0	160

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

332509096595301 - RAY ROBERTS LAKE SITE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
MAR												
21...	1143	1.00	283	8.2	11.5	0.82	10.4	97	K1	K1	110	1
21...	1145	10.0	283	8.2	10.5	--	10.3	94	--	--	--	--
21...	1148	20.0	283	8.1	10.5	--	10.2	93	--	--	--	--
21...	1150	30.0	283	8.1	10.5	--	10.2	93	--	--	--	--
21...	1153	40.0	283	8.1	10.5	--	10.2	93	--	--	--	--
21...	1156	50.0	283	8.1	10.5	--	10.0	91	--	--	--	--
21...	1159	60.0	284	8.0	10.5	--	9.6	87	--	--	--	--
21...	1203	67.0	286	8.0	10.5	--	9.3	85	--	--	110	1
MAY												
09...	1050	1.00	306	8.3	21.5	1.37	8.3	96	K1	K4	110	4
09...	1053	10.0	306	8.3	21.5	--	8.3	96	--	--	--	--
09...	1056	20.0	306	8.2	21.5	--	8.2	95	--	--	--	--
09...	1100	30.0	306	8.2	21.0	--	8.0	92	--	--	--	--
09...	1103	40.0	308	7.8	20.0	--	6.0	68	--	--	--	--
09...	1107	50.0	306	7.3	18.5	--	2.7	30	--	--	--	--
09...	1111	60.0	306	7.3	19.0	--	2.6	29	--	--	--	--
09...	1114	67.0	307	7.3	18.5	--	2.4	26	--	--	110	2
AUG												
14...	1402	1.00	273	7.6	28.5	1.50	6.1	81	K5	K6	110	0
14...	1404	10.0	273	7.2	28.0	--	6.0	79	--	--	--	--
14...	1406	20.0	273	7.2	27.5	--	5.7	74	--	--	--	--
14...	1408	30.0	278	6.6	27.0	--	3.4	44	--	--	--	--
14...	1410	40.0	288	6.3	26.0	--	0	0	--	--	--	--
14...	1412	50.0	312	6.2	23.5	--	0	0	--	--	--	--
14...	1414	60.0	312	6.2	23.5	--	0	0	--	--	--	--
14...	1416	65.0	314	6.2	24.0	--	0	0	--	--	130	0

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
MAR												
21...	37	3.9	17	0.7	3.9	110	17	18	0.20	2.3	164	0.190
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	37	3.9	17	0.7	4.4	110	17	19	0.30	2.6	167	0.190
MAY												
09...	37	4.0	17	0.7	4.0	100	18	19	0.20	0.40	164	0.300
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	37	4.3	17	0.7	4.1	110	20	19	0.20	1.5	170	0.230
AUG												
14...	35	4.3	18	0.8	4.5	110	18	21	0.20	1.7	168	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	0.030
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	43	4.5	17	0.7	4.4	130	12	20	0.20	5.1	191	0.050

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

332509096595301 - RAY ROBERTS LAKE SITE EC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR												
21...	0.190	0.020	0.210	0.210	0.040	0.36	0.40	<0.010	<0.010	--	<10	10
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	0.190	0.020	0.210	0.210	0.080	0.32	0.40	<0.010	<0.010	--	30	110
MAY												
09...	--	<0.010	0.300	0.300	0.050	0.25	0.30	0.020	<0.010	--	8.0	160
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	0.230	0.030	0.260	0.260	0.180	0.32	0.50	0.020	<0.010	--	73	400
AUG												
14...	--	0.010	--	<0.050	0.030	0.27	0.30	<0.010	0.010	0.03	<3.0	29
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	0.030	0.020	0.050	0.050	0.030	0.27	0.30	<0.010	0.020	0.06	76	370
14...	--	<0.010	--	<0.050	0.190	0.31	0.50	<0.010	0.020	0.06	110	800
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	0.050	0.010	0.060	0.060	0.920	0.18	1.1	0.120	0.160	0.49	1400	1400

33275809/063301 - RAY ROBERTS LAKE SITE FC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
21...	1420	1.00	297	8.2	12.5	10.2	97
21...	1423	10.0	297	8.1	11.0	9.9	91
21...	1426	20.0	295	8.1	10.5	9.9	90
21...	1429	30.0	295	8.1	10.5	9.8	89
21...	1432	35.0	295	8.1	11.0	9.8	90
MAY							
09...	1415	1.00	334	8.1	23.5	7.3	88
09...	1417	10.0	333	8.1	23.0	7.3	87
09...	1420	20.0	328	8.1	22.5	7.4	88
09...	1422	30.0	329	8.0	22.5	6.8	80
09...	1425	35.0	332	7.9	22.5	6.1	72

332642096561201 - RAY ROBERTS LAKE SITE GC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
21...	1111	1.00	272	8.1	12.0	9.7	91
21...	1115	10.0	272	8.1	11.5	9.7	90
21...	1118	20.0	272	8.0	11.5	9.4	88
21...	1121	34.0	273	7.6	11.0	7.9	73
MAY							
09...	1149	1.00	300	8.2	23.5	7.7	93
09...	1152	10.0	299	8.1	23.0	7.3	87
09...	1155	20.0	300	7.7	21.0	5.6	64
09...	1158	33.0	311	7.2	18.5	0.8	9

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

Ray Roberts Lake Site AC (332138097024101)

Phytoplankton Analyses October 1995 to September 1996

Date	3-21-96
Time	1225
TOTAL CELLS/mL	5,235
NUMBER OF SPECIES	7
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	89
CHLOROPHYTA	
Ankistrodesmus falcatus	208
Chlamydomonas sp.	119
Scenedesmus opoliensis	30
CYANOPHYTA	
Aphanocapsa delicatissima	4,164
EUGLENOPHYTA	
Trachelomonas sp.	30
CRYPTOPHYTA	
Cryptomonas erosa	595

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

Ray Roberts Lake Site DC (332459097063001)

Phytoplankton Analyses October 1995 to September 1996

Date	3-21-96
Time	1342
TOTAL CELLS/mL	4,461
NUMBER OF SPECIES	8
DEPTH COLLECTED (ft.)	0.80

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	89
CHLOROPHYTA	
Ankistrodesmus falcatus	387
Chlamydomonas sp.	238
Scenedesmus quadricauda	30
Selenastrum Westii	30
CYANOPHYTA	
Aphanocapsa delicatissima	3,569
EUGLENOPHYTA	
Trachelomonas sp.	59
CRYPTOPHYTA	
Cryptomonas erosa	59

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

Ray Roberts Lake Site AC (332138097024101)

Phytoplankton Analyses October 1995 to September 1996

Date	5-9-96
Time	1242
TOTAL CELLS/mL	2,439
NUMBER OF SPECIES	4
DEPTH COLLECTED (ft.)	1.75

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	10
Stephanodiscus astraea	40
Stephanodiscus hantzschii	10
CYANOPHYTA	
Aphanocapsa delicatissima	2,379

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

Ray Roberts Lake Site DC (332459097063001)

Phytoplankton Analyses October 1995 to September 1996

Date	5-9-96
Time	1342
TOTAL CELLS/mL	2,438
NUMBER OF SPECIES	2
DEPTH COLLECTED (ft.)	1.00

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	59
CYANOPHYTA	
Aphanocapsa delicatissima	2,379

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

Ray Roberts Lake Site AC (332138097024101)

Phytoplankton Analyses October 1995 to September 1996

Date	8-14-96
Time	0902
TOTAL CELLS/mL	24,832
NUMBER OF SPECIES	11
DEPTH COLLECTED (ft.)	2.00

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cymbella minuta var. *minuta*	3
Fragilaria crotonensis var. *crotonensis*	113
Navicula sp.	3
CHLOROPHYTA	
Ankistrodesmus falcatus	59
Chlamydomonas sp.	59
Scenedesmus opoliensis	30
CYANOPHYTA	
Anabaena sp.	357
Aphanocapsa delicatissima	21,413
Aphanocapsa elachista	595
Merismopedia tenuissima	2,141
EUGLENOPHYTA	
Trachelomonas sp.	59

08051100 RAY ROBERTS LAKE NEAR PILOT POINT, TX--Continued

Ray Roberts Lake Site DC (332459097063001)

Phytoplankton Analyses October 1995 to September 1996

Date	8-14-96
Time	1247
TOTAL CELLS/mL	28,638
NUMBER OF SPECIES	12
DEPTH COLLECTED (ft.)	1.90

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Pennales	
Cymbella inelegans var. *inelegans*	4
Cymbella minuta var. *minuta*	4
Fragilaria crotonensis var. *crotonensis*	77
Navicula sp.	4
CHLOROPHYTA	
Chlamydomonas sp.	30
Cosmarium sp.	119
Scenedesmus opoliensis	59
Staurastrum sp.	30
CYANOPHYTA	
Aphanocapsa delicatissima	19,628
Aphanocapsa elachista	3,271
Merismopedia tenuissima	5,234
EUGLENOPHYTA	
Trachelomonas sp.	178

08051500 CLEAR CREEK NEAR SANGER, TX

LOCATION.--Lat 33°20'10", long 97°10'45", Denton County, Hydrologic Unit 12030103, at the downstream side near right end of bridge on county road, 1,350 ft downstream from Duck Creek, 1.1 mi upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 1.8 mi south of Sanger.

DRAINAGE AREA.--295 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1512: 1950, 1955. WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 582.23 ft above sea level. Prior to Apr. 18, 1975, water-stage recorder at datum 5.00 ft higher. Apr. 18, 1975, to June 9, 1988, at site 950 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. There are no appreciable diversions above station. Flow affected at times by discharge from the flood-detention pools of 51 floodwater-retarding structures with a combined detention capacity of 38,850 acre-ft. These structures control runoff from 149 mi² in the Clear Creek watershed. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--31 years (water years 1950-80), 74.3 ft³/s (53,830 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1950-80).--Maximum discharge, 18,200 ft³/s Sept. 13, 1950 (gage height, 29.80 ft) at site and datum then in use; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1880, 36.5 ft in May 1908, from information by Gulf, Colorado, and Santa Fe Railway Co. Flood in May 1935 reached a stage of 34.0 ft, from information by Texas Department of Transportation. Both peaks now referenced to present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	10	14	9.5	12	20	16	6.2	.01	.00	18
2	12	21	10	18	11	12	17	16	15	.01	.00	19
3	13	16	10	24	12	12	14	15	14	.01	.00	10
4	13	12	10	21	13	12	22	13	8.0	.00	.00	8.5
5	12	10	10	17	11	12	32	13	5.8	.00	.00	5.0
6	10	10	10	16	18	12	27	22	4.0	.00	.00	2.6
7	9.0	10	10	13	17	12	20	15	5.4	.00	.00	1.6
8	8.5	9.9	10	9.9	15	12	16	12	7.8	.00	.00	1.1
9	8.0	9.7	11	15	15	11	15	11	6.5	.00	.00	.75
10	8.0	9.6	11	18	14	11	14	11	3.9	.00	.00	.43
11	8.0	9.6	9.4	14	13	11	13	10	3.7	.00	.00	.36
12	7.5	9.4	10	14	12	11	14	10	3.5	1.3	.00	.15
13	7.3	9.7	11	14	12	11	29	9.6	2.7	.24	.00	.43
14	7.3	10	12	14	12	11	30	9.6	1.9	.38	.00	.42
15	6.9	10	13	14	12	11	18	9.4	1.4	1.5	.00	162
16	7.1	9.9	13	13	12	11	14	8.3	.99	1.8	.01	283
17	7.3	9.6	38	13	12	10	12	7.0	.90	1.5	.01	77
18	7.2	9.6	32	16	12	12	11	6.2	.79	.91	.00	55
19	6.9	10	29	15	12	13	11	5.4	.41	.37	.00	31
20	6.9	10	23	14	12	14	9.6	4.7	.22	.09	.00	20
21	6.9	11	18	15	12	13	9.6	4.2	.15	.02	.00	13
22	6.7	11	15	14	12	12	81	4.0	.13	.01	.00	9.7
23	7.3	10	14	14	12	12	244	4.0	.09	.00	.00	7.4
24	7.6	10	13	14	12	12	66	5.5	.11	.00	.00	6.1
25	7.4	10	12	14	11	13	40	4.1	.05	.00	.00	5.4
26	7.5	10	13	14	11	14	31	3.2	.02	.00	.00	6.8
27	7.9	11	13	14	12	23	26	3.0	.02	.09	2.5	6.5
28	7.9	12	13	13	12	127	23	3.8	.02	.02	.60	22
29	7.5	11	12	13	12	69	20	2.9	.02	.01	6.5	13
30	7.3	10	12	13	---	37	18	2.4	.01	.00	.28	8.1
31	8.0	---	12	12	---	26	---	2.6	---	.00	26	---
TOTAL	258.9	325.0	439.4	456.9	362.5	591	917.2	263.9	93.73	8.27	35.90	794.34
MEAN	8.35	10.8	14.2	14.7	12.5	19.1	30.6	8.51	3.12	.27	1.16	26.5
MAX	13	21	38	24	18	127	244	22	15	1.8	26	283
MIN	6.7	9.4	9.4	9.9	9.5	10	9.6	2.4	.01	.00	.00	.15
AC-FT	514	645	872	906	719	1170	1820	523	186	16	71	1580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996#, BY WATER YEAR (WY)

MEAN	242	87.4	153	87.2	145	208	202	432	280	37.3	10.8	34.6
MAX	2739	526	1157	421	475	719	1811	1764	1307	174	68.5	155
(WY)	1982	1995	1992	1992	1989	1990	1990	1990	1989	1982	1995	1986
MIN	.70	1.09	5.83	6.62	9.22	19.1	27.7	8.51	3.12	.16	.000	.000
(WY)	1989	1981	1984	1981	1981	1996	1981	1996	1996	1984	1988	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996#	
ANNUAL TOTAL	42519.0		4547.04			
ANNUAL MEAN	116		12.4		160	
HIGHEST ANNUAL MEAN					476	1982
LOWEST ANNUAL MEAN					12.4	1996
HIGHEST DAILY MEAN	5060	May 8	283	Sep 16	39700	Oct 13 1981
LOWEST DAILY MEAN	4.2	Sep 7	.00	Jul 4	.00	Oct 12 1980
ANNUAL SEVEN-DAY MINIMUM	5.1	Sep 4	.00	Jul 4	.00	Aug 2 1981
INSTANTANEOUS PEAK FLOW			1080	Sep 15	104000	Oct 13 1981
INSTANTANEOUS PEAK STAGE			10.57	Sep 15	35.70	Oct 13 1981
ANNUAL RUNOFF (AC-FT)	84340		9020		116000	
10 PERCENT EXCEEDS	214		19		279	
50 PERCENT EXCEEDS	38		10		28	
90 PERCENT EXCEEDS	8.3		.00		1.3	

Period of regulated streamflow.

08051500 CLEAR CREEK NEAR SANGER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: April 1959, January 1966, October 1984 to September 1996 (discontinued).
Sediment analyses: February 1966 to May 1977.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to August 1977.
WATER TEMPERATURE: May 1968 to August 1977.
SUSPENDED SEDIMENT DISCHARGE: May 1968 to August 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANC): Maximum daily, 1,920 microsiemens Oct. 12, 1976; minimum daily, 182 microsiemens July 29, 1973.
WATER TEMPERATURE: Maximum daily, 39.0°C June 8, 1969; minimum daily, 0.0°C Jan. 9, 1970.
SEDIMENT CONCENTRATION: Maximum daily mean, 7,370 mg/L May 12, 1972; minimum, no flow on many days.
SEDIMENT LOADS: Maximum daily, 79,000 tons May 7, 1969; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV										
07...	1110	17	760	8.0	14.5	9.2	91	270	33	76
DEC										
13...	1325	10	710	8.0	11.5	11.0	103	310	69	87
JAN										
16...	1325	13	650	8.1	8.0	12.7	109	260	58	73
FEB										
13...	1240	12	1120	8.1	9.5	12.0	106	320	110	92
MAR										
29...	1040	65	371	7.6	9.5	8.5	76	160	27	47
MAY										
14...	1105	10	601	7.8	22.5	8.6	101	210	26	55
JUN										
24...	1450	0.06	534	8.2	36.0	10.6	158	160	5	39
AUG										
27...	1435	8.1	141	7.7	24.0	7.4	89	45	0	16

DATE	MAGNE-SIUM, DIS-SOLVED (MG/I AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV										
07...	19	49	1	3.0	240	54	64	0.30	14	455
DEC										
13...	23	46	1	1.9	240	56	40	0.30	42	392
JAN										
16...	19	40	1	1.5	200	52	38	0.20	11	364
FEB										
13...	21	100	2	2.2	210	55	190	0.20	8.7	610
MAR										
29...	9.4	15	0.5	2.6	130	28	18	0.30	6.9	217
MAY										
14...	17	42	1	2.5	180	51	47	0.30	8.1	355
JUN										
24...	15	49	2	2.9	150	40	54	0.30	19	327
AUG										
27...	1.2	8.3	0.5	3.1	46	7.8	8.3	0.30	4.4	70

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV									
07...	423	--	--	<0.010	--	<0.050	<0.015	--	--
DEC									
13...	441	--	--	<0.010	--	<0.050	<0.015	--	--
JAN									
16...	372	0.060	--	<0.010	0.060	0.060	<0.015	--	--
FEB									
13...	591	--	--	<0.010	--	<0.050	<0.015	--	--
MAR									
29...	213	0.180	--	<0.010	0.180	0.180	0.050	0.68	0.45
MAY									
14...	341	0.100	--	<0.010	0.100	0.100	<0.015	0.30	0.20
JUN									
24...	315	0.040	0.040	0.010	0.050	0.050	<0.015	0.35	0.30
AUG									
27...	99	0.270	0.270	0.020	0.290	0.290	0.060	0.79	0.44

08051500 CLEAR CREEK NEAR SANGER, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV									
07...	--	0.40	<0.20	<0.010	<0.010	<0.010	--	4.0	19
DEC									
13...	--	<0.20	<0.20	<0.010	<0.010	<0.010	--	20	73
JAN									
16...	--	<0.20	<0.20	0.020	<0.010	<0.010	--	5.0	41
FEB									
13...	--	<0.20	<0.20	0.020	<0.010	<0.010	--	4.0	32
MAR									
29...	0.35	0.40	0.50	0.050	0.030	0.010	0.03	11	1.0
MAY									
14...	--	0.20	0.20	0.030	<0.010	<0.010	--	7.0	26
JUN									
24...	--	0.30	0.30	0.010	<0.010	<0.010	--	12	8.0
AUG									
27...	0.44	0.50	0.50	0.110	0.120	0.110	0.34	10	7.0

08052700 LITTLE ELM CREEK NEAR AUBREY, TX

LOCATION.--Lat 33°17'00", long 96°53'33", Denton County, Hydrologic Unit 12030103, on left bank at downstream side of bridge on Farm Road 1385, 1.5 mi upstream from Mustang Creek, 5.5 mi east of Aubrey, and 18 mi upstream from Lewisville Dam on the Elm Fork Trinity River.

DRAINAGE AREA.--75.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1956 to September 1976, October 1979 to current year.

REVISED RECORDS.--WRD TX-70-1: 1969.

GAGE.--Water-stage recorder. Datum of gage is 534.76 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. There are several small diversions above station for irrigation. Flow affected at times by discharge from the flood-detention pools of 17 floodwater-retarding structures with a combined detention capacity of 10,460 acre-ft. These structures control runoff from 36.4 mi² above this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1900, 18.2 ft in May 1941, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.01	.39	.00	.68	.01	.09	.78	.00	.06	238
2	.08	.06	.02	1.2	.00	.59	.00	.06	2.1	.00	.44	50
3	.19	.40	.15	.95	.00	.70	.07	.07	.62	.00	.38	153
4	.01	.10	.07	.55	.00	.31	32	.19	.28	.00	.25	20
5	.03	.03	.16	.48	.00	.22	41	.22	.14	.00	.06	4.1
6	.01	.01	.15	.36	.00	.14	67	.09	.01	.00	.01	3.0
7	.00	.01	.17	.46	.01	.09	6.5	.08	47	.00	.00	.86
8	.00	.03	.39	.49	.01	.04	1.8	.08	12	.00	.00	.34
9	.00	.05	.32	.55	.04	.15	.71	.10	1.7	.00	.00	.13
10	.00	.02	.33	.61	.11	.17	.34	.11	1.1	.00	.00	.06
11	.00	.01	.28	.62	.06	.09	.51	.25	2.0	.00	.00	.06
12	.00	.00	.21	.47	.04	.05	.52	.09	8.7	1.9	.00	.04
13	.01	.00	.14	.54	.16	.11	.78	.13	74	12	.00	.64
14	.01	.00	.17	.57	.19	.22	1.5	.30	5.7	1.4	.02	5.2
15	.08	.00	.24	.53	.19	.23	.86	.13	1.9	.69	.02	21
16	.01	.01	.16	.45	.10	.35	.28	.05	.89	.43	.10	16
17	.00	.01	.67	2.5	.26	.40	.07	.01	.45	.20	.29	3.4
18	.00	.02	1.0	261	.27	.57	.04	.00	.20	.10	.30	159
19	.00	.01	.99	11	.19	.51	.20	.00	.11	.02	.16	172
20	.00	.01	.43	1.5	.24	.63	.11	.00	.05	.00	.08	53
21	.00	.01	.24	.41	.21	.66	.05	.00	.01	.00	4.3	18
22	.00	.01	.14	.08	.28	.60	.22	.00	.00	.00	6.8	6.4
23	.00	.01	.09	.17	.36	.52	.72	.00	.00	.00	.42	2.5
24	.00	.00	.12	.33	.45	.43	.27	.00	.00	.00	.14	1.0
25	.00	.00	.12	.08	.55	.34	.06	.00	.00	.00	.06	.51
26	.00	.01	.09	.01	.89	.26	.06	.00	.00	.00	.04	.16
27	.00	.01	.07	.00	.99	.91	.09	.00	.00	.00	.22	.24
28	.00	.00	.05	.00	.78	33	.09	.00	.00	.00	.19	.34
29	.00	.00	.10	.00	.74	1.8	.06	.00	.00	.00	123	.08
30	.00	.01	.26	.00	---	.32	.12	.00	.00	.00	35	.03
31	.00	---	.32	.01	---	.04	---	.00	---	.00	55	---
TOTAL	0.43	0.84	7.66	286.31	7.12	45.13	156.04	2.05	159.74	16.74	227.34	929.09
MEAN	.014	.028	.25	9.24	.25	1.46	5.20	.066	5.32	.54	7.33	31.0
MAX	.19	.40	1.0	261	.99	33	67	.30	74	12	123	238
MIN	.00	.00	.01	.00	.00	.04	.00	.00	.00	.00	.00	.03
AC-FT	.9	1.7	15	568	14	90	310	4.1	317	33	451	1840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996h, BY WATER YEAR (WY)

MEAN	61.6	54.9	45.8	21.6	52.7	47.8	69.8	130	52.3	20.4	2.42	33.3
MAX	641	332	398	108	315	251	677	897	286	540	28.5	258
(WY)	1982	1975	1992	1992	1986	1990	1957	1982	1989	1994	1966	1964
MIN	.000	.000	.000	.000	.000	.026	.10	.000	.000	.000	.000	.000
(WY)	1957	1959	1959	1959	1959	1963	1959	1959	1956	1956	1956	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1956 - 1996h	
ANNUAL TOTAL	20716.62		1838.49			
ANNUAL MEAN	56.8		5.02		49.6	
HIGHEST ANNUAL MEAN					178	1982
LOWEST ANNUAL MEAN					2.24	1959
HIGHEST DAILY MEAN	1750	Mar 13	261	Jan 18	11600	Jul 11 1994
LOWEST DAILY MEAN	.00	Jul 12	.00	Oct 1	.00	Jun 1 1956
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 12	.00	Oct 17	.00	Jun 1 1956
INSTANTANEOUS PEAK FLOW			516	Sep 18	36200	Jul 11 1994
INSTANTANEOUS PEAK STAGE			12.25	Sep 18	18.27	Jul 11 1994
ANNUAL RUNOFF (AC-FT)	41090		3650		35900	
10 PERCENT EXCEEDS	111		2.0		77	
50 PERCENT EXCEEDS	.43		.10		.51	
90 PERCENT EXCEEDS	.00		.00		.00	

h See PERIOD OF RECORD paragraph.

08052700 LITTLE ELM CREEK NEAR AUBREY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: June 1962 to June 1963, June 1965 to January 1968. Chemical and biochemical analyses: October 1984 to current year. Sediment analyses: April 1966 to October 1974.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1966 to June 1975.
WATER TEMPERATURES: February 1966 to June 1975.
SUSPENDED SEDIMENT DISCHARGE: February 1966 to September 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,380 microsiemens Jan. 24, Feb. 25, 1967; minimum daily, 195 microsiemens June 4, 1968.
WATER TEMPERATURE: Maximum daily, 33.0°C June 16, 1968; minimum daily, 0.0°C Feb. 22, 1968.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,750 mg/L Aug. 13, 1966; minimum daily mean, no flow on many days.
SEDIMENT LOADS: Maximum daily, 17,900 tons May 31, 1967; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
OCT												
05...	1015	0.03	1070	8.1	18.0	70	60	4.2	46	1.5	76	0
DEC												
13...	1330	0.14	1450	8.1	12.5	76	52	8.6	83	1.0	150	0
FEB												
14...	1200	0.20	722	8.2	9.5	55	33	11.8	106	1.4	170	9
MAR												
13...	1100	0.11	1250	8.2	13.0	64	64	9.9	97	1.3	110	0
APR												
30...	1315	0.20	1050	7.8	16.5	50	34	6.2	65	1.9	170	0
JUN												
20...	1245	0.07	416	7.7	30.0	50	--	4.0	54	2.3	140	12

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
OCT												
05...	25	3.4	190	9	5.1	250	180	61	0.80	1.2	615	68
DEC												
13...	52	5.7	274	10	7.5	450	180	80	1.2	5.6	877	32
FEB												
14...	58	5.2	80	3	6.5	160	150	25	0.50	1.7	426	37
MAR												
13...	36	5.2	230	9	6.9	280	210	76	0.90	0.70	746	68
APR												
30...	59	6.5	160	5	7.9	240	200	52	0.70	1.7	635	48
JUN												
20...	49	4.5	31	1	6.7	130	58	12	0.50	9.7	250	63

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
OCT											
05...	14	54	0.200	0.200	0.020	0.220	0.220	0.030	0.77	0.80	0.130
DEC											
13...	10	22	--	--	<0.010	--	<0.050	<0.015	--	0.70	0.770
FEB											
14...	8	29	0.710	0.710	0.030	0.740	0.740	0.020	1.1	1.1	0.060
MAR											
13...	38	30	2.45	2.45	0.050	2.50	2.50	0.020	0.88	0.90	0.060
APR											
30...	19	29	0.590	0.590	0.060	0.650	0.650	0.150	0.65	0.80	0.040
JUN											
20...	11	52	0.050	0.050	0.010	0.060	0.060	0.080	0.52	0.60	<0.010

08052700 LITTLE ELM CREEK NEAR AUBREY, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 05...	0.080	0.25	11	--	--	--	--	--	--	--	--
DEC 13...	0.690	2.1	14	--	--	--	--	--	--	--	--
FEB 14...	0.060	0.18	12	2	44	<0.50	<1.0	<5.0	<3.0	<10	26
MAR 13...	0.030	0.09	11	--	--	--	--	--	--	--	--
APR 30...	0.050	0.15	11	1	62	<0.50	1.0	<5.0	<3.0	<10	34
JUN 20...	0.020	0.06	10	2	42	<0.50	<1.0	<5.0	<3.0	<10	36

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 05...	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--
FEB 14...	<10	14	28	<0.1	<10	<10	<1	<1.0	560	<6	9.0
MAR 13...	--	--	--	--	--	--	--	--	--	--	--
APR 30...	<10	22	32	<0.1	<10	<10	<1	<1.0	650	<6	<3.0
JUN 20...	20	9	30	0.3	<10	<10	<1	2.0	410	7	15

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX

LOCATION.--Lat 33°04'09", long 96°57'51", Denton County, Hydrologic Unit 12030103, in intake structure of Lewisville Dam on Elm Fork Trinity River, 2 mi upstream from bridge on State Highway 121, 2.4 mi northeast of Lewisville, 12 mi upstream from Denton Creek, and 30.0 mi upstream from mouth.

DRAINAGE AREA.--1,660 mi².

WATER-CONTENT RECORDS

PERIOD OF RECORD.--November 1954 to current year. Prior to October 1970, published as Garza-Little Elm Reservoir near Lewisville.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to May 17, 1955, nonrecording gage at site 4,000 ft upstream at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 32,888 ft long, including a 560-foot 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 16.0-foot-diameter conduit that is controlled by three 6.5- by 13.0-foot broome-type gates and two 60-inch steel pipes with service valves. The lake was built for flood control and water conservation. The city of Dallas obtains most of its municipal water supply from this lake. The capacity table is based on a survey made in 1965. Inflow is affected at times by discharge from the flood-detention pools of 118 floodwater-retarding structures with a combined detention capacity of 81,670 acre-ft. These structures control runoff from 298 mi² in the Elm Fork Trinity River, Clear, Little Elm, and Hickory Creeks watersheds. An unknown amount of water was diverted for municipal and industrial uses. Satellite telemeter at station. 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	560.0	-
Crest of spillway	532.0	981,800
Top of conservation pool	522.0	641,000
Lowest intakes to wet wells (invert)	481.0	42,560
Invert of three broome-type gates	448.0	0

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,181,000 acre-ft May 4, 1990 (elevation, 536.73 ft); minimum since initial filling in 1957, 184,700 acre-ft Sept. 28, 1980 (elevation, 498.65 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 560,200 acre-ft Oct. 1 (elevation, 519.14 ft); minimum 369,900 acre-ft Sept. 30 (elevation, 510.96 ft).

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

510.0	351,900	518.0	530,800	528.0	833,100
513.0	412,400	520.0	583,500	529.0	868,900
516.0	481,200	524.0	701,600	530.0	905,500
		526.0	765,100	531.0	943,100

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560200	530300	508400	508400	495100	477200	463400	451600	430900	412000	392000	379800
2	560200	530600	507700	507900	494600	476500	462300	450900	430600	410900	391200	379800
3	559100	528000	507700	505700	493600	475300	461800	449500	430000	410000	389900	380200
4	557800	526800	506700	507200	492200	474800	463000	449100	429500	408500	388400	380200
5	557000	525700	506700	506900	491900	474800	465800	448400	428200	407400	387600	379600
6	555500	525000	505700	506200	491400	476500	466300	447900	428400	406100	386400	379200
7	554200	525500	504500	504700	490900	474100	465800	447000	428800	405000	385500	378400
8	553100	524000	506700	503500	491200	472600	465600	446300	428200	404600	384700	377800
9	552100	523000	504000	503500	490700	471700	465300	445400	427500	402900	384500	377200
10	551600	526000	502200	503200	491700	470500	464100	446300	427700	401800	383700	376400
11	550600	522700	502000	502700	489700	469800	463000	445600	427100	400900	383700	375400
12	549800	521200	501700	502000	489000	468900	465300	444700	426800	402700	383300	374600
13	549500	521200	502200	501500	488300	468400	464600	444200	427300	401800	382500	373600
14	547500	519900	502500	501200	488500	468900	464600	442700	426800	402900	381600	373000
15	546400	519400	503000	500500	488500	468400	463200	442000	426400	402500	380800	374400
16	545100	518400	503000	499500	486100	467700	462000	441100	425700	401400	381000	374000
17	543900	517900	505900	502000	485600	468100	460600	439900	425300	400300	380600	373600
18	543100	517400	508700	503500	484600	468100	460900	438800	424200	399400	379800	374800
19	542100	516900	508400	500700	484600	467700	460900	437600	423700	398800	379000	376000
20	540500	516900	507400	501200	484100	466300	459700	437200	422400	397500	378400	376000
21	538200	515700	507700	500300	483700	465600	457600	436500	421500	396500	377400	375200
22	535400	514200	507900	500000	482900	463900	460200	435200	420200	395600	376800	374600
23	536900	514400	507400	500500	482700	462500	459000	433600	419000	396700	376000	374400
24	535100	513200	506900	499300	481700	464600	456700	432700	418200	395800	375400	374000
25	532900	512200	507200	497800	480800	463700	457400	431500	417100	394800	375600	373000
26	532100	510900	506400	498500	480800	462500	456500	430600	416400	393900	375000	373400
27	532100	512400	506400	497300	481000	465100	454600	431500	415500	394100	376800	372000
28	530800	510700	505700	496300	479800	465100	456200	431100	414900	394100	376600	371200
29	528800	509400	505400	496600	477900	464600	453900	430000	414000	393300	377400	370500
30	529000	508700	505700	496800	---	465600	452100	428800	413100	392400	377400	369900
31	529300	---	506200	495300	---	464100	---	428200	---	392400	378800	---
MAX	560200	530600	508700	508400	495100	477200	466300	451600	430900	412000	392000	380200
MIN	528800	508700	501700	495300	477900	462500	452100	428200	413100	392400	375000	369900
(+)	517.94	517.12	517.02	516.58	515.86	515.28	514.76	513.71	513.03	512.07	511.41	510.96
(@)	-32200	-20600	-2500	-10900	-17400	-13800	-12000	-23900	-15100	-20700	-13600	-8900

CAL YR 1995 MAX 724400 MIN 501700 @ -140700
WTR YR 1996 MAX 560200 MIN 369900 @ -191600

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1962 to July 1964, December 1969 to current year.

REVISED RECORDS.--WDR TX-93-1: Phytoplankton.

33041909657401 - LEWISVILLE LAKE SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
FEB										
27...	1132	481000	1.00	354	8.2	10.0	1.22	10.5	95	1
27...	1135	--	10.0	354	8.2	10.0	--	10.4	94	--
27...	1138	--	20.0	354	8.2	10.0	--	10.4	94	--
27...	1141	--	30.0	355	8.2	10.0	--	10.3	93	--
27...	1143	--	40.0	356	8.1	10.0	--	10.1	92	--
27...	1146	--	50.0	357	7.9	8.5	--	9.2	80	--
27...	1150	--	62.0	356	7.8	8.5	--	9.0	79	--
MAY										
02...	1251	451000	1.00	365	8.1	18.5	0.49	8.1	89	26
02...	1256	--	10.0	364	8.1	18.0	--	8.0	87	--
02...	1301	--	20.0	365	8.0	18.0	--	7.9	85	--
02...	1306	--	30.0	364	8.0	18.0	--	7.9	85	--
02...	1311	--	40.0	364	8.0	18.0	--	7.9	85	--
02...	1316	--	50.0	365	7.9	18.0	--	7.2	78	--
02...	1320	--	59.0	367	7.8	18.0	--	6.6	71	--
JUL										
24...	1312	397000	1.00	359	8.1	28.5	1.00	6.3	83	K10
24...	1317	--	10.0	359	8.0	28.5	--	5.6	74	--
24...	1322	--	20.0	359	7.9	28.0	--	5.2	68	--
24...	1327	--	30.0	360	7.9	28.0	--	5.2	68	--
24...	1332	--	40.0	398	7.3	25.5	--	0.2	2	--
24...	1336	--	50.0	404	7.3	24.5	--	0.2	2	--
24...	1340	--	56.0	408	7.2	24.5	--	0.2	2	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)
FEB									
27...	1	120	8	40	4.1	22	0.9	4.6	110
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	110	4	39	4.1	22	0.9	4.5	110
MAY									
02...	K1	120	2	42	4.1	24	0.9	4.2	120
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	120	3	42	4.0	24	0.9	4.3	120
JUL									
24...	K5	110	4	36	4.4	26	1	4.4	100
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	140	5	47	4.5	24	0.9	4.4	130

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

330419096575401 - LEWISVILLE LAKE SITE AC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
FEB									
27...	32	16	0.30	0.10	185	0.190	0.190	0.010	0.200
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	33	17	0.30	0.60	188	0.210	0.210	0.010	0.220
MAY									
02...	40	17	0.30	1.4	206	0.120	0.120	0.010	0.130
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	40	18	0.30	1.9	206	0.120	0.120	0.010	0.130
JUL									
24...	44	18	0.30	2.8	199	0.080	0.080	0.010	0.090
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	0.060	--	<0.010	0.060
24...	--	--	--	--	--	0.060	0.060	0.010	0.070
24...	--	--	--	--	--	--	--	--	--
24...	33	18	0.30	7.4	221	0.080	--	<0.010	0.080

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB									
27...	0.200	<0.015	--	0.30	0.010	<0.010	--	20	<10
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	0.220	0.080	0.32	0.40	0.010	<0.010	--	<10	10
MAY									
02...	0.130	0.160	0.24	0.40	0.020	0.010	0.03	9.0	2.0
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	0.130	0.220	0.28	0.50	0.020	<0.010	--	4.0	26
JUL									
24...	0.090	0.040	0.26	0.30	0.020	0.040	0.12	<3.0	34
24...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
24...	0.060	0.300	0.30	0.60	0.040	0.060	0.18	5.0	280
24...	0.070	0.500	0.30	0.80	0.070	0.110	0.34	120	770
24...	--	--	--	--	--	--	--	--	--
24...	0.080	0.690	0.41	1.1	0.120	0.140	0.43	260	1600

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

330410096584501 - LEWISVILLE LAKE SITE AL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
27...	1201	1.00	353	8.3	10.0	10.5	95
27...	1203	10.0	353	8.3	10.0	10.4	94
27...	1205	20.0	353	8.2	10.0	10.4	94
27...	1207	30.0	354	8.2	10.0	10.3	93
27...	1210	40.0	354	8.2	10.0	10.3	93
27...	1213	47.0	356	8.1	8.5	9.8	86
MAY							
02...	1328	1.00	365	8.1	18.5	8.1	89
02...	1331	10.0	364	8.1	18.0	8.1	88
02...	1333	20.0	364	8.0	18.0	8.0	87
02...	1335	30.0	364	8.0	18.0	7.9	85
02...	1337	40.0	365	8.0	18.0	7.7	83
02...	1339	48.0	365	8.0	18.0	7.7	83
JUL							
24...	1348	1.00	359	8.2	28.5	6.6	87
24...	1351	10.0	359	8.0	28.5	5.8	76
24...	1354	20.0	359	7.9	28.0	5.4	70
24...	1357	30.0	360	7.9	28.0	5.2	68
24...	1401	40.0	400	7.3	25.0	0.2	2
24...	1403	45.0	402	7.3	25.0	0.2	2

330450096560501 - LEWISVILLE LAKE SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
27...	1229	1.00	396	8.3	12.0	10.1	96
27...	1231	10.0	387	8.3	11.0	10.1	94
27...	1234	20.0	371	8.3	11.0	10.2	95
27...	1237	30.0	364	8.3	10.5	10.2	94
MAY							
02...	1229	1.00	435	8.2	19.0	8.6	95
02...	1232	10.0	420	8.2	19.0	8.4	93
02...	1235	20.0	369	8.1	18.5	8.2	90
02...	1238	28.0	370	8.1	18.5	8.2	90
JUL							
24...	1414	1.00	366	8.2	29.0	6.8	90
24...	1416	10.0	372	8.2	28.5	6.6	87
24...	1419	20.0	380	8.0	28.5	5.8	76
24...	1421	25.0	382	8.0	28.5	5.8	76

330606097025601 - LEWISVILLE LAKE SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
27...	1539	1.00	361	8.7	14.5	0.55	9.8	98
27...	1542	10.0	361	8.6	14.0	--	9.5	94
27...	1545	23.0	365	8.2	11.5	--	7.0	66
MAY								
02...	1356	1.00	371	8.2	20.0	0.21	8.5	96
02...	1357	10.0	373	8.2	19.5	--	8.2	91
02...	1401	21.0	385	7.9	19.0	--	6.5	72
JUL								
24...	1447	1.00	350	8.4	30.0	0.85	7.6	102
24...	1449	5.00	350	8.4	29.5	--	7.4	99
24...	1452	12.0	353	8.0	29.0	--	5.5	73

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

33075509657/2001 - LEWISVILLE LAKE SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
FEB										
27...	1306	1.00	359	8.4	12.5	9.9	95	0.170	0.170	0.010
27...	1309	10.0	359	8.2	12.5	9.8	94	--	--	--
27...	1313	20.0	357	8.2	11.5	9.8	92	--	--	--
27...	1317	34.0	357	8.4	11.5	9.6	90	0.180	0.180	0.010
MAY										
02...	1041	1.00	368	8.2	18.5	8.4	92	0.120	0.120	0.010
02...	1046	10.0	368	8.1	18.5	8.3	91	--	--	--
02...	1051	20.0	368	8.1	18.5	8.1	89	--	--	--
02...	1056	35.0	371	8.0	18.5	7.8	85	0.130	0.130	0.010
JUL										
24...	1112	1.00	356	8.3	30.0	6.8	92	0.060	0.060	0.010
24...	1116	10.0	357	8.2	29.5	6.0	81	--	--	--
24...	1120	20.0	359	8.1	29.5	5.6	75	0.060	0.060	0.010
24...	1124	28.0	368	7.4	29.0	0.8	11	0.050	0.050	0.010

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB										
27...	0.180	0.180	0.020	0.28	0.30	0.020	<0.010	--	<10	<10
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	0.190	0.190	0.030	0.27	0.30	0.010	<0.010	--	<10	<10
MAY										
02...	0.130	0.130	0.120	0.28	0.40	0.010	<0.010	--	7.0	12
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	0.140	0.140	0.130	0.27	0.40	<0.010	0.010	0.03	7.0	68
JUL										
24...	0.070	0.070	0.040	0.26	0.30	0.010	0.010	0.03	6.0	29
24...	--	--	--	--	--	--	--	--	--	--
24...	0.070	0.070	0.040	0.26	0.30	0.010	<0.010	--	4.0	3.0
24...	0.060	0.060	0.140	0.26	0.40	0.010	0.010	0.03	5.0	100

330959096565301 - LEWISVILLE LAKE SITE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
27...	1344	1.00	372	8.4	14.0	0.46	9.1	90	K3	K1	130	11
27...	1348	10.0	372	8.2	14.0	--	9.1	90	--	--	--	--
27...	1352	20.0	371	8.3	13.5	--	8.5	84	--	--	130	8
MAY												
02...	1109	1.00	384	8.1	19.0	0.27	8.2	91	6	2	--	--
02...	1113	10.0	385	8.1	19.0	--	8.1	89	--	--	--	--
02...	1117	18.0	385	8.1	19.0	--	8.0	88	--	--	130	8
JUL												
24...	1145	1.00	355	8.2	30.0	0.34	6.2	84	23	K13	110	8
24...	1150	10.0	355	8.1	29.5	--	5.6	75	--	--	--	--
24...	1155	14.0	356	8.0	29.5	--	5.0	67	--	--	110	10

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

330959096565301 - LEWISVILLE LAKE SITE EC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
FEB												
27...	43	4.4	21	0.8	4.2	120	36	17	0.30	0.40	196	0.160
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	43	4.4	21	0.8	4.3	120	34	17	0.30	0.50	196	0.160
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	45	4.4	25	1	4.2	120	46	17	0.30	1.2	218	0.220
JUL												
24...	35	4.3	26	1	4.8	97	44	19	0.30	3.7	196	0.060
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	35	4.3	26	1	4.9	95	45	19	0.30	3.7	196	0.050

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB												
27...	0.160	0.010	0.170	0.170	0.040	0.26	0.30	0.010	<0.010	--	<10	<10
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	0.160	0.010	0.170	0.170	0.060	0.34	0.40	0.020	0.010	0.03	<10	<10
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	0.220	0.020	0.240	0.240	0.120	0.28	0.40	<0.010	<0.010	--	7.0	3.0
JUL												
24...	0.060	0.010	0.070	0.070	0.040	0.36	0.40	0.020	0.010	0.03	<3.0	<1.0
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	0.050	0.010	0.060	0.060	0.050	0.35	0.40	0.020	0.020	0.06	<3.0	2.0

330722096592201 - LEWISVILLE LAKE SITE FC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
FEB										
27...	1410	1.00	372	8.4	12.5	10.0	96	0.340	0.340	0.010
27...	1415	10.0	371	8.3	12.5	10.0	96	--	--	--
27...	1418	20.0	364	8.3	12.0	10.0	95	--	--	--
27...	1421	30.0	365	8.3	12.0	9.9	94	--	--	--
27...	1425	42.0	365	8.5	12.0	9.7	92	0.250	0.250	0.010
MAY										
02...	1016	1.00	374	8.1	19.0	8.1	89	0.110	--	<0.010
02...	1019	10.0	376	8.1	19.0	8.1	89	--	--	--
02...	1022	20.0	380	8.1	19.0	7.9	87	--	--	--
02...	1025	36.0	384	8.0	19.0	7.5	83	0.080	0.080	0.010
JUL										
24...	1044	10.0	364	8.1	29.0	5.6	75	0.050	0.050	0.010
24...	1047	10.0	364	8.1	29.0	5.6	75	--	--	--
24...	1051	20.0	364	8.0	29.0	5.6	75	--	--	--
24...	1054	30.0	366	8.0	29.0	5.4	72	--	--	--
24...	1057	35.0	364	8.0	29.0	5.4	72	0.050	0.050	0.020

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

330722096592201 - LEWISVILLE LAKE SITE FC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
27...	0.350	0.350	0.020	0.38	0.40	0.020	<0.010	--	10	<10
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	0.260	0.260	0.020	0.28	0.30	0.010	<0.010	--	<10	<10
MAY										
02...	0.110	0.110	0.130	0.27	0.40	0.010	0.010	0.03	5.0	<1.0
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	0.090	0.090	0.130	0.27	0.40	0.020	0.010	0.03	9.0	<1.0
JUL										
24...	0.060	0.060	0.040	0.36	0.40	0.010	0.020	0.06	3.0	<1.0
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
24...	0.070	0.070	0.050	0.35	0.40	0.020	0.020	0.06	7.0	2.0

330944097003601 - LEWISVILLE LAKE SITE GC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
27...	1441	1.00	399	8.6	15.0	0.36	9.3	94	K9	K2	130	9
27...	1446	13.0	398	8.6	15.0	--	9.2	93	--	--	130	9
MAY												
02...	1154	1.00	406	8.2	19.5	0.24	8.1	90	5	1	140	13
02...	1200	11.0	406	8.2	19.5	--	8.0	89	--	--	140	14
JUL												
24...	1237	1.00	378	8.5	29.0	0.24	6.4	85	42	32	110	4
24...	1244	9.00	378	8.4	29.0	--	5.4	72	--	--	120	8

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
FEB												
27...	45	4.8	26	1	4.5	120	36	21	0.30	1.9	215	0.320
27...	45	4.8	25	0.9	4.4	120	36	22	0.30	1.9	215	0.330
MAY												
02...	48	4.7	28	1	4.6	130	45	22	0.30	0.80	230	0.090
02...	49	4.8	28	1	4.5	130	45	22	0.30	0.80	232	0.100
JUL												
24...	37	4.4	29	1	5.1	110	38	24	0.30	4.9	207	0.050
24...	39	4.5	28	1	5.1	110	38	23	0.40	4.8	208	0.060

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB												
27...	0.320	0.020	0.340	0.340	0.020	0.28	0.30	0.010	<0.010	--	<10	<10
27...	0.330	0.020	0.350	0.350	0.030	0.27	0.30	0.030	<0.010	--	20	<10
MAY												
02...	--	<0.010	0.090	0.090	0.090	0.31	0.40	0.020	0.010	0.03	6.0	<1.0
02...	--	<0.010	0.100	0.100	0.090	0.41	0.50	0.020	0.020	0.06	10	<1.0
JUL												
24...	0.050	0.010	0.060	0.060	0.040	0.36	0.40	0.070	0.060	0.18	<3.0	<1.0
24...	--	<0.010	0.060	0.060	0.040	0.36	0.40	0.030	0.050	0.15	<3.0	<1.0

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

Lewisville Lake Site AC (330419096575401)

Phytoplankton Analyses October 1995 to September 1996

Date	2-27-96
Time	1132
TOTAL CELLS/mL	7,137
NUMBER OF SPECIES	11
DEPTH COLLECTED (ft.)	2.0

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	89
CHLOROPHYTA	
Ankistrodesmus falcatus	1,279
Chlamydomonas sp.	297
Scenedesmus bijuga	30
Scenedesmus quadricauda	59
Selenastrum Westii	238
Staurastrum sp.	59
CYANOPHYTA	
Aphanocapsa delicatissima	4,164
Chroococcus limneticus	119
Merismopedia tenuissima	476
EUGLENOPHYTA	
Trachelomonas sp.	327

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

Lewisville Lake Site GC (330944097003601)

Phytoplankton Analyses October 1995 to September 1996

Date	2-27-96
Time	1441
TOTAL CELLS/mL	5,382
NUMBER OF SPECIES	11
DEPTH COLLECTED (ft.)	0.60

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	357
Order Pennales	
Navicula sp.	119
CHLOROPHYTA	
Ankistrodesmus falcatus	595
Chlamydomonas sp.	89
Scenedesmus bijuga	59
Scenedesmus quadricauda	59
Selenastrum Westii	446
Staurastrum sp.	30
CYANOPHYTA	
Aphanocapsa delicatissima	2,974
Chroococcus limneticus	119
EUGLENOPHYTA	
Trachelomonas sp.	535

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

Lewisville Lake Site AC (330419096575401)

Phytoplankton Analyses October 1995 to September 1996

Date	5-2-96
Time	1251
TOTAL CELLS/mL	2,409
NUMBER OF SPECIES	2
DEPTH COLLECTED (ft.)	0.80

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	30
CYANOPHYTA	
Aphanocapsa delicatissima	2,379

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

Lewisville Lake Site GC (330944097003601)

Phytoplankton Analyses October 1995 to September 1996

Date	5-2-96
Time	1154
TOTAL CELLS/mL	2,736
NUMBER OF SPECIES	4
DEPTH COLLECTED (ft.)	0.80

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	297
CHLOROPHYTA	
Scenedesmus opoliensis	30
CYANOPHYTA	
Aphanocapsa delicatissima	2,379
EUGLENOPHYTA	
Trachelomonas sp.	30

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

Lewisville Lake Site AC (330419096575401)

Phytoplankton Analyses October 1995 to September 1996

Date	7-24-96
Time	1312
TOTAL CELLS/mL	**68,284**
NUMBER OF SPECIES	**17**
DEPTH COLLECTED (ft.)	**1.70**

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	119
Order Pennales	
Cymbella inelegans var. *inelegans*	67
Cymbella minuta var. *minuta*	50
Fragilaria crotonensis var. *crotonensis*	117
Navicula sp.	17
Synedra ulna var. *ulna*	17
CHLOROPHYTA	
Ankistrodesmus falcatus	119
Chlamydomonas sp.	297
Scenedesmus opoliensis	30
Staurastrum sp.	30
CYANOPHYTA	
Anabaena spiroides	595
Aphanizomenon flos-aquae	14,870
Aphanocapsa delicatissima	36,283
Chroococcus limneticus	714
Merismopedia tenuissima	14,751
EUGLENOPHYTA	
Trachelomonas sp.	178
CRYPTOPHYTA	
Cryptomonas erosa	30

08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TX--Continued

Lewisville Lake Site GC (330944097003601)

Phytoplankton Analyses October 1995 to September 1996

Date	7-24-96
Time	1237
TOTAL CELLS/mL	36,430
NUMBER OF SPECIES	20
DEPTH COLLECTED (ft.)	0.40

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	446
Order Pennales	
Cymbella inelegans var. *inelegans*	73
Cymbella minuta var. *minuta*	117
Fragilaria crotonensis var. *crotonensis*	380
Navicula sp.	307
Synedra ulna var. *ulna*	44
CHLOROPHYTA	
Ankistrodesmus falcatus	297
Chlamydomonas sp.	297
Cosmarium sp.	119
Mougeotia sp.	714
Scenedesmus bijuga	89
Scenedesmus opoliensis	30
CYANOPHYTA	
Anabaena spiroides	1,487
Aphanizomenon flos-aquae	5,948
Aphanocapsa delicatissima	14,870
Chroococcus limneticus	952
Merismopedia tenuissima	9,517
EUGLENOPHYTA	
Trachelomonas sp.	654
PYRRHOPHYTA	
Glenodinium sp.	59
CRYPTOPHYTA	
Cryptomonas erosa	30

08053000 ELM FORK TRINITY RIVER NEAR LEWISVILLE, TX

LOCATION.--Lat 33°02'44", long 96°57'39", Denton County, Hydrologic Unit 12030103, on left bank at downstream edge of highway right-of-way, 90 ft to left of left end of bridge on State Highway 121, 1.8 mi east of Lewisville, 1.9 mi downstream from Lewisville Lake, 8.3 mi upstream from Denton Creek, and 28.2 mi upstream from mouth.

DRAINAGE AREA.--1,673 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 432.39 ft above sea level (U.S. Army Corps of Engineers benchmark). Prior to Jan. 6, 1950, nonrecording gage 0.6 mi upstream at datum 3.26 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lewisville Lake (station 08052800) 1.9 mi upstream since November 1954. Most of low flow is used by the city of Dallas for municipal supply (see station 08055500). Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--5 years (water years 1950-54) prior to regulation, 402 ft³/s (291,200 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1950-54).--Maximum discharge, 21,700 ft³/s Sept. 15, 1950 (gage height, 30.75 ft); no flow June 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1907, 33.8 ft in 1908, present site and datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	278	260	19	189	246	236	342	323	297	243	247
2	348	285	265	47	192	245	247	328	287	369	259	202
3	356	341	258	24	193	244	258	307	273	394	284	250
4	331	293	259	129	206	224	253	305	280	352	284	248
5	313	261	259	242	238	202	305	305	298	309	284	247
6	302	247	259	245	280	200	245	305	348	298	320	246
7	294	232	259	246	249	200	219	304	316	298	339	248
8	307	205	258	562	252	200	217	305	271	348	329	249
9	308	208	234	243	251	203	216	296	271	362	307	246
10	329	229	233	241	250	205	218	261	280	300	281	275
11	348	257	208	242	250	203	216	268	272	284	259	329
12	347	272	23	242	251	204	234	257	273	319	239	349
13	333	250	17	246	251	217	225	225	274	288	208	311
14	326	303	17	244	250	241	216	194	271	283	208	272
15	326	300	16	240	248	241	214	211	263	245	230	301
16	325	290	15	242	247	229	214	260	261	239	281	263
17	326	272	59	251	248	228	214	321	261	241	287	231
18	329	264	55	275	252	214	214	344	260	240	283	236
19	329	257	27	249	250	163	213	325	261	263	283	215
20	331	256	16	250	273	170	212	327	287	305	284	204
21	332	256	15	251	283	190	215	356	333	303	284	182
22	338	258	14	250	261	224	224	365	311	284	271	183
23	352	257	13	249	258	269	285	341	311	287	260	183
24	340	259	14	255	281	267	410	340	312	289	285	193
25	307	260	13	248	270	233	305	349	334	287	323	203
26	305	259	13	305	269	227	304	360	349	287	265	203
27	326	259	14	262	268	283	305	357	306	304	226	227
28	330	257	14	269	258	263	305	339	293	312	219	251
29	322	257	14	276	245	238	322	322	317	264	221	263
30	329	258	14	241	---	238	342	310	305	285	215	272
31	303	---	15	193	---	234	---	300	---	281	306	---
TOTAL	10107	7880	3150	7278	7213	6945	7603	9529	8801	9217	8367	7329
MEAN	326	263	102	235	249	224	253	307	293	297	270	244
MAX	356	341	265	562	283	283	410	365	349	394	339	349
MIN	294	205	13	19	189	163	212	194	260	239	208	182
AC-FT	20050	15630	6250	14440	14310	13780	15080	18900	17460	18280	16600	14540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1996#, BY WATER YEAR (WY)

MEAN	425	676	684	522	621	775	704	1344	1422	866	488	336
MAX	3628	6300	4681	5267	4611	3871	3555	8391	5222	4479	4101	2480
(WY)	1982	1982	1982	1992	1992	1992	1995	1990	1957	1989	1982	1962
MIN	23.1	37.3	35.0	15.2	23.6	37.7	14.0	84.4	109	157	54.7	65.0
(WY)	1959	1955	1955	1955	1955	1955	1989	1981	1955	1961	1963	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1955 - 1996#	
ANNUAL TOTAL	400581		93419			
ANNUAL MEAN	1097		255		739	
HIGHEST ANNUAL MEAN					3062	1982
LOWEST ANNUAL MEAN					94.2	1955
HIGHEST DAILY MEAN	4450	May 14	562	Jan 8	19000	May 4 1990
LOWEST DAILY MEAN	13	Dec 23	13	Dec 23	.00	Oct 20 1993
ANNUAL SEVEN-DAY MINIMUM	14	Dec 22	14	Dec 22	.29	Nov 3 1983
INSTANTANEOUS PEAK FLOW			2750	Jan 8	19600	May 4 1990
INSTANTANEOUS PEAK STAGE			16.38	Jan 8	30.15	May 4 1990
ANNUAL RUNOFF (AC-FT)	794600		185300		535400	
10 PERCENT EXCEEDS	3880		330		3130	
50 PERCENT EXCEEDS	402		260		208	
90 PERCENT EXCEEDS	35		198		75	

Period of regulated streamflow.

08053000 ELM FORK TRINITY RIVER NEAR LEWISVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to September 1990.
WATER TEMPERATURE: November 1976 to September 1990.

INSTRUMENTATION.--From November 1976 to October 1981, water temperature was measured daily at this station. From October 1981 to September 1990, specific conductance and water temperature were measured daily at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 microsiemens Feb. 5, 8, 1989; minimum daily, 200 microsiemens May 13, 1982.
WATER TEMPERATURE: Maximum daily, 33.5°C July 16, Aug. 18, 1988, Sept. 14, 15, 1989; minimum, 0.0°C Jan. 31, Feb. 9, 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
05...	1500	235	371	8.1	6.5	13	6.9	12.8	105	0.8	120	12
27...	1145	264	381	7.9	10.5	9	3.2	10.7	100	1.2	120	16
MAY												
02...	1400	341	394	8.0	18.5	10	12	9.5	103	1.0	130	16
JUN												
25...	1315	342	391	7.7	27.0	10	--	5.7	73	1.2	120	12
JUL												
24...	1200	289	375	7.9	28.5	10	2.1	6.4	84	1.1	110	15
AUG												
14...	1300	204	385	7.8	29.0	5	4.0	6.1	80	2.6	110	16

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB												
05...	41	4.4	25	1	4.6	110	36	19	0.30	0.60	199	16
27...	42	4.0	26	1	4.5	110	39	21	0.30	0.66	204	12
MAY												
02...	45	4.1	27	1	4.6	110	44	20	0.30	1.5	217	22
JUN												
25...	41	4.4	29	1	5.1	110	46	21	--	2.1	216	20
JUL												
24...	37	4.4	29	1	4.6	96	47	21	0.40	3.2	206	8
AUG												
14...	37	4.4	31	1	4.8	95	47	23	0.40	3.9	211	13

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB											
05...	4	12	0.530	0.530	0.010	0.540	0.540	0.040	0.26	0.30	0.110
27...	<1	--	0.590	0.590	0.010	0.600	0.600	0.020	0.28	0.30	0.060
MAY											
02...	17	5	0.340	0.340	0.010	0.350	0.350	0.120	0.28	0.40	0.100
JUN											
25...	<1	--	0.270	0.270	0.050	0.320	0.320	0.130	0.37	0.50	0.070
JUL											
24...	5	3	0.310	0.310	0.010	0.320	0.320	0.050	0.35	0.40	0.040
AUG											
14...	<1	--	0.500	0.500	0.020	0.520	0.520	0.050	0.35	0.40	0.140

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB											
05...	0.100	0.31	5.9	--	--	--	--	--	--	--	--
27...	0.050	0.15	5.9	<1	44	<0.50	<1.0	<5.0	<3.0	<10	4.0
MAY											
02...	0.090	0.28	5.7	1	49	<0.50	<1.0	<5.0	<3.0	<10	7.0
JUN											
25...	0.060	0.18	5.4	--	--	--	--	--	--	--	--
JUL											
24...	0.060	0.18	6.0	3	39	<0.50	<1.0	<5.0	<3.0	<10	<3.0
AUG											
14...	0.120	0.37	5.7	--	--	--	--	--	--	--	--

08053000 ELM FORK TRINITY RIVER NEAR LEWISVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB											
05...	--	--	--	--	--	--	--	--	--	--	--
27...	<10	4	6.0	<0.1	<10	<10	<1	<1.0	270	<6	6.0
MAY											
02...	<10	5	4.0	<0.1	10	<10	<1	<1.0	270	<6	<3.0
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
24...	<10	4	6.0	0.2	<10	<10	<1	<1.0	280	<6	8.0
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--

08053500 DENTON CREEK NEAR JUSTIN, TX

LOCATION.--Lat 33°07'08", long 97°17'25", Denton County, Hydrologic Unit 12030104, on right bank at downstream side of bridge on Farm Road 156, 100 ft upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.2 mi north of Justin, 3.0 mi upstream from Olivers Creek, 12.9 mi upstream from Harriet Creek, and 32.9 mi upstream from Grapevine Dam.

DRAINAGE AREA.--400 mi².

PERIOD OF RECORD.--October 1949 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

REVISED RECORDS.--WSP 1732: 1950(M). WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 606.66 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. There are several small diversions above station. Flow is affected at times by discharge from the flood-detention pools of 84 floodwater-retarding structures with a combined detention capacity of 52,750 acre-ft. These structures control runoff from 197 mi² in the Denton Creek watershed. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--31 years (water years 1950-80), 77.4 ft³/s (56,080 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1950-80).--Maximum discharge, 29,800 ft³/s May 24, 1957 (gage height, 17.64 ft); no flow at times in 1949-65, 1967-74, 1976-80.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1935 was the highest since 1908 and reached a stage of 20.6 ft at site about 1,500 ft upstream, from information by local resident. Flood in May 1908 reached a stage about 1.0 ft higher than flood in May 1935, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	36	29	21	18	19	18	13	4.6	.00	.00	290
2	13	48	29	22	19	19	16	13	7.3	.00	.00	40
3	20	35	31	26	19	20	16	13	10	.00	.00	14
4	25	22	26	22	19	20	15	13	11	.00	.00	12
5	18	18	26	19	19	20	17	13	10	.00	.00	11
6	15	18	25	19	24	22	24	13	11	.00	.00	9.8
7	14	19	26	19	19	20	19	13	9.7	.00	.00	9.4
8	14	20	27	18	18	20	17	12	12	.00	.00	8.9
9	14	20	27	21	18	19	16	12	12	.00	.00	8.2
10	14	19	30	19	18	19	16	12	11	.00	.00	6.9
11	14	22	26	19	18	20	15	12	10	.00	.00	4.7
12	14	31	27	19	18	20	15	12	9.6	.00	.00	2.8
13	15	35	26	19	17	20	15	12	9.3	.00	.00	1.8
14	15	41	28	19	18	20	19	12	9.0	.00	.00	1.2
15	15	42	28	19	18	20	17	12	8.6	.00	.00	40
16	15	46	26	19	18	20	15	11	9.3	.00	.00	491
17	15	47	32	20	18	20	15	11	9.6	.00	.00	45
18	15	49	68	21	18	21	15	11	8.8	.00	.00	15
19	15	46	75	22	18	23	14	10	7.7	.00	.00	27
20	15	57	57	21	19	23	14	10	5.4	.00	.00	11
21	16	58	40	21	19	22	14	9.6	2.9	.00	.00	8.6
22	16	54	32	20	20	20	14	9.5	.85	.00	.00	7.1
23	15	42	30	21	20	20	227	9.2	.10	.00	.00	6.4
24	16	45	28	21	20	20	136	8.9	.01	.00	.00	5.8
25	16	37	26	19	20	20	56	8.3	.00	.00	.00	5.2
26	17	35	25	19	20	21	20	7.8	.00	.00	.00	5.0
27	18	34	25	19	22	27	16	7.1	.00	.00	.00	5.0
28	21	34	25	19	21	152	15	6.8	.00	.00	.00	6.8
29	23	33	26	19	20	134	14	5.9	.00	.00	.00	11
30	25	29	24	19	---	43	14	5.1	.00	.00	14	7.3
31	27	---	22	19	---	21	---	4.5	---	.00	11	---
TOTAL	516	1072	972	620	553	905	854	322.7	189.76	0.00	25.00	1117.9
MEAN	16.6	35.7	31.4	20.0	19.1	29.2	28.5	10.4	6.33	.000	.81	37.3
MAX	27	58	75	26	24	152	227	13	12	.00	14	491
MIN	11	18	22	18	17	19	14	4.5	.00	.00	.00	1.2
AC-FT	1020	2130	1930	1230	1100	1800	1690	640	376	.00	50	2220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996#, BY WATER YEAR (WY)

MEAN	267	111	152	85.2	147	186	214	486	317	48.8	12.9	32.7
MAX	2828	735	1321	437	497	522	2095	2036	1815	260	83.7	242
(WY)	1982	1995	1992	1992	1993	1990	1990	1982	1989	1982	1995	1986
MIN	.000	.29	3.84	4.30	14.1	29.2	20.4	8.24	6.33	.000	.000	.000
(WY)	1989	1981	1981	1981	1981	1996	1981	1984	1996	1984	1981	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996#	
ANNUAL TOTAL	45840.0		7147.36			
ANNUAL MEAN	126		19.5		172	
HIGHEST ANNUAL MEAN					577	1982
LOWEST ANNUAL MEAN					19.5	1996
HIGHEST DAILY MEAN	4190	May 8	491	Sep 16	18600	Oct 14 1981
LOWEST DAILY MEAN	4.4	Sep 9	.00	Jun 25	.00	Oct 9 1980
ANNUAL SEVEN-DAY MINIMUM	5.1	Sep 5	.00	Jun 25	.00	Oct 9 1980
INSTANTANEOUS PEAK FLOW			1000	Sep 16	34700	Oct 13 1981
INSTANTANEOUS PEAK STAGE			7.58	Sep 16	18.68	Oct 13 1981
ANNUAL RUNOFF (AC-FT)	90920		14180		124500	
10 PERCENT EXCEEDS	228		32		261	
50 PERCENT EXCEEDS	36		16		29	
90 PERCENT EXCEEDS	13		.00		.20	

Period of regulated streamflow.

08054500 GRAPEVINE LAKE NEAR GRAPEVINE, TX

LOCATION.--Lat 32°58'21", long 97°03'22", Tarrant County, Hydrologic Unit 12030104, in intake structure of Grapevine Dam on Denton Creek, 2.7 mi northeast of Grapevine, 4.3 mi upstream from bridge on State Highway 121, and 11.7 mi upstream from mouth.

DRAINAGE AREA.--695 mi².

PERIOD OF RECORD.--July 1952 to current year. Prior to October 1970, published as Grapevine Reservoir.
Water-quality records.--Chemical and biochemical analyses: October 1969 to August 1986.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to May 16, 1953, nonrecording gage at site 1,000 ft upstream at present datum.

REMARKS.--The lake is formed by a rolled earthfill dam 12,850 ft long, including a 500-foot 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 13.0-foot-diameter concrete conduit that is controlled by two 6.5- by 13.0-foot broome-type gates and two 30-inch steel pipes with service valves. The capacity table, used since April 1972, is 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. An unknown amount of water is diverted for industrial and municipal uses. Inflow is affected at times by discharge from the flood-detention pools of 87 floodwater-retarding structures with a combined detention capacity of 57,850 acre-ft. These structures control runoff from 217 mi² in the Denton Creek watershed. Satellite telemeter at station. 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	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 of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 471,200 acre-ft Nov. 1, 1981 (elevation, 563.29 ft); minimum since lake first filled in 1957, 94,480 acre-ft Feb. 26, 1979 (elevation, 520.67 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 168,900 acre-ft Oct. 1 (elevation, 533.29 ft); minimum, 125,000 acre-ft Sept. 30 (elevation, 526.41 ft).

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

526.0	122,700	542.0	236,500	549.0	302,000
531.0	153,300	545.0	263,300	551.0	322,400
535.0	181,100	547.0	282,300	553.0	343,800
539.0	211,500				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168900	162300	158800	150500	147800	145900	144900	146000	141400	135600	129600	126700
2	168900	162100	158800	150100	147800	145700	144800	145900	141200	135300	129500	127000
3	168600	161900	158800	149400	147700	145500	144800	145800	141000	135100	129200	127100
4	168300	161700	158700	149100	147500	145500	144800	145700	140900	134800	128900	127100
5	168000	161500	158700	148800	147500	145600	146100	145600	140600	134600	128700	127000
6	167600	161400	158500	148700	147500	145600	146600	145500	140900	134200	128400	126900
7	167300	161300	158300	148500	147500	145200	146700	145400	140600	133900	128100	126700
8	167000	161100	158500	148400	147600	145200	146800	145300	140300	133700	128000	126600
9	166800	161100	158100	148400	147600	144800	146700	145200	140100	133400	127800	126400
10	166600	161400	158000	148300	147600	144600	146600	145300	140100	133200	127600	126200
11	166400	160900	157800	148300	147500	144500	146600	145200	139900	133000	127500	126000
12	166100	160600	157400	148200	147400	144400	147200	145000	140200	133500	127300	125800
13	165900	160500	157100	148200	147300	144300	147100	144900	139900	133300	127000	125700
14	165500	160400	156600	148200	147300	144500	147100	144700	139700	133500	126700	125500
15	165200	160300	156200	148100	147300	144400	146900	144600	139500	133300	126600	126000
16	165000	160200	155900	148000	147000	144300	146700	144400	139300	133200	126500	126100
17	164600	160200	156300	148600	147000	144300	146600	144200	139100	132900	126500	126500
18	164300	160100	156500	148500	147000	144400	146600	144000	138800	132700	126300	126600
19	164100	160000	155900	148300	146900	144300	146600	143800	138600	132400	126100	126700
20	163700	160000	155600	148400	146900	144000	146400	143600	138300	132200	125900	126700
21	163400	159900	155300	148300	146900	143900	146100	143400	138100	132000	125700	126600
22	163200	159900	154900	148400	146800	143700	146500	143100	137800	131700	125600	126400
23	163100	159700	154400	148400	146800	143600	146400	142900	137500	131500	125400	126200
24	162700	159600	153900	148400	146600	143900	146600	142600	137200	131400	125300	126100
25	162500	159400	153400	148200	146600	143600	146800	142300	137000	131100	125900	126000
26	162400	159400	152900	148200	146400	143500	146800	142200	136700	130900	125700	125900
27	162400	159400	152500	148100	146300	144300	146600	142000	136500	130700	125700	125600
28	162100	159100	151900	148000	146100	144400	146800	141800	136400	130400	125700	125300
29	161700	158900	151400	148100	145900	144700	146400	141500	136100	130200	125600	125100
30	161900	158800	151000	148000	---	145100	146100	141200	135900	129900	125500	125000
31	162000	---	150600	147900	---	145000	---	141100	---	129800	126800	---
MAX	168900	162300	158800	150500	147800	145900	147200	146000	141400	135600	129600	127100
MIN	161700	158800	150600	147900	145900	143500	144800	141100	135900	129800	125300	125000
(+)	532.30	531.83	530.59	530.18	529.87	529.73	529.90	529.11	528.26	527.25	526.73	526.41
(@)	-7100	-3200	-8200	-2700	-2000	-900	+1100	-5000	-5200	-6100	-3000	-1800

CAL YR 1995 MAX 243300 MIN 150600 @ -33100
WTR YR 1996 MAX 168900 MIN 125000 @ -44100

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08055500 ELM FORK TRINITY RIVER NEAR CARROLLTON, TX

LOCATION.--Lat 32°57'57", long 96°56'39", Dallas County, Hydrologic Unit 12030103, near left bank at downstream side of bridge on Sandy Lake Road, 40 ft upstream from Carrollton Dam, 0.3 mi downstream from Denton Creek, 1.0 mi upstream from St. Louis Southwestern Railway Lines bridge, 2.3 mi northwest of Carrollton, and 18.2 mi upstream from mouth.

DRAINAGE AREA.--2,459 mi².

PERIOD OF RECORD.--January 1907 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to November 1923, published as "near Dallas".

REVISED RECORDS.--WSP 788: 1924. WSP 1148: Drainage area at former site. WSP 1632: 1908(M). WSP 1922: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 431.40 ft above sea level. Prior to November 1923, nonrecording gage at site 15.5 mi 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 mi downstream at datum 22.94 ft lower. Apr. 15, 1939, to Sept. 30, 1955, water-stage recorder at site 8.5 mi downstream at datum 22.94 ft lower. Oct. 1, 1955, to Sept. 30, 1987, water-stage recorder at present site and at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow largely regulated by Lewisville Lake (station 08052800) since November 1954, and by Grapevine Lake (station 08054500) since July 1952. The city of Dallas diverts water from the pool at gage and from the river 14 mi downstream for municipal use. A wastewater treatment plant returns water to the river below the station. In addition, Dallas Power and Light Co. diverts water from the pool at gage into North Lake for cooling water at their electric generating plant. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--47 years (water years 1908-54), 818 ft³/s (592,600 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1908-54).--Maximum gage height, about 19 ft May 25, 1908, present site and datum, from information by local resident; estimated discharge, 145,000 ft³/s, at site 8.5 mi downstream, from information by U.S. Army Corps of Engineers; maximum gage height subsequent to 1908, 16.5 ft Apr. 26, 1942, present site and datum, from observation by National Weather Service; discharge at site 8.5 mi downstream, 90,700 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1866 reached about the same stage as flood of May 25, 1908.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	172	47	118	65	180	68	132	249	103	98	512
2	160	77	77	144	43	145	96	163	105	134	60	62
3	229	117	80	26	34	131	93	160	109	179	129	129
4	182	148	38	64	30	129	89	112	121	175	102	121
5	189	110	50	219	36	114	579	125	44	122	116	127
6	193	76	42	101	70	105	340	113	132	124	109	101
7	178	62	71	79	42	137	81	96	262	114	162	108
8	194	95	100	88	88	98	86	146	84	104	181	117
9	140	88	48	75	79	72	107	184	79	162	174	106
10	194	79	67	68	66	66	158	119	117	119	128	122
11	241	59	44	45	99	102	109	322	54	128	139	168
12	218	55	80	63	75	122	132	25	126	346	153	178
13	226	58	82	45	131	126	144	83	86	159	79	148
14	214	73	46	41	104	169	62	109	153	287	118	128
15	187	82	89	113	110	180	131	87	137	101	116	334
16	164	77	84	116	131	128	113	91	108	121	182	153
17	148	93	381	122	145	166	106	91	78	110	224	111
18	143	96	240	222	118	237	112	143	71	101	157	154
19	163	81	82	67	100	145	126	132	72	102	153	91
20	139	52	42	57	125	126	124	108	74	123	138	95
21	147	45	80	42	127	137	91	155	160	156	118	90
22	128	63	22	56	91	132	160	153	146	130	109	121
23	153	92	74	80	113	124	84	143	128	123	93	118
24	151	94	63	71	127	220	248	129	110	124	81	110
25	111	61	67	56	97	156	121	146	150	146	182	83
26	91	50	67	122	133	127	137	182	130	151	244	64
27	90	84	39	140	283	407	141	159	109	167	164	113
28	91	47	44	127	166	384	150	143	42	232	163	120
29	70	49	77	145	177	117	147	141	127	88	74	126
30	135	45	33	36	---	95	130	117	121	111	19	139
31	150	---	54	40	---	122	---	166	---	156	454	---
TOTAL	5021	2380	2410	2788	3005	4699	4265	4175	3484	4498	4419	4149
MEAN	162	79.3	77.7	89.9	104	152	142	135	116	145	143	138
MAX	241	172	381	222	283	407	579	322	262	346	454	512
MIN	70	45	22	26	30	66	62	25	42	88	19	62
AC-FT	9960	4720	4780	5530	5960	9320	8460	8280	6910	8920	8770	8230

08055500 ELM FORK TRINITY RIVER NEAR CARROLLTON, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1996#, BY WATER YEAR (WY)

MEAN	441	789	853	624	737	910	919	1583	1712	995	552	304
MAX	3554	8830	6785	6614	5868	4858	4782	10920	6757	6224	6003	3406
(WY)	1982	1982	1982	1992	1992	1992	1995	1990	1990	1989	1982	1962
MIN	27.8	4.21	.78	.80	2.06	3.30	43.5	38.4	80.0	94.9	58.2	14.8
(WY)	1981	1957	1978	1957	1957	1957	1955	1980	1959	1979	1979	1985

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1955 - 1996#	
ANNUAL TOTAL	483388		45293			
ANNUAL MEAN	1324		124		868	
HIGHEST ANNUAL MEAN					4289	1982
LOWEST ANNUAL MEAN					76.0	1978
HIGHEST DAILY MEAN	6030	Apr 4	579	Apr 5	25300	May 5 1990
LOWEST DAILY MEAN	22	Dec 22	19	Aug 30	.00	Dec 2 1954
ANNUAL SEVEN-DAY MINIMUM	54	Dec 22	41	Jan 30	.00	Jan 7 1959
INSTANTANEOUS PEAK FLOW			1800	Aug 31	33000	Sep 21 1964
INSTANTANEOUS PEAK STAGE			5.26	Aug 31	13.48	May 5 1990
ANNUAL RUNOFF (AC-FT)	958800		89840		629100	
10 PERCENT EXCEEDS	5030		182		3840	
50 PERCENT EXCEEDS	193		117		145	
90 PERCENT EXCEEDS	77		55		35	

Period of regulated streamflow.

08057000 TRINITY RIVER AT DALLAS, TX

LOCATION.--Lat 32°46'29", long 96°49'18", Dallas County, Hydrologic Unit 12030105, on right bank (levee) 90 ft downstream from Commerce Street viaduct in Dallas, 5.2 mi downstream from confluence of West and Elm Forks, and at mile 500.3.

DRAINAGE AREA.--6,106 mi².

PERIOD OF RECORD.--October 1898 to December 1899 (gage heights only published in WSP 28 and 37), July 1903 to current year. Daily discharges are not available for all periods prior to 1931.

REVISED RECORDS.--WSP 850: 1903-06 (monthly and annual means). WSP 1732: 1937(M). WSP 1922: Drainage area. WRD TX-73-1: 1972.

GAGE.--Water-stage recorder. Datum of gage is 368.02 ft above sea level. Oct. 1, 1898, to Dec. 31, 1899, nonrecording gage at site 2 mi upstream at different datum. July 1, 1903, to July 20, 1930, non-recording gage at present site and datum. July 21, 1930, to Sept. 30, 1932, nonrecording gage at site 6 mi downstream at datum 3.08 ft lower.

REMARKS.--No estimated daily discharges. Records good. At times, flow is affected by storage in seven major upstream reservoirs, with a combined capacity of 1,703,000 acre-ft of which 846,200 acre-ft is for flood control. The city of Dallas diverts water for municipal use from the Elm Fork, Lake Ray Hubbard (on the East Fork), and from Lake Tawakoni (on the Sabine River), and purchases water from North Texas Municipal Water District (from the East Fork). Wastewater effluent from the City of Dallas is returned to the river downstream from this station. The Trinity River Authority and the City of Fort Worth discharge wastewater effluent into the river upstream from this station. For additional information on diversions and effluent returns for this station, see stations 08048000, 08049200, and 08049500. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--31 years (water years 1903-33) prior to regulation by upstream reservoirs, 1,330 ft³/s (963,500 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1903-33).--Maximum discharge, 184,000 ft³/s May 25, 1908 (gage height, 52.6 ft), from rating curve extended above 109,000 ft³/s. Maximum stage since at least 1840, that of May 25, 1908.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1866 reached about the same stage as that of May 25, 1908.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	445	1700	326	445	434	507	556	437	1020	386	537	5250
2	451	991	325	1040	459	490	571	348	1520	391	458	1780
3	512	463	335	731	485	479	551	362	656	410	443	636
4	555	391	335	498	476	474	546	355	650	401	445	587
5	458	395	341	467	492	464	2090	337	864	385	439	519
6	424	381	337	485	534	445	4980	342	543	389	439	496
7	394	384	328	405	579	422	1690	338	1280	385	439	467
8	392	414	467	403	548	428	840	338	644	393	449	467
9	393	378	521	401	568	419	657	332	476	493	724	608
10	386	369	382	396	542	421	548	359	685	1070	715	508
11	385	345	377	394	520	426	552	1090	654	621	647	469
12	386	345	358	367	523	424	519	643	491	1420	575	453
13	414	358	357	357	454	427	1440	416	642	3510	497	445
14	380	352	354	367	446	424	867	382	662	2840	446	442
15	378	348	348	359	438	427	564	367	1300	2930	437	1200
16	370	341	366	406	428	430	529	353	647	1000	498	1810
17	363	349	1430	443	428	419	524	355	561	1350	737	593
18	355	346	2710	2030	442	784	510	372	882	650	660	519
19	353	355	1820	1180	445	807	523	369	550	551	528	743
20	354	355	676	595	450	516	509	360	454	499	473	569
21	357	337	733	525	435	440	499	319	445	482	445	460
22	357	344	485	498	434	429	938	310	426	465	459	426
23	367	339	384	499	419	417	1310	310	417	526	546	417
24	352	328	372	491	424	583	745	313	412	859	477	409
25	354	331	356	488	433	1210	627	303	411	536	549	407
26	360	322	350	473	438	666	502	308	551	493	634	434
27	367	324	372	509	860	950	456	326	460	692	693	413
28	354	314	372	506	912	3590	439	374	423	1030	1970	393
29	356	322	366	521	541	1320	475	381	409	583	1930	401
30	366	330	789	507	---	634	429	306	396	489	1680	407
31	432	---	493	447	---	492	---	327	---	558	1230	---
TOTAL	12170	12651	17565	17233	14587	20364	25986	11832	19531	26787	21199	22728
MEAN	393	422	567	556	503	657	866	382	651	864	684	758
MAX	555	1700	2710	2030	912	3590	4980	1090	1520	3510	1970	5250
MIN	352	314	325	357	419	417	429	303	396	385	437	393
AC-FT	24140	25090	34840	34180	28930	40390	51540	23470	38740	53130	42050	45080

08057000 TRINITY RIVER AT DALLAS, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996#, BY WATER YEAR (WY)

MEAN	1197	1353	1424	1181	1808	2030	2492	4045	3171	1278	729	798
MAX	10050	14150	12860	13350	10410	14910	27050	28050	17390	8629	6075	7107
(WY)	1982	1982	1992	1992	1992	1945	1942	1990	1941	1989	1982	1962
MIN	68.2	58.2	53.0	62.4	76.9	68.2	91.5	213	68.0	51.9	50.2	52.4
(WY)	1935	1956	1939	1940	1940	1956	1955	1937	1953	1956	1956	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1934 - 1996#	
ANNUAL TOTAL	1017003		222633			
ANNUAL MEAN	2786		608		1790	
HIGHEST ANNUAL MEAN					7154	1982
LOWEST ANNUAL MEAN					115	1956
HIGHEST DAILY MEAN	27000	May 9	5250	Sep 1	103000	Apr 26 1942
LOWEST DAILY MEAN	314	Nov 28	303	May 25	10	Oct 1 1953
ANNUAL SEVEN-DAY MINIMUM	323	Nov 26	313	May 21	26	Apr 12 1935
INSTANTANEOUS PEAK FLOW			5970	Sep 1	111000	Apr 26 1942
INSTANTANEOUS PEAK STAGE			26.96	Sep 1	47.10	May 3 1990
ANNUAL RUNOFF (AC-FT)	2017000		441600		1297000	
10 PERCENT EXCEEDS	7930		994		5160	
50 PERCENT EXCEEDS	1040		449		395	
90 PERCENT EXCEEDS	356		348		106	

Period of regulated streamflow.

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX

LOCATION.--Lat 32°45'04", long 96°47'07", Dallas County, Hydrologic Unit 12030105, on right bank at abandoned bridge abutment, 0.2 mi upstream from Cedar Crest Blvd. Bridge, 1.8 mi southeast of Dallas City Hall, 2.1 mi downstream from Coombs Creek, and 2.7 mi downstream from Commerce Street Bridge (station 08057000).

PERIOD OF RECORD.--Chemical and biochemical analyses: February 1984 to September 1993.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1984 to current year.
pH: February 1984 to current year.
WATER TEMPERATURES: February 1984 to current year.
DISSOLVED OXYGEN: February 1984 to current year.

INSTRUMENTATION.--Since February 1984, a four-parameter water-quality monitor records temperature, DO, pH, and specific conductance continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request. Records of discharge are given for gaging station 08057000. No appreciable inflow between the two stations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,030 microsiemens Feb. 12, 1988; minimum, 93 microsiemens Oct. 20, 1984.
pH: Maximum, 8.7 units Mar. 13, 1995; minimum, 6.8 units Sept. 6, 1988.
WATER TEMPERATURE: Maximum, 33.5°C Aug. 12, 1987; minimum, 5.0°C Feb. 7, 8, 1989.
DISSOLVED OXYGEN: Maximum, 13.7 mg/L Feb. 8, 1989; minimum, 0.0 mg/L July 21, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 883 microsiemens Mar. 11; minimum, 305 microsiemens July 14.
pH: Maximum, 8.6 units May 18 and 20; minimum, 7.1 units on June 7.
WATER TEMPERATURE: Maximum, 32.5°C on July 8; minimum, 7.5°C Feb. 3 and 4.
DISSOLVED OXYGEN: Maximum, 11.7 mg/L Feb. 4; minimum, 2.3 mg/L Aug. 31.

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	12170	797	438	14400	80	2630	94	3090	180
NOV.	1995	12651	746	412	14100	72	2450	88	3020	170
DEC.	1995	17565	671	373	17700	61	2880	80	3800	170
JAN.	1996	17233	736	407	18900	70	3260	87	4070	180
FEB.	1996	14587	788	433	17100	78	3090	93	3670	180
MAR.	1996	20364	676	376	20700	61	3380	81	4440	170
APR.	1996	25986	610	342	24000	51	3580	73	5150	170
MAY	1996	11832	752	415	13300	72	2310	89	2850	180
JUNE	1996	19531	597	336	17700	49	2600	72	3790	170
JULY	1996	26787	555	312	22600	45	3260	67	4840	160
AUG.	1996	21199	616	345	19800	52	2990	74	4240	170
SEPT	1996	22728	577	324	19900	48	2930	69	4260	160
TOTAL		222633	**	**	220000	**	35400	**	47200	**
WTD.AVG.		608	657	366	**	59	**	79	**	170

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	800	749	781	825	506	597	794	787	789	752	636	737
2	768	716	741	654	520	622	816	794	804	643	594	614
3	781	695	758	674	638	658	833	816	827	663	596	632
4	748	695	730	676	661	669	836	812	826	680	663	673
5	779	727	756	735	676	708	824	807	813	755	677	717
6	753	722	738	755	732	741	827	808	818	724	702	711
7	768	749	760	768	754	758	812	808	810	799	724	770
8	794	763	776	769	737	748	808	746	781	819	787	803
9	794	776	784	761	747	752	790	778	783	828	797	808
10	800	781	790	797	761	777	818	786	802	830	808	816
11	806	786	797	808	797	802	821	804	813	811	794	802
12	806	780	790	821	808	816	810	804	806	840	809	829
13	782	765	771	822	814	819	813	807	810	843	838	840
14	802	768	789	830	819	826	812	802	806	858	843	852
15	809	792	802	829	813	819	814	809	812	865	848	854
16	812	791	804	826	815	821	813	794	806	868	815	837
17	828	811	818	819	812	815	806	540	600	846	794	823
18	833	810	821	820	812	816	540	457	512	794	577	661
19	813	791	801	828	819	824	497	429	464	664	623	640
20	838	803	815	828	811	820	565	497	539	671	619	647
21	850	829	840	820	811	815	678	565	614	721	671	701
22	841	814	829	827	817	822	708	606	667	772	721	755
23	838	811	826	818	806	812	758	708	741	782	758	771
24	832	815	825	818	807	814	764	734	752	780	758	770
25	855	825	842	821	811	816	758	742	751	807	776	788
26	825	806	814	811	800	806	763	751	757	828	807	819
27	842	807	821	808	794	802	762	737	750	824	747	792
28	841	832	837	794	779	786	769	755	761	819	741	774
29	862	838	854	788	780	786	762	730	749	824	761	789
30	868	829	852	789	782	786	760	633	726	792	749	762
31	860	822	846	---	---	---	747	635	693	841	792	815
MONTH	868	695	800	830	506	775	836	429	741	868	577	761

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	846	831	840	760	748	757	641	631	636	820	782	797
2	869	818	832	767	741	756	655	637	644	822	803	812
3	876	831	848	797	752	779	667	654	658	827	809	819
4	849	820	832	795	775	783	688	667	676	831	813	821
5	838	804	821	799	759	775	689	502	583	849	821	837
6	821	766	804	814	797	805	519	458	484	846	823	835
7	766	732	747	847	803	819	519	459	481	829	812	822
8	768	742	752	862	847	855	614	519	571	822	808	816
9	768	743	753	872	851	856	691	614	652	818	786	799
10	778	744	759	876	858	868	735	691	716	817	793	807
11	781	774	778	883	844	865	750	735	745	801	583	706
12	775	761	766	852	824	840	772	649	738	702	583	646
13	838	769	795	854	828	841	649	503	587	800	702	765
14	844	820	830	843	826	833	525	500	511	809	794	801
15	823	814	819	848	828	842	650	512	593	794	767	775
16	827	816	822	846	816	829	677	648	663	770	757	764
17	847	826	836	860	839	851	707	677	694	772	762	768
18	856	834	845	857	587	711	732	693	719	765	752	759
19	834	806	821	644	577	611	764	722	746	779	765	773
20	829	812	819	711	644	678	757	741	747	769	743	754
21	829	809	819	741	711	729	763	743	753	749	735	741
22	810	778	786	736	722	729	757	608	685	748	731	741
23	814	784	804	752	730	736	629	585	608	744	728	737
24	835	814	824	757	622	741	610	581	599	737	728	732
25	827	795	808	622	525	554	668	594	616	743	736	740
26	821	799	810	642	555	607	744	668	719	742	734	740
27	812	625	755	643	531	612	775	742	761	734	710	725
28	695	601	641	534	491	511	792	753	775	710	648	690
29	753	695	721	542	491	510	779	756	763	649	610	624
30	---	---	---	608	542	581	783	738	760	679	635	654
31	---	---	---	633	608	625	---	---	---	680	663	673
MONTH	876	601	796	883	491	738	792	458	663	849	583	757

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	671	520	614	827	803	815	677	658	665	495	321	369
2	536	522	530	813	789	803	726	677	698	428	337	381
3	522	509	514	830	804	818	765	726	748	547	428	507
4	540	510	523	815	746	782	792	765	778	600	540	565
5	550	474	527	810	786	799	804	792	796	644	600	625
6	513	473	496	833	810	822	808	797	804	672	644	661
7	506	391	441	848	820	838	813	798	807	728	672	701
8	538	450	509	837	798	820	798	722	779	752	719	735
9	623	538	590	801	671	771	775	449	683	763	736	753
10	627	514	563	750	629	694	707	607	666	761	666	714
11	574	519	541	749	576	617	739	625	684	671	662	667
12	634	574	609	629	408	547	652	576	610	709	670	686
13	643	558	603	453	315	373	663	576	621	745	709	725
14	605	554	578	414	305	368	734	663	704	772	745	757
15	579	499	521	423	376	394	734	714	721	779	582	692
16	583	530	550	481	423	461	735	662	709	601	531	565
17	623	583	605	615	427	486	759	580	680	571	531	546
18	605	472	548	562	450	512	643	504	567	623	571	597
19	675	579	632	650	562	605	693	580	639	639	599	617
20	717	675	697	708	650	687	708	640	675	637	613	622
21	763	697	723	756	707	734	697	643	676	669	620	643
22	784	762	768	789	754	768	707	629	692	719	662	698
23	789	771	781	794	771	782	701	567	664	746	717	731
24	784	769	778	794	421	604	782	680	714	755	732	742
25	797	774	782	669	590	629	787	647	732	774	753	762
26	840	616	784	673	640	656	787	547	678	770	731	755
27	771	623	728	771	673	725	626	506	572	809	756	781
28	811	735	782	782	492	576	628	356	460	803	750	772
29	787	707	735	592	525	554	510	399	457	804	793	800
30	822	787	804	646	592	626	486	430	452	811	793	801
31	---	---	---	671	645	661	539	467	504	---	---	---
MONTH	840	391	629	848	305	656	813	356	666	811	321	666
YEAR	883	305	721									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.9	7.7	7.8	8.3	8.0	8.1	8.2	8.2	8.2	8.0	7.9	7.9
2	7.8	7.6	7.7	8.2	8.0	8.1	8.2	8.1	8.2	8.2	8.0	8.1
3	7.7	7.5	7.6	8.2	8.1	8.2	8.2	8.1	8.1	8.2	8.1	8.1
4	7.7	7.5	7.6	8.1	8.0	8.0	8.2	8.2	8.2	8.1	8.1	8.1
5	7.8	7.5	7.6	8.1	8.0	8.1	8.3	8.1	8.2	8.2	8.1	8.1
6	7.9	7.7	7.8	8.1	8.1	8.1	8.3	8.2	8.2	8.2	8.2	8.2
7	7.9	7.7	7.8	8.1	8.1	8.1	8.3	8.2	8.2	8.2	8.1	8.2
8	7.9	7.7	7.8	8.2	8.1	8.2	8.3	8.1	8.2	8.1	8.0	8.1
9	7.9	7.6	7.8	8.2	8.1	8.2	8.2	8.2	8.2	8.1	8.0	8.1
10	7.6	7.5	7.6	8.3	8.2	8.2	8.2	8.1	8.2	8.2	8.0	8.0
11	7.7	7.5	7.6	8.3	8.2	8.3	8.2	8.2	8.2	8.2	8.1	8.1
12	7.7	7.5	7.6	8.3	8.2	8.2	8.2	8.2	8.2	8.2	8.1	8.1
13	7.7	7.5	7.6	8.3	8.2	8.3	8.2	8.2	8.2	8.2	8.1	8.1
14	7.8	7.5	7.6	8.4	8.2	8.3	8.2	8.2	8.2	8.2	8.1	8.2
15	7.8	7.5	7.6	8.4	8.2	8.3	8.2	8.0	8.1	8.2	8.0	8.1
16	7.8	7.6	7.7	8.4	8.2	8.3	8.0	8.0	8.0	8.1	8.0	8.1
17	7.7	7.5	7.6	8.4	8.2	8.3	8.2	7.8	7.9	8.2	8.0	8.1
18	7.7	7.5	7.6	8.3	8.2	8.2	7.9	7.8	7.9	8.2	8.0	8.1
19	7.7	7.5	7.6	8.3	8.2	8.2	8.1	7.9	8.0	8.1	8.0	8.1
20	7.7	7.4	7.6	8.2	8.1	8.2	8.1	7.9	7.9	8.1	8.0	8.0
21	7.7	7.6	7.6	8.2	8.1	8.2	8.0	7.8	7.9	8.1	8.0	8.0
22	7.7	7.6	7.6	8.3	8.1	8.2	8.0	7.8	7.9	8.1	8.0	8.1
23	7.7	7.6	7.7	8.3	8.1	8.2	7.9	7.8	7.8	8.0	8.0	8.0
24	7.7	7.6	7.6	8.3	8.2	8.2	7.9	7.8	7.8	8.0	8.0	8.0
25	7.6	7.6	7.6	8.3	8.2	8.3	7.9	7.8	7.8	8.0	7.9	8.0
26	7.9	7.5	7.7	8.3	8.2	8.3	8.0	7.8	8.0	8.0	8.0	8.0
27	8.1	7.9	8.0	8.3	8.2	8.2	7.9	7.9	7.9	8.1	8.0	8.0
28	8.1	8.0	8.1	8.3	8.2	8.2	7.9	7.9	7.9	8.0	7.9	8.0
29	8.2	8.1	8.1	8.3	8.2	8.2	7.9	7.9	7.9	8.0	7.8	7.9
30	8.2	8.1	8.1	8.2	8.2	8.2	8.1	7.8	7.9	8.0	8.0	8.0
31	8.2	8.1	8.1	---	---	---	8.1	7.9	8.0	8.0	7.9	8.0
MONTH	8.2	7.4	7.7	8.4	8.0	8.2	8.3	7.8	8.0	8.2	7.8	8.1

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	7.9	7.9	8.0	7.9	8.0	8.1	7.9	8.0	8.3	8.1	8.2
2	8.0	7.9	7.9	8.0	7.9	7.9	8.0	7.9	8.0	8.2	8.0	8.1
3	8.1	7.9	8.0	8.0	8.0	8.0	8.0	7.8	7.9	8.1	8.0	8.0
4	7.9	7.9	7.9	8.0	7.8	7.9	8.0	7.8	7.8	8.2	8.0	8.1
5	8.0	7.9	7.9	8.0	7.8	7.9	8.3	8.0	8.2	8.2	8.0	8.1
6	8.0	7.9	8.0	8.1	7.9	8.0	8.3	8.2	8.3	8.2	8.0	8.1
7	8.0	7.9	8.0	8.1	7.9	8.0	8.3	8.2	8.2	8.2	8.0	8.1
8	8.1	8.0	8.0	8.2	8.0	8.1	8.2	8.2	8.2	8.2	8.0	8.1
9	8.1	7.9	8.0	8.2	8.0	8.1	8.2	8.0	8.1	8.2	7.9	8.0
10	8.0	7.9	8.0	8.1	8.0	8.0	8.2	8.2	8.2	8.1	7.9	8.0
11	8.1	7.9	8.0	8.2	8.0	8.1	8.2	8.1	8.1	8.0	7.7	7.9
12	8.1	8.0	8.0	8.3	8.1	8.2	8.1	7.9	8.0	8.0	7.8	7.8
13	8.3	8.1	8.1	8.3	8.1	8.2	7.9	7.7	7.8	7.8	7.7	7.7
14	8.3	8.0	8.1	8.3	8.1	8.2	7.8	7.7	7.7	7.8	7.7	7.7
15	8.2	7.9	8.0	8.3	8.1	8.2	7.9	7.8	7.8	7.9	7.8	7.9
16	8.1	7.8	8.0	8.2	8.0	8.1	8.0	7.9	7.9	8.1	7.9	8.0
17	8.0	7.7	7.8	8.2	8.0	8.1	8.2	8.0	8.0	8.5	8.0	8.2
18	7.9	7.7	7.8	8.1	7.9	8.0	8.3	8.0	8.1	8.6	8.2	8.3
19	7.9	7.7	7.8	8.1	8.0	8.0	8.3	8.0	8.2	8.5	8.2	8.3
20	7.9	7.7	7.8	8.2	8.0	8.1	8.3	8.1	8.1	8.6	8.2	8.3
21	8.0	7.8	7.9	8.3	8.2	8.2	8.1	7.9	8.0	8.3	8.1	8.2
22	8.1	7.8	7.9	8.3	8.1	8.2	8.0	7.7	7.9	8.4	8.0	8.1
23	8.4	7.9	8.1	8.3	8.1	8.2	7.7	7.7	7.7	8.4	8.0	8.2
24	8.3	8.1	8.2	8.2	8.0	8.1	7.8	7.7	7.8	8.4	8.1	8.2
25	8.2	8.0	8.1	8.1	8.0	8.0	7.9	7.8	7.8	8.2	8.0	8.1
26	8.2	8.1	8.2	8.1	8.0	8.1	8.1	7.9	8.0	8.2	8.0	8.1
27	8.2	8.0	8.2	8.2	8.0	8.1	8.1	8.0	8.0	8.0	7.9	7.9
28	8.1	8.0	8.0	8.1	8.0	8.1	8.1	8.0	8.1	7.9	7.6	7.8
29	8.1	8.0	8.0	8.1	8.1	8.1	8.2	8.1	8.1	7.7	7.6	7.6
30	---	---	---	8.1	8.0	8.0	8.3	8.1	8.2	7.7	7.6	7.7
31	---	---	---	8.1	8.1	8.1	---	---	---	7.7	7.6	7.6
MONTH	8.4	7.7	8.0	8.3	7.8	8.1	8.3	7.7	8.0	8.6	7.6	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	7.6	7.7	8.1	7.7	7.9	7.7	7.5	7.6	7.8	7.4	7.5
2	7.7	7.6	7.7	8.0	7.7	7.8	7.9	7.6	7.7	7.6	7.5	7.5
3	7.7	7.7	7.7	8.1	7.8	7.9	7.9	7.6	7.8	7.6	7.5	7.6
4	7.7	7.7	7.7	7.9	7.7	7.8	7.8	7.6	7.7	7.6	7.6	7.6
5	7.8	7.3	7.6	7.9	7.7	7.8	7.9	7.5	7.7	7.7	7.6	7.6
6	7.7	7.3	7.5	7.9	7.7	7.8	8.0	7.6	7.8	7.8	7.6	7.7
7	7.6	7.1	7.3	8.0	7.7	7.9	8.1	7.8	7.9	8.0	7.7	7.8
8	8.0	7.3	7.5	8.1	7.7	7.9	---	---	---	7.9	7.7	7.8
9	8.0	7.8	7.9	8.1	7.8	7.9	---	---	---	7.9	7.6	7.8
10	8.0	7.3	7.6	7.9	7.5	7.6	---	---	---	7.7	7.5	7.6
11	7.5	7.3	7.4	7.8	7.5	7.7	---	---	---	7.7	7.6	7.6
12	7.7	7.5	7.6	7.9	7.6	7.8	---	---	---	7.7	7.5	7.6
13	7.8	7.5	7.6	7.9	7.6	7.8	---	---	---	7.7	7.6	7.7
14	7.9	7.5	7.7	8.0	7.7	7.8	7.9	7.6	7.7	7.7	7.6	7.7
15	7.7	7.5	7.6	7.8	7.7	7.8	8.1	7.7	7.9	7.8	7.5	7.6
16	7.8	7.6	7.7	7.8	7.6	7.7	7.9	7.6	7.8	7.7	7.6	7.7
17	8.3	7.7	8.0	7.7	7.6	7.7	7.6	7.4	7.5	7.7	7.6	7.7
18	8.2	7.7	8.0	7.7	7.6	7.7	7.5	7.4	7.4	7.8	7.6	7.6
19	8.2	7.6	7.9	7.8	7.6	7.7	7.4	7.3	7.4	7.8	7.6	7.6
20	8.2	7.6	7.8	8.0	7.7	7.8	---	---	---	7.8	7.6	7.7
21	8.5	7.9	8.2	8.3	7.8	8.0	---	---	---	7.9	7.7	7.8
22	8.3	7.9	8.1	8.2	7.9	8.0	---	---	---	8.0	7.9	7.9
23	8.5	8.0	8.2	8.0	7.7	7.8	---	---	---	8.1	8.0	8.0
24	8.5	8.2	8.3	7.9	7.4	7.5	---	---	---	8.0	7.9	8.0
25	8.4	8.0	8.1	7.5	7.4	7.4	---	---	---	8.1	7.9	8.0
26	8.1	7.7	7.9	7.6	7.4	7.5	---	---	---	8.0	7.9	8.0
27	7.7	7.6	7.7	8.0	7.5	7.6	---	---	---	8.0	7.9	8.0
28	7.7	7.5	7.6	7.7	7.5	7.6	---	---	---	8.1	8.0	8.0
29	7.8	7.5	7.7	7.7	7.5	7.6	7.5	7.4	7.5	8.0	7.9	8.0
30	8.0	7.7	7.8	7.7	7.5	7.6	7.5	7.4	7.5	8.0	7.9	7.9
31	---	---	---	7.7	7.5	7.5	7.6	7.4	7.4	---	---	---
MONTH	8.5	7.1	7.8	8.3	7.4	7.7	8.1	7.3	7.6	8.1	7.4	7.8
YEAR	8.6	7.1	7.9									

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.0	26.5	26.5	20.5	19.0	20.0	18.0	16.5	17.0	15.5	12.5	15.0
2	27.0	25.5	26.0	21.0	18.5	20.5	20.0	18.0	19.0	12.5	10.0	11.0
3	26.5	24.5	25.5	18.5	17.0	17.5	20.5	19.5	20.0	11.5	10.0	11.0
4	25.5	24.0	25.0	17.5	17.0	17.0	20.0	19.0	19.5	13.0	11.0	12.0
5	25.0	23.5	24.5	17.5	16.5	17.0	20.5	18.5	19.5	12.5	11.0	12.0
6	24.0	22.5	23.0	19.0	16.5	17.5	19.5	18.5	19.0	11.0	9.0	10.0
7	24.0	22.0	23.0	20.0	18.5	19.0	19.0	17.5	18.0	11.0	8.5	9.5
8	24.0	22.0	23.0	19.5	18.0	18.5	17.5	15.5	16.5	11.5	9.0	10.0
9	25.0	23.0	24.0	19.5	18.0	19.0	16.0	12.5	14.0	12.5	10.0	11.0
10	25.5	24.0	24.5	21.5	19.0	20.0	14.0	12.0	13.0	13.5	11.5	12.5
11	26.0	24.0	25.0	20.5	17.5	18.5	14.5	13.0	13.5	14.5	13.0	13.5
12	26.0	24.5	25.0	18.5	16.5	17.5	17.0	14.0	15.5	15.0	13.0	14.0
13	26.0	24.5	25.0	19.0	17.0	17.5	19.0	16.5	17.5	15.5	13.5	14.5
14	24.5	23.0	23.5	19.0	17.0	18.0	20.0	18.5	19.0	16.0	14.0	15.0
15	24.0	22.0	23.0	19.0	17.5	18.5	21.0	19.5	20.0	15.5	15.0	15.0
16	24.0	22.0	22.5	19.5	18.0	18.5	20.5	19.0	19.5	15.0	13.5	14.5
17	23.5	22.0	22.5	18.5	18.0	18.5	19.0	15.0	16.5	16.5	15.0	15.5
18	24.0	22.0	23.0	19.0	17.5	18.5	16.0	14.0	15.0	15.0	10.0	12.0
19	25.0	22.5	23.5	20.0	18.0	19.0	14.0	12.0	13.0	10.0	9.5	9.5
20	23.5	21.5	22.5	21.0	19.0	20.0	13.0	12.0	12.5	11.5	9.5	10.5
21	22.5	20.5	21.5	20.5	19.5	20.0	14.0	11.5	13.0	12.5	10.5	11.5
22	23.0	20.5	21.5	20.5	19.0	19.5	13.5	11.5	12.5	14.5	12.0	13.0
23	22.5	22.0	22.0	20.0	19.0	19.5	14.5	13.0	13.5	15.0	13.5	14.5
24	22.0	20.5	21.0	19.0	17.5	18.5	14.5	12.5	13.5	14.5	12.5	13.5
25	22.0	20.5	21.0	19.0	17.0	18.0	14.0	12.5	13.5	14.5	12.5	13.5
26	23.0	21.0	21.5	19.5	17.5	18.5	14.5	12.5	13.5	14.0	12.5	13.5
27	23.5	22.5	23.0	19.0	18.5	19.0	14.5	13.0	14.0	13.5	11.5	12.5
28	22.5	21.0	22.0	18.5	16.0	17.0	14.5	12.5	13.5	12.5	11.0	11.5
29	22.0	21.0	21.5	16.5	15.0	16.0	14.0	12.5	13.0	14.0	12.0	13.0
30	21.0	20.5	20.5	17.0	15.5	16.5	14.0	10.5	13.0	13.0	11.0	12.5
31	21.5	20.0	20.5	---	---	---	15.5	10.5	13.0	11.0	10.0	10.0
MONTH	27.0	20.0	23.0	21.5	15.0	18.5	21.0	10.5	15.5	16.5	8.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	9.5	10.0	15.0	12.5	13.5	19.0	16.5	17.5	22.5	20.0	21.0
2	10.0	8.5	9.5	15.5	13.5	14.5	19.5	17.0	18.0	23.0	21.5	22.0
3	9.5	7.5	8.5	17.0	14.0	15.5	20.0	18.0	19.0	24.0	22.5	23.0
4	10.5	7.5	9.0	17.5	15.5	16.5	19.5	18.5	19.0	24.5	23.0	23.5
5	11.5	8.5	9.5	20.0	17.0	18.5	18.5	12.0	14.5	26.0	23.5	24.5
6	13.0	10.5	11.5	19.5	16.5	18.5	13.0	12.0	12.5	25.5	24.5	25.0
7	14.0	11.5	12.5	16.5	13.5	14.5	15.0	12.5	13.5	25.5	24.5	25.0
8	16.0	13.5	14.5	14.0	12.0	13.0	18.5	15.0	17.0	25.5	24.5	25.0
9	16.0	15.0	15.5	14.5	12.0	13.0	20.5	18.0	19.0	26.0	24.5	25.0
10	17.0	15.0	16.0	15.5	12.5	13.5	21.0	19.0	19.5	26.0	24.5	25.0
11	16.5	14.0	15.5	16.0	13.0	14.5	22.0	20.0	21.0	26.0	23.0	24.0
12	15.0	13.5	14.5	17.5	14.0	15.5	21.0	20.0	21.0	23.5	22.5	23.0
13	16.0	13.5	14.5	19.0	16.0	17.5	20.5	19.0	20.0	24.0	23.5	23.5
14	17.0	14.5	15.5	20.5	18.0	19.0	21.0	19.5	20.0	26.0	23.5	24.5
15	16.5	15.0	16.0	20.5	18.5	19.5	20.0	18.0	19.0	26.5	24.5	25.5
16	15.0	13.0	14.0	21.0	18.5	19.5	21.0	18.5	19.5	27.5	25.0	26.0
17	15.5	13.0	14.0	21.0	19.0	20.0	21.5	19.0	20.0	27.5	25.5	26.5
18	16.0	13.5	15.0	20.5	16.0	17.5	23.0	20.5	21.5	27.5	25.5	26.5
19	17.5	15.0	16.5	16.5	15.0	15.5	24.5	22.0	23.0	27.5	25.5	26.5
20	18.0	16.0	17.0	16.0	14.5	15.0	24.0	22.5	23.0	27.5	25.5	26.5
21	19.0	16.5	18.0	17.5	14.5	15.5	24.0	22.0	23.0	29.0	26.5	27.5
22	19.5	17.5	18.5	18.5	15.5	17.0	23.5	20.5	22.0	29.0	27.5	28.0
23	20.0	18.5	19.0	18.5	17.5	18.0	21.5	19.5	20.5	28.5	27.0	27.5
24	18.5	17.5	18.0	20.0	18.0	18.5	22.5	20.5	21.5	28.5	26.5	27.5
25	19.0	17.5	18.0	18.0	15.5	16.0	22.5	20.0	21.0	28.5	27.0	27.5
26	19.5	18.5	19.0	15.5	14.0	15.0	23.5	21.0	22.0	28.5	27.0	27.5
27	20.0	17.0	18.5	15.0	12.0	14.0	23.5	22.0	22.5	29.0	26.5	27.5
28	17.0	13.5	14.5	12.0	11.0	11.5	23.5	22.0	23.0	28.5	27.0	28.0
29	13.5	12.5	13.0	14.5	11.0	12.5	22.0	20.0	21.0	28.5	26.0	27.5
30	---	---	---	18.0	14.5	16.5	21.5	19.5	20.5	29.0	27.5	28.0
31	---	---	---	18.5	16.5	17.5	---	---	---	28.0	27.0	27.5
MONTH	20.0	7.5	14.5	21.0	11.0	16.0	24.5	12.0	20.0	29.0	20.0	25.5

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	23.0	25.5	31.5	29.0	30.5	30.5	28.5	29.5	25.5	24.0	25.0
2	27.5	25.0	26.5	32.0	29.5	30.5	31.0	30.0	30.5	27.0	25.0	26.0
3	28.0	26.5	27.0	32.0	30.0	31.0	31.0	29.5	30.0	27.5	26.5	27.0
4	28.5	26.5	27.5	32.0	29.5	30.5	31.0	29.5	30.0	28.0	26.5	27.5
5	28.5	27.0	28.0	32.0	30.0	30.5	31.5	29.5	30.0	29.0	27.5	28.0
6	29.0	27.0	28.0	31.5	30.0	30.5	31.5	29.5	30.5	29.5	27.5	28.5
7	27.5	25.0	26.5	32.0	30.0	31.0	31.5	29.5	30.5	29.5	28.0	28.5
8	27.0	25.5	26.5	32.5	30.0	31.0	31.0	29.0	30.0	30.0	28.5	29.0
9	28.0	25.5	26.5	31.5	29.5	31.0	29.5	25.0	28.5	30.0	28.5	29.0
10	27.0	24.0	25.5	30.0	28.0	29.5	29.5	28.0	28.5	29.5	28.0	28.5
11	28.0	25.5	26.5	29.5	28.0	28.5	30.0	28.0	29.0	29.0	27.5	28.0
12	29.0	27.5	28.0	29.0	27.0	28.0	29.5	28.5	29.0	28.5	27.5	28.0
13	28.5	27.0	28.0	28.5	26.5	27.5	30.0	28.5	29.0	28.0	27.5	27.5
14	29.0	27.0	28.0	28.5	26.5	27.5	30.5	28.5	29.0	28.0	27.0	27.5
15	29.0	26.5	28.0	28.5	27.0	27.5	30.5	28.5	29.5	27.5	25.0	26.5
16	29.5	27.5	28.5	29.0	28.0	28.5	29.5	28.5	29.0	27.0	26.0	26.5
17	30.5	27.5	29.5	29.5	28.5	29.0	29.0	27.0	28.0	27.5	26.0	26.5
18	30.5	27.5	29.0	30.5	28.5	29.5	29.0	27.0	28.0	27.0	25.5	26.0
19	31.0	29.0	30.0	31.5	29.5	30.5	30.0	28.0	29.0	26.0	24.5	25.5
20	31.5	30.0	30.5	32.0	30.0	31.0	30.5	28.5	29.5	26.5	25.5	26.0
21	31.0	29.5	30.5	32.0	30.0	31.0	30.5	28.5	29.5	27.0	25.0	26.0
22	31.0	29.5	30.0	32.0	30.0	31.0	29.5	28.5	29.0	27.0	25.5	26.0
23	30.5	29.0	29.5	31.5	30.0	30.5	29.0	28.0	28.5	28.0	26.0	27.0
24	30.5	28.5	29.5	30.0	27.0	29.0	30.0	28.0	29.0	27.5	26.5	27.0
25	30.5	29.0	29.5	30.5	28.5	29.0	29.5	28.5	29.0	27.5	26.0	26.5
26	30.5	28.5	29.5	31.0	29.0	30.0	29.0	28.0	28.5	27.0	25.0	26.5
27	30.5	28.5	29.5	31.0	29.5	30.0	28.5	27.5	28.0	25.0	22.5	23.5
28	31.0	29.5	30.0	30.5	28.0	29.5	28.0	26.0	27.0	23.5	21.5	22.5
29	31.0	29.5	30.0	31.0	29.0	30.0	27.0	26.0	26.5	24.5	22.0	23.0
30	31.5	29.5	30.5	30.5	29.5	30.0	27.0	26.0	26.5	25.0	22.5	23.5
31	---	---	---	30.0	29.0	29.5	27.0	24.0	26.0	---	---	---
MONTH	31.5	23.0	28.5	32.5	26.5	30.0	31.5	24.0	29.0	30.0	21.5	26.5
YEAR	32.5	7.5	21.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	7.4	6.3	6.9	9.2	8.1	8.6	8.4	7.5	8.0
2	---	---	---	6.7	5.8	6.2	8.8	8.1	8.4	10.7	8.4	9.6
3	---	---	---	7.7	6.0	6.9	8.5	7.4	7.9	10.5	9.9	10.2
4	8.2	6.7	7.4	7.7	6.7	7.2	8.3	7.3	7.8	10.2	9.6	9.9
5	9.0	7.0	7.9	8.0	7.4	7.7	8.3	6.8	7.6	10.2	9.8	10.0
6	9.7	7.7	8.6	8.0	7.6	7.8	8.5	7.1	7.7	10.5	10.0	10.3
7	9.8	7.9	8.8	7.8	7.3	7.5	8.6	7.2	7.9	10.5	10.3	10.4
8	10.0	7.9	8.8	8.0	7.2	7.6	8.4	6.7	7.2	10.6	10.3	10.4
9	8.9	7.0	8.0	8.5	7.2	7.8	8.2	6.8	7.4	10.6	10.2	10.5
10	7.4	6.0	6.7	8.5	7.4	7.9	8.3	7.7	8.1	10.5	10.1	10.3
11	7.7	6.2	6.9	8.6	7.4	8.0	9.0	7.5	8.4	10.2	9.7	10.0
12	9.1	7.2	8.0	9.3	7.7	8.5	9.4	8.1	9.0	10.2	9.5	9.9
13	---	---	---	9.1	7.9	8.6	9.0	8.2	8.7	10.1	9.4	9.8
14	---	---	---	9.5	7.9	8.6	9.1	7.7	8.4	10.1	9.4	9.7
15	---	---	---	9.3	7.9	8.6	8.5	7.3	7.8	9.4	9.1	9.3
16	---	---	---	9.2	7.8	8.4	7.3	7.1	7.2	10.0	9.1	9.5
17	9.1	8.2	8.6	8.7	7.8	8.3	7.9	6.7	7.4	9.6	7.9	9.3
18	8.5	7.8	8.2	9.0	7.9	8.4	8.2	7.3	7.8	10.6	7.9	9.5
19	8.0	6.9	7.5	8.8	7.8	8.3	8.7	8.0	8.4	10.3	9.6	10.0
20	---	---	---	8.6	7.7	8.1	8.7	8.6	8.6	10.1	9.7	9.9
21	---	---	---	8.6	7.3	7.9	10.0	8.6	8.9	9.8	8.9	9.2
22	---	---	---	8.6	7.1	7.9	9.9	8.6	9.0	9.1	8.5	8.8
23	---	---	---	8.4	7.1	7.8	8.7	8.5	8.6	8.6	7.9	8.2
24	---	---	---	8.4	7.1	7.8	8.7	8.5	8.6	9.0	8.1	8.6
25	---	---	---	9.0	7.2	8.1	8.8	8.6	8.7	9.6	8.6	9.0
26	---	---	---	9.0	7.7	8.4	8.9	8.8	8.9	9.7	8.9	9.2
27	7.7	6.8	7.2	8.7	7.3	8.0	8.9	8.5	8.6	10.6	8.9	9.7
28	7.8	6.7	7.2	8.7	7.6	8.1	9.0	8.5	8.7	10.2	9.5	9.8
29	8.0	7.0	7.5	9.4	7.8	8.6	9.2	8.5	8.8	10.3	9.3	9.7
30	7.5	7.0	7.2	9.2	8.0	8.7	10.7	8.3	9.1	10.0	9.4	9.7
31	7.6	7.0	7.3	---	---	---	10.3	8.0	8.9	10.3	9.2	9.7
MONTH	10.0	6.0	7.8	9.5	5.8	8.0	10.7	6.7	8.3	10.7	7.5	9.6

08057055 TRINITY RIVER AT CEDAR CREST BOULEVARD, DALLAS, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.2	9.5	9.8	9.0	8.5	8.8	6.4	5.5	6.0	7.9	6.6	7.2
2	10.9	9.5	10.2	9.3	8.1	8.7	6.1	5.3	5.6	7.1	6.0	6.6
3	11.3	10.2	10.8	9.1	8.1	8.5	6.2	5.4	5.8	7.7	6.2	6.9
4	11.7	10.4	11.0	8.4	7.5	8.0	5.7	4.9	5.3	7.7	6.3	6.9
5	11.6	10.4	11.0	8.1	7.0	7.5	7.4	5.4	6.4	9.6	7.3	8.3
6	11.2	10.3	10.8	7.8	6.6	7.2	7.3	7.0	7.1	9.3	7.1	8.1
7	11.0	9.9	10.5	8.7	7.2	7.9	7.0	6.2	6.6	9.1	7.0	8.0
8	11.2	9.7	10.4	9.1	7.8	8.4	---	---	---	8.8	7.0	7.9
9	11.1	9.7	10.3	9.5	8.3	8.8	---	---	---	8.6	6.9	7.6
10	10.4	9.4	9.9	9.4	8.6	8.9	---	---	---	7.7	6.1	6.7
11	10.3	8.9	9.5	9.1	8.2	8.6	---	---	---	6.2	3.5	4.7
12	10.7	9.3	9.9	8.6	7.7	8.1	---	---	---	5.1	4.2	4.6
13	10.7	9.4	10.0	8.1	6.8	7.4	7.5	6.1	6.9	4.2	2.8	3.4
14	10.8	9.0	9.8	---	---	---	6.7	6.1	6.3	4.4	2.6	3.5
15	10.8	9.1	9.9	---	---	---	7.9	6.7	7.2	4.9	3.4	4.0
16	9.7	9.2	9.5	---	---	---	9.0	7.3	8.0	5.9	3.9	4.7
17	11.6	8.7	9.9	---	---	---	9.4	7.7	8.5	7.5	4.7	6.0
18	11.0	8.7	9.6	---	---	---	9.7	7.5	8.5	8.1	5.4	6.6
19	10.6	8.3	9.2	9.3	8.3	8.8	9.3	7.2	8.2	7.7	5.6	6.6
20	10.1	7.9	8.7	9.4	8.3	8.9	8.3	5.7	6.5	8.2	5.7	6.7
21	10.3	7.6	8.6	10.0	8.9	9.4	5.7	4.2	4.9	7.4	5.2	6.3
22	9.5	7.2	8.1	9.8	8.9	9.3	5.1	3.3	4.2	7.6	4.7	5.9
23	9.5	6.9	8.0	9.1	8.1	8.6	5.2	4.0	4.7	7.1	4.6	5.8
24	9.6	6.8	8.0	8.5	6.7	7.8	6.1	5.1	5.6	7.8	5.3	6.4
25	8.5	6.6	7.7	6.8	6.3	6.6	6.5	5.7	6.1	8.0	5.7	6.7
26	7.2	5.7	6.4	6.5	6.0	6.3	7.6	5.7	6.5	8.2	5.8	6.8
27	7.4	5.4	6.2	7.9	6.0	6.5	7.3	6.1	6.7	8.0	5.8	6.7
28	7.8	7.0	7.3	8.6	7.8	8.1	7.1	6.2	6.7	6.9	3.3	5.8
29	8.7	7.3	7.8	8.2	7.7	8.0	7.4	6.5	6.9	4.6	2.3	3.3
30	---	---	---	7.7	6.8	7.1	7.9	6.6	7.3	5.1	4.3	4.8
31	---	---	---	6.8	6.4	6.6	---	---	---	4.3	3.5	3.6
MONTH	11.7	5.4	9.3	10.0	6.0	8.0	9.7	3.3	6.5	9.6	2.3	6.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	4.7	4.5	4.6	5.0	2.6	3.2
2	---	---	---	---	---	---	4.6	4.4	4.5	3.2	3.0	3.1
3	---	---	---	8.4	6.0	7.0	4.5	4.4	4.5	3.3	3.1	3.2
4	---	---	---	6.1	4.6	5.2	4.6	4.4	4.5	3.6	3.3	3.4
5	---	---	---	5.0	3.5	4.1	4.9	4.6	4.7	3.8	3.1	3.4
6	7.3	5.0	5.9	4.8	2.6	3.7	5.1	4.9	5.0	5.1	3.6	4.2
7	6.2	4.0	5.2	5.0	3.1	4.0	5.4	5.1	5.1	6.0	4.0	4.8
8	8.1	5.4	6.6	---	---	---	6.7	5.2	5.8	5.9	4.1	5.0
9	8.0	6.3	7.2	---	---	---	---	---	---	4.9	3.6	4.2
10	---	---	---	---	---	---	---	---	---	4.4	3.2	3.7
11	---	---	---	---	---	---	---	---	---	5.3	3.7	4.3
12	---	---	---	---	---	---	---	---	---	5.2	3.9	4.4
13	---	---	---	3.9	2.4	3.0	---	---	---	4.5	3.8	4.1
14	---	---	---	4.7	3.2	4.0	7.6	5.6	6.5	---	---	---
15	---	---	---	4.8	4.1	4.3	8.0	6.0	6.9	---	---	---
16	---	---	---	6.1	4.8	5.5	---	---	---	---	---	---
17	---	---	---	7.8	3.9	5.4	---	---	---	6.8	6.0	6.3
18	---	---	---	5.4	4.2	4.6	---	---	---	7.2	6.4	6.8
19	---	---	---	6.4	5.3	5.6	---	---	---	7.5	6.6	7.0
20	---	---	---	9.3	5.8	7.2	---	---	---	---	---	---
21	---	---	---	9.6	6.1	8.0	---	---	---	---	---	---
22	---	---	---	8.7	7.3	7.7	---	---	---	---	---	---
23	---	---	---	7.4	5.8	6.5	---	---	---	---	---	---
24	---	---	---	6.1	5.5	5.8	6.5	5.5	5.9	---	---	---
25	---	---	---	5.9	5.3	5.6	6.0	4.6	5.3	---	---	---
26	---	---	---	5.8	5.0	5.3	5.0	3.9	4.6	6.6	6.0	6.1
27	---	---	---	5.2	4.7	4.9	4.5	3.0	3.4	6.3	5.8	6.0
28	6.8	5.3	6.0	5.1	4.8	4.9	3.4	2.7	3.1	7.0	6.1	6.5
29	---	---	---	4.9	4.6	4.8	2.9	2.5	2.7	6.5	5.7	6.1
30	---	---	---	4.8	4.6	4.7	2.8	2.4	2.6	5.7	4.7	5.1
31	---	---	---	4.8	4.6	4.7	5.0	2.3	2.7	---	---	---
MONTH	8.1	4.0	6.2	9.6	2.4	5.3	8.0	2.3	4.6	7.5	2.6	4.8
YEAR	11.7	2.3	7.3									

08057200 WHITE ROCK CREEK AT GREENVILLE AVENUE, DALLAS, TX

LOCATION.--Lat 32°53'21", long 96°45'23", Dallas County, Hydrologic Unit 12030105, on left bank 20 ft upstream from bridge on Greenville Avenue in Dallas, 1.1 mi downstream from Texas and New Orleans Railroad Co. bridge, 1.2 mi downstream from Cottonwood Creek, 2.9 mi upstream from White Rock Lake, and 8.2 mi northeast of Dallas County Courthouse.

DRAINAGE AREA.--66.4 mi².

PERIOD OF RECORD.--August 1961 to September 1980, April 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Oct. 24, 1961, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. There is some regulation of low flow by diversions from small dams upstream from station. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges above base discharge of 2,900 ft³/s:

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
No peak greater than base discharge.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	239	19	43	15	20	32	20	155	8.7	29	42
2	20	47	18	50	16	20	31	20	26	9.2	21	24
3	32	23	19	26	19	19	30	20	16	8.5	17	38
4	15	20	17	22	17	19	31	18	26	7.4	14	31
5	11	20	16	21	16	21	249	18	15	7.9	13	21
6	9.6	21	15	20	16	20	68	17	12	7.2	11	19
7	12	22	14	19	15	20	47	17	35	6.5	9.8	18
8	12	21	41	19	14	20	42	16	18	6.1	10	18
9	8.8	20	21	19	14	20	39	16	13	6.5	36	16
10	8.5	20	17	18	14	20	37	18	54	6.5	40	13
11	7.3	19	16	17	13	19	36	244	21	6.5	62	12
12	8.1	19	15	17	13	19	38	24	27	43	62	11
13	7.5	19	15	17	12	19	47	21	24	22	21	10
14	8.0	19	15	17	11	20	36	19	178	273	16	11
15	7.4	19	15	17	10	19	31	16	28	34	14	228
16	7.7	19	15	17	11	20	29	14	31	35	12	33
17	9.5	19	114	20	12	22	28	11	34	22	46	23
18	7.0	21	76	93	12	104	27	10	21	18	20	36
19	6.4	21	34	28	12	38	26	9.9	14	16	18	35
20	6.5	21	24	24	13	31	24	9.5	12	14	15	24
21	6.9	21	21	22	12	28	23	8.0	10	12	13	20
22	6.9	20	20	22	13	27	69	6.5	9.8	12	11	18
23	7.5	20	19	23	13	26	34	6.3	10	21	10	16
24	7.6	19	19	22	14	118	27	6.3	9.1	24	10	14
25	7.3	19	18	20	14	42	24	6.3	8.4	15	15	14
26	6.9	19	17	19	15	31	21	6.9	8.9	14	24	16
27	6.7	19	17	18	106	158	22	6.6	9.2	70	124	19
28	6.7	18	16	17	27	63	23	8.5	10	63	87	16
29	7.5	20	16	16	22	40	22	8.2	9.4	21	89	14
30	20	19	32	16	---	37	20	6.9	9.2	29	36	13
31	16	---	20	16	---	35	---	8.6	---	37	230	---
MEAN	10.0	28.1	24.2	23.7	17.6	36.0	40.4	20.6	28.5	28.3	36.6	27.4
MAX	32	239	114	93	106	158	249	244	178	273	230	228
MIN	6.4	18	14	16	10	19	20	6.3	8.4	6.1	9.8	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996, BY WATER YEAR (WY)

MEAN	85.7	56.9	76.6	43.5	80.6	105	124	157	86.2	39.1	25.9	61.0
MAX	450	362	627	131	330	480	690	460	800	252	108	624
(WY)	1995	1995	1992	1992	1990	1995	1966	1990	1989	1962	1994	1964
MIN	.83	2.96	4.35	5.85	6.19	12.0	16.6	15.8	7.25	.78	1.26	.92
(WY)	1964	1964	1964	1976	1967	1971	1971	1972	1980	1964	1963	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996	
ANNUAL MEAN	126		26.8		79.4	
HIGHEST ANNUAL MEAN					196	1995
LOWEST ANNUAL MEAN					20.8	1971
HIGHEST DAILY MEAN	8350	Mar 13	273	Jul 14	14700	Sep 21 1964
LOWEST DAILY MEAN	5.5	Sep 6	6.1	Jul 8	.01	Jul 8 1970
ANNUAL SEVEN-DAY MINIMUM	7.0	Oct 18	6.7	May 21	.21	Aug 21 1961
INSTANTANEOUS PEAK FLOW			1370	Jun 14	39200	May 2 1990
INSTANTANEOUS PEAK STAGE			77.42	Jun 14	490.59	May 2 1990
10 PERCENT EXCEEDS	138		41		106	
50 PERCENT EXCEEDS	26		19		19	
90 PERCENT EXCEEDS	9.1		8.3		3.8	

08057410 TRINITY RIVER BELOW DALLAS, TX

LOCATION.--Lat 32°42'26", long 96°44'08", Dallas County, Hydrologic Unit 12030105, on right bank at downstream side of bridge on South Loop Highway 12, 1.0 mi downstream from White Rock Creek, 1.5 mi upstream from Fivemile Creek, 6.4 mi southeast of Dallas County Courthouse in Dallas, and at mile 491.8.

DRAINAGE AREA.--6,278 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR TX-94-1: 1989.

GAGE.--Water-stage recorder. Datum of gage is 365.89 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow affected at times by eight upstream reservoirs with a combined capacity of 1,714,400 acre-ft, of which 846,200 acre-ft is for flood control. Several cities within the Dallas-Fort Worth metroplex divert water for municipal use and return it to the river as wastewater effluents above this station. Low flows are sustained by wastewater effluents. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 25, 1908, reached a stage of 41.1 ft, from information by U.S. Army Corps of Engineers, and is the highest since that date. Floods in 1866 and 1908 reached about the same stage at Dallas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	1970	559	696	548	758	786	710	1180	590	970	5300
2	741	1680	548	1380	589	667	717	673	2030	594	771	3030
3	854	1000	559	1260	674	615	657	691	1200	603	649	1120
4	919	776	565	902	639	586	650	689	999	613	635	1040
5	772	713	592	784	662	602	2050	637	1240	600	604	907
6	702	688	583	848	717	553	5430	653	917	600	627	797
7	633	678	566	695	819	522	2760	654	1660	601	611	707
8	610	739	810	638	759	539	1220	650	1160	607	647	680
9	625	676	960	624	779	471	1030	632	841	680	1020	863
10	608	649	798	613	750	428	947	660	1030	1320	1080	796
11	611	636	706	643	711	431	926	1350	1200	989	1040	676
12	613	605	662	607	727	435	879	1330	941	1330	964	625
13	656	626	649	561	572	434	1590	923	1020	3370	952	604
14	606	593	629	562	539	438	1330	803	1090	3010	735	602
15	590	601	582	545	518	447	961	721	1910	3630	654	1310
16	574	583	618	634	515	470	896	658	1360	1690	718	2400
17	554	586	1630	661	493	437	849	593	945	1750	1140	1220
18	545	580	3090	2110	481	907	816	593	1400	1080	1150	902
19	533	587	2690	1880	496	1230	827	579	1060	876	968	1250
20	537	603	1310	985	511	861	811	607	790	740	776	1100
21	534	578	1060	801	480	641	796	622	725	682	641	849
22	514	579	985	713	516	533	1160	590	657	637	601	702
23	557	570	682	705	477	484	1720	570	628	652	823	666
24	547	554	614	722	476	535	1160	563	613	1170	636	653
25	536	538	560	690	488	1570	1010	555	622	828	791	642
26	532	524	562	648	506	1070	878	548	835	692	878	728
27	555	550	586	689	852	976	814	567	748	737	1010	684
28	517	553	560	694	1370	3540	762	613	637	1440	2170	619
29	509	545	535	690	891	2090	768	774	601	1040	2620	609
30	559	568	853	706	---	1090	753	560	590	803	2530	624
31	649	---	905	620	---	887	---	592	---	941	1650	---
TOTAL	18991	21128	27008	25306	18555	25247	35953	21360	30629	34895	31061	32705
MEAN	613	704	871	816	640	814	1198	689	1021	1126	1002	1090
MAX	919	1970	3090	2110	1370	3540	5430	1350	2030	3630	2620	5300
MIN	509	524	535	545	476	428	650	548	590	590	601	602
AC-FT	37670	41910	53570	50190	36800	50080	71310	42370	60750	69210	61610	64870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996#, BY WATER YEAR (WY)

MEAN	1712	1943	1960	1626	2009	2507	2686	5009	3860	1756	1080	1093
MAX	10220	14350	14010	15370	11750	9859	10010	29980	17720	9145	5963	7521
(WY)	1982	1982	1992	1992	1992	1992	1990	1990	1989	1989	1982	1962
MIN	268	231	228	178	265	316	373	432	316	330	228	259
(WY)	1964	1957	1957	1957	1957	1959	1959	1961	1960	1964	1959	1959

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1957 - 1996#	
ANNUAL TOTAL	1190841		322838			
ANNUAL MEAN	3263		882		2272	
HIGHEST ANNUAL MEAN					7319	1982
LOWEST ANNUAL MEAN					383	1959
HIGHEST DAILY MEAN	29400	May 9	5430	Apr 6	79200	May 4 1990
LOWEST DAILY MEAN	509	Oct 29	428	Mar 10	131	Dec 9 1956
ANNUAL SEVEN-DAY MINIMUM	536	Oct 23	440	Mar 10	147	Dec 7 1956
INSTANTANEOUS PEAK FLOW			6030	Sep 1	87000	May 4 1990
INSTANTANEOUS PEAK STAGE			19.39	Sep 1	34.79	May 4 1990
ANNUAL RUNOFF (AC-FT)	2362000		640300		1646000	
10 PERCENT EXCEEDS	9230		1340		6250	
50 PERCENT EXCEEDS	1200		686		711	
90 PERCENT EXCEEDS	564		539		349	

Period of regulated streamflow.

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

(National water-quality assessment program)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1967 to current year. Pesticide analyses: October 1970 to July 1981, October 1994 to September 1995. Sediment analyses: April 1972 to April 1975.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1992, April 1993 to current year.
pH: January 1977 to September 1992, April 1993 to current year.
WATER TEMPERATURE: October 1967 to September 1992, April 1993 to current year.
DISSOLVED OXYGEN: January 1977 to September 1992, April 1993 to current year.

INSTRUMENTATION.--A four-parameter water-quality monitor continuously records specific conductance, pH, water temperature, and dissolved oxygen at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument and pump, plugged intake, and pump failures. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance with the exception of the 1993 water year. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request. National water-quality assessment program data are included in this report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,130 microsiemens Dec. 17, 1977; minimum, 112 microsiemens Oct. 20, 1984.
pH: Maximum, 8.8 units Jan. 23, 1980; minimum, 6.7 units Mar. 25, 1991, Oct. 12, 1993, and Aug. 25, 1996.
WATER TEMPERATURES: Maximum, 35.0°C Aug. 20, 25, 28, 31, 1972; minimum, 1.0°C Jan. 29, 1968.
DISSOLVED OXYGEN: Maximum, 12.8 mg/L Mar. 19, 1990; minimum, 0.0 mg/L on many days during spring and summer of 1977-1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 828 microsiemens May 26; minimum, 317 microsiemens Sept. 1.
pH: Maximum, 8.3 units May 6; minimum, 6.7 units Aug. 25.
WATER TEMPERATURE: Maximum, 32.0°C July 4; 8.0°C Jan. 7 and Feb. 4.
DISSOLVED OXYGEN: Maximum, 11.1 mg/L Feb. 4; minimum, 1.2 mg/L Aug. 10 and 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 08...	1415	740	709	7.6	19.5	8.6	93	160	61	54
JAN 17...	1415	507	753	7.5	16.0	9.3	96	180	76	59
FEB 15...	1055	476	752	7.2	16.0	9.0	92	180	72	60
MAR 28...	1455	4080	499	7.3	12.5	10.4	150	140	46	47
MAY 13...	1340	915	661	7.3	23.5	6.8	80	160	60	56
JUL 02...	1225	575	691	7.3	30.0	6.4	85	150	41	49
AUG 15...	1218	616	706	7.6	28.5	4.6	95	150	59	51

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 08...	6.5	67	2	11	100	81	65	1.1	7.7	431
JAN 17...	7.1	76	2	11	100	89	71	1.0	6.9	461
FEB 15...	7.1	79	3	13	110	94	75	1.2	5.8	468
MAR 28...	5.6	42	2	6.3	94	72	40	0.60	4.0	300
MAY 13...	5.8	60	2	9.6	100	84	61	1.1	5.1	408
JUL 02...	6.6	84	3	12	110	84	80	1.3	7.3	452
AUG 15...	6.4	74	3	13	95	84	74	1.2	8.0	421

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV 08...	408	9.97	9.97	0.030	10.0	10.0	0.180	11	0.92
JAN 17...	443	9.92	9.92	0.080	10.0	10.0	0.290	12	1.3
FEB 15...	459	12.0	12.0	0.030	12.0	12.0	0.050	13	1.2
MAR 28...	303	3.57	3.57	0.030	3.60	3.60	0.200	4.6	0.80
MAY 13...	386	7.73	7.73	0.070	7.80	7.80	0.200	9.1	1.1
JUL 02...	392	0.050	--	<0.010	0.050	0.050	0.030	0.65	0.57
AUG 15...	428	12.0	12.0	0.050	12.0	12.0	0.040	13	1.1

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 08...	1.0	1.2	1.1	1.90	1.80	1.60	4.9	41	27
JAN 17...	1.5	1.8	1.6	2.00	1.90	1.70	5.2	42	28
FEB 15...	1.0	1.1	1.2	2.50	2.00	1.10	3.4	35	46
MAR 28...	0.60	0.80	1.0	0.490	0.440	0.400	1.2	36	38
MAY 13...	0.90	1.1	1.3	1.50	1.30	1.10	3.4	22	16
JUL 02...	0.37	0.40	0.60	0.030	<0.010	0.010	0.03	19	15
AUG 15...	0.86	0.90	1.1	2.00	1.70	1.70	5.2	23	14

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	18991	743	404	20700	75	3850	93	4780	170
NOV.	1995	21128	693	379	21600	66	3790	85	4870	170
DEC.	1995	27008	659	361	26300	61	4480	80	5870	160
JAN.	1996	25306	696	380	26000	67	4580	86	5860	170
FEB.	1996	18555	739	402	20100	75	3740	93	4640	160
MAR.	1996	25247	641	352	24000	59	4010	78	5300	160
APR.	1996	35953	607	335	32500	53	5170	73	7060	160
MAY	1996	21360	734	399	23000	74	4250	92	5290	160
JUNE	1996	30629	608	336	27800	53	4380	73	6010	160
JULY	1996	34895	543	302	28400	45	4200	64	6010	150
AUG.	1996	31061	606	334	28000	53	4450	73	6080	160
SEPT	1996	32705	526	293	25900	42	3730	61	5420	150
TOTAL		322838	**	**	304000	**	50600	**	67200	**
WTD.AVG.		882	636	349	**	58	**	77	**	160

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	743	726	734	767	519	e743	707	697	703	726	704	719
2	740	681	705	622	557	e588	730	704	719	704	580	619
3	734	698	717	620	579	594	755	726	741	617	576	596
4	727	671	697	664	620	639	755	718	740	671	617	650
5	736	705	719	714	664	682	754	717	729	709	668	682
6	715	696	703	721	713	717	758	722	741	702	673	680
7	723	714	717	734	721	728	749	731	739	749	684	709
8	726	718	723	742	695	719	743	627	705	764	747	751
9	741	710	726	719	700	711	769	689	714	765	747	756
10	734	710	721	733	711	723	731	689	708	776	753	763
11	740	714	727	743	707	731	760	730	745	758	738	749
12	741	720	731	747	708	734	747	727	738	765	740	751
13	744	722	730	741	710	730	762	741	753	776	763	769
14	740	728	734	731	709	718	756	748	752	780	764	771
15	757	733	745	721	701	714	781	753	766	774	758	768
16	752	734	743	723	700	711	780	756	770	782	742	762
17	770	735	756	712	702	708	766	538	674	772	742	757
18	780	759	768	716	696	708	576	479	529	745	523	607
19	767	745	757	718	692	704	492	444	469	639	609	624
20	764	746	756	707	676	694	568	483	528	661	608	627
21	797	760	782	694	673	680	675	568	605	696	661	674
22	797	768	783	714	676	694	692	616	643	735	696	712
23	782	762	771	710	691	701	730	692	707	748	727	734
24	781	759	769	706	689	697	738	722	729	747	727	736
25	806	773	788	712	691	703	738	720	729	754	743	746
26	788	769	778	703	687	695	727	713	720	768	754	761
27	775	763	769	700	683	690	733	712	722	766	745	758
28	791	771	783	684	677	680	746	717	736	745	716	727
29	795	767	782	701	678	690	753	729	744	774	723	751
30	795	732	769	707	692	701	766	656	746	725	714	720
31	791	738	768	---	---	---	711	643	662	758	725	741
MONTH	806	671	747	767	519	698	781	444	700	782	523	715

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	790	758	776	729	703	714	678	635	650	735	701	718
2	775	756	766	734	718	729	718	678	688	743	708	728
3	800	760	781	748	721	735	744	718	730	746	714	733
4	775	749	765	754	715	736	759	744	755	761	737	752
5	774	739	756	732	709	720	758	497	618	761	737	747
6	763	739	754	755	720	745	497	434	466	783	728	745
7	761	711	728	753	736	746	497	432	456	766	741	752
8	728	720	724	773	741	760	583	497	544	776	748	757
9	737	716	729	790	773	781	646	583	615	768	741	756
10	727	715	718	807	780	794	693	646	670	766	741	753
11	738	712	727	809	771	791	707	686	696	771	514	641
12	721	710	716	798	767	777	726	693	704	616	547	578
13	754	715	726	799	767	783	726	561	691	696	616	653
14	789	754	771	788	765	778	561	517	530	741	696	720
15	771	752	764	781	765	775	617	526	560	746	733	741
16	769	748	759	788	759	779	659	617	639	754	730	741
17	787	752	773	791	759	774	691	656	674	773	744	760
18	807	779	793	785	667	732	710	683	694	771	746	760
19	785	749	773	667	615	636	727	702	712	801	755	775
20	778	750	762	682	616	652	728	711	716	776	755	765
21	788	765	776	672	631	654	716	705	710	779	748	767
22	777	752	766	680	672	676	712	596	664	807	768	788
23	776	754	764	687	678	682	610	583	593	803	776	793
24	792	771	782	708	681	696	608	568	586	798	771	787
25	797	761	782	718	515	568	625	592	605	816	788	801
26	791	760	775	597	530	573	697	625	663	828	793	806
27	795	643	759	639	554	619	708	693	700	814	776	794
28	647	553	604	571	438	505	707	655	680	784	750	767
29	703	641	665	510	434	463	714	693	704	767	680	714
30	---	---	---	589	510	555	705	688	695	777	705	748
31	---	---	---	642	589	617	---	---	---	792	766	781
MONTH	807	553	749	809	434	695	759	432	647	828	514	746

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	777	437	675	707	673	689	586	558	570	464	317	364
2	631	528	599	691	673	682	651	586	613	416	324	369
3	639	582	610	718	683	700	697	651	679	541	416	505
4	724	635	670	707	666	690	714	693	704	549	514	530
5	726	591	669	705	679	692	734	700	714	615	549	590
6	598	568	581	716	683	701	731	713	721	652	605	630
7	590	422	466	727	698	709	760	721	742	680	645	657
8	583	499	547	710	671	694	750	718	740	689	671	679
9	650	583	609	694	668	678	751	480	689	695	674	683
10	657	527	606	700	556	648	708	492	648	687	581	650
11	557	516	533	720	554	623	747	671	711	612	577	592
12	639	557	597	597	490	547	708	567	633	644	609	622
13	675	524	627	490	318	396	624	547	573	668	644	660
14	633	524	587	421	328	383	701	624	659	681	667	671
15	571	479	529	393	368	382	732	695	704	691	491	625
16	594	530	561	479	393	444	715	652	698	491	382	439
17	618	568	599	568	447	491	721	546	655	478	389	431
18	581	450	499	552	450	501	624	529	576	520	478	500
19	606	503	552	624	552	581	661	606	626	527	484	505
20	668	606	641	677	624	650	679	642	663	548	490	523
21	688	661	671	699	677	684	688	635	654	588	537	558
22	722	688	707	710	693	703	703	679	692	629	587	610
23	732	707	719	728	706	719	699	648	678	632	609	620
24	722	703	714	752	511	636	720	685	695	643	621	629
25	730	703	717	657	629	645	769	659	731	657	643	650
26	799	718	764	659	629	649	762	563	689	668	634	657
27	757	621	689	748	653	681	613	530	568	687	646	670
28	744	689	723	770	430	561	625	420	499	692	659	672
29	689	637	655	528	450	489	515	405	468	690	672	682
30	695	653	682	609	528	569	481	429	450	692	674	681
31	---	---	---	606	556	587	521	436	468	---	---	---
MONTH	799	422	627	770	318	607	769	405	642	695	317	588
YEAR	828	317	680									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.2	7.4	7.9	7.4	7.6	7.5	7.3	7.4	7.6	7.5	7.5
2	7.4	7.3	7.3	7.7	7.4	7.5	7.5	7.3	7.4	7.8	7.6	7.7
3	7.6	7.2	7.4	7.6	7.4	7.5	7.5	7.3	7.4	7.9	7.7	7.8
4	7.4	7.2	7.3	7.6	7.2	7.4	7.5	7.3	7.4	7.8	7.7	7.7
5	7.4	7.2	7.3	7.5	7.2	7.4	7.5	7.3	7.4	8.1	7.0	7.5
6	7.5	7.2	7.4	7.5	7.3	7.4	7.5	7.3	7.4	---	---	---
7	7.4	7.2	7.3	7.6	7.3	7.4	7.6	7.3	7.4	---	---	---
8	7.5	7.2	7.3	7.5	7.1	7.4	7.7	7.5	7.5	---	---	---
9	7.5	7.3	7.4	7.5	7.2	7.4	7.7	7.5	7.6	---	---	---
10	7.5	7.3	7.4	7.6	7.4	7.5	7.7	7.5	7.6	---	---	---
11	7.5	7.3	7.4	7.9	7.5	7.6	7.7	7.5	7.6	7.4	7.3	7.3
12	7.4	7.3	7.4	7.8	7.5	7.6	7.7	7.5	7.6	7.4	7.3	7.3
13	7.7	7.3	7.4	7.7	7.4	7.5	7.7	7.5	7.6	7.4	7.2	7.3
14	7.4	7.3	7.4	7.5	7.4	7.4	7.6	7.5	7.5	7.6	7.2	7.4
15	7.4	7.3	7.3	7.4	7.3	7.4	7.8	7.3	7.5	7.5	7.3	7.4
16	7.3	7.2	7.3	7.5	7.2	7.4	7.7	7.4	7.6	7.5	7.3	7.4
17	7.3	7.1	7.2	7.6	7.3	7.4	7.7	7.4	7.5	7.6	7.4	7.5
18	7.3	7.0	7.1	7.4	7.3	7.3	7.7	7.6	7.7	7.9	7.5	7.8
19	7.2	7.0	7.1	7.3	7.1	7.3	7.7	7.5	7.7	7.9	7.7	7.8
20	7.2	7.1	7.1	7.4	7.1	7.2	7.6	7.4	7.5	7.7	7.5	7.7
21	7.2	7.1	7.1	7.3	7.2	7.2	7.6	7.4	7.5	7.6	7.4	7.6
22	7.3	7.1	7.1	7.3	7.1	7.2	7.7	7.4	7.6	7.6	7.4	7.5
23	7.2	7.0	7.1	7.3	7.2	7.2	7.5	7.4	7.5	7.6	7.5	7.6
24	7.3	7.1	7.2	7.4	7.2	7.3	7.6	7.4	7.4	7.6	7.5	7.5
25	7.2	7.1	7.1	7.5	7.3	7.3	7.5	7.3	7.4	7.6	7.5	7.5
26	7.2	7.1	7.1	7.6	7.3	7.4	7.6	7.3	7.5	7.6	7.3	7.4
27	7.2	7.1	7.2	7.6	7.4	7.4	7.6	7.4	7.5	7.5	7.3	7.3
28	7.3	7.1	7.2	7.5	7.4	7.4	7.5	7.3	7.4	7.5	7.3	7.4
29	7.2	7.1	7.1	7.4	7.3	7.3	7.5	7.3	7.4	7.6	7.4	7.5
30	7.7	7.1	7.2	7.5	7.3	7.3	7.8	7.3	7.5	7.5	7.4	7.4
31	7.4	7.3	7.4	---	---	---	7.8	7.5	7.7	7.5	7.3	7.4
MONTH	7.7	7.0	7.3	7.9	7.1	7.4	7.8	7.3	7.5	8.1	7.0	7.5

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.4	7.2	7.3	8.0	7.8	7.9	7.7	7.5	7.6	7.5	7.4	7.4
2	7.4	7.2	7.3	8.0	7.8	7.9	7.6	7.5	7.5	7.6	7.4	7.5
3	7.6	7.3	7.5	8.0	7.8	7.9	7.6	7.5	7.5	7.7	7.5	7.6
4	7.6	7.5	7.5	8.0	7.8	7.9	7.6	7.5	7.6	7.8	7.5	7.6
5	7.6	7.4	7.5	7.9	7.8	7.8	7.6	7.4	7.5	7.8	7.5	7.6
6	7.5	7.4	7.4	7.9	7.8	7.8	8.0	7.6	8.0	8.3	7.5	7.7
7	7.5	7.3	7.4	7.9	7.8	7.8	7.9	7.7	7.8	7.9	7.1	7.5
8	7.6	7.4	7.5	7.9	7.8	7.8	7.8	7.6	7.7	7.4	7.1	7.2
9	7.6	7.4	7.5	7.9	7.7	7.8	7.7	7.4	7.6	7.3	7.2	7.2
10	7.6	7.4	7.5	7.9	7.7	7.8	7.5	7.4	7.4	7.4	7.1	7.3
11	7.7	7.5	7.6	7.9	7.8	7.8	7.5	7.4	7.4	7.6	7.4	7.5
12	7.7	7.5	7.6	7.9	7.8	7.8	7.5	7.3	7.4	7.7	7.5	7.6
13	7.5	7.3	7.4	7.9	7.8	7.8	7.6	7.2	7.4	---	---	---
14	7.5	7.4	7.4	7.9	7.8	7.8	7.5	7.3	7.4	---	---	---
15	7.5	7.3	7.4	7.9	7.8	7.8	7.5	7.3	7.4	---	---	---
16	7.7	7.4	7.5	8.0	7.8	7.9	7.5	7.4	7.4	7.6	7.3	7.5
17	7.7	7.6	7.7	8.0	7.8	7.9	7.6	7.4	7.4	7.7	7.4	7.5
18	7.8	7.6	7.7	8.1	7.8	8.0	7.5	7.4	7.4	7.5	7.4	7.5
19	7.9	7.7	7.8	8.2	8.1	8.1	7.6	7.4	7.5	7.9	7.4	7.7
20	7.8	7.7	7.7	8.1	7.3	7.7	7.6	7.4	7.5	---	---	---
21	7.8	7.6	7.6	7.5	7.3	7.3	7.5	7.3	7.4	---	---	---
22	7.8	7.6	7.6	7.4	7.2	7.3	7.5	7.3	7.4	---	---	---
23	7.8	7.6	7.7	7.5	7.2	7.3	7.5	7.4	7.4	---	---	---
24	7.9	7.7	7.8	7.4	7.2	7.3	7.5	7.4	7.4	---	---	---
25	8.0	7.7	7.8	7.4	7.4	7.4	7.4	7.4	7.4	---	---	---
26	7.9	7.8	7.8	7.4	7.3	7.3	7.4	7.3	7.4	---	---	---
27	8.1	7.8	7.9	7.3	7.2	7.3	7.4	7.3	7.4	---	---	---
28	8.1	8.0	8.0	7.8	7.3	7.6	7.5	7.4	7.4	---	---	---
29	8.0	7.9	8.0	7.8	7.6	7.7	7.5	7.4	7.4	---	---	---
30	---	---	---	7.6	7.5	7.6	7.6	7.4	7.5	---	---	---
31	---	---	---	7.7	7.5	7.6	---	---	---	---	---	---
MONTH	8.1	7.2	7.6	8.2	7.2	7.7	8.0	7.2	7.5	8.3	7.1	7.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.3	7.1	7.2	7.4	7.0	7.1	7.4	7.2	7.3
2	---	---	---	7.3	7.1	7.2	7.2	7.0	7.0	7.3	7.2	7.3
3	---	---	---	7.5	7.2	7.3	7.2	7.0	7.1	7.2	7.2	7.2
4	---	---	---	7.4	7.2	7.3	7.3	7.0	7.1	7.4	7.2	7.3
5	---	---	---	7.4	7.2	7.3	7.8	7.2	7.3	7.4	7.3	7.3
6	7.5	7.3	7.4	7.4	7.2	7.3	7.8	7.2	7.3	7.7	7.2	7.3
7	7.6	7.3	7.5	7.6	7.2	7.4	7.3	7.2	7.3	7.3	7.1	7.2
8	7.5	7.4	7.5	7.4	7.2	7.3	7.3	7.2	7.2	7.4	7.1	7.2
9	7.6	7.4	7.5	7.4	7.3	7.3	7.8	7.2	7.3	7.4	7.0	7.2
10	7.6	7.4	7.4	---	---	---	7.6	7.4	7.5	7.1	6.9	7.0
11	7.5	7.4	7.4	---	---	---	7.4	7.3	7.4	7.2	7.0	7.0
12	7.5	7.4	7.4	---	---	---	7.5	7.4	7.4	7.2	6.9	7.0
13	7.6	7.4	7.5	7.7	7.5	7.5	7.5	7.4	7.5	7.0	6.9	6.9
14	7.6	7.4	7.5	7.5	7.3	7.5	7.6	7.4	7.5	7.1	6.9	7.0
15	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.6	7.5	6.8	7.0
16	7.6	7.5	7.5	7.5	7.4	7.5	7.5	7.4	7.5	7.6	7.1	7.3
17	7.7	7.1	7.4	7.5	7.4	7.4	7.5	7.4	7.4	7.4	7.0	7.2
18	7.4	7.2	7.3	7.4	7.3	7.4	7.4	7.3	7.3	7.1	7.0	7.0
19	7.4	7.2	7.3	7.4	7.3	7.4	7.3	7.1	7.2	7.2	7.0	7.1
20	7.4	7.2	7.3	7.6	7.4	7.5	7.2	7.0	7.1	7.2	7.1	7.1
21	7.5	7.2	7.3	7.8	7.5	7.6	7.2	7.1	7.1	7.2	7.1	7.2
22	7.5	7.2	7.3	8.0	7.6	7.8	7.1	6.9	7.0	7.3	7.1	7.2
23	7.4	7.3	7.4	7.8	7.5	7.6	7.0	6.8	6.9	7.4	7.2	7.3
24	7.4	7.2	7.3	7.6	7.4	7.5	7.0	6.8	6.8	7.4	7.2	7.3
25	7.4	7.1	7.2	7.4	7.3	7.4	7.1	6.7	6.9	7.5	7.2	7.3
26	7.4	7.0	7.2	7.6	7.3	7.4	7.1	6.8	7.0	7.5	7.4	7.4
27	7.2	7.0	7.2	7.7	7.2	7.3	7.0	6.9	6.9	7.5	7.4	7.4
28	7.7	7.1	7.3	7.7	7.2	7.5	7.5	6.9	7.2	7.6	7.4	7.4
29	7.4	7.1	7.2	7.3	7.1	7.2	7.3	7.2	7.2	7.5	7.4	7.4
30	7.5	7.2	7.3	7.2	7.0	7.1	7.3	7.2	7.2	7.5	7.4	7.4
31	---	---	---	7.3	7.1	7.2	7.4	7.1	7.3	---	---	---
MONTH	7.7	7.0	7.4	8.0	7.0	7.4	7.8	6.7	7.2	7.7	6.8	7.2
YEAR	8.3	6.7	7.4									

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.5	26.5	27.0	22.0	19.5	20.5	17.5	16.0	17.0	15.0	13.5	14.5
2	27.0	26.0	26.5	21.0	19.5	20.5	19.5	17.5	18.0	13.5	10.0	11.5
3	26.0	25.0	25.5	19.5	17.0	18.0	20.0	19.0	19.5	11.0	9.5	10.0
4	25.5	24.0	25.0	18.0	17.0	17.5	19.5	19.0	19.0	12.5	10.5	11.0
5	25.5	24.0	24.5	17.5	16.5	17.0	19.5	18.5	19.0	12.5	11.0	12.0
6	24.0	22.5	23.5	19.0	17.0	17.5	19.5	18.5	19.0	12.0	9.5	10.5
7	24.0	22.0	23.0	20.0	18.5	19.0	19.0	17.0	18.0	10.0	8.0	9.0
8	24.0	22.0	23.0	19.5	18.5	19.0	17.5	15.5	16.5	11.0	8.5	9.5
9	24.5	23.0	23.5	19.5	18.0	19.0	16.0	12.5	14.0	12.0	10.0	11.0
10	25.0	24.0	24.5	21.0	19.5	20.5	13.0	11.0	12.0	13.5	11.0	12.0
11	25.5	24.0	25.0	21.0	18.0	19.0	14.0	12.0	12.5	14.0	13.0	13.5
12	26.0	24.5	25.0	18.5	17.0	17.5	16.0	13.5	14.5	14.5	13.0	14.0
13	26.0	24.5	25.0	18.5	17.0	18.0	18.0	16.0	16.5	15.5	13.5	14.5
14	25.5	23.5	24.0	19.0	17.5	18.5	19.0	17.5	18.0	16.0	14.0	15.0
15	24.0	22.0	23.0	19.0	18.0	18.5	20.0	18.5	19.0	16.0	15.0	15.5
16	24.0	22.0	23.0	19.5	18.0	19.0	19.5	18.5	19.0	15.5	14.0	15.0
17	24.0	22.5	23.5	19.0	18.0	18.5	19.0	14.5	16.5	16.5	15.5	16.0
18	24.0	22.5	23.5	19.0	18.0	18.5	15.0	13.0	14.5	16.5	9.5	13.0
19	25.0	23.0	24.0	20.0	18.5	19.0	13.0	11.0	12.0	10.0	9.0	9.5
20	24.5	22.5	23.0	20.5	19.0	20.0	12.0	11.0	11.5	11.5	9.0	10.0
21	22.5	21.0	22.0	20.5	19.5	20.0	13.0	11.5	12.0	13.0	11.0	11.5
22	22.5	21.0	22.0	20.0	19.0	19.5	13.0	11.0	12.0	14.5	12.5	13.0
23	23.0	22.0	22.5	20.0	19.0	19.5	13.5	12.0	13.0	15.0	14.5	15.0
24	22.0	21.0	21.5	19.0	17.5	18.0	14.0	12.0	13.0	14.5	13.0	14.0
25	22.0	21.0	21.5	18.5	17.0	18.0	14.0	12.0	13.0	14.5	13.0	13.5
26	23.0	21.5	22.0	18.5	17.5	18.0	14.0	12.0	13.0	14.5	13.5	14.0
27	24.0	22.5	23.5	19.0	18.5	18.5	14.0	12.5	13.5	14.0	12.0	13.0
28	23.5	22.0	22.5	18.5	15.5	16.5	14.0	12.5	13.0	13.5	11.5	12.5
29	22.5	21.5	22.0	16.0	15.0	15.5	13.5	12.0	13.0	14.5	13.0	13.5
30	21.5	20.5	21.0	16.5	15.5	16.0	13.5	10.5	13.0	14.5	12.5	13.5
31	22.0	20.5	21.0	---	---	---	14.5	10.5	12.0	12.5	10.5	11.0
MONTH	27.5	20.5	23.5	22.0	15.0	18.5	20.0	10.5	15.0	16.5	8.0	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	10.0	10.5	15.0	12.5	13.5	18.5	16.5	17.5	22.0	20.0	21.0
2	11.0	9.5	10.0	16.0	13.5	15.0	19.0	17.0	18.5	22.5	21.5	22.0
3	10.0	8.5	9.5	17.0	14.5	15.5	20.0	18.0	19.0	23.5	22.5	23.0
4	10.5	8.0	9.5	17.5	15.5	16.5	19.5	19.0	19.5	24.0	23.0	23.5
5	12.0	9.0	10.0	20.0	17.5	18.5	19.0	12.5	15.5	25.0	23.5	24.0
6	13.5	11.0	12.0	20.0	17.5	19.0	13.5	12.5	12.5	25.0	24.5	25.0
7	14.5	12.5	13.5	17.5	14.0	15.0	15.5	13.0	14.0	25.0	24.0	24.5
8	16.5	14.0	15.0	14.0	12.0	13.0	18.0	15.5	16.5	25.0	24.5	24.5
9	17.0	15.5	16.5	14.0	12.0	13.0	20.0	17.5	18.5	25.5	24.0	24.5
10	17.5	16.0	16.5	15.0	13.0	14.0	20.5	18.5	19.5	25.5	24.5	25.0
11	17.5	15.5	16.5	15.5	14.0	15.0	21.5	20.0	20.5	25.5	23.0	24.0
12	15.5	14.0	15.0	17.0	15.0	16.0	21.5	20.5	21.0	23.5	22.5	23.0
13	16.0	14.0	15.0	19.0	16.5	17.5	20.5	19.5	20.0	24.0	23.0	23.5
14	17.0	15.0	16.0	20.0	18.5	19.0	21.0	20.0	20.0	25.5	23.5	24.5
15	17.0	16.0	16.5	20.5	19.0	20.0	20.0	18.0	19.0	26.5	24.5	25.5
16	16.0	14.0	15.0	20.5	19.0	20.0	20.5	18.0	19.5	27.0	25.0	26.0
17	15.0	13.5	14.5	21.0	19.5	20.5	21.0	19.0	20.0	27.0	25.5	26.5
18	16.5	14.0	15.0	20.5	16.0	18.5	23.0	20.5	21.5	27.0	25.5	26.5
19	17.5	15.5	16.5	16.5	15.0	16.0	24.0	22.0	23.0	27.0	25.5	26.5
20	18.0	16.5	17.0	16.0	14.5	15.0	23.5	22.5	23.0	27.0	25.5	26.5
21	19.0	17.0	18.0	17.0	14.5	15.5	24.0	22.0	23.0	28.0	26.0	27.0
22	19.5	18.5	19.0	18.5	16.0	17.0	23.5	21.0	22.5	28.5	27.0	28.0
23	20.0	19.0	19.5	18.5	18.0	18.5	21.0	19.5	20.5	28.0	26.5	27.5
24	19.5	17.5	18.5	19.5	18.0	19.0	22.0	20.5	21.0	28.0	26.5	27.0
25	19.0	18.0	18.5	19.5	15.5	16.5	22.0	20.5	21.5	28.0	26.5	27.5
26	19.5	19.0	19.0	16.0	14.5	15.0	23.0	21.0	22.0	28.0	26.5	27.5
27	20.0	17.5	19.5	15.5	13.5	15.0	23.0	21.5	22.5	28.5	26.5	27.5
28	18.0	14.0	15.5	13.5	11.0	12.0	23.5	22.5	23.0	28.5	27.0	28.0
29	14.0	12.5	13.0	14.5	11.5	13.0	23.0	20.5	21.5	28.5	26.5	27.5
30	---	---	---	18.0	14.5	16.5	21.5	19.5	20.5	28.5	27.0	28.0
31	---	---	---	18.5	16.5	17.5	---	---	---	28.0	27.0	27.5
MONTH	20.0	8.0	15.0	21.0	11.0	16.5	24.0	12.5	20.0	28.5	20.0	25.5

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	24.0	26.0	31.0	29.5	30.0	30.0	28.5	29.0	25.5	24.0	25.0
2	27.0	25.0	26.0	31.5	29.5	30.5	30.5	29.5	30.0	26.5	25.0	25.5
3	28.0	26.5	27.0	31.5	30.0	30.5	30.5	29.5	30.0	27.0	26.5	26.5
4	28.0	27.0	27.5	32.0	29.0	30.5	31.0	29.0	30.0	28.0	26.5	27.0
5	28.5	27.0	28.0	31.5	29.5	30.5	30.5	29.0	30.0	28.5	27.0	28.0
6	28.5	27.5	28.0	31.5	29.5	30.5	30.5	29.0	30.0	29.0	27.5	28.5
7	28.0	25.5	26.5	31.5	29.5	30.5	30.5	29.0	30.0	29.5	28.0	28.5
8	27.0	26.0	26.5	31.5	30.0	31.0	30.5	29.5	30.0	29.5	28.0	29.0
9	27.5	25.5	26.5	31.0	30.0	30.5	30.0	25.5	28.5	29.5	28.5	29.0
10	27.0	25.0	26.0	30.5	28.5	29.5	29.0	27.5	28.5	29.5	28.0	28.5
11	27.5	25.5	26.5	29.5	28.0	28.5	29.5	28.0	28.5	29.0	27.5	28.5
12	28.5	27.0	28.0	---	---	---	29.5	28.5	29.0	28.5	27.5	28.0
13	29.0	27.5	28.0	---	---	---	29.5	28.0	28.5	28.5	27.5	28.0
14	29.0	27.5	28.0	---	---	---	29.5	28.0	29.0	28.0	27.0	27.5
15	29.0	27.0	28.0	---	---	---	30.0	28.0	29.0	28.0	26.0	27.0
16	30.0	27.5	28.5	29.0	27.5	28.5	29.5	28.5	29.0	27.0	26.0	26.5
17	30.0	28.5	29.5	29.5	28.5	29.0	28.5	27.0	28.0	27.5	26.0	26.5
18	30.0	28.0	29.0	30.0	28.5	29.0	28.5	27.0	27.5	27.5	26.0	26.5
19	31.0	29.0	30.0	31.0	29.0	30.0	29.5	28.0	28.5	26.0	25.5	25.5
20	31.5	29.5	30.5	31.5	29.5	30.5	30.0	28.0	29.0	26.5	25.5	26.0
21	31.0	29.5	30.5	31.5	29.5	30.5	30.0	28.5	29.5	27.0	25.0	26.0
22	31.0	29.5	30.0	31.5	29.5	30.5	30.0	28.5	29.0	27.0	25.0	26.0
23	30.5	29.0	30.0	31.0	30.0	30.5	29.0	28.0	28.5	27.5	26.0	27.0
24	30.5	29.0	29.5	30.0	27.5	29.0	29.5	28.0	28.5	27.5	27.0	27.5
25	30.0	29.0	29.5	30.0	28.5	29.0	29.5	28.5	29.0	27.5	26.0	27.0
26	30.0	29.0	29.5	31.0	29.0	30.0	29.0	28.0	28.5	27.0	25.5	26.5
27	30.5	29.0	29.5	30.5	29.5	30.0	28.0	27.5	28.0	25.5	23.0	24.0
28	30.5	29.5	30.0	30.5	29.0	30.0	28.0	26.0	27.0	23.5	21.5	22.5
29	31.0	29.0	30.0	30.5	29.5	30.0	27.0	26.0	26.5	24.0	22.0	23.0
30	31.0	29.5	30.0	30.5	29.5	30.0	26.5	25.5	26.0	24.5	23.0	24.0
31	---	---	---	30.0	29.0	29.5	26.5	24.5	26.0	---	---	---
MONTH	31.5	24.0	28.5	32.0	27.5	30.0	31.0	24.5	28.5	29.5	21.5	26.5
YEAR	32.0	8.0	21.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	7.1	7.6	7.0	5.2	6.0	7.6	7.3	7.4	7.3	6.9	7.1
2	7.9	7.1	7.5	6.1	5.5	5.9	7.4	6.6	7.0	8.9	7.1	8.0
3	7.4	6.2	6.9	7.2	6.1	6.8	6.7	6.2	6.5	9.0	8.3	8.8
4	7.5	6.8	7.2	7.0	6.7	6.8	6.9	6.4	6.6	---	---	---
5	7.5	6.7	7.1	7.0	6.8	6.9	6.7	6.0	6.4	---	---	---
6	8.4	7.4	7.8	6.9	6.5	6.7	6.7	6.3	6.5	10.2	9.3	9.9
7	8.6	7.6	8.0	6.5	6.1	6.3	6.9	6.3	6.6	10.9	10.0	10.4
8	8.8	7.6	8.0	---	---	---	6.8	5.9	6.5	---	---	---
9	8.7	7.5	8.0	---	---	---	7.3	6.0	6.7	---	---	---
10	7.7	7.0	7.4	---	---	---	7.7	7.2	7.4	---	---	---
11	7.5	6.7	7.0	7.6	6.5	6.9	---	---	---	9.7	8.8	9.2
12	7.1	6.4	6.7	7.7	6.9	7.2	---	---	---	9.4	8.6	9.0
13	7.6	6.5	7.0	7.6	6.8	7.1	---	---	---	9.2	8.4	8.8
14	7.6	6.6	7.1	---	---	---	---	---	---	9.1	8.0	8.5
15	7.6	6.7	7.1	---	---	---	---	---	---	---	---	---
16	7.5	6.7	7.1	---	---	---	6.6	6.0	6.2	---	---	---
17	7.2	6.5	6.8	---	---	---	6.9	5.8	6.3	---	---	---
18	6.9	6.4	6.7	---	---	---	7.4	6.8	7.0	---	---	---
19	6.6	6.1	6.3	---	---	---	7.8	7.0	7.4	---	---	---
20	6.4	5.9	6.2	---	---	---	7.9	7.6	7.8	---	---	---
21	6.6	6.1	6.3	---	---	---	7.8	7.4	7.6	---	---	---
22	6.4	5.9	6.1	---	---	---	8.4	7.3	8.0	---	---	---
23	---	---	---	8.6	8.0	8.3	7.7	7.3	7.5	---	---	---
24	---	---	---	8.7	8.1	8.4	7.8	7.1	7.5	---	---	---
25	---	---	---	8.8	8.1	8.4	7.8	7.1	7.4	---	---	---
26	---	---	---	8.6	8.0	8.3	7.9	7.3	7.6	---	---	---
27	---	---	---	8.1	7.5	7.8	7.8	7.3	7.5	9.7	8.9	9.3
28	---	---	---	8.1	7.6	7.9	8.3	7.5	7.9	10.0	9.4	9.7
29	---	---	---	8.2	7.9	8.0	8.2	7.8	8.0	9.8	9.0	9.4
30	---	---	---	8.1	7.6	7.9	9.1	7.7	7.9	9.5	9.0	9.3
31	---	---	---	---	---	---	9.1	7.3	8.4	9.7	8.9	9.4
MONTH	8.8	5.9	7.1	8.8	5.2	7.3	9.1	5.8	7.2	10.9	6.9	9.1

08057410 TRINITY RIVER BELOW DALLAS, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	9.1	9.3	8.6	8.2	8.4	8.4	7.8	8.2	8.1	7.2	7.6
2	10.1	9.1	9.6	8.5	7.9	8.2	8.2	7.1	7.6	7.5	6.5	6.9
3	10.9	9.8	10.3	8.3	7.4	7.8	7.9	7.0	7.3	6.6	6.0	6.3
4	11.1	10.1	10.5	7.5	6.6	6.9	7.3	6.0	6.4	6.8	6.0	6.3
5	10.6	10.0	10.3	6.6	5.6	5.9	8.7	6.2	7.0	7.3	6.3	6.6
6	10.1	9.5	9.8	5.6	4.3	4.8	9.1	8.2	8.6	7.9	6.2	7.0
7	9.5	8.5	9.2	6.4	4.9	5.6	8.5	7.6	8.0	8.2	6.8	7.4
8	9.1	8.4	8.7	6.9	6.0	6.5	8.4	7.5	7.9	7.6	7.0	7.2
9	9.8	8.5	9.1	6.6	5.9	6.2	8.1	7.8	7.9	7.2	6.6	6.9
10	9.6	8.6	9.1	6.1	4.9	5.6	7.9	7.4	7.6	6.9	6.5	6.7
11	9.6	8.3	8.9	5.7	4.3	5.0	8.1	7.3	7.7	6.7	4.3	5.4
12	10.1	8.6	9.3	5.5	4.3	4.9	7.8	7.1	7.3	5.4	4.7	5.0
13	10.1	8.6	9.3	4.8	4.0	4.3	7.1	6.0	6.5	---	---	---
14	9.8	8.3	9.1	5.8	3.9	4.7	6.3	5.8	6.1	---	---	---
15	9.9	8.3	9.1	5.3	4.0	4.5	7.5	6.3	6.9	---	---	---
16	10.5	8.5	9.4	---	---	---	8.1	7.3	7.6	---	---	---
17	11.0	9.5	10.2	---	---	---	8.4	7.5	7.9	---	---	---
18	10.5	9.2	9.8	---	---	---	8.5	7.5	7.9	9.0	7.2	7.9
19	9.6	8.4	9.0	---	---	---	8.7	7.4	7.9	8.5	6.8	7.5
20	9.1	7.7	8.4	---	---	---	8.3	7.2	7.7	8.6	6.6	7.5
21	8.5	7.2	7.9	---	---	---	7.6	6.6	7.1	8.4	7.0	7.6
22	8.0	6.6	7.3	9.6	8.2	8.9	6.7	4.7	5.8	7.9	6.5	7.1
23	8.1	6.4	7.2	9.5	8.4	8.9	5.6	5.0	5.2	7.3	6.6	6.9
24	8.3	6.8	7.5	9.7	8.4	9.0	6.6	5.3	5.9	7.3	6.8	7.0
25	8.1	7.0	7.5	9.6	7.7	8.6	6.7	5.8	6.3	7.7	6.6	7.1
26	7.2	6.1	6.7	9.8	9.0	9.3	7.0	6.0	6.5	7.9	6.7	7.3
27	7.1	5.8	6.5	9.6	8.8	9.3	6.9	6.1	6.6	8.0	6.6	7.2
28	7.8	6.3	7.2	10.8	9.1	10.2	6.5	5.7	6.0	6.9	5.6	6.4
29	8.3	7.8	8.1	10.1	9.6	9.8	8.0	6.1	7.1	5.6	3.1	3.7
30	---	---	---	9.6	8.3	8.9	8.4	7.2	7.8	5.1	3.8	4.5
31	---	---	---	9.2	8.3	8.8	---	---	---	5.6	5.1	5.4
MONTH	11.1	5.8	8.8	10.8	3.9	7.2	9.1	4.7	7.1	9.0	3.1	6.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.8	4.5	5.3	7.8	6.0	6.8	---	---	---	---	---	---
2	5.0	4.4	4.6	7.4	5.9	6.7	7.5	5.9	6.6	---	---	---
3	4.8	4.4	4.6	7.4	6.1	6.7	8.0	5.9	6.7	---	---	---
4	5.0	4.2	4.6	7.3	5.8	6.7	7.5	5.9	6.5	---	---	---
5	6.4	4.2	5.5	7.2	6.0	6.5	7.1	5.3	6.0	---	---	---
6	6.9	5.9	6.2	7.6	6.3	6.8	6.4	4.7	5.3	---	---	---
7	6.5	4.4	5.1	7.9	6.4	7.1	4.7	3.5	4.0	9.8	7.2	8.3
8	6.6	5.4	5.9	7.4	6.5	6.9	3.7	2.7	3.4	---	---	---
9	7.2	6.1	6.5	7.3	6.3	6.6	3.6	1.5	2.2	---	---	---
10	6.1	4.4	5.4	---	---	---	2.1	1.2	1.7	---	---	---
11	5.2	4.5	4.9	5.3	4.5	4.9	3.1	1.2	2.1	6.9	5.7	6.2
12	5.7	4.7	5.2	---	---	---	4.3	2.9	3.6	6.9	5.7	6.3
13	5.2	4.3	4.8	---	---	---	4.3	3.6	3.9	6.4	5.9	6.2
14	5.0	3.5	4.3	---	---	---	4.8	3.8	4.2	6.8	5.6	6.1
15	---	---	---	---	---	---	5.5	4.1	4.7	6.1	3.6	4.9
16	---	---	---	4.8	3.6	4.3	5.3	3.7	4.5	5.1	3.6	4.2
17	---	---	---	4.5	2.8	3.7	---	---	---	4.7	4.1	4.4
18	---	---	---	3.9	2.6	3.3	---	---	---	4.7	3.6	4.5
19	---	---	---	5.3	3.5	4.6	---	---	---	4.3	3.6	4.0
20	---	---	---	6.1	4.3	5.1	---	---	---	4.7	4.0	4.4
21	7.9	6.0	6.9	7.1	4.9	5.9	8.0	6.5	7.2	5.3	4.7	5.0
22	---	---	---	8.3	5.1	6.5	8.4	6.8	7.5	5.8	5.1	5.4
23	---	---	---	6.6	5.2	5.7	7.1	5.8	6.4	5.7	5.1	5.3
24	---	---	---	---	---	---	7.3	6.1	6.6	5.7	4.9	5.2
25	---	---	---	---	---	---	6.8	5.6	6.3	5.8	4.8	5.3
26	---	---	---	---	---	---	6.2	5.5	5.9	5.3	4.5	5.0
27	---	---	---	6.7	5.5	5.9	6.2	5.2	5.6	5.2	4.6	4.9
28	---	---	---	6.7	3.7	4.5	6.3	5.8	6.1	5.8	5.1	5.4
29	7.4	5.7	6.4	4.5	4.1	4.4	---	---	---	5.8	5.3	5.5
30	7.9	6.2	6.9	5.3	4.4	4.8	---	---	---	5.9	5.2	5.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.9	3.5	5.5	8.3	2.6	5.7	8.4	1.2	5.1	9.8	3.6	5.3
YEAR	11.1	1.2	6.9									

08057445 PRAIRIE CREEK AT U.S. HIGHWAY 175, DALLAS, TX

LOCATION.--Lat 32°42'11", long 96°40'11", Dallas County, Hydrologic Unit 12030105, on left bank at downstream side of the downstream access road bridge on U.S. Highway 175, 3.4 mi upstream from mouth, and 9.0 mi southeast of Dallas City Hall.

DRAINAGE AREA.--9.03 mi².

PERIOD OF RECORD.--October 1975 to September 1980, April 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 390.00 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several observations of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 29	0545	1,090	19.15				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	72	e.48	1.7	e1.3	.42	e1.4	.39	.52	.08	2.2	20
2	.58	.35	e.43	e1.4	e1.6	.41	e.80	.37	2.3	.08	.78	1.6
3	1.3	.02	e.41	e1.6	e1.7	.38	.44	.34	.58	.07	.34	.76
4	.65	.00	.37	1.7	e1.8	.39	.21	.35	.28	.07	.20	.81
5	.41	.00	1.1	e1.6	e2.1	.76	31	.34	.73	.07	.15	.56
6	.22	.02	.65	e2.0	2.0	.85	6.1	.36	.47	.06	.12	.32
7	.20	.16	e.39	e2.1	1.6	.53	.99	.35	4.8	.05	.10	.21
8	.20	.17	e.27	e2.0	1.6	.39	.51	.34	1.4	.03	.18	.12
9	.21	.20	e.19	1.9	1.3	.30	.28	.31	.51	.05	.31	.09
10	.12	.18	e.09	1.6	1.9	.29	.20	.27	22	.11	.29	.07
11	.15	.53	e.04	1.3	2.3	.29	.18	13	2.5	.09	.76	.07
12	.25	.22	.00	e1.3	1.9	.28	.24	1.7	.86	14	.94	.07
13	.32	.18	.00	1.3	2.0	e.31	1.7	.73	.42	66	.82	.08
14	.18	.18	.00	1.2	.75	e.31	.54	.40	37	32	.36	1.8
15	.05	.22	.00	2.0	1.2	e.28	.18	.26	13	4.2	.19	82
16	.04	.22	.01	1.4	1.0	e.28	.13	.17	1.3	1.7	.13	3.0
17	.01	.25	21	1.3	1.0	e.28	.11	.16	.72	1.1	12	.62
18	.00	.60	6.2	e19	1.0	e.25	.11	.19	.36	.73	2.6	10
19	.03	.55	e4.8	e6.8	1.1	e.30	.13	.19	.21	.52	.58	5.1
20	.02	.50	e3.8	e3.4	1.0	e.31	1.8	.18	.15	.39	.25	3.2
21	.00	.47	e3.1	.52	.81	e.30	.45	.19	.11	.31	.16	.79
22	.01	.21	e2.9	.49	.80	e.28	20	.17	.08	.27	.15	.30
23	.01	.69	e2.7	.54	.64	e.28	2.7	.16	.08	.31	.15	.17
24	.00	.73	e2.8	.83	e.59	e.28	.95	.14	.08	.50	.12	.11
25	.00	.51	e3.7	.83	e.63	e.28	.52	.14	.09	.45	1.5	.14
26	.00	.57	e4.6	1.2	.56	e.29	.39	.14	.10	.39	.40	1.2
27	.02	.58	e3.6	1.2	1.3	e4.9	.32	.14	.09	.31	.16	2.4
28	.01	.52	e3.2	.88	.48	e11	.32	.14	.09	.28	57	.41
29	.00	.41	e3.6	.82	.40	e7.2	.37	.14	.09	.23	177	.10
30	.26	.61	e4.0	e1.1	---	e4.6	.45	.14	.08	.43	5.1	.05
31	.43	---	3.5	e1.2	---	e2.6	---	.15	---	1.5	76	---
MEAN	.19	2.73	2.51	2.14	1.25	1.28	2.45	.71	3.03	4.08	11.0	4.54
MAX	1.3	72	21	19	2.3	11	31	13	37	66	177	82
MIN	.00	.00	.00	.49	.40	.25	.11	.14	.08	.03	.10	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996h, BY WATER YEAR (WY)

MEAN	12.3	8.22	10.0	6.52	10.6	10.6	12.6	18.0	7.99	3.59	1.70	3.20
MAX	46.3	43.1	37.2	19.8	34.0	26.6	42.1	72.4	35.5	24.9	11.0	8.30
(WY)	1995	1995	1992	1990	1993	1977	1990	1989	1989	1994	1996	1980
MIN	.000	.33	.42	.12	.34	1.28	.66	.64	.32	.000	.000	.005
(WY)	1976	1990	1978	1976	1976	1996	1978	1977	1978	1980	1980	1984

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1976 - 1996h	
ANNUAL MEAN	8.99		3.00		8.97	
HIGHEST ANNUAL MEAN					17.4	1995
LOWEST ANNUAL MEAN					1.61	1978
HIGHEST DAILY MEAN	620	May 8	177	Aug 29	1150	May 17 1989
LOWEST DAILY MEAN	.00	Aug 14	.00	Oct 18	.00	Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 14	.01	Oct 20	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			1090	Aug 29	5660	May 17 1989
INSTANTANEOUS PEAK STAGE			19.15	Aug 29	29.21	May 17 1989
10 PERCENT EXCEEDS	7.9		3.6		10	
50 PERCENT EXCEEDS	.94		.41		.87	
90 PERCENT EXCEEDS	.03		.08		.01	

e Estimated
h See PERIOD OF RECORD paragraph.

08058900 EAST FORK TRINITY RIVER AT MCKINNEY, TX

LOCATION.--Lat 33°14'38", long 96°36'31", Collin County, Hydrologic Unit 12030106, at downstream side of highway embankment near left end of main channel bridge on State Highways 5 and 121, 750 ft downstream from Honey Creek, 1.2 mi upstream from Southern Pacific Railway Co. bridge, 1.7 mi upstream from Clemons Creek, 3.3 mi north of McKinney, 26.1 mi upstream from Lavon Dam, and 86.5 mi upstream from mouth.

DRAINAGE AREA.--164 mi².

PERIOD OF RECORD.--October 1975 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982, October 1985 to July 1987, April 1993 to September 1995.

GAGE.--Water-stage recorder. Datum of gage is 528.74 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow from 89.1 mi² above this station is affected at times by discharge from the flood- detention pools of 49 floodwater-retarding structures with a combined detention capacity of 26,000 acre-ft. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1913, about 28 ft in April 1942 (discharge not determined), from information by Texas Department of Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	1.1	.08	2.8	3.4	.79	11	3.3	3.7	.00	.00	35
2	.17	.53	1.9	9.7	3.2	.78	10	3.0	8.4	.00	.00	31
3	.40	.46	4.4	8.3	3.1	.70	9.4	2.0	2.0	.00	.00	25
4	.29	.58	4.0	13	2.9	.60	17	1.7	.38	.00	.00	20
5	.32	.57	4.0	10	2.7	.62	15	1.5	.11	.00	.00	16
6	.32	.60	4.0	8.0	2.9	.87	19	.96	.06	.00	.00	11
7	.38	.59	4.4	7.1	3.1	.76	14	.49	.45	.00	.00	7.6
8	.24	.51	4.5	6.1	2.6	.60	11	.42	.06	.00	.02	4.6
9	.15	.70	4.9	5.6	2.7	.57	9.5	.26	.02	.00	.00	2.6
10	.24	.76	3.1	5.5	2.3	.46	7.9	.33	.97	.00	.00	1.4
11	.17	.64	1.9	5.4	1.9	.46	7.6	35	.12	.00	.01	.73
12	.24	.78	1.1	4.7	1.6	.46	9.5	7.8	.03	.00	.00	.38
13	.19	.78	.76	4.6	1.4	.56	17	7.3	2.6	.00	12	4.0
14	.14	1.2	.55	4.3	1.3	.44	15	5.2	1.1	.00	8.8	9.8
15	.21	1.0	.46	3.7	1.3	.56	11	3.6	.05	.00	3.0	106
16	.13	1.2	.44	3.4	1.2	.64	8.8	2.0	.03	.00	.54	82
17	4.0	1.0	1.5	3.5	1.2	.54	6.7	1.3	1.5	.00	.09	33
18	4.2	1.3	5.8	39	1.3	2.3	6.0	.71	2.4	.00	.02	26
19	1.3	1.3	6.1	24	1.2	3.3	5.7	.30	.08	.00	.00	87
20	.38	1.0	3.3	10	1.3	1.7	5.0	.11	.10	.00	.00	130
21	.18	.79	2.1	7.5	1.3	1.2	4.7	.08	.05	.00	.00	54
22	.11	.93	4.3	6.3	1.2	1.5	7.4	.07	.02	.00	.00	39
23	.15	1.2	5.3	6.0	1.0	1.2	11	.05	.01	.02	.00	32
24	.19	.93	3.6	5.5	.88	.99	11	.03	.00	.00	.00	25
25	.27	.95	2.8	6.8	.78	.95	8.8	.02	.00	.00	.00	20
26	.31	.81	1.8	6.3	.78	.90	6.8	.02	.00	.00	.00	18
27	.64	.68	1.4	5.4	1.8	3.0	5.5	.55	.00	.00	.00	16
28	.35	.65	1.9	4.6	1.5	24	4.8	.07	.00	.00	.00	15
29	.35	1.1	2.5	4.1	1.1	25	4.0	.03	.00	.00	180	14
30	.82	.89	1.9	4.0	---	17	3.5	.02	.00	.00	62	12
31	1.1	---	1.9	3.7	---	13	---	.02	---	.01	36	---
TOTAL	18.23	25.53	86.69	238.9	52.94	106.45	283.6	78.24	24.24	0.03	302.48	878.11
MEAN	.59	.85	2.80	7.71	1.83	3.43	9.45	2.52	.81	.001	9.76	29.3
MAX	4.2	1.3	6.1	39	3.4	25	19	35	8.4	.02	180	130
MIN	.11	.46	.08	2.8	.78	.44	3.5	.02	.00	.00	.00	.38
AC-FT	36	51	172	474	105	211	563	155	48	.06	600	1740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	99.8	109	129	70.7	153	210	138	295	145	25.4	3.92	8.53
MAX	1022	1120	1160	369	562	644	804	1704	737	213	19.0	64.0
(WY)	1982	1995	1992	1992	1986	1995	1990	1982	1989	1994	1990	1994
MIN	.000	.000	.000	.000	1.37	2.30	4.08	2.52	.81	.000	.000	.000
(WY)	1978	1978	1978	1978	1976	1976	1980	1996	1996	1984	1980	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1976 - 1996	
ANNUAL TOTAL	70907.45		2095.44			
ANNUAL MEAN	194		5.73		116	
HIGHEST ANNUAL MEAN					373	1982
LOWEST ANNUAL MEAN					4.65	1980
HIGHEST DAILY MEAN	6530	Mar 13	180	Aug 29	26800	May 13 1982
LOWEST DAILY MEAN	.01	Aug 17	.00	Jun 24	.00	Aug 18 1976
ANNUAL SEVEN-DAY MINIMUM	.02	Aug 25	.00	Jun 24	.00	Aug 18 1976
INSTANTANEOUS PEAK FLOW			384	Aug 29	61800	May 13 1982
INSTANTANEOUS PEAK STAGE			8.38	Aug 29	22.17	May 13 1982
ANNUAL RUNOFF (AC-FT)	140600		4160		83710	
10 PERCENT EXCEEDS	388		13		223	
50 PERCENT EXCEEDS	21		1.1		13	
90 PERCENT EXCEEDS	.17		.00		.00	

08059300 PILOT GROVE CREEK NEAR BLUE RIDGE, TX

LOCATION.--Lat 33°15'13", long 96°24'44", Collin County, Hydrologic Unit 12030106, on county road bridge, over center of channel at downstream side of bridge, 3.1 mi downstream from Desert Creek, and 3.2 mi south of Blue Ridge.

DRAINAGE AREA.--80.2 mi².

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1985 to June 1987, October 1995 to September 1996 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
FEB												
08...	1335	2.2	557	7.9	9.5	13	2.6	11.2	100	--	230	0
MAR												
20...	1315	4.8	477	7.9	11.0	14	2.1	9.2	84	0.8	200	0
APR												
10...	1530	5.9	473	8.1	17.0	16	4.0	9.8	103	1.6	230	11
MAY												
01...	1600	2.5	513	7.8	17.5	20	19	5.6	60	1.1	230	0
AUG												
13...	1330	14	342	7.7	23.0	60	200	6.1	72	3.2	74	0
28...	1630	0.30	312	7.4	24.5	40	72	5.0	61	2.8	140	3

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
FEB												
08...	89	2.8	29	0.8	2.6	240	27	11	0.40	7.1	316	2
MAR												
20...	77	2.5	22	0.7	2.2	220	17	9.3	15	5.0	282	7
APR												
10...	86	2.6	14	0.4	2.0	210	18	6.9	0.40	4.4	263	10
MAY												
01...	87	2.6	18	0.5	2.7	240	15	8.0	0.40	10	290	41
AUG												
13...	28	0.96	42	2	4.2	110	30	13	0.40	8.0	204	248
28...	53	1.7	8.4	0.3	3.9	140	17	3.0	0.30	8.1	178	96

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
FEB											
08...	<1	--	0.330	0.330	0.050	0.380	0.380	<0.015	--	<0.20	0.040
MAR											
20...	3	4	--	--	<0.010	--	<0.050	<0.015	--	0.30	0.050
APR											
10...	11	0	0.060	--	<0.010	0.060	0.060	<0.015	--	0.20	<0.010
MAY											
01...	21	20	0.150	0.150	0.040	0.190	0.190	0.170	0.23	0.40	0.040
AUG											
13...	16	232	2.15	2.15	0.050	2.20	2.20	0.040	0.36	0.40	0.310
28...	28	68	0.110	0.110	0.020	0.130	0.130	0.110	0.39	0.50	0.050

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
FEB											
08...	0.040	0.12	6.4	--	--	--	--	--	--	--	--
MAR											
20...	0.050	0.15	7.1	1	<100	<10	<1.0	<1.0	<1.0	<1.0	10
APR											
10...	0.010	0.03	4.2	--	--	--	--	--	--	--	--
MAY											
01...	0.030	0.09	5.8	1	93	<0.50	<1.0	<5.0	<3.0	<10	21
AUG											
13...	0.320	0.98	41	2	35	1.1	<1.0	<5.0	6.0	<10	25
28...	0.020	0.06	12	--	--	--	--	--	--	--	--

08059300 PILOT GROVE CREEK NEAR BLUE RIDGE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB											
08...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	1.0	<10	<10	0.2	<1.0	1.0	<1	<4.0	1100	2	<10
APR											
10...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	<10	7	27	<0.1	<10	<10	<1	<1.0	1200	<6	<3.0
AUG											
13...	<10	<4	2.0	<0.1	<10	<10	<1	2.0	370	<6	4.0
28...	--	--	--	--	--	--	--	--	--	--	--

08059400 SISTER GROVE CREEK NEAR BLUE RIDGE, TX

LOCATION.--Lat 33°17'40", long 96°28'58", Collin County, Hydrologic Unit 12030106, on left bank at upstream side of highway embankment of bridge on Farm Road 545, 3.5 mi upstream from Hatler Branch, 4.8 mi west of Blue Ridge, 7.4 mi upstream from Stiff Creek, 14.7 mi upstream from mouth, and 24.7 mi upstream from Lavon Dam.

DRAINAGE AREA.--83.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 526.29 ft above sea level. Prior to June 29, 1988, at datum 10.00 ft higher at same site.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow is affected at times by discharge from the flood-detention pools of 34 floodwater-retarding structures with a combined detention capacity of 12,710 acre-ft. These structures control runoff from 47.4 mi². Discharge may contain flow released from Lake Texoma and placed into channel 40 miles upstream from site. Several observations of water temperature were made during the year. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 30.7 ft, present datum, probably occurred in July 1913, from information by the Texas Department of Transportation. The probable date is from published records for discontinued station 08059500, located 9.7 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.00	.19	e1.7	102	97	90	97	92	82	3.7	107
2	.36	.00	.02	e10	98	97	90	96	93	21	2.4	90
3	.31	.00	.00	e54	111	97	90	94	90	2.7	23	85
4	.16	.00	.00	e102	146	97	91	95	28	.99	79	22
5	.08	.00	.00	e102	138	98	91	95	5.9	.54	77	8.6
6	.05	.00	.00	e102	100	97	92	95	3.3	20	19	6.9
7	.09	.00	65	e102	101	92	92	96	2.8	80	2.2	32
8	.15	.00	111	103	99	94	90	95	28	79	.75	75
9	.11	.00	109	101	48	101	90	93	80	22	.34	76
10	.09	.00	e104	100	3.2	93	91	93	83	2.8	20	20
11	.06	.00	e103	100	1.3	95	93	107	23	1.1	90	5.9
12	.04	.00	e103	100	.8/	92	94	96	4.1	.87	144	4.1
13	.03	.00	103	99	.78	91	96	95	2.0	24	32	3.5
14	.00	.00	103	99	45	91	96	95	1.4	87	12	27
15	.00	.00	103	99	94	90	94	92	29	87	8.1	105
16	.00	.00	104	101	94	92	93	91	92	24	5.8	117
17	.00	.00	110	103	96	92	93	90	87	3.9	37	24
18	.00	.00	58	114	97	95	93	89	22	1.7	88	15
19	.00	.00	e8.7	e89	97	93	93	89	3.3	1.3	87	108
20	.00	.00	e5.3	e13	97	92	90	90	1.5	22	20	213
21	.00	.00	e4.0	e3.0	96	92	91	89	.77	84	3.1	132
22	e.00	.00	e3.2	2.1	96	93	99	89	22	85	1.2	148
23	.00	.00	e2.6	1.9	95	94	101	89	79	23	.60	116
24	.00	.00	e2.3	1.7	94	95	97	87	80	3.4	30	50
25	.00	.00	e2.1	1.5	95	94	97	87	21	1.2	87	44
26	.00	.00	e1.9	1.4	96	94	96	87	2.7	.55	88	44
27	.00	.00	e1.7	72	98	98	96	92	1.1	40	20	48
28	.00	.00	e1.5	100	95	100	96	91	.66	83	81	48
29	.00	.00	e1.4	101	94	93	96	89	25	89	101	43
30	.00	.01	e1.3	102	---	92	97	87	83	26	51	40
31	.00	---	e1.3	102	---	90	---	88	---	6.8	62	---
TOTAL	1.68	0.01	1213.51	2183.3	2428.15	2921	2808	2858	1086.53	1005.85	1276.19	1858.0
MEAN	.054	.000	39.1	70.4	83.7	94.2	93.6	92.2	36.2	32.4	41.2	61.9
MAX	.36	.01	111	114	146	101	101	107	93	89	144	213
MIN	.00	.00	.00	1.4	.78	90	90	87	.66	.54	.34	3.5
AC-FT	3.3	.02	2410	4330	4820	5790	5570	5670	2160	2000	2530	3690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	46.9	49.1	69.0	49.3	94.9	125	93.1	137	79.0	13.5	4.94	6.48
MAX	451	316	493	178	266	368	477	714	348	54.4	41.2	61.9
(WY)	1982	1995	1992	1992	1989	1995	1990	1982	1989	1982	1996	1996
MIN	.000	.000	.000	1.55	1.81	2.92	3.46	6.99	1.22	.000	.000	.000
(WY)	1978	1978	1978	1976	1976	1976	1980	1988	1980	1978	1978	1978

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1975 - 1996	
ANNUAL TOTAL	38893.45		19640.22			
ANNUAL MEAN	107		53.7		63.9	
HIGHEST ANNUAL MEAN					169	1982
LOWEST ANNUAL MEAN					4.22	1980
HIGHEST DAILY MEAN	2360	May 25	213	Sep 20	8560	May 13 1982
LOWEST DAILY MEAN	.00	Sep 6	.00	Oct 14	.00	Oct 14 1975
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 12	.00	Oct 14	.00	Oct 14 1975
INSTANTANEOUS PEAK FLOW			251	Sep 19	13300	May 13 1982
INSTANTANEOUS PEAK STAGE			14.90	Sep 19	32.50	May 13 1982
ANNUAL RUNOFF (AC-FT)	77150		38960		46280	
10 PERCENT EXCEEDS	243		101		140	
50 PERCENT EXCEEDS	24		78		11	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08059400 SISTER GROVE CREEK NEAR BLUE RIDGE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1985 to June 1987, October 1995 to September 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
OCT												
04...	1530	0.14	427	7.5	20.0	22	10	4.0	45	0.8	190	0
FEB												
08...	1515	98	1990	8.1	10.0	12	32	11.4	103	0.8	460	330
MAR												
20...	1445	91	2090	8.3	10.0	10	9.2	10.0	90	1.2	470	330
APR												
10...	1130	92	2090	8.2	13.5	17	17	10.0	98	1.3	490	350
MAY												
01...	1200	99	2120	8.0	16.0	65	31	9.0	94	2.3	490	360
JUN												
21...	1045	0.69	2140	7.6	25.5	15	--	5.1	64	0.8	500	350

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
OCT												
04...	73	2.6	10	0.3	3.1	200	12	6.2	0.30	8.1	232	16
FEB												
08...	120	38	230	5	6.1	130	310	350	0.40	5.6	1140	60
MAR												
20...	120	40	240	5	5.2	130	380	370	0.30	4.1	1240	23
APR												
10...	130	41	240	5	5.8	140	350	370	0.30	4.9	1230	38
MAY												
01...	130	40	250	5	5.7	140	360	360	0.40	6.6	1240	79
JUN												
21...	130	43	250	5	6.0	150	360	380	0.40	6.9	1270	27

DATE	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
OCT											
04...	3	13	--	--	<0.010	--	<0.050	0.020	0.28	0.30	0.010
FEB											
08...	12	48	0.250	0.250	0.010	0.260	0.260	0.040	--	<0.20	0.020
MAR											
20...	4	19	0.100	--	<0.010	0.100	0.100	<0.015	--	0.30	<0.010
APR											
10...	17	21	0.170	--	<0.010	0.170	0.170	0.020	0.28	0.30	0.010
MAY											
01...	24	55	0.170	--	<0.010	0.170	0.170	0.060	0.24	0.30	0.020
JUN											
21...	10	17	0.220	0.220	0.010	0.230	0.230	0.080	--	<0.20	<0.010

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT											
04...	0.010	0.03	6.7	--	--	--	--	--	--	--	--
FEB											
08...	0.010	0.03	5.9	--	--	--	--	--	--	--	--
MAR											
20...	<0.010	--	5.1	<1	180	<1.0	<2.0	<10	8.0	<20	7.0
APR											
10...	<0.010	--	5.1	--	--	--	--	--	--	--	--
MAY											
01...	0.030	0.09	5.8	1	180	<1.0	<2.0	<10	<6.0	<20	9.0
JUN											
21...	0.020	0.06	4.9	1	190	<1.5	<1.0	<15	<9.0	<30	<9.0

08059400 SISTER GROVE CREEK NEAR BLUE RIDGE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
FEB											
08...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	<20	23	31	0.2	<20	<20	<1	<2.0	1600	<12	14
APR											
10...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	<20	26	33	<0.1	<20	<20	<1	<2.0	1600	<12	<6.0
JUN											
21...	60	26	98	0.2	<30	<30	<1	<3.0	1700	<18	17

08060500 LAVON LAKE NEAR LAVON, TX

LOCATION.--Lat 33°01'54", long 96°28'56", Collin County, Hydrologic Unit 12030106, in right abutment of spillway in dam on East Fork Trinity River, 3,850 ft upstream from St. Louis Southwestern Railway Lines bridge, 4,000 ft upstream from bridge on State Highway 78, 2.9 mi west of Lavon, and 55.9 mi upstream from mouth.

DRAINAGE AREA.--770 mi².

WATER-CONTENT RECORDS

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

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Jan. 20, 1954, non-recording gage in the approach channel at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 18,860 ft long, including a 568-foot gated spillway with twelve 40.0- by 28.0-foot tainter gates. The original dam was 9,499 ft long, but conservation capacity was increased to present size in December 1975. Deliberate impoundment began Sept. 14, 1953, and the dam was completed in October 1953. Low-flow outlets consist of five 36-inch-diameter controlled sluice gates. Capacity Table No. 9, is based on a sedimentation survey completed in 1970. Lake was designed for flood control and water conservation. Water for municipal supply can be released down to elevation 453.0 ft. Flow is affected at times by discharge from the flood-detention pools of 149 floodwater-retarding structures with a combined detention capacity of 69,170 acre-ft. These structures control runoff from 242 mi² in the East Fork Trinity River, Pilot Grove, and Sister Grove Creek drainage basins. Satellite telemeter at station. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	514.0	-
Design flood	509.0	921,200
Top of tainter gates	503.5	748,200
Top of conservation pool	492.0	456,500
Crest of spillway (sill of tainter gates)	475.5	178,300
Lowest gated outlet (invert)	453.0	12,700

COOPERATION.--Records of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 791,000 acre-ft May 3, 1990 (elevation, 504.93 ft); minimum since lake first filled in 1957, 80,150 acre-ft Apr. 17, 1976 (elevation, 465.96 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 400,300 acre-ft Oct. 2 (elevation, 489.25 ft); minimum, 248,700 acre-ft Sep. 30 (elevation, 480.55 ft).

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

480.0	240,400	488.0	376,200	496.0	547,400
482.0	271,300	490.0	415,200	498.0	597,000
484.0	304,300	492.0	456,500	500.0	649,400
486.0	339,200	494.0	500,600	502.0	704,700
487.0	357,500				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399900	378300	360400	355300	348700	341200	334200	328900	315200	293500	268800	255500
2	400300	378900	359900	355300	348800	341000	333700	328400	314900	292500	268000	255800
3	399600	377000	360100	355300	348500	340300	333700	327500	314400	291500	266900	255800
4	398600	375800	359300	355300	347600	339900	335300	327500	313700	289900	265600	255800
5	397800	375300	359300	355300	347200	340100	336900	327100	312600	288500	264700	255500
6	396600	374500	358600	355300	347000	341800	336900	326400	312300	287200	263900	255000
7	395600	374900	357700	355300	347000	339900	336700	326100	312300	285900	263000	254400
8	394700	373700	359300	355300	347200	339900	336900	325900	311300	284900	262300	253800
9	393900	372600	357700	352900	347200	338300	336500	325000	310400	283900	261700	253300
10	393500	374300	356700	352300	347900	338000	336000	325500	310200	282800	260900	252700
11	392900	372400	356200	352100	346600	337400	335300	326900	309900	281800	260800	251800
12	392100	370900	355800	352100	346300	336700	336500	326800	309400	281500	260600	251200
13	392000	371100	355800	351900	345600	336500	336400	327300	308700	280500	260100	250900
14	390400	370200	356200	351800	345700	336500	336400	326200	308200	281000	259400	250400
15	389600	369800	356400	351800	345700	336500	335600	325900	308000	280500	258400	250700
16	388700	369000	356400	351200	344300	336200	334700	325400	307300	279700	257500	250900
17	387700	368500	357500	351600	344100	336200	333900	324500	306800	278900	256900	250600
18	386900	368100	358600	352700	343400	336900	334200	323800	306100	277800	256300	250600
19	386300	367700	358200	351800	343700	336200	333900	322700	305600	276800	255600	250400
20	385000	367300	357500	351800	343400	335600	333500	322200	304600	275500	255000	251300
21	383500	366600	357100	351400	343200	335300	332100	321700	303400	274400	254300	251800
22	381900	366000	356900	351400	342700	334600	334200	320600	302200	273300	253600	251800
23	382300	365700	356400	351600	342500	333700	333700	319400	301100	273100	252700	251600
24	381400	364300	355600	351000	342100	335500	332300	318700	300200	272500	251800	251800
25	380200	363800	355400	350100	341600	335100	332800	317800	299400	271500	251500	251200
26	379300	362500	355100	350500	341400	334200	332300	316600	298700	271000	251000	251500
27	379300	363600	354900	349900	343200	334700	331200	316400	297900	270600	251200	250600
28	378300	362100	354100	348800	342700	334900	331700	316300	296900	269800	251300	250000
29	376800	361500	353600	349400	341600	334900	330700	315600	295500	268800	252600	249300
30	377200	360800	353800	349600	---	335300	329200	314500	294500	268500	253300	248700
31	377000	---	353800	348800	---	334700	---	313900	---	269300	255200	---
MAX	400300	378900	360400	355300	348800	341800	336900	328900	315200	293500	268800	255800
MIN	376800	360800	353600	348800	341400	333700	329200	313900	294500	268500	251000	248700
(+)	488.04	487.18	486.80	486.53	486.13	485.75	485.44	484.56	483.42	481.87	480.97	480.55
(@)	-23700	-16200	-7000	-5000	-7200	-6900	-5500	-15300	-19400	-25200	-14100	-6500

CAL YR 1995 MAX 668700 MIN 353600 @ -256300
WTR YR 1996 MAX 400300 MIN 248700 @ -152000

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08060500 LAVON LAKE NEAR LAVON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to September 1974, October 1975 to September 1982, October 1995 to current year.

REVISED RECORDS.--WDR-TX-93-1 Phytoplankton.

330203096284901 - LAVON LAKE SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESERVOIR STORAGE (AC-FT)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
MAR										
05...	1214	348000	1.00	333	7.9	11.5	0.37	9.6	90	35
05...	1217	--	10.0	333	7.9	11.5	--	9.6	90	--
05...	1221	--	20.0	333	7.9	11.5	--	9.4	88	--
05...	1226	--	32.0	334	7.9	11.0	--	9.1	84	--
MAY										
01...	1101	337000	1.00	371	8.4	18.5	0.37	9.1	99	K4
01...	1104	--	10.0	372	8.3	18.5	--	8.4	91	--
01...	1108	--	20.0	372	8.3	18.5	--	8.2	89	--
01...	1112	--	32.0	372	8.2	18.5	--	7.6	83	--
JUL										
23...	1203	281000	1.00	448	8.2	30.0	0.94	8.1	109	K2
23...	1209	--	10.0	451	7.7	29.0	--	4.9	65	--
23...	1214	--	20.0	451	7.6	29.0	--	4.9	65	--
23...	1221	--	27.0	452	7.3	28.5	--	2.7	35	--

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)
MAR									
05...	26	130	9	47	2.8	13	0.5	4.0	120
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	130	8	47	2.8	13	0.5	4.2	120
MAY									
01...	K3	140	13	49	3.2	20	0.7	3.7	120
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	140	13	49	3.2	20	0.7	3.7	120
JUL									
23...	K3	130	32	46	4.2	30	1	4.0	100
23...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
23...	--	130	32	46	4.1	29	1	4.0	100

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
MAR									
05...	23	12	0.30	4.2	179	0.150	0.150	0.010	0.160
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	23	12	0.30	4.4	180	0.150	0.150	0.010	0.160
MAY									
01...	34	21	0.30	0.60	206	0.130	--	<0.010	0.130
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	34	21	0.30	1.0	207	0.140	--	<0.010	0.140
JUL									
23...	49	40	0.30	8.2	242	0.060	--	<0.010	0.060
23...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
23...	47	39	0.30	9.2	239	0.050	0.050	0.030	0.080

08060500 LAVON LAKE NEAR LAVON, TX--Continued

330203096284901 - LAVON LAKE SITE AC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR									
05...	0.160	0.070	0.23	0.30	<0.010	0.020	0.06	20	<10
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	0.160	0.100	0.20	0.30	0.020	0.010	0.03	<10	<10
MAY									
01...	0.130	0.030	0.27	0.30	<0.010	<0.010	--	4	<1
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	0.140	0.030	0.17	0.20	<0.010	<0.010	--	6	<1
JUL									
23...	0.060	0.030	0.17	0.20	0.020	<0.010	--	<3	9
23...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
23...	0.080	0.150	0.25	0.40	0.020	0.020	0.06	<3	90

330205096280001 - LAVON LAKE SITE AL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
05...	1246	1.00	333	8.0	11.5	9.8	92
05...	1249	10.0	333	8.0	11.5	9.8	92
05...	1251	20.0	333	8.0	11.5	9.7	91
05...	1254	25.0	333	8.0	11.5	9.7	91
MAY							
01...	1122	1.00	368	8.5	18.5	9.2	100
01...	1124	10.0	369	8.4	18.5	8.7	94
01...	1126	23.0	369	8.4	18.5	8.7	94
JUL							
23...	1228	1.00	446	8.1	30.0	7.8	107
23...	1230	5.00	447	8.0	30.0	7.5	103
23...	1233	10.0	448	7.9	29.0	6.7	90
23...	1235	17.0	448	7.7	29.0	5.8	78

330654096273201 - LAVON LAKE SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
MAR												
05...	1328	1.00	395	8.1	13.0	0.24	9.7	94	K12	K15	140	22
05...	1333	10.0	395	8.1	12.5	--	9.7	93	--	--	--	--
05...	1339	21.0	384	8.1	12.5	--	9.8	94	--	--	140	21
MAY												
01...	1150	1.00	462	8.4	18.5	0.24	9.0	98	K6	K1	160	42
01...	1155	10.0	459	8.4	18.5	--	9.0	98	--	--	--	--
01...	1200	21.0	480	8.4	18.5	--	8.9	97	--	--	160	45
JUL												
23...	1309	1.00	455	8.2	32.0	0.76	9.6	134	K1	K1	140	47
23...	1314	5.00	471	8.2	30.5	--	8.7	118	--	--	--	--
23...	1320	10.0	488	8.0	30.0	--	7.0	94	--	--	--	--
23...	1326	16.0	510	7.6	30.0	--	4.7	63	--	--	140	44

08060500 LAVON LAKE NEAR LAVON, TX--Continued

330654096273201 - LAVON LAKE SITE BC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
MAR												
05...	51	3.8	20	0.7	3.9	120	33	23	0.30	3.8	212	0.150
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	51	3.6	19	0.7	4.2	120	31	21	0.30	3.8	207	0.140
MAY												
01...	57	4.7	34	1	3.7	120	54	44	0.30	0.30	270	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	57	4.9	35	1	3.8	120	56	46	0.30	0.20	274	0.060
JUL												
23...	47	4.7	33	1	4.3	90	53	46	0.30	8.4	251	0.060
23...	--	--	--	--	--	--	--	--	--	--	--	0.060
23...	--	--	--	--	--	--	--	--	--	--	--	0.060
23...	47	5.1	39	1	4.2	94	59	54	0.30	8.9	274	0.070

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR												
05...	0.150	0.010	0.160	0.160	0.080	0.32	0.40	<0.010	<0.010	--	<10	<10
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	<0.010	0.140	0.140	0.080	0.32	0.40	<0.010	0.010	0.03	<10	<10
MAY												
01...	--	<0.010	--	<0.050	0.020	0.18	0.20	<0.010	<0.010	--	<3	<1
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	<0.010	0.060	0.060	0.030	0.17	0.20	<0.010	<0.010	--	<3	<1
JUL												
23...	0.060	0.010	0.070	0.070	0.040	0.26	0.30	<0.010	<0.010	--	<3	<1
23...	--	<0.010	0.060	0.060	0.040	0.26	0.30	<0.010	<0.010	--	<3	<1
23...	0.060	0.010	0.070	0.070	0.040	0.26	0.30	0.010	0.020	0.06	<3	<1
23...	--	<0.010	0.070	0.070	0.040	0.26	0.30	<0.010	<0.010	--	<3	4

330448096315601 - LAVON LAKE SITE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
MAR												
05...	1517	1.00	368	8.1	14.0	0.18	9.5	94	--	--	140	9
05...	1525	13.0	371	8.1	14.5	--	9.4	94	--	--	140	9
MAY												
01...	1309	1.00	371	8.4	18.5	0.18	9.0	98	K1	K1	130	10
01...	1315	13.0	391	8.3	18.5	--	8.2	89	--	--	130	11
JUL												
23...	1352	1.00	421	8.3	31.5	0.52	8.6	119	K2	K1	120	28
23...	1358	10.0	434	7.9	29.0	--	6.3	85	--	--	--	--
23...	1403	16.0	437	7.4	29.0	--	3.7	49	--	--	140	39

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
MAR												
05...	51	2.7	16	0.6	4.7	130	27	14	0.30	4.2	200	0.490
05...	51	2.8	16	0.6	4.6	130	27	14	0.30	4.2	200	0.520
MAY												
01...	48	2.8	21	0.8	4.2	120	36	20	0.40	0.20	206	0.270
01...	49	2.8	23	0.9	4.4	120	40	21	0.40	0.30	217	0.410
JUL												
23...	42	3.6	31	1	4.2	92	46	39	0.40	9.0	231	0.060
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	48	4.2	30	1	4.2	98	46	39	0.30	9.4	240	0.050

08060500 LAVON LAKE NEAR LAVON, TX--Continued

330448096315601 - LAVON LAKE SITE EC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR												
05...	0.490	0.020	0.510	0.510	0.080	0.32	0.40	<0.010	<0.010	--	<10	<10
05...	0.520	0.020	0.540	0.540	0.080	0.32	0.40	<0.010	0.010	0.03	<10	<10
MAY												
01...	0.270	0.010	0.280	0.280	0.020	0.28	0.30	<0.010	<0.010	--	<3	<1
01...	0.410	0.020	0.430	0.430	0.030	0.27	0.30	<0.010	<0.010	--	3	1
JUL												
23...	0.060	0.010	0.070	0.070	0.040	0.26	0.30	<0.010	0.010	0.03	<3	<1
23...	--	--	--	--	--	--	--	--	--	--	--	--
23...	0.050	0.010	0.060	0.060	0.100	0.30	0.40	0.010	0.010	0.03	<3	5

08060500 LAVON LAKE NEAR LAVON, TX--Continued

Lavon Lake Site AC (330203096284901)

Phytoplankton Analyses October 1995 to September 1996

Date	3-5-96
Time	1214
TOTAL CELLS/mL	5,741
NUMBER OF SPECIES	9
DEPTH COLLECTED (ft.)	0.60

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	112
Stephanodiscus astraea	37
Order Pennales	
Meridion circulare	89
CHLOROPHYTA	
Oocystis sp.	30
Scenedesmus quadricauda	30
Selenastrum Westii	565
CYANOPHYTA	
Aphanocapsa delicatissima	4,164
Aphanocapsa elachista	595
Chroococcus limneticus	119

08060500 LAVON LAKE NEAR LAVON, TX--Continued

Lavon Lake Site EC (330448096315601)

Phytoplankton Analyses October 1995 to September 1996

Date	3-5-96
Time	1517
TOTAL CELLS/mL	4,848
NUMBER OF SPECIES	6
DEPTH COLLECTED (ft.)	0.30

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	238
CHLOROPHYTA	
Selenastrum Westii	208
Staurastrum sp.	30
CYANOPHYTA	
Aphanocapsa delicatissima	2,974
Aphanocapsa elachista	1,190
EUGLENOPHYTA	
Trachelomonas sp.	208

08060500 LAVON LAKE NEAR LAVON, TX--Continued

Lavon Lake Site AC (330203096284901)

Phytoplankton Analyses October 1995 to September 1996

Date	5-1-96
Time	1101
TOTAL CELLS/mL	**9,784**
NUMBER OF SPECIES	**9**
DEPTH COLLECTED (ft.)	**0.60**

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	3,726
Stephanodiscus hantzschii	1,181
Order Pennales	
Navicula circumtexta	74
Navicula monmouthiana-stodderi	74
CHLOROPHYTA	
Ankistrodesmus falcatus	387
CYANOPHYTA	
Aphanocapsa delicatissima	2,974
Aphanocapsa elachista	595
Chroococcus limneticus	357
CRYPTOPHYTA	
Cryptomonas erosa	416

08060500 LAVON LAKE NEAR LAVON, TX--Continued

Lavon Lake Site EC (330448096315601)

Phytoplankton Analyses October 1995 to September 1996

Date	5-1-96
Time	1309
TOTAL CELLS/mL	8,000
NUMBER OF SPECIES	12
DEPTH COLLECTED (ft.)	0.30

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Stephanodiscus astraea	1,877
Stephanodiscus hantzschii	502
Order Pennales	
Navicula monmouthiana-stodderi	59
CHLOROPHYTA	
Ankistrodesmus falcatus	149
Scenedesmus bijuga	30
Scenedesmus opoliensis	89
Staurastrum sp.	30
CYANOPHYTA	
Aphanocapsa delicatissima	3,569
Chroococcus limneticus	357
Merismopedia tenuissima	952
EUGLENOPHYTA	
Trachelomonas sp.	59
CRYPTOPHYTA	
Cryptomonas erosa	327

08060500 LAVON LAKE NEAR LAVON, TX--Continued

Lavon Lake Site AC (330448096315601)

Phytoplankton Analyses October 1995 to September 1996

Date	7-23-96
Time	1203
TOTAL CELLS/mL	60,609
NUMBER OF SPECIES	18
DEPTH COLLECTED (ft.)	1.55

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Melosira varians	89
Order Pennales	
Cocconeis placentula var. *placentula*	22
Cymbella inelegans var. *inelegans*	87
Cymbella minuta var. *minuta*	108
Fragilaria crotonensis var. *crotonensis*	22
CHLOROPHYTA	
Ankistrodesmus falcatus	89
Chlamydomonas sp.	208
Cosmarium sp.	59
Pediastrum duplex	30
Scenedesmus bijuga	30
Scenedesmus opoliensis	89
Staurastrum sp.	59
CYANOPHYTA	
Aphanizomenon flos-aquae	10409
Aphanocapsa delicatissima	31524
Aphanocapsa elachista	1784
Chroococcus limneticus	595
Merismopedia tenuissima	14751
EUGLENOPHYTA	
Trachelomonas sp.	654

08060500 LAVON LAKE NEAR LAVON, TX--Continued

Lavon Lake Site EC (330448096315601)

Phytoplankton Analyses October 1995 to September 1996

Date	7-23-96
Time	1352
TOTAL CELLS/mL	52,580
NUMBER OF SPECIES	15
DEPTH COLLECTED (ft.)	0.85

Organisms	Cells/mL
BACILLARIOPHYTA	
Order Centrales	
Cyclotella ocellata	30
Order Pennales	
Cymbella inelegans var. *inelegans*	42
Cymbella minuta var. *minuta*	197
Fragilaria crotonensis var. *crotonensis*	14
Synedra ulna var. *ulna*	14
CHLOROPHYTA	
Ankistrodesmus falcatus	178
Chlamydomonas sp.	149
Cosmarium sp.	89
Scenedesmus opoliensis	30
CYANOPHYTA	
Aphanizomenon flos-aquae	9,517
Aphanocapsa delicatissima	26,766
Aphanocapsa elachista	595
Chroococcus limneticus	119
Merismopedia tenuissima	14,275
EUGLENOPHYTA	
Trachelomonas sp.	565

08061540 ROWLETT CREEK NEAR SACHSE, TX

LOCATION.--Lat 32°57'35", long 96°36'51", Dallas County, Hydrologic Unit 12030106, on right bank at downstream side of railroad embankment of Gulf, Colorado, and Santa Fe Railway Co., 100 ft downstream from Spring Creek, 150 ft upstream from State Highway 78, and 1.5 mi southwest of Sachse. Prior to Aug. 25, 1993, at site on left bank 150 ft downstream.

DRAINAGE AREA.--120 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 450.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. There are no known diversions above station. The North Texas Municipal Water District returns wastewater effluent into a tributary above this station. Several observations of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1942, 35.4 ft in 1942, from information by Texas Department of Transportation.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	245	45	92	34	20	60	60	255	12	71	183
2	39	63	44	132	38	17	52	60	65	13	45	65
3	57	48	36	62	42	18	52	64	36	7.5	38	225
4	39	43	29	50	35	14	68	65	44	10	33	81
5	33	41	23	45	34	13	466	66	30	9.2	27	57
6	29	44	28	42	37	7.6	149	67	24	9.7	22	51
7	30	43	32	32	35	6.0	78	73	278	7.2	17	47
8	30	37	103	32	32	5.8	64	68	42	5.2	35	46
9	27	39	46	37	31	7.6	58	72	27	5.1	219	44
10	25	45	24	35	31	12	51	68	63	7.0	94	41
11	27	30	28	37	29	13	46	615	45	7.6	63	37
12	28	33	45	36	23	8.8	69	68	26	58	105	36
13	30	32	43	33	20	4.6	90	43	51	86	47	40
14	20	36	41	32	22	4.1	50	36	23	304	37	87
15	26	33	38	29	22	4.4	42	41	135	67	31	381
16	23	36	36	28	24	5.6	43	37	64	57	22	86
17	20	35	137	27	25	7.2	40	29	45	45	48	56
18	22	32	166	178	28	144	34	24	27	38	40	116
19	23	30	102	40	29	38	25	22	18	32	26	75
20	23	24	65	32	22	12	24	18	17	23	22	60
21	20	26	60	22	21	6.8	22	14	23	20	27	52
22	22	26	57	16	25	6.4	128	14	23	20	32	48
23	15	30	51	26	21	7.1	127	9.9	26	40	22	42
24	21	31	47	30	21	258	79	7.1	23	47	29	40
25	33	35	45	28	29	138	56	16	14	32	49	41
26	44	42	44	41	30	51	45	5.1	18	26	51	35
27	42	45	46	41	138	242	35	40	17	241	73	45
28	38	38	48	43	47	167	34	30	17	167	143	32
29	30	51	47	40	25	82	40	22	16	39	139	28
30	68	53	92	37	---	77	49	12	17	62	87	23
31	54	---	55	33	---	63	---	13	---	236	429	---
TOTAL	967	1346	1703	1388	950	1461.0	2176	1779.1	1509	1733.5	2123	2200
MEAN	31.2	44.9	54.9	44.8	32.8	47.1	72.5	57.4	50.3	55.9	68.5	73.3
MAX	68	245	166	178	138	258	466	615	278	304	429	381
MIN	15	24	23	16	20	4.1	22	5.1	14	5.1	17	23
AC-FT	1920	2670	3380	2750	1880	2900	4320	3530	2990	3440	4210	4360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	122	99.3	140	89.6	137	177	156	229	137	48.1	31.5	51.8
MAX	610	586	898	343	425	476	573	1039	566	241	86.4	180
(WY)	1982	1995	1992	1992	1993	1995	1990	1982	1981	1994	1994	1974
MIN	4.88	7.63	7.52	6.72	7.83	11.9	23.8	18.8	4.60	1.91	1.78	3.75
(WY)	1979	1976	1978	1976	1976	1971	1972	1972	1971	1972	1972	1969

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	58369.6		19335.6			
ANNUAL MEAN	160		52.8		118	
HIGHEST ANNUAL MEAN					265	1992
LOWEST ANNUAL MEAN					22.2	1971
HIGHEST DAILY MEAN	7450	Mar 13	615	May 11	14900	May 13 1982
LOWEST DAILY MEAN	4.6	Aug 25	4.1	Mar 14	.00	Aug 24 1969
ANNUAL SEVEN-DAY MINIMUM	5.7	Aug 23	6.8	Mar 11	.00	Aug 24 1969
INSTANTANEOUS PEAK FLOW			2530	May 11	31900	May 17 1989
INSTANTANEOUS PEAK STAGE			14.62	May 11	29.62	May 17 1989
ANNUAL RUNOFF (AC-FT)	115800		38350		85320	
10 PERCENT EXCEEDS	191		92		186	
50 PERCENT EXCEEDS	60		37		42	
90 PERCENT EXCEEDS	16		14		7.5	

08061750 EAST FORK TRINITY RIVER NEAR FORNEY, TX

LOCATION.--Lat 32°46'2/", long 96°30'12", Kaufman County, Hydrologic Unit 12030106, on right bank 25 ft downstream from bridge on U.S. Highway 80, 0.2 mi downstream from Duck Creek, 1.9 mi downstream from Lake Ray Hubbard Dam, 2.5 mi upstream from Texas and Pacific Railroad Co. bridge, 2.6 mi northwest of Forney, and 30.8 mi upstream from mouth.

DRAINAGE AREA.--1,118 mi², of which 1,071 mi² is above Lake Ray Hubbard.

PERIOD OF RECORD.--January 1973 to current year.
Chemical and biochemical analyses: November 1981 to January 1993 (discontinued).
SPECIFIC CONDUCTANCE: October 1981 to January 1993 (discontinued).
pH: August 1986 to January 1993 (discontinued).
WATER TEMPERATURE: October 1981 to January 1993 (discontinued).
DISSOLVED OXYGEN: August 1986 to January 1993 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 374.86 ft above sea level. Prior to Aug. 26, 1975, recording gage at 3 ft higher datum located at site 126 ft upstream and 868 ft to left. From Aug. 26, 1975, to May 12, 1977, recording gage at 3 ft higher datum located at site 105 ft downstream. From May 13, 1977, to Sept. 30, 1984, recording gage at 3 ft higher datum at current site.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow is regulated by Lake Ray Hubbard (489,900 acre-ft), 1.9 mi upstream. Low flow is sustained by wastewater effluent discharge from the city of Garland into Duck Creek, which enters the East Fork Trinity River 0.2 mi upstream from this station. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	460	46	78	48	42	e60	41	143	45	245	900
2	50	140	45	321	45	42	e69	36	323	45	73	191
3	63	52	45	116	55	44	64	39	83	e46	61	181
4	53	36	43	69	55	45	60	44	72	e44	56	258
5	48	38	45	61	61	55	330	44	64	e39	55	80
6	47	42	39	49	66	57	384	44	35	e35	47	72
7	48	42	40	48	52	43	118	38	208	38	45	70
8	45	43	39	57	52	38	85	37	134	40	44	67
9	40	48	179	61	54	44	70	40	56	47	46	56
10	44	47	47	60	50	43	52	40	113	52	122	52
11	46	58	45	53	51	42	e48	305	209	49	85	54
12	48	45	42	44	52	39	e45	144	52	138	261	53
13	43	53	40	44	45	41	e66	57	59	324	80	50
14	38	46	38	51	44	44	e61	44	61	439	52	82
15	36	34	35	55	43	47	e51	46	58	351	51	420
16	48	35	30	51	44	45	48	46	93	110	50	344
17	47	47	187	50	44	47	47	49	46	114	219	99
18	39	44	373	377	47	251	46	40	411	59	248	285
19	45	38	279	103	47	198	47	39	87	50	69	426
20	56	47	75	69	46	71	57	42	60	48	63	227
21	46	45	58	66	47	60	40	39	50	46	58	92
22	38	44	53	59	50	57	162	41	41	47	52	67
23	47	47	53	53	44	e51	239	45	46	54	50	63
24	50	41	50	56	44	e57	57	47	45	57	48	62
25	45	29	51	48	49	e77	51	42	45	49	97	62
26	43	37	45	57	52	e76	48	38	48	44	543	72
27	47	52	45	53	48	e64	41	36	47	47	99	116
28	46	50	47	49	97	e147	41	37	47	359	470	60
29	44	46	49	52	46	e97	49	53	43	82	539	56
30	66	41	80	48	---	e70	46	46	40	52	570	55
31	113	---	89	47	---	e68	---	46	---	401	244	---
TOTAL	1520	1827	2332	2405	1478	2102	2582	1685	2819	3351	4742	4672
MEAN	49.0	60.9	75.2	77.6	51.0	67.8	86.1	54.4	94.0	108	153	156
MAX	113	460	373	377	97	251	384	305	411	439	570	900
MIN	36	29	30	44	43	38	40	36	35	35	44	50
AC-FT	3010	3620	4630	4770	2930	4170	5120	3340	5590	6650	9410	9270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996#, BY WATER YEAR (WY)

MEAN	426	598	623	483	760	926	978	1586	1132	457	143	181
MAX	3975	3076	3276	2421	2652	2510	2864	8008	5436	2207	1246	1583
(WY)	1974	1995	1992	1992	1975	1992	1985	1990	1989	1982	1989	1974
MIN	15.8	26.4	22.3	24.7	33.2	34.5	35.7	42.5	28.2	19.7	23.1	22.6
(WY)	1978	1977	1978	1981	1981	1980	1978	1988	1978	1978	1980	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996#	
ANNUAL TOTAL	501207		31515			
ANNUAL MEAN	1373		86.1		690	
HIGHEST ANNUAL MEAN					1941	1995
LOWEST ANNUAL MEAN					37.6	1978
HIGHEST DAILY MEAN	13800	May 6	900	Sep 1	50700	May 4 1990
LOWEST DAILY MEAN	29	Nov 25	29	Nov 25	8.0	Jun 23 1979
ANNUAL SEVEN-DAY MINIMUM	40	Dec 10	40	Dec 10	15	Sep 30 1977
INSTANTANEOUS PEAK FLOW			1690	Sep 1	53000	May 3 1990
INSTANTANEOUS PEAK STAGE			10.78	Sep 1	22.01	May 3 1990
ANNUAL RUNOFF (AC-FT)	994100		62510		500100	
10 PERCENT EXCEEDS	2580		193		2250	
50 PERCENT EXCEEDS	1110		50		56	
90 PERCENT EXCEEDS	43		40		25	

e Estimated
Period of regulated streamflow.

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX

LOCATION.--Lat 32°39'53", long 96°31'26", Dallas County, Hydrologic Unit 12030106, on right bank at downstream side of bridge on Malloy Bridge Road, 1.3 mi north of intersection of U. S. Highway 175 and Malloy Bridge Road in Seagoville, and 3.5 mi downstream from South Mesquite Creek.

DRAINAGE AREA.--1,224 mi²

PERIOD OF RECORD.-- Chemical and biochemical analyses: April 1987 to September 1993.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1987 to September 1996 (discontinued).
pH: March 1987 to September 1996 (discontinued).
WATER TEMPERATURE: March 1987 to September 1996 (discontinued).
DISSOLVED OXYGEN: March 1987 to September 1996 (discontinued).

INSTRUMENTATION.--Since March 1987, a four-parameter water-quality monitor continuously records specific conductance, pH, water temperature, and dissolved oxygen at this station.

REMARKS.--Interruptions in the record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,090 microsiemens Aug. 10, 1996; minimum, 123 microsiemens Oct. 22, 1994
pH: Maximum, 9.4 units Oct. 30, 1989; minimum, 6.7 units March 7, 1988.
WATER TEMPERATURE: Maximum, 32.5°C July 29-31, 1993; minimum, 3.5°C Jan. 8, 1988, Feb. 5, 1989.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L Feb. 9, 1992; minimum, 0.0 mg/L Nov. 23, 1988, Aug. 10, 12, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,090 microsiemens Aug. 10; minimum, 157 microsiemens Aug. 29.
pH: Maximum, 8.7 units May 29; minimum, 7.1 units on many days.
WATER TEMPERATURE: Maximum, 31.5°C on several days; minimum, 4.5°C Feb. 3-5.
DISSOLVED OXYGEN: Maximum, 12.5 mg/L Mar. 15; minimum, 3.2 mg/L July 12.

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	2464	648	348	2310	63	421	61	405	160
NOV.	1995	3055	546	297	2450	47	384	50	416	150
DEC.	1995	4306	519	284	3300	42	483	48	553	150
JAN.	1996	4519	555	302	3680	47	576	51	625	150
FEB.	1996	3166	675	360	3080	69	587	64	544	160
MAR.	1996	4354	601	324	3810	55	652	56	658	150
APR.	1996	5535	553	300	4480	48	721	51	765	150
MAY	1996	3304	616	332	2960	58	520	58	514	160
JUNE	1996	4469	595	321	3880	54	656	55	668	150
JULY	1996	5807	559	302	4730	52	808	52	817	140
AUG.	1996	7973	513	278	5990	45	975	48	1020	140
SEPT	1996	7939	486	266	5710	38	817	44	953	140
TOTAL		56891	**	**	46400	**	7600	**	7940	**
WTD.AVG.		155	557	302	**	49	**	52	**	150

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	e650	599	195	441	630	619	627	605	495	560
2	---	---	e634	442	265	344	630	623	627	514	387	461
3	---	---	e625	542	442	490	638	621	628	434	365	388
4	---	---	e618	620	542	575	644	617	629	501	434	463
5	---	---	e624	646	620	634	680	627	640	573	501	544
6	---	---	e650	670	641	653	703	680	693	610	573	588
7	---	---	e648	662	642	650	684	629	656	615	605	611
8	---	---	e660	656	601	633	648	543	617	637	615	628
9	---	---	e662	646	603	620	614	469	559	628	605	616
10	---	---	e665	650	641	645	534	460	493	612	593	603
11	---	---	e651	673	641	655	566	534	553	616	597	609
12	---	---	e639	678	661	669	579	559	570	622	601	612
13	---	---	e654	670	655	660	583	569	575	643	622	638
14	---	---	e662	667	655	660	595	574	586	642	632	639
15	---	---	e673	657	619	636	608	588	599	653	632	641
16	---	---	e678	642	622	631	605	587	594	652	633	646
17	---	---	e668	638	628	634	602	287	524	634	614	626
18	---	---	e641	651	635	640	528	322	402	620	350	516
19	---	---	e620	653	641	649	405	329	363	499	320	414
20	---	---	e628	644	631	638	484	365	418	561	499	536
21	---	---	e665	638	589	620	532	484	507	610	560	576
22	---	---	e703	612	586	598	571	530	547	638	610	628
23	---	---	e670	634	601	620	598	571	583	624	608	614
24	---	---	e664	637	627	631	602	595	599	621	591	611
25	---	---	e651	648	567	634	608	591	601	654	608	640
26	---	---	e633	633	583	610	591	563	583	656	629	643
27	---	---	e647	596	581	586	577	554	566	660	635	652
28	671	652	661	596	566	583	573	559	567	680	660	669
29	692	662	677	614	591	595	592	569	582	683	660	672
30	681	589	666	619	597	612	605	587	595	660	645	650
31	640	563	608	---	---	---	610	600	606	660	649	654
MONTH	692	563	651	678	195	608	703	287	571	683	320	592

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	680	653	670	656	638	645	675	639	659	---	---	e660
2	678	661	671	686	651	667	680	656	668	677	591	662
3	673	636	662	697	684	691	686	659	668	657	586	620
4	691	663	679	695	673	686	707	685	699	679	618	636
5	670	648	660	673	656	664	700	266	493	682	659	669
6	651	643	647	679	656	665	449	285	332	694	657	678
7	646	639	643	703	677	689	520	368	452	674	641	654
8	661	645	653	709	694	703	585	516	546	646	632	639
9	681	661	669	755	709	733	637	585	619	667	642	656
10	671	654	661	752	739	746	666	633	650	678	665	672
11	694	671	682	739	709	730	697	660	676	671	407	557
12	712	688	698	709	671	691	697	681	690	634	367	423
13	707	689	699	675	649	667	705	623	668	534	446	498
14	690	661	675	685	654	669	700	528	589	572	534	554
15	688	662	677	702	672	684	637	593	618	625	567	593
16	699	686	691	724	699	708	687	634	657	655	625	644
17	704	698	701	724	703	715	717	682	694	667	651	658
18	703	683	695	704	614	680	732	716	725	699	652	666
19	696	682	691	668	344	478	747	728	740	709	663	690
20	685	674	681	557	478	525	745	656	699	689	669	683
21	674	630	655	635	556	594	721	703	715	669	649	659
22	689	635	658	667	635	650	---	---	e590	700	655	679
23	700	689	694	666	649	660	---	---	e483	752	689	728
24	698	688	693	665	646	657	---	---	e457	745	731	737
25	714	691	699	682	659	670	---	---	e623	739	731	734
26	710	682	698	670	447	487	---	---	e650	736	727	732
27	682	648	665	574	521	551	---	---	e680	731	712	721
28	673	647	653	603	359	490	---	---	e680	719	682	701
29	701	651	681	507	360	439	---	---	e670	696	652	679
30	---	---	---	572	506	535	---	---	e670	696	673	680
31	---	---	---	640	568	608	---	---	---	709	665	694
MONTH	714	630	676	755	344	638	747	266	625	752	367	653

e Estimated

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	697	460	660	751	737	745	---	---	e590	501	182	279
2	699	305	462	744	681	719	632	479	551	484	310	401
3	597	461	537	750	715	728	737	632	674	534	199	441
4	635	596	616	757	742	752	797	737	771	487	269	432
5	724	593	666	757	739	748	952	794	882	658	457	562
6	737	693	724	---	---	e750	875	813	841	720	641	681
7	693	475	631	---	---	e750	832	815	822	772	711	753
8	714	439	553	---	---	e750	862	825	838	753	726	736
9	639	521	573	759	733	745	983	771	876	726	668	709
10	683	261	562	738	710	730	1090	971	e892	699	650	673
11	659	403	533	760	732	749	1010	830	e889	720	687	696
12	582	441	516	757	246	692	898	580	767	745	706	719
13	665	582	636	453	246	311	720	476	544	746	705	726
14	719	621	671	487	179	354	679	562	626	752	693	738
15	748	625	703	466	239	340	705	605	648	757	172	580
16	741	704	724	564	431	500	740	705	720	546	271	349
17	757	685	740	648	564	614	754	449	698	---	---	e400
18	685	293	522	669	562	605	495	315	395	---	---	e430
19	556	319	455	679	594	634	565	433	506	---	---	e470
20	624	556	579	718	679	697	650	565	614	---	---	e510
21	705	624	666	730	718	723	815	650	e650	580	518	547
22	727	688	706	747	730	740	804	749	e683	647	580	607
23	740	727	735	761	654	723	807	792	e746	673	647	667
24	738	710	729	693	496	639	869	807	e754	692	670	680
25	721	656	703	776	687	744	859	664	760	705	666	682
26	703	584	650	784	749	766	775	282	426	720	589	709
27	721	691	703	805	751	775	553	374	479	706	581	658
28	763	702	746	819	356	719	679	362	535	705	645	659
29	761	509	669	612	369	494	416	157	269	711	634	657
30	741	715	734	681	612	647	323	268	289	741	711	725
31	---	---	---	---	---	e610	501	301	412	---	---	---
MONTH	763	261	637	819	179	661	1090	157	650	772	172	596
YEAR	1090	157	630									

e Estimated

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.8	7.6	7.5	8.4	7.5	7.8	7.5	7.3	7.4	---	---	---
2	7.8	7.7	7.8	8.0	7.7	7.8	7.4	7.2	7.3	---	---	---
3	7.9	7.7	7.7	7.7	7.6	7.7	7.4	7.2	7.3	---	---	---
4	7.7	7.6	7.7	7.7	7.6	7.7	7.3	7.2	7.2	7.4	7.3	7.3
5	7.7	7.6	7.7	7.7	7.6	7.6	7.3	7.1	7.2	7.4	7.3	7.3
6	7.7	7.6	7.7	7.6	7.6	7.6	7.3	7.2	7.2	7.4	7.3	7.3
7	7.7	7.6	7.7	7.6	7.5	7.6	8.0	7.2	7.4	7.4	7.3	7.4
8	7.7	7.6	7.6	7.6	7.5	7.5	7.6	7.4	7.5	7.5	7.3	7.4
9	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.4	7.4	7.5	7.4	7.4
10	7.7	7.5	7.6	7.5	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.4
11	7.7	7.5	7.6	7.4	7.3	7.4	7.5	7.4	7.5	7.4	7.3	7.4
12	7.6	7.5	7.6	7.4	7.3	7.4	7.5	7.4	7.5	7.5	7.3	7.4
13	7.7	7.5	7.6	7.4	7.4	7.4	7.5	7.4	7.4	7.6	7.3	7.4
14	7.6	7.5	7.6	7.4	7.3	7.3	7.5	7.4	7.4	7.5	7.3	7.4
15	7.6	7.4	7.5	7.4	7.3	7.3	7.4	7.4	7.4	7.5	7.3	7.4
16	7.4	7.4	7.4	7.4	7.2	7.3	7.5	7.4	7.4	7.4	7.3	7.3
17	7.5	7.4	7.4	7.3	7.2	7.3	8.1	7.4	7.6	7.3	7.3	7.3
18	---	---	---	7.4	7.3	7.3	8.0	7.5	7.6	7.8	7.2	7.5
19	---	---	---	7.4	7.2	7.3	7.7	7.6	7.6	7.7	7.6	7.6
20	---	---	---	7.3	7.2	7.2	7.7	7.6	7.6	7.7	7.6	7.6
21	---	---	---	7.4	7.2	7.3	7.7	7.6	7.7	7.6	7.5	7.6
22	---	---	---	7.2	7.1	7.2	7.7	7.6	7.7	7.5	7.4	7.5
23	---	---	---	7.1	7.1	7.1	7.7	7.6	7.6	7.5	7.4	7.5
24	---	---	---	7.2	7.1	7.1	7.7	7.7	7.7	7.5	7.5	7.5
25	---	---	---	7.2	7.1	7.2	7.8	7.7	7.7	7.5	7.4	7.5
26	---	---	---	7.4	7.2	7.2	7.9	7.7	7.8	7.6	7.5	7.5
27	7.6	7.5	7.5	7.3	7.1	7.2	7.9	7.7	7.8	7.6	7.5	7.5
28	7.6	7.5	7.5	7.2	7.1	7.1	8.1	7.8	7.9	7.5	7.5	7.5
29	7.6	7.5	7.5	7.3	7.1	7.2	7.9	7.8	7.8	7.6	7.5	7.5
30	7.7	7.4	7.5	7.4	7.2	7.3	7.8	7.7	7.8	7.6	7.5	7.5
31	7.7	7.6	7.7	---	---	---	---	---	---	7.7	7.5	7.6
MONTH	7.9	7.4	7.6	8.4	7.1	7.4	8.1	7.1	7.5	7.8	7.2	7.4

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.6	7.5	7.6	7.5	7.4	7.5	7.6	7.5	7.6	7.6	7.5	7.6
2	7.7	7.6	7.6	7.6	7.4	7.4	8.1	7.5	7.7	7.6	7.5	7.5
3	7.8	7.6	7.7	7.6	7.4	7.5	7.7	7.6	7.6	7.7	7.5	7.5
4	7.8	7.6	7.7	7.7	7.4	7.5	7.6	7.4	7.5	7.7	7.5	7.5
5	7.8	7.7	7.7	7.7	7.4	7.6	8.0	7.5	7.7	7.6	7.5	7.5
6	7.8	7.6	7.7	7.7	7.2	7.5	7.8	7.7	7.7	7.5	7.4	7.4
7	7.7	7.6	7.7	7.8	7.4	7.6	7.7	7.7	7.7	7.5	7.4	7.4
8	8.0	7.6	7.7	8.2	7.6	7.8	7.8	7.7	7.7	7.5	7.4	7.4
9	7.8	7.6	7.7	8.1	7.7	7.9	7.8	7.6	7.6	7.6	7.4	7.4
10	7.9	7.6	7.7	7.9	7.7	7.7	7.7	7.6	7.6	7.6	7.4	7.4
11	7.8	7.6	7.7	8.2	7.6	7.8	7.8	7.5	7.6	7.6	7.4	7.5
12	7.7	7.5	7.6	8.6	7.6	8.1	7.7	7.5	7.6	7.5	7.4	7.4
13	7.7	7.5	7.6	8.6	7.5	8.0	7.7	7.6	7.7	7.4	7.4	7.4
14	7.6	7.3	7.4	8.2	7.5	7.8	7.6	7.4	7.5	7.4	7.4	7.4
15	7.6	7.3	7.4	8.4	7.4	7.8	7.9	7.5	7.7	7.5	7.4	7.4
16	7.7	7.3	7.4	8.0	7.5	7.7	7.9	7.6	7.7	7.6	7.4	7.5
17	7.6	7.3	7.4	7.8	7.4	7.6	7.9	7.6	7.7	7.5	7.3	7.4
18	7.5	7.3	7.4	7.7	7.4	7.6	7.8	7.5	7.6	7.5	7.3	7.3
19	7.5	7.3	7.4	7.7	7.5	7.6	7.9	7.5	7.6	7.6	7.4	7.4
20	7.5	7.3	7.4	7.6	7.5	7.6	7.7	7.6	7.6	7.8	7.4	7.5
21	7.5	7.2	7.3	7.6	7.5	7.5	7.7	7.5	7.6	7.9	7.4	7.5
22	7.4	7.2	7.3	7.7	7.5	7.6	7.9	7.5	7.6	8.2	7.4	7.7
23	7.5	7.2	7.3	7.7	7.4	7.6	---	---	---	8.3	7.6	7.8
24	7.6	7.2	7.4	7.7	7.5	7.6	7.7	7.6	7.6	7.9	7.6	7.7
25	7.4	7.3	7.4	7.7	7.5	7.6	7.7	7.6	7.6	8.0	7.6	7.7
26	7.4	7.3	7.3	7.6	7.5	7.5	7.6	7.5	7.6	8.1	7.6	7.8
27	7.4	7.3	7.3	7.6	7.5	7.5	7.6	7.5	7.6	8.4	7.6	7.9
28	7.5	7.3	7.4	7.8	7.6	7.7	7.6	7.5	7.6	8.4	7.6	7.9
29	7.4	7.3	7.4	7.7	7.6	7.6	7.7	7.5	7.6	8.7	7.7	8.1
30	---	---	---	7.7	7.5	7.6	7.7	7.6	7.6	8.4	7.6	7.9
31	---	---	---	7.9	7.5	7.7	---	---	---	8.4	7.6	7.9
MONTH	8.0	7.2	7.5	8.6	7.2	7.6	8.1	7.4	7.6	8.7	7.3	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	7.6	7.7	7.8	7.4	7.6	---	---	---	7.7	7.3	7.4
2	7.9	7.7	7.8	8.0	7.4	7.6	7.7	7.6	7.6	7.6	7.3	7.5
3	8.3	7.7	7.9	7.7	7.4	7.6	7.7	7.6	7.6	7.5	7.5	7.5
4	7.7	7.4	7.5	7.7	7.4	7.5	7.7	7.5	7.6	7.6	7.4	7.5
5	7.6	7.4	7.5	7.9	7.5	7.7	7.6	7.5	7.5	7.5	7.3	7.4
6	7.6	7.3	7.4	---	---	---	7.6	7.5	7.5	7.9	7.4	7.6
7	7.5	7.3	7.4	---	---	---	7.6	7.5	7.6	7.8	7.5	7.6
8	7.6	7.3	7.5	---	---	---	7.7	7.5	7.6	7.6	7.5	7.5
9	7.8	7.4	7.5	8.1	7.3	7.6	7.6	7.5	7.5	7.6	7.4	7.5
10	7.6	7.3	7.4	8.0	7.7	7.8	7.7	7.5	7.6	8.0	7.5	7.6
11	7.4	7.3	7.3	7.7	7.6	7.7	7.7	7.6	7.6	8.0	7.5	7.6
12	7.7	7.3	7.5	8.2	7.6	7.8	7.7	7.5	7.6	7.9	7.6	7.8
13	7.9	7.5	7.6	8.2	7.8	8.0	7.8	7.5	7.6	7.8	7.5	7.7
14	7.6	7.5	7.6	8.4	7.8	8.0	8.1	7.6	7.9	7.7	7.5	7.6
15	7.6	7.4	7.5	8.1	7.8	7.9	8.4	7.7	8.0	8.0	7.4	7.6
16	7.8	7.5	7.6	7.9	7.7	7.8	8.3	7.7	7.9	7.6	7.4	7.5
17	7.6	7.4	7.5	7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
18	7.6	7.4	7.6	7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
19	8.0	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.6	---	---	---
20	8.0	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.7	---	---	---
21	8.0	7.6	7.7	7.7	7.5	7.6	7.7	7.6	7.6	7.5	7.5	7.5
22	8.1	7.6	7.7	7.7	7.4	7.6	7.6	7.6	7.6	7.5	7.5	7.5
23	7.9	7.6	7.7	7.7	7.5	7.6	7.9	7.6	7.7	7.5	7.5	7.5
24	7.9	7.6	7.7	7.6	7.5	7.6	8.1	7.6	7.8	7.6	7.5	7.6
25	7.8	7.6	7.6	7.6	7.5	7.5	7.8	7.6	7.7	7.5	7.4	7.5
26	7.9	7.6	7.7	7.8	7.4	7.6	8.1	7.5	7.7	7.7	7.4	7.5
27	7.7	7.4	7.6	8.1	7.7	7.8	7.6	7.6	7.6	7.7	7.4	7.5
28	7.6	7.4	7.5	7.7	7.4	7.5	7.9	7.5	7.7	7.6	7.5	7.5
29	7.7	7.4	7.5	7.6	7.6	7.6	8.2	7.4	7.7	7.6	7.5	7.5
30	7.9	7.4	7.6	7.7	7.5	7.6	7.4	7.3	7.3	7.6	7.5	7.6
31	---	---	---	---	---	---	7.7	7.3	7.5	---	---	---
MONTH	8.3	7.3	7.6	8.4	7.3	7.7	8.4	7.3	7.6	8.0	7.3	7.5
YEAR	8.7	7.1	7.6									

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.5	25.0	25.5	20.5	18.5	19.5	15.5	12.5	13.5	13.5	12.0	13.0
2	26.0	24.5	25.0	20.0	18.0	19.0	18.0	15.0	16.0	12.5	8.5	10.0
3	25.0	23.5	24.5	18.0	16.0	16.5	18.0	17.0	17.5	10.0	8.0	8.5
4	24.5	22.5	23.5	16.0	14.0	14.5	18.0	17.0	17.5	10.5	8.5	9.0
5	24.0	22.0	22.5	15.5	14.0	14.5	17.5	16.5	17.0	10.5	9.5	10.0
6	22.5	21.0	21.5	17.0	15.0	15.5	17.5	16.5	17.0	10.0	8.0	9.0
7	21.5	19.5	20.5	18.0	16.5	17.0	17.0	15.0	15.5	8.5	6.5	7.5
8	22.0	19.0	20.5	17.5	16.0	17.0	15.5	12.5	14.5	7.5	6.0	6.5
9	23.0	20.5	21.5	18.0	16.0	16.5	12.5	10.0	11.0	9.0	6.5	7.5
10	23.5	22.0	22.5	20.0	18.0	19.0	10.0	8.5	9.0	11.0	8.0	9.0
11	24.0	22.0	23.0	20.0	16.0	17.0	10.5	8.5	9.0	12.5	11.0	11.5
12	24.0	22.0	23.0	16.0	14.0	15.0	13.5	10.0	11.5	12.5	10.5	11.5
13	24.0	22.0	23.0	16.0	14.5	15.5	16.5	13.5	14.5	13.5	11.0	12.0
14	24.0	21.0	22.0	16.5	15.0	15.5	18.0	16.0	17.0	14.5	12.0	13.0
15	21.5	19.5	20.5	16.5	15.0	15.5	19.0	17.5	18.5	14.5	13.0	13.5
16	21.5	19.5	20.5	16.5	15.5	16.0	18.5	17.5	17.5	14.5	12.5	13.5
17	21.5	19.5	20.5	16.5	14.5	15.0	17.5	13.5	16.5	16.5	14.5	15.5
18	---	---	---	17.0	14.5	15.0	15.5	13.0	14.5	16.5	11.0	13.5
19	---	---	---	18.0	15.5	16.0	13.0	11.0	12.0	11.0	8.5	9.5
20	---	---	---	19.0	17.0	18.0	11.0	10.0	10.5	10.0	7.5	8.5
21	---	---	---	19.0	17.5	18.0	11.0	10.0	10.5	11.5	9.0	10.0
22	---	---	---	18.0	16.5	17.0	11.0	10.5	10.5	13.0	11.0	12.0
23	---	---	---	18.0	17.0	17.5	11.0	10.0	10.5	14.0	12.5	13.5
24	---	---	---	17.5	15.0	15.5	11.0	9.0	10.0	12.5	11.0	11.5
25	---	---	---	16.0	14.5	15.5	11.0	9.0	10.0	12.5	10.5	11.0
26	---	---	---	17.0	15.5	16.0	11.0	9.0	9.5	12.5	11.5	12.0
27	22.0	21.0	21.5	17.5	16.0	17.0	11.0	9.5	10.0	11.5	9.5	10.5
28	22.0	19.5	20.0	16.0	13.5	14.5	11.0	9.5	10.0	11.0	9.5	10.0
29	20.5	19.0	19.5	13.5	12.0	12.5	11.0	9.0	10.0	13.0	11.0	12.0
30	20.0	17.5	19.0	13.5	11.5	12.5	12.0	10.5	11.0	13.0	10.5	11.5
31	19.5	17.5	18.5	---	---	---	13.5	11.5	12.5	10.5	7.5	8.5
MONTH	26.5	17.5	22.0	20.5	11.5	16.0	19.0	8.5	13.0	16.5	6.0	11.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	6.0	7.0	13.0	10.5	11.5	18.5	15.5	17.5	21.5	18.0	20.0
2	7.0	5.5	6.0	14.5	10.5	12.0	18.5	15.0	17.0	21.5	20.0	20.5
3	6.5	4.5	5.5	15.5	12.0	14.0	19.5	16.5	18.0	22.5	21.0	21.5
4	6.5	4.5	5.5	16.5	14.0	15.0	19.0	17.5	18.5	24.0	21.5	22.5
5	8.0	4.5	6.0	19.5	16.5	17.5	17.5	10.0	13.5	25.0	22.0	23.5
6	10.5	7.0	8.5	19.5	16.0	18.5	12.0	10.5	11.0	24.5	23.5	24.0
7	14.0	10.5	12.0	16.0	13.0	14.0	16.0	12.0	13.5	24.5	23.0	23.5
8	16.5	13.5	14.5	13.0	10.5	11.0	18.5	15.0	16.0	24.5	23.0	24.0
9	17.0	15.0	16.0	11.5	8.5	10.0	20.5	17.0	18.5	25.5	23.0	24.5
10	18.5	16.0	17.0	13.0	9.0	10.5	21.5	18.0	19.5	26.0	23.5	25.0
11	18.0	15.0	16.0	14.0	10.5	12.5	22.5	19.5	21.0	25.5	22.5	23.5
12	15.0	13.0	14.0	16.0	12.0	14.0	22.0	20.5	21.0	22.5	21.5	22.0
13	14.5	11.5	13.0	18.5	14.5	16.0	21.0	18.5	20.0	23.0	22.0	22.5
14	16.0	13.0	14.0	20.0	17.0	18.0	22.0	20.0	21.0	25.5	22.5	23.5
15	15.5	14.0	14.5	20.0	17.5	19.0	21.0	17.5	19.0	26.5	23.0	25.0
16	14.5	11.5	12.5	20.0	17.0	18.5	20.5	17.0	18.5	27.5	24.0	25.5
17	13.0	10.0	11.5	20.5	17.5	19.0	21.5	17.5	19.5	27.5	24.5	26.0
18	14.5	10.5	12.0	20.5	16.0	18.0	23.5	19.5	21.5	28.0	24.5	26.0
19	16.0	13.5	15.0	16.0	13.0	14.5	24.5	21.0	23.0	28.0	24.5	26.0
20	17.0	14.0	15.5	15.0	12.5	13.5	24.5	22.0	23.0	28.0	24.5	26.5
21	18.0	15.0	16.5	15.5	12.0	13.5	24.5	21.5	22.5	28.5	25.5	27.0
22	19.0	16.0	17.5	17.5	13.5	15.0	24.0	20.0	22.0	29.0	26.0	27.5
23	19.0	17.5	18.5	18.5	16.0	17.0	20.5	19.0	20.0	28.5	25.5	27.0
24	18.0	15.5	17.0	19.0	17.5	18.0	21.5	18.5	20.0	28.5	25.5	27.0
25	18.5	16.5	17.5	19.0	15.0	16.5	22.5	19.5	21.0	28.5	26.0	27.0
26	19.5	18.0	18.5	16.0	14.0	15.0	23.0	20.0	21.5	28.0	26.0	27.0
27	19.5	18.0	19.0	15.5	13.0	13.5	23.0	19.5	21.5	29.0	26.0	27.5
28	18.0	13.5	15.0	13.5	10.5	12.0	23.5	21.5	22.5	29.0	26.5	27.5
29	13.5	11.0	12.0	15.5	11.5	13.0	22.5	19.5	21.0	29.0	26.0	27.5
30	---	---	---	19.0	15.0	17.0	20.5	18.0	19.5	28.5	26.5	27.5
31	---	---	---	18.5	16.0	17.5	---	---	---	27.5	26.0	27.0
MONTH	19.5	4.5	13.5	20.5	8.5	15.0	24.5	10.0	19.5	29.0	18.0	25.0

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.5	24.5	26.0	30.5	27.5	29.0	---	---	---	26.0	24.0	24.5
2	25.5	23.5	24.5	31.5	27.5	29.5	30.5	28.5	29.0	27.0	25.0	25.5
3	28.0	24.5	26.0	31.0	28.0	29.5	31.0	28.5	30.0	26.0	24.5	25.5
4	28.0	26.0	27.0	31.5	28.0	29.5	31.5	28.5	30.0	26.5	25.0	26.0
5	28.5	25.5	27.0	31.0	27.5	29.0	31.5	28.5	30.0	28.0	26.0	26.5
6	29.0	26.0	27.5	---	---	---	31.0	28.5	30.0	28.0	26.0	27.0
7	28.0	26.0	27.0	---	---	---	31.0	29.0	30.0	28.5	26.5	27.5
8	26.5	24.0	25.0	---	---	---	30.5	28.5	29.5	28.5	27.0	28.0
9	26.5	23.0	24.5	---	---	---	29.0	28.0	28.5	28.5	26.5	27.5
10	25.5	22.5	23.5	30.5	28.5	29.5	28.5	27.0	27.5	28.0	25.5	27.0
11	26.0	23.5	24.5	29.5	28.0	28.5	29.0	27.0	28.0	28.0	25.0	26.5
12	28.0	25.0	26.5	29.0	26.5	27.5	28.5	26.5	27.5	27.0	25.5	26.5
13	28.5	25.5	27.0	28.0	26.5	27.0	29.0	26.0	27.5	26.5	26.0	26.0
14	28.0	26.0	27.0	27.5	25.0	26.5	29.5	27.0	28.5	26.5	25.5	26.0
15	29.0	26.0	27.5	27.5	25.5	26.5	29.5	27.0	28.0	26.5	24.5	25.5
16	30.0	26.5	28.0	30.0	27.0	28.5	29.0	27.5	28.0	26.0	24.5	25.0
17	29.5	27.5	28.5	30.5	28.5	29.5	28.5	26.0	27.5	---	---	---
18	29.0	27.0	28.0	31.0	28.5	29.5	27.0	25.5	26.0	---	---	---
19	30.5	27.5	29.0	31.5	28.5	30.0	29.5	26.5	27.5	---	---	---
20	31.5	28.0	29.5	31.5	28.5	30.0	29.5	27.5	28.5	---	---	---
21	30.5	27.5	29.5	31.5	28.5	30.0	29.5	27.5	28.5	25.5	24.0	24.5
22	30.5	28.0	29.0	31.5	28.5	30.0	28.5	27.0	28.0	25.5	23.0	24.0
23	30.0	27.5	28.5	30.5	28.0	29.0	28.0	27.0	27.5	25.5	24.5	24.5
24	30.0	27.0	28.5	30.0	27.0	28.5	29.0	27.0	28.0	26.5	25.5	26.0
25	29.0	27.5	28.0	30.5	27.5	29.0	28.5	26.5	27.5	25.5	24.5	25.0
26	29.5	27.5	28.0	31.0	27.5	29.0	27.0	25.0	26.0	25.5	24.0	25.5
27	30.0	27.0	28.5	30.5	28.0	29.5	27.0	26.0	26.5	24.0	21.0	22.0
28	30.0	27.5	28.5	30.0	28.0	29.0	27.0	25.0	26.0	21.0	19.0	20.0
29	30.0	27.5	29.0	30.0	28.0	29.0	25.5	23.5	24.5	22.0	19.0	20.5
30	31.0	27.5	29.0	30.5	28.5	29.5	25.5	24.5	25.0	22.5	20.0	21.0
31	---	---	---	---	---	---	26.5	25.0	25.5	---	---	---
MONTH	31.5	22.5	27.5	31.5	25.0	29.0	31.5	23.5	28.0	28.5	19.0	25.0
YEAR	31.5	4.5	20.0									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.8	4.0	4.4	6.2	4.4	5.4	9.1	7.0	7.8	8.4	6.6	6.9
2	4.8	4.2	4.4	5.3	4.5	4.9	8.2	6.8	7.4	9.6	8.3	9.0
3	5.2	4.2	4.6	6.3	5.2	5.8	7.7	6.2	6.9	10.0	9.0	9.5
4	4.9	4.4	4.6	6.9	6.1	6.7	7.3	6.1	6.6	9.8	9.1	9.5
5	4.9	4.4	4.6	6.8	6.3	6.6	7.0	5.9	6.3	9.8	8.8	9.2
6	5.6	4.5	5.0	6.3	5.7	6.1	6.9	5.9	6.3	9.7	8.8	9.3
7	5.8	4.7	5.2	5.7	5.3	5.6	7.1	5.7	6.4	10.4	8.7	9.5
8	5.9	4.9	5.4	6.2	5.3	5.9	7.9	6.5	7.1	11.1	9.4	10.1
9	6.4	4.8	5.4	6.1	5.2	5.8	7.7	6.9	7.3	11.3	9.6	10.3
10	6.3	4.7	5.4	5.6	4.8	5.2	8.4	6.9	7.8	10.3	9.1	9.7
11	6.3	5.3	5.7	5.6	4.6	5.1	9.3	8.4	8.8	9.3	8.2	8.8
12	5.8	5.2	5.5	6.6	5.1	6.0	9.0	7.9	8.5	10.0	8.1	8.8
13	6.8	4.9	5.7	7.2	6.0	6.5	7.9	6.8	7.4	10.0	7.6	8.6
14	6.0	4.8	5.3	7.0	5.8	6.3	7.2	6.0	6.5	9.4	7.7	8.5
15	5.9	4.9	5.4	6.4	5.1	6.0	6.5	5.7	5.9	9.3	7.5	8.2
16	6.2	4.9	5.6	6.7	5.1	6.0	6.3	5.7	6.0	8.5	6.8	7.6
17	6.8	5.7	6.1	7.5	5.0	6.7	7.5	5.9	6.5	7.5	6.4	6.9
18	---	---	---	8.6	6.1	7.3	7.4	6.1	6.9	8.2	6.1	7.2
19	---	---	---	7.7	6.1	6.7	8.2	7.3	7.6	9.0	7.8	8.5
20	---	---	---	6.6	5.4	6.0	9.0	8.0	8.4	10.0	9.0	9.4
21	---	---	---	7.0	5.4	6.1	8.9	8.5	8.7	9.3	8.4	8.9
22	---	---	---	6.4	5.4	5.9	9.0	8.3	8.7	8.4	7.5	7.9
23	---	---	---	6.4	5.0	5.7	8.9	8.2	8.7	7.5	7.3	7.4
24	---	---	---	7.2	5.4	6.3	9.3	8.4	8.9	8.3	7.2	7.7
25	---	---	---	7.7	6.2	7.0	10.0	8.5	9.2	8.0	6.9	7.4
26	---	---	---	9.1	6.7	7.7	10.5	8.9	9.7	8.3	7.0	7.7
27	5.4	4.6	5.0	9.2	6.8	7.8	9.9	8.7	9.3	8.2	6.5	7.5
28	6.1	4.7	5.4	8.3	6.7	7.4	11.2	8.8	9.8	8.3	7.0	7.5
29	6.0	5.1	5.5	8.3	6.8	7.8	10.2	8.8	9.5	8.6	7.0	7.7
30	6.4	5.0	5.4	8.5	6.6	7.5	9.3	8.0	8.8	8.9	6.8	7.9
31	5.8	5.5	5.7	---	---	---	8.6	6.9	8.0	9.5	7.7	8.5
MONTH	6.8	4.0	5.2	9.2	4.4	6.3	11.2	5.7	7.8	11.3	6.1	8.4

08061980 EAST FORK TRINITY RIVER AT SEAGOVILLE, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.6	7.8	8.6	8.5	7.1	7.7	7.0	5.5	6.4	6.9	6.2	6.5
2	10.4	8.8	9.5	9.2	6.7	7.7	11.4	5.5	8.1	6.3	5.7	6.0
3	11.2	8.5	9.8	9.3	6.7	7.8	8.4	7.0	7.7	7.0	5.3	6.1
4	10.9	8.9	9.8	10.3	7.1	8.3	7.0	6.3	6.6	6.9	5.5	6.0
5	11.5	9.4	10.4	9.7	6.4	7.8	9.3	6.1	7.9	6.1	5.3	5.6
6	11.0	9.1	9.9	7.9	5.4	6.8	8.9	8.4	8.7	5.6	5.1	5.3
7	9.6	7.4	8.7	9.8	5.6	8.1	8.4	7.8	8.2	6.2	5.1	5.6
8	11.5	7.1	8.7	---	---	---	8.3	7.6	7.9	6.6	5.3	5.8
9	9.9	6.1	7.6	---	---	---	7.9	6.3	7.2	7.1	4.8	5.9
10	10.8	4.5	7.7	---	---	---	7.9	6.1	6.9	6.3	4.7	5.4
11	9.5	5.5	7.2	---	---	---	8.1	5.4	6.8	5.3	4.1	4.8
12	8.4	5.8	7.0	---	---	---	7.2	5.5	6.5	5.3	3.6	4.5
13	8.3	5.6	6.9	---	---	---	6.7	5.8	6.3	5.5	4.8	5.2
14	7.9	5.5	6.6	11.6	7.1	9.2	6.3	5.3	5.8	5.7	4.7	5.3
15	9.0	5.6	7.0	12.5	6.6	9.0	9.0	5.9	7.2	5.6	4.6	5.0
16	10.1	5.6	7.5	10.5	6.7	8.4	8.6	6.5	7.2	5.8	4.5	5.0
17	9.4	6.0	7.5	9.4	6.1	7.5	8.5	6.6	7.3	5.9	4.4	5.1
18	9.2	6.1	7.5	7.6	4.0	6.6	8.7	6.4	7.1	6.7	4.5	5.4
19	9.5	5.9	7.3	7.2	4.9	6.6	8.5	5.9	6.8	8.0	5.2	6.2
20	9.0	5.5	6.9	8.3	7.0	7.6	6.1	5.2	5.6	9.2	5.5	6.8
21	8.5	4.9	6.3	9.0	7.0	8.0	5.7	4.5	5.2	9.9	5.6	7.1
22	8.2	5.0	6.3	9.3	7.1	8.0	5.7	4.8	5.3	9.5	5.5	6.8
23	8.1	3.9	5.9	9.4	7.0	8.0	5.7	4.5	5.0	10.3	5.2	7.0
24	8.8	4.5	6.4	8.4	5.9	7.2	6.2	4.9	5.6	8.4	5.4	6.4
25	6.6	4.8	5.6	8.3	6.0	7.3	6.1	5.4	5.7	8.6	5.5	6.7
26	5.7	4.4	5.1	7.4	5.5	6.8	6.2	5.0	5.6	9.3	5.4	6.8
27	5.2	4.0	4.6	8.3	6.7	7.6	6.1	5.0	5.6	---	---	---
28	6.2	4.2	5.4	8.9	7.7	8.2	5.8	5.0	5.5	---	---	---
29	7.5	5.5	6.4	8.0	7.4	7.7	6.6	5.2	6.0	---	---	---
30	---	---	---	7.9	6.5	7.1	7.1	5.5	6.4	---	---	---
31	---	---	---	9.1	6.3	7.3	---	---	---	---	---	---
MONTH	11.5	3.9	7.4	12.5	4.0	7.7	11.4	4.5	6.6	10.3	3.6	5.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.1	4.3	5.4	---	---	---	6.8	5.2	5.7
2	---	---	---	7.6	4.6	5.7	---	---	---	6.9	5.6	6.3
3	---	---	---	6.7	4.3	5.2	7.4	5.9	6.6	6.4	5.4	6.0
4	---	---	---	6.1	3.8	4.7	7.6	5.6	6.4	5.8	5.3	5.6
5	---	---	---	5.8	3.8	4.9	7.2	5.5	6.1	5.7	5.3	5.4
6	---	---	---	---	---	---	6.7	5.5	5.9	7.5	5.2	6.1
7	---	---	---	---	---	---	6.2	5.3	5.7	7.0	5.2	5.8
8	---	---	---	---	---	---	6.9	5.5	6.0	5.8	5.1	5.4
9	---	---	---	---	---	---	6.5	5.6	6.0	5.8	4.9	5.2
10	---	---	---	---	---	---	7.4	6.0	6.4	8.1	5.3	6.4
11	5.7	4.8	5.4	6.6	5.1	5.7	7.2	5.9	6.4	8.4	5.6	6.7
12	6.8	4.8	5.7	6.5	3.2	5.4	6.6	5.4	6.1	8.6	6.0	7.3
13	7.6	5.3	6.1	4.3	3.4	3.8	7.0	4.8	5.7	8.2	6.3	7.4
14	6.2	5.2	5.7	5.5	4.2	4.7	9.0	5.9	7.3	7.5	6.2	6.6
15	6.2	5.1	5.6	5.0	4.1	4.6	10.7	6.3	7.9	6.8	6.1	6.5
16	7.6	5.2	6.0	6.4	5.0	5.5	10.2	6.3	7.7	---	---	---
17	6.2	4.9	5.5	5.3	5.0	5.1	6.9	5.3	6.3	---	---	---
18	5.4	3.5	4.8	5.7	4.9	5.2	5.9	5.0	5.4	---	---	---
19	7.3	4.0	5.6	6.3	5.0	5.5	7.2	5.9	6.6	---	---	---
20	7.4	5.0	6.0	6.5	5.1	5.5	7.6	6.5	7.0	---	---	---
21	7.7	5.0	5.9	6.9	5.2	5.8	7.2	6.1	6.5	6.4	6.0	6.2
22	8.5	5.1	6.2	7.3	5.4	6.1	7.1	6.0	6.4	6.8	6.1	6.4
23	7.5	5.0	6.0	6.7	5.3	5.9	8.7	6.3	7.4	6.8	6.6	6.7
24	7.3	5.0	5.9	6.4	5.0	5.8	9.7	6.4	7.7	7.0	6.5	6.9
25	6.8	5.2	5.9	6.7	5.2	6.0	7.6	6.1	6.9	---	---	---
26	7.6	5.6	6.3	7.8	4.9	6.2	6.1	4.3	5.2	6.2	5.3	5.8
27	7.6	5.5	6.3	7.6	6.2	7.0	6.3	5.3	5.8	6.3	5.2	5.8
28	6.8	5.0	5.7	6.6	3.7	5.2	6.0	5.6	5.8	7.0	6.3	6.7
29	6.7	4.9	5.6	6.3	3.8	5.2	6.7	5.7	6.3	7.5	6.7	7.0
30	7.6	4.7	5.7	7.2	5.8	6.4	6.4	6.0	6.2	7.5	6.5	6.9
31	---	---	---	---	---	---	7.5	6.0	6.7	---	---	---
MONTH	8.5	3.5	5.8	7.8	3.2	5.5	10.7	4.3	6.4	8.6	4.9	6.3
YEAR	12.5	3.2	6.7									

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX

LOCATION.--Lat 32°38'19", long 96°29'06", Kaufman County, Hydrologic Unit 12030106, on right bank 15 ft downstream from downstream eastbound bridge on U.S. Highway 175, 0.7 mi downstream from Mustang Creek, 1.8 mi northwest of Crandall, 4.0 mi upstream from Buffalo Creek, and 11.0 mi upstream from mouth.

DRAINAGE AREA.--1,256 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1922: Drainage area. WDR TX-75-1: 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 338.69 ft above sea level. Prior to Feb. 21, 1983, at datum 5.00 ft higher.

REMARKS.--Records fair. Flow largely regulated by Lavon Lake (station 08060500) since September 1953, and by Lake Ray Hubbard(489,900 acre-ft) since Mar. 22, 1970. The city of Forney discharges wastewater effluent into a tributary below Lake Ray Hubbard and above this station. The North Texas Municipal Water District discharges wastewater effluent into tributaries above this station from their Mesquite and Changler's Landing wastewater treatment plants. Flow is also affected at times by discharge from the flood-detention pools of 20 floodwater-retarding structures with a combined detention capacity of 11,760 acre-ft. These structures control runoff from a 39.2 mi² area above this station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--4 years (water years 1950-53) prior to regulation by Lavon Lake, 652 ft³/s (472,400 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1950-53).--Maximum discharge, 16,400 ft³/s May 2, 1953 (gage height, 19.87 ft); no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	516	70	129	100	98	108	95	85	81	480	1080
2	99	479	80	422	109	94	120	113	455	91	205	506
3	97	126	76	304	115	96	135	102	189	84	132	405
4	110	78	79	157	120	107	115	101	127	88	116	677
5	83	65	82	122	125	118	398	104	122	77	118	206
6	e76	74	85	106	128	130	916	100	95	77	111	131
7	e76	73	54	95	118	113	363	100	125	72	106	116
8	e78	79	122	99	110	89	186	84	274	90	117	115
9	e73	76	255	112	121	86	153	86	121	97	125	100
10	75	73	125	114	111	93	130	95	238	111	167	88
11	84	71	93	116	98	96	111	297	331	115	176	80
12	86	70	97	99	105	96	106	419	164	147	215	85
13	92	69	92	86	107	95	207	158	78	596	248	84
14	70	79	85	90	94	103	186	124	110	573	127	99
15	61	71	88	99	91	94	116	99	120	809	112	381
16	66	57	75	102	88	89	101	101	115	230	101	717
17	82	73	227	99	94	87	94	103	116	172	131	204
18	81	80	649	423	99	149	91	95	315	131	471	380
19	72	67	536	373	103	431	89	83	254	102	177	801
20	75	69	210	148	108	171	152	92	113	93	114	431
21	83	80	121	137	119	116	111	84	93	91	107	203
22	67	73	101	124	104	115	208	57	81	93	93	136
23	72	68	96	117	106	109	528	62	70	96	83	111
24	77	68	92	114	96	106	183	70	88	135	81	104
25	71	60	96	107	102	177	118	75	89	e117	104	101
26	62	54	91	104	115	178	105	64	112	e115	571	109
27	55	70	97	116	122	123	107	61	97	e119	275	185
28	56	82	88	103	133	446	89	61	87	e510	461	116
29	57	82	93	103	125	259	103	58	124	240	1160	95
30	78	73	100	103	---	146	106	77	81	126	1030	93
31	167	---	151	96	---	144	---	84	---	329	459	---
TOTAL	2464	3055	4306	4519	3166	4354	5535	3304	4469	5807	7973	7939
MEAN	79.5	102	139	146	109	140	184	107	149	187	257	265
MAX	167	516	649	423	133	446	916	419	455	809	1160	1080
MIN	55	54	54	86	88	86	89	57	70	72	81	80
AC-FT	4890	6060	8540	8960	6280	8640	10980	6550	8860	11520	15810	15750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996#, BY WATER YEAR (WY)

MEAN	397	497	668	528	736	849	1003	1754	1072	453	164	209
MAX	4116	3293	4401	3083	3043	2714	3425	9586	5718	2026	1459	1560
(WY)	1974	1995	1972	1972	1975	1992	1985	1957	1989	1982	1989	1974
MIN	1.58	3.78	3.57	7.77	23.1	10.6	7.47	42.1	17.8	3.84	.000	.000
(WY)	1957	1956	1955	1957	1957	1956	1956	1959	1954	1956	1956	1954

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996#	
ANNUAL TOTAL	573771		56891			
ANNUAL MEAN	1572		155		694	
HIGHEST ANNUAL MEAN					2209	1995
LOWEST ANNUAL MEAN					38.4	1955
HIGHEST DAILY MEAN	15900	May 9	1160	Aug 29	48800	May 5 1990
LOWEST DAILY MEAN	54	Nov 26	54	Nov 26	.00	Oct 1 1953
ANNUAL SEVEN-DAY MINIMUM	64	Oct 23	64	Oct 23	.00	Oct 1 1953
INSTANTANEOUS PEAK FLOW			1540	Aug 29	59900	May 5 1990
INSTANTANEOUS PEAK STAGE			5.36	Aug 29	27.17	May 5 1990
ANNUAL RUNOFF (AC-FT)	1138000		112800		502700	
10 PERCENT EXCEEDS	3170		330		2100	
50 PERCENT EXCEEDS	1310		104		91	
90 PERCENT EXCEEDS	73		73		18	

e Estimated
Period of regulated streamflow.

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January to April 1964, May 1966 to September 1981, June 1986 to current year. Pesticide analyses: March 1977 to July 1981. Sediment analyses: April to September 1964.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1981, May 1986 to current year.
pH: March to September 1977, May 1986 to current year.
WATER TEMPERATURE: October 1967 to September 1981, May 1986 to current year.
DISSOLVED OXYGEN: March to September 1977, May 1986 to current year.

INSTRUMENTATION.--From March to November 1977, a four-parameter water-quality monitor continuously recorded specific conductance, pH, water temperature, and dissolved oxygen at this station. Since May 1986, a four-parameter water-quality monitor continuously records specific conductance, pH, water temperature, and dissolved oxygen at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,010 microsiemens Nov. 23, 1968; minimum, 100 microsiemens May 17, 1989.
pH: Maximum, 9.5 units Oct. 30, 1989; minimum, 6.7 units on several days during 1988 and 1991.
WATER TEMPERATURE: Maximum, 34.0°C June 26, July 1, Aug. 16, 17, 1980; minimum, 1.0°C Jan. 3, 1979.
DISSOLVED OXYGEN: Maximum, 16.4 mg/L Mar. 13, 1996; minimum, 0.0 mg/L on many days during 1977 and 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 883 microsiemens Sept. 26; minimum, 176 microsiemens Aug. 29.
pH: Maximum, 9.1 units May 30; minimum, 7.2 units on several days.
WATER TEMPERATURE: Maximum, 32.0°C July 7-9; minimum, 3.5°C Feb. 4.
DISSOLVED OXYGEN: Maximum, 16.4 mg/L Mar. 13; minimum, 2.4 mg/L June 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 29...	1130	84	640	7.3	12.0	8.2	76	2.3	140	72	50
JAN 24...	1400	107	615	7.4	11.5	8.0	73	4.8	140	29	51
APR 04...	1045	115	675	7.6	18.0	8.0	85	1.9	180	65	62
MAY 22...	0945	58	746	7.7	27.0	7.5	95	3.4	160	50	53
JUN 26...	0930	117	689	7.8	28.0	5.7	74	2.3	140	52	50
AUG 28...	1030	162	276	7.6	25.0	6.4	78	3.5	84	12	30

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV 29...	3.8	62	2	11	69	52	75	1.0	8.4	379	14.7
JAN 24...	3.5	57	2	11	110	54	50	0.80	8.0	355	9.65
APR 04...	5.8	65	2	9.8	110	90	64	1.1	5.5	432	12.0
MAY 22...	5.9	80	3	13	110	91	75	1.4	4.0	387	--
JUN 26...	4.0	73	3	11	89	69	80	1.1	9.1	407	10.9
AUG 28...	2.1	18	0.9	4.8	72	23	19	0.30	6.6	158	2.05

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV 29...	14.7	0.330	15.0	15.0	0.160	1.1	1.3	3.00	2.70	8.3
JAN 24...	9.65	0.350	10.0	10.0	1.20	0.80	2.0	2.50	2.10	6.4
APR 04...	12.0	0.030	12.0	12.0	0.050	0.85	0.90	2.30	2.30	7.1
MAY 22...	--	--	--	--	--	--	--	--	--	--
JUN 26...	10.9	0.090	11.0	11.0	0.150	1.1	1.3	11.0	2.50	7.7
AUG 28...	2.05	0.050	2.10	2.10	0.110	0.49	0.60	0.400	0.420	1.3

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	2464	652	371	2470	64	425	70	467	160
NOV.	1995	3055	546	310	2560	47	385	55	458	150
DEC.	1995	4306	506	287	3340	40	464	50	580	150
JAN.	1996	4519	553	314	3840	47	577	56	686	150
FEB.	1996	3166	676	385	3290	69	588	74	633	160
MAR.	1996	4354	607	345	4060	56	664	64	752	160
APR.	1996	5535	541	307	4590	46	693	55	823	150
MAY	1996	3304	668	380	3390	68	607	73	653	160
JUNE	1996	4469	600	341	4120	56	671	63	761	150
JULY	1996	5807	606	345	5410	59	929	65	1020	150
AUG.	1996	7973	494	281	6040	42	907	50	1080	140
SEPT	1996	7939	488	277	5940	40	853	49	1040	140
TOTAL		56891	**	**	49000	**	7760	**	8960	**
WTD.AVG.		155	562	319	**	51	**	58	**	150

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	655	646	652	638	215	479	606	583	594	596	582	592
2	646	628	638	514	276	335	611	605	607	582	376	472
3	641	607	629	481	366	436	611	608	610	496	361	407
4	646	596	620	557	481	518	617	606	611	453	368	417
5	645	612	629	620	557	586	622	605	614	523	453	481
6	663	645	654	638	620	631	674	611	631	575	523	556
7	654	640	645	653	638	646	679	674	677	614	575	596
8	675	654	667	646	634	641	675	621	642	620	611	614
9	670	662	666	641	606	621	622	536	570	636	620	629
10	682	660	671	649	610	630	604	467	528	624	608	613
11	677	643	657	650	647	649	531	468	502	610	595	600
12	643	631	634	673	650	664	552	531	546	615	603	611
13	654	637	648	675	660	669	569	552	561	627	604	614
14	660	650	656	668	657	663	569	557	562	641	627	636
15	681	658	667	663	651	658	581	562	573	631	622	628
16	688	678	684	651	622	632	590	575	583	640	621	632
17	679	668	674	636	622	631	582	500	571	640	619	632
18	668	629	648	634	627	631	506	292	398	619	366	543
19	629	618	623	649	632	639	391	321	354	596	317	403
20	650	619	626	650	636	643	397	325	356	517	406	469
21	686	650	670	641	633	636	485	397	438	566	517	541
22	710	685	696	633	583	607	519	485	502	608	562	579
23	685	671	673	602	583	594	565	519	544	623	606	616
24	675	662	667	624	601	617	587	565	576	635	598	614
25	675	639	659	629	621	625	587	583	585	648	623	632
26	639	630	633	639	629	633	593	579	587	684	648	674
27	654	637	647	631	584	605	579	558	567	683	661	669
28	664	654	660	594	584	589	564	548	555	690	669	683
29	671	664	668	599	576	589	560	550	556	700	690	695
30	683	666	675	600	581	590	581	559	571	703	680	694
31	672	586	632	---	---	---	595	578	586	680	665	672
MONTH	710	586	654	675	215	603	679	292	553	703	317	588

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	679	669	674	704	649	682	628	609	618	717	699	707
2	692	678	688	656	645	650	640	628	637	730	702	714
3	690	678	683	686	655	672	639	606	621	734	648	701
4	686	657	674	694	686	691	704	627	670	713	650	690
5	693	661	681	690	657	673	706	273	570	744	690	714
6	670	651	660	665	651	656	440	284	330	743	725	732
7	652	644	648	674	651	660	452	311	392	758	731	746
8	649	640	643	681	666	673	542	452	507	732	708	715
9	668	649	655	692	677	683	621	540	576	718	704	709
10	675	655	664	728	692	714	642	619	629	746	718	735
11	668	651	656	724	711	717	659	642	651	750	488	680
12	684	668	678	716	690	705	673	659	667	698	413	505
13	699	681	692	690	647	663	679	606	658	555	422	491
14	696	680	688	664	650	655	675	553	638	629	555	587
15	680	665	672	676	647	661	589	517	550	648	614	629
16	692	667	682	704	668	687	609	589	598	706	648	673
17	704	692	696	745	702	721	653	609	635	726	706	719
18	705	700	703	743	709	723	684	653	665	735	721	727
19	701	685	693	710	349	545	694	684	688	770	727	742
20	693	684	689	520	371	460	707	613	690	775	748	764
21	684	672	679	573	520	546	674	613	648	748	712	736
22	672	634	650	653	573	618	678	563	666	712	683	695
23	693	637	666	681	653	668	586	345	459	809	678	693
24	702	691	697	685	673	680	512	396	447	739	700	725
25	698	690	693	696	676	683	598	512	556	740	727	732
26	707	690	700	705	468	626	642	598	617	733	727	730
27	704	673	689	548	465	501	684	642	662	732	718	724
28	673	652	661	621	456	542	688	672	679	722	709	713
29	690	652	665	620	363	418	715	688	706	711	669	690
30	---	---	---	538	434	487	719	715	717	692	664	676
31	---	---	---	609	538	570	---	---	---	710	681	691
MONTH	707	634	677	745	349	633	719	273	605	809	413	693
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	710	668	689	817	791	802	675	366	458	466	213	306
2	702	320	550	821	797	808	514	437	472	454	300	381
3	518	333	443	804	759	784	629	514	582	564	220	488
4	608	518	565	841	786	811	714	618	668	527	189	387
5	627	586	599	846	813	831	813	714	746	581	474	512
6	702	627	682	861	820	840	856	794	830	699	581	663
7	706	641	690	870	843	854	---	---	e830	791	699	750
8	686	485	597	845	817	830	---	---	e870	809	776	793
9	560	470	517	824	771	798	---	---	e880	779	750	768
10	655	330	582	781	755	768	---	---	e880	759	696	734
11	609	316	474	767	745	756	---	---	e870	734	705	717
12	609	490	525	837	749	785	---	---	e790	755	730	744
13	588	528	554	805	329	538	---	---	e620	774	755	765
14	647	588	625	551	234	399	---	---	e610	782	760	775
15	700	644	671	523	234	364	---	---	e640	788	191	672
16	708	681	693	558	430	510	701	621	666	564	269	352
17	729	706	714	686	558	625	722	701	714	526	356	449
18	733	552	691	720	668	706	713	305	490	627	206	520
19	552	378	410	678	632	651	487	324	425	556	206	339
20	533	438	485	736	678	709	601	487	539	502	371	432
21	612	533	572	768	736	758	658	595	622	557	502	539
22	673	612	643	778	768	772	701	658	675	626	551	596
23	701	673	685	---	---	e730	724	701	716	709	626	672
24	716	701	710	---	---	e700	726	716	722	718	706	713
25	718	704	713	---	---	e720	728	680	723	737	713	728
26	746	676	713	---	---	e740	680	274	467	883	731	808
27	791	674	734	---	---	e780	441	279	394	880	653	772
28	793	756	775	---	---	e740	557	297	449	755	700	734
29	819	645	769	478	369	408	307	176	248	700	683	694
30	796	662	742	626	478	564	347	293	314	769	691	732
31	---	---	---	675	583	624	435	293	374	---	---	---
MONTH	819	316	627	870	234	700	856	176	622	883	189	618
YEAR	883	176	631									

e Estimated

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.4	7.4	7.9	7.4	7.5	7.4	7.3	7.3	7.4	7.3	7.3
2	7.5	7.4	7.4	7.7	7.5	7.6	7.6	7.3	7.4	7.5	7.3	7.4
3	7.5	7.4	7.4	7.6	7.5	7.5	7.5	7.3	7.4	7.5	7.2	7.4
4	7.5	7.4	7.4	7.6	7.5	7.5	7.4	7.3	7.3	7.2	7.2	7.2
5	7.5	7.4	7.5	7.5	7.5	7.5	7.4	7.3	7.3	7.3	7.2	7.2
6	7.5	7.4	7.4	7.5	7.4	7.5	7.3	7.2	7.2	7.3	7.2	7.2
7	7.5	7.5	7.5	7.5	7.4	7.4	7.3	7.2	7.3	7.3	7.2	7.3
8	7.5	7.4	7.5	7.5	7.4	7.4	7.3	7.2	7.3	7.3	7.2	7.3
9	7.5	7.4	7.4	7.6	7.5	7.5	7.4	7.2	7.3	7.3	7.3	7.3
10	7.5	7.4	7.4	7.6	7.5	7.5	7.2	7.2	7.2	7.3	7.3	7.3
11	7.5	7.4	7.5	7.5	7.5	7.5	7.3	7.2	7.2	7.3	7.2	7.3
12	7.6	7.4	7.5	7.5	7.5	7.5	7.3	7.2	7.3	7.3	7.2	7.3
13	7.5	7.4	7.5	7.6	7.5	7.6	7.3	7.3	7.3	7.4	7.3	7.3
14	7.6	7.5	7.5	7.6	7.5	7.6	7.4	7.2	7.3	7.4	7.3	7.3
15	7.5	7.5	7.5	7.6	7.5	7.5	7.4	7.3	7.3	7.4	7.3	7.3
16	7.5	7.4	7.5	7.5	7.5	7.5	7.3	7.2	7.2	7.3	7.3	7.3
17	7.5	7.4	7.4	7.6	7.5	7.5	7.4	7.3	7.3	7.3	7.2	7.2
18	7.5	7.5	7.5	7.6	7.6	7.6	7.7	7.3	7.4	7.4	7.2	7.3
19	7.5	7.4	7.5	7.7	7.6	7.6	7.5	7.4	7.4	7.4	7.2	7.3
20	7.5	7.5	7.5	7.6	7.5	7.5	7.5	7.4	7.5	7.3	7.3	7.3
21	7.5	7.4	7.5	7.5	7.4	7.5	7.5	7.4	7.5	7.3	7.3	7.3
22	7.5	7.4	7.5	7.6	7.4	7.5	7.5	7.4	7.5	7.3	7.2	7.3
23	7.5	7.3	7.4	7.5	7.4	7.5	7.5	7.4	7.4	7.2	7.2	7.2
24	7.4	7.3	7.3	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.2	7.3
25	7.5	7.4	7.4	7.6	7.4	7.5	7.4	7.3	7.4	7.5	7.4	7.4
26	7.4	7.4	7.4	7.6	7.5	7.5	7.5	7.4	7.5	7.4	7.4	7.4
27	7.4	7.3	7.4	---	---	---	7.5	7.4	7.5	7.4	7.3	7.4
28	7.4	7.4	7.4	---	---	---	7.5	7.4	7.4	7.4	7.3	7.4
29	7.5	7.4	7.4	---	---	---	7.7	7.4	7.6	7.4	7.3	7.3
30	7.4	7.3	7.4	7.3	7.3	7.3	7.5	7.4	7.4	7.4	7.3	7.3
31	7.4	7.3	7.4	---	---	---	7.4	7.3	7.4	7.5	7.3	7.4
MONTH	7.6	7.3	7.4	7.9	7.3	7.5	7.7	7.2	7.4	7.5	7.2	7.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.3	7.4	7.7	7.5	7.6	8.1	7.7	7.9	7.8	7.5	7.7
2	7.5	7.4	7.4	7.7	7.6	7.7	8.0	7.6	7.7	7.8	7.7	7.7
3	7.5	7.4	7.4	7.8	7.6	7.7	8.0	7.6	7.8	7.8	7.7	7.7
4	7.5	7.4	7.5	7.8	7.7	7.7	7.6	7.5	7.6	8.0	7.7	7.8
5	7.5	7.5	7.5	8.1	7.7	7.9	7.8	7.5	7.6	7.8	7.7	7.7
6	7.5	7.4	7.5	8.0	7.7	7.8	7.8	7.6	7.7	7.7	7.5	7.6
7	7.5	7.5	7.5	8.0	7.7	7.9	7.7	7.6	7.6	7.6	7.5	7.5
8	7.7	7.4	7.6	8.2	7.8	8.0	7.7	7.6	7.7	7.7	7.5	7.6
9	7.9	7.5	7.6	8.3	7.8	8.0	8.0	7.7	7.8	7.8	7.6	7.7
10	7.8	7.4	7.6	8.1	7.9	8.0	7.9	7.6	7.7	7.9	7.6	7.7
11	8.0	7.5	7.7	7.9	7.7	7.8	8.1	7.7	7.9	7.7	7.5	7.6
12	7.7	7.4	7.5	8.6	7.7	8.1	8.0	7.8	7.8	7.5	7.4	7.5
13	7.5	7.4	7.5	8.8	8.2	8.5	7.8	7.7	7.8	7.5	7.4	7.5
14	7.7	7.4	7.5	8.7	8.2	8.5	7.8	7.7	7.7	7.6	7.5	7.5
15	7.8	7.5	7.6	8.5	7.9	8.2	8.1	7.6	7.8	7.7	7.5	7.6
16	8.0	7.6	7.8	8.4	7.8	8.0	8.1	7.9	8.0	7.7	7.6	7.6
17	8.1	7.7	7.8	7.9	7.7	7.8	8.1	7.9	8.0	7.7	7.5	7.6
18	7.9	7.6	7.7	7.7	7.6	7.6	8.1	7.9	8.0	7.8	7.5	7.6
19	7.8	7.6	7.7	7.6	7.5	7.6	8.1	7.9	8.0	7.8	7.5	7.6
20	7.8	7.6	7.7	7.6	7.5	7.6	8.1	7.9	8.0	8.1	7.6	7.8
21	7.8	7.6	7.7	7.6	7.5	7.5	8.0	7.7	7.8	8.3	7.7	7.9
22	7.8	7.5	7.6	7.7	7.6	7.6	7.9	7.7	7.8	8.7	7.6	8.2
23	7.7	7.6	7.6	7.7	7.6	7.6	7.9	7.7	7.8	8.8	8.0	8.4
24	7.8	7.5	7.6	7.7	7.6	7.6	7.8	7.7	7.7	8.9	8.2	8.6
25	7.8	7.6	7.7	7.8	7.6	7.7	7.9	7.8	7.8	8.6	8.1	8.4
26	7.6	7.5	7.6	7.7	7.4	7.5	7.8	7.7	7.7	8.5	8.0	8.2
27	7.6	7.5	7.5	7.4	7.4	7.4	7.7	7.6	7.7	8.8	8.0	8.3
28	7.6	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.6	8.7	8.0	8.3
29	7.6	7.5	7.6	7.5	7.4	7.5	7.5	7.5	7.5	9.0	8.0	8.5
30	---	---	---	7.7	7.5	7.6	7.5	7.5	7.5	9.1	8.5	8.8
31	---	---	---	7.9	7.6	7.7	---	---	---	8.7	8.2	8.4
MONTH	8.1	7.3	7.6	8.8	7.4	7.8	8.1	7.5	7.8	9.1	7.4	7.9

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	8.2	8.4	8.0	7.6	7.8	---	---	---	7.9	7.6	7.7
2	8.2	7.7	7.8	8.0	7.6	7.7	---	---	---	7.8	7.6	7.7
3	8.3	7.8	8.0	7.8	7.6	7.7	---	---	---	7.8	7.5	7.6
4	8.6	8.0	8.3	7.7	7.5	7.6	---	---	---	7.9	7.5	7.6
5	8.5	7.9	8.2	7.8	7.5	7.6	---	---	---	7.6	7.5	7.5
6	8.4	7.9	8.1	8.7	7.8	8.3	---	---	---	7.8	7.5	7.6
7	8.2	7.9	8.0	8.3	7.8	8.1	---	---	---	8.3	7.6	7.9
8	8.0	7.7	7.8	8.1	7.7	7.9	---	---	---	8.0	7.5	7.8
9	7.9	7.7	7.8	8.0	7.7	7.8	---	---	---	7.8	7.5	7.6
10	8.0	7.8	7.8	7.9	7.7	7.8	---	---	---	8.0	7.5	7.7
11	8.1	7.8	7.8	7.8	7.7	7.7	---	---	---	7.9	7.6	7.8
12	7.9	7.7	7.8	7.8	7.6	7.7	---	---	---	8.1	7.6	7.8
13	8.1	7.8	7.9	7.9	7.5	7.7	---	---	---	8.0	7.5	7.8
14	8.1	7.7	7.9	8.0	7.6	7.8	---	---	---	7.9	7.4	7.6
15	8.0	7.7	7.8	8.0	7.5	7.7	---	---	---	7.9	7.4	7.5
16	8.3	7.7	7.9	7.6	7.5	7.6	8.4	8.1	8.2	7.7	7.4	7.5
17	8.2	7.8	8.0	7.6	7.5	7.6	8.3	7.6	8.0	7.5	7.5	7.5
18	8.1	7.8	7.9	7.5	7.4	7.5	7.6	7.4	7.5	7.7	7.4	7.5
19	8.1	7.8	7.9	7.8	7.4	7.6	7.6	7.5	7.5	7.7	7.3	7.5
20	8.7	7.9	8.3	7.7	7.5	7.6	7.7	7.5	7.6	7.5	7.4	7.5
21	8.5	8.0	8.2	7.6	7.4	7.5	7.7	7.5	7.6	7.5	7.4	7.5
22	8.3	8.0	8.1	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.5
23	8.3	8.0	8.1	---	---	---	7.5	7.3	7.4	7.7	7.5	7.6
24	8.0	7.8	7.9	---	---	---	7.8	7.4	7.6	7.6	7.5	7.5
25	7.9	7.7	7.8	---	---	---	7.7	7.5	7.6	7.6	7.5	7.5
26	7.7	7.5	7.7	---	---	---	7.8	7.5	7.6	7.5	7.4	7.4
27	7.9	7.7	7.8	---	---	---	7.6	7.5	7.5	7.5	7.4	7.5
28	7.8	7.7	7.7	---	---	---	7.6	7.4	7.5	7.5	7.4	7.5
29	7.7	7.6	7.7	7.6	7.5	7.5	8.0	7.5	7.7	7.5	7.5	7.5
30	7.8	7.6	7.7	7.7	7.5	7.6	7.7	7.6	7.6	7.5	7.5	7.5
31	---	---	---	---	---	---	7.8	7.6	7.7	---	---	---
MONTH	8.7	7.5	7.9	8.7	7.4	7.7	8.4	7.3	7.6	8.3	7.3	7.6
YEAR	9.1	7.2	7.6									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26.5	25.5	26.0	20.0	18.5	19.0	13.5	12.0	12.5	13.0	12.0	12.5
2	26.0	25.0	25.5	20.0	17.5	19.0	16.5	13.5	15.0	12.0	9.0	10.5
3	25.0	24.0	24.5	17.5	15.5	16.5	17.5	16.5	17.0	10.0	8.0	9.0
4	24.5	23.0	23.5	15.5	14.0	14.5	17.5	17.0	17.0	9.0	7.5	8.0
5	23.5	22.5	23.0	14.0	13.5	14.0	17.0	16.0	16.5	9.5	8.5	9.0
6	23.0	21.0	22.0	15.5	14.0	14.5	17.0	16.5	16.5	9.0	7.5	8.5
7	21.5	20.0	21.0	16.5	15.5	16.0	16.5	15.5	15.5	7.5	6.5	7.0
8	21.0	19.5	20.5	17.0	16.0	16.5	15.5	14.0	14.5	6.5	5.0	6.0
9	22.0	20.0	21.0	16.5	15.5	16.0	14.0	10.5	11.5	7.0	5.5	6.5
10	23.0	21.5	22.0	19.0	16.5	18.0	10.5	9.0	9.5	9.0	7.0	8.0
11	23.5	22.0	23.0	18.5	16.0	17.0	9.0	7.5	8.5	11.0	9.0	10.0
12	24.0	22.5	23.0	16.0	14.0	15.0	11.5	9.0	10.0	11.5	10.0	11.0
13	24.0	22.5	23.0	15.0	14.0	14.5	15.0	11.5	13.5	11.5	10.5	11.0
14	23.0	22.0	22.5	15.5	14.5	15.0	17.0	15.0	16.0	13.0	11.0	12.0
15	22.0	20.5	21.0	15.5	14.5	15.0	18.5	17.0	17.5	13.5	12.5	13.0
16	21.0	20.0	20.5	15.5	15.0	15.5	18.0	17.5	18.0	13.5	12.5	13.0
17	21.0	20.0	20.5	15.5	14.5	15.0	17.5	16.0	16.5	15.5	13.0	14.0
18	21.5	19.5	20.5	15.0	14.0	14.5	16.0	13.5	14.5	15.5	10.5	13.5
19	22.0	20.5	21.0	16.5	14.5	15.5	13.5	11.0	12.0	10.5	8.5	9.5
20	21.5	20.5	21.0	17.5	16.0	16.5	11.0	10.0	10.5	9.0	7.5	8.0
21	20.5	18.5	19.5	18.0	17.0	17.5	10.0	9.0	9.5	10.0	8.0	9.0
22	20.0	18.0	19.0	17.5	16.5	17.0	10.5	9.5	10.0	11.5	10.0	10.5
23	20.5	20.0	20.0	17.0	16.0	16.5	10.5	9.5	10.0	13.0	11.5	12.5
24	20.0	19.0	19.5	16.5	15.5	16.0	10.0	9.0	9.5	12.5	11.0	11.5
25	19.0	18.0	18.5	15.5	14.5	15.0	10.0	9.0	9.5	11.5	10.0	11.0
26	20.0	18.5	19.0	16.0	14.5	15.5	10.0	8.5	9.5	12.0	11.0	11.5
27	22.0	20.0	21.0	16.5	16.0	16.5	10.0	9.0	9.5	11.5	10.0	10.5
28	21.5	20.0	20.5	16.0	13.0	14.5	10.0	9.0	9.5	10.0	9.0	9.5
29	20.0	19.0	19.5	13.0	11.5	12.5	9.5	8.5	9.5	12.0	9.5	10.5
30	19.0	18.0	18.5	12.5	11.5	12.0	10.5	9.5	10.0	12.0	10.5	11.5
31	18.5	18.0	18.0	---	---	---	13.0	10.5	11.5	10.5	7.5	8.5
MONTH	26.5	18.0	21.0	20.0	11.5	15.5	18.5	7.5	12.5	15.5	5.0	10.0

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	6.0	6.5	12.0	11.0	11.5	18.0	15.5	17.0	21.0	18.5	19.5
2	6.0	5.5	5.5	13.0	11.0	12.0	18.0	16.0	17.0	21.5	20.0	21.0
3	5.5	4.5	5.0	14.5	12.0	13.0	18.5	16.5	17.5	22.5	21.0	21.5
4	5.5	3.5	5.0	15.5	14.0	14.5	18.0	17.0	18.0	23.5	21.5	22.5
5	6.0	4.0	5.0	18.5	15.5	17.0	17.0	9.5	14.0	25.0	22.5	23.5
6	8.5	6.0	7.0	19.0	17.0	18.5	11.5	9.5	11.0	24.5	23.5	24.0
7	12.0	8.5	10.0	17.0	13.0	14.5	14.0	11.0	12.5	24.5	23.0	24.0
8	15.0	12.0	13.5	13.0	10.5	11.5	17.0	14.0	15.5	25.0	23.5	24.0
9	16.5	14.5	15.5	11.0	9.5	10.0	19.0	16.5	17.5	25.5	23.5	24.5
10	17.5	16.0	16.5	11.0	9.0	10.0	20.0	18.0	19.0	26.0	24.5	25.0
11	17.0	15.5	16.0	12.0	10.0	11.0	21.5	19.5	20.5	25.5	22.5	24.0
12	15.5	13.5	14.0	13.5	11.0	12.0	21.0	20.0	20.5	22.5	22.0	22.5
13	14.0	12.5	13.0	16.0	13.0	14.5	20.5	19.0	20.0	23.0	22.0	22.5
14	14.5	12.5	13.5	17.5	16.0	16.5	21.5	20.0	20.5	25.0	22.5	23.5
15	15.0	14.0	14.5	19.0	16.5	18.0	20.5	18.5	19.5	26.0	23.5	25.0
16	15.0	12.5	13.5	18.5	17.0	17.5	19.5	17.5	18.5	27.0	24.5	25.5
17	12.5	11.0	11.5	18.0	16.5	17.5	20.5	18.0	19.0	27.5	25.0	26.5
18	13.0	11.0	12.0	17.5	15.0	16.5	22.5	19.5	20.5	27.5	25.5	26.5
19	15.5	13.0	14.0	15.0	13.0	14.0	24.0	21.5	22.5	27.5	25.5	26.5
20	16.0	14.5	15.5	13.5	12.5	13.0	23.5	22.5	23.0	27.5	25.5	26.5
21	17.5	15.0	16.0	14.0	12.0	13.0	23.5	21.5	22.5	28.5	26.0	27.5
22	18.0	16.5	17.5	15.0	12.5	14.0	23.0	20.5	22.5	29.0	27.0	28.0
23	19.0	17.5	18.0	16.5	15.0	15.5	20.5	18.5	19.5	28.5	26.5	27.5
24	18.5	17.0	17.5	17.0	15.5	16.0	20.5	18.5	19.5	28.5	26.0	27.5
25	18.0	16.5	17.0	16.5	14.0	15.5	21.5	19.0	20.5	28.5	26.5	27.5
26	19.0	17.5	18.5	14.0	13.0	14.0	22.5	20.5	21.5	28.0	26.5	27.0
27	19.5	18.5	19.0	14.0	13.0	13.5	22.0	20.5	21.5	28.5	26.5	27.5
28	18.5	14.0	16.5	13.0	10.5	11.5	23.0	21.0	22.0	29.0	27.0	28.0
29	14.0	11.5	12.5	13.5	11.0	12.0	22.0	20.5	21.0	29.0	27.5	28.0
30	---	---	---	17.0	13.5	15.5	20.5	18.5	19.5	29.0	27.0	28.0
31	---	---	---	17.5	16.0	16.5	---	---	---	28.0	26.5	27.0
MONTH	19.5	3.5	13.0	19.0	9.0	14.0	24.0	9.5	19.0	29.0	18.5	25.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.5	26.0	26.5	31.5	29.0	30.0	29.5	27.0	28.0	25.0	24.0	24.5
2	26.0	24.0	25.5	31.5	29.0	30.0	30.5	28.0	29.0	27.0	24.5	25.5
3	27.0	24.5	25.5	31.5	29.5	30.5	31.0	29.5	30.0	26.5	24.5	25.5
4	28.0	26.5	27.0	31.5	29.5	30.5	31.0	29.5	30.5	27.0	24.5	25.5
5	28.0	26.5	27.0	31.0	29.0	30.0	31.5	29.5	30.5	27.5	25.5	26.5
6	28.5	26.5	27.5	31.5	29.0	30.0	31.0	29.5	30.5	28.0	26.5	27.0
7	28.0	26.5	27.5	32.0	29.5	30.5	31.0	29.5	30.0	28.5	27.0	28.0
8	26.5	25.0	25.5	32.0	30.0	31.0	31.0	29.5	30.0	28.5	27.5	28.0
9	26.0	24.0	25.0	32.0	30.5	31.0	30.0	28.0	29.0	29.0	27.5	28.0
10	25.5	22.5	24.5	31.0	29.5	30.0	28.5	27.5	28.0	28.5	26.5	27.5
11	26.0	22.5	24.0	30.0	29.0	29.0	28.5	27.0	28.0	27.5	26.0	26.5
12	27.0	25.0	26.0	29.0	27.0	28.0	28.5	27.5	28.0	27.0	26.0	26.5
13	28.5	26.5	27.5	28.0	26.0	27.0	28.5	27.0	28.0	26.5	26.0	26.0
14	28.5	26.5	27.5	28.0	25.0	27.0	29.0	27.5	28.0	26.5	25.5	26.0
15	28.5	26.5	27.5	27.0	25.0	26.0	29.5	28.0	28.5	26.5	24.5	25.5
16	29.5	27.5	28.5	29.5	27.0	28.0	29.0	28.0	28.5	25.5	24.5	25.0
17	29.5	28.5	29.0	30.5	29.0	29.5	28.5	27.5	28.0	26.5	24.5	25.5
18	29.5	28.0	28.5	30.5	29.0	30.0	27.5	26.0	26.5	26.0	22.5	25.0
19	30.0	27.5	28.5	31.5	29.5	30.5	29.0	26.5	27.5	23.5	22.5	23.0
20	31.0	29.0	30.0	31.5	30.0	30.5	30.0	28.0	28.5	24.5	23.5	24.0
21	30.5	29.0	30.0	31.5	29.5	30.5	29.5	28.5	29.0	25.5	23.5	24.5
22	30.5	29.0	29.5	31.5	29.5	30.5	29.0	28.0	28.5	25.0	23.5	24.5
23	30.5	28.5	29.5	31.0	30.5	31.0	28.0	27.5	28.0	26.0	24.0	25.0
24	29.5	28.0	29.0	31.0	28.0	29.5	29.0	27.5	28.0	26.0	25.5	26.0
25	29.5	28.0	28.5	---	---	---	28.5	27.5	28.0	26.5	25.0	25.5
26	29.0	27.5	28.5	---	---	---	27.5	25.0	26.5	26.0	24.5	25.5
27	30.0	28.0	29.0	---	---	---	27.5	26.5	27.0	24.5	20.5	22.5
28	30.0	29.0	29.5	---	---	---	27.0	25.5	26.5	21.0	19.5	20.5
29	30.0	28.5	29.0	30.0	28.5	29.0	25.5	24.0	24.5	21.5	19.0	20.5
30	31.0	29.0	30.0	30.5	29.0	29.5	25.5	24.5	25.0	22.0	19.5	21.0
31	---	---	---	30.0	27.5	28.5	26.0	25.0	25.5	---	---	---
MONTH	31.0	22.5	27.5	32.0	25.0	29.5	31.5	24.0	28.0	29.0	19.0	25.0
YEAR	32.0	3.5	20.0									

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.3	5.5	6.0	5.4	4.5	5.0	10.6	8.8	9.6	9.9	7.1	8.2
2	6.1	5.5	5.9	5.0	4.0	4.5	10.7	9.8	10.3	11.2	8.0	9.4
3	6.1	5.4	5.7	5.0	4.0	4.5	10.7	9.7	10.2	11.6	9.9	10.7
4	6.3	5.5	5.8	5.7	4.0	4.8	10.4	9.3	9.8	12.3	10.6	11.3
5	5.9	5.2	5.4	5.8	5.5	5.6	9.9	9.0	9.4	12.2	10.6	11.4
6	5.6	5.1	5.3	6.3	5.5	5.9	9.2	8.6	8.8	12.1	9.6	10.7
7	5.9	5.2	5.5	6.3	5.6	5.9	9.1	8.2	8.6	10.5	8.8	9.8
8	6.2	5.3	5.6	6.5	5.8	6.1	10.0	8.5	9.1	---	---	---
9	6.1	5.5	5.8	6.9	5.6	6.5	10.2	8.8	9.3	12.1	10.9	11.5
10	6.1	5.2	5.6	6.9	5.8	6.3	8.9	7.5	8.3	12.7	10.8	11.7
11	6.0	5.0	5.4	6.0	4.4	5.5	9.6	7.5	8.3	11.9	9.8	11.0
12	6.0	5.1	5.5	6.9	4.5	6.0	10.7	9.5	9.9	11.7	9.6	10.4
13	5.7	5.1	5.4	7.4	5.9	6.8	10.8	9.5	10.1	11.9	8.4	10.4
14	6.7	5.2	5.9	7.4	6.3	7.0	9.8	9.1	9.4	11.6	9.0	10.3
15	5.9	5.2	5.4	7.2	5.6	6.8	9.1	7.3	8.2	10.6	9.2	9.7
16	5.4	4.6	4.9	6.8	5.0	6.3	7.5	6.2	6.7	10.2	9.1	9.6
17	5.8	4.7	5.2	7.3	4.8	6.3	9.2	6.7	7.7	9.7	8.8	9.2
18	5.6	4.9	5.3	8.0	6.5	7.5	9.4	7.8	8.5	9.2	8.4	8.8
19	5.6	4.9	5.2	8.4	6.9	7.8	9.9	8.4	9.3	9.2	8.6	8.9
20	6.0	4.8	5.2	7.6	6.3	7.2	9.3	8.6	8.9	10.2	8.5	9.1
21	5.8	4.8	5.2	7.2	5.9	6.7	9.4	8.5	8.9	10.4	9.4	9.9
22	5.7	5.1	5.4	7.4	6.2	6.8	9.6	8.0	9.2	10.0	9.1	9.4
23	5.5	5.1	5.2	7.1	5.4	6.5	9.6	9.0	9.4	9.2	7.3	8.1
24	5.7	5.2	5.4	6.9	6.3	6.6	10.2	8.9	9.5	8.3	7.3	7.7
25	6.2	5.1	5.5	7.9	6.5	7.1	9.9	8.6	9.1	9.6	7.7	8.5
26	5.9	5.3	5.6	8.4	7.2	7.8	10.1	9.2	9.5	9.2	7.5	8.4
27	5.5	5.0	5.2	9.2	7.7	8.3	9.9	8.9	9.6	8.9	7.4	8.3
28	5.3	4.0	4.6	8.9	8.1	8.4	10.9	8.5	9.5	8.7	8.1	8.4
29	5.8	4.0	5.1	9.9	8.1	8.8	10.9	10.0	10.4	9.0	8.4	8.6
30	5.5	4.8	5.1	9.5	8.7	9.2	10.9	8.6	9.8	8.6	8.0	8.2
31	5.3	4.3	4.8	---	---	---	10.2	9.0	9.7	8.7	8.0	8.2
MONTH	6.7	4.0	5.4	9.9	4.0	6.6	10.9	6.2	9.2	12.7	7.1	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.5	7.7	8.1	7.8	6.3	7.1	11.8	7.6	10.0	7.9	6.8	7.5
2	9.1	8.0	8.4	7.9	6.3	7.4	10.6	7.5	9.1	7.8	6.2	7.1
3	9.8	8.4	8.8	8.8	6.2	7.6	10.2	7.9	9.6	7.5	6.0	6.9
4	10.0	8.7	9.3	8.4	7.2	7.9	9.5	7.6	8.6	8.5	6.1	7.4
5	11.8	9.7	10.5	10.2	7.6	8.9	11.8	8.5	9.6	8.0	6.0	7.3
6	12.0	9.7	11.1	8.7	6.9	7.5	11.6	8.8	10.8	7.3	5.6	6.5
7	11.6	9.8	10.7	8.3	5.2	6.9	11.2	7.9	9.8	7.5	6.1	6.9
8	11.5	8.5	10.4	9.5	5.5	7.8	10.9	8.4	10.1	8.0	6.4	7.3
9	12.6	8.0	10.4	12.2	6.7	9.6	12.0	8.3	10.5	8.9	6.2	7.6
10	11.0	7.3	9.5	12.2	8.0	10.5	11.0	7.8	9.6	8.8	6.8	7.8
11	12.9	6.6	10.0	11.2	9.0	10.2	12.4	8.2	10.5	7.5	4.6	6.5
12	10.7	7.6	9.4	14.9	7.2	11.7	11.2	8.4	9.5	7.0	4.1	5.7
13	9.4	7.1	8.6	16.4	9.9	13.5	9.7	8.1	8.9	7.1	5.5	6.4
14	8.7	6.9	7.9	15.6	10.0	12.9	8.9	7.6	8.2	8.2	6.3	7.4
15	8.7	5.9	7.5	13.0	8.0	11.1	10.8	6.6	8.4	8.3	6.4	7.5
16	9.9	7.0	8.4	13.5	8.9	11.0	11.1	7.8	10.1	7.6	5.5	7.0
17	11.1	7.4	9.0	11.2	8.8	9.8	10.4	9.1	9.8	8.1	5.2	6.9
18	10.2	7.5	8.8	9.2	8.0	8.5	10.1	8.5	9.4	7.9	4.8	6.8
19	9.5	7.4	8.3	8.3	3.0	6.2	9.9	8.3	9.1	8.0	4.6	6.9
20	9.3	7.0	8.1	8.0	6.1	7.1	9.2	7.4	8.3	---	---	---
21	9.5	6.8	8.0	9.3	7.0	8.1	8.3	5.7	7.1	---	---	---
22	8.9	6.2	7.5	9.7	5.6	8.9	7.7	5.8	6.6	---	---	---
23	8.4	6.3	7.4	9.9	7.0	9.1	7.3	5.5	6.5	11.9	5.7	9.1
24	9.0	5.6	7.4	9.7	7.6	8.9	7.0	4.7	6.1	12.7	6.9	9.8
25	8.6	6.4	7.4	9.6	6.2	8.4	8.3	5.9	7.3	9.4	6.2	8.1
26	7.0	5.7	6.4	9.4	7.0	8.0	7.6	5.0	6.6	9.0	6.0	7.6
27	6.2	5.5	5.9	7.9	7.1	7.6	7.2	5.5	6.6	10.8	5.8	7.9
28	6.9	5.4	6.0	9.5	7.9	8.7	6.9	5.4	6.3	9.2	5.2	7.0
29	6.9	5.7	6.5	8.9	7.7	8.3	7.0	5.3	6.2	11.1	4.1	7.4
30	---	---	---	9.6	7.8	8.7	7.8	6.2	7.2	10.7	5.6	8.3
31	---	---	---	10.8	7.3	9.4	---	---	---	7.4	5.5	6.2
MONTH	12.9	5.4	8.5	16.4	3.0	8.9	12.4	4.7	8.5	12.7	4.1	7.3

08062000 EAST FORK TRINITY RIVER NEAR CRANDALL, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.1	5.6	6.3	5.0	3.4	4.1	---	---	---	6.9	5.6	6.2
2	6.6	2.8	4.2	5.4	3.6	4.4	---	---	---	7.8	6.0	6.8
3	5.9	2.6	4.2	5.1	3.3	4.3	---	---	---	7.6	6.0	7.1
4	7.7	4.7	6.2	4.8	3.0	3.9	---	---	---	6.8	6.0	6.5
5	7.4	3.6	5.8	5.8	4.4	5.3	---	---	---	6.8	6.2	6.5
6	6.8	3.4	5.4	---	---	---	---	---	---	7.4	5.5	6.3
7	6.1	3.9	5.0	---	---	---	---	---	---	11.1	6.6	8.4
8	4.5	3.1	3.8	---	---	---	---	---	---	9.2	5.5	7.3
9	5.1	3.0	4.1	---	---	---	---	---	---	7.7	5.7	6.7
10	5.3	3.5	4.6	---	---	---	---	---	---	8.4	5.3	6.7
11	4.5	3.5	4.0	---	---	---	---	---	---	7.8	5.9	6.9
12	4.4	2.4	3.7	---	---	---	---	---	---	9.4	6.2	7.7
13	5.8	3.2	4.4	5.9	3.2	4.1	---	---	---	8.7	6.0	7.4
14	5.1	3.2	4.3	4.8	3.8	4.4	---	---	---	7.7	5.6	6.6
15	---	---	---	4.8	3.8	4.3	---	---	---	7.3	5.2	5.9
16	---	---	---	5.7	4.4	5.1	9.3	7.2	8.2	5.8	5.0	5.4
17	---	---	---	5.4	4.0	5.0	8.8	6.8	7.7	6.3	5.5	5.8
18	---	---	---	4.3	3.1	3.8	6.8	5.1	5.5	5.9	5.3	5.6
19	---	---	---	5.3	3.4	4.1	6.4	5.2	5.9	5.5	4.9	5.2
20	---	---	---	4.6	2.8	3.5	6.5	5.4	6.0	6.0	5.4	5.7
21	---	---	---	4.3	2.7	3.5	6.5	5.6	6.1	6.0	5.5	5.7
22	---	---	---	3.8	2.7	3.3	5.9	5.2	5.6	6.5	5.4	5.9
23	---	---	---	---	---	---	6.1	4.7	5.3	7.2	5.4	6.3
24	---	---	---	---	---	---	6.8	4.4	5.6	6.7	5.2	5.8
25	---	---	---	---	---	---	6.5	4.7	5.7	6.2	4.8	5.6
26	---	---	---	---	---	---	6.3	3.9	5.0	6.0	4.7	5.3
27	6.5	5.3	5.9	---	---	---	5.8	4.3	5.1	6.0	4.9	5.4
28	6.1	5.2	5.7	---	---	---	6.0	5.2	5.6	7.0	5.3	6.2
29	5.8	4.8	5.4	---	---	---	6.4	5.6	6.1	7.4	5.5	6.7
30	5.6	4.4	4.9	---	---	---	6.6	6.3	6.4	7.2	5.2	6.7
31	---	---	---	---	---	---	7.3	6.3	6.7	---	---	---
MONTH	7.7	2.4	4.9	5.9	2.7	4.2	9.3	3.9	6.0	11.1	4.7	6.3
YEAR	16.4	2.4	7.4									

08062500 TRINITY RIVER NEAR ROSSER, TX

LOCATION.--Lat 32°25'35", long 96°27'46", Ellis County, Hydrologic Unit 12030105, on right bank at downstream side of right pier of bridge on State Highway 34, 2.5 mi south of Rosser, 8.5 mi downstream from East Fork Trinity River, and at mile 451.4.

DRAINAGE AREA.--8,147 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1924 to September 1925, October 1938 to current year. Monthly discharge only for some periods, are published in WSP 1312.

REVISED RECORDS.--WRD TX-77-1: 1942(M), drainage area. WDR TX-89-1: 1988. WDR TX-92-1: 1991.

GAGE.--Water-stage recorder. Datum of gage is 297.65 ft above sea level. Oct. 1938 to Sept. 1994 at present site and datum 5.00 ft higher. July 25, 1924, to Sept. 30, 1925, nonrecording gage at abandoned lock and dam No. 7, 1.7 mi upstream from present site at datum 11.94 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. At times, flow is affected by storage in 15 upstream reservoirs having a combined capacity of 3,572,000 acre-ft, of which 1,138,000 acre-ft is for flood control. A levee system, constructed in 1916, extends several miles upstream and downstream from the station. The cities of Fort Worth, Dallas, and several smaller cities divert considerable water for their municipal use, of which about 60 percent is returned as wastewater effluent that sustains low flows at this site. Flow may also be affected at times by discharge from the flood-detention pools of 38 floodwater-retarding structures with a combined detention capacity of 22,600 acre-ft. These structures control runoff from 76.7 mi² above this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1908 reached a stage of about 38 ft (present site and datum), from information by U.S. Army Corps of Engineers (discharge believed to have been about the same as that of Apr. 23, 1942).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	847	1490	729	e1020	e800	958	1060	835	732	654	1260	4340
2	894	2720	730	e1240	e780	867	965	826	2080	657	1080	6160
3	953	1570	732	e1850	e810	815	910	801	2040	670	830	2520
4	1020	1040	737	e1370	e850	796	890	817	1150	680	751	1920
5	1030	848	754	e1020	e845	801	1380	796	1250	651	726	1430
6	894	826	e752	e970	e860	794	5290	765	1270	627	701	1150
7	837	818	e750	e950	e910	766	5640	775	1260	633	733	1030
8	806	814	e814	e890	e950	737	2240	770	1790	633	750	947
9	801	839	e1100	e887	e920	740	1390	759	1120	652	989	959
10	804	790	e1050	e885	e925	712	1190	751	894	1030	1560	1140
11	808	758	e880	e883	e920	701	1090	881	1510	1430	1480	956
12	801	761	e830	e881	e880	722	1040	1900	1280	989	1110	887
13	814	735	e820	e860	e855	737	1260	1300	976	2990	1190	854
14	818	750	e800	e850	e850	743	2070	969	1220	3720	979	828
15	775	759	e800	e830	e825	738	1290	869	1650	4420	805	1030
16	762	732	e790	e820	769	759	1050	803	1990	3190	756	3240
17	751	726	e1100	e890	777	762	993	770	1250	1870	958	2480
18	754	746	e3200	e1400	771	787	949	706	1310	1720	1610	1340
19	737	741	e4000	e2900	772	1560	928	669	1610	1060	1330	1900
20	731	741	e2500	e1800	771	1400	942	683	1080	901	978	2010
21	730	746	e1500	e1200	800	1010	952	726	861	794	855	1500
22	730	734	e1200	e1050	780	881	948	715	798	744	781	1130
23	717	734	e1000	e980	762	820	2100	688	751	747	829	965
24	720	712	e870	e950	738	788	1870	683	728	1250	911	930
25	716	709	e830	e921	769	1160	1240	694	736	1180	845	910
26	702	721	e800	e850	775	1730	1060	664	794	853	1060	900
27	703	697	e800	e820	796	1180	953	652	913	769	1330	1030
28	697	707	e820	e850	1410	2350	894	669	788	1170	1590	919
29	694	725	e815	e850	1310	3860	848	793	734	1490	3740	845
30	696	729	e815	e850	---	1840	856	765	700	1020	4730	843
31	759	---	e1180	e845	---	1220	---	666	---	924	2800	---
TOTAL	24501	26418	34498	33362	24980	33734	44288	25160	35265	40118	40047	47093
MEAN	790	881	1113	1076	861	1088	1476	812	1175	1294	1292	1570
MAX	1030	2720	4000	2900	1410	3860	5640	1900	2080	4420	4730	6160
MIN	694	697	729	820	738	701	848	652	700	627	701	828
AC-FT	48600	52400	68430	66170	49550	66910	87850	49900	69950	79570	79430	93410

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996h#, BY WATER YEAR (WY)

MEAN	1851	2314	2634	2111	3150	3547	4366	6676	5283	2062	1109	1186
MAX	11140	16860	22340	17140	14680	20120	38610	40400	24600	10650	6912	8322
(WY)	1982	1982	1992	1992	1992	1945	1942	1990	1941	1989	1982	1962
MIN	32.8	49.5	50.4	61.0	72.7	54.6	213	614	154	62.6	37.1	89.1
(WY)	1925	1925	1925	1925	1925	1925	1956	1964	1925	1925	1925	1925

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996h#	
ANNUAL TOTAL	1981190		409464			
ANNUAL MEAN	5428		1119		3023	
HIGHEST ANNUAL MEAN					9702	1992
LOWEST ANNUAL MEAN					280	1956
HIGHEST DAILY MEAN	53700	May 9	6160	Sep 2	133000	Apr 23 1 42
LOWEST DAILY MEAN	694	Oct 29	627	Jul 6	32	Oct 4 1924
ANNUAL SEVEN-DAY MINIMUM	704	Oct 24	649	Jul 3	32	Oct 14 1924
INSTANTANEOUS PEAK FLOW			6860	Sep 2	150000	Apr 23 1942
INSTANTANEOUS PEAK STAGE			15.92	Sep 2	41.55	Apr 22 1942
ANNUAL RUNOFF (AC-FT)	3930000		812200		2190000	
10 PERCENT EXCEEDS	13500		1790		8430	
50 PERCENT EXCEEDS	3200		855		871	
90 PERCENT EXCEEDS	753		721		205	

e Estimated
h See PERIOD OF RECORD paragraph.
Period of regulated streamflow.

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1954 to current year. Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: January 1968 to July 1981. Sediment analyses: October 1963 to September 1964, April 1972 to April 1975.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1954 to current year.
pH: March 1977 to current year.
WATER TEMPERATURE: October 1954 to current year.
DISSOLVED OXYGEN: March 1977 to current year.

INSTRUMENTATION.--Since March 1977, a four-parameter water-quality monitor records water temperature, DO, pH, and specific conductance continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,990 microsiemens Oct. 13, 1956; minimum, 122 microsiemens Sept. 30, 1981.
pH: Maximum, 9.9 units July 12, 1982; minimum, 6.8 units Oct. 3, 19, 20, Nov. 19, 1980.
WATER TEMPERATURE: Maximum, 36.0°C July 1, 1955; minimum, 1.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 13.6 mg/L Feb. 18, 1996; minimum, 0.0 mg/L on several days during 1979-81.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 773 microsiemens Feb. 29; minimum, 298 microsiemens Sept. 1 and 2.
pH: Maximum, 8.8 units Aug. 24; minimum, 7.0 units April 24.
WATER TEMPERATURE: Maximum, 32.5°C on July 8 and 9; minimum, 6.0°C Feb. 3.
DISSOLVED OXYGEN: Maximum, 13.6 mg/L Feb. 18; minimum, 2.2 mg/L Sept. 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV											
29...	0900	697	760	7.6	13.5	9.2	88	1.1	170	62	56
JAN											
24...	1115	950	660	7.4	11.5	9.8	90	3.2	160	54	55
APR											
04...	0800	880	676	7.6	18.0	8.5	91	3.0	170	48	61
MAY											
22...	0745	705	713	8.0	27.5	7.5	96	2.4	150	51	53
JUN											
26...	0830	751	704	7.9	29.0	6.5	86	2.0	150	41	50
AUG											
28...	0815	1140	480	7.7	27.0	4.8	61	3.2	120	26	41

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
NOV											
29...	6.2	83	3	11	100	90	74	1.1	7.7	454	12.9
JAN											
24...	5.6	58	2	11	110	80	59	0.90	6.3	387	9.41
APR											
04...	4.0	67	2	11	120	69	64	1.0	7.7	406	9.96
MAY											
22...	4.1	73	3	13	98	77	76	1.1	5.4	361	--
JUN											
26...	5.6	76	3	12	110	80	76	1.3	7.1	421	9.52
AUG											
28...	4.3	45	2	7.8	94	53	43	0.70	6.9	283	5.03

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV										
29...	12.9	0.140	13.0	13.0	0.170	1.0	1.2	2.10	1.90	5.8
JAN										
24...	9.41	0.090	9.50	9.50	0.520	0.98	1.5	1.90	1.50	4.6
APR										
04...	9.96	0.040	10.0	10.0	0.030	0.87	0.90	1.50	1.40	4.3
MAY										
22...	--	--	--	--	--	--	--	--	--	--
JUN										
26...	9.52	0.180	9.70	9.70	0.200	0.90	1.1	1.90	1.90	5.8
AUG										
28...	5.03	0.070	5.10	5.10	0.110	0.59	0.70	0.800	0.800	2.5

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	24501	672	375	24800	64	4200	79	5210	160
NOV.	1995	26418	613	342	24400	54	3870	70	5000	160
DEC.	1995	34498	611	341	31800	54	5030	70	6500	160
JAN.	1996	33362	658	367	33100	62	5550	77	6920	160
FEB.	1996	24980	730	407	27500	75	5040	88	5950	160
MAR.	1996	33734	634	354	32200	58	5260	73	6670	160
APR.	1996	44288	581	325	38800	49	5870	65	7820	160
MAY	1996	25160	700	390	26500	69	4690	83	5660	160
JUNE	1996	35265	601	336	32000	52	4940	68	6480	160
JULY	1996	40118	523	293	31700	42	4520	58	6250	150
AUG.	1996	40047	525	293	31700	41	4430	57	6210	150
SEPT	1996	47093	512	286	36400	40	5100	56	7130	150
TOTAL		409464	**	**	371000	**	58500	**	75800	**
WTD.AVG.		1119	601	335	**	53	**	69	**	160

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	678	667	672	694	605	672	667	661	664	703	690	697
2	696	677	686	612	372	469	672	661	668	701	618	642
3	699	694	697	504	429	451	672	668	670	660	576	622
4	709	655	690	549	504	536	675	669	673	580	544	559
5	690	654	673	544	529	533	692	673	684	580	545	561
6	691	652	672	568	537	557	707	689	700	631	580	605
7	673	656	667	593	568	583	707	687	697	666	631	647
8	690	662	678	628	593	617	699	686	692	689	660	673
9	665	655	660	639	627	632	712	683	696	676	660	668
10	671	664	667	647	639	643	696	619	658	712	676	699
11	671	665	668	646	630	635	700	620	673	713	705	710
12	672	660	667	647	639	643	664	644	650	716	704	708
13	667	656	661	661	647	655	680	647	665	718	710	714
14	671	659	664	662	649	657	685	666	676	712	700	704
15	673	662	668	673	655	666	682	669	677	723	700	715
16	664	650	656	669	654	662	684	679	682	728	720	724
17	654	648	651	671	655	665	691	678	681	731	721	727
18	662	651	657	667	657	662	691	511	596	728	707	722
19	657	649	654	669	661	665	528	455	495	711	508	608
20	668	651	662	668	661	665	457	434	447	588	558	577
21	675	666	670	671	660	667	486	454	474	596	577	588
22	668	661	665	678	661	669	542	485	515	600	586	591
23	672	660	666	678	659	668	612	542	571	639	600	625
24	695	669	682	668	660	664	620	585	597	678	639	659
25	690	675	682	681	663	674	646	594	628	697	678	692
26	685	672	679	677	663	672	674	644	663	719	694	708
27	678	669	673	678	661	668	685	665	675	715	700	710
28	692	674	684	681	666	672	685	666	675	727	715	719
29	684	678	679	699	662	676	696	666	681	739	727	734
30	682	671	677	686	666	676	684	674	680	730	703	720
31	686	671	680	---	---	---	694	681	687	743	703	723
MONTH	709	648	671	699	372	632	712	434	642	743	508	669

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	743	709	722	633	573	594	613	546	580	686	678	682
2	715	704	709	651	622	642	649	613	630	682	669	673
3	742	715	728	695	649	679	666	649	660	686	668	672
4	751	738	746	700	685	693	700	666	689	712	686	700
5	753	738	744	698	691	694	729	693	709	716	700	708
6	750	735	742	743	696	726	727	448	534	722	700	713
7	737	722	730	733	690	706	503	443	466	729	718	723
8	733	717	725	690	662	674	472	443	455	734	718	725
9	736	704	724	692	682	688	525	472	499	729	710	719
10	714	704	710	688	677	682	596	525	561	720	710	715
11	723	708	717	701	682	694	647	596	617	737	707	725
12	722	707	713	715	700	708	679	647	663	742	650	714
13	725	707	718	728	710	719	694	671	685	650	541	557
14	726	702	711	726	703	716	729	652	681	590	549	566
15	704	699	702	712	700	706	679	554	629	648	590	617
16	737	702	716	736	701	720	555	540	547	703	648	682
17	755	737	747	716	708	712	587	550	555	723	703	714
18	746	739	742	732	716	726	628	583	613	725	714	720
19	744	738	740	729	689	715	652	628	644	741	716	725
20	764	744	757	695	582	642	665	651	658	744	731	737
21	770	749	762	601	576	583	678	664	673	744	728	733
22	751	730	742	634	601	618	679	666	673	752	740	746
23	742	730	737	685	634	659	672	544	637	747	719	733
24	747	740	744	710	685	700	576	506	548	730	716	724
25	743	730	736	713	706	708	555	503	539	733	721	727
26	744	729	737	749	544	665	567	539	549	739	733	735
27	761	741	748	595	570	581	573	564	569	739	734	736
28	758	739	749	638	577	601	669	568	601	748	738	742
29	773	633	702	577	458	502	690	663	674	746	734	739
30	---	---	---	489	468	474	688	678	682	750	714	730
31	---	---	---	546	479	515	---	---	---	---	---	e730
MONTH	773	633	731	749	458	659	729	443	607	752	541	705

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e700	698	680	690	555	465	514	428	298	388
2	---	---	e680	680	660	667	530	494	509	372	298	332
3	---	---	e660	704	676	694	517	502	506	375	332	359
4	---	---	e640	712	698	705	557	517	536	448	345	384
5	---	---	e620	716	700	710	607	557	581	514	397	475
6	---	---	e610	744	716	734	630	607	621	523	500	511
7	614	574	604	737	724	731	649	630	639	588	523	556
8	581	463	526	742	728	735	648	618	640	617	588	600
9	521	460	479	765	734	750	641	617	632	664	616	639
10	548	514	526	764	743	752	641	542	605	701	664	685
11	619	548	582	746	617	673	580	382	498	725	701	711
12	573	514	536	664	558	622	589	444	537	729	704	719
13	535	516	524	671	421	534	642	581	613	704	634	660
14	626	535	574	444	351	386	611	543	574	668	640	658
15	644	561	602	411	304	362	543	512	523	713	668	689
16	596	526	558	377	361	371	596	540	574	715	450	596
17	559	534	547	443	374	402	647	596	628	519	447	482
18	604	558	574	550	443	484	651	558	632	447	406	424
19	638	553	594	550	445	470	577	511	542	518	379	440
20	569	529	543	513	451	478	535	456	486	520	464	492
21	585	543	562	556	513	538	548	509	525	520	493	505
22	637	585	613	613	556	589	608	548	584	552	510	527
23	669	637	655	635	538	615	612	597	603	587	548	559
24	688	666	674	605	458	524	642	601	630	692	587	642
25	702	688	698	662	603	628	648	607	635	692	650	677
26	705	620	659	665	451	560	652	601	635	692	669	683
27	652	632	645	610	524	587	653	573	605	746	676	703
28	703	652	670	600	570	582	654	511	594	723	669	708
29	704	606	668	669	583	636	562	366	436	702	669	683
30	687	615	664	620	408	447	390	312	350	710	696	707
31	---	---	---	465	420	445	406	378	392	---	---	---
MONTH	705	460	606	765	304	584	654	312	561	746	298	573
YEAR	773	298	637									

e Estimated

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.8	7.7	7.7	7.8	7.5	7.7	7.7	7.5	7.6	7.4	7.2	7.3
2	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.6	7.6	7.2	7.5
3	7.8	7.6	7.6	7.8	7.7	7.7	7.7	7.6	7.6	7.4	7.2	7.2
4	7.7	7.6	7.6	7.9	7.8	7.8	7.7	7.5	7.6	7.3	7.2	7.3
5	7.8	7.5	7.6	7.9	7.9	7.9	7.7	7.5	7.6	7.3	7.2	7.3
6	7.7	7.6	7.7	7.9	7.8	7.9	7.7	7.5	7.6	7.3	7.3	7.3
7	7.9	7.6	7.7	7.8	7.8	7.8	7.8	7.6	7.6	7.3	7.3	7.3
8	7.9	7.7	7.7	7.9	7.8	7.8	7.9	7.6	7.7	7.4	7.3	7.3
9	7.9	7.7	7.8	7.9	7.8	7.9	7.8	7.6	7.7	7.4	7.3	7.3
10	7.9	7.7	7.8	8.0	7.9	7.9	7.9	7.4	7.6	7.4	7.3	7.3
11	8.0	7.7	7.8	8.1	7.9	8.0	7.7	7.4	7.6	7.4	7.3	7.3
12	7.9	7.7	7.8	8.1	7.9	8.0	7.8	7.6	7.7	7.4	7.3	7.3
13	7.9	7.7	7.8	8.2	8.0	8.1	7.9	7.6	7.7	7.4	7.3	7.4
14	7.8	7.7	7.7	8.3	8.0	8.1	7.8	7.6	7.7	7.5	7.3	7.4
15	7.8	7.7	7.7	8.3	8.0	8.1	7.9	7.5	7.7	7.5	7.3	7.4
16	7.9	7.7	7.8	8.3	8.0	8.1	7.6	7.4	7.5	7.5	7.3	7.4
17	7.9	7.8	7.8	8.2	8.0	8.1	7.7	7.2	7.5	7.5	7.4	7.4
18	8.0	7.8	7.9	8.1	8.0	8.0	---	---	---	7.5	7.3	7.4
19	8.0	7.8	7.9	8.1	7.9	8.0	---	---	---	7.4	7.2	7.3
20	8.0	7.8	7.9	8.1	7.9	8.0	---	---	---	7.4	7.4	7.4
21	8.0	7.8	7.9	8.0	7.9	7.9	---	---	---	7.4	7.4	7.4
22	7.9	7.8	7.9	8.0	7.8	7.9	---	---	---	7.4	7.3	7.4
23	7.9	7.8	7.8	7.9	7.9	7.9	---	---	---	7.4	7.3	7.4
24	7.9	7.8	7.8	7.9	7.8	7.9	7.2	7.1	7.2	7.4	7.3	7.4
25	7.9	7.8	7.8	7.9	7.8	7.8	7.2	7.1	7.1	7.5	7.4	7.4
26	7.9	7.8	7.8	7.8	7.7	7.8	7.3	7.1	7.2	7.6	7.4	7.5
27	7.9	7.8	7.8	7.8	7.6	7.7	7.3	7.2	7.3	7.5	7.4	7.5
28	7.9	7.8	7.8	7.7	7.6	7.7	7.4	7.2	7.3	7.5	7.4	7.5
29	7.9	7.8	7.8	7.9	7.4	7.6	7.5	7.3	7.4	7.5	7.4	7.5
30	7.8	7.8	7.8	7.5	7.1	7.4	7.5	7.4	7.4	7.5	7.5	7.5
31	7.8	7.7	7.8	---	---	---	7.5	7.2	7.4	7.5	7.5	7.5
MONTH	8.0	7.5	7.8	8.3	7.1	7.9	7.9	7.1	7.5	7.6	7.2	7.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.4	7.5	7.5	7.4	7.5	7.5	7.4	7.4	8.0	7.5	7.8
2	7.6	7.4	7.5	7.7	7.5	7.6	7.6	7.4	7.5	7.9	7.7	7.8
3	7.5	7.4	7.5	7.7	7.6	7.6	7.7	7.5	7.6	7.9	7.6	7.7
4	7.5	7.4	7.4	7.7	7.5	7.6	7.8	7.6	7.7	8.0	7.6	7.8
5	7.5	7.4	7.5	7.7	7.5	7.6	7.8	7.4	7.6	7.9	7.6	7.7
6	7.6	7.5	7.5	8.2	7.5	7.6	7.4	7.2	7.3	7.7	7.5	7.6
7	7.6	7.5	7.6	7.8	7.6	7.7	---	---	---	7.6	7.4	7.5
8	7.7	7.5	7.6	8.3	7.2	7.6	8.0	7.5	7.7	7.8	7.5	7.7
9	7.7	7.5	7.6	7.9	7.6	7.7	8.1	7.8	7.9	8.0	7.6	7.8
10	7.8	7.5	7.7	7.9	7.6	7.7	7.8	7.4	7.6	8.1	7.7	7.9
11	7.9	7.6	7.8	7.9	7.6	7.7	7.7	7.5	7.6	8.0	7.7	7.8
12	8.0	7.7	7.8	7.9	7.6	7.7	7.7	7.4	7.5	7.7	7.4	7.5
13	8.0	7.7	7.9	7.9	7.6	7.7	7.6	7.4	7.5	7.6	7.4	7.5
14	8.2	7.8	8.0	8.0	7.6	7.8	7.5	7.2	7.4	7.8	7.5	7.6
15	8.2	7.8	8.0	7.9	7.5	7.7	7.4	7.3	7.3	7.9	7.6	7.7
16	8.1	7.7	7.9	7.7	7.5	7.6	7.4	7.3	7.4	8.2	7.7	7.9
17	8.3	7.8	8.0	7.6	7.4	7.5	7.5	7.3	7.4	8.3	7.9	8.1
18	8.4	7.9	8.1	7.6	7.4	7.5	7.8	7.4	7.6	8.4	7.9	8.1
19	8.3	7.9	8.1	7.5	7.2	7.3	7.9	7.5	7.7	8.6	8.1	8.3
20	8.2	7.8	8.0	7.3	7.1	7.2	7.9	7.5	7.7	8.6	8.2	8.4
21	8.1	7.7	7.9	7.4	7.2	7.3	8.1	7.5	7.8	8.7	8.3	8.5
22	8.0	7.7	7.9	7.6	7.3	7.4	8.0	7.4	7.6	8.5	7.8	8.2
23	8.0	7.6	7.8	7.6	7.3	7.5	7.4	7.2	7.3	8.4	8.0	8.2
24	8.0	7.6	7.8	7.6	7.4	7.5	7.2	7.0	7.1	8.5	8.1	8.3
25	7.9	7.6	7.7	7.7	7.3	7.5	7.3	7.1	7.2	8.5	8.0	8.3
26	7.7	7.5	7.6	7.3	7.2	7.3	7.5	7.2	7.3	8.4	8.0	8.2
27	7.6	7.4	7.5	7.4	7.2	7.3	7.6	7.3	7.4	8.2	8.0	8.1
28	7.5	7.4	7.5	7.3	7.1	7.2	7.7	7.4	7.5	8.1	7.9	8.0
29	7.5	7.4	7.5	7.2	7.1	7.2	7.7	7.3	7.5	8.2	7.9	8.0
30	---	---	---	7.3	7.2	7.3	7.7	7.4	7.6	8.1	7.9	8.0
31	---	---	---	7.4	7.3	7.3	---	---	---	---	---	---
MONTH	8.4	7.4	7.7	8.3	7.1	7.5	8.1	7.0	7.5	8.7	7.4	7.9

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.8	7.6	7.7	7.7	7.5	7.6	7.4	7.3	7.3
2	---	---	---	7.9	7.6	7.7	7.7	7.5	7.6	7.4	7.3	7.3
3	---	---	---	7.9	7.7	7.8	7.9	7.5	7.7	7.4	7.4	7.4
4	---	---	---	8.0	7.7	7.9	8.1	7.7	7.8	7.5	7.4	7.5
5	---	---	---	8.0	7.9	7.9	8.2	7.9	8.0	7.5	7.4	7.5
6	---	---	---	8.0	7.9	7.9	8.2	7.9	8.0	7.6	7.5	7.5
7	7.9	7.7	7.8	8.0	7.8	7.9	8.1	7.8	7.9	7.7	7.5	7.6
8	7.7	7.5	7.6	8.1	7.8	7.9	8.0	7.8	7.9	7.8	7.5	7.7
9	7.7	7.6	7.6	7.9	7.8	7.9	7.8	7.7	7.8	7.7	7.6	7.7
10	7.8	7.7	7.7	7.9	7.7	7.8	7.7	7.6	7.6	8.0	7.6	7.8
11	7.8	7.7	7.8	7.7	7.6	7.7	7.8	7.6	7.7	8.1	7.7	7.9
12	7.7	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.6	8.0	7.8	7.9
13	7.8	7.7	7.7	7.6	7.4	7.5	7.7	7.6	7.7	8.0	7.7	7.8
14	7.8	7.7	7.7	7.8	7.3	7.4	7.8	7.6	7.7	7.9	7.6	7.7
15	7.7	7.6	7.7	---	---	---	7.8	7.7	7.7	7.8	7.6	7.7
16	7.8	7.5	7.6	---	---	---	8.1	7.7	7.8	7.7	7.1	7.4
17	7.8	7.7	7.7	---	---	---	8.0	7.8	7.9	7.4	7.3	7.4
18	7.8	7.7	7.8	---	---	---	8.2	7.8	8.0	7.4	7.3	7.4
19	7.8	7.7	7.7	---	---	---	8.3	7.9	8.1	7.4	7.3	7.3
20	7.8	7.7	7.7	---	---	---	8.3	8.0	8.2	---	---	---
21	8.0	7.8	7.9	---	---	---	8.6	7.9	8.3	7.3	7.2	7.2
22	8.0	7.8	7.9	---	---	---	8.6	8.2	8.4	7.3	7.2	7.3
23	8.0	7.8	7.9	---	---	---	8.6	8.4	8.5	7.4	7.3	7.3
24	8.1	7.9	8.0	---	---	---	8.8	8.4	8.5	7.5	7.4	7.4
25	8.0	7.9	7.9	7.9	7.6	7.7	8.7	8.4	8.5	7.6	7.4	7.5
26	7.9	7.7	7.8	7.7	7.5	7.6	8.7	8.3	8.5	7.7	7.5	7.6
27	7.8	7.7	7.7	7.6	7.5	7.6	8.5	8.2	8.4	7.6	7.4	7.5
28	7.8	7.6	7.7	7.6	7.5	7.5	8.5	7.9	8.2	7.5	7.4	7.4
29	7.7	7.6	7.6	7.7	7.5	7.6	8.1	7.3	7.7	7.4	7.4	7.4
30	7.8	7.6	7.7	7.6	7.5	7.6	7.4	7.2	7.3	7.5	7.4	7.5
31	---	---	---	7.6	7.5	7.5	7.4	7.3	7.3	---	---	---
MONTH	8.1	7.5	7.7	8.1	7.3	7.7	8.8	7.2	7.9	8.1	7.1	7.5
YEAR	8.8	7.0	7.7									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.0	26.0	26.5	21.5	20.0	20.5	14.5	13.5	14.0	13.5	12.5	13.5
2	27.0	26.5	26.5	21.0	19.0	20.0	16.5	14.5	15.5	12.5	10.5	11.0
3	26.5	25.5	25.5	19.0	17.0	18.0	17.5	16.5	17.0	11.5	10.0	11.0
4	25.5	24.5	25.0	17.0	16.0	16.5	17.5	17.0	17.5	10.0	9.0	9.5
5	25.0	23.5	24.5	16.0	15.0	15.5	18.0	17.0	17.5	9.5	9.5	9.5
6	23.5	22.5	23.0	16.0	15.0	15.5	18.0	17.5	17.5	9.5	8.5	9.0
7	23.0	21.5	22.5	17.0	16.0	16.5	17.5	16.0	16.5	8.5	7.5	8.0
8	22.5	21.5	22.0	17.0	16.5	16.5	16.0	15.5	15.5	7.5	7.0	7.5
9	23.0	21.5	22.5	17.5	16.5	17.0	15.5	12.0	13.5	8.0	7.0	7.5
10	23.5	22.5	23.0	19.0	17.5	18.5	12.0	11.0	11.5	9.5	7.5	8.5
11	24.0	23.0	23.5	18.5	16.5	17.5	11.0	10.5	11.0	11.0	9.5	10.5
12	24.5	23.5	24.0	16.5	15.5	16.0	12.0	10.5	11.5	11.5	10.5	11.0
13	25.0	23.5	24.0	16.5	15.5	16.0	14.5	12.0	13.5	12.5	11.0	11.5
14	24.5	23.0	23.5	16.5	15.5	16.0	16.5	14.5	15.5	13.0	12.0	12.5
15	23.0	21.5	22.5	16.5	15.5	16.0	18.0	16.5	17.0	14.0	13.0	13.5
16	23.0	21.5	22.0	16.5	16.0	16.5	18.0	17.5	17.5	14.0	13.0	13.5
17	22.5	21.5	22.0	16.5	16.0	16.0	17.5	17.5	17.5	15.5	14.0	14.5
18	22.5	21.0	22.0	16.5	15.5	16.0	17.5	14.5	16.0	15.5	12.0	13.5
19	23.0	21.5	22.5	17.5	16.5	17.0	14.5	12.0	13.5	12.5	9.5	11.0
20	22.5	21.0	22.0	18.0	17.0	17.5	12.0	11.0	11.5	9.5	8.0	8.5
21	21.0	20.0	20.5	18.5	17.5	18.0	11.0	10.5	10.5	10.0	9.0	9.5
22	21.0	20.0	20.5	18.0	17.5	18.0	11.0	10.5	10.5	11.0	10.0	10.5
23	21.0	20.5	21.0	18.0	17.5	17.5	11.0	10.5	11.0	12.5	11.0	12.0
24	20.5	19.5	20.0	17.5	16.5	17.0	11.0	10.0	10.0	12.0	11.0	11.5
25	20.0	19.5	20.0	17.0	16.0	16.5	11.0	10.0	10.5	12.5	11.5	12.0
26	21.0	20.0	20.5	17.0	16.5	16.5	11.0	10.0	10.5	13.0	12.0	12.5
27	22.0	21.0	21.5	17.0	16.5	17.0	11.0	10.0	11.0	12.0	11.5	11.5
28	21.5	20.5	21.0	16.5	14.5	15.5	11.0	10.5	10.5	11.5	10.5	11.0
29	21.0	20.0	20.5	14.5	13.5	14.0	11.0	10.0	10.5	12.0	11.0	11.5
30	20.5	19.0	19.5	14.5	13.5	14.0	11.5	11.0	11.0	12.0	10.5	12.0
31	20.0	19.0	19.5	---	---	---	13.5	11.5	12.5	10.5	9.0	10.0
MONTH	27.0	19.0	22.5	21.5	13.5	17.0	18.0	10.0	13.5	15.5	7.0	11.0

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.0	8.5	8.5	13.5	12.5	13.0	17.0	15.5	16.5	22.0	20.5	21.0
2	8.5	7.0	7.5	13.5	12.5	13.0	18.0	16.5	17.0	22.0	21.0	21.5
3	7.0	6.0	6.5	14.5	13.0	13.5	18.0	17.0	17.5	22.5	21.0	21.5
4	7.0	6.5	6.5	15.5	14.0	14.5	18.5	17.5	18.0	23.5	22.0	22.5
5	7.5	6.5	7.0	18.0	15.5	16.5	17.5	15.5	16.0	24.5	23.0	23.5
6	9.0	7.0	8.0	19.0	17.0	18.0	15.5	12.5	13.5	24.5	24.0	24.0
7	12.0	9.0	10.5	17.0	14.0	15.0	14.0	12.5	13.0	24.5	23.5	24.0
8	14.5	12.0	13.5	14.0	12.5	13.0	15.5	14.0	14.5	25.0	24.5	24.5
9	15.5	14.5	15.0	13.0	12.0	12.5	17.5	15.5	16.5	25.5	24.5	25.0
10	17.0	15.5	16.0	12.5	11.0	12.0	19.5	17.5	18.5	26.0	25.0	25.5
11	16.5	15.5	16.0	13.0	11.5	12.0	20.5	19.5	20.0	25.5	24.0	25.0
12	15.5	14.5	15.0	14.0	12.0	13.0	20.5	20.0	20.5	24.0	23.5	24.0
13	15.0	14.0	14.5	16.0	14.0	15.0	21.0	20.0	20.5	24.0	23.0	23.5
14	15.5	14.0	14.5	18.0	16.0	17.0	21.5	20.5	21.0	24.5	23.0	24.0
15	15.5	14.5	15.0	19.0	17.5	18.0	21.0	19.5	19.5	25.5	24.0	24.5
16	14.5	13.5	14.0	19.5	18.0	19.0	20.0	19.0	19.5	26.5	25.0	25.5
17	14.0	12.5	13.0	20.0	18.5	19.5	20.5	19.5	20.0	27.0	25.5	26.0
18	14.5	13.0	13.5	19.5	17.5	18.5	22.0	20.0	21.0	27.5	26.0	26.5
19	15.5	14.0	15.0	17.5	16.5	17.0	23.5	21.5	22.5	27.5	26.0	26.5
20	16.0	15.0	15.5	17.0	14.5	15.5	23.5	22.5	23.0	27.5	26.0	26.5
21	17.0	15.5	16.5	15.0	14.0	14.5	24.0	22.5	23.5	28.0	26.5	27.5
22	18.0	17.0	17.5	16.0	14.5	15.5	24.0	21.5	23.0	29.0	27.5	28.0
23	18.5	17.5	18.0	17.0	15.5	16.5	22.0	21.0	21.5	29.0	27.5	28.0
24	18.0	17.5	18.0	17.5	16.5	17.0	22.0	20.5	21.0	28.5	27.0	28.0
25	18.5	17.5	18.0	17.5	16.0	16.5	21.5	20.5	21.0	28.5	27.5	28.0
26	19.0	18.5	18.5	16.5	15.5	16.0	22.5	21.5	22.0	28.5	27.5	27.5
27	19.5	18.5	19.0	15.5	13.5	14.5	23.0	22.0	22.5	28.5	27.0	27.5
28	18.5	16.5	17.0	14.5	13.5	13.5	23.5	22.5	22.5	28.5	27.5	28.0
29	16.5	13.5	15.0	13.5	11.5	12.5	22.5	21.0	22.0	29.5	28.0	28.5
30	---	---	---	15.0	13.0	14.0	21.5	20.5	21.0	29.5	28.0	28.5
31	---	---	---	16.0	15.0	15.5	---	---	---	---	---	---
MONTH	19.5	6.0	14.0	20.0	11.0	15.0	24.0	12.5	19.5	29.5	20.5	25.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	31.5	30.0	31.0	30.0	28.5	29.0	26.5	25.5	26.0
2	---	---	---	32.0	30.5	31.0	30.5	29.5	30.0	26.0	25.0	25.5
3	---	---	---	32.0	30.5	31.5	31.0	30.0	30.5	26.0	25.5	26.0
4	---	---	---	32.0	30.5	31.5	31.0	30.0	30.5	27.0	26.0	26.0
5	---	---	---	31.5	30.0	31.0	31.0	29.5	30.5	28.0	27.0	27.5
6	---	---	---	31.5	30.5	31.0	31.0	30.0	30.5	28.0	27.5	28.0
7	28.5	28.0	28.5	32.0	30.5	31.5	31.0	29.5	30.5	29.0	28.0	28.5
8	28.0	26.5	27.0	32.5	31.0	31.5	31.0	30.0	30.0	29.5	28.5	29.0
9	27.0	25.5	26.5	32.5	31.0	32.0	30.5	29.0	29.5	29.5	28.5	29.0
10	27.0	26.0	26.5	31.5	30.5	31.0	29.0	28.5	29.0	28.5	28.0	28.5
11	27.0	26.0	26.5	31.0	29.5	30.0	28.5	27.0	28.0	28.5	28.0	28.0
12	27.5	26.5	27.0	29.5	28.5	29.0	29.0	28.0	28.5	28.5	27.5	28.0
13	29.0	27.5	28.0	28.5	27.5	28.0	29.0	28.5	29.0	28.0	27.0	27.5
14	29.0	28.0	28.5	28.0	27.0	27.5	29.5	28.5	29.0	27.5	26.5	27.0
15	29.0	28.5	29.0	28.0	27.5	28.0	30.0	29.0	29.5	27.5	26.5	27.0
16	29.0	28.0	28.5	29.0	27.5	28.0	30.0	29.0	29.5	27.0	25.0	26.0
17	29.5	29.0	29.5	30.0	28.5	29.0	29.5	28.5	29.0	26.5	25.5	26.0
18	30.5	29.0	29.5	30.5	29.0	29.5	28.5	27.5	28.0	26.5	25.5	26.0
19	30.5	29.5	30.0	30.5	30.0	30.0	29.0	27.0	28.0	25.5	24.5	25.0
20	31.0	30.5	31.0	31.0	30.0	30.5	29.5	28.5	29.0	25.5	24.5	25.0
21	31.5	30.5	31.0	31.5	30.5	31.0	30.5	29.0	29.5	25.5	25.0	25.5
22	31.5	30.0	31.0	32.0	30.5	31.0	30.0	29.0	29.5	25.5	25.0	25.5
23	31.0	30.0	30.5	32.0	30.5	31.0	29.0	28.5	29.0	26.5	25.5	26.0
24	31.0	29.5	30.0	30.5	27.5	29.5	29.5	28.5	29.0	27.5	26.0	27.0
25	30.5	29.5	30.0	30.5	30.0	30.5	29.5	28.5	29.0	27.0	26.5	27.0
26	30.0	29.0	29.5	30.5	29.5	30.0	29.0	28.5	29.0	27.0	25.5	26.5
27	30.5	29.5	30.0	30.5	29.5	30.0	29.0	28.0	28.5	25.5	23.0	24.5
28	30.5	29.5	30.0	30.5	29.5	30.0	28.5	28.0	28.0	23.0	22.0	22.5
29	31.0	29.5	30.0	31.0	30.0	30.5	28.0	26.0	26.5	23.0	22.0	22.5
30	31.5	30.0	30.5	30.5	30.0	30.0	26.5	25.0	25.5	23.0	22.0	22.5
31	---	---	---	30.0	29.0	29.5	26.5	26.0	26.0	---	---	---
MONTH	31.5	25.5	29.0	32.5	27.0	30.0	31.0	25.0	29.0	29.5	22.0	26.5
YEAR	32.5	6.0	21.0									

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.4	6.6	7.0	5.8	4.9	5.7	9.6	9.1	9.3	9.9	9.6	9.7
2	7.2	6.6	6.9	4.9	3.8	4.3	9.2	8.6	8.9	10.7	9.7	10.3
3	7.2	6.5	6.8	5.8	4.8	5.3	8.7	8.3	8.5	10.2	9.6	9.8
4	7.0	6.5	6.7	6.5	5.8	6.2	8.6	8.2	8.4	10.7	10.0	10.4
5	6.8	6.4	6.6	6.9	6.4	6.7	8.5	8.0	8.2	10.6	10.4	10.5
6	7.2	6.5	6.8	7.1	6.8	6.9	8.6	8.0	8.2	10.7	10.5	10.6
7	7.3	6.6	6.9	6.9	6.7	6.7	8.9	8.3	8.5	11.1	10.5	10.8
8	7.4	6.8	7.1	7.0	6.7	6.8	8.7	8.3	8.5	11.8	10.7	11.4
9	7.6	6.9	7.2	7.1	6.7	6.9	9.0	8.3	8.7	11.8	11.4	11.6
10	7.6	6.8	7.1	7.0	6.5	6.7	9.0	7.8	8.8	11.5	11.2	11.4
11	7.6	6.6	7.0	7.2	6.6	6.9	9.5	7.8	9.0	11.2	10.6	10.9
12	7.2	6.5	6.8	7.6	6.9	7.3	9.7	9.3	9.5	10.9	10.3	10.6
13	6.9	6.3	6.6	8.0	7.1	7.5	9.4	9.0	9.2	10.8	10.1	10.4
14	6.9	6.3	6.5	8.4	7.3	7.8	9.1	8.6	8.9	10.7	10.0	10.3
15	6.9	6.2	6.5	8.4	7.4	7.8	8.7	8.2	8.5	10.3	9.6	9.9
16	7.0	6.2	6.5	8.4	7.4	7.8	8.2	7.9	8.1	10.2	9.6	9.8
17	7.1	6.4	6.7	8.0	7.4	7.6	7.9	7.6	7.8	11.4	9.2	9.5
18	6.9	6.4	6.6	8.0	7.3	7.6	7.7	6.7	7.2	9.6	8.9	9.3
19	6.9	6.2	6.5	7.9	7.3	7.5	8.2	7.3	7.8	9.7	7.9	8.9
20	6.7	6.1	6.4	7.6	7.0	7.3	9.1	8.2	8.8	10.1	9.7	10.0
21	6.8	6.3	6.5	7.6	7.0	7.2	9.7	9.1	9.5	10.2	10.0	10.1
22	6.8	6.3	6.5	7.9	7.1	7.4	9.8	9.6	9.7	10.2	9.8	10.0
23	6.6	6.2	6.4	8.3	7.5	7.9	9.8	9.6	9.7	9.8	9.6	9.7
24	6.9	6.3	6.6	---	---	---	10.6	9.7	10.3	9.9	8.7	9.6
25	6.9	6.5	6.6	---	---	---	10.4	10.1	10.2	10.2	9.2	9.7
26	6.8	6.4	6.6	---	---	---	10.3	10.1	10.2	10.5	9.4	9.9
27	6.6	6.3	6.4	---	---	---	10.5	10.0	10.3	10.5	9.4	10.0
28	6.6	6.3	6.4	---	---	---	10.7	10.2	10.5	10.5	9.9	10.1
29	6.4	6.0	6.2	---	---	---	10.9	10.4	10.6	10.8	9.7	10.2
30	6.0	5.8	6.0	9.6	9.0	9.2	10.6	10.3	10.5	10.7	10.1	10.3
31	6.1	5.8	6.0	---	---	---	10.5	9.9	10.2	10.3	9.6	10.0
MONTH	7.6	5.8	6.6	9.6	3.8	7.0	10.9	6.7	9.1	11.8	7.9	10.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.0	9.6	9.7	---	---	---	8.6	7.7	8.1	9.4	7.6	8.5
2	10.6	9.5	10.0	---	---	---	8.7	7.9	8.3	9.1	8.1	8.6
3	11.1	9.8	10.3	---	---	---	9.1	7.8	8.6	9.3	7.9	8.5
4	11.0	9.9	10.4	---	---	---	9.2	7.6	8.7	9.8	8.0	8.7
5	11.2	10.0	10.5	---	---	---	9.0	8.5	8.9	9.6	8.1	8.8
6	11.6	10.4	10.9	---	---	---	8.5	7.4	7.8	8.9	7.8	8.2
7	11.9	10.7	11.2	---	---	---	8.8	7.9	8.3	8.7	7.7	8.1
8	11.9	10.4	11.2	---	---	---	---	---	---	9.6	7.9	8.6
9	11.7	10.0	10.9	12.0	10.3	11.1	---	---	---	9.8	8.2	8.9
10	11.1	9.5	10.4	12.5	10.9	11.7	---	---	---	9.5	7.6	8.5
11	11.5	9.4	10.5	12.5	11.4	11.9	8.9	8.1	8.4	8.9	7.7	8.3
12	11.9	9.7	10.8	12.4	11.3	11.8	8.3	7.6	8.0	8.5	5.7	7.0
13	11.7	9.7	10.8	12.0	10.6	11.2	8.4	7.7	8.1	7.0	5.9	6.6
14	12.4	9.8	11.2	11.6	10.3	10.8	7.9	6.4	7.1	7.8	7.0	7.3
15	12.1	10.5	11.3	11.4	9.7	10.5	7.6	7.0	7.3	8.3	7.2	7.7
16	12.4	10.5	11.4	10.7	9.4	10.0	8.4	7.4	7.9	9.5	7.5	8.4
17	13.2	10.9	11.9	10.2	9.0	9.6	9.3	8.1	8.7	9.8	8.0	8.9
18	13.6	11.4	12.4	10.4	9.3	9.8	10.1	8.5	9.3	10.6	8.1	9.2
19	13.3	11.3	12.3	10.1	8.9	9.5	10.4	8.6	9.5	11.3	8.7	9.9
20	13.3	11.3	12.2	9.5	8.0	8.8	10.7	7.9	9.3	11.0	8.8	9.8
21	12.9	10.9	11.8	10.7	9.4	10.1	11.7	8.2	9.8	11.0	8.6	9.6
22	12.4	10.6	11.5	11.3	10.0	10.6	10.0	6.9	7.9	9.8	7.3	8.6
23	12.5	10.5	11.5	11.2	10.1	10.6	7.1	5.5	6.4	9.7	7.4	8.6
24	12.7	10.5	11.6	10.5	9.5	9.9	6.2	4.5	5.5	9.7	7.3	8.5
25	11.9	10.6	11.2	11.1	9.4	10.0	7.1	6.0	6.7	9.0	7.0	7.9
26	11.5	10.0	10.6	9.4	7.9	8.5	8.0	6.7	7.3	7.7	6.1	6.9
27	11.2	9.9	10.5	9.5	8.2	9.0	8.3	7.0	7.6	---	---	---
28	11.6	10.8	11.2	9.9	8.4	9.3	8.5	7.0	7.7	---	---	---
29	---	---	---	9.6	8.7	9.2	8.9	7.1	7.9	---	---	---
30	---	---	---	9.0	8.1	8.5	9.2	7.6	8.4	---	---	---
31	---	---	---	8.6	7.9	8.2	---	---	---	---	---	---
MONTH	13.6	9.4	11.1	12.5	7.9	10.0	11.7	4.5	8.1	11.3	5.7	8.4

08062500 TRINITY RIVER NEAR ROSSER, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.0	6.5	6.8	5.6	5.1	5.3	5.2	3.6	4.6
2	---	---	---	6.9	6.1	6.5	5.2	4.8	5.0	4.2	3.5	3.7
3	---	---	---	7.7	6.3	6.9	5.7	4.4	4.9	5.1	4.2	4.7
4	---	---	---	7.9	6.7	7.2	5.6	5.1	5.3	5.3	4.8	5.1
5	---	---	---	7.6	6.8	7.2	6.2	5.0	5.5	5.6	5.3	5.5
6	---	---	---	7.5	6.5	6.9	6.3	5.3	5.7	5.9	5.4	5.6
7	5.9	5.3	5.5	7.2	6.2	6.7	5.7	5.1	5.4	6.4	5.6	6.0
8	5.3	3.6	4.4	7.8	6.2	7.0	5.7	4.9	5.1	6.9	5.8	6.3
9	5.4	4.4	4.9	7.5	6.6	7.0	5.0	4.3	4.8	7.7	5.8	6.8
10	5.4	5.0	5.2	6.9	6.2	6.6	4.7	3.7	4.2	8.2	6.7	7.4
11	5.6	5.2	5.4	6.2	4.9	5.5	4.4	3.5	3.9	8.4	6.8	7.6
12	5.4	4.6	5.1	5.7	5.2	5.4	---	---	---	8.5	7.0	7.8
13	5.4	4.9	5.1	5.7	3.4	4.7	---	---	---	8.5	7.3	7.8
14	5.4	4.8	5.1	4.1	3.3	3.7	---	---	---	9.0	7.5	8.1
15	4.9	3.8	4.5	4.4	3.8	4.1	---	---	---	9.0	7.9	8.3
16	4.6	3.5	4.1	4.8	4.2	4.5	---	---	---	8.4	2.2	5.6
17	4.9	4.6	4.7	5.0	4.7	4.9	6.4	6.0	6.1	6.0	5.3	5.7
18	5.3	4.9	5.1	4.8	4.6	4.7	6.0	5.1	5.5	6.9	6.0	6.5
19	5.0	4.3	4.7	5.0	4.7	4.8	5.6	5.1	5.4	6.9	6.3	6.6
20	5.2	4.7	5.0	5.0	4.7	4.8	6.3	5.6	5.9	---	---	---
21	6.1	5.1	5.6	5.3	4.7	4.9	6.8	5.9	6.4	6.8	6.5	6.6
22	6.5	5.6	6.0	5.8	4.8	5.2	7.1	6.0	6.5	6.8	6.6	6.7
23	7.1	5.7	6.3	6.1	5.1	5.5	6.5	5.7	6.2	7.0	6.5	6.8
24	6.9	6.0	6.5	7.1	5.5	6.1	6.2	5.3	5.7	6.9	6.5	6.7
25	6.9	6.3	6.6	7.0	6.2	6.4	6.6	5.6	6.1	7.2	6.5	6.8
26	6.8	6.1	6.5	6.4	6.1	6.2	6.5	5.8	6.1	7.1	6.4	6.7
27	6.9	6.2	6.6	6.4	6.1	6.3	5.8	5.3	5.4	6.6	6.3	6.5
28	7.1	6.3	6.7	6.1	5.8	6.0	5.8	5.4	5.5	7.1	6.4	6.7
29	7.2	6.4	6.7	5.8	5.4	5.7	5.4	3.3	4.6	7.0	6.5	6.8
30	7.4	6.5	6.9	5.4	4.8	5.2	4.8	4.3	4.6	7.1	6.5	6.8
31	---	---	---	5.6	4.8	5.4	5.0	4.8	4.9	---	---	---
MONTH	7.4	3.5	5.5	7.9	3.3	5.8	7.1	3.3	5.4	9.0	2.2	6.4
YEAR	13.6	2.2	7.8									

08062700 TRINITY RIVER AT TRINIDAD, TX

LOCATION.--Lat 32°08'05", long 96°06'20", Henderson County, Hydrologic Unit 12030105, on left bank at pumping station of Texas Power and Light Co., near southwest boundary of Trinidad, 0.5 mi downstream from St. Louis Southwestern Railway Lines bridge, 0.9 mi downstream from bridge on State Highway 31, 8 mi upstream from Cedar Creek, and at mile 391.2.

DRAINAGE AREA.--8,538 mi², not including 1,007 mi² upstream from Cedar Creek Reservoir.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Records of gage height collected in this vicinity for period October 1913 to September 1915 are contained in reports of U.S. Army Corps of Engineers, and records collected since October 1915 are contained in reports of the National Weather Service.

REVISED RECORDS.-- WDR TX-89-1: 1988. WDR TX-90-1: 1989.

GAGE.--Water-stage recorder. Datum of gage is 239.21 ft above sea level. Prior to May 3, 1967, at site 0.9 mi upstream at datum 1.28 ft higher.

REMARKS.--Records fair. There are many diversions above station for municipal supply for the cities of Fort Worth, Dallas, and several smaller towns. Low flows are maintained by wastewater effluent from the Dallas-Fort Worth metroplex. There are 62 floodwater-retarding structures with a combined detention capacity of 38,690 acre-ft in the drainage basin above this station. These structures control runoff from 126 mi² above this station. For regulation by upstream reservoirs, see Trinity River near Rosser (station 08062500). Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1908, 49.8 ft Apr. 25, 1942 and 48.3 ft date unknown, 1908 (present site and datum), from records of the National Weather Service.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	743	724	1190	848	1310	1160	836	696	701	909	3110
2	829	1640	735	1030	805	967	981	834	770	661	1190	4810
3	852	2770	729	1260	788	873	888	821	2150	654	1040	5600
4	902	1650	732	1870	816	821	846	806	1990	666	814	2780
5	962	1080	738	1390	858	803	887	813	1140	669	732	1860
6	969	891	740	1040	850	804	1790	815	1190	660	705	1360
7	871	848	738	976	865	800	5280	799	1190	634	689	1090
8	819	836	748	979	913	758	5250	791	1260	634	702	983
9	785	826	768	882	948	737	2410	783	1700	639	733	905
10	778	842	1100	855	918	737	1340	772	1110	663	949	913
11	781	806	1050	850	925	712	1130	770	902	1010	1520	1050
12	776	781	874	840	880	692	1030	932	1420	1370	1410	917
13	771	769	804	835	854	696	989	1860	1230	1120	1060	850
14	772	758	779	806	853	697	1270	1320	965	3390	1080	829
15	777	770	782	788	783	703	1960	976	1150	4070	919	842
16	761	771	765	785	753	708	1270	879	1700	e3210	761	1240
17	747	761	762	786	740	712	1000	815	1950	e1870	716	3340
18	735	745	1120	850	746	721	940	780	1240	e1720	931	2450
19	743	753	3290	1490	738	744	907	740	1350	1680	1510	1390
20	724	757	4100	2970	737	1460	882	724	1580	1060	1260	1960
21	707	755	2600	1720	743	1340	895	717	1050	888	935	1970
22	705	764	1400	1100	754	954	907	737	835	791	806	1440
23	709	747	1290	961	742	816	966	726	782	741	743	1090
24	696	749	1030	895	742	765	2060	703	730	741	763	935
25	707	734	866	880	714	743	1820	689	711	1160	835	889
26	705	718	822	852	719	1130	1210	699	720	1130	784	866
27	691	706	784	857	739	1660	1040	683	764	844	980	855
28	695	704	784	817	757	1150	937	668	864	753	1230	959
29	692	716	803	858	1350	2770	891	678	777	1160	2680	890
30	674	727	806	850	---	3740	855	764	721	1430	5080	818
31	675	---	806	849	---	1860	---	782	---	1000	4910	---
TOTAL	23866	27117	34069	33111	23878	33383	43791	25712	34637	37719	39376	48991
MEAN	770	904	1099	1068	823	1077	1460	829	1155	1217	1270	1633
MAX	969	2770	4100	2970	1350	3740	5280	1860	2150	4070	5080	5600
MIN	674	704	724	785	714	692	846	668	696	634	689	818
AC-FT	47340	53790	67580	65680	47360	66220	86860	51000	68700	74820	78100	97170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996#, BY WATER YEAR (WY)

MEAN	2679	3888	4441	3373	4782	5742	5483	9590	6634	2607	1400	1232
MAX	11390	20160	24320	20490	20550	20920	16570	47120	26790	11800	6886	3347
(WY)	1974	1975	1992	1992	1992	1992	1990	1990	1989	1982	1982	1974
MIN	417	403	460	415	424	542	798	693	526	394	394	448
(WY)	1976	1967	1967	1967	1967	1967	1978	1971	1972	1972	1967	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996#	
ANNUAL TOTAL	2395509		405650			
ANNUAL MEAN	6563		1108		4317	
HIGHEST ANNUAL MEAN					11400	1992
LOWEST ANNUAL MEAN					854	1978
HIGHEST DAILY MEAN	61300	May 11	5600	Sep 3	94100	May 7 1990
LOWEST DAILY MEAN	674	Oct 30	634	Jul 7	312	Aug 9 1972
ANNUAL SEVEN-DAY MINIMUM	691	Oct 25	651	Jul 3	326	Jul 7 1972
INSTANTANEOUS PEAK FLOW			6090	Sep 3	94500	May 7 1990
INSTANTANEOUS PEAK STAGE			14.41	Sep 3	48.11	May 7 1990
ANNUAL RUNOFF (AC-FT)	4751000		804600		3128000	
10 PERCENT EXCEEDS	15800		1740		11700	
50 PERCENT EXCEEDS	3570		849		1230	
90 PERCENT EXCEEDS	758		708		499	

e Estimated
Period of regulated streamflow.

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: May 1966 to June 1994.
Pesticide analyses: November 1977 to June 1982. Sediment analyses: November 1977 to June 1994.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1967 to September 1981, May 1986 to current year.
PH: September 1967 to October 1969, May 1986 to current year.
WATER TEMPERATURE: September 1967 to September 1981, May 1986 to current year.
DISSOLVED OXYGEN: September 1967 to October 1969, May 1986 to current year.

INSTRUMENTATION.--From April 1967 to October 1969, a four-parameter water-quality monitor continuously recorded specific conductance, pH, water temperature, and dissolved oxygen. Since May 1986, a four-parameter water-quality monitor continuously records specific conductance, pH, water temperature, and dissolved oxygen at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,000 micromsiemens Dec. 28, 1977; minimum daily, 170 micromsiemens May 4, 1990.
pH : Maximum, 8.9 units Mar. 17, Apr. 20 and 21, 1996; minimum, 5.7 units Aug. 13, 1988.
WATER TEMPERATURE: Maximum daily, 34.0°C July 17, 1979, July 9, 13, 1980; minimum daily, 2.5°C Dec. 24, 1989.
DISSOLVED OXYGEN: Maximum, 16.8 mg/L Mar. 11, 1986; minimum, 0.0 mg/L May 3, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 817 microsiemens June 1; minimum, 331 microsiemens Sept. 3 and 4.
pH: Maximum, 8.9 units Mar. 17, Apr. 20 and 21; minimum, 7.0 units Apr. 8.
WATER TEMPERATURE: Maximum, 33.0°C July 8; minimum, 4.5°C Feb. 4 and 5.
DISSOLVED OXYGEN: Maximum, 16.8 mg/L Mar. 11: minimum, 2.0 mg/L June 10 and 11.

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	23866	716	402	25900	70	4520	88	5670	170
NOV.	1995	27117	679	382	27900	65	4720	82	6030	170
DEC.	1995	34069	654	368	33800	61	5580	79	7220	170
JAN.	1996	33111	663	372	33300	61	5470	79	7090	170
FEB.	1996	23878	703	395	25400	68	4370	86	5530	170
MAR.	1996	33383	665	374	33700	62	5580	80	7200	170
APR.	1996	43791	566	319	37700	47	5510	65	7650	160
MAY	1996	25712	722	405	28100	71	4960	89	6180	170
JUNE	1996	34637	603	339	31700	52	4880	70	6570	160
JULY	1996	37719	625	351	35800	56	5660	74	7500	160
AUG.	1996	39376	567	319	33900	47	5000	65	6910	160
SEPT	1996	48991	496	279	36900	38	5010	55	7280	150
TOTAL		405650	**	**	384000	**	61300	**	80800	**
WTD.AVG.		1108	624	351	**	56	**	74	**	160

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	658	649	654	758	742	749	761	748	754	702	684	693
2	662	657	659	746	734	740	761	744	754	700	689	694
3	674	661	667	754	572	700	758	747	750	710	700	705
4	683	671	674	572	439	486	753	737	743	714	621	662
5	707	683	694	505	484	495	745	702	735	654	595	635
6	717	707	711	565	486	513	747	744	746	595	568	576
7	722	686	710	601	565	589	751	745	747	568	548	555
8	709	684	694	601	581	589	759	735	749	589	552	571
9	718	689	710	617	583	600	785	759	769	635	589	613
10	700	685	692	646	617	631	790	769	780	660	635	647
11	719	699	708	686	645	666	792	770	781	679	659	669
12	717	698	705	697	686	690	791	762	769	674	658	666
13	723	710	715	711	697	704	764	697	730	712	674	695
14	728	723	725	713	694	705	741	694	722	717	710	714
15	735	728	733	706	694	702	729	679	698	722	711	714
16	731	727	729	721	706	713	718	679	695	726	721	723
17	731	726	729	728	721	726	724	714	720	723	702	718
18	738	729	735	740	723	729	724	708	715	737	702	722
19	735	725	730	740	733	737	732	625	715	751	737	743
20	726	718	723	741	727	731	625	525	550	753	615	727
21	735	725	729	743	732	738	527	479	503	627	556	599
22	739	730	734	739	731	735	479	470	474	611	591	598
23	738	727	732	742	731	737	504	474	489	620	611	617
24	746	738	743	750	742	745	535	504	516	631	619	626
25	750	739	744	756	743	748	577	535	557	630	578	600
26	742	732	737	756	748	751	629	577	596	628	589	612
27	750	737	741	750	734	741	647	618	633	657	621	641
28	761	747	754	757	722	747	672	619	641	675	657	670
29	757	742	749	763	750	758	700	672	683	689	673	681
30	755	742	749	762	742	753	701	691	697	687	675	681
31	755	744	748	---	---	---	701	687	694	696	685	690
MONTH	761	649	718	763	439	688	792	470	681	753	548	660

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	710	696	706	756	743	751	492	471	480	---	---	e640
2	706	683	697	764	741	753	496	472	480	---	---	e660
3	702	676	685	761	607	669	542	496	520	716	683	698
4	707	678	694	614	569	585	596	542	567	785	711	739
5	678	669	673	634	606	625	620	584	602	806	699	718
6	693	676	683	672	631	655	663	619	642	---	---	e720
7	702	689	696	700	668	685	696	465	589	---	---	e730
8	693	687	689	703	697	700	474	444	456	744	725	736
9	693	675	684	709	703	706	---	---	e440	747	733	737
10	677	668	671	711	690	702	449	432	438	762	747	756
11	671	664	667	698	689	694	487	449	464	763	755	759
12	682	650	666	713	693	706	537	487	511	763	744	755
13	664	650	658	717	701	710	594	537	569	756	743	750
14	664	654	660	712	699	702	648	594	617	757	737	750
15	718	659	689	725	709	716	684	648	670	737	574	666
16	718	704	711	741	725	731	676	662	669	574	559	567
17	720	703	712	745	731	738	719	656	685	594	562	576
18	705	695	700	742	730	733	672	562	619	639	594	617
19	711	696	701	759	729	738	598	547	551	703	639	674
20	---	---	e720	759	741	747	572	551	555	729	703	718
21	742	730	736	759	733	746	624	572	607	741	729	736
22	738	728	731	744	682	716	656	624	643	740	728	734
23	757	731	742	682	611	654	665	650	657	756	732	748
24	761	753	757	611	589	600	684	657	678	765	754	760
25	754	734	742	634	601	622	683	579	647	778	761	766
26	739	718	730	706	629	656	585	550	568	780	767	775
27	742	721	737	727	706	722	586	540	561	767	759	763
28	742	725	730	754	726	739	573	558	570	780	742	768
29	754	728	738	733	566	611	592	571	579	789	780	785
30	---	---	---	640	472	543	603	592	601	799	789	795
31	---	---	---	512	492	504	---	---	---	813	799	804
MONTH	761	650	704	764	472	683	719	432	574	813	559	723

e Estimated

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	817	799	811	708	681	690	741	534	697	410	368	395
2	816	791	804	732	699	724	534	455	480	437	376	409
3	792	711	757	699	650	670	565	490	521	382	331	352
4	799	563	698	726	699	716	597	549	577	361	331	345
5	655	575	618	731	690	709	563	546	556	398	361	380
6	646	608	617	725	691	705	557	547	550	456	371	411
7	610	589	597	735	725	728	591	553	573	502	373	437
8	624	586	595	---	---	e730	649	591	619	542	502	531
9	657	587	639	746	735	738	690	649	674	562	529	543
10	587	505	565	750	724	739	708	680	699	628	562	594
11	505	463	475	739	726	732	696	663	686	660	628	643
12	538	458	498	749	731	744	683	603	651	682	660	670
13	619	538	576	752	691	726	640	444	545	706	682	695
14	622	548	594	723	653	689	635	460	568	717	705	709
15	548	527	537	656	531	586	693	508	609	721	693	713
16	631	526	567	544	498	520	694	648	671	693	628	655
17	647	519	581	---	---	e500	648	588	614	694	482	648
18	578	479	543	---	---	e490	588	544	561	580	454	516
19	523	472	500	516	484	502	686	587	645	505	455	488
20	568	515	536	534	508	523	684	655	675	491	436	452
21	605	548	582	578	527	558	668	574	610	522	417	471
22	548	484	508	558	523	531	574	542	556	519	475	492
23	534	484	503	546	526	534	544	498	517	550	500	514
24	588	505	519	573	546	560	586	544	563	525	503	516
25	596	533	568	633	573	604	654	586	629	567	524	544
26	639	596	619	653	549	624	655	641	647	591	566	573
27	665	639	647	723	653	706	686	654	672	649	591	621
28	687	665	678	753	723	735	683	651	669	673	649	665
29	692	662	679	760	553	677	687	520	591	682	667	678
30	681	668	677	688	661	670	572	408	505	701	678	691
31	---	---	---	735	664	694	428	335	370	---	---	---
MONTH	817	458	603	760	484	647	741	335	597	721	331	545
YEAR	817	331	652									

e Estimated

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	8.0	8.1	7.8	7.8	7.8	8.2	8.0	8.1	7.8	7.7	7.8
2	8.1	8.0	8.1	7.9	7.8	7.8	8.1	8.0	8.0	7.7	7.5	7.6
3	8.1	8.0	8.0	7.8	7.6	7.7	8.0	7.8	7.9	7.5	7.5	7.5
4	8.1	8.0	8.1	7.8	7.6	7.7	8.0	7.8	7.9	8.0	7.5	7.8
5	8.1	8.0	8.0	7.7	7.7	7.7	8.1	7.9	7.9	7.9	7.9	7.9
6	8.1	7.9	8.0	7.7	7.6	7.7	8.0	7.8	7.9	7.9	7.9	7.9
7	7.9	7.8	7.9	7.7	7.6	7.6	8.1	8.0	8.0	8.0	7.9	8.0
8	7.9	7.8	7.8	7.8	7.7	7.7	8.1	8.0	8.0	8.1	8.0	8.0
9	7.9	7.7	7.8	8.1	7.8	7.9	8.1	8.0	8.0	8.1	8.0	8.0
10	8.0	7.8	7.8	8.1	8.0	8.0	8.1	8.1	8.1	8.1	7.9	8.0
11	7.9	7.8	7.8	8.2	8.0	8.1	8.1	8.1	8.1	8.2	8.0	8.1
12	8.2	7.7	8.0	8.2	8.1	8.1	8.1	8.0	8.0	8.3	8.1	8.2
13	8.2	8.0	8.1	8.3	8.1	8.2	8.1	7.9	8.0	8.4	8.2	8.3
14	8.3	8.0	8.2	8.4	8.2	8.3	8.0	7.8	7.9	8.5	8.2	8.4
15	8.3	8.1	8.2	8.5	8.3	8.4	8.0	7.9	7.9	8.4	8.3	8.4
16	8.2	8.0	8.1	8.5	8.4	8.4	7.9	7.8	7.9	8.5	8.2	8.3
17	8.2	8.0	8.1	8.5	8.4	8.5	7.8	7.8	7.8	8.4	8.2	8.3
18	8.2	8.0	8.1	8.5	8.2	8.4	7.8	7.8	7.8	8.4	8.2	8.3
19	8.1	7.9	8.0	8.4	8.2	8.3	7.8	7.6	7.7	8.4	8.1	8.2
20	8.1	7.8	8.0	8.3	8.1	8.2	7.6	7.5	7.6	8.1	7.8	7.9
21	8.2	7.9	8.1	8.3	8.2	8.3	7.6	7.5	7.5	7.9	7.7	7.8
22	8.2	8.0	8.1	8.3	8.2	8.3	7.6	7.6	7.6	8.0	7.9	7.9
23	8.1	8.0	8.1	8.3	8.1	8.2	7.7	7.6	7.7	8.0	7.9	8.0
24	8.2	8.0	8.1	8.3	8.1	8.2	7.7	7.6	7.7	8.0	7.9	7.9
25	8.1	7.9	8.0	8.3	8.1	8.2	7.6	7.6	7.6	8.0	7.8	7.9
26	8.0	7.9	7.9	8.2	8.1	8.1	7.7	7.6	7.6	8.0	7.8	7.9
27	8.0	7.8	7.9	8.2	8.0	8.1	7.8	7.6	7.7	8.1	7.9	8.0
28	8.0	7.8	7.9	8.2	8.1	8.1	7.8	7.7	7.8	8.0	7.8	7.9
29	8.0	7.9	7.9	8.2	8.0	8.1	7.8	7.6	7.7	8.2	7.9	8.1
30	7.9	7.9	7.9	8.3	8.1	8.1	7.7	7.6	7.6	8.1	8.0	8.0
31	7.9	7.8	7.8	---	---	---	7.8	7.6	7.7	8.1	8.0	8.0
MONTH	8.3	7.7	8.0	8.5	7.6	8.1	8.2	7.5	7.8	8.5	7.5	8.0

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.1	8.0	8.0	7.8	7.7	7.7	7.8	7.7	7.7	8.7	8.3	8.5
2	8.0	7.8	7.9	7.8	7.7	7.7	7.9	7.8	7.8	8.8	8.5	8.7
3	8.1	7.9	8.0	7.9	7.7	7.8	8.1	7.9	7.9	8.7	8.5	8.6
4	8.2	8.0	8.1	8.1	7.9	8.0	8.3	8.1	8.2	8.5	8.3	8.4
5	8.2	8.0	8.1	8.3	7.9	8.1	8.3	8.1	8.2	8.5	8.3	8.4
6	8.1	7.9	8.0	8.3	8.0	8.1	8.1	7.9	8.0	8.3	8.1	8.1
7	8.1	7.8	7.9	8.7	8.1	8.4	7.9	7.6	7.8	8.1	8.0	8.0
8	8.2	7.8	8.0	---	---	---	7.6	7.0	7.3	8.4	8.0	8.2
9	8.4	7.9	8.2	---	---	---	7.6	7.6	7.6	8.4	8.1	8.3
10	8.5	8.1	8.3	---	---	---	7.7	7.6	7.7	8.3	8.2	8.3
11	8.6	8.2	8.4	---	---	---	7.9	7.7	7.8	8.2	8.0	8.1
12	8.6	8.2	8.4	---	---	---	8.0	7.9	7.9	8.3	8.1	8.2
13	8.5	8.0	8.3	---	---	---	8.2	8.0	8.1	8.2	7.5	7.8
14	8.5	8.2	8.4	---	---	---	8.3	8.1	8.2	7.5	7.4	7.5
15	8.5	8.2	8.4	---	---	---	8.2	7.9	8.0	7.6	7.5	7.5
16	8.5	8.4	8.4	---	---	---	7.9	7.9	7.9	7.9	7.6	7.7
17	8.7	8.4	8.6	8.9	8.7	8.8	8.1	7.9	8.0	8.2	7.9	8.0
18	8.7	8.5	8.6	8.7	8.4	8.5	8.4	8.0	8.2	8.4	8.0	8.2
19	8.7	8.3	8.5	8.5	8.3	8.4	8.6	8.2	8.4	8.5	8.2	8.4
20	8.7	8.4	8.5	8.4	8.1	8.3	8.9	8.4	8.6	8.7	8.4	8.5
21	8.7	8.4	8.6	8.1	8.0	8.1	8.9	8.6	8.8	8.6	8.3	8.4
22	8.7	8.5	8.6	8.1	8.0	8.0	---	---	---	8.5	8.1	8.3
23	8.6	8.4	8.5	8.1	7.9	8.0	---	---	---	8.1	7.8	7.9
24	8.7	8.4	8.5	8.1	8.0	8.1	---	---	---	7.9	7.5	7.7
25	8.5	8.2	8.4	8.5	8.0	8.2	8.1	7.9	7.9	7.8	7.5	7.7
26	8.5	8.1	8.2	8.5	8.4	8.5	8.0	7.8	7.9	7.7	7.5	7.6
27	8.2	8.0	8.1	8.5	8.0	8.2	8.2	7.9	8.0	7.8	7.5	7.6
28	8.0	7.8	7.9	8.0	7.9	8.0	8.3	8.0	8.2	7.8	7.4	7.6
29	7.9	7.8	7.9	8.0	7.9	8.0	8.5	8.3	8.3	8.2	7.6	7.9
30	---	---	---	7.9	7.7	7.7	8.5	8.3	8.4	8.1	7.8	7.9
31	---	---	---	7.8	7.7	7.8	---	---	---	7.9	7.7	7.8
MONTH	8.7	7.8	8.3	8.9	7.7	8.1	8.9	7.0	8.0	8.8	7.4	8.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.9	7.7	7.8	8.2	8.0	8.1	7.7	7.6	7.7	7.9	7.8	7.8
2	7.8	7.6	7.7	8.2	8.1	8.1	7.8	7.7	7.8	7.9	7.7	7.8
3	7.8	7.4	7.6	8.3	8.1	8.2	7.9	7.7	7.8	7.8	7.7	7.7
4	7.4	7.3	7.4	8.3	8.1	8.2	8.0	7.8	7.9	7.8	7.7	7.8
5	7.5	7.3	7.4	8.2	8.1	8.1	8.1	7.9	8.0	7.8	7.7	7.8
6	7.6	7.5	7.5	8.2	8.0	8.1	8.3	8.0	8.1	7.8	7.7	7.8
7	7.7	7.6	7.6	8.2	8.1	8.1	8.2	8.0	8.1	7.9	7.7	7.8
8	7.7	7.6	7.6	8.1	7.9	8.0	8.0	7.9	8.0	8.0	7.8	7.9
9	7.6	7.6	7.6	8.0	7.6	7.8	8.0	7.8	7.9	8.0	7.8	7.9
10	7.6	7.5	7.6	7.9	7.8	7.8	7.9	7.8	7.8	8.0	7.8	7.9
11	7.6	7.5	7.6	7.9	7.7	7.8	7.8	7.6	7.7	8.2	7.9	8.0
12	7.6	7.6	7.6	7.7	7.6	7.7	7.6	7.6	7.6	8.2	8.0	8.1
13	7.7	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.7	8.2	8.0	8.1
14	7.7	7.7	7.7	7.6	7.3	7.4	7.8	7.7	7.7	8.1	7.9	8.0
15	7.8	7.6	7.7	7.3	7.2	7.3	7.8	7.7	7.8	8.0	7.8	7.9
16	7.8	7.7	7.8	7.3	7.2	7.3	7.9	7.7	7.8	8.0	7.7	7.8
17	7.7	7.6	7.7	---	---	---	8.1	7.9	8.0	7.9	7.6	7.7
18	7.7	7.6	7.7	---	---	---	8.1	7.9	8.0	7.7	7.5	7.6
19	7.8	7.7	7.7	7.5	7.4	7.5	8.0	7.8	7.9	7.7	7.7	7.7
20	7.8	7.7	7.7	7.7	7.5	7.6	8.0	7.9	8.0	7.8	7.7	7.7
21	7.8	7.8	7.8	7.8	7.7	7.7	8.1	7.9	8.0	7.8	7.7	7.7
22	7.8	7.7	7.8	7.9	7.8	7.8	8.0	7.9	8.0	7.7	7.7	7.7
23	7.9	7.8	7.8	7.9	7.8	7.9	8.1	8.0	8.1	8.0	7.7	7.9
24	8.1	7.7	7.9	8.0	7.9	8.0	8.3	8.1	8.2	8.0	7.9	7.9
25	8.2	8.1	8.1	8.0	7.8	7.9	8.3	8.1	8.2	7.9	7.9	7.9
26	8.2	8.1	8.1	7.8	7.7	7.8	8.3	8.1	8.2	8.0	7.9	7.9
27	8.2	8.1	8.1	8.0	7.7	7.8	8.2	8.0	8.1	8.0	7.9	7.9
28	8.2	8.1	8.1	8.0	7.8	7.9	8.1	8.0	8.1	8.0	7.9	7.9
29	8.2	8.1	8.1	7.9	7.7	7.8	8.0	7.9	8.0	8.0	7.9	7.9
30	8.2	8.1	8.2	7.7	7.6	7.6	7.9	7.8	7.8	7.9	7.8	7.8
31	---	---	---	7.6	7.6	7.6	7.9	7.8	7.8	---	---	---
MONTH	8.2	7.3	7.8	8.3	7.2	7.8	8.3	7.6	7.9	8.2	7.5	7.8
YEAR	8.9	7.0	8.0									

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.0	25.5	26.0	20.5	19.5	20.0	13.5	12.5	13.0	11.0	10.5	11.0
2	27.0	26.0	26.5	20.0	19.0	20.0	15.0	13.5	14.5	11.0	10.0	10.5
3	26.5	25.5	26.0	19.0	18.0	18.5	16.5	15.0	15.5	10.5	9.5	10.0
4	26.0	25.0	25.5	18.0	16.0	17.0	16.0	15.5	16.0	10.0	9.5	9.5
5	25.5	24.5	25.0	16.0	15.5	16.0	16.5	15.5	16.0	10.5	9.5	10.0
6	24.5	23.0	23.5	16.0	15.0	15.5	16.5	16.0	16.5	9.5	7.5	8.5
7	23.0	22.0	22.5	16.5	16.0	16.5	16.0	15.0	15.5	7.5	6.5	6.5
8	22.5	21.5	22.0	16.0	15.5	16.0	15.0	14.0	14.5	6.5	5.5	6.0
9	23.0	21.5	22.0	16.0	15.0	15.5	14.0	11.5	12.5	7.0	6.0	6.5
10	23.5	22.0	22.5	17.5	16.0	16.5	11.5	10.5	11.0	8.0	7.0	7.5
11	24.0	22.5	23.0	17.5	15.5	16.0	11.0	10.0	10.5	9.0	8.0	8.5
12	24.0	22.5	23.5	15.5	14.5	15.0	11.5	10.5	11.0	9.5	8.5	9.0
13	23.5	23.0	23.5	15.5	14.5	15.0	13.0	11.5	12.5	10.0	9.0	9.5
14	23.5	22.0	22.5	16.0	15.0	15.0	14.5	13.0	14.0	11.5	10.0	10.5
15	22.5	21.5	22.0	15.5	14.5	15.0	15.5	14.5	15.0	12.5	11.5	12.0
16	22.5	21.0	22.0	15.5	14.5	15.0	15.5	15.5	15.5	13.0	11.5	12.0
17	22.5	21.0	21.5	15.0	14.5	14.5	15.5	15.5	15.5	14.5	13.0	13.5
18	22.5	21.0	21.5	15.0	14.0	14.5	16.0	15.0	15.5	14.5	11.5	13.0
19	22.5	21.0	22.0	15.5	14.5	15.0	15.0	14.0	15.0	11.5	10.5	11.0
20	22.5	21.0	21.5	16.5	15.5	16.0	14.0	12.0	13.0	11.5	10.5	11.0
21	21.0	19.5	20.0	17.0	16.0	16.5	12.0	11.0	11.5	11.5	10.5	11.0
22	21.0	19.0	20.0	17.0	16.0	16.5	11.0	10.0	10.5	10.5	10.0	10.5
23	20.5	20.0	20.5	17.0	16.5	16.5	10.0	9.5	10.0	11.0	10.5	11.0
24	20.0	18.5	19.5	16.5	15.5	16.0	9.5	8.5	9.0	11.0	10.0	10.5
25	19.0	18.5	18.5	16.0	15.0	15.5	9.5	8.5	9.0	11.0	10.0	10.5
26	20.0	18.5	19.0	16.0	15.0	15.5	9.0	8.5	9.0	12.0	11.0	11.5
27	21.5	19.5	20.5	16.5	16.0	16.0	9.0	8.5	8.5	11.0	10.0	10.5
28	20.5	19.5	20.0	16.0	14.0	14.5	9.0	8.0	8.5	10.5	10.0	10.0
29	20.0	19.0	19.5	14.0	12.5	13.0	9.0	8.0	8.5	11.5	10.5	11.0
30	19.0	19.0	19.0	13.5	12.0	12.5	9.5	9.0	9.0	11.0	10.0	11.0
31	19.5	18.5	19.0	---	---	---	11.0	9.5	10.0	10.0	8.5	9.0
MONTH	27.0	18.5	22.0	20.5	12.0	16.0	16.5	8.0	12.5	14.5	5.5	10.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.5	7.5	8.0	14.0	13.5	14.0	16.5	14.5	15.5	22.5	20.5	21.5
2	7.5	6.0	6.5	14.5	13.0	13.5	16.5	14.5	15.5	22.5	21.5	22.0
3	6.0	5.5	5.5	14.0	12.5	13.5	17.5	16.0	16.5	23.0	21.5	22.5
4	5.5	4.5	5.0	14.5	13.5	14.0	17.5	17.5	17.5	24.0	22.5	23.0
5	5.5	4.5	5.0	16.5	14.5	15.5	17.5	14.5	16.0	24.0	23.0	23.5
6	6.5	5.5	6.0	17.0	15.5	16.5	15.5	14.0	15.0	24.5	23.0	23.5
7	9.5	6.5	8.0	15.5	13.5	14.0	15.0	14.0	14.5	24.5	23.0	23.5
8	12.0	9.5	10.5	13.5	12.0	12.5	14.5	13.5	14.0	25.0	23.5	24.0
9	14.0	11.5	12.5	12.5	11.5	12.0	16.5	14.5	15.0	25.5	24.0	25.0
10	15.5	13.5	14.5	12.5	11.0	12.0	18.0	16.0	16.5	26.0	25.0	25.5
11	15.5	14.5	15.0	13.0	11.0	12.0	20.0	17.5	18.5	26.0	24.5	25.0
12	15.0	14.0	14.5	14.0	12.0	13.0	20.0	19.0	19.0	24.5	24.0	24.0
13	14.5	13.5	14.0	15.0	13.5	14.0	21.0	19.0	20.0	24.5	23.5	24.0
14	15.0	14.0	14.5	16.5	14.5	15.5	22.0	20.5	21.5	25.0	23.5	24.5
15	15.0	14.0	14.5	18.0	16.0	17.0	21.0	20.0	20.5	26.0	24.0	25.0
16	14.0	12.5	13.0	18.5	16.5	17.5	20.5	19.0	20.0	26.5	24.5	25.5
17	13.0	11.5	12.0	19.0	17.5	18.5	21.0	19.0	20.0	27.0	25.5	26.0
18	13.5	12.0	12.5	18.5	17.0	18.0	22.0	20.0	21.0	27.5	25.5	26.5
19	15.0	13.5	14.0	17.0	16.0	16.5	23.5	21.5	22.5	27.5	26.0	26.5
20	15.0	14.0	14.5	16.5	15.0	16.0	23.5	22.5	23.0	28.0	26.0	27.0
21	16.0	14.5	15.5	16.0	14.5	15.5	24.0	22.5	23.0	28.5	26.5	27.5
22	16.5	15.5	16.0	17.0	15.0	16.0	24.0	22.0	23.0	29.5	27.5	28.5
23	17.5	16.5	17.0	17.0	15.5	16.5	23.0	21.0	22.0	29.5	27.5	28.5
24	17.5	16.5	17.0	17.0	17.0	17.0	22.5	21.0	21.5	29.5	27.5	28.5
25	18.0	17.0	17.5	17.0	15.5	16.0	22.5	21.0	21.5	29.5	27.5	28.5
26	18.5	17.5	18.0	15.5	14.5	15.0	23.0	21.5	22.5	29.0	27.5	28.0
27	19.0	18.0	18.5	15.0	14.5	15.0	23.0	21.0	22.0	29.0	27.5	28.0
28	18.0	15.5	16.5	15.0	14.5	14.5	23.0	22.0	22.5	29.0	27.5	28.5
29	15.5	14.0	14.5	14.5	13.5	14.0	23.0	21.5	22.0	30.0	28.0	29.0
30	---	---	---	14.5	14.0	14.5	22.0	20.0	21.0	29.5	28.0	29.0
31	---	---	---	15.0	14.0	14.5	---	---	---	29.0	28.0	28.0
MONTH	19.0	4.5	13.0	19.0	11.0	15.0	24.0	13.5	19.5	30.0	20.5	26.0

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.5	28.0	28.0	32.0	30.0	31.0	30.5	29.0	29.5	27.5	26.0	26.5
2	28.5	27.0	28.0	32.0	30.0	31.0	31.0	29.5	30.0	27.0	26.0	26.5
3	28.5	27.5	28.0	32.5	30.5	31.5	31.0	29.5	30.5	26.0	26.0	26.0
4	28.5	27.0	27.5	32.5	31.0	31.5	31.5	29.5	30.5	27.0	25.5	26.5
5	28.0	26.5	27.5	31.5	30.5	31.0	31.5	30.0	30.5	27.5	26.5	27.0
6	29.0	27.0	27.5	32.0	30.0	31.0	31.5	30.0	30.5	28.0	27.0	27.5
7	28.5	27.5	28.0	32.5	30.5	31.5	31.0	30.0	30.5	29.5	27.0	28.0
8	27.5	26.5	27.0	33.0	31.0	32.0	30.5	30.0	30.0	29.5	28.0	28.5
9	27.5	26.5	27.0	32.5	31.0	32.0	30.5	29.5	30.0	29.5	28.5	29.0
10	27.0	26.0	26.5	32.0	30.5	31.5	29.5	29.0	29.0	29.5	28.0	29.0
11	27.0	25.0	26.0	32.0	30.5	31.0	29.0	28.5	28.5	29.0	27.5	28.5
12	28.0	26.0	27.0	31.0	30.0	30.5	29.0	28.0	28.5	28.5	27.5	28.0
13	29.0	27.0	28.0	30.5	29.5	30.0	29.5	28.0	28.5	28.5	27.5	28.0
14	29.5	27.5	28.5	29.5	28.5	29.0	30.0	28.0	29.0	28.0	27.0	27.5
15	30.0	27.5	29.0	28.5	28.0	28.0	30.0	28.0	29.0	27.5	27.0	27.5
16	30.0	28.5	29.0	---	---	---	30.0	28.5	29.0	27.5	26.5	27.0
17	30.0	29.0	29.5	---	---	---	29.5	28.5	29.0	27.5	26.5	27.0
18	30.5	29.0	30.0	---	---	---	29.0	28.0	28.5	26.5	26.0	26.5
19	31.0	29.0	30.0	31.0	29.5	30.0	29.5	27.5	28.5	26.0	25.5	25.5
20	31.0	30.0	30.5	32.0	30.0	31.0	29.5	28.0	29.0	26.5	25.5	26.0
21	31.5	30.5	31.0	32.0	30.0	31.0	30.0	28.0	29.0	26.0	25.0	25.5
22	31.5	29.5	30.5	32.0	30.5	31.0	29.5	28.5	29.0	26.0	25.0	25.5
23	31.0	29.5	30.5	32.0	31.0	31.5	29.0	28.5	28.5	27.0	25.0	26.0
24	31.0	29.5	30.5	31.0	30.0	30.5	29.5	28.5	29.0	27.0	26.0	26.5
25	31.0	29.5	30.5	30.5	29.5	30.0	29.5	28.5	29.0	27.0	26.0	26.5
26	30.0	29.5	29.5	30.5	29.5	30.0	29.5	28.5	29.0	27.0	26.0	26.5
27	31.0	29.0	30.0	30.5	29.0	29.5	29.0	28.5	28.5	26.0	23.5	24.5
28	30.5	30.0	30.5	31.0	29.0	30.0	29.0	28.0	28.5	23.5	22.0	23.0
29	31.5	29.5	30.5	31.0	30.0	30.5	28.0	26.5	27.0	23.5	22.0	22.5
30	31.5	30.0	30.5	31.0	30.0	30.5	27.0	26.5	27.0	23.0	21.5	22.5
31	---	---	---	30.5	30.0	30.0	26.5	25.5	26.0	---	---	---
MONTH	31.5	25.0	29.0	33.0	28.0	30.5	31.5	25.5	29.0	29.5	21.5	26.5
YEAR	33.0	4.5	20.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.2	7.6	7.9	6.7	5.5	6.1	12.3	10.8	11.5	11.0	10.4	10.7
2	7.8	7.0	7.3	6.4	5.1	5.9	11.5	10.2	10.8	10.7	10.1	10.4
3	7.9	6.8	7.3	---	---	---	10.7	8.0	9.7	10.6	10.0	10.3
4	8.4	7.2	7.8	---	---	---	9.9	8.3	9.3	10.7	10.2	10.5
5	8.6	7.5	8.0	---	---	---	10.4	8.1	9.3	10.2	9.9	10.0
6	8.7	7.9	8.3	---	---	---	9.8	7.6	9.0	10.5	9.9	10.2
7	8.8	8.0	8.4	---	---	---	10.7	8.0	9.5	11.5	10.5	11.1
8	8.7	7.9	8.3	---	---	---	10.1	7.4	8.8	11.8	11.3	11.6
9	8.8	7.6	8.1	---	---	---	11.4	9.2	10.2	11.9	11.5	11.7
10	9.0	7.3	8.1	9.8	9.0	9.2	12.1	11.0	11.5	12.3	11.5	11.9
11	9.2	8.0	8.6	9.9	8.8	9.3	12.0	10.9	11.8	12.4	11.3	11.8
12	9.1	8.2	8.7	10.1	9.3	9.7	12.2	10.2	11.6	12.7	11.7	12.1
13	9.0	7.7	8.3	10.6	9.4	10.0	11.4	9.5	10.8	13.0	11.5	12.2
14	9.0	7.6	8.3	11.3	9.7	10.4	10.8	9.4	9.8	13.0	11.5	12.2
15	8.7	7.4	8.0	11.5	10.1	10.8	9.6	8.9	9.3	12.3	11.3	11.8
16	8.8	7.4	8.0	12.0	10.2	11.1	8.9	8.4	8.6	12.5	10.2	11.5
17	8.7	7.2	7.9	11.4	10.6	10.9	8.6	8.3	8.4	11.6	10.0	10.8
18	8.4	6.8	7.6	12.2	10.2	11.1	8.6	8.1	8.4	11.4	9.2	10.5
19	8.2	6.5	7.3	12.1	10.4	11.2	8.6	7.1	8.0	11.4	9.2	10.7
20	8.4	6.4	7.3	11.6	10.0	11.0	8.0	6.9	7.5	10.5	8.8	9.7
21	8.0	6.5	7.3	11.8	10.1	11.0	8.8	7.9	8.4	9.7	8.2	9.0
22	8.0	6.5	7.3	11.4	10.0	10.8	9.5	8.8	9.2	10.0	9.6	9.8
23	7.1	6.3	6.8	11.7	10.0	10.7	10.0	9.5	9.7	10.2	9.8	10.1
24	7.9	6.5	7.1	11.6	9.9	10.7	10.0	9.9	10.0	10.7	9.9	10.3
25	7.7	6.6	7.2	11.5	10.0	10.6	10.2	9.8	10.0	11.4	10.1	10.8
26	7.2	6.7	7.0	11.3	9.9	10.5	10.5	9.7	10.2	11.6	10.6	11.0
27	7.2	5.9	6.5	10.9	9.0	10.1	11.0	10.3	10.6	11.7	10.6	11.1
28	7.8	6.4	6.9	11.3	9.5	10.4	10.9	10.3	10.7	11.7	10.7	11.2
29	7.5	5.8	6.7	12.3	9.5	11.0	11.0	10.1	10.7	12.6	11.1	11.8
30	7.6	6.5	7.0	12.6	9.5	11.4	10.8	10.3	10.6	12.1	11.1	11.6
31	7.4	6.4	6.8	---	---	---	11.6	10.4	10.9	12.4	11.4	11.9
MONTH	9.2	5.8	7.6	12.6	5.1	10.2	12.3	6.9	9.8	13.0	8.2	11.0

08062700 TRINITY RIVER AT TRINIDAD, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.9	7.0	7.5	---	---	---	10.3	7.7	9.0
2	---	---	---	8.6	7.4	8.0	7.2	5.0	6.0	9.1	7.3	8.2
3	14.4	12.5	13.5	9.2	8.0	8.5	8.0	5.9	7.1	8.9	6.5	7.6
4	14.9	13.7	14.2	9.6	8.2	8.8	9.9	7.1	8.5	7.7	3.6	6.2
5	14.9	13.5	14.3	9.9	8.0	8.8	9.3	8.0	8.5	---	---	---
6	14.8	12.8	14.2	9.7	7.9	8.8	9.6	8.4	8.9	---	---	---
7	14.7	12.8	13.7	---	---	---	8.5	4.9	6.3	---	---	---
8	14.6	12.2	13.5	13.5	10.4	11.9	6.9	3.5	5.1	---	---	---
9	14.9	12.6	13.7	13.9	10.8	12.5	7.2	4.5	6.4	9.7	8.2	8.9
10	14.9	11.3	13.3	16.6	12.4	14.2	---	---	---	9.1	7.8	8.4
11	---	---	---	16.8	11.9	14.3	---	---	---	8.2	6.0	6.9
12	---	---	---	15.6	12.7	14.2	8.0	7.6	7.7	7.2	5.2	6.2
13	14.5	11.5	12.8	15.4	12.4	13.7	9.2	7.5	8.2	7.1	6.3	6.7
14	14.1	11.7	12.8	14.6	11.5	13.1	10.1	8.1	9.0	6.7	6.1	6.4
15	14.4	9.6	12.3	14.4	10.6	12.3	9.0	7.4	8.0	7.3	6.0	6.6
16	---	---	---	13.1	10.1	11.5	7.8	7.1	7.4	8.2	6.7	7.3
17	15.6	12.1	13.6	12.4	9.2	10.8	8.9	7.5	8.1	9.3	7.0	7.9
18	15.6	12.4	13.7	10.2	8.1	9.1	9.4	7.5	8.4	9.5	7.2	8.2
19	15.6	11.4	13.0	10.4	8.0	9.1	10.4	7.8	8.9	9.6	6.6	8.1
20	14.9	11.4	12.7	10.0	8.6	9.3	11.4	8.7	9.9	9.8	6.9	8.3
21	14.0	10.9	12.3	8.8	8.1	8.4	11.5	8.9	10.3	9.5	6.2	7.8
22	13.2	10.0	11.7	8.2	6.6	7.6	10.5	7.5	8.4	8.3	5.3	6.7
23	12.7	10.1	11.3	8.6	5.8	7.2	11.5	6.7	8.8	7.5	5.0	6.2
24	12.6	9.6	10.9	8.1	5.4	6.8	10.0	7.2	8.4	7.9	4.6	6.1
25	10.7	8.1	9.7	8.9	7.2	8.0	7.2	4.8	5.9	7.4	4.8	6.1
26	8.5	5.2	7.3	10.7	7.8	9.3	6.0	4.5	5.2	6.8	4.7	5.8
27	6.9	5.2	6.0	9.9	7.6	8.6	7.9	5.7	6.7	6.3	4.0	5.1
28	6.0	2.2	4.3	8.0	6.5	7.2	8.7	6.7	7.6	6.1	4.4	5.2
29	7.9	5.2	7.5	---	---	---	9.7	7.1	8.2	5.8	3.7	4.6
30	---	---	---	---	---	---	10.3	7.2	8.7	5.6	3.4	4.8
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	15.6	2.2	11.8	16.8	5.4	10.0	11.5	3.5	7.8	10.3	3.4	6.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	5.4	4.7	5.0	6.2	5.2	5.8	3.9	2.3	2.9
2	---	---	---	5.4	4.6	4.9	6.1	4.0	5.8	4.7	3.4	4.1
3	---	---	---	5.5	3.9	4.8	6.3	5.6	5.9	4.6	3.4	3.9
4	---	---	---	5.8	4.7	5.2	6.5	5.5	5.9	5.5	4.6	5.1
5	---	---	---	5.7	3.7	4.8	6.9	5.8	6.3	5.8	4.8	5.5
6	---	---	---	---	---	---	6.9	4.7	6.0	4.8	3.0	4.0
7	5.2	5.0	5.1	---	---	---	5.4	3.2	4.4	5.4	3.6	4.2
8	5.5	4.9	5.2	---	---	---	4.8	2.7	4.1	6.9	4.9	6.1
9	5.5	4.8	5.2	6.5	5.5	6.0	5.0	3.8	4.3	6.9	6.3	6.6
10	4.8	2.0	3.7	---	---	---	4.6	4.1	4.4	7.3	6.3	6.8
11	3.8	2.0	2.8	---	---	---	5.1	4.4	4.8	7.8	6.9	7.3
12	4.3	3.5	4.0	---	---	---	4.8	4.5	4.7	7.6	6.3	6.8
13	3.9	3.5	3.6	---	---	---	5.9	4.1	5.3	6.4	4.5	5.5
14	3.6	3.2	3.4	---	---	---	5.8	4.2	5.4	6.7	3.9	5.1
15	3.6	3.1	3.3	---	---	---	6.6	4.6	5.4	6.0	4.2	5.0
16	3.6	3.4	3.5	---	---	---	7.9	5.3	6.9	6.7	4.9	6.0
17	3.4	2.7	3.1	---	---	---	---	---	---	6.3	3.4	4.7
18	3.2	2.8	3.1	---	---	---	---	---	---	5.2	2.7	4.2
19	6.8	3.2	4.7	---	---	---	---	---	---	5.6	5.2	5.4
20	---	---	---	---	---	---	---	---	---	6.1	5.6	6.0
21	---	---	---	---	---	---	---	---	---	6.0	5.7	5.8
22	---	---	---	---	---	---	---	---	---	6.4	5.8	6.0
23	---	---	---	---	---	---	6.5	5.9	6.2	6.7	6.1	6.4
24	---	---	---	---	---	---	6.9	5.8	6.4	6.1	5.5	5.8
25	6.2	4.2	5.4	8.0	7.2	7.5	6.2	4.6	5.4	6.7	5.9	6.1
26	4.6	3.6	4.2	7.6	6.3	7.0	6.7	4.5	5.4	6.7	5.9	6.2
27	4.8	3.7	4.5	7.1	5.8	6.6	7.1	6.0	6.4	6.7	5.9	6.1
28	5.0	3.9	4.6	5.8	3.1	4.0	6.9	6.3	6.5	7.4	6.0	6.6
29	5.3	3.4	4.6	6.6	4.1	5.5	6.8	4.8	5.9	6.2	5.6	5.9
30	5.3	4.5	4.9	6.5	5.4	5.9	5.4	4.3	4.8	7.0	5.2	6.2
31	---	---	---	5.6	5.0	5.3	5.0	3.1	4.3	---	---	---
MONTH	6.8	2.0	4.2	8.0	3.1	5.6	7.9	2.7	5.5	7.8	2.3	5.5
YEAR	16.8	2.0	8.2									

TRINITY RIVER BASIN
08063010 CEDAR CREEK RESERVOIR NEAR TRINIDAD, TX

LOCATION.--Lat 32°14'35", long 96°08'26", Henderson County, Hydrologic Unit 12030107, inside pumphouse on lower level, 1,000 ft north of spillway, 5.5 mi upstream from Joe B. Hogsett Dam on Cedar Creek, and 8.0 mi northwest of Trinidad.

DRAINAGE AREA.--1,007 square miles.

PERIOD OF RECORD.--January 1965 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1969 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to May 15, 1972, at unfinished pumphouse at same site and datum. May 16, 1972 to Sept. 8, 1975, at site 0.25 mi north and upstream from pumphouse at same datum.

REMARKS.--The reservoir is formed by a rolled earthfill dam 17,539 ft long. The spillway is located on the right bank 5.5 mi upstream from the dam and discharges into the Trinity River through a cut channel 2 mi long. Deliberate impoundment began July 2, 1965, and the dam was completed in February 1966. The spillway is 474 ft long and has eight 40- by 24-foot radial gates and two automatically operated 40- by 8.5-foot hinged gates. Low-flow releases may be made downstream through a 5.0 foot diameter conduit through the dam. The dam is the property of Tarrant Regional Water District and was built for municipal and industrial supply and for recreational purposes. The capacity table was based on a survey during 1995. Water is diverted from the reservoir for municipal and industrial uses by lakeside developments and by the cities of Arlington, Fort Worth, Mansfield, Kemp, Trinidad, and Mabank. Figures given herein represent total contents based on the March 1995 survey. 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	743,100
Top of automatic gates	322.5	654,300
Top of conservation pool	322.0	637,200
Crest of spillway (automatic gates)	314.0	410,200
Crest of spillway (radial gates)	302.0	182,800
Lowest gated outlet (invert)	263.5	132

COOPERATION.--Records of diversions provided by the Tarrant Regional Water District. The original capacity table, 1-C, was provided by Freese and Nichols, Consulting Engineers, for Tarrant Regional Water District. A new capacity table, 2-C, was provided by the Texas Water Development Board, and put into effect Oct. 1, 1995.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 722,000 acre-ft June 4, 1973 (elevation, 323.24 ft); minimum since first appreciable storage in 1966, 332,900 acre-ft Mar. 19, 1967 (elevation, 309.42 ft) based on capacity table then in use (1-C).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 590,300 acre-ft Oct. 1 at 0900 hours (elevation, 320.48 ft); minimum contents, 462,000 acre-ft Aug. 26 (elevation, 316.02 ft).

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

309.0	299,000	322.0	637,200
315.0	435,300	323.0	671,500
320.0	575,700	324.0	706,800

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	588800	569500	558100	563200	554800	545900	531900	525200	509700	492000	476400	474800
2	588800	569500	558100	561400	554800	545000	530500	524600	508900	491400	475800	474500
3	588500	569200	558700	559600	554500	544100	529900	523500	508600	490900	475000	473700
4	587000	568900	558400	560800	553100	543000	531300	523500	506100	488600	473700	473700
5	586100	568600	560200	560500	552800	544100	535700	524100	504400	488300	473400	473400
6	585200	568600	559900	562900	552500	548600	535700	524100	505000	487500	472300	472900
7	584300	568900	558100	560200	550700	544400	535100	523500	505200	486400	472600	472900
8	583000	568900	562900	559600	552500	542700	534800	523200	503800	485900	472300	472300
9	582700	568900	560800	559600	552800	541500	534500	522600	502700	487500	472000	471800
10	582400	568900	559000	559900	556000	540400	533700	522300	504400	487000	471200	471000
11	582400	568000	558700	560200	551900	539800	531900	522900	503500	486200	475000	470100
12	582100	567700	558700	559000	551300	538600	534500	522300	503300	485600	471200	470100
13	582400	567700	559000	559300	550700	538900	533400	521700	501900	485400	470100	469300
14	580900	567700	558700	559000	550400	538900	534000	520300	502100	485400	469600	470100
15	580300	565000	561400	559000	550700	538900	531600	519700	501300	485600	468200	469600
16	579400	563200	561100	558400	549200	538600	530200	519100	500500	484300	468000	470100
17	578500	562900	561700	559000	548900	538000	529000	518800	500500	483200	467700	468800
18	577900	562300	564700	560200	547700	538000	529600	518200	498500	482400	467700	469900
19	579400	562000	563200	557500	549500	537400	529000	516800	498800	482600	467200	469900
20	574500	562000	562300	558100	548900	536300	529600	516500	497400	482100	467200	471800
21	572800	561700	562300	557500	547400	535700	527300	516800	496500	481000	466100	471500
22	571300	562000	561400	558100	546800	534800	529300	515700	496500	480500	465000	470700
23	571900	561100	561400	559300	548300	534200	529000	514000	494800	476400	464200	469900
24	571300	560500	560800	557500	546500	536300	525800	512800	495400	479100	463600	469900
25	571900	560200	561100	556900	546500	535100	526700	512000	494800	479700	463400	468500
26	571900	559000	560200	556900	546500	533700	527000	512000	494500	478000	463100	468800
27	572200	560500	561100	556300	550700	534500	524100	510900	493700	479400	463400	468000
28	571900	559900	559900	555400	548300	533700	528400	510900	494800	478800	463900	466900
29	571300	558700	560200	556000	546500	533700	525800	509500	493100	477700	475800	466300
30	570700	558100	560800	555400	---	534200	524100	509500	492300	477500	475600	466100
31	569800	---	560200	554800	---	532500	---	508300	---	477200	475300	---
MAX	588800	569500	564700	563200	556000	548600	535700	525200	509700	492000	476400	474800
MIN	569800	558100	558100	554800	546500	532500	524100	508300	492300	476400	463100	466100
(+)	319.80	319.41	319.48	319.30	319.02	318.54	318.25	317.70	317.13	316.58	316.51	316.17
(@)	-17740	-11700	+2100	-5400	-8300	-14000	-8400	-15800	-16000	-15100	-1900	-9200

CAL YR 1995 MAX 712200 MIN 558100 (@) -83240
WTR YR 1996 MAX 588800 MIN 463100 (@) -121440

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08063050 NAVARRO MILLS LAKE NEAR DAWSON, TX

LOCATION.--Lat 31°57'27", long 96°41'21", Navarro County, Hydrologic Unit 12030108, in left abutment of spillway of Navarro Mills Dam on Richland Creek, 1.7 mi upstream from bridge on State Highway 31, 3.0 mi upstream from St. Louis Southwestern Railway Lines bridge, 4.2 mi upstream from Post Oak Creek, 4.6 mi north of Dawson, and 63.9 mi upstream from mouth.

DRAINAGE AREA.--320 mi².

PERIOD OF RECORD.--August 1962 to current year. Prior to October 1970, published as Navarro Mills Reservoir.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 8, 1962, nonrecording gage in low-water channel at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 7,570 ft long, including a 240-foot off-channel gated spillway with six 40.0- by 29.0-foot tainter gates. From Aug. 27, 1962, to Mar. 14, 1963, lake was operated as a detention basin only. Deliberate impoundment began Mar. 15, 1963, and dam was completed in September 1963. Low-flow outlet works consist of two 36-inch-diameter gate-controlled conduits. Lake was built for flood control and water conservation. Capacity table prior to September 1976 is based on survey made in February 1956 by U.S. Army Corps of Engineers. Capacity table after Aug. 31, 1976, is based on a sedimentation survey made in September 1972. Flow is affected at times by discharge from the flood-detention pools of 51 floodwater-retarding structures with a combined detention capacity of 26,160 acre-ft. These structures control runoff from 86.9 mi² in the Richland Creek drainage basin. An unknown amount of water is diverted for municipal and industrial uses. Satellite telemeter at station. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	457.0	-
Design flood	451.9	329,500
Top of gates (top of flood-control storage pool)	443.0	206,200
Top of conservation pool	424.5	56,960
Crest of spillway	414.0	18,840
Lowest gated outlet (invert)	400.0	1,150

COOPERATION.--Records of elevations and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 183,300 acre-ft May 18, 1968 (elevation, 440.36 ft); minimum since since initial filling in May 1965, 32,490 acre-ft Dec. 28, 1978 (elevation, 418.89 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 54,360 acre-ft Oct. 1 (elevation, 423.98 ft); minimum, 36,590 acre-ft Aug. 26 (elevation, 419.98 ft).

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

419.0	32,950	429.0	82,620	436.0	136,300
420.0	36,660	432.0	103,800	438.0	154,300
423.0	49,590	434.0	119,500	439.0	163,700
426.0	64,810				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54360	51560	49830	49740	48510	47350	45640	45640	43540	41350	38800	38030
2	54160	51420	49880	49640	48550	47260	45590	45590	43500	41220	38640	37990
3	54160	51180	49830	49450	48460	47170	45510	45590	43410	41140	38480	37950
4	54010	51320	49780	49450	48410	47260	45510	45510	43410	40970	38310	37880
5	53960	51270	49740	49450	48370	47260	46710	45420	43280	40840	38150	37840
6	53770	51270	49690	49350	48370	47210	46890	45770	43200	40670	37990	37760
7	53620	51180	49550	49260	48410	46940	46890	45730	43460	40580	37920	37680
8	53520	51130	49830	49210	48410	47120	46850	45640	43330	40410	37880	37640
9	53420	51130	49690	49170	48410	46760	46760	45550	43200	40250	37840	37560
10	53370	51370	49690	49120	48460	46710	46800	45510	43200	40200	37920	37440
11	53370	50980	49640	49120	48460	46580	46710	45460	43240	40370	37840	37360
12	53270	50840	49640	49070	48370	46580	46760	45330	43150	40800	37720	37280
13	53220	50740	49690	49020	48370	46530	46850	45330	43020	40750	37560	37250
14	53030	50700	49640	48980	48230	46310	46890	45240	42980	40710	37480	37170
15	52930	50650	49640	48980	48180	46310	46710	45110	42850	40630	37360	37170
16	52830	50550	49550	48980	48090	46350	46530	44980	42770	40500	37320	36970
17	52680	50600	49980	49350	48040	46130	46490	44890	42590	40370	37250	36900
18	52590	50600	50450	49120	48090	46130	46400	44670	42420	40250	37130	36970
19	52590	50500	49980	48930	47950	46080	46350	44590	42420	40120	37050	37210
20	52390	50500	49880	48980	47950	45900	46260	44410	42250	40040	36930	37600
21	52250	50450	49880	48880	47900	45770	46130	44320	42120	39870	36860	37680
22	52100	50450	49880	48930	47860	45730	46440	44190	42030	39700	36780	37640
23	52050	50360	49780	48980	47760	45640	46350	44060	41910	39580	36780	37600
24	51950	50260	49780	48880	47670	45820	46220	43890	42120	39450	36780	37520
25	51810	50210	49690	48880	47670	45680	46080	43720	41990	39370	36660	37440
26	51860	50260	49690	48830	47620	45640	46040	43670	41860	39210	36590	37480
27	51710	50170	49590	48690	47530	45950	45950	43540	41820	39330	36900	37360
28	51610	50020	49500	48690	47440	45820	46130	43500	41690	39250	36930	37250
29	51520	49930	49500	48650	47350	45820	45860	43330	41610	39130	38070	37170
30	51370	49880	49500	48650	---	46040	45730	43370	41480	39000	38110	37130
31	51420	---	49500	48550	---	45770	---	43670	---	38840	38110	---
MAX	54360	51560	50450	49740	48550	47350	46890	45770	43540	41350	38800	38030
MIN	51370	49880	49500	48550	47350	45640	45510	43330	41480	38840	36590	36900
(+)	423.38	423.06	422.98	422.78	422.52	422.17	422.16	421.69	421.18	420.55	420.37	420.12
(@)	-2990	-1540	-380	-950	-1200	-1580	-40	-2060	-2190	-2640	-730	-980

CAL YR 1995 MAX 115000 MIN 49500 @ -27910
WTR YR 1996 MAX 54360 MIN 36590 @ -17280

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08063100 RICHLAND CREEK NEAR DAWSON, TX

LOCATION.--Lat 31°56'18", long 96°40'52", Navarro County, Hydrologic Unit 12030108, at downstream side of bridge on State Highway 31, 1.3 mi upstream from St. Louis Southwestern Railway Lines bridge, 1.7 mi downstream from Navarro Mills Dam, 2.5 mi upstream from Post Oak Creek, and 3.6 mi northeast of Dawson.

DRAINAGE AREA.--333 mi².

PERIOD OF RECORD.--October 1960 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 367.52 ft above sea level. Nov. 21, 1960, to Sept. 30, 1982, water-stage recorder at same site and at 3.00 ft higher datum. Prior to Nov. 21, 1960, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since Mar. 15, 1963, flow has been regulated by Navarro Mills Lake (station 08063050), 1.7 mi upstream. Flow may be slightly affected at times by discharge from the flood-detention pool of one floodwater-retarding structure with a conservation capacity of 297 acre-ft. This structure controls runoff from a 1.28 mi² area below Navarro Mills Lake and above this station. Several observations of water temperature were made during the year. Satellite telemeter at station.

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1961-63).--Maximum discharge, 25,500 ft³/s July 3, 1961 (gage height, 25.50 ft), from rating curve extended above 14,000 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1895, about 31 ft June 19, 1929, from information by local residents. Floods in 1946 and 1957 reached a stage of about 26 ft, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	e.01	.15	1.0	.89	.14	.04	.15	.70	.10	.18	1.4
2	.04	.01	.11	.94	.83	.14	.02	.12	.57	.10	.18	1.4
3	.05	.00	.10	.75	.39	.15	.07	.08	.38	.10	.19	1.2
4	.05	.01	.21	.73	.18	.18	.01	.09	.44	.09	.21	.80
5	.05	.02	.67	.66	.25	.19	7.2	.10	.29	.08	.19	1.2
6	.05	.01	.20	.63	.24	.19	3.3	.40	.28	.09	.18	1.9
7	.05	.00	.03	.90	.16	.19	2.0	.49	.59	.10	.18	.33
8	.04	.00	.09	.62	.16	.20	.56	.15	.33	.10	.19	.19
9	.08	.01	.05	.61	.20	.21	.12	e.07	.33	.14	.19	.17
10	.08	.01	.02	.65	.16	.22	.08	e.05	.77	.10	.87	.15
11	.06	.01	.01	.71	.17	.31	.46	e.05	.47	.69	1.1	.14
12	.08	.02	.01	.61	.12	.29	.81	e.04	e.25	.49	.29	.14
13	.08	.02	.00	.55	.08	.31	1.4	e.04	e.20	.57	.35	.16
14	.07	.01	.03	.62	.08	.34	2.0	e.04	e.15	.13	.21	.23
15	.05	.02	.12	.52	.05	.28	.64	e.04	e.10	.13	.20	.21
16	.05	.01	.21	.41	.04	.23	.08	e.04	e.09	.14	.09	.13
17	.05	.03	1.3	.53	.05	.21	.05	e.04	e.08	.12	.05	.13
18	.05	.01	2.7	1.1	.06	.18	.08	e.03	e.06	.12	.12	.35
19	.05	.02	2.3	1.1	.06	.11	.06	e.03	.06	.12	.13	.46
20	.04	.04	2.0	1.4	.08	.04	.04	e.03	.06	.15	.08	3.3
21	.04	.09	1.9	1.2	.09	.04	.11	1.0	.06	.16	.04	1.3
22	.06	.20	1.4	1.3	.10	.03	.55	2.2	.08	.16	.04	1.0
23	.04	.24	1.3	1.5	.15	.03	.07	1.7	.08	.16	.05	.62
24	.03	.25	1.6	1.6	.09	.23	.01	1.2	.08	.16	.05	.29
25	.03	.27	1.7	2.3	.22	2.1	.02	.73	.08	.16	.07	.18
26	.04	.22	1.5	2.2	.15	.33	.01	e.26	.08	.16	.05	.21
27	.03	.19	1.4	1.6	.14	.23	.01	e.20	.09	.48	.15	.14
28	.02	.16	1.2	1.4	.12	.33	.03	e.18	.09	.46	.99	.15
29	e.02	.13	1.1	1.6	.13	.19	.40	e.12	.09	.19	12	.18
30	e.02	.14	1.0	1.5	---	.14	.20	.51	.10	.19	5.4	.16
31	e.02	---	1.0	1.2	---	.07	---	.46	---	.19	2.0	---
TOTAL	1.46	2.16	25.41	32.44	5.44	7.83	20.43	10.64	7.03	6.13	26.02	18.22
MEAN	.047	.072	.82	1.05	.19	.25	.68	.34	.23	.20	.84	.61
MAX	.08	.27	2.7	2.3	.89	2.1	7.2	2.2	.77	.69	12	3.3
MIN	.02	.00	.00	.41	.04	.03	.01	.03	.06	.08	.04	.13
AC-FT	2.9	4.3	50	64	11	16	41	21	14	12	52	36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996#, BY WATER YEAR (WY)

MEAN	44.9	142	148	158	169	194	211	297	354	110	30.4	22.8
MAX	400	1366	1050	1054	1090	971	992	980	1356	773	541	269
(WY)	1974	1968	1975	1992	1992	1970	1992	1980	1975	1968	1995	1974
MIN	.000	.000	.000	.058	.066	.22	.023	.019	.000	.000	.068	.068
(WY)	1964	1964	1964	1964	1964	1971	1964	1964	1964	1970	1981	1968

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996#	
ANNUAL TOTAL	118164.89		163.21			
ANNUAL MEAN	324		.45		156	
HIGHEST ANNUAL MEAN					561	1968
LOWEST ANNUAL MEAN					.20	1964
HIGHEST DAILY MEAN	2620	Aug 4	12	Aug 29	2620	Aug 4 1995
LOWEST DAILY MEAN	.00	Nov 3	.00	Nov 3	.00	Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	.01	Nov 2	.01	Nov 2	.00	Oct 1 1963
INSTANTANEOUS PEAK FLOW			30	Aug 29	3850	Nov 24 1974
INSTANTANEOUS PEAK STAGE			3.93	Aug 29	22.85	Nov 24 1974
ANNUAL RUNOFF (AC-FT)	234400		324		113300	
10 PERCENT EXCEEDS	1220		1.3		657	
50 PERCENT EXCEEDS	12		.16		2.0	
90 PERCENT EXCEEDS	.04		.03		.03	

e Estimated
Period of regulated streamflow.

08063700 BARDWELL LAKE NEAR ENNIS, TX

LOCATION.--Lat 32°15'00", long 96°38'49", Ellis County, Hydrologic Unit 12030109, in intake structure of Bardwell Dam on Waxahachie Creek, 5 mi south of Ennis, and 5.6 mi upstream from mouth.

DRAINAGE AREA.--178 mi².

PERIOD OF RECORD.--November 1965 to current year. Prior to October 1970, published as Bardwell Reservoir.

GAGE.--Water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers benchmark). Prior to Apr. 25, 1966, nonrecording gage on intake structure at same datum.

REMARKS.--The lake is formed by a rolled earthfill dam 15,400 ft long, including a 350-foot uncontrolled off-channel concrete-gravity spillway with ogee weir section. Deliberate impoundment began Nov. 20, 1965, and dam was completed Mar. 27, 1966. Controlled low-flow outlet works consists of a 10.0-foot-diameter concrete conduit with two 5.0- by 10.0-foot sluice gates. Lake was built for flood control and water conservation. Capacity table beginning October 1976 is based on a survey completed in 1972. Runoff from 81.4 mi² above Bardwell Lake is modified by Lake Waxahachie, with a capacity of 13,500 acre-ft at spillway elevation. The city of Waxahachie diverts water from Lake Waxahachie and returns an unknown amount of effluent to Waxahachie Creek. Inflow is affected at times by discharge from flood-detention pools of 23 floodwater-retarding structures with a combined detention capacity of 15,370 acre-ft. These structures control runoff from 52.4 mi² in the Chambers Creek watershed. Satellite telemeter at station. 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	460.0	-
Design flood	455.9	-
Crest of spillway (top of flood-control pool)	439.0	137,600
Top of conservation pool	421.0	52,300
Lowest gated outlet (invert)	391.0	690

COOPERATION.--Records of elevation and contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 112,100 acre-ft May 22, 1990 (elevation, 434.54 ft); minimum since initial filling, 39,720 acre-ft Nov. 10, 1978 (elevation, 417.21 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 51,260 acre-ft Oct. 1 (elevation, 420.71 ft): minimum, 40,520 acre-ft Aug. 27 (elevation, 417.47 ft).

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

417.0	39,080	422.0	55,920	426.0	71,630
419.0	45,390	423.0	59,680	427.0	75,900
420.0	48,780	424.0	63,550	428.0	80,300
421.0	52,290	425.0	67,530	429.0	84,800

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51260	49540	48570	48810	48470	47920	46690	46530	44600	42770	41540	41670
2	51260	49680	48540	48740	48500	47810	46630	46530	44540	42710	41480	44080
3	51160	49400	48640	48570	48470	47750	46560	46390	44510	42640	41390	44050
4	51050	49370	48610	48640	48360	47750	46790	46460	44410	42520	41230	44050
5	51020	49300	48670	48670	48360	47810	47200	46390	44280	42450	41140	44020
6	50870	49260	48610	48640	48360	48090	47230	46420	44180	42330	41050	44020
7	50840	49330	48470	48500	48360	47710	47230	46390	44180	42230	41020	43990
8	50730	49260	48740	48430	48470	47440	47230	46320	44050	42170	41020	43950
9	50700	49160	48540	48470	48470	47510	47230	46260	43950	42080	41170	43920
10	50700	49680	48470	48470	48670	47370	47130	46290	43950	42080	41170	43890
11	50700	49200	48400	48470	48470	47340	47100	46260	43890	42010	41140	43760
12	50630	49020	48400	48470	48470	47270	47230	46160	43860	42200	41140	43700
13	50700	49090	48430	48470	48400	47270	47200	46120	43890	42670	41140	43630
14	50490	49020	48500	48430	48430	47300	47270	45960	43820	42830	41140	43860
15	50450	49020	48540	48470	48400	47300	47030	45890	43760	42830	41140	43860
16	50380	48950	48540	48400	48260	47270	46960	45860	43730	42740	41140	43950
17	50310	48950	48640	48740	48230	47370	46830	45760	43700	42670	41140	43890
18	50280	48950	48850	48670	48090	47230	46860	45660	43600	42580	40860	43890
19	50210	48950	48780	48540	48190	47100	46860	45520	43530	42480	40800	43790
20	50140	48990	48740	48570	48190	47000	46830	45490	43440	42390	40770	44120
21	49960	48950	48740	48500	48160	46960	46730	45430	43340	42300	40670	44120
22	49860	48880	48710	48540	48090	46830	47030	45330	43280	42170	40670	44020
23	49890	48880	48670	48640	48120	46760	46960	45190	43210	42170	40670	43990
24	49820	48810	48640	48610	48090	47000	46790	45100	43150	42140	40640	43990
25	49750	48780	48610	48540	48020	46930	46830	45000	43050	42110	40610	43920
26	49720	48640	48610	48610	48050	46730	46760	44900	42990	42010	40550	43950
27	49750	48810	48640	48540	48190	46900	46590	44830	42960	41950	40520	44020
28	49680	48670	48570	48470	48050	46860	46900	44830	42960	41890	40580	43820
29	49510	48610	48540	48540	47920	46790	46730	44730	42960	41790	41020	43730
30	49510	48540	48570	48610	---	46960	46560	44640	42930	41700	41610	43660
31	49470	---	48610	48470	---	46760	---	44640	---	41640	41640	---
MAX	51260	49680	48850	48810	48670	48090	47270	46530	44600	42830	41640	44120
MIN	49470	48540	48400	48400	47920	46730	46560	44640	42930	41640	40520	41670
(+)	420.20	419.93	419.95	419.91	419.75	419.41	419.35	418.77	418.24	417.83	417.83	418.47
(@)	-1720	-930	+70	-140	-550	-1160	-200	-1920	-1710	-1290	0	+2020

CAL YR 1995 MAX 83460 MIN 48400 @ -15370
WTR YR 1996 MAX 51260 MIN 40520 @ -7530

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08063800 WAXAHACHIE CREEK NEAR BARDWELL, TX

LOCATION.--Lat 32°14'36", long 96°38'24", Ellis County, Hydrologic Unit 12030109, on left bank at downstream side of highway embankment near left end of bridge on county road, 0.8 mi downstream from Bardwell Dam, 3.6 mi southeast of Bardwell, 3.8 mi downstream from bridge on State Highway 34, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--178 mi^2.

PERIOD OF RECORD.--October 1963 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

GAGE.--Water-stage recorder. Datum of gage is 370.18 ft above sea level (U.S. Army Corps of Engineers benchmark).

REMARKS.--Records poor. Since November 1965, flow regulated by Bardwell Lake (station 08063700) 0.8 mi upstream. Several observations of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--2 years (water years 1964-65), 32.8 ft^3/s (23,720 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1964-65).--Maximum discharge 2,960 ft^3/s Feb. 9, 1965 (gage height, 17.55 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1944, about 23 ft in 1944 and 1945, from information by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.09	.09	.09	.07	.12	.11	.03	.01	.00	.00	.25
2	.01	.09	.09	.09	.11	.15	.08	.03	.01	.00	.00	.11
3	.01	.09	.09	.09	.13	.16	.10	.03	.00	.00	.00	.00
4	.01	.09	.09	.09	.10	.15	.12	.03	.00	.00	.00	.00
5	.01	.09	.09	.09	.07	.19	1.2	.03	.00	.00	.00	.00
6	.01	.09	.09	.09	.09	.19	.56	.03	.00	.00	.00	.00
7	.01	.09	.09	.09	e.09	.13	.29	.03	.00	.00	.00	.00
8	.01	.09	.09	.09	e.09	.08	.20	.04	.00	.00	.00	.00
9	.01	.09	.09	.09	e.09	.05	.12	.04	.00	.00	.00	.00
10	.01	.09	.09	.09	e.09	.04	.06	.03	.00	.00	.00	.00
11	.01	.09	.09	.09	e.09	.04	.04	.03	.00	.00	.00	.00
12	.09	.09	.09	.09	e.09	.05	.06	.03	.00	.10	.00	.00
13	.09	.09	.09	.09	e.09	.04	.06	2.0	.00	.14	.00	.00
14	.09	.09	.09	.09	e.10	.04	.03	.54	.00	.14	.00	.06
15	.09	.09	.09	.09	e.09	.04	.01	.18	.00	.01	.00	.01
16	.09	.09	.09	.09	e.09	.09	.01	.07	.00	.00	.00	.00
17	.09	.09	.09	.09	.12	.10	.01	.04	.00	.00	.27	.00
18	.09	.09	.09	.09	.12	.08	.01	.03	.00	.00	.13	.07
19	.09	.09	.09	.09	.11	.04	.01	.02	.00	.00	.00	.17
20	.09	.09	.09	.09	.10	.04	.01	.02	.00	.00	.00	.27
21	.09	.09	.09	.09	.11	.04	.01	.02	.00	.00	.00	.11
22	.09	.09	.09	.09	.13	.06	.05	.02	.00	.00	.00	.00
23	.09	.09	.09	.09	.11	.07	.03	.01	.00	.00	.00	.00
24	.09	.09	.09	.09	.09	.11	.02	.01	.00	.00	.00	.00
25	.09	.09	.09	.09	.10	.12	.01	.01	.00	.00	.00	.00
26	.09	.09	.09	.09	.11	.13	.01	.01	.00	.00	.00	.07
27	.09	.09	.09	.09	.12	.24	.01	.01	.00	.00	.09	.04
28	.09	.09	.09	.11	.09	.32	.02	.00	.00	.00	.26	.00
29	.09	.09	.09	.10	.09	.29	.04	.00	.00	.00	.38	.00
30	.09	.09	.09	.07	---	.24	.03	.00	.00	.00	.29	.00
31	.09	---	.09	.06	---	.15	---	.01	---	.00	.19	---
TOTAL	1.91	2.70	2.79	2.77	2.88	3.59	3.32	3.38	0.02	0.39	1.61	1.16
MEAN	.062	.090	.090	.089	.099	.12	.11	.11	.001	.013	.052	.039
MAX	.09	.09	.09	.11	.13	.32	1.2	2.0	.01	.14	.38	.27
MIN	.01	.09	.09	.06	.07	.04	.01	.00	.00	.00	.00	.00
AC-FT	3.8	5.4	5.5	5.5	5.7	7.1	6.6	6.7	.04	.8	3.2	2.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996#, BY WATER YEAR (WY)

MEAN	23.6	84.5	80.5	104	107	148	116	181	200	29.2	5.39	7.10
MAX	299	723	394	892	605	675	590	827	773	370	71.8	178
(WY)	1974	1992	1986	1992	1992	1992	1977	1973	1989	1981	1973	1976
MIN	.000	.014	.018	.022	.022	.024	.11	.11	.001	.000	.000	.000
(WY)	1967	1970	1990	1967	1967	1967	1996	1996	1996	1966	1966	1966

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996#	
ANNUAL TOTAL	66696.01		26.52			
ANNUAL MEAN	183		.072		90.3	
HIGHEST ANNUAL MEAN					318	1992
LOWEST ANNUAL MEAN					.063	1967
HIGHEST DAILY MEAN	1170	May 17	2.0	May 13	1880	Jun 25 1981
LOWEST DAILY MEAN	.01	Sep 18	.00	May 28	.00	Oct 4 1965
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 18	.00	Jun 3	.00	Oct 7 1965
INSTANTANEOUS PEAK FLOW			8.9	May 13	1960	Jun 25 1981
INSTANTANEOUS PEAK STAGE			1.09	May 13	18.13	Jun 25 1981
ANNUAL RUNOFF (AC-FT)	132300		53		65450	
10 PERCENT EXCEEDS	790		.12		316	
50 PERCENT EXCEEDS	4.3		.07		1.2	
90 PERCENT EXCEEDS	.04		.00		.00	

e Estimated
Period of regulated streamflow.

08064100 CHAMBERS CREEK NEAR RICE, TEX.

LOCATION.--Lat 32°11'54, long 96°31'12", Navarro County, Hydrologic Unit 12030109, on downstream side of highway embankment 20 ft to left of left end of bridge on Farm Road 1126, 3.6 mi downstream from Oak Branch, 3.9 mi upstream from Cummins Creek, 4.2 mi upstream from bridge on Interstate Highway 45, 5.0 miles downstream from Waxahachie Creek, and 3.4 mi southwest of Rice.

DRAINAGE AREA.--807 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 340.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Flow from 178 mi² above this station is affected by storage in Bardwell Lake (station 08063700)on Waxahachie Creek. Flood releases from Bardwell Lake will sustain flows at this site from time to time. In addition, flow is affected at times by discharge from the flood-detention pools of numerous floodwater-retarding structures in the drainage basin above this station. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood information for the next downstream station, Chambers Creek near Corsicana, (08064500, discontinued) indicates that the maximum stage since at least 1870 occurred in August 1887, and that other significant floods occurred in December 1913, May 1944, and May 1958. Stages for these floods are unknown, but over the years a levee system has been developed along the main channel to limit cropland flooding.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	.83	2.5	3.7	4.5	3.7	6.0	3.8	.12	.00	.27	418
2	2.7	1.1	2.6	4.0	4.4	3.6	5.4	3.1	.11	.00	.20	295
3	2.3	.94	3.5	4.4	4.7	3.8	5.3	2.7	.10	.00	.15	169
4	2.6	.97	3.1	4.2	4.9	3.9	4.2	2.4	.08	.00	.10	72
5	2.3	1.1	2.9	4.4	5.1	4.2	5.3	2.2	.06	.00	.03	28
6	1.8	1.3	2.7	4.2	5.4	4.5	39	2.3	.03	.00	.00	16
7	1.4	1.5	2.5	4.1	6.0	4.6	94	2.4	.01	.00	.00	11
8	1.3	1.5	2.6	3.8	6.3	4.8	66	2.3	.00	.00	.00	8.4
9	1.2	1.7	2.8	3.8	7.0	7.2	22	2.2	.00	.00	.00	6.8
10	1.2	1.7	2.9	3.8	8.1	7.3	12	2.0	.00	.00	.00	5.5
11	1.2	1.6	2.8	3.8	7.8	6.8	8.7	1.9	.00	.00	.00	4.6
12	1.1	1.7	2.9	3.7	6.9	7.0	7.2	1.7	.00	.00	.00	6.3
13	1.0	2.0	3.0	3.8	6.8	7.0	6.6	1.6	.00	.11	.00	5.3
14	.94	1.8	3.4	3.9	6.2	7.0	6.9	1.5	.00	1.6	.00	4.2
15	.85	1.6	3.4	3.9	5.6	7.1	7.7	1.4	.05	.60	.00	4.1
16	.75	1.6	3.2	4.0	5.0	7.8	5.9	1.2	.19	.37	.00	3.7
17	.71	1.7	3.4	3.9	4.8	7.2	5.2	1.1	.16	.29	.00	14
18	.67	1.8	5.2	4.4	4.6	7.0	4.8	.89	.24	.21	.00	17
19	.68	1.9	8.7	5.1	4.3	7.0	4.5	.79	.18	.16	.00	8.4
20	.63	2.0	23	5.6	4.3	6.6	4.3	.70	.13	.11	.00	6.7
21	.58	2.1	15	6.8	4.4	6.5	4.1	.61	.07	.06	.00	41
22	.57	2.1	7.9	5.7	4.2	6.2	4.1	.54	.01	.01	.00	34
23	.57	2.2	6.0	5.5	4.0	6.0	4.6	.45	.00	.00	.00	20
24	.63	2.2	4.7	6.3	3.9	6.0	4.9	.36	.00	.00	.00	9.9
25	.64	2.3	4.0	6.8	4.1	8.6	4.5	.28	.00	13	.00	6.3
26	.62	2.3	3.5	6.1	3.9	7.9	4.6	.23	.00	2.9	.00	4.8
27	.63	2.5	3.3	5.5	4.2	6.7	4.6	.20	.00	1.2	.00	4.1
28	.56	2.5	3.1	5.2	4.2	8.8	4.3	.17	.00	.75	.00	3.6
29	.52	2.4	3.1	4.8	4.0	7.8	4.4	.15	.00	.56	430	3.3
30	.55	2.5	3.2	4.7	---	7.2	4.2	.13	.00	.43	770	3.0
31	.61	---	3.3	4.7	---	7.2	---	.12	---	.34	1140	---
TOTAL	34.41	53.44	144.2	144.6	149.6	197.0	365.3	41.42	1.54	22.70	2340.75	1234.0
MEAN	1.11	1.78	4.65	4.66	5.16	6.35	12.2	1.34	.051	.73	75.5	41.1
MAX	2.7	2.5	23	6.8	8.1	8.8	94	3.8	.24	13	1140	418
MIN	.52	.83	2.5	3.7	3.9	3.6	4.1	.12	.00	.00	.00	3.0
AC-FT	68	106	286	287	297	391	725	82	3.1	45	4640	2450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	380	321	806	479	757	743	483	940	735	53.3	39.8	27.4
MAX	1499	1811	3579	1984	2130	1819	2218	2932	2560	194	185	149
(WY)	1986	1992	1992	1992	1992	1992	1995	1989	1986	1989	1995	1991
MIN	.000	1.72	1.45	4.66	5.16	6.35	12.2	1.34	.051	.081	.000	.000
(WY)	1989	1989	1989	1996	1996	1996	1996	1996	1996	1988	1988	1985

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1984 - 1996	
ANNUAL TOTAL	256809.25		4728.96			
ANNUAL MEAN	704		12.9		479	
HIGHEST ANNUAL MEAN					1263	1992
LOWEST ANNUAL MEAN					12.9	1996
HIGHEST DAILY MEAN	14100	May 9	1140	Aug 31	22700	Dec 21 1991
LOWEST DAILY MEAN	.52	Oct 29	.00	Jun 8	.00	Aug 6 1985
ANNUAL SEVEN-DAY MINIMUM	.59	Oct 25	.00	Jun 8	.00	Aug 6 1985
INSTANTANEOUS PEAK FLOW			1520	Aug 31	43400	Jun 6 1986
INSTANTANEOUS PEAK STAGE			17.47	Aug 31	32.57	Dec 21 1991
ANNUAL RUNOFF (AC-FT)	509400		9380		347300	
10 PERCENT EXCEEDS	1520		7.7		1180	
50 PERCENT EXCEEDS	115		2.8		39	
90 PERCENT EXCEEDS	1.6		.00		.10	

08064100 CHAMBERS CREEK NEAR RICE, TEX.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.

INSTRUMENTATION.--Since January 1994, a two-parameter water-quality monitor records water temperature and specific conductance continuously at this station.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request. National water-quality assessment program data are included in this record. Prior to January 1994, period of daily record consists of daily observer measurements.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (1983-90): Maximum daily, 2,510 microsiemens Nov. 21, 1988; minimum daily, 161 microsiemens June 11, 1995.
WATER TEMPERATURE (1983-89): Maximum daily, 38.0°C Aug. 16, 1987; minimum daily, 0.0°C Feb. 7, 1989.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 2,110 microsiemens July 13 and 14; minimum, 163 microsiemens Aug. 29.
WATER TEMPERATURE: Maximum, 33.5°C July 20-22: minimum, 1.5°C Feb. 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 08...	1137	1.6	1500	7.4	13.5	2.7	26	390	150	140	10	160
JAN 17...	1040	3.9	1420	7.8	11.0	9.4	87	450	230	160	13	140
FEB 14...	1420	6.2	1310	7.9	13.0	9.1	88	340	86	120	9.4	140
MAR 28...	1155	8.5	1290	7.5	12.0	8.4	78	340	140	120	10	140
MAY 13...	1055	1.6	1400	7.4	22.5	2.8	33	320	110	110	10	160
JUL 17...	1435	0.28	1780	7.8	30.5	7.5	101	350	130	120	12	230
AUG 29...	1250	230	1090	7.4	24.5	5.0	60	220	56	78	6.8	110

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV 08...	4	5.9	240	270	170	0.40	10	986	920	--	<0.010	--
JAN 17...	3	5.2	220	300	130	0.40	9.0	960	919	--	<0.010	--
FEB 14...	3	4.4	250	240	130	0.40	5.3	852	807	--	<0.010	--
MAR 28...	3	4.1	200	290	110	0.50	4.7	828	809	--	<0.010	--
MAY 13...	4	5.4	200	290	140	0.60	7.0	926	855	0.100	<0.010	0.100
JUL 17...	5	6.8	220	300	250	0.60	8.7	1110	1060	--	--	--
AUG 29...	3	4.9	170	180	93	0.50	6.8	600	577	--	0.010	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV 08...	<0.050	<0.015	0.40	0.40	--	0.40	0.40	0.060	0.070	<0.010	--	3
JAN 17...	<0.050	0.020	0.60	0.58	0.28	0.30	0.60	0.080	0.030	<0.010	--	--
FEB 14...	<0.050	<0.015	0.50	0.50	--	0.20	0.50	0.050	<0.010	<0.010	--	--
MAR 28...	<0.050	<0.015	0.40	0.40	--	0.30	0.40	0.030	0.010	<0.010	--	--
MAY 13...	0.100	0.090	0.80	0.61	0.41	0.50	0.70	0.040	<0.010	<0.010	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 29...	<0.050	0.090	0.40	0.31	0.31	0.40	0.40	0.010	<0.010	0.010	0.03	--

08064100 CHAMBERS CREEK NEAR RICE, TEX.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 08...	<100	<1.0	<1.0	<1.0	70	<1.0	610	<0.1	<1	<1.0	<10
JAN 17...	--	--	--	--	10	--	94	--	--	--	--
FEB 14...	--	--	--	--	<3.0	--	62	--	--	--	--
MAR 28...	--	--	--	--	10	--	43	--	--	--	--
MAY 13...	--	--	--	--	6.0	--	470	--	--	--	--
JUL 17...	--	--	--	--	18	--	91	--	--	--	--
AUG 29...	--	--	--	--	5.0	--	58	--	--	--	--

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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. 1995	34.41	1100	674	63	100	9.5	190	18	320
NOV. 1995	53.44	1630	1040	150	210	30	340	48	410
DEC. 1995	144.2	1390	871	339	160	61	270	105	370
JAN. 1996	144.6	1310	819	320	140	54	250	97	360
FEB. 1996	149.6	1220	758	306	120	49	220	90	350
MAR. 1996	197.0	1250	776	413	130	67	230	123	350
APR. 1996	365.3	1070	659	650	99	97	190	187	320
MAY 1996	41.42	1400	877	98	150	17	270	30	380
JUNE 1996	1.54	1680	1080	4.5	220	0.9	350	1.5	410
JULY 1996	22.70	1440	906	56	170	10	280	17	380
AUG. 1996	2340.75	361	210	1320	17	106	49	311	130
SEPT 1996	1234.0	390	227	755	18	61	53	177	140
TOTAL	4728.96	**	**	4500	**	563	**	1210	**
WTD.AVG.	13	583	351	**	44	**	94	**	180

08064100 CHAMBERS CREEK NEAR RICE, TEX.--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	931	913	922	1550	1510	1530	1700	1680	1690	1030	1010	1020
2	930	917	925	1520	1500	1510	1740	1700	1720	1080	1030	1060
3	948	928	941	1520	1500	1510	1740	1680	1720	1130	1080	1100
4	975	944	961	1530	1510	1510	1680	1660	1660	1190	1130	1160
5	999	960	985	1610	1530	1580	1680	1670	1680	1240	1190	1210
6	987	973	978	1620	1540	1590	1680	1660	1660	1280	1240	1260
7	1020	987	1000	1540	1480	1490	1660	1640	1650	1320	1280	1300
8	1060	1020	1040	1540	1480	1500	1650	1600	1620	1350	1320	1330
9	1070	1050	1060	1570	1540	1560	1610	1590	1600	1430	1350	1380
10	1080	1060	1070	1560	1510	1530	1620	1590	1600	1480	1430	1470
11	1080	1060	1070	1530	1510	1520	1590	1560	1570	1480	1460	1470
12	1080	1070	1080	1580	1520	1540	1580	1560	1560	1460	1440	1450
13	1100	1080	1090	1590	1570	1580	1570	1550	1560	1450	1440	1440
14	1110	1100	1110	1580	1570	1570	1550	1530	1540	1440	1430	1440
15	1140	1110	1130	1610	1580	1600	1530	1500	1510	1450	1440	1440
16	1190	1140	1170	1650	1600	1630	1500	1470	1490	1450	1440	1450
17	1200	1180	1200	1680	1640	1660	1470	1450	1460	1470	1440	1460
18	1210	1200	1210	1710	1680	1700	1450	1400	1420	1450	1440	1440
19	1230	1210	1220	1700	1670	1690	1400	1390	1390	1440	1430	1440
20	1250	1230	1240	1670	1650	1670	1810	1360	1540	1440	1410	1420
21	1270	1250	1260	1670	1670	1670	1620	1230	1440	1410	1390	1400
22	1300	1270	1280	1680	1660	1670	1230	1160	1190	1390	1340	1360
23	1330	1300	1310	1680	1650	1670	1160	1100	1140	1340	1320	1330
24	1380	1330	1360	1680	1640	1670	1100	1000	1050	1320	1290	1300
25	1410	1380	1400	1690	1670	1680	1000	930	961	1290	1260	1280
26	1440	1410	1420	1690	1670	1690	930	891	912	1280	1260	1270
27	1460	1440	1450	1710	1690	1700	891	885	890	1260	1210	1230
28	1490	1460	1480	1730	1710	1720	897	885	889	1220	1210	1220
29	1520	1490	1510	1750	1730	1740	927	895	907	1230	1200	1220
30	1530	1510	1530	1740	1700	1720	962	927	939	1230	1220	1220
31	1540	1530	1530	---	---	---	1010	962	984	1230	1220	1220
MONTH	1540	913	1190	1750	1480	1610	1810	885	1390	1480	1010	1320

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1230	1220	1230	1290	1260	1280	1340	1280	1310	1350	1340	1350
2	1220	1190	1200	1290	1270	1280	1280	1260	1270	1350	1340	1350
3	1190	1170	1180	1290	1270	1280	1270	1260	1270	1360	1350	1350
4	1170	1150	1160	1310	1290	1300	1280	1270	1280	1370	1360	1360
5	1180	1160	1170	1310	1310	1310	1270	1210	1240	1380	1360	1370
6	1180	1170	1180	1310	1310	1310	1210	992	1120	1380	1320	1360
7	1170	1170	1170	1310	1290	1300	---	---	e935	1360	1340	1350
8	1170	1170	1170	1320	1280	1290	---	---	e885	1350	1330	1340
9	1170	1170	1170	1320	1290	1310	---	---	e938	1380	1350	1360
10	1180	1170	1180	1320	1290	1310	---	---	e990	1380	1370	1380
11	1190	1180	1190	1340	1310	1330	1070	1010	1040	1380	1380	1380
12	1200	1190	1190	1310	1280	1300	1130	1070	1100	1420	1380	1400
13	1260	1190	1210	1290	1270	1280	1180	1130	1150	1440	1420	1430
14	1360	1260	1330	1280	1270	1270	1230	1180	1200	1430	1420	1430
15	1350	1310	1340	1270	1230	1250	1250	1230	1240	1440	1420	1430
16	1310	1280	1290	1230	1190	1210	1260	1250	1260	1460	1440	1450
17	1280	1270	1280	1200	1180	1190	1290	1260	1280	1480	1450	1470
18	1280	1260	1270	1190	1170	1180	1320	1280	1310	1500	1480	1490
19	1270	1260	1260	1180	1170	1170	1350	1320	1340	1520	1500	1510
20	1270	1260	1270	1180	1160	1170	1390	1350	1370	1540	1510	1530
21	1270	1260	1260	1180	1150	1170	1420	1390	1400	1560	1540	1550
22	1260	1240	1250	1180	1160	1170	1430	1410	1420	1570	1550	1560
23	1240	1220	1230	1180	1160	1170	1430	1400	1410	1590	1570	1580
24	1230	1220	1220	1180	1170	1170	1440	1410	1430	1590	1500	1570
25	1250	1220	1230	1200	1170	1180	1430	1420	1420	---	---	1540
26	1250	1250	1250	1230	1200	1210	1430	1420	1430	---	---	1550
27	1250	1240	1250	1270	1230	1260	1420	1390	1400	---	---	1560
28	1260	1250	1250	1290	1270	1280	1390	1370	1380	---	---	1580
29	1260	1250	1250	1320	1290	1310	1370	1330	1350	---	---	1590
30	---	---	---	1320	1300	1310	1350	1320	1330	---	---	1600
31	---	---	---	1350	1310	1340	---	---	---	---	---	1610
MONTH	1360	1150	1230	1350	1150	1250	1440	992	1250	1590	1320	1460

e Estimated

08064100 CHAMBERS CREEK NEAR RICE, TEX.--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	1620	---	---	---	1110	1100	1100	352	336	344
2	---	---	1640	---	---	---	1110	1100	1110	391	303	337
3	---	---	1650	---	---	---	1130	1110	1120	404	352	371
4	---	---	1660	---	---	---	1140	1130	1130	410	376	396
5	---	---	1670	---	---	---	1150	1140	1140	429	410	421
6	---	---	1690	---	---	---	---	---	---	445	429	438
7	---	---	1700	---	---	---	---	---	---	459	445	453
8	---	---	---	---	---	---	---	---	---	464	459	461
9	---	---	---	---	---	---	---	---	---	471	462	466
10	---	---	---	---	---	---	---	---	---	474	467	470
11	---	---	---	---	---	---	---	---	---	477	471	474
12	---	---	---	---	---	---	---	---	---	480	463	470
13	---	---	---	2110	1390	1630	---	---	---	463	457	459
14	---	---	---	2110	1680	1840	---	---	---	502	461	475
15	---	---	1420	1710	1670	1690	---	---	---	552	502	537
16	1560	1470	1540	1760	1710	1730	---	---	---	557	550	554
17	1620	1540	1570	1800	1750	1770	---	---	---	559	497	539
18	1830	1620	1710	1810	1790	1800	---	---	---	648	493	586
19	1870	1770	1820	1820	1800	1810	---	---	---	649	601	627
20	1910	1860	1880	1830	1810	1820	---	---	---	617	601	611
21	1910	1900	1900	1840	1820	1830	---	---	---	604	501	541
22	1920	1910	1920	1850	1830	1840	---	---	---	923	395	605
23	---	---	---	---	---	---	---	---	---	578	389	485
24	---	---	---	---	---	---	---	---	---	663	578	631
25	---	---	---	1890	1060	1360	---	---	---	662	589	630
26	---	---	---	1830	1410	1670	---	---	---	589	554	566
27	---	---	---	1410	1170	1260	---	---	---	554	544	547
28	---	---	---	1170	1130	1150	---	---	---	556	549	553
29	---	---	---	1130	1090	1110	1200	163	632	565	556	563
30	---	---	---	1100	1080	1090	549	180	293	575	563	570
31	---	---	---	1100	1080	1090	338	263	304	---	---	---
MONTH	1920	1470	1690	2110	1060	1560	1200	163	854	923	303	506
YEAR	2110	163	1280									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.0	23.0	23.5	19.0	17.0	18.0	11.0	8.5	10.0	8.5	7.5	8.0
2	24.5	23.5	24.0	18.0	16.0	17.5	13.5	10.5	12.0	7.5	6.5	7.0
3	23.5	22.5	23.0	16.0	14.0	15.0	14.5	13.0	13.5	6.5	5.5	6.0
4	22.5	21.0	22.0	14.0	12.5	13.5	14.5	13.5	14.0	7.0	5.5	6.0
5	22.0	20.5	21.0	12.5	12.5	12.5	14.5	13.0	14.0	7.0	6.5	6.5
6	20.5	19.0	20.0	13.5	12.0	13.0	14.0	13.5	13.5	6.5	5.0	6.0
7	19.0	18.0	18.5	14.5	13.5	14.0	13.5	12.5	12.5	5.0	3.0	4.0
8	19.0	17.0	18.0	14.5	13.0	13.5	12.5	11.5	12.0	3.5	2.5	3.0
9	19.5	17.5	18.5	14.5	12.5	13.5	11.5	8.5	10.0	4.0	2.5	3.5
10	20.5	18.5	19.5	17.0	14.5	15.5	8.5	6.5	7.0	5.5	3.5	4.5
11	21.0	19.0	20.0	16.0	13.0	14.0	7.0	6.0	6.5	7.0	5.5	6.0
12	21.0	19.0	20.0	13.0	11.5	12.5	9.5	7.0	8.0	6.5	5.5	6.0
13	21.0	19.5	20.0	12.5	11.5	12.0	12.0	9.0	11.0	7.0	5.5	6.0
14	20.5	18.5	19.5	13.0	11.5	12.0	14.0	12.0	13.0	8.0	6.5	7.0
15	19.0	17.0	18.0	13.0	11.5	12.0	15.0	13.5	14.5	9.0	7.5	8.0
16	18.5	16.5	17.5	12.5	11.0	12.0	14.5	14.0	14.0	9.5	8.0	8.5
17	18.5	16.5	17.5	11.5	11.0	11.5	14.0	14.0	14.0	12.5	9.5	11.0
18	18.5	16.5	17.5	12.5	10.5	11.5	14.0	12.5	13.5	12.5	8.0	10.5
19	20.0	17.0	18.5	13.0	11.0	12.0	12.5	10.5	11.0	8.0	6.5	7.0
20	19.0	16.5	17.5	13.0	12.0	12.5	10.5	9.5	10.0	7.0	5.5	6.5
21	17.5	15.5	16.0	14.0	12.5	13.0	9.5	8.5	8.5	8.5	7.0	7.5
22	18.5	15.5	17.0	14.0	12.5	13.0	8.5	7.0	8.0	9.0	8.5	8.5
23	18.5	17.0	18.0	14.0	13.0	13.5	7.0	6.5	7.0	10.5	9.0	10.0
24	17.0	15.5	16.5	13.0	12.0	12.5	6.5	5.5	6.0	9.5	8.0	8.5
25	16.5	15.5	16.0	12.5	11.5	12.0	6.0	5.0	5.5	9.0	7.5	8.0
26	19.0	16.0	17.5	13.5	11.5	12.5	5.5	5.0	5.0	10.0	9.0	9.5
27	21.0	18.0	19.0	14.5	13.5	14.0	6.0	5.0	5.5	9.0	7.5	8.0
28	18.0	16.5	17.5	13.5	11.0	12.0	5.5	4.5	5.0	7.5	6.5	7.0
29	17.5	16.0	16.5	11.0	9.5	10.0	5.0	4.5	5.0	9.0	7.5	8.5
30	16.5	16.0	16.5	10.0	8.5	9.0	6.5	5.0	5.5	9.0	8.0	8.5
31	17.5	16.0	17.0	---	---	---	8.0	6.5	7.0	8.0	5.5	6.5
MONTH	24.5	15.5	18.5	19.0	8.5	13.0	15.0	4.5	9.5	12.5	2.5	7.0

08064100 CHAMBERS CREEK NEAR RICE, TEX.--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.0	5.0	12.5	11.0	11.5	17.0	14.5	16.0	21.5	18.5	20.0
2	4.0	3.0	3.5	13.0	10.0	11.5	17.0	14.5	16.0	21.0	20.0	20.5
3	3.0	2.5	3.0	14.0	11.0	12.5	18.0	16.0	17.0	22.5	20.5	21.5
4	3.0	2.0	2.5	14.5	13.0	13.5	17.5	16.5	17.0	24.5	21.0	22.5
5	3.5	1.5	2.5	18.5	14.5	16.5	16.5	13.5	15.0	24.5	22.0	23.5
6	5.0	3.0	4.5	18.0	15.5	17.5	14.5	12.5	13.5	23.5	22.5	23.0
7	8.5	5.0	7.0	15.5	12.5	14.0	---	---	---	24.0	22.0	22.5
8	11.5	8.5	10.0	12.5	10.0	11.0	---	---	---	24.0	22.5	23.0
9	12.5	10.5	11.5	10.5	8.5	9.5	---	---	---	25.5	22.5	24.0
10	15.0	12.5	13.5	11.0	8.5	9.5	---	---	---	26.0	23.5	24.5
11	15.0	13.5	14.5	12.0	9.5	10.5	21.0	19.0	20.0	24.5	22.5	23.5
12	13.5	12.0	12.5	13.5	10.5	12.0	21.0	20.0	20.5	23.5	22.0	22.5
13	13.0	11.0	12.0	16.0	13.0	14.0	21.5	19.0	20.5	23.5	22.0	22.5
14	13.0	12.0	12.5	18.0	15.5	16.5	23.0	21.0	21.5	26.0	22.0	23.5
15	13.5	12.0	12.5	19.0	17.0	18.0	21.0	19.5	20.0	27.0	23.0	24.5
16	12.5	10.0	11.5	18.5	16.5	18.0	20.5	18.0	19.5	28.5	24.0	25.5
17	10.5	9.0	10.0	19.5	17.5	18.5	22.0	18.5	20.0	28.5	24.5	26.0
18	11.5	9.0	10.5	19.0	16.5	17.5	24.0	20.0	22.0	28.5	24.5	26.0
19	14.0	11.5	12.5	17.0	15.0	16.0	25.5	22.0	23.5	28.5	25.0	26.0
20	14.5	12.5	13.5	16.0	13.5	15.0	24.5	22.5	23.5	29.0	24.5	26.5
21	16.0	13.0	14.5	16.0	12.5	14.5	25.0	22.5	23.5	31.0	25.5	28.0
22	16.0	14.5	15.5	16.0	14.0	15.0	23.5	21.0	22.5	30.5	26.0	28.0
23	18.0	15.5	16.5	17.0	15.0	16.0	22.0	20.0	20.5	30.5	25.5	28.0
24	16.5	15.0	16.0	17.5	16.5	16.5	21.5	18.5	20.0	30.0	25.5	27.5
25	17.5	15.5	16.5	16.5	15.0	15.5	22.5	19.5	21.0	30.0	25.5	27.5
26	18.5	17.0	17.5	15.0	13.5	14.0	23.5	20.5	21.5	29.0	26.0	27.5
27	19.0	18.0	18.5	14.0	12.0	13.0	22.0	20.5	21.5	29.5	25.5	27.0
28	18.0	15.0	16.5	12.5	11.5	12.0	23.0	21.0	22.0	29.5	25.5	27.0
29	15.0	12.0	13.0	14.0	11.5	12.5	21.5	19.5	21.0	31.5	23.0	27.5
30	---	---	---	17.0	13.5	15.0	20.5	18.0	19.5	30.5	23.5	27.0
31	---	---	---	17.0	15.0	16.0	---	---	---	28.0	24.5	25.5
MONTH	19.0	1.5	11.5	19.5	8.5	14.5	25.5	12.5	20.0	31.5	18.5	25.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	22.5	25.0	---	---	---	31.5	27.5	29.5	24.5	24.0	24.0
2	28.5	22.5	25.5	---	---	---	31.5	27.5	29.5	26.0	24.0	25.0
3	31.0	21.5	26.0	---	---	---	32.5	28.0	30.0	26.0	24.0	25.0
4	29.5	20.0	25.0	---	---	---	32.5	27.5	29.5	25.5	25.0	25.5
5	32.0	22.5	27.0	---	---	---	32.0	27.5	29.5	26.0	24.5	25.5
6	33.0	24.0	27.5	---	---	---	---	---	---	26.0	25.0	25.5
7	29.5	20.0	24.5	---	---	---	---	---	---	26.5	25.5	26.0
8	---	---	---	---	---	---	---	---	---	27.0	26.0	26.5
9	---	---	---	---	---	---	---	---	---	27.5	26.0	26.5
10	---	---	---	---	---	---	---	---	---	27.0	25.5	26.0
11	---	---	---	---	---	---	---	---	---	26.0	25.0	25.5
12	---	---	---	---	---	---	---	---	---	25.5	24.5	25.0
13	---	---	---	30.0	26.0	28.0	---	---	---	25.0	24.5	25.0
14	---	---	---	28.5	27.5	28.0	---	---	---	25.5	24.0	25.0
15	30.5	25.5	27.5	30.0	27.5	28.5	---	---	---	25.5	24.5	25.0
16	32.5	26.0	28.5	31.5	28.0	29.5	---	---	---	26.0	24.5	25.0
17	32.0	27.0	29.0	32.0	28.5	30.0	---	---	---	25.5	24.0	24.5
18	31.0	27.5	29.0	32.0	28.0	30.0	---	---	---	25.0	24.5	24.5
19	32.0	27.5	29.5	32.5	28.5	30.0	---	---	---	24.5	24.5	24.5
20	33.0	28.5	30.5	33.5	28.0	30.5	---	---	---	25.0	24.0	24.5
21	32.5	28.0	30.0	33.5	27.5	30.0	---	---	---	24.5	24.0	24.5
22	31.5	27.5	29.5	33.5	27.5	30.0	---	---	---	24.5	23.5	24.0
23	---	---	---	---	---	---	---	---	---	26.0	23.5	24.5
24	---	---	---	---	---	---	---	---	---	26.0	25.0	25.5
25	---	---	---	29.0	27.5	28.5	---	---	---	26.0	25.0	25.5
26	---	---	---	29.0	27.5	28.5	---	---	---	26.0	24.5	25.5
27	---	---	---	28.5	27.5	28.0	---	---	---	24.5	21.5	23.0
28	---	---	---	30.5	27.0	28.5	---	---	---	21.5	20.0	20.5
29	---	---	---	30.5	27.5	29.0	26.0	22.5	24.0	20.5	19.0	19.5
30	---	---	---	29.5	28.0	28.5	24.0	22.5	23.5	20.0	18.5	19.5
31	---	---	---	31.5	27.5	29.0	24.0	23.0	23.5	---	---	---
MONTH	33.0	20.0	27.5	33.5	26.0	29.0	32.5	22.5	27.5	27.5	18.5	24.5
YEAR	33.5	1.5	17.5									

TRINITY RIVER BASIN
08064550 RICHLAND-CHAMBERS RESERVOIR NEAR KERENS, TX

LOCATION.--Lat 32°02'25", long 96°12'23", Navarro County, Hydrologic Units 12030108 and 12030109, on upper floor of pumphouse, on left bank of Chambers Creek arm of Richland-Chambers Reservoir, 7.0 mi south of intersection of State Highway 31 and Farm Road 309 in Kerens, and 14.4 mi upstream from dam on Richland Creek.

DRAINAGE AREA.--1,957 mi².

PERIOD OF RECORD.--November 1988 to current year.

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

REMARKS.--The reservoir is formed by a rolled earthfill dam 31,000 ft long. Deliberate impoundment of water began July 14, 1987, and the dam was completed in December 1988. A gated concrete spillway is located near the left end of dam. The spillway is 1,155 ft long and contains twenty-four 40- x 29.4-foot radial gates. The low flow outlet works consist of two 3- x 5-foot outlets at elevation 266.0 ft, one 1.5 x 2.5 foot outlet, and one 1 x 1 foot outlet at elevation 285.0 ft. Each of the low flow outlets is controlled by sluice gates. The dam is owned by Tarrant Regional Water District, and was built for municipal and industrial water supply and for recreation. The area and capacity table was prepared by the Texas Water Development Board. Flow from 464 mi² above the dam is controlled by Bardwell and Navarro Mills Lakes. Figures given herein represent total contents. Gage-height telemeter at station. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	330.0	--
Top of gates	317.34	1,245,000
Top of conservation pool	315.0	1,137,000
Crest of spillway	290.0	346,800
Lowest gated outlet	266.0	32,780

COOPERATION.--Capacity table No. 1-C was prepared by Freese and Nichols, consulting engineers for Tarrant Regional Water District. A new capacity, Table No. 2-C, was prepared by the Texas Water Development Board and put into use Oct. 1, 1995.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,267,000 acre-ft Dec. 22, 1991 (elevation 316.85 ft); minimum contents, 233,600 acre-ft Dec. 8, 1988 (elevation, 283.02 ft), using Capacity Table No. 1-C.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,101,000 acre-ft Oct.1 at 0800 hrs (elevation 314.14 ft); minimum contents, 882,100 acre-ft Aug. 27 (elevation, 308.59 ft).

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

283.0	217,000	312.0	1,014,000	315.0	1,137,000
293.0	413,300	313.0	1,055,000	316.0	1,182,000
303.0	688,600	314.0	1,096,000	317.0	1,229,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1101000	1069000	1045000	1035000	1017000	1003000	985900	982700	961900	935700	901200	903900
2	1100000	1067000	1045000	1034000	1017000	1002000	985900	982300	961100	934500	898900	903900
3	1098000	1066000	1044000	1033000	1016000	1002000	985100	983900	960300	933400	899300	905400
4	1098000	1065000	1044000	1032000	1016000	1002000	982700	981900	959500	932600	898100	905800
5	1096000	1065000	1043000	1031000	1015000	1001000	994600	981900	958700	931100	896300	905400
6	1095000	1065000	1043000	1030000	1014000	997000	996600	983900	957200	930300	894400	904300
7	1093000	1064000	1041000	1029000	1016000	997800	997000	983500	956000	929200	894000	903500
8	1093000	1064000	1043000	1029000	1015000	995800	997400	983100	954400	927300	893300	903100
9	1092000	1063000	1042000	1028000	1014000	995000	996600	982700	952900	925300	894000	902400
10	1091000	1061000	1042000	1028000	1014000	994200	996600	981100	953700	922700	894400	901200
11	1090000	1060000	1040000	1027000	1014000	995400	996600	979900	954000	923000	892900	899700
12	1089000	1059000	1040000	1026000	1013000	994600	995000	979500	953700	921900	891800	898900
13	1089000	1058000	1040000	1027000	1013000	993800	995800	979500	953300	921100	891400	898500
14	1087000	1057000	1039000	1025000	1013000	993000	994600	979100	952500	919600	890300	897400
15	1086000	1056000	1040000	1025000	1012000	993400	993400	978700	951700	919600	889200	897000
16	1085000	1056000	1040000	1025000	1011000	991800	993800	977500	950900	919200	888800	896300
17	1084000	1055000	1041000	1027000	1009000	991800	993000	976700	949700	917300	888100	894400
18	1084000	1054000	1044000	1025000	1010000	991100	991800	975600	949000	916900	888800	896600
19	1082000	1054000	1041000	1024000	1009000	989900	993000	974800	946600	915400	887700	901600
20	1080000	1053000	1040000	1023000	1009000	988300	989500	974400	945100	913800	885800	903100
21	1078000	1053000	1039000	1023000	1009000	987900	991400	972800	944300	912700	885100	902700
22	1078000	1053000	1039000	1024000	1008000	988700	990300	971600	943900	911200	885800	902700
23	1076000	1052000	1038000	1023000	1006000	988300	989100	971200	943100	910000	884300	902000
24	1075000	1051000	1038000	1023000	1006000	989500	989900	970900	940000	909600	884000	901200
25	1074000	1051000	1036000	1023000	1006000	986300	987100	969300	939200	908100	883200	901200
26	1075000	1051000	1035000	1021000	1006000	986700	987100	968500	940000	908100	882800	899300
27	1073000	1048000	1035000	1021000	1005000	987900	988700	967700	939600	907300	883600	897400
28	1071000	1046000	1034000	1020000	1004000	988300	983900	966200	939200	905800	885500	896300
29	1070000	1046000	1033000	1020000	1003000	987900	985100	965800	938400	904700	893600	894800
30	1069000	1046000	1033000	1018000	---	988300	984300	964200	937200	903500	900100	894400
31	1069000	---	1033000	1018000	---	985500	---	963800	---	902400	903100	---
MAX	1101000	1069000	1045000	1035000	1017000	1003000	997400	983900	961900	935700	903100	905800
MIN	1069000	1046000	1033000	1018000	1003000	985500	982700	963800	937200	902400	882800	894400
(+)	313.35	312.77	312.46	312.08	311.72	311.27	311.24	310.72	310.04	309.13	309.15	308.92
(@)	-32300	-23000	-13000	-15000	-15000	-17500	-1200	-20500	-26600	-34800	+700	-8700

CAL YR 1995 MAX 1258000 MIN 1033000 (@) -177000
WTR YR 1996 MAX 1101000 MIN 882800 (@) -206900

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08064700 TEHUACANA CREEK NEAR STREETMAN, TX

LOCATION.--Lat 31°50'46", long 96°17'37", Freestone County, Hydrologic Unit 12030201, at left end of upstream bridge on Interstate Highway 45, 2.8 mi southeast of Streetman, 2.9 mi downstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, 4.0 mi upstream from Caney Creek, and 24.8 mi upstream from mouth.

DRAINAGE AREA.--142 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 280.13 ft above sea level. Prior to Dec. 14, 1993, at site 0.2 mi downstream at datum 7.45 ft higher.

REMARKS.--Records fair, except those for estimated daily discharges and those for daily discharges below 15 ft³/s, which are poor. Rain gage at station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1932 reached a stage of about 24 ft. at site and datum 0.2 mi downstream from information by Texas Department of Transportation.

PEAK DISCHARGES.--Peak discharges greater than base discharge of 2,500 ft³/s.

Current year:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
No peak greater than base discharge.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.00	.00	.67	.50	.26	.29	.10	.05	.00	.00	8.4
2	1.1	.00	.00	.79	.63	.28	.29	.05	.03	.00	.00	4.8
3	1.0	.00	.00	.79	.63	.25	.29	.01	.02	.00	.00	9.6
4	1.0	.00	.00	.69	.66	.25	.31	.00	.00	.00	.00	546
5	1.0	.00	.06	.63	.65	.26	1.4	.00	.00	.00	.00	16
6	e.94	.00	.15	.67	.65	.26	1.6	.03	.00	.00	.00	2.9
7	e.83	.01	.26	.68	.69	.28	.78	.09	.00	.00	.00	1.4
8	e.69	.04	.26	.64	.63	.32	.44	.35	.00	.00	.00	.88
9	e.55	.03	.24	.53	.65	.34	.26	1.1	.00	.00	.00	.64
10	e.44	.00	.20	.47	.59	.31	.18	1.2	.18	.00	.00	.48
11	e.36	.00	.20	.52	.54	.25	.15	1.6	.22	.00	41	.42
12	e.39	.02	.20	.54	.52	.15	.13	1.7	.17	.00	20	.38
13	e.30	.00	.25	.51	.49	.07	.16	1.5	.14	.00	6.1	.31
14	e.16	.00	.32	.50	.46	.07	.15	1.4	.11	.00	3.6	.25
15	e.08	.03	.32	.48	.43	.07	.10	1.2	.09	.00	2.5	.22
16	.03	.04	.32	.50	.38	.09	.10	.95	.06	.00	1.7	.23
17	.00	.04	.34	.52	.36	.14	.07	.75	.03	.00	1.1	.17
18	.00	.06	.53	.56	.35	.15	.01	.58	.01	.00	.64	.13
19	.00	.08	.71	.58	.34	.14	.00	.46	.00	.00	.36	.18
20	.00	.10	.77	.66	.32	.13	.00	.37	.00	.00	.19	141
21	.00	.04	.75	.65	.33	.12	.00	.33	.00	.00	.09	40
22	.00	.04	.64	.65	.36	.13	.00	.28	.00	.00	.04	3.2
23	.00	.08	.48	.64	.37	.11	.01	.22	.00	.00	.04	1.4
24	.00	.02	.34	.62	.33	.44	.00	.17	.00	.00	.00	.90
25	.00	.01	.32	.65	.29	.38	.00	.15	.00	.00	.00	.83
26	.00	.00	.34	.62	.27	.33	.00	.13	.03	.00	.00	.75
27	.00	.00	.35	.54	.26	.33	.03	.11	.04	.00	.00	.64
28	.00	.00	.38	.50	.22	.44	.15	.10	.01	.00	.00	.50
29	.00	.00	.42	.52	.19	.55	.21	.09	.00	.00	81	.40
30	.00	.00	.44	.52	---	.45	.13	.06	.00	.00	237	.31
31	.00	---	.56	.49	---	.34	---	.04	---	.00	27	---
TOTAL	10.07	0.64	10.15	18.33	13.09	7.69	7.24	15.12	1.19	0.00	422.36	783.32
MEAN	.32	.021	.33	.59	.45	.25	.24	.49	.040	.000	13.6	26.1
MAX	1.2	.10	.77	.79	.69	.55	1.6	1.7	.22	.00	237	546
MIN	.00	.00	.00	.47	.19	.07	.00	.00	.00	.00	.00	.13
AC-FT	20	1.3	20	36	26	15	14	30	2.4	.00	838	1550
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.18
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.21

08064700 TEHUACANA CREEK NEAR STREETMAN, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	57.2	49.6	141	62.9	152	121	85.0	225	71.7	4.10	17.1	28.9
MAX	379	371	1013	289	930	1048	557	2927	388	35.1	234	547
(WY)	1974	1975	1992	1992	1986	1990	1976	1989	1981	1976	1983	1974
MIN	.000	.000	.077	.12	.45	.25	.000	.020	.040	.000	.000	.000
(WY)	1981	1981	1990	1971	1996	1996	1971	1971	1996	1978	1969	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	15052.70		1289.20			
ANNUAL MEAN	41.2		3.52		82.5	
HIGHEST ANNUAL MEAN					274	1989
LOWEST ANNUAL MEAN					3.52	1996
HIGHEST DAILY MEAN	2630	May 8	546	Sep 4	42000	May 4 1989
LOWEST DAILY MEAN	.00	Sep 9	.00	Oct 17	.00	Sep 30 1968
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 17	.00	Oct 17	.00	Sep 30 1968
INSTANTANEOUS PEAK FLOW			1340	Sep 4	g85700	May 17 1989
INSTANTANEOUS PEAK STAGE			24.67	Sep 4	g30.20	May 17 1989
ANNUAL RUNOFF (AC-FT)	29860		2560		59800	
ANNUAL RUNOFF (CFSM)	.29		.025		.58	
ANNUAL RUNOFF (INCHES)	3.94		.34		7.90	
10 PERCENT EXCEEDS	42		.94		51	
50 PERCENT EXCEEDS	1.5		.19		1.6	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
g At site and datum then in use.

08064700 TEHUACANA CREEK NEAR STREETMAN, TX--Continued

WATER-QUALITY RECORDS

LOCATION.--Lat 31°50'54", long 96°17'23", Freestone County, Hydrologic Unit 12030201, at downstream side of bridge on U.S. Highway 75, 2.8 mi southeast of Streetman, 3.1 mi downstream from Chicago, Rock Island, and Pacific Railroad Co. bridge, 3.8 mi upstream from Caney Creek, and 25 mi upstream from mouth.

PERIOD OF RECORD.--Chemical analyses: February 1968 to September 1985, October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)
JAN												
23...	0955	0.64	2010	8.0	13.0	38	10	9.3	90	2.0	530	230
APR												
09...	1113	0.26	1060	8.2	17.5	24	5.3	9.8	103	3.4	250	54
MAY												
03...	1000	0.01	1470	7.9	21.5	40	6.5	6.2	71	2.9	350	110
09...	0928	1.1	1500	8.0	24.5	40	8.0	6.6	80	2.1	360	120
JUN												
21...	1030	0.01	1580	8.2	28.5	160	--	6.6	86	3.8	300	52

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JAN											
23...	120	55	230	4	6.8	300	310	280	0.70	9.1	1190
APR											
09...	60	24	120	3	5.8	200	110	150	0.50	11	599
MAY											
03...	83	34	170	4	5.5	240	150	230	0.60	7.4	825
09...	86	36	170	4	4.9	240	170	240	0.60	7.9	862
JUN											
21...	57	38	200	5	7.1	250	150	270	0.80	8.4	881

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L)	RESIDUE FIXED NON FILTER-ABLE (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
JAN											
23...	22	9	13	--	<0.010	--	<0.050	0.030	0.47	0.50	0.030
APR											
09...	10	12	0	0.070	<0.010	0.070	0.070	0.040	0.56	0.60	0.020
MAY											
03...	15	14	1	--	<0.010	--	<0.050	0.040	0.46	0.50	0.020
09...	22	22	0	0.160	<0.010	0.160	0.160	0.030	0.47	0.50	0.030
JUN											
21...	19	10	9	--	<0.010	--	<0.050	0.070	0.63	0.70	0.020

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
JAN											
23...	0.010	0.03	9.1	<1	130	<1.5	5.0	<15	13	30	25
APR											
09...	0.010	0.03	11	--	--	--	--	--	--	--	--
MAY											
03...	<0.010	--	9.2	1	96	<0.50	<1.0	<5.0	<3.0	<10	12
09...	0.020	0.06	11	2	83	<0.50	<1.0	<5.0	<3.0	<10	9.0
JUN											
21...	0.030	0.09	12	3	92	<0.50	<1.0	<5.0	<3.0	20	32

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN											
23...	40	30	580	<0.1	<30	30	<1	<3.0	1600	<18	77
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	<10	30	630	<0.1	<10	<10	<1	<1.0	1000	<6	<3.0
09...	<10	29	510	<0.1	<10	<10	<1	<1.0	1000	<6	7.0
JUN											
21...	30	27	120	<0.1	<10	<10	<1	2.0	970	<6	18

08065000 TRINITY RIVER NEAR OAKWOOD, TX

LOCATION.--Lat 31°38'54", long 95°47'21", Anderson County, Hydrologic Unit 12030201, on left bank at downstream side of bridge on U.S. Highways 79 and 84, 1.5 mi upstream from Missouri Pacific Railroad Co. bridge, 6 mi northeast of Oakwood, and at mile 313.4.

DRAINAGE AREA.--12,833 mi².

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.

REVISED RECORDS.--WSP 1442: 1934. See also PERIOD OF RECORD. WSP 1922: Drainage area. WDR TX-81-1: 1980 (M,m).

GAGE.--Water-stage recorder. Datum of gage is 175.06 ft above sea level. Prior to July 1932, nonrecording gage at site 1.5 mi downstream at datum 1.06 ft lower. July 15, 1932, to Oct. 7, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Twenty-one major reservoirs with a capacity of 4,200,000 acre-ft, of which 1,362,000 acre-ft is for flood control, partly regulate the flow. Streamflow is affected at times by discharge from the flood-detention pools of 252 floodwater-retarding structures with a combined detention capacity of 183,300 acre-ft. These structures control runoff from 614 mi² in the Richland, Chambers and Tehuacana Creeks drainage basins. The Industrial Generating Co. at Fairfield makes a minor diversion from the river at a site about 34 mi upstream. The diversion to Big Brown Lake is used to maintain the normal pool elevation for that lake. Rain gage at station. Satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--30 years (water years 1924-53), 5,045 ft³/s (3,655,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1924-53).--Maximum discharge, 153,000 ft³/s Apr. 29, 1942 (gage height, 51.64 ft); minimum observed, 28 ft³/s Aug. 24, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1890 reached a stage of 53 ft (discharge about 180,000 ft³/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, present site and datum, from information by the National Weather Service (discharge, about 164,000 ft³/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	840	879	e950	1040	1020	2780	1080	859	879	1360	5200
2	1000	871	889	e1250	1050	1460	2180	1020	864	841	963	4140
3	1010	1030	892	e1200	1040	1290	1450	1020	848	817	989	3840
4	990	2170	902	e1550	1000	1070	1100	1010	1330	790	1100	5170
5	1030	2250	902	e1900	991	981	1080	988	2140	e780	948	4320
6	1090	1600	903	e1880	1030	923	1220	985	1690	e760	791	2690
7	1120	1190	903	e1700	1060	896	1550	1150	1240	e745	762	1720
8	1090	1020	921	e1450	1060	887	3810	e1080	1320	e735	753	1270
9	1010	983	998	1200	1080	872	5380	e950	1220	e725	785	1100
10	952	959	988	1150	1130	846	4060	e920	1580	e720	853	998
11	923	958	1100	1080	1140	832	2350	e900	1570	720	1110	940
12	921	965	1320	1050	1110	819	1610	e890	1170	814	1480	995
13	909	928	1270	1050	1090	792	1390	910	1200	1260	1570	987
14	906	910	1140	1050	1060	813	1280	1370	1460	1290	1420	877
15	897	907	1060	1030	1040	820	1240	1670	1240	1930	1190	833
16	906	903	1030	999	1010	843	1730	1290	1120	3420	1140	838
17	898	909	1030	998	943	834	1770	1040	1340	3970	968	862
18	879	921	1120	1010	917	836	1350	942	1900	3880	865	2110
19	868	906	1160	1030	916	841	1150	884	1760	2620	854	2740
20	849	907	2180	1140	917	831	1080	841	1360	1940	1280	1960
21	849	910	3640	2250	899	1040	1030	809	1750	1410	1510	1760
22	831	913	3440	2420	903	1470	1020	795	1630	1050	1280	2150
23	819	903	2340	1710	920	1290	1050	793	1160	906	e1070	1850
24	828	912	1650	1330	913	1030	1060	809	993	833	e970	1430
25	828	898	1480	1170	904	926	1480	794	898	815	e920	1140
26	827	897	1240	1130	903	913	2050	795	909	916	896	990
27	844	893	1080	1100	883	968	1690	767	866	1210	878	916
28	840	869	1000	1080	865	1520	1330	749	856	1060	930	873
29	821	859	e970	1050	886	1610	1210	758	917	855	1210	892
30	836	857	e960	1030	---	1790	1140	739	962	855	2010	931
31	828	---	e930	1050	---	3290	---	779	---	1350	4600	---
TOTAL	28439	31038	40317	39987	28700	34353	52620	29527	38152	40896	37455	56522
MEAN	917	1035	1301	1290	990	1108	1754	952	1272	1319	1208	1884
MAX	1120	2250	3640	2420	1140	3290	5380	1670	2140	3970	4600	5200
MIN	819	840	879	950	865	792	1020	739	848	720	753	833
AC-FT	56410	61560	79970	79310	56930	68140	104400	58570	75670	81120	74290	112100

08065000 TRINITY RIVER NEAR OAKWOOD, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996#, BY WATER YEAR (WY)

MEAN	2841	4309	5692	4653	5789	6672	6687	11890	7960	2809	1553	1540
MAX	14250	25900	33280	30140	29840	30130	23710	56050	33550	12590	7050	7361
(WY)	1974	1975	1992	1992	1992	1992	1977	1990	1957	1982	1982	1962
MIN	131	165	235	400	553	286	318	812	332	126	101	116
(WY)	1957	1956	1956	1957	1967	1956	1956	1971	1954	1956	1956	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996#	
ANNUAL TOTAL	3294552		458006			
ANNUAL MEAN	9026		1251		5196	
HIGHEST ANNUAL MEAN					15240	1992
LOWEST ANNUAL MEAN					700	1956
HIGHEST DAILY MEAN	76300	May 14	5380	Apr 9	106000	May 7 1990
LOWEST DAILY MEAN	819	Oct 23	720	Jul 10	85	Oct 14 1956
ANNUAL SEVEN-DAY MINIMUM	830	Oct 23	741	Jul 5	93	Aug 12 1956
INSTANTANEOUS PEAK FLOW			5530	Apr 9	107000	May 7 1990
INSTANTANEOUS PEAK STAGE			17.88	Apr 9	49.61	May 7 1990
ANNUAL RUNOFF (AC-FT)	6535000		908500		3764000	
10 PERCENT EXCEEDS	21300		1900		14800	
50 PERCENT EXCEEDS	4160		1020		1560	
90 PERCENT EXCEEDS	903		830		440	

e Estimated
Period of regulated streamflow.

08065200 UPPER KEECHI CREEK NEAR OAKWOOD, TX

LOCATION.--Lat 31°34'11", long 95°53'17", Leon County, Hydrologic Unit 12030201, at right bank at downstream side of bridge on U.S. Highway 79, 1.9 mi upstream from Missouri Pacific Railroad Co. bridge, 2 mi southwest of Oakwood, 11 mi upstream from Buffalo Creek, and 21 mi upstream from mouth.

DRAINAGE AREA.--150 mi².

PERIOD OF RECORD.--April 1962 to current year.
Water-quality records.--Chemical analyses: June 1962 to April 1964, November 1967 to September 1975.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 240.11 ft above sea level.

REMARKS.--Records fair. No known diversions or regulation above station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1900, about 21 ft in 1932, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)

No peak greater than base discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	6.5	9.7	11	8.0	7.6	11	8.3	.64	.20	e.06	2.2
2	3.7	8.2	9.6	13	7.9	7.5	8.3	6.3	.60	.14	e.06	1.5
3	4.8	7.3	11	12	8.9	7.0	7.6	5.5	.60	.11	e.06	1.2
4	4.8	5.8	14	12	9.3	6.4	7.3	4.5	.60	.10	e.06	1.1
5	4.4	6.2	9.6	11	9.2	6.8	22	3.7	.69	.09	e.06	1.1
6	3.8	7.1	8.4	9.2	9.6	7.4	48	3.7	.73	.09	e.06	1.1
7	3.4	8.2	5.6	8.3	11	7.5	38	6.5	.54	.81	.06	.84
8	3.1	7.8	6.2	7.7	12	6.7	24	52	.46	.94	.06	.65
9	2.8	6.5	13	7.7	11	6.2	17	24	.46	.53	.06	.54
10	2.7	6.6	14	7.9	11	5.9	13	12	.93	.35	.06	.14
11	2.6	6.9	11	8.7	10	6.6	11	6.8	1.2	.24	.06	.14
12	2.6	7.0	9.8	7.8	8.8	6.6	9.8	4.7	1.1	.16	.06	.13
13	3.0	6.6	9.4	9.1	8.1	6.3	10	3.7	.91	.11	.06	.11
14	2.4	6.0	10	8.5	7.9	6.4	10	3.2	.71	.13	.06	.11
15	2.1	6.4	10	8.2	8.1	6.6	8.7	2.8	.59	.14	.06	.12
16	2.2	6.0	10	8.7	8.0	7.1	7.8	2.5	.49	.15	.06	.14
17	2.3	6.5	11	9.2	8.9	13	6.6	2.1	.40	.14	.06	.17
18	2.2	8.3	50	12	10	11	6.0	1.9	.33	.09	.06	.25
19	2.8	10	43	13	11	9.1	5.1	1.7	.31	.08	.05	.69
20	2.2	10	23	11	13	8.0	4.7	1.6	.33	e.07	.04	.58
21	2.5	9.3	16	11	10	7.1	4.3	1.5	.24	e.06	.04	13
22	2.9	8.1	13	12	9.9	6.8	4.3	1.4	.24	e.05	.09	16
23	3.2	7.1	11	11	10	6.9	9.6	1.5	.24	e.05	.20	4.3
24	3.1	7.3	9.8	12	9.9	6.3	10	1.8	.31	e.08	.11	2.1
25	3.5	8.4	8.9	11	11	8.4	7.6	1.5	.31	1.0	.09	1.3
26	4.1	8.0	8.5	11	11	10	6.1	1.2	.34	.15	.08	.91
27	4.8	8.2	8.5	9.7	11	9.4	5.0	.99	.22	.08	.08	1.2
28	4.9	9.7	8.2	8.8	8.9	19	4.3	.90	.22	.10	.17	1.7
29	4.4	8.6	8.0	7.8	7.9	20	8.5	.78	.20	.11	2.2	1.7
30	4.5	8.6	8.3	7.9	---	16	12	.69	.17	.10	2.7	1.1
31	4.6	---	10	8.3	---	13	---	.64	---	e.07	3.1	---
TOTAL	104.2	227.2	398.5	306.5	281.3	272.6	347.6	170.40	15.11	6.52	10.03	56.12
MEAN	3.36	7.57	12.9	9.89	9.70	8.79	11.6	5.50	.50	.21	.32	1.87
MAX	4.9	10	50	13	13	20	48	52	1.2	1.0	3.1	16
MIN	2.1	5.8	5.6	7.7	7.9	5.9	4.3	.64	.17	.05	.04	.11
AC-FT	207	451	790	608	558	541	689	338	30	13	20	111
CFSM	.02	.05	.09	.07	.06	.06	.08	.04	.00	.00	.00	.01
IN.	.03	.06	.10	.08	.07	.07	.09	.04	.00	.00	.00	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	44.3	49.8	107	93.0	116	127	119	141	70.6	13.7	5.97	15.5
MAX	371	513	878	403	378	461	574	1413	517	128	54.5	246
(WY)	1974	1975	1992	1991	1992	1973	1966	1965	1976	1981	1979	1974
MIN	.000	.000	.36	4.03	8.28	8.79	8.41	1.82	.48	.000	.000	.000
(WY)	1964	1964	1964	1964	1964	1996	1971	1972	1963	1964	1963	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	24318.97		2196.08			
ANNUAL MEAN	66.6		6.00		75.6	
HIGHEST ANNUAL MEAN					168	1965
LOWEST ANNUAL MEAN					4.52	1963
HIGHEST DAILY MEAN	2020	Mar 14	52	May 8	9530	Apr 25 1966
LOWEST DAILY MEAN	.17	Sep 11	.04	Aug 20	.00	Aug 5 1962
ANNUAL SEVEN-DAY MINIMUM	.22	Sep 6	.05	Aug 15	.00	Aug 5 1962
INSTANTANEOUS PEAK FLOW			68	Dec 18	24000	May 16 1965
INSTANTANEOUS PEAK STAGE			8.18	Dec 18	15.58	Dec 21 1991
ANNUAL RUNOFF (AC-FT)	48240		4360		54770	
ANNUAL RUNOFF (CFSM)	.44		.040		.50	
ANNUAL RUNOFF (INCHES)	6.03		.54		6.85	
10 PERCENT EXCEEDS	125		11		128	
50 PERCENT EXCEEDS	11		5.8		11	
90 PERCENT EXCEEDS	2.3		.10		.08	

e Estimated

08065350 TRINITY RIVER NEAR CROCKETT, TX

LOCATION.--Lat 31°20'18", long 95°39'22", Houston-Leon County line, Hydrologic Unit 12030201, on left bank at an abandoned bridge abutment near left end of an abandoned lock and dam, 1,000 ft upstream from State Highway 7, 6.9 mi downstream from Upper Keechi Creek, 11.9 mi west of Crockett, and at mile 265.4.

DRAINAGE AREA.--13,911 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 141.15 ft above sea level. Prior to Oct. 13, 1983, water-stage recorder at site 1,000 ft downstream at datum 4.56 ft lower.

REMARKS.--No estimated daily discharges. Records fair. For statement regarding regulation by upstream reservoirs, see station 08065000. Flow from 44 mi² in the Elkhart Creek basin is affected by storage in Houston County Lake near Crockett (capacity 19,500 acre-ft). There are many diversions above station for irrigation, municipal, and industrial uses. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1900, 56.1 ft Apr. 30 or May 1, 1942, at former site and datum, from information by Texas Department of Highways and Public Transportation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	1250	1180	1470	1430	1240	3350	1430	906	1180	1420	4530
2	1780	1320	1200	1490	1420	1410	2690	1320	999	1070	1330	4710
3	2240	1320	1220	1600	1410	1690	1930	1240	989	1010	1110	3460
4	2140	1570	1220	1740	1400	1590	1610	1210	952	965	1170	3860
5	1770	2350	1230	1680	1370	1440	1480	1160	1500	914	1240	4770
6	1700	2240	1230	1980	1370	1370	1500	1130	1920	932	1060	3560
7	1720	1840	1230	1990	1400	1300	1610	1130	1640	963	879	2250
8	1730	1580	1260	1760	1410	1260	2160	1310	1380	949	807	1660
9	1670	1440	1330	1610	1420	1240	4490	1340	1400	910	784	1400
10	1530	1380	1390	1560	1440	1240	5280	1340	1420	912	816	1350
11	1450	1370	1390	1520	1490	1200	3720	1300	1690	1020	893	1220
12	1400	1350	1500	1470	1480	1170	2510	1220	1620	946	1170	1150
13	1380	1350	1650	1440	1450	1160	2010	1150	1380	1090	1410	1230
14	1360	1310	1610	1440	1430	1140	1840	1140	1460	1580	1440	1200
15	1340	1280	1580	1440	1400	1120	1760	1640	1600	1590	1350	1080
16	1320	1270	1570	1420	1370	1080	1790	1780	1430	2420	1260	1040
17	1320	1280	1580	1390	1330	1050	2170	1540	1370	3390	1210	1030
18	1310	1300	2610	1430	1270	1070	2120	1320	1640	3810	1050	1170
19	1290	1310	2660	1450	1250	1060	1780	1180	2040	3340	912	2280
20	1260	1290	2120	1470	1250	1050	1490	1110	1880	2330	928	2460
21	1250	1280	2850	1640	1260	1040	1420	1050	1620	1840	1300	1920
22	1230	1270	3710	2460	1250	1280	1420	994	1690	1440	1420	1900
23	1210	1270	3200	2400	1260	1720	1490	958	1560	1160	1300	2090
24	1180	1260	2340	1930	1250	1650	1460	958	1310	983	1100	1840
25	1190	1260	1930	1680	1240	1420	1420	974	1150	988	959	1620
26	1180	1240	1790	1560	1230	1320	1820	936	1180	1350	885	1400
27	1190	1250	1620	1510	1220	1300	2070	923	1350	1220	954	1380
28	1190	1220	1510	1480	1230	1420	1780	886	1160	1310	974	1500
29	1180	1210	1450	1460	1220	1890	1620	869	1180	1180	1110	1200
30	1180	1190	1430	1450	---	1940	1570	836	1160	989	1460	1150
31	1190	---	1440	1430	---	2440	---	856	---	1020	2470	---
TOTAL	44730	41850	54030	50350	38950	42300	63360	36230	42576	44801	36171	61410
MEAN	1443	1395	1743	1624	1343	1365	2112	1169	1419	1445	1167	2047
MAX	2240	2350	3710	2460	1490	2440	5280	1780	2040	3810	2470	4770
MIN	1180	1190	1180	1390	1220	1040	1420	836	906	910	784	1030
AC-FT	88720	83010	107200	99870	77260	83900	125700	71860	84450	88860	71750	121800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	3225	5448	7150	5873	7521	9201	8389	13780	9820	3541	1871	1807
MAX	16840	26110	35440	33620	30490	33670	25960	62100	29570	15030	7188	6932
(WY)	1974	1975	1992	1992	1992	1992	1977	1990	1989	1989	1982	1974
MIN	548	619	719	514	670	730	931	939	822	374	413	513
(WY)	1979	1967	1967	1964	1967	1967	1972	1971	1971	1964	1967	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	3700240		556758			
ANNUAL MEAN	10140		1521		6462	
HIGHEST ANNUAL MEAN					16810	1992
LOWEST ANNUAL MEAN					1084	1964
HIGHEST DAILY MEAN	68100	May 17	5280	Apr 10	109000	May 10 1990
LOWEST DAILY MEAN	1180	Oct 24	784	Aug 9	278	Aug 12 1964
ANNUAL SEVEN-DAY MINIMUM	1180	Oct 24	887	May 26	293	Aug 10 1964
INSTANTANEOUS PEAK FLOW			5560	Apr 10	109000	May 10 1990
INSTANTANEOUS PEAK STAGE			11.57	Apr 10	48.54	May 10 1990
ANNUAL RUNOFF (AC-FT)	7339000		1104000		4682000	
10 PERCENT EXCEEDS	23400		2130		18600	
50 PERCENT EXCEEDS	4710		1370		2330	
90 PERCENT EXCEEDS	1290		1010		702	

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: February 1964 to current year. Chemical and biochemical analyses: February 1968 to current year. Pesticide analyses: November 1971 to July 1981. Sediment records: November 1972 to September 1977.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1964 to current year.
pH: March 1975 to current year.
WATER TEMPERATURE: February 1964 to September 1971, March 1975 to current year.
DISSOLVED OXYGEN: March 1975 to current year.
SUSPENDED-SEDIMENT DISCHARGE: July 1972 to September 1977.

INSTRUMENTATION.--Beginning March 1975, a four-parameter water-quality monitor continuously records specific conductance, pH, water temperature, and dissolved oxygen at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the U.S. Geological Survey District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,370 microsiemens Sept. 22, 1964; minimum, 96 microsiemens Mar. 29, 1989.
pH: Maximum, 9.6 units Aug. 11-12, 1981; minimum, 5.9 units Aug. 12, 1977.
WATER TEMPERATURE: Maximum, 37.0°C July 4, 1970, Sept. 4, 1978; minimum, 1.0°C Jan. 17, 1978, Nov. 24, 1984.
DISSOLVED OXYGEN: Maximum, 19.3 mg/L Feb. 10, 1981; minimum, 0.0 mg/L Apr. 20, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 904 microsiemens July 16; minimum, 250 microsiemens July 26.
pH: Maximum, 9.3 units Mar. 3, 16; minimum 7.1 units Oct. 4, July 26, 27.
WATER TEMPERATURE: Maximum, 34.5°C Aug. 4; minimum, 5.5°C Feb. 4, 5.
DISSOLVED OXYGEN: Maximum 16.2 mg/L Jan. 4, Feb. 17; minimum, 0.1 mg/L May 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB											
08...	1430	1400	642	8.1	10.0	15.2	136	3.5	160	55	54
MAR											
07...	1500	1300	704	8.3	15.5	11.0	110	3.6	170	62	56
APR											
16...	1255	1800	455	7.7	20.0	7.2	79	1.2	140	45	47
MAY											
09...	1615	1340	642	8.2	25.0	7.1	87	2.0	170	54	57
JUL											
24...	1225	961	448	7.5	30.0	6.6	87	1.8	130	31	45
AUG											
28...	1317	967	645	7.7	28.0	6.8	87	1.0	150	38	50
SEP											
10...	0915	1400	390	7.5	27.0	6.6	83	1.2	120	26	41

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
FEB										
08...	6.4	60	2	8.7	110	78	69	0.80	7.9	390
MAR										
07...	6.7	69	2	10	100	83	75	0.90	7.6	409
APR										
16...	5.4	35	1	5.2	95	60	38	0.40	7.6	264
MAY										
09...	6.0	61	2	8.4	110	80	68	0.90	3.1	376
JUL										
24...	4.2	31	1	6.0	99	47	35	0.60	7.4	249
AUG										
28...	5.2	64	2	--	110	--	--	--	8.6	--
SEP										
10...	3.7	26	1	5.6	92	41	26	0.40	8.4	217

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
FEB										
08...	8.27	8.27	0.030	8.30	8.30	0.020	0.78	0.80	1.20	1.20
MAR										
07...	7.66	7.66	0.040	7.70	7.70	<0.015	--	0.90	1.50	1.10
APR										
16...	1.77	1.77	0.030	1.80	1.80	0.040	0.36	0.40	0.200	0.210
MAY										
09...	4.97	4.97	0.030	5.00	5.00	0.030	0.57	0.60	0.620	0.620
JUL										
24...	2.68	2.68	0.020	2.70	2.70	0.040	0.36	0.40	0.310	0.360
AUG										
28...	7.27	7.27	0.030	7.30	7.30	0.030	0.57	0.60	1.00	1.00
SEP										
10...	2.08	2.08	0.020	2.10	2.10	0.020	0.28	0.30	0.200	0.260

DATE	PHOS PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
FEB										
08...	3.7	1	45	0.50	<1.0	<5.0	<3.0	<10	17	<10
MAR										
07...	3.4	--	--	--	--	--	--	--	--	--
APR										
16...	0.64	--	--	--	--	--	--	--	--	--
MAY										
09...	1.9	--	--	--	--	--	--	--	--	--
JUL										
24...	1.1	3	41	0.90	3.0	<5.0	<3.0	<10	6.0	<10
AUG										
28...	3.1	--	53	<0.50	<1.0	<5.0	<3.0	<10	<3.0	<10
SEP										
10...	0.80	--	--	--	--	--	--	--	--	--

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB										
08...	13	9.0	<0.1	<10	<10	<1	<1.0	430	<6	18
MAR										
07...	--	--	--	--	--	--	--	--	--	--
APR										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	--	--	--	--	--	--	--	--	--
JUL										
24...	7	3.0	<0.1	<10	<10	<1	<1.0	350	<6	25
AUG										
28...	10	2.0	--	<10	<10	--	<1.0	440	<6	18
SEP										
10...	--	--	--	--	--	--	--	--	--	--

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	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.	1995	44730	607	337	40800	62	7480	69	8310	160
NOV.	1995	41850	639	355	40100	67	7570	73	8240	160
DEC.	1995	54030	577	323	47100	56	8130	65	9440	160
JAN.	1996	50350	599	335	45500	59	8010	67	9170	160
FEB.	1996	38950	622	346	36400	63	6640	70	7410	160
MAR.	1996	42300	670	370	42300	73	8310	77	8810	160
APR.	1996	63360	565	317	54200	53	9100	63	10800	160
MAY	1996	36230	659	365	35700	71	6920	76	7400	160
JUNE	1996	42576	614	342	39300	62	7090	69	7970	160
JULY	1996	44801	593	329	39800	61	7440	67	8160	150
AUG.	1996	36171	626	348	34000	64	6270	71	6950	160
SEPT	1996	61410	483	274	45300	41	6720	53	8720	140
TOTAL		556758	**	**	500000	**	89700	**	101000	**
WTD.AVG.		1521	597	333	**	60	**	67	**	160

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	472	448	467	704	671	690	671	661	667	---	---	e635
2	463	432	444	674	653	662	673	660	668	---	---	e630
3	463	273	328	669	654	660	679	661	671	---	---	e610
4	479	317	364	717	669	688	680	669	674	595	577	581
5	506	479	497	730	717	726	682	663	674	614	595	603
6	576	506	536	726	707	720	674	663	668	625	614	620
7	620	576	606	707	699	703	675	664	671	639	617	633
8	625	616	619	702	669	692	679	668	675	639	634	637
9	638	625	632	669	606	639	676	661	670	639	629	637
10	642	637	639	606	483	539	667	662	665	629	575	592
11	651	642	644	494	465	477	665	658	661	601	584	595
12	666	651	657	510	494	501	660	638	645	596	554	575
13	678	666	672	513	502	506	651	641	647	554	537	544
14	688	678	681	577	513	548	654	646	650	538	525	530
15	690	666	680	586	577	583	661	603	644	551	529	540
16	686	668	674	584	576	579	610	591	604	579	550	565
17	690	672	683	602	582	595	609	559	593	593	579	587
18	674	661	666	614	602	609	---	544	e580	607	591	601
19	681	666	674	640	614	629	---	---	e575	602	585	591
20	680	654	665	655	640	647	---	---	e490	613	586	596
21	664	652	659	659	655	658	---	---	e460	634	613	623
22	665	657	661	658	646	652	---	---	e440	656	634	646
23	668	655	662	654	646	650	---	---	e455	672	653	663
24	674	666	669	664	652	658	---	---	e475	672	652	664
25	681	673	676	676	664	672	---	---	e495	652	633	644
26	715	679	697	678	666	669	---	---	e530	633	541	599
27	715	708	712	680	669	676	---	---	e550	553	522	534
28	711	703	706	681	672	677	---	---	e570	553	532	542
29	703	699	701	675	662	671	---	---	e610	542	530	535
30	714	700	707	672	662	667	---	---	e620	544	541	543
31	712	684	708	---	---	---	---	---	e625	547	541	544
MONTH	715	273	625	730	465	635	682	544	601	672	522	595

e Estimated

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	549	541	545	690	690	690	720	650	694	641	618	625
2	573	549	562	710	690	701	670	590	601	618	570	588
3	596	573	584	720	700	714	630	580	617	590	570	576
4	615	596	608	710	690	701	580	510	533	590	560	579
5	627	614	619	710	700	705	530	510	523	590	560	572
6	627	620	623	700	690	692	540	520	533	590	590	590
7	624	618	621	710	700	702	520	520	520	620	590	604
8	635	624	629	710	710	710	520	480	512	630	620	624
9	637	624	630	710	710	710	649	520	578	680	630	654
10	625	611	617	720	650	697	698	498	614	690	660	678
11	633	616	625	650	590	618	498	477	482	660	650	652
12	617	606	613	610	580	594	---	---	e475	680	650	663
13	639	615	626	620	610	618	---	---	e470	680	660	665
14	647	632	640	640	620	634	---	---	e465	690	650	676
15	650	632	641	640	600	632	459	459	459	710	690	701
16	649	629	640	650	620	639	467	458	459	740	690	722
17	640	622	633	650	620	644	494	466	477	750	730	744
18	641	616	631	650	610	638	560	494	524	740	720	733
19	644	616	634	650	600	636	605	560	581	730	720	725
20	644	615	623	670	610	650	633	605	618	730	730	730
21	630	605	622	670	620	652	633	631	632	730	730	730
22	634	610	623	680	620	654	631	608	622	730	710	723
23	628	608	618	700	670	687	608	587	596	710	630	676
24	626	613	621	720	690	711	656	597	639	630	580	604
25	635	609	625	720	700	711	644	573	613	590	580	584
26	628	609	620	720	690	711	573	552	557	610	580	596
27	553	621	622	720	710	711	617	552	584	640	610	624
28	553	680	680	710	690	702	656	616	631	690	640	667
29	690	680	689	700	640	684	665	655	662	720	690	702
30	---	---	---	640	590	603	663	641	650	730	670	709
31	---	---	---	650	590	608	---	---	---	710	600	667
MONTH	690	541	623	720	580	670	720	458	564	750	560	658

e Estimated

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	690	650	676	597	566	583	650	590	622	687	402	549
2	680	620	658	640	580	632	650	560	608	490	405	454
3	670	620	650	727	631	682	680	630	656	447	369	415
4	660	650	658	781	694	733	690	530	614	422	369	392
5	680	650	662	782	741	760	650	600	639	449	407	432
6	700	670	688	831	732	780	670	620	648	407	376	391
7	710	690	700	834	791	817	740	670	705	392	364	383
8	690	560	634	858	737	792	740	560	668	374	355	362
9	720	570	689	851	781	824	560	490	519	390	374	382
10	720	580	669	863	736	785	550	510	535	412	390	402
11	600	570	589	864	757	816	600	540	569	437	412	429
12	600	580	586	853	713	798	620	580	598	487	431	456
13	580	540	569	885	633	794	600	540	572	487	422	453
14	620	570	584	854	704	795	643	470	558	541	444	497
15	640	620	634	890	684	749	704	643	685	578	541	565
16	630	590	612	904	667	806	707	693	699	596	573	580
17	590	510	536	720	610	671	705	679	694	642	596	616
18	570	510	534	650	450	534	684	647	669	657	642	647
19	650	570	612	450	380	399	676	643	664	714	657	686
20	630	560	581	410	360	393	643	527	578	730	649	690
21	623	560	582	410	350	384	654	539	608	695	659	681
22	668	589	641	410	380	402	702	596	671	659	523	568
23	612	583	595	420	400	405	676	574	622	571	475	514
24	608	540	582	420	410	414	605	563	575	486	441	470
25	567	540	552	550	410	461	679	605	641	441	421	427
26	583	558	570	450	250	319	706	679	695	470	427	461
27	620	557	602	490	270	435	711	697	705	468	390	442
28	650	537	590	570	490	536	697	648	673	421	310	349
29	651	589	614	540	460	505	648	581	613	527	421	492
30	602	549	572	550	480	514	581	515	549	535	527	534
31	---	---	---	590	530	562	657	563	611	---	---	---
MONTH	720	510	614	904	250	615	740	470	628	730	310	491
YEAR	904	250	610									

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.4	7.3	7.4	7.6	7.4	7.5	8.2	8.0	8.1	---	---	---
2	7.4	7.3	7.3	7.4	7.4	7.4	8.1	7.9	8.0	---	---	---
3	7.4	7.2	7.2	7.5	7.4	7.4	8.0	7.8	7.9	---	---	---
4	7.4	7.1	7.2	7.5	7.5	7.5	7.9	7.7	7.8	7.9	7.8	7.8
5	7.5	7.4	7.4	7.5	7.5	7.5	7.8	7.7	7.7	7.9	7.8	7.9
6	7.8	7.5	7.7	7.5	7.4	7.5	7.8	7.6	7.7	8.1	7.9	8.0
7	7.8	7.7	7.8	7.4	7.4	7.4	7.7	7.6	7.7	8.2	8.1	8.1
8	7.9	7.7	7.8	7.5	7.4	7.4	7.7	7.6	7.6	8.2	8.0	8.1
9	8.0	7.8	7.9	7.5	7.4	7.5	7.7	7.6	7.7	8.0	7.9	8.0
10	8.1	7.9	8.0	7.4	7.4	7.4	7.7	7.7	7.7	8.1	7.9	8.0
11	8.1	7.9	8.0	7.5	7.4	7.5	7.8	7.7	7.7	8.0	7.8	7.9
12	8.0	7.8	7.9	7.5	7.5	7.5	7.7	7.6	7.7	7.8	7.7	7.7
13	8.0	7.9	7.9	7.5	7.5	7.5	7.7	7.6	7.7	7.8	7.7	7.8
14	8.0	7.8	7.9	7.6	7.5	7.6	7.7	7.6	7.7	8.0	7.7	7.8
15	8.0	7.9	7.9	7.7	7.6	7.7	7.7	7.5	7.6	8.0	7.8	7.9
16	8.0	7.8	7.9	7.8	7.7	7.8	7.5	7.5	7.5	8.1	7.9	8.0
17	8.1	7.9	8.0	7.9	7.7	7.8	7.5	7.4	7.4	8.2	8.0	8.1
18	8.1	8.0	8.1	7.9	7.7	7.8	---	---	---	8.2	8.0	8.1
19	8.1	8.0	8.1	7.8	7.7	7.8	---	---	---	8.4	8.2	8.3
20	8.1	8.0	8.0	7.7	7.6	7.7	---	---	---	8.4	8.1	8.2
21	8.2	8.0	8.1	7.7	7.6	7.7	---	---	---	8.4	8.2	8.3
22	8.2	8.1	8.1	7.9	7.7	7.8	---	---	---	8.4	7.9	8.2
23	8.1	8.0	8.1	8.0	7.7	7.8	---	---	---	7.9	7.7	7.8
24	8.2	8.1	8.1	7.9	7.8	7.9	---	---	---	7.7	7.5	7.6
25	8.2	8.1	8.1	8.0	7.8	7.9	---	---	---	7.5	7.5	7.5
26	8.1	8.0	8.1	8.0	7.8	7.9	---	---	---	7.5	7.5	7.5
27	8.0	7.9	8.0	8.0	7.8	7.9	---	---	---	7.5	7.4	7.5
28	8.1	7.9	8.0	8.2	7.9	8.1	---	---	---	7.6	7.5	7.6
29	8.0	7.9	7.9	8.3	8.2	8.2	---	---	---	7.6	7.6	7.6
30	7.9	7.8	7.8	8.3	8.1	8.2	---	---	---	7.7	7.6	7.6
31	7.8	7.6	7.7	---	---	---	---	---	---	8.0	7.7	7.8
MONTH	8.2	7.1	7.9	8.3	7.4	7.7	8.2	7.4	7.7	8.4	7.4	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	8.0	8.0	9.0	8.8	8.9	8.0	7.6	7.7	7.8	7.8	7.8
2	8.0	7.9	7.9	9.1	8.9	9.0	7.6	7.5	7.6	8.0	7.8	7.9
3	8.1	7.8	7.9	9.3	9.0	9.2	7.5	7.5	7.5	8.1	8.0	8.0
4	8.2	7.9	8.1	9.2	9.0	9.1	7.5	7.5	7.5	8.2	8.0	8.1
5	8.3	8.1	8.2	9.0	8.4	8.7	7.6	7.5	7.5	8.3	8.1	8.2
6	8.1	8.0	8.1	8.6	8.3	8.5	7.6	7.5	7.5	8.3	8.1	8.2
7	8.1	7.9	8.0	8.6	8.3	8.5	7.5	7.5	7.5	8.4	8.2	8.3
8	8.1	7.9	8.0	8.5	8.3	8.4	7.6	7.5	7.5	8.4	8.0	8.2
9	8.2	7.9	8.0	8.6	8.4	8.5	7.9	7.6	7.7	8.2	8.0	8.1
10	8.2	7.9	8.1	8.6	8.4	8.5	7.9	7.7	7.8	8.0	7.9	7.9
11	8.3	8.1	8.2	8.8	8.4	8.6	7.7	7.7	7.7	8.0	7.8	7.9
12	8.6	8.2	8.4	9.1	8.7	8.9	---	---	---	8.0	7.8	7.9
13	8.5	8.4	8.4	9.1	9.0	9.1	---	---	---	8.1	7.8	7.9
14	8.6	8.3	8.5	9.1	8.8	9.0	---	---	---	8.1	7.8	7.9
15	8.7	8.4	8.5	9.2	9.0	9.1	7.6	7.6	7.6	8.0	7.8	7.9
16	8.9	8.6	8.7	9.3	9.0	9.1	7.6	7.6	7.6	7.9	7.7	7.8
17	8.9	8.8	8.8	9.2	9.1	9.2	7.8	7.6	7.7	8.0	7.6	7.8
18	9.0	8.8	8.9	9.2	9.0	9.1	7.9	7.8	7.9	8.1	7.8	7.9
19	9.0	8.9	8.9	9.1	8.9	9.0	8.0	7.8	7.9	8.0	7.8	7.9
20	9.0	8.9	8.9	9.2	9.0	9.1	7.9	7.8	7.9	8.0	7.7	7.9
21	9.1	8.8	9.0	9.2	9.0	9.1	7.9	7.8	7.8	8.1	7.8	7.9
22	9.1	8.9	9.0	9.1	9.0	9.1	7.8	7.7	7.7	8.2	7.8	8.0
23	9.2	8.9	9.1	9.0	8.9	9.0	7.7	7.6	7.7	8.2	8.0	8.1
24	9.1	9.0	9.1	8.9	8.4	8.7	7.7	7.7	7.7	8.3	8.1	8.2
25	9.1	9.0	9.0	8.4	8.2	8.2	7.8	7.7	7.7	8.4	8.1	8.2
26	9.1	8.9	9.0	8.2	7.9	8.0	7.8	7.7	7.7	8.5	8.2	8.4
27	8.9	8.8	8.8	8.0	7.9	7.9	7.7	7.6	7.7	8.7	8.5	8.6
28	9.0	9.0	9.0	8.0	7.9	8.0	7.7	7.6	7.7	8.8	8.5	8.6
29	9.0	8.9	9.0	8.0	7.9	8.0	7.7	7.7	7.7	8.8	8.6	8.7
30	---	---	---	8.1	7.8	7.9	7.8	7.7	7.7	9.0	8.6	8.8
31	---	---	---	8.3	8.0	8.2	---	---	---	8.9	8.5	8.7
MONTH	9.2	7.8	8.5	9.3	7.8	8.7	8.0	7.5	7.7	9.0	7.6	8.1

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.7	8.5	8.7	8.2	7.9	8.0	7.8	7.7	7.7	7.6	7.5	7.5
2	8.7	8.5	8.6	8.2	7.9	8.0	7.8	7.7	7.7	7.6	7.5	7.6
3	8.8	8.5	8.6	8.1	7.9	8.0	7.9	7.7	7.8	7.6	7.5	7.6
4	8.6	8.4	8.5	7.9	7.7	7.8	7.9	7.7	7.8	7.6	7.6	7.6
5	8.4	7.8	8.1	7.7	7.5	7.6	7.9	7.8	7.9	7.6	7.5	7.6
6	7.8	7.7	7.7	7.7	7.6	7.6	7.9	7.8	7.9	7.6	7.6	7.6
7	7.7	7.6	7.6	7.8	7.6	7.7	7.9	7.8	7.9	7.6	7.6	7.6
8	7.7	7.6	7.6	8.1	7.7	7.9	7.9	7.8	7.9	7.6	7.6	7.6
9	7.7	7.6	7.7	8.3	8.0	8.2	7.9	7.8	7.9	7.6	7.6	7.6
10	7.7	7.7	7.7	8.4	8.1	8.2	7.9	7.8	7.9	7.6	7.6	7.6
11	7.7	7.6	7.7	8.3	8.0	8.2	7.9	7.8	7.8	7.6	7.6	7.6
12	7.8	7.7	7.8	8.3	7.9	8.1	8.1	7.8	8.0	7.6	7.6	7.6
13	7.8	7.8	7.8	8.1	7.8	8.0	8.0	7.9	8.0	7.6	7.6	7.6
14	7.8	7.7	7.8	8.0	7.8	7.9	7.9	7.4	7.6	7.7	7.6	7.7
15	7.9	7.8	7.8	8.0	7.9	8.0	7.5	7.4	7.5	7.8	7.7	7.7
16	7.9	7.8	7.8	7.9	7.9	7.9	7.6	7.5	7.5	7.9	7.7	7.8
17	7.8	7.7	7.8	7.9	7.9	7.9	7.5	7.5	7.5	7.9	7.7	7.8
18	7.9	7.7	7.8	7.9	7.8	7.8	7.6	7.5	7.5	7.9	7.8	7.8
19	7.9	7.8	7.8	7.8	7.7	7.8	7.6	7.5	7.5	7.9	7.8	7.8
20	7.8	7.8	7.8	7.7	7.7	7.7	7.5	7.5	7.5	7.8	7.6	7.7
21	7.9	7.8	7.8	7.7	7.6	7.6	7.6	7.5	7.5	7.6	7.6	7.6
22	7.9	7.8	7.8	7.7	7.6	7.6	7.6	7.6	7.6	7.7	7.6	7.7
23	7.9	7.8	7.9	7.6	7.5	7.6	7.6	7.5	7.6	7.7	7.6	7.7
24	7.9	7.9	7.9	7.6	7.5	7.5	7.6	7.5	7.5	7.7	7.7	7.7
25	8.0	7.9	7.9	7.7	7.5	7.6	7.6	7.5	7.5	7.7	7.6	7.6
26	7.9	7.8	7.9	7.5	7.1	7.2	7.6	7.5	7.5	7.7	7.7	7.7
27	8.0	7.7	7.9	7.6	7.1	7.4	7.6	7.5	7.6	7.7	7.6	7.7
28	7.9	7.7	7.8	7.8	7.5	7.7	7.6	7.6	7.6	7.6	7.4	7.5
29	7.9	7.7	7.8	7.9	7.8	7.8	7.6	7.5	7.6	7.7	7.5	7.6
30	8.0	7.7	7.9	7.9	7.7	7.8	7.5	7.5	7.5	7.7	7.6	7.7
31	---	---	---	7.8	7.7	7.8	7.5	7.5	7.5	---	---	---
MONTH	8.8	7.6	7.9	8.4	7.1	7.8	8.1	7.4	7.7	7.9	7.4	7.6
YEAR	9.3	7.1	7.9									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.0	25.5	26.0	21.5	20.5	21.0	14.5	13.5	14.0	---	---	---
2	27.0	25.5	26.0	22.0	21.0	21.5	16.0	14.5	15.5	---	---	---
3	26.0	23.5	24.0	21.0	19.0	20.0	17.0	16.0	16.5	---	---	---
4	25.0	23.0	24.0	19.0	18.0	18.5	17.5	16.5	17.0	10.5	10.0	10.0
5	25.5	24.5	25.0	18.0	17.0	17.5	17.5	16.5	17.0	10.5	9.5	10.0
6	24.5	23.5	24.0	18.0	17.0	17.5	17.5	17.0	17.5	10.0	8.5	9.5
7	24.0	22.5	23.5	19.0	17.5	18.5	17.5	16.5	17.0	8.5	7.5	8.0
8	24.0	22.5	23.0	19.0	17.5	18.0	16.5	15.5	16.0	8.0	7.0	7.5
9	24.0	22.5	23.0	18.0	17.0	17.5	15.5	13.0	14.5	8.5	7.0	7.5
10	24.5	22.5	23.5	19.0	18.0	18.5	13.0	12.0	12.5	9.0	7.0	8.0
11	24.5	23.0	24.0	18.5	17.0	17.5	12.0	11.0	11.5	9.5	8.0	9.0
12	24.0	23.0	24.0	17.0	16.0	16.5	12.5	11.5	12.0	10.5	8.5	9.5
13	24.5	23.5	24.0	16.5	15.5	16.0	14.0	12.5	13.5	10.5	8.5	9.5
14	24.0	23.0	23.5	16.5	15.5	16.0	15.5	14.0	15.0	11.5	9.5	10.5
15	23.5	22.0	22.5	16.5	15.5	16.0	16.5	15.5	16.0	12.0	11.0	11.5
16	23.0	21.5	22.5	16.5	15.5	16.0	17.0	16.5	16.5	13.0	11.5	12.0
17	23.0	21.5	22.0	16.0	15.5	15.5	17.0	16.5	17.0	15.0	13.0	14.0
18	23.0	21.5	22.5	16.0	15.0	15.5	---	---	---	15.0	12.5	14.0
19	23.0	22.0	22.5	16.5	15.0	16.0	---	---	---	12.5	11.0	12.0
20	23.0	21.5	22.0	17.0	16.0	16.5	---	---	---	11.0	10.5	11.0
21	22.0	20.5	21.0	17.5	16.0	16.5	---	---	---	11.5	11.0	11.5
22	21.5	20.0	21.0	17.5	16.5	17.0	---	---	---	12.5	11.5	12.0
23	21.5	21.0	21.0	17.5	16.5	17.0	---	---	---	14.0	12.5	13.0
24	21.5	20.0	20.5	17.0	16.0	16.5	---	---	---	13.5	12.5	13.0
25	20.5	20.0	20.0	17.0	15.5	16.0	---	---	---	13.0	12.0	12.5
26	21.0	20.0	20.5	17.0	16.0	16.5	---	---	---	14.0	13.0	13.0
27	22.5	21.0	21.5	17.5	16.5	17.0	---	---	---	13.0	12.0	12.5
28	22.0	21.0	21.5	17.0	15.5	16.0	---	---	---	12.0	11.0	11.5
29	21.5	20.5	21.0	15.5	14.5	15.0	---	---	---	12.0	11.0	11.5
30	20.5	20.0	20.0	14.5	13.5	14.0	---	---	---	13.0	11.5	12.0
31	20.5	20.0	20.5	---	---	---	---	---	---	12.0	10.5	11.0
MONTH	27.0	20.0	22.5	22.0	13.5	17.0	17.5	11.0	15.0	15.0	7.0	11.0

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	9.0	9.5	15.0	14.0	14.5	17.5	16.5	17.0	23.0	21.0	22.0
2	9.0	7.5	8.5	15.0	13.5	14.0	17.5	16.5	17.0	23.0	21.5	22.5
3	7.5	7.0	7.5	15.0	13.5	14.5	18.0	16.5	17.5	24.0	22.5	23.0
4	7.0	5.5	6.5	15.5	14.0	15.0	18.5	17.5	18.0	24.5	23.0	24.0
5	6.5	5.5	6.0	16.5	15.5	16.0	18.0	16.5	17.5	25.0	24.0	24.5
6	7.5	6.5	7.0	18.0	16.5	17.0	17.0	15.5	16.5	25.0	24.5	24.5
7	9.0	7.5	8.5	16.5	14.5	15.5	17.5	15.5	16.5	25.0	24.5	25.0
8	11.0	9.0	10.0	14.5	13.0	13.5	18.0	16.0	17.0	25.5	24.5	25.0
9	13.0	10.5	11.5	13.5	12.0	12.5	17.5	17.0	17.0	26.0	25.0	25.5
10	14.0	12.5	13.5	13.5	11.5	12.5	18.0	17.0	17.5	26.5	25.0	25.5
11	14.5	13.5	14.0	13.5	11.5	12.5	17.0	17.0	17.0	26.5	25.5	26.0
12	14.5	13.0	13.5	14.0	12.0	13.0	---	---	---	26.5	25.5	26.0
13	14.5	12.5	13.5	15.5	13.5	14.5	---	---	---	27.0	26.0	26.5
14	15.0	13.0	14.0	16.5	15.0	15.5	---	---	---	27.5	26.0	26.5
15	15.5	14.0	15.0	17.5	16.0	17.0	21.0	20.0	20.5	27.5	26.0	26.5
16	15.0	13.5	14.0	18.0	17.0	17.5	21.0	19.0	20.0	27.5	26.0	27.0
17	14.0	12.5	13.0	19.0	17.5	18.0	21.0	19.5	20.5	28.0	26.5	27.0
18	14.0	12.5	13.5	18.5	17.5	18.0	22.5	20.5	21.5	28.5	27.0	27.5
19	15.5	14.0	15.0	17.5	16.5	17.0	24.0	22.0	23.0	28.5	27.0	28.0
20	16.0	14.5	15.5	16.5	15.5	16.0	24.0	23.0	23.5	28.5	27.5	28.0
21	17.5	15.5	16.5	16.5	14.5	15.5	25.0	23.5	24.0	29.5	28.0	28.5
22	18.5	16.5	17.5	17.0	15.0	16.0	24.5	23.5	24.0	30.0	28.5	29.0
23	19.5	18.0	18.5	17.5	16.0	17.0	23.5	22.0	22.5	30.0	29.0	29.5
24	19.0	18.0	18.5	17.5	17.0	17.5	23.5	21.5	22.5	30.0	29.0	29.5
25	19.5	18.5	19.0	17.5	16.5	17.0	23.5	22.0	23.0	30.5	29.0	29.5
26	20.0	18.5	19.5	16.5	15.5	15.5	24.5	23.0	24.0	30.0	29.0	29.5
27	19.5	19.5	19.5	15.5	14.5	15.0	24.0	23.5	24.0	29.5	28.5	29.0
28	18.5	17.5	18.0	15.0	14.0	14.5	24.5	23.5	24.0	30.5	29.0	29.5
29	17.5	15.0	16.0	15.0	14.0	14.5	24.0	22.5	23.0	31.0	29.5	30.0
30	---	---	---	17.0	15.0	16.0	23.0	21.0	22.0	31.5	29.5	30.0
31	---	---	---	17.5	16.0	16.5	---	---	---	30.5	29.5	30.0
MONTH	20.0	5.5	13.5	19.0	11.5	15.5	25.0	15.5	20.5	31.5	21.0	27.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29.5	28.5	29.5	33.0	31.0	32.0	34.0	32.5	33.0	29.5	28.0	28.5
2	29.5	28.5	29.0	33.5	31.5	32.5	34.0	32.5	33.5	29.0	27.5	28.0
3	30.0	28.5	29.5	33.5	32.0	33.0	34.0	33.0	33.5	29.0	28.5	28.5
4	29.5	29.0	29.0	33.5	32.5	33.0	34.5	32.5	33.5	29.0	28.0	28.5
5	29.0	28.5	29.0	33.5	32.0	32.5	34.0	32.5	33.5	29.5	28.5	29.0
6	29.5	28.5	29.0	33.5	32.5	33.0	34.0	32.5	33.5	29.0	28.0	28.5
7	29.5	28.5	29.0	34.0	32.5	33.0	34.0	32.5	33.0	30.0	28.5	29.0
8	29.0	27.5	28.0	34.0	33.0	33.0	33.5	32.5	33.0	30.5	29.0	29.5
9	28.5	26.5	27.5	34.0	32.5	33.0	34.0	32.5	33.0	31.0	29.5	30.0
10	28.0	26.5	27.0	34.0	32.5	33.0	33.0	32.5	33.0	31.5	29.5	30.5
11	27.5	26.0	26.5	33.5	33.0	33.0	32.5	31.5	32.0	31.0	29.5	30.0
12	28.5	26.5	27.5	33.5	32.5	33.0	32.5	31.0	31.5	30.0	29.0	29.5
13	30.0	28.0	28.5	33.0	32.0	32.5	32.0	30.5	31.5	30.0	29.0	29.5
14	30.5	28.5	29.5	32.0	31.0	31.5	32.0	30.0	31.0	30.0	28.5	29.0
15	30.5	29.5	30.0	32.0	31.0	31.5	32.0	30.5	31.0	29.5	28.5	29.0
16	31.5	29.5	30.5	32.0	31.0	31.5	32.5	30.5	31.5	30.5	29.0	29.5
17	32.0	30.5	31.0	31.5	30.5	31.0	32.0	30.5	31.5	30.5	29.0	29.5
18	32.0	31.0	31.5	31.0	30.0	30.5	32.0	30.5	31.5	30.0	29.0	29.5
19	32.0	30.5	31.5	31.5	30.5	31.0	32.5	31.0	31.5	29.5	29.0	29.0
20	32.5	31.0	31.5	32.5	31.0	31.5	32.0	30.5	31.5	29.5	28.5	29.0
21	32.0	30.5	31.5	33.0	31.0	32.0	32.0	30.5	31.5	29.5	28.5	29.0
22	32.0	30.5	31.0	33.5	31.5	32.5	31.5	30.0	30.5	29.0	27.5	28.5
23	31.5	30.5	31.0	34.0	32.0	33.0	30.5	29.5	30.0	28.5	27.5	28.0
24	31.0	30.5	30.5	33.5	32.0	32.5	31.0	29.5	30.5	28.5	27.5	28.0
25	30.5	30.0	30.5	33.0	31.5	32.0	31.5	30.0	30.5	28.5	27.5	27.5
26	31.0	29.5	30.0	32.0	30.5	31.0	31.5	30.5	31.0	29.0	28.0	28.5
27	31.0	29.5	30.5	33.5	31.5	32.0	31.0	30.5	31.0	28.0	25.0	26.5
28	31.0	29.5	30.5	34.0	32.0	33.0	31.0	30.5	30.5	25.0	22.5	23.5
29	31.5	30.0	30.5	34.0	32.5	33.0	30.5	29.5	30.0	25.0	23.5	24.0
30	32.5	30.5	31.5	34.0	32.5	33.5	29.5	28.5	29.0	24.5	23.5	23.5
31	---	---	---	34.0	33.0	33.5	30.0	28.5	29.0	---	---	---
MONTH	32.5	26.0	29.5	34.0	30.0	32.5	34.5	28.5	31.5	31.5	22.5	28.5
YEAR	34.5	5.5	22.5									

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	6.2	6.6	7.9	6.4	7.0	6.7	4.6	5.5	---	---	---
2	7.1	5.9	6.4	7.2	6.3	6.7	6.8	5.7	6.1	---	---	---
3	6.8	5.7	6.2	6.9	6.1	6.5	6.8	5.4	6.0	---	---	---
4	8.0	6.2	6.8	6.9	6.5	6.7	6.0	4.8	5.3	16.2	10.6	11.6
5	7.6	6.5	6.9	7.4	6.8	7.1	6.3	4.8	5.5	10.6	9.5	9.9
6	7.6	6.2	6.8	8.9	7.4	8.1	5.6	4.8	5.3	9.7	9.0	9.4
7	8.1	6.2	6.9	9.8	8.4	9.0	4.9	4.3	4.6	---	---	---
8	8.4	6.3	7.2	8.4	5.4	7.1	4.7	4.4	4.6	10.6	9.6	10.4
9	8.8	6.6	7.6	6.4	5.2	5.8	4.4	3.9	4.2	12.1	9.6	10.6
10	9.2	6.7	7.7	6.9	6.0	6.4	4.7	3.8	4.2	12.4	9.3	10.6
11	9.1	6.8	7.8	6.2	4.9	5.3	5.3	3.9	4.5	12.8	7.2	9.8
12	8.7	6.9	7.6	6.0	4.7	5.3	5.8	4.6	5.1	14.0	7.2	10.2
13	8.7	7.3	7.9	6.8	5.1	5.8	5.9	4.8	5.3	15.7	10.2	12.5
14	8.7	7.0	7.7	6.3	5.1	5.6	14.8	5.1	8.7	15.4	11.5	13.4
15	9.4	6.8	7.8	6.6	4.9	5.6	12.0	11.1	11.7	14.5	12.3	13.1
16	9.9	6.9	8.2	6.2	4.8	5.4	11.3	10.1	10.8	14.4	11.3	13.0
17	9.9	7.3	8.3	5.3	4.9	5.1	10.2	9.9	10.1	14.7	13.4	14.0
18	9.9	7.4	8.4	6.6	4.9	5.6	---	---	---	13.9	10.5	11.6
19	9.9	7.5	8.6	6.7	4.9	5.6	---	---	---	---	---	---
20	9.1	7.4	8.3	6.4	5.3	5.8	---	---	---	12.0	10.8	11.1
21	9.8	6.8	8.1	6.3	5.1	5.6	---	---	---	10.9	9.5	10.4
22	10.1	7.8	8.8	6.4	4.9	5.5	---	---	---	11.0	9.3	10.0
23	9.1	8.0	8.4	6.1	5.2	5.5	---	---	---	10.1	9.5	9.8
24	8.9	7.2	7.9	5.8	4.6	5.1	---	---	---	9.5	9.2	9.4
25	8.2	7.1	7.5	6.2	4.4	5.2	---	---	---	9.5	9.2	9.4
26	7.9	5.6	7.0	6.5	4.9	5.6	---	---	---	9.4	9.1	9.2
27	6.5	5.4	5.8	6.5	5.0	5.8	---	---	---	9.6	9.2	9.4
28	6.3	4.9	5.5	5.0	4.4	4.7	---	---	---	10.2	9.6	9.9
29	5.9	5.2	5.5	5.3	4.1	4.6	---	---	---	10.6	10.2	10.4
30	6.4	5.4	5.8	5.9	4.0	4.8	---	---	---	11.1	10.4	10.7
31	7.1	5.8	6.4	---	---	---	---	---	---	---	---	---
MONTH	10.1	4.9	7.3	9.8	4.0	5.9	14.8	3.8	6.3	16.2	7.2	10.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.2	10.8	11.1	12.8	10.4	11.6	10.1	7.6	8.6	8.9	8.2	8.5
2	11.5	10.7	11.1	14.8	11.8	13.3	7.6	7.3	7.4	8.6	7.8	8.3
3	12.8	10.3	11.8	15.8	13.1	14.4	7.4	6.7	7.0	9.3	7.9	8.5
4	14.1	12.3	13.2	14.3	12.7	13.6	7.0	6.8	6.9	9.9	8.4	9.0
5	15.0	13.6	14.2	12.7	10.4	11.4	7.5	7.0	7.1	10.4	9.0	9.6
6	14.8	13.8	14.2	11.4	10.0	10.6	7.8	7.5	7.7	9.7	8.9	9.3
7	15.2	13.6	14.4	11.7	9.8	10.7	8.1	7.8	8.0	10.7	8.8	9.8
8	15.6	13.5	14.5	11.6	10.2	10.9	8.5	8.1	8.3	12.4	9.7	10.8
9	15.6	13.5	14.5	12.7	11.0	11.8	8.7	6.6	8.0	11.2	10.2	10.8
10	15.0	13.1	14.0	13.0	11.9	12.4	6.6	5.4	5.9	---	---	---
11	15.3	13.2	14.1	14.6	12.2	13.3	6.0	5.6	6.0	---	---	---
12	15.9	13.0	14.4	16.0	13.0	14.4	---	---	---	---	---	---
13	15.6	13.4	14.4	15.4	13.4	14.4	---	---	---	---	---	---
14	15.5	13.1	14.2	14.2	12.5	13.4	---	---	---	---	---	---
15	15.7	13.1	14.3	14.5	12.3	13.3	7.0	6.9	6.9	---	---	---
16	15.9	13.2	14.5	14.0	12.2	13.1	7.2	7.0	7.1	---	---	---
17	16.2	13.5	14.8	14.3	11.8	13.0	7.4	7.0	7.2	8.0	7.1	7.4
18	15.9	13.8	14.9	12.8	11.0	11.8	7.3	6.9	7.1	8.1	6.3	7.1
19	16.0	13.3	14.6	12.9	10.3	11.6	7.4	6.5	6.8	7.4	6.1	6.7
20	15.7	13.4	14.7	14.0	11.3	12.6	6.8	6.1	6.4	6.2	4.8	5.7
21	15.7	13.2	14.5	14.8	12.2	13.5	6.8	5.8	6.3	4.8	3.2	4.0
22	15.3	13.2	14.4	15.1	12.7	14.0	7.2	6.3	6.7	3.6	2.5	3.0
23	14.7	12.7	13.6	14.0	12.2	13.2	9.0	7.1	7.9	4.0	2.9	3.4
24	13.9	11.9	12.9	12.2	9.5	10.7	10.6	8.3	9.4	4.9	3.4	4.1
25	12.5	10.9	11.7	10.7	8.9	9.8	10.8	9.6	10.2	5.4	3.8	4.5
26	11.6	9.9	10.7	10.1	9.3	9.7	11.6	9.7	10.5	5.3	3.5	4.3
27	10.5	4.6	7.1	10.4	9.4	9.8	10.5	8.5	9.3	4.4	3.0	3.8
28	11.8	11.1	11.3	10.8	9.6	10.2	8.8	7.9	8.4	3.8	2.2	2.9
29	11.5	10.0	10.9	10.6	9.6	10.2	8.5	7.6	8.0	4.3	.3	2.5
30	---	---	---	10.5	9.3	9.9	8.7	8.0	8.3	6.5	.1	3.3
31	---	---	---	11.6	10.1	10.7	---	---	---	6.5	4.2	5.3
MONTH	16.2	4.6	13.3	16.0	8.9	12.0	11.6	5.4	7.7	12.4	.1	6.4

08065350 TRINITY RIVER NEAR CROCKETT, TX--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4.7	3.7	4.1	4.6	3.4	4.0	7.3	4.5	5.6	6.0	4.9	5.2
2	5.9	3.3	4.5	4.3	3.3	3.8	8.0	6.6	7.3	5.3	4.9	5.2
3	4.9	2.1	3.5	4.4	3.1	3.7	10.5	7.9	9.2	5.8	5.3	5.5
4	4.5	3.0	3.6	4.2	3.1	3.5	11.1	9.5	10.2	6.0	5.8	5.9
5	3.8	2.8	3.3	4.3	2.9	3.5	10.9	9.8	10.3	5.9	5.2	5.6
6	4.1	2.8	3.8	4.4	3.0	3.6	10.4	9.2	9.8	5.7	5.1	5.4
7	---	---	---	4.2	3.0	3.4	9.9	8.7	9.2	5.9	5.7	5.8
8	---	---	---	3.9	2.8	3.2	9.0	7.7	8.4	6.2	5.9	6.1
9	---	---	---	3.5	2.5	2.9	8.4	7.3	7.8	6.5	6.2	6.4
10	---	---	---	4.5	2.5	3.4	7.7	6.9	7.3	6.7	5.5	6.3
11	---	---	---	4.4	3.4	3.8	7.0	6.4	6.7	5.8	5.5	5.6
12	---	---	---	5.4	3.6	4.3	7.2	6.1	6.6	5.9	5.6	5.7
13	6.8	6.4	6.5	5.9	4.2	4.9	6.4	5.6	6.1	6.1	5.6	5.8
14	7.4	6.5	6.9	5.9	4.7	5.3	5.6	4.8	5.0	6.4	5.9	6.1
15	7.5	6.9	7.2	6.0	5.2	5.6	5.2	4.6	4.9	6.5	6.0	6.2
16	---	---	---	5.7	5.4	5.6	5.4	4.8	5.1	6.7	6.0	6.3
17	---	---	---	6.1	4.7	5.1	5.3	4.9	5.1	6.8	5.9	6.3
18	---	---	---	4.9	4.7	4.8	5.4	4.9	5.1	6.6	6.0	6.2
19	---	---	---	5.5	4.9	5.2	5.4	4.9	5.1	6.0	5.0	5.7
20	---	---	---	6.1	5.5	5.7	5.3	4.9	5.1	5.0	4.5	4.7
21	5.4	5.1	5.3	6.5	6.1	6.4	5.4	4.9	5.1	5.3	4.7	4.9
22	5.2	4.9	5.0	6.6	6.1	6.4	5.5	5.2	5.3	5.3	5.1	5.3
23	4.9	4.5	4.8	6.2	6.0	6.1	5.5	5.3	5.4	5.9	5.2	5.6
24	4.5	4.0	4.3	6.9	6.1	6.5	5.7	5.2	5.4	5.9	5.8	5.9
25	4.2	3.8	4.0	7.1	6.2	6.7	5.7	5.3	5.4	6.0	5.7	5.9
26	4.2	3.7	3.9	6.2	4.2	4.9	6.1	5.3	5.6	6.1	5.9	6.1
27	4.1	3.1	3.7	6.0	4.6	5.6	6.0	5.4	5.6	6.1	5.8	6.0
28	3.8	3.0	3.4	6.2	5.4	5.7	5.9	5.5	5.7	6.2	5.9	6.1
29	3.9	3.1	3.5	6.2	5.3	5.7	5.8	5.4	5.7	6.7	6.2	6.5
30	4.3	3.0	3.6	6.0	5.0	5.4	6.0	5.7	5.9	6.7	6.4	6.6
31	---	---	---	5.3	4.6	4.9	6.0	5.8	5.9	---	---	---
MONTH	7.5	2.1	4.5	7.1	2.5	4.8	11.1	4.5	6.5	6.8	4.5	5.8
YEAR	16.2	.1	7.7									

08065800 BEDIAS CREEK NEAR MADISONVILLE, TX

LOCATION.--Lat 30°53'03", long 95°46'39", Madison-Walker County line, Hydrologic Unit 12030202, on right bank at downstream side of bridge on U.S. Highways 75 and 190, 0.5 mi upstream from Interstate Highway 45, 1.5 mi downstream from Caney Creek, and 9.5 mi southeast of Madisonville.

DRAINAGE AREA.--321 mi².

PERIOD OF RECORD.--October 1967 to current year.
Water-quality records.--Chemical analyses: July 1962 to April 1964, January 1968 to September 1974. Chemical and biochemical analyses: September 1970 to September 1974, April 1985 to June 1988, April 1993 to September 1995. Pesticide analyses: April 1985 to April 1988. Specific conductance: October 1984 to September 1987. Water temperature: October 1984 to September 1987. Suspended sediment discharge: October 1984 to September 1986.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 150.00 ft above sea level.

REMARKS.--Records good. No known diversions above station. Flow may be slightly affected at times by discharge from the flood-detention pools of three floodwater-retarding structures with a combined detention capacity of 1,290 acre-ft. These structures control runoff from 2.71 mi² in the upper Caney Creek and Town Branch drainage basins. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1910, 34 ft in May 1922 (discharge unknown), from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
No peak greater than base discharge.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	17	9.7	15	6.2	13	13	12	.67	27	.48	147
2	3.8	227	10	14	6.3	13	13	9.8	.96	5.6	.37	55
3	475	504	11	13	6.7	14	13	9.0	.87	1.8	.28	13
4	1030	341	10	13	5.7	13	14	11	.62	.83	.24	4.8
5	1110	67	9.6	13	5.5	13	14	8.0	.51	.48	.33	86
6	228	29	9.7	12	6.1	13	13	7.4	.58	.28	.28	55
7	53	20	9.8	12	6.6	13	16	8.0	.74	.23	.36	12
8	28	17	12	12	6.5	13	15	7.2	.99	.18	.42	66
9	17	15	13	12	6.3	12	14	6.7	1.1	.20	.42	35
10	11	14	53	11	6.4	12	14	6.8	1.2	.18	.64	9.3
11	7.1	14	49	11	6.6	12	13	6.4	1.2	.11	4.8	3.8
12	5.1	13	26	9.8	5.9	12	13	5.1	.98	.07	5.7	12
13	4.2	14	17	9.2	5.9	12	13	3.9	.77	.06	2.9	6.0
14	3.8	14	14	8.7	5.5	13	13	3.6	.59	.04	2.3	3.1
15	3.2	14	12	8.3	5.2	14	13	3.6	.57	.04	2.0	2.0
16	2.9	15	10	8.2	4.6	14	12	3.6	.69	.04	1.4	1.8
17	2.7	14	67	8.1	4.6	14	11	3.9	.91	.06	.96	1.5
18	2.7	15	703	9.7	5.9	15	10	3.6	.97	.09	.81	1.4
19	2.5	17	2020	9.7	6.5	14	10	3.3	1.1	.08	.78	1.7
20	2.5	22	2740	9.4	6.5	14	9.8	3.0	1.2	.08	1.1	1.4
21	3.1	22	1160	9.2	8.1	14	8.3	2.3	1.1	.08	1.2	29
22	3.9	17	171	8.9	9.7	14	8.8	1.7	.84	.08	1.3	10
23	5.1	15	68	9.7	10	14	9.7	1.4	.66	e.08	1.9	3.5
24	6.0	13	42	9.2	11	14	11	1.1	3.0	e.08	4.1	2.3
25	6.5	12	32	9.1	12	14	11	.98	5.7	e.05	4.2	1.7
26	7.4	11	26	8.9	12	13	9.1	1.0	5.5	.05	3.0	1.6
27	8.8	11	22	9.6	12	13	8.0	1.1	4.9	.04	2.4	463
28	9.7	9.3	19	8.6	13	13	6.6	.91	4.4	1.2	1.9	646
29	11	9.1	17	7.2	13	13	8.4	.90	4.5	1.9	2.1	599
30	11	9.5	16	6.8	---	14	8.8	.75	11	1.1	68	104
31	12	---	15	6.6	---	14	---	.64	---	.68	67	---
TOTAL	3079.9	1531.9	7393.8	312.9	220.3	413	346.5	138.68	58.82	42.79	183.67	2377.9
MEAN	99.4	51.1	239	10.1	7.60	13.3	11.5	4.47	1.96	1.38	5.92	79.3
MAX	1110	504	2740	15	13	15	16	12	11	27	68	646
MIN	2.5	9.1	9.6	6.6	4.6	12	6.6	.64	.51	.04	.24	1.4
AC-FT	6110	3040	14670	621	437	819	687	275	117	85	364	4720
CFSM	.31	.16	.74	.03	.02	.04	.04	.01	.01	.00	.02	.25
IN.	.36	.18	.86	.04	.03	.05	.04	.02	.01	.00	.02	.28

08065800 BEDIAS CREEK NEAR MADISONVILLE, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

MEAN	222	123	219	316	299	278	266	337	269	22.6	28.9	96.0
MAX	3021	688	983	2015	1580	909	1333	1046	1745	260	266	1551
(WY)	1985	1986	1995	1991	1992	1973	1969	1969	1968	1979	1995	1974
MIN	.000	.025	.22	1.99	5.41	3.13	2.30	4.47	.82	.013	.000	.000
(WY)	1979	1989	1968	1971	1971	1971	1981	1996	1988	1977	1969	1969

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	65231.57		16100.16			
ANNUAL MEAN	179		44.0		206	
HIGHEST ANNUAL MEAN					423	1985
LOWEST ANNUAL MEAN					35.8	1984
HIGHEST DAILY MEAN	5090	Mar 14	2740	Dec 20	23000	Jan 10 1991
LOWEST DAILY MEAN	.12	Jul 28	.04	Jul 14	.00	Aug 31 1968
ANNUAL SEVEN-DAY MINIMUM	.18	Jul 24	.06	Jul 12	.00	Aug 31 1968
INSTANTANEOUS PEAK FLOW			3340	Dec 19	33800	Sep 14 1974
INSTANTANEOUS PEAK STAGE			17.60	Dec 19	25.07	Sep 14 1974
ANNUAL RUNOFF (AC-FT)	129400		31930		149200	
ANNUAL RUNOFF (CFSM)	.56		.14		.64	
ANNUAL RUNOFF (INCHES)	7.56		1.87		8.71	
10 PERCENT EXCEEDS	400		26		413	
50 PERCENT EXCEEDS	19		8.8		8.7	
90 PERCENT EXCEEDS	2.7		.61		.06	

e Estimated

08066170 KICKAPOO CREEK NEAR ONALASKA, TX

LOCATION.--Lat 30°54'25", long 95°05'18", Polk County, Hydrologic Unit 12030202, on right bank 114 ft upstream from old bridge site, 1.2 mi downstream from Magnolia Creek, 6.2 mi upstream from Rocky Creek, 7.3 mi northeast of Onalaska, and 15.9 mi upstream from mouth.

DRAINAGE AREA.--57.0 mi².

PERIOD OF RECORD.--December 1965 to current year.
Water-quality records.--Chemical analyses: December 1963 to September 1969. Chemical and biochemical analyses: October 1969 to September 1974.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 139.85 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Low flow is sustained by wastewater effluent that enters the creek upstream from this station. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec 18	0800	2,540	12.38				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.2	1.5	4.6	2.2	1.4	1.3	2.4	.91	1.1	.44	2.8
2	3.4	1.7	1.5	4.0	2.6	1.4	1.2	1.7	1.2	.74	.45	1.3
3	9.6	1.4	1.5	3.4	2.4	1.4	1.2	1.5	2.3	.60	.45	.82
4	3.3	1.4	1.5	3.1	2.2	1.3	1.3	1.3	2.8	.53	.45	.67
5	1.6	1.1	1.5	3.1	2.1	1.5	2.0	1.2	1.8	.48	.44	.57
6	1.2	1.2	1.5	7.9	2.4	1.5	5.6	1.2	1.3	.45	.45	.53
7	.98	1.2	1.5	5.4	3.0	1.4	3.3	1.2	1.1	.42	1.3	.50
8	.92	1.1	1.8	3.8	3.4	1.2	2.3	1.1	1.0	.41	1.6	.47
9	.87	.98	2.7	3.4	2.7	1.2	1.8	1.0	.95	.42	.64	.51
10	.86	1.0	3.1	3.2	2.4	1.2	1.5	1.0	1.3	.44	.64	.55
11	.83	1.2	1.8	3.1	2.2	1.2	1.4	.99	1.5	.44	9.7	.55
12	.81	1.2	1.5	2.7	1.9	1.3	1.4	.98	1.2	.42	4.0	.51
13	.89	1.2	1.4	2.5	1.8	1.3	1.4	.96	1.0	.43	1.3	.50
14	.91	1.1	1.3	2.4	1.8	1.4	1.4	.95	.97	.54	.85	.50
15	.86	1.1	17	2.4	1.8	1.4	1.2	.90	4.0	.53	.61	.52
16	.83	1.1	33	2.4	1.6	1.3	1.0	.89	17	.49	.55	.54
17	.80	1.1	264	2.4	1.6	1.3	1.0	.88	2.5	.46	.50	.54
18	.77	1.2	811	5.3	1.6	1.2	1.1	.86	1.2	.45	.49	.53
19	.78	1.2	47	4.7	1.8	1.1	1.1	.85	.93	.45	.46	.56
20	.79	1.2	17	3.2	1.7	1.0	1.1	.84	.63	.44	.46	.61
21	.75	1.2	14	3.0	1.7	1.1	1.0	.81	.52	.42	.47	.58
22	.78	1.2	10	2.9	1.7	1.2	2.9	.81	.48	.41	.62	.54
23	.84	1.2	8.0	3.5	1.7	1.3	5.4	.78	.57	.42	1.3	.52
24	.83	1.2	6.5	8.3	1.6	1.3	1.9	.78	.50	.48	3.4	3.9
25	.80	1.2	5.6	5.2	1.5	1.5	1.5	.78	.52	.58	2.1	3.0
26	.85	1.2	4.8	3.9	1.5	1.4	1.3	.78	.59	.58	1.1	3.9
27	.96	1.3	4.3	2.9	1.5	1.6	1.1	.80	.51	.51	4.4	363
28	.93	1.3	3.7	2.4	1.4	1.7	1.1	.81	2.9	.51	21	41
29	.86	1.3	3.3	2.4	1.3	1.6	19	.88	13	.50	11	13
30	.87	1.4	3.7	2.5	---	1.6	6.2	1.7	2.4	.45	14	5.2
31	.92	---	5.1	2.3	---	1.5	---	1.1	---	.43	7.4	---
TOTAL	41.99	38.38	1282.1	112.3	57.1	41.8	75.0	32.73	67.58	15.53	92.57	448.72
MEAN	1.35	1.28	41.4	3.62	1.97	1.35	2.50	1.06	2.25	.50	2.99	15.0
MAX	9.6	3.2	811	8.3	3.4	1.7	19	2.4	17	1.1	21	363
MIN	.75	.98	1.3	2.3	1.3	1.0	1.0	.78	.48	.41	.44	.47
AC-FT	83	76	2540	223	113	83	149	65	134	31	184	890
CFSM	.02	.02	.73	.06	.03	.02	.04	.02	.04	.01	.05	.26
IN.	.03	.03	.84	.07	.04	.03	.05	.02	.04	.01	.06	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	77.5	25.5	51.6	73.4	71.3	66.1	59.4	66.1	57.5	11.2	7.48	11.7
MAX	1891	163	177	320	288	236	270	202	365	100	51.4	107
(WY)	1995	1975	1966	1974	1992	1990	1979	1982	1973	1989	1975	1973
MIN	.31	.82	1.72	1.49	1.54	.76	1.13	.86	.31	.083	.32	.37
(WY)	1988	1991	1981	1971	1971	1971	1971	1988	1971	1971	1988	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	19505.48		2305.80			
ANNUAL MEAN	53.4		6.30		48.0	
HIGHEST ANNUAL MEAN					223	1995
LOWEST ANNUAL MEAN					4.63	1971
HIGHEST DAILY MEAN	3180	Mar 13	811	Dec 18	38800	Oct 17 1994
LOWEST DAILY MEAN	.29	Sep 16	.41	Jul 8	.02	Sep 27 1967
ANNUAL SEVEN-DAY MINIMUM	.33	Sep 10	.43	Jul 7	.02	Sep 27 1967
INSTANTANEOUS PEAK FLOW			2540	Dec 18	84600	Oct 17 1994
INSTANTANEOUS PEAK STAGE			12.38	Dec 18	a41.85	Oct 17 1994
ANNUAL RUNOFF (AC-FT)	38690		4570		34800	
ANNUAL RUNOFF (CFSM)	.94		.11		.84	
ANNUAL RUNOFF (INCHES)	12.73		1.50		11.45	
10 PERCENT EXCEEDS	58		4.5		60	
50 PERCENT EXCEEDS	5.0		1.3		3.3	
90 PERCENT EXCEEDS	.86		.50		.48	

a From floodmark.

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX

LOCATION.--Lat 30°38'00", long 95°00'36", Polk-San Jacinto County line, Hydrologic Unit 12030202, at left end of gated spillway at Livingston Dam on Trinity River, 4.4 mi northwest of Goodrich, 7 mi southwest of Livingston, 11.7 mi upstream from Long King Creek, and at mile 129.2.

DRAINAGE AREA.--16,583 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by Trinity River Authority). Prior to Feb. 26, 1969, temporary nonrecording gages at site about 200 ft upstream and at same datum.

REMARKS.--The reservoir is formed by an earthfill dam 14,400 ft long. The dam was completed Sept. 29, 1968, and deliberate impoundment began June 26, 1969. The reservoir is operated for industrial water supply in the Houston metropolitan area. The spillway has twelve 40 x 35 ft tainter gates located near the left end of dam. Low-flow releases may be made through multi-gated inlet tower. There are five gated openings at various elevations located in the tower, and all discharge into a 10-foot-diameter concrete conduit through the dam. Flow is affected at times by discharge from the flood-detention pools of 255 floodwater-retarding structures with a combined detention capacity of 184,600 acre-ft. These structures control runoff from an 617 mi² area in the Richland, Chambers, Tehuacana, and Bedias Creeks drainage basins above this station. Figures given herein represent total contents. 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	2,098,000
Top of tainter gates	134.0	2,004,000
Top of conservation pool	131.0	1,742,000
Crest of spillway (sill of tainter gates)	99.0	143,800
Lowest gated outlet (invert)	58.0	0

COOPERATION.--The capacity table, furnished by the Trinity River Authority, is based on a survey by the Bureau of Reclamation dated Dec. 1991.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,081,000 acre-ft Oct. 17, 1994 (elevation, 134.39 ft); minimum since conservation pool capacity was reached on Nov. 2, 1971, 1,345,000 acre-ft Oct. 25, 1988 (elevation, 125.22 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,826,000 acre-ft Dec. 18 at 0600 (elevation, 131.99 ft); minimum, 1,393,000 acre-ft Aug. 21 (elevation, 126.53 ft).

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

125.0	1,283,000	129.0	1,581,000	133.0	1,914,000
126.0	1,355,000	130.0	1,660,000	134.0	2,004,000
127.0	1,428,000	131.0	1,742,000	135.0	2,098,000
128.0	1,504,000	132.0	1,823,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1747000	1732000	1743000	1744000	1748000	1743000	1752000	1744000	1685000	1571000	1470000	1439000
2	1755000	1742000	1744000	1746000	1744000	1740000	1750000	1744000	1678000	1568000	1469000	1447000
3	1761000	1738000	1748000	1730000	1744000	1737000	1750000	1735000	1678000	1565000	1461000	1455000
4	1761000	1735000	1746000	1736000	1735000	1739000	1758000	1738000	1672000	1560000	1453000	1461000
5	1765000	1734000	1746000	1748000	1738000	1744000	1772000	1738000	1659000	1554000	1452000	1471000
6	1759000	1744000	1749000	1744000	1740000	1756000	1763000	1738000	1657000	1548000	1449000	1477000
7	1755000	1746000	1739000	1744000	1741000	1747000	1759000	1735000	1664000	1541000	1448000	1482000
8	1749000	1741000	1755000	1735000	1744000	1744000	1760000	1736000	1660000	1535000	1444000	1485000
9	1751000	1740000	1749000	1741000	1744000	1739000	1754000	1736000	1653000	1545000	1441000	1487000
10	1752000	1743000	1740000	1743000	1746000	1734000	1759000	1735000	1646000	1538000	1436000	1488000
11	1751000	1744000	1741000	1745000	1746000	1732000	1757000	1739000	1642000	1534000	1438000	1488000
12	1752000	1739000	1742000	1745000	1745000	1734000	1762000	1736000	1638000	1527000	1429000	1488000
13	1752000	1747000	1747000	1744000	1743000	1735000	1758000	1730000	1636000	1523000	1427000	1486000
14	1747000	1741000	1749000	1742000	1744000	1737000	1772000	1726000	1635000	1519000	1425000	1482000
15	1743000	1745000	1758000	1747000	1749000	1741000	1757000	1726000	1629000	1515000	1420000	1480000
16	1742000	1741000	1760000	1745000	1744000	1741000	1744000	1724000	1627000	1509000	1419000	1484000
17	1739000	1749000	1778000	1732000	1741000	1744000	1744000	1721000	1623000	1507000	1416000	1482000
18	1738000	1750000	1796000	1756000	1739000	1743000	1747000	1721000	1625000	1509000	1411000	1479000
19	1740000	1751000	1801000	1741000	1744000	1743000	1741000	1717000	1612000	1511000	1407000	1479000
20	1738000	1751000	1794000	1750000	1741000	1739000	1748000	1717000	1609000	1508000	1407000	1472000
21	1727000	1749000	1787000	1750000	1741000	1737000	1741000	1717000	1604000	1508000	1400000	1488000
22	1727000	1745000	1782000	1750000	1740000	1732000	1762000	1711000	1602000	1505000	1400000	1486000
23	1731000	1750000	1771000	1764000	1748000	1734000	1757000	1704000	1600000	1496000	1396000	1486000
24	1728000	1748000	1764000	1758000	1744000	1742000	1746000	1699000	1595000	1496000	1411000	1503000
25	1725000	1745000	1759000	1750000	1742000	1741000	1748000	1698000	1594000	1499000	1415000	1501000
26	1724000	1744000	1751000	1760000	1741000	1744000	1749000	1693000	1590000	1493000	1413000	1504000
27	1730000	1751000	1747000	1752000	1749000	1741000	1742000	1693000	1589000	1492000	1417000	1565000
28	1726000	1746000	1742000	1750000	1746000	1743000	1739000	1689000	1581000	1488000	1420000	1576000
29	1720000	1744000	1736000	1750000	1741000	1747000	1760000	1686000	1577000	1484000	1426000	1579000
30	1720000	1741000	1741000	1755000	---	1749000	1747000	1689000	1576000	1479000	1434000	1578000
31	1721000	---	1739000	1746000	---	1752000	---	1682000	---	1476000	1436000	---
MAX	1765000	1751000	1801000	1764000	1749000	1756000	1772000	1744000	1685000	1571000	1470000	1579000
MIN	1720000	1732000	1736000	1730000	1735000	1732000	1739000	1682000	1576000	1476000	1396000	1439000
(+)	130.74	130.99	130.96	131.05	130.99	131.12	131.06	130.27	128.94	127.64	127.11	128.97
(ø)	-76000	+20000	-2000	+7000	-5000	+11000	-5000	-65000	-106000	-100000	-40000	+142000

CAL YR 1995 MAX 1967000 MIN 1720000 (ø) -63000
WTR YR 1996 MAX 1801000 MIN 1396000 (ø) -219000

(+) Elevation, in feet, at end month.
(ø) Change in contents, in acre-feet.

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to current year.

303807095011101 - LIVINGSTON RES SITE AC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	RESER-VOIR STORAGE (AC-FT)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB												
07...	1250	1790000	1.00	380	8.0	8.5	0.84	11.2	95	120	16	40
07...	1252	--	10.0	380	8.0	8.5	--	11.2	95	--	--	--
07...	1254	--	20.0	380	8.0	8.5	--	11.2	95	--	--	--
07...	1256	--	30.0	380	8.0	8.0	--	11.2	94	--	--	--
07...	1258	--	40.0	380	8.0	8.0	--	11.2	94	--	--	--
07...	1300	--	50.0	380	8.0	8.0	--	11.2	94	--	--	--
07...	1302	--	60.0	380	8.0	8.0	--	11.2	94	--	--	--
07...	1304	--	74.0	385	8.0	8.0	--	11.2	94	110	13	39
AUG												
15...	1000	1470000	1.00	445	7.6	29.0	1.20	2.8	37	120	16	42
15...	1002	--	10.0	445	7.6	29.0	--	2.8	37	--	--	--
15...	1004	--	20.0	450	7.6	29.0	--	2.6	34	--	--	--
15...	1006	--	30.0	450	7.6	29.0	--	2.5	33	--	--	--
15...	1008	--	40.0	450	7.4	28.5	--	1.9	25	--	--	--
15...	1010	--	50.0	450	7.1	25.5	--	0.5	6	--	--	--
15...	1012	--	60.0	450	7.0	23.0	--	0.5	6	--	--	--
15...	1014	--	67.0	480	6.8	22.0	--	0.5	6	150	0	51

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB												
07...	4.0	27	1	4.8	100	37	27	0.40	4.9	208	0.680	0.680
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	0.690	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	4.0	27	1	4.7	100	37	28	0.40	5.0	209	0.690	0.690
AUG												
15...	4.5	38	1	5.8	110	47	40	0.50	3.6	246	0.030	0.030
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	0.030	0.030
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	0.030	0.030
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	4.8	32	1	5.2	180	15	33	0.40	14	278	--	--

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB											
07...	0.010	0.690	0.690	0.030	0.27	0.30	0.050	0.050	0.15	<10	<10
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	<0.010	0.690	0.690	0.030	0.27	0.30	0.060	0.050	0.15	20	<10
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	0.020	0.710	0.710	0.040	0.26	0.30	0.060	0.040	0.12	<10	<10
AUG											
15...	0.040	0.070	0.070	0.020	0.28	0.30	0.080	0.080	0.25	<3.0	8.0
15...	--	--	--	--	--	--	--	--	--	--	--
15...	0.040	0.070	0.070	0.020	0.38	0.40	0.090	0.080	0.25	5.0	23
15...	--	--	--	--	--	--	--	--	--	--	--
15...	0.040	0.070	0.070	0.100	0.30	0.40	0.120	0.120	0.37	13	86
15...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
15...	<0.010	--	<0.050	4.40	0.50	4.9	2.20	2.20	6.7	550	2100

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX--Continued

303821095005001 - LIVINGSTON RES SITE AL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
07...	1315	1.00	380	8.1	8.5	0.88	11.2	95
07...	1317	10.0	370	8.1	8.5	--	11.2	95
07...	1319	20.0	370	8.1	8.5	--	11.2	95
07...	1321	30.0	370	8.0	8.5	--	11.1	94
07...	1323	40.0	375	8.0	8.5	--	11.1	94
07...	1325	54.0	380	8.0	8.5	--	11.1	94
AUG								
15...	1023	1.00	445	7.6	29.5	0.90	2.6	34
15...	1025	10.0	445	7.6	29.0	--	2.3	30
15...	1027	20.0	445	7.7	29.0	--	3.0	39
15...	1029	30.0	450	7.7	29.0	--	3.0	39
15...	1031	42.0	450	7.5	29.0	--	1.6	21

303935095055401 - LIVINGSTON RES SITE BC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
07...	1210	1.00	390	8.1	8.5	0.80	11.4	96
07...	1212	10.0	380	8.1	8.5	--	11.4	96
07...	1214	20.0	380	8.0	8.0	--	11.2	94
07...	1216	30.0	380	8.0	8.0	--	11.2	94
07...	1218	40.0	380	8.0	8.0	--	11.2	94
07...	1220	50.0	380	8.0	8.0	--	11.2	94
07...	1222	61.0	380	7.9	8.0	--	11.1	93
AUG								
15...	1049	1.00	450	8.4	30.0	0.90	5.8	77
15...	1051	10.0	450	8.2	29.5	--	4.8	63
15...	1053	20.0	450	8.2	29.5	--	4.4	58
15...	1055	30.0	450	8.2	29.5	--	4.3	57
15...	1057	40.0	460	7.9	29.0	--	3.4	44
15...	1059	54.0	475	7.0	26.5	--	0.5	6

304144095073001 - LIVINGSTON RES SITE CC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
07...	1140	1.00	390	8.1	8.0	0.80	11.5	96
07...	1142	10.0	395	8.1	8.0	--	11.6	97
07...	1144	20.0	395	8.1	8.0	--	11.6	97
07...	1146	30.0	395	8.0	8.0	--	11.5	96
07...	1148	40.0	390	8.0	8.0	--	11.5	96
07...	1150	54.0	395	8.0	8.0	--	11.5	96
AUG								
15...	1122	1.00	460	8.7	30.5	0.90	7.0	94
15...	1124	10.0	460	8.5	29.5	--	5.1	67
15...	1126	20.0	470	8.3	29.5	--	4.1	54
15...	1128	30.0	470	8.1	29.5	--	3.0	40
15...	1130	40.0	470	7.8	29.5	--	1.8	24
15...	1132	46.0	470	7.6	29.5	--	0.7	9

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX--Continued

304521095075501 - LIVINGSTON RES SITE DC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
FEB											
07...	1055	1.00	390	8.1	8.5	0.74	11.4	96	0.770	0.770	0.020
07...	1057	10.0	390	8.1	8.0	--	11.4	95	--	--	--
07...	1059	20.0	390	8.1	8.0	--	11.4	95	--	--	--
07...	1101	30.0	430	8.0	7.5	--	11.3	93	--	--	--
07...	1103	40.0	480	8.0	7.0	--	11.3	92	--	--	--
07...	1105	50.0	470	8.0	7.0	--	11.2	91	--	--	--
07...	1107	56.0	470	7.9	7.0	--	11.0	90	2.38	2.38	0.020
AUG											
15...	1211	1.00	460	8.9	31.0	0.80	9.1	122	--	--	<0.010
15...	1213	10.0	460	8.6	29.5	--	6.1	80	--	--	--
15...	1215	20.0	470	8.3	29.5	--	3.6	47	--	--	--
15...	1217	30.0	470	8.0	29.5	--	2.0	26	0.050	0.050	0.030

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB										
07...	0.790	0.790	0.040	0.26	0.30	0.060	0.040	0.12	20	10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	2.40	2.40	0.250	0.45	0.70	0.100	0.090	0.28	220	220
AUG										
15...	--	<0.050	0.020	0.38	0.40	0.100	0.100	0.31	<3.0	3.0
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	0.080	0.080	0.200	0.40	0.60	0.140	0.130	0.40	<3.0	29

304453095064901 - LIVINGSTON RES SITE DL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
07...	1040	1.00	380	8.1	8.5	0.72	11.2	95
07...	1042	10.0	380	8.1	8.5	--	11.2	95
07...	1044	20.0	380	8.0	8.5	--	11.1	94
AUG								
15...	1430	1.00	445	9.0	31.5	0.70	10.2	139
15...	1432	10.0	455	8.5	29.5	--	2.7	36
15...	1434	16.0	455	7.9	29.5	--	2.8	37

304659095052001 - LIVINGSTON RES SITE EC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
FEB											
07...	1010	1.00	400	8.3	8.0	0.70	11.5	96	0.980	--	<0.010
07...	1012	10.0	395	8.2	8.0	--	11.4	95	--	--	--
07...	1014	20.0	395	8.1	8.0	--	11.3	94	--	--	--
07...	1016	30.0	400	8.0	8.0	--	11.2	94	1.00	--	<0.010
AUG											
15...	1416	1.00	460	9.1	33.0	0.60	10.2	143	--	--	<0.010
15...	1418	10.0	475	8.6	29.5	--	4.8	63	--	--	--
15...	1420	24.0	480	8.2	29.5	--	2.6	34	0.060	0.060	0.050

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX--Continued

304659095052001 - LIVINGSTON RES SITE EC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
07...	0.980	0.980	0.020	0.38	0.40	0.060	0.050	0.15	30	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	1.00	1.00	0.020	0.28	0.30	0.090	0.060	0.18	100	40
AUG										
15...	--	<0.050	<0.015	--	0.40	0.120	0.120	0.37	<3.0	<1.0
15...	--	--	--	--	--	--	--	--	--	--
15...	0.110	0.110	0.130	0.37	0.50	0.190	0.180	0.55	6.0	2.0

304843095104001 - LIVINGSTON RES SITE FC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
07...	1405	1.00	500	8.2	7.5	0.50	11.7	97
07...	1407	10.0	500	8.1	7.5	--	11.6	96
07...	1409	20.0	495	8.1	7.0	--	11.6	95
07...	1411	30.0	495	8.1	7.0	--	11.6	95
07...	1413	40.0	495	8.0	7.0	--	11.5	94
07...	1415	50.0	495	8.0	7.0	--	11.5	94
07...	1417	58.0	500	8.0	7.0	--	11.5	94
AUG								
15...	1233	1.00	510	8.9	30.0	0.70	7.6	101
15...	1235	10.0	510	8.9	30.0	--	7.0	93
15...	1237	20.0	510	8.8	29.5	--	4.9	65
15...	1239	30.0	525	8.4	29.5	--	2.2	29
15...	1241	40.0	525	8.2	29.5	--	1.3	17
15...	1243	50.0	530	8.2	29.5	--	1.4	18

305411095144901 - LIVINGSTON RES SITE GC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB												
07...	1440	1.00	550	8.3	8.5	0.50	12.0	102	150	43	49	5.5
07...	1442	10.0	570	8.2	7.5	--	11.9	98	--	--	--	--
07...	1444	20.0	570	8.2	7.5	--	11.9	98	--	--	--	--
07...	1446	30.0	570	8.2	7.0	--	12.0	98	--	--	--	--
07...	1448	40.0	580	8.2	7.0	--	12.0	98	--	--	--	--
07...	1450	46.0	580	8.2	7.0	--	12.0	98	150	48	51	5.8
AUG												
15...	1311	1.00	455	8.6	31.5	0.50	7.2	98	130	36	46	4.4
15...	1313	10.0	465	8.0	30.0	--	3.6	48	--	--	--	--
15...	1315	20.0	500	7.7	29.5	--	0.7	9	--	--	--	--
15...	1317	30.0	490	7.6	29.5	--	0.8	11	--	--	--	--
15...	1319	38.0	490	7.7	29.0	--	0.9	12	130	18	46	4.7

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX--Continued

305411095144901 - LIVINGSTON RES SITE GC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
FEB											
07...	47	2	6.6	100	63	53	0.60	7.4	312	3.88	3.88
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	4.28	4.28
07...	--	--	--	--	--	--	--	--	--	--	--
07...	50	2	7.0	100	66	57	0.60	7.1	327	4.38	4.38
AUG											
15...	39	1	6.9	97	51	41	0.60	9.0	263	1.27	1.27
15...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	0.520	0.520
15...	--	--	--	--	--	--	--	--	--	--	--
15...	44	2	7.5	120	52	43	0.70	8.6	281	0.640	0.640

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB											
07...	0.020	3.90	3.90	0.020	0.38	0.40	0.410	0.380	1.2	20	<10
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	0.020	4.30	4.30	0.030	0.37	0.40	0.490	0.450	1.4	10	<10
07...	--	--	--	--	--	--	--	--	--	--	--
07...	0.020	4.40	4.40	0.030	0.37	0.40	0.540	0.480	1.5	20	<10
AUG											
15...	0.130	1.40	1.40	<0.015	--	0.40	0.240	0.240	0.74	<3.0	4.0
15...	--	--	--	--	--	--	--	--	--	--	--
15...	0.240	0.760	0.760	0.120	0.48	0.60	0.230	0.230	0.71	<3.0	35
15...	--	--	--	--	--	--	--	--	--	--	--
15...	0.310	0.950	0.950	0.210	0.39	0.60	0.250	0.250	0.77	4.0	120

305447095161401 - LIVINGSTON RES SITE HC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
FEB											
07...	1500	1.00	520	8.2	8.5	0.42	11.5	97	2.69	2.69	0.010
07...	1502	10.0	520	8.1	7.5	--	11.3	93	--	--	--
07...	1504	20.0	520	8.1	7.0	--	11.3	92	--	--	--
07...	1506	30.0	520	8.0	7.0	--	11.2	91	--	--	--
07...	1508	36.0	525	8.0	7.0	--	11.2	91	2.78	2.78	0.020

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
07...	2.70	2.70	0.040	0.46	0.50	0.260	0.240	0.74	<10	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	2.80	2.80	0.050	0.45	0.50	0.260	0.200	0.61	<10	<10

08066190 LIVINGSTON RESERVOIR NEAR GOODRICH, TX--Continued

305135095193601 - LIVINGSTON RES SITE IC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
08...	0850	1.00	640	8.1	10.5	0.48	10.2	91
08...	0852	10.0	650	8.0	10.0	--	10.0	88
08...	0854	20.0	650	7.9	10.0	--	9.9	87
08...	0856	30.0	650	7.8	10.0	--	9.7	85
08...	0858	40.0	650	7.8	10.0	--	9.7	85

305135095235401 - LIVINGSTON RES SITE JC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
FEB												
08...	0915	1.00	670	7.8	10.5	0.50	10.2	91	160	51	53	6.2
08...	0917	10.0	660	7.8	10.5	--	10.1	90	--	--	--	--
08...	0919	20.0	660	7.7	10.0	--	10.1	89	--	--	--	--
08...	0921	30.0	660	7.9	10.0	--	10.4	91	--	--	--	--
08...	0923	38.0	650	7.8	10.0	--	10.3	90	150	47	51	5.9

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
FEB											
08...	65	2	9.0	110	77	68	0.90	8.4	394	8.55	8.55
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	8.35	8.35
08...	--	--	--	--	--	--	--	--	--	--	--
08...	62	2	8.3	100	73	66	0.90	8.9	376	7.66	7.66

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB											
08...	0.050	8.60	8.60	0.100	0.60	0.70	1.20	1.20	3.7	10	<10
08...	--	--	--	--	--	--	--	--	--	--	--
08...	0.050	8.40	8.40	0.110	0.79	0.90	1.10	1.10	3.4	20	<10
08...	--	--	--	--	--	--	--	--	--	--	--
08...	0.040	7.70	7.70	0.100	0.60	0.70	1.10	1.00	3.1	20	<10

08066200 LONG KING CREEK AT LIVINGSTON, TX

LOCATION.--Lat 30°42'58", long 94°57'31", Polk County, Hydrologic Unit 12030202, on right bank at downstream side of bridge on U.S. Highway 190, 2 mi west of Livingston, 2 mi upstream from Choates Creek, and 14.8 mi upstream from mouth.

DRAINAGE AREA.--141 mi².

PERIOD OF RECORD.--January 1963 to current year.
Water-quality records.--Chemical analyses: January 1963 to September 1974.

GAGE.--Water-stage recorder. Datum of gage is 100.12 ft above sea level.

REMARKS.--Records fair. No known diversions above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1870, about 41 ft in May 1929.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 18	1400	8,610	19.20	Sept. 27	1015	14,200	23.61

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	26	4.2	24	19	13	15	17	7.0	4.7	.66	21
2	5.7	29	4.7	23	20	10	13	11	5.1	3.7	.36	6.9
3	70	49	4.7	21	20	11	12	7.3	4.6	3.3	.09	2.4
4	30	28	4.7	20	19	11	12	7.0	3.4	2.9	.00	.60
5	15	15	4.7	21	19	13	17	6.1	3.2	2.5	.01	.00
6	8.4	10	5.1	80	20	14	136	5.3	2.1	2.2	.00	.00
7	6.1	8.1	5.4	56	25	15	42	4.6	1.9	1.7	.00	.00
8	4.6	6.8	6.2	32	30	14	13	3.9	1.5	1.5	.29	.00
9	3.9	5.8	9.4	27	42	14	9.3	3.5	.96	2.4	.66	.00
10	3.7	5.4	7.7	25	45	14	11	3.9	2.8	73	11	.00
11	3.5	5.8	7.4	24	40	15	8.8	5.6	4.6	30	223	.00
12	3.0	4.7	6.6	23	35	17	8.2	5.1	2.2	12	319	.00
13	3.5	4.8	6.9	22	34	16	9.7	5.0	1.4	6.4	20	.00
14	4.7	5.4	6.9	22	33	15	10	4.8	1.0	4.0	5.3	.00
15	3.0	5.0	6.9	21	32	16	9.6	4.7	.76	3.0	1.2	.00
16	2.9	4.5	88	22	28	17	8.6	3.8	.59	2.1	.05	.00
17	2.8	6.5	1220	21	25	17	7.3	3.5	.57	1.8	.00	.91
18	2.3	16	6070	25	24	17	6.1	3.1	.37	1.6	.00	1.5
19	2.3	9.4	1530	28	23	15	9.1	2.6	1.3	1.3	.00	3.6
20	3.1	9.5	226	24	20	15	6.3	2.4	42	1.1	.00	4.2
21	2.6	7.2	101	23	22	15	5.7	2.4	80	1.1	.85	2.0
22	1.7	6.1	58	22	27	16	9.1	3.9	16	.77	8.2	1.7
23	.95	5.5	45	23	24	15	83	2.7	8.8	.54	12	1.2
24	.91	5.3	41	26	20	14	29	2.0	7.5	13	8.0	25
25	.76	4.7	37	27	18	18	13	1.8	10	e50	16	34
26	.76	4.7	35	24	17	18	8.0	1.6	10	27	31	41
27	1.3	5.0	32	21	15	20	5.9	1.4	9.8	e8.0	205	7620
28	.98	4.7	25	20	25	19	5.0	1.7	7.2	e5.5	275	700
29	.56	4.7	23	20	17	18	70	2.5	10	4.0	368	131
30	.56	4.7	23	21	---	18	52	15	5.5	2.6	327	50
31	.57	---	24	20	---	16	---	15	---	1.1	89	---
TOTAL	194.25	307.3	9669.5	808	738	476	644.7	160.2	252.15	274.81	1921.67	8647.01
MEAN	6.27	10.2	312	26.1	25.4	15.4	21.5	5.17	8.40	8.86	62.0	288
MAX	70	49	6070	80	45	20	136	17	80	73	368	7620
MIN	.56	4.5	4.2	20	15	10	5.0	1.4	.37	.54	.00	.00
AC-FT	385	610	19180	1600	1460	944	1280	318	500	545	3810	17150
CFSM	.04	.07	2.21	.18	.18	.11	.15	.04	.06	.06	.44	2.04
IN.	.05	.08	2.55	.21	.19	.13	.17	.04	.07	.07	.51	2.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	69.8	70.0	147	175	167	148	136	142	137	36.1	17.8	29.1
MAX	1342	689	626	966	629	640	844	662	869	493	191	288
(WY)	1995	1974	1995	1974	1992	1990	1979	1969	1989	1989	1983	1996
MIN	.18	.92	2.83	2.79	5.53	3.75	4.06	2.58	.72	.000	.000	.15
(WY)	1966	1989	1971	1971	1971	1971	1971	1963	1971	1971	1971	1967

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996	
ANNUAL TOTAL	64277.95		24093.59			
ANNUAL MEAN	176		65.8		107	
HIGHEST ANNUAL MEAN					318	1995
LOWEST ANNUAL MEAN					12.3	1970
HIGHEST DAILY MEAN	6500	Jan 27	7620	Sep 27	30100	Oct 17 1994
LOWEST DAILY MEAN	.56	Oct 29	.00	Aug 4	.00	Aug 5 1965
ANNUAL SEVEN-DAY MINIMUM	.78	Oct 25	.00	Sep 5	.00	Jun 28 1971
INSTANTANEOUS PEAK FLOW			14200	Sep 27	50900	Oct 17 1994
INSTANTANEOUS PEAK STAGE			23.61	Sep 27	30.49	Oct 17 1994
ANNUAL RUNOFF (AC-FT)	127500		47790		77870	
ANNUAL RUNOFF (CFSM)	1.25		.47		.76	
ANNUAL RUNOFF (INCHES)	16.96		6.36		10.36	
10 PERCENT EXCEEDS	243		40		147	
50 PERCENT EXCEEDS	28		8.1		12	
90 PERCENT EXCEEDS	4.5		.76		.86	

e Estimated

08066250 TRINITY RIVER NEAR GOODRICH, TX

LOCATION.--Lat 30°34'19", long 94°56'55", Polk-San Jacinto County line, Hydrologic Unit 12030202, on left bank at downstream bridge on U.S. Highway 59, 0.2 mi downstream from Long King Creek, 3.0 mi southeast of Goodrich, 11.9 mile downstream from Livingston Dam, and at mile 117.3.

DRAINAGE AREA.--16,844 mi².

PERIOD OF RECORD.--December 1965 to current year.
Water-quality records.--March 1966 to September 1973.

GAGE.--Water-stage recorder. Datum of gage is 40.00 ft above sea level.

REMARKS.--Records good. Twenty-two major reservoirs with a capacity of 6,246,000 acre-ft, of which 1,362,000 acre-ft is for flood control, partly regulate the flow. See station 08065000 for statement regarding floodwater-retarding structures. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1929, 52.0 ft in May 1942, from information by Texas Department of Transportation and by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2990	1040	910	2270	1930	1150	1130	1820	2660	2790	2670	1260
2	2450	1040	908	2070	1670	1140	1140	1780	2660	2780	2650	e1070
3	2440	1020	897	1640	1650	1130	1140	1760	2640	2770	2650	e1070
4	2360	1020	881	1470	1630	1130	1140	1390	2630	2780	2660	1070
5	2290	999	877	1230	1300	1120	1400	1310	2640	2780	2660	1070
6	2270	980	879	1320	1230	1080	1960	1310	2640	2760	2660	1070
7	2270	953	928	1320	1220	1090	2070	1290	2630	2770	2660	1060
8	2270	944	1050	1260	1210	1070	2060	1280	2610	2770	2660	1060
9	1640	939	988	1180	1200	1060	2380	1280	2610	2760	2650	1060
10	1330	933	977	1200	1190	972	2920	1280	2610	2770	2670	1060
11	1310	965	977	1090	1180	734	3100	1280	2620	2780	2690	1050
12	1310	943	1010	1110	1180	712	3690	1290	2620	2760	2990	1060
13	1310	930	965	1100	1180	709	3750	1280	2610	2760	2770	1060
14	1310	927	953	1090	1170	707	3720	1290	2650	2740	2660	1060
15	1300	925	1060	1090	1160	705	3710	1470	2820	2730	2560	1060
16	1300	924	1370	1130	1150	695	3100	1610	3060	2720	2130	1050
17	1300	933	5150	1150	1160	689	1900	1610	3260	2720	2110	1130
18	1310	989	15500	1160	1160	716	1750	1610	3270	2700	2140	905
19	1300	979	14300	1140	1150	697	1740	1610	3280	2700	2140	840
20	1290	992	9470	1130	1150	662	1740	1610	3190	2690	2140	845
21	1290	961	8850	1100	1150	660	1730	1610	2780	2690	2110	957
22	1300	943	8690	1100	1150	660	1800	1680	2720	2680	1700	979
23	1300	927	8130	1190	1140	706	2080	2150	2730	2680	1630	972
24	1220	924	6760	2020	1140	715	2060	2200	2820	2710	1650	1030
25	988	910	5830	2140	1140	717	1790	2200	2840	2710	1620	1010
26	967	908	5030	2130	1130	684	1770	2200	2840	2740	1600	995
27	963	905	4140	2120	1130	681	1780	2190	2820	2720	1670	5870
28	958	905	2940	2100	1190	649	1770	2190	2820	2690	1690	6270
29	959	900	2230	2090	1180	657	1820	2270	2850	2680	1530	2540
30	964	903	2270	2070	---	1040	1860	2650	2810	2680	1730	1830
31	962	---	2290	2060	---	1120	---	2660	---	2680	1360	---
TOTAL	47221	28561	117210	46270	36220	26257	64000	53160	83740	84690	69210	43363
MEAN	1523	952	3781	1493	1249	847	2133	1715	2791	2732	2233	1445
MAX	2990	1040	15500	2270	1930	1150	3750	2660	3280	2790	2990	6270
MIN	958	900	877	1090	1130	649	1130	1280	2610	2680	1360	840
AC-FT	93660	56650	232500	91780	71840	52080	126900	105400	166100	168000	137300	86010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	3652	6285	8626	8729	9247	11240	10960	15590	12490	4775	2303	2180
MAX	25630	30260	30270	45550	38660	40490	30750	57850	32120	24310	6819	15230
(WY)	1974	1975	1992	1992	1992	1992	1977	1990	1973	1989	1982	1974
MIN	283	449	317	321	472	724	1262	1294	907	1043	355	455
(WY)	1973	1971	1971	1971	1971	1981	1971	1971	1972	1971	1972	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	4411052		699902			
ANNUAL MEAN	12090		1912		7937	
HIGHEST ANNUAL MEAN					18310	1992
LOWEST ANNUAL MEAN					746	1971
HIGHEST DAILY MEAN	46000	May 23	15500	Dec 18	120000	Oct 18 1994
LOWEST DAILY MEAN	877	Dec 5	649	Mar 28	191	Aug 6 1971
ANNUAL SEVEN-DAY MINIMUM	894	Nov 30	683	Mar 16	240	Aug 16 1972
INSTANTANEOUS PEAK FLOW			19400	Dec 18	125000	Oct 18 1994
INSTANTANEOUS PEAK STAGE			21.87	Dec 18	48.97	Oct 18 1994
ANNUAL RUNOFF (AC-FT)	8749000		1388000		5750000	
10 PERCENT EXCEEDS	29700		2800		23100	
50 PERCENT EXCEEDS	5830		1360		2730	
90 PERCENT EXCEEDS	973		925		735	

e Estimated

08066300 MENARD CREEK NEAR RYE, TX

LOCATION.--Lat 30°28'52", long 94°46'46", Liberty County, Hydrologic Unit 12030202, on left bank 20 ft downstream from bridge on State Highway 146, 2.3 mi northwest of Rye, and about 6 mi upstream from mouth.

DRAINAGE AREA.--152 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1965 to current year.
Water quality records.--Chemical analyses: August 1950 to August 1994.

GAGE.--Water-stage recorder and crest-stage gage. Datum of of gage is 62.32 ft above sea level. September 1974 to August 1976, wire-weight gage read twice daily.

REMARKS.--No estimated daily discharges. Records good. No known diversions above station. Regulation by Bear Foot Lake on Mill Creek, located 0.5 mi upstream from station. A section of the dam on this lake washed out on June 26-27, 1986, and was repaired in 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1929 reached a stage of about 39.4 ft, from information by the Texas Department of Transportation. Flood in September 1961 reached a stage of about 34.0 ft, from information by local resident. Flood of May 1929 may have been equaled or exceeded by other floods during the period 1929-65.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s:

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Aug. 30	0630	1,830	20.07	Sept. 29	0600	2,290	21.16

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	47	30	77	51	36	34	32	20	31	14	597
2	26	53	30	88	53	44	32	33	26	29	13	554
3	47	51	30	79	51	42	31	33	35	22	13	187
4	47	48	30	71	49	39	33	29	39	19	12	91
5	42	46	30	67	48	37	33	27	28	19	12	70
6	39	46	30	87	48	36	32	26	24	22	12	58
7	34	45	30	115	48	36	32	25	22	16	12	51
8	30	40	30	115	47	34	33	24	20	15	14	48
9	28	36	30	94	48	34	36	24	19	17	15	44
10	27	34	30	77	48	33	35	23	18	38	18	40
11	26	33	30	71	47	32	34	23	18	23	19	37
12	25	31	31	66	45	32	36	22	17	16	17	34
13	25	31	32	62	43	32	74	21	17	23	20	34
14	25	31	32	60	42	33	83	21	18	22	32	33
15	25	31	32	57	41	33	62	20	17	16	26	32
16	24	31	32	56	39	33	49	20	17	15	19	31
17	24	31	76	55	38	33	42	19	20	18	16	30
18	24	36	296	57	38	33	37	19	19	19	15	28
19	24	55	361	56	38	32	35	19	24	17	14	28
20	25	84	613	58	38	31	33	18	28	15	14	25
21	23	68	1060	62	37	30	31	17	38	14	16	24
22	23	67	523	60	37	30	36	16	33	14	26	24
23	23	57	187	59	37	29	53	16	43	14	29	25
24	23	46	125	62	36	30	70	15	35	19	26	31
25	22	40	101	67	35	31	121	15	31	17	22	34
26	23	36	88	68	35	31	67	15	31	15	35	34
27	23	34	81	63	33	32	46	15	29	16	45	194
28	23	34	75	60	33	33	37	15	29	22	79	356
29	22	32	71	56	34	37	37	17	28	20	376	1800
30	22	31	69	54	---	39	36	36	23	17	1410	966
31	23	---	71	51	---	36	---	20	---	15	758	---
TOTAL	842	1285	4286	2130	1217	1053	1350	675	766	595	3149	5540
MEAN	27.2	42.8	138	68.7	42.0	34.0	45.0	21.8	25.5	19.2	102	185
MAX	47	84	1060	115	53	44	121	36	43	38	1410	1800
MIN	22	31	30	51	33	29	31	15	17	14	12	24
AC-FT	1670	2550	8500	4220	2410	2090	2680	1340	1520	1180	6250	10990

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	77.1	79.5	149	206	219	173	170	199	151	66.6	47.6	48.5
MAX	1092	514	457	777	727	510	977	757	788	464	354	192
(WY)	1995	1975	1974	1992	1992	1979	1983	1986	1989	1983	1983	
MIN	3.42	3.55	8.05	14.6	14.0	13.5	9.77	21.8	8.72	4.52	5.47	4.43
(WY)	1968	1968	1968	1971	1971	1971	1971	1996	1971	1971	1967	1967

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	64633		22888			
ANNUAL MEAN	177		62.5		133	
HIGHEST ANNUAL MEAN					279	1975
LOWEST ANNUAL MEAN					14.7	1971
HIGHEST DAILY MEAN	2850	Jan 28	1800	Sep 29	12000	Oct 18 1994
LOWEST DAILY MEAN	22	Oct 25	12	Aug 4	2.6	Nov 1 1967
ANNUAL SEVEN-DAY MINIMUM	23	Oct 24	13	Aug 1	2.9	Nov 1 1967
INSTANTANEOUS PEAK FLOW			2290	Sep 29	13700	Oct 17 1994
INSTANTANEOUS PEAK STAGE			21.16	Sep 29	31.12	Oct 17 1994
ANNUAL RUNOFF (AC-FT)	128200		45400		96610	
10 PERCENT EXCEEDS	414		72		278	
50 PERCENT EXCEEDS	67		32		48	
90 PERCENT EXCEEDS	27		17		14	

08066300 MENARD CREEK NEAR RYE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: August 1950 to August 1994, October 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAR									
01...	1240	36	98	12.0	19	6	5.4	1.4	11
MAY									
03...	1349	31	98	21.0	19	4	5.4	1.3	11
JUN									
07...	1304	20	101	25.0	19	7	5.5	1.3	11
JUL									
24...	1138	20	134	28.0	22	7	6.4	1.4	15
AUG									
16...	1212	20	90	26.0	16	5	4.6	1.1	9.1
SEP									
12...	0845	36	123	24.0	23	10	6.6	1.5	12

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAR								
01...	1	0.90	13	1.1	20	<0.10	13	61
MAY								
03...	1	1.1	15	2.1	18	<0.10	13	61
JUN								
07...	1	1.2	12	2.4	20	<0.10	12	61
JUL								
24...	1	1.1	15	2.2	29	<0.10	14	78
AUG								
16...	1	1.0	11	1.6	17	<0.10	11	52
SEP								
12...	1	1.1	13	2.6	23	<0.10	15	70

08066500 TRINITY RIVER AT ROMAYOR, TX

LOCATION.--Lat 30°25'30", long 94°51'02", Liberty County, Hydrologic Unit 12030202, near right bank at downstream side of bridge on State Highway 787, 1.9 mi south of Romayor, 1.9 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.7 mi downstream from Big Creek, and at mile 94.3.

DRAINAGE AREA.--17,186 mi².

PERIOD OF RECORD.--May 1924 to current year. Monthly discharge only for some periods, published in WSP 1312. Water-quality records.--Chemical analyses: October 1941 to November 1949, February 1950 to September 1951, October 1953 to September 1995. Chemical and biochemical analyses: February 1968 to September 1995. Pesticide analyses: February 1968 to July 1981, August 1983 to September 1995. Sedimant records: March 1959 to September 1995. Specific conductance: October 1941 to September 1942, January 1944 to September 1951, October 1953 to September 1994. Water temperature: October 1941 to september 1950, October 1953 to September 1994. Suspended-sediment discharge: October 1954 to September 1955, October 1968 to September 1971.

REVISED RECORDS.--WSP 1392: 1932, 1935. WSP 1922: Drainage area. WDR TX-81-1: 1980(M, m).

GAGE.--Water-stage recorder. Datum of gage is 25.92 ft above sea level. Prior to Oct. 1, 1943, nonrecording gage at datum 63.57 ft higher at railroad bridge 1.9 mi upstream. Oct. 1, 1943 to Dec. 31, 1988, water-stage recorder and nonrecording gage (Sept. 15, 1975 to June 16, 1977) at present site and at datum 10.00 ft higher than current datum.

REMARKS.--No estimated daily discharges. Records good. Since Sept. 28, 1968, flow has been regulated by Livingston Reservoir (station 08066190), capacity 1,788,000 acre-ft, 35 mi upstream. There are no known large diversions between Livingston Reservoir and this station.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--44 years (water years 1925-68) 7,155 ft³/s (5,184,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1925-68).--Maximum discharge, 111,000 ft³/s May 9, 1942 (gage height, 45.8 ft, from floodmark), present site and datum; minimum, 102 ft³/s Aug. 24, 25, 1956. Maximum stage since at least 1908, that of May 9, 1942.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2600	1110	981	2320	2010	1180	1260	1790	2590	2830	2700	1990
2	2710	1190	984	2270	1740	1170	1250	1770	2600	2830	2700	1860
3	2520	1140	972	1900	1660	1150	1250	1750	2580	2810	2690	1520
4	2500	1110	950	1750	1650	1140	1250	1540	2580	2800	2680	1320
5	2420	1100	933	1470	1470	1140	1280	1320	2560	2810	2680	1260
6	2350	1080	931	1490	1290	1130	1860	1300	2530	2800	2670	1250
7	2310	1060	932	1550	1270	1110	2090	1290	2530	2780	2690	1220
8	2280	1030	1040	1490	1260	1090	2110	1270	2530	2770	2670	1210
9	2030	998	1040	1420	1260	1080	2180	1260	2520	2760	2680	1210
10	1510	994	986	1370	1260	1100	2770	1260	2520	2780	2710	1190
11	1430	1010	977	1330	1250	909	2910	1240	2550	2790	2730	1180
12	1410	996	1010	1270	1230	829	3430	1240	2580	2790	2900	1170
13	1410	981	1000	1250	1220	840	3810	1230	2530	2760	2930	1160
14	1400	981	975	1230	1210	862	3730	1210	2520	2780	2730	1160
15	1380	977	973	1230	1210	889	3670	1250	2610	2750	2680	1170
16	1370	975	1250	1250	1190	896	3410	1450	2790	2760	2340	1170
17	1360	976	2970	1250	1180	883	2190	1490	3040	2770	2140	1150
18	1360	1010	13200	1300	1180	871	1780	1510	3180	2770	2160	1160
19	1350	1050	16600	1310	1200	894	1720	1530	3270	2750	2160	964
20	1360	1110	10600	1260	1190	848	1710	1490	3370	2740	2170	940
21	1340	1100	9640	1260	1190	825	1690	1460	3000	2730	2180	980
22	1330	1050	9180	1240	1180	800	1720	1470	2840	2730	1950	1050
23	1330	1040	8540	1240	1180	788	2040	1800	2790	2720	1760	1050
24	1320	1010	7250	1710	1170	800	2160	2020	2860	2730	1740	1080
25	1140	980	5960	2100	1160	824	1960	2040	2920	2770	1730	1160
26	1050	967	5400	2140	1150	798	1840	2040	2930	2740	1680	1100
27	1040	968	4280	2120	1150	796	1770	2050	2890	2760	1700	3260
28	1030	958	3410	2090	1170	807	1750	2060	2860	2730	1810	7130
29	1020	948	2410	2080	1200	790	1770	2070	2890	2720	1920	3860
30	1020	953	2280	2080	---	976	1790	2440	2870	2710	3160	2740
31	1020	---	2330	2050	---	1240	---	2570	---	2690	2670	---
TOTAL	49700	30852	119984	49820	37480	29455	64150	50210	82830	85660	74110	48664
MEAN	1603	1028	3870	1607	1292	950	2138	1620	2761	2763	2391	1622
MAX	2710	1190	16600	2320	2010	1240	3810	2570	3370	2830	3160	7130
MIN	1020	948	931	1230	1150	788	1250	1210	2520	2690	1680	940
AC-FT	98580	61190	238000	98820	74340	58420	127200	99590	164300	169900	147000	96530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996#, BY WATER YEAR (WY)

MEAN	3951	6773	9686	9907	10350	12680	11330	14800	13250	5156	2585	2370
MAX	25380	30780	33070	51740	44510	46100	31340	60070	33140	26280	7021	14850
(WY)	1974	1975	1995	1992	1992	1992	1977	1990	1989	1989	1982	1974
MIN	326	449	351	347	450	909	1176	1303	952	936	404	469
(WY)	1973	1971	1971	1971	1971	1981	1971	1971	1972	1971	1972	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1969 - 1996#	
ANNUAL TOTAL	4306286		722915			
ANNUAL MEAN	11800		1975		8558	
HIGHEST ANNUAL MEAN					20630	1992
LOWEST ANNUAL MEAN					730	1971
HIGHEST DAILY MEAN	50700	Jan 19	16600	Dec 19	117000	Oct 19 1994
LOWEST DAILY MEAN	931	Dec 6	788	Mar 23	292	Oct 18 1972
ANNUAL SEVEN-DAY MINIMUM	955	Dec 1	800	Mar 23	297	Oct 13 1972
INSTANTANEOUS PEAK FLOW			19100	Dec 19	122000	Oct 19 1994
INSTANTANEOUS PEAK STAGE			24.42	Dec 19	42.70	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	8542000		1434000		6200000	
10 PERCENT EXCEEDS	29800		2850		24100	
50 PERCENT EXCEEDS	6260		1490		2950	
90 PERCENT EXCEEDS	1040		977		864	

Period of regulated streamflow.

08067000 TRINITY RIVER AT LIBERTY, TX

LOCATION.--Lat 30°03'27", long 94°49'05", Liberty County, Hydrologic Unit 12030203, at downstream side of downstream bridge on U.S. Highway 90 in Liberty, 450 ft downstream from Texas and New Orleans Railroad Co. bridge, and at mile 40.3.

DRAINAGE AREA.--17,468 mi².

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.
Water-quality records.--Chemical and biochemical analyses: October 1970 to September 1972. Pesticide analyses: May 1971 to September 1972.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2.22 ft below sea level; unadjusted land-surface subsidence. Prior to Mar. 13, 1973, nonrecording gage at site at same datum.

REMARKS.--No estimated daily discharges. Records good. Discharges for current year were computed using stage discharge relationship. During years with predominantly low releases from Livingston Reservoir, discharges are estimated using records for Trinity River near Romayor (station 08066500), intervening area computation, and discharge measurements. Estimated discharges below 10,000 ft³/s are not published. Considerable regulation of flow by Livingston Reservoir (station 08066190) 88.9 mi upstream. Many diversions above station for municipal supplies, industrial uses, and irrigation. Gage-height telemeter at station. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 135,000 ft³/s Oct. 12, 1994 (gage height, 31.00 ft); minimum not determined (affected by tides); minimum gage height observed, 2.32 ft Nov. 24, 1970. Maximum gage height since at least 1903, 31.00 ft, Oct. 21, 1994 (at 0500 hours).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 8-11, 1922, reached a stage of 28.6 ft, present datum, from observations by the National Weather Service at nonrecording gage on railroad bridge upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,500 ft³/s Dec. 19 at 2200 hours (gage height, 19.96 ft); minimum discharge not determined (affected by tides); minimum gage height, not recorded.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	15000	---	---	---	---	---	---	---	---	---
20	---	---	15900	---	---	---	---	---	---	---	---	---
21	---	---	12600	---	---	---	---	---	---	---	---	---
22	---	---	11400	---	---	---	---	---	---	---	---	---
23	---	---	10600	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

08067070 CWA CANAL NEAR DAYTON, TX

LOCATION.--Lat 29°57'40", long 94°48'36", Liberty County, Hydrologic Unit 12030203, at flume on left bank of Coastal Water Authority canal, 1,000 ft west of the Trinity River, 2 mi east of Farm Road 1409, and 7.4 mi southeast of Dayton.

PERIOD OF RECORD.--April 1981 to current year. Prior to October 1990, published as CIWA Canal near Dayton, TX.

GAGE.--Water-stage recorder. Mean sea level of gage not determined.

REMARKS.--No estimated daily discharges. Records good. There are no known diversions between pumping plant and the gage. Water is pumped from the Trinity River for industrial and municipal use in the area.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	679	620	663	534	602	687	623	729	761	729	762	631
2	649	616	654	551	593	604	630	761	749	757	756	612
3	537	600	597	561	635	602	633	778	746	763	772	641
4	594	598	587	609	605	602	630	744	740	760	791	656
5	655	604	622	640	588	647	695	733	721	759	813	654
6	671	602	611	635	593	626	728	480	730	770	845	653
7	679	608	574	630	598	610	736	612	725	778	846	652
8	656	585	561	626	593	600	737	762	726	798	820	651
9	655	579	547	630	619	640	732	757	739	859	793	650
10	651	582	555	607	648	614	702	735	743	858	780	647
11	648	569	565	530	646	615	705	725	756	821	764	647
12	711	584	569	556	637	618	666	706	770	793	728	651
13	691	597	534	556	655	621	702	691	788	796	728	652
14	685	604	530	556	660	623	628	690	789	792	715	652
15	679	615	530	556	643	633	622	691	788	755	730	658
16	681	614	530	570	596	697	705	540	787	761	730	651
17	661	616	530	587	601	697	698	719	766	764	728	642
18	643	616	547	588	605	693	699	717	760	765	727	645
19	644	621	579	570	609	668	659	722	743	763	726	647
20	652	616	538	575	606	696	661	723	743	763	724	646
21	670	654	509	584	609	714	662	725	724	760	727	643
22	685	616	534	584	614	726	649	726	722	758	731	639
23	684	630	534	624	659	706	596	733	693	757	734	644
24	676	638	504	649	725	649	622	738	669	754	711	644
25	725	639	469	655	745	611	676	738	666	760	701	641
26	713	495	481	631	724	606	650	745	669	764	701	649
27	645	203	512	602	704	614	681	748	665	762	701	635
28	613	691	537	598	673	699	729	748	667	749	700	643
29	619	710	547	617	662	729	725	741	682	757	698	640
30	620	693	539	602	---	715	715	757	692	757	698	612
31	622	---	534	598	---	651	---	755	---	762	684	---
TOTAL	20393	18015	17123	18411	1844/	20213	20296	22169	21919	23944	23064	19328
MEAN	658	600	552	594	636	652	677	715	731	772	744	644
MAX	725	710	663	655	745	729	737	778	789	859	846	658
MIN	537	203	469	530	588	600	596	480	665	729	684	612
AC-FT	40450	35730	33960	36520	36590	40090	40260	43970	43480	47490	45750	38340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

MEAN	411	390	373	372	384	401	433	459	479	503	471	445
MAX	658	600	573	594	636	652	677	715	731	772	746	676
(WY)	1996	1996	1994	1996	1996	1996	1996	1996	1996	1996	1993	1995
MIN	226	236	219	233	226	235	275	273	303	293	237	251
(WY)	1985	1985	1983	1983	1983	1985	1982	1986	1983	1983	1983	1983

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996	
ANNUAL TOTAL	226693		243322			
ANNUAL MEAN	621		665		431	
HIGHEST ANNUAL MEAN					665	1996
LOWEST ANNUAL MEAN					259	1983
HIGHEST DAILY MEAN	777	Jun 27	859	Jul 9	859	Jul 9 1996
LOWEST DAILY MEAN	203	Nov 27	203	Nov 27	52	Aug 18 1983
ANNUAL SEVEN-DAY MINIMUM	409	Jan 19	506	Dec 21	167	Aug 18 1983
INSTANTANEOUS PEAK FLOW			885	May 6	918	Jun 30 1994
INSTANTANEOUS PEAK STAGE			2.76	May 6	2.82	Jun 30 1994
ANNUAL RUNOFF (AC-FT)	449600		482600		312300	
10 PERCENT EXCEEDS	736		761		652	
50 PERCENT EXCEEDS	646		655		388	
90 PERCENT EXCEEDS	458		569		246	

08067118 LAKE CHARLOTTE NEAR ANAHUAC, TX

LOCATION.--Lat 29°52'02", long 94°42'53", Chambers County, Hydrologic Unit 12030203, on east side of Lake Charlotte, which is connected to the Trinity River by a small channel, 1.0 mi west of State Highway 563, 1.9 mi north of Interstate Highway 10, and 2.7 mi northeast of Wallisville.

DRAINAGE AREA.--55 mi².

WATER-STAGE RECORDS

PERIOD OF RECORD.--December 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.81 ft below sea level.

REMARKS.--Records fair. Lake Charlotte is a shallow natural lake within the Trinity River delta. December 1991 to Nov. 9, 1992, the lowest stilling well intake was at gage height of 7.3 ft. Thereafter it was at gage height of 6.7 ft. Satellite telemeter at station.

EXTREME FOR PERIOD OF RECORD.--Maximum gage height, 15.9 ft Oct. 22, 1994 at 1345 hours.

EXTREME FOR CURRENT YEAR.--Maximum gage height, 10.1 ft Sept. 30 at 1545 hours.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	7.7	<6.7	7.1	<6.7	<6.7	<6.7	6.8	7.3	<6.7	6.8	6.8
2	8.1	7.5	<6.7	6.7	<6.7	<6.7	<6.7	6.8	7.0	<6.7	6.7	6.7
3	7.9	7.0	<6.7	<6.7	<6.7	<6.7	<6.7	6.8	6.9	<6.7	<6.7	6.7
4	7.7	6.8	<6.7	<6.7	<6.7	<6.7	<6.7	6.9	6.8	<6.7	6.7	6.7
5	7.8	6.8	<6.7	<6.7	<6.7	<6.7	<6.7	6.8	6.9	<6.7	6.8	6.7
6	7.5	7.0	<6.7	<6.7	<6.7	<6.7	<6.7	6.7	6.9	<6.7	6.8	6.7
7	7.3	6.8	<6.7	<6.7	<6.7	<6.7	<6.7	6.8	6.7	<6.7	6.8	<6.7
8	7.2	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	6.9	<6.7	<6.7	6.7	6.7
9	7.1	6.8	<6.7	<6.7	<6.7	<6.7	<6.7	7.0	<6.7	<6.7	<6.7	<6.7
10	6.9	7.2	<6.7	<6.7	<6.7	<6.7	<6.7	7.1	<6.7	<6.7	<6.7	<6.7
11	6.8	6.9	<6.7	<6.7	<6.7	<6.7	<6.7	7.0	<6.7	<6.7	<6.7	<6.7
12	7.0	<6.7	<6.7	<6.7	<6.7	<6.7	7.0	<6.7	<6.7	<6.7	<6.7	<6.7
13	7.1	<6.7	<6.7	<6.7	<6.7	<6.7	6.9	<6.7	6.7	<6.7	<6.7	<6.7
14	6.9	<6.7	<6.7	<6.7	<6.7	<6.7	6.9	<6.7	6.7	<6.7	<6.7	<6.7
15	6.8	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	7.0	<6.7	<6.7	<6.7	7.1
16	6.9	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	6.9	<6.7	<6.7	<6.7	7.0
17	7.1	<6.7	7.2	<6.7	<6.7	<6.7	<6.7	6.9	<6.7	6.8	<6.7	<6.7
18	7.3	<6.7	7.8	<6.7	<6.7	<6.7	6.9	6.9	<6.7	6.9	<6.7	<6.7
19	7.3	<6.7	8.3	<6.7	<6.7	<6.7	6.9	6.9	<6.7	6.9	<6.7	6.7
20	6.9	<6.7	8.9	<6.7	<6.7	<6.7	6.9	7.0	<6.7	6.7	<6.7	6.8
21	6.8	<6.7	9.4	<6.7	<6.7	<6.7	7.1	7.0	<6.7	6.7	6.9	6.8
22	7.1	<6.7	9.5	<6.7	<6.7	<6.7	7.5	6.8	<6.7	<6.7	7.4	6.7
23	7.3	<6.7	9.3	<6.7	<6.7	<6.7	6.9	6.8	6.8	<6.7	7.4	6.9
24	6.8	<6.7	9.0	<6.7	<6.7	<6.7	<6.7	6.9	6.8	<6.7	7.4	6.9
25	6.8	<6.7	8.6	<6.7	<6.7	<6.7	7.3	6.9	6.9	<6.7	7.2	6.9
26	7.0	<6.7	8.2	7.0	<6.7	<6.7	7.0	7.3	6.7	<6.7	7.2	7.4
27	7.2	6.8	7.9	6.7	<6.7	<6.7	6.7	7.4	<6.7	<6.7	7.1	8.1
28	6.9	<6.7	7.5	<6.7	<6.7	<6.7	7.2	7.2	<6.7	<6.7	7.1	8.8
29	7.1	<6.7	7.2	6.8	<6.7	<6.7	6.9	6.9	<6.7	6.7	6.8	9.9
30	7.4	<6.7	7.1	<6.7	---	<6.7	<6.7	7.0	<6.7	6.9	6.8	10.0
31	7.5	---	7.0	<6.7	---	<6.7	---	7.1	---	6.9	6.8	---
MAX	8.1	7.7	9.5	7.1	<6.7	<6.7	7.5	7.4	7.3	6.9	7.4	10.0

< Actual value is known to be less than the value shown.

08067118 LAKE CHARLOTTE NEAR ANAHUAC, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1991 to current year.
SPECIFIC CONDUCTANCE: October 1994 to current year.

INSTRUMENTATION.-- Since June 1995, a water-quality monitoring system continuously recorded water temperature and specific conductance at this station.

REMARKS.--Interruption in the record was due to malfunctions of the instrumentation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum recorded, 36.5°C July 31, Aug. 1, 1992; minimum recorded, 5.0°C Nov. 28, 1992.
SPECIFIC CONDUCTANCE: Maximum recorded, 3,020 microsiemens Apr. 12, 1996; minimum recorded, 46 microsiemens Oct. 20, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 34.5°C June 13, 26, Sept. 3, 6; minimum recorded, 6.0°C Feb. 1, 5.
SPECIFIC CONDUCTANCE: Maximum recorded, 3,020 microsiemens Apr. 12; minimum recorded, 150 microsiemens Jan. 25.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	464	---	---	405	327	379	463	431	446	547	450	487
2	475	460	466	468	324	368	452	414	436	561	454	517
3	468	440	452	508	379	426	458	383	416	584	219	497
4	459	428	445	394	368	378	407	382	397	893	155	524
5	439	410	422	417	373	389	430	401	415	974	621	851
6	427	402	418	450	404	423	431	392	414	1110	764	879
7	416	398	406	462	381	410	438	401	424	922	750	840
8	413	398	407	431	387	403	450	404	426	969	687	843
9	409	395	403	450	379	416	456	303	434	875	521	694
10	408	381	396	430	403	418	---	---	---	781	477	610
11	397	383	392	424	385	403	---	---	---	632	506	556
12	395	390	392	427	407	417	475	433	443	757	487	619
13	393	382	387	431	410	420	461	435	448	789	463	616
14	412	384	392	446	413	423	537	421	449	666	458	536
15	419	387	405	440	409	426	476	428	448	554	448	501
16	421	384	405	428	405	418	477	435	461	540	459	499
17	404	389	397	450	400	421	1160	370	485	1000	503	687
18	404	387	393	468	398	415	781	494	642	1120	956	1030
19	398	378	390	433	408	414	641	312	486	1210	829	1110
20	438	381	398	474	406	428	429	341	411	867	600	735
21	429	395	410	474	410	436	436	395	415	1090	764	1020
22	472	399	415	472	418	441	413	400	405	1090	584	862
23	438	401	418	477	425	457	448	404	421	676	564	604
24	429	396	417	436	418	427	451	413	432	673	579	597
25	428	389	409	453	425	438	431	426	428	723	150	492
26	408	388	396	442	420	431	438	425	432	621	540	572
27	394	377	384	479	393	431	444	423	435	1270	572	895
28	398	377	387	446	373	407	516	436	458	1210	656	764
29	558	385	411	440	400	411	518	448	485	822	615	676
30	787	386	524	---	---	---	512	471	490	761	412	567
31	438	373	394	---	---	---	575	458	511	530	410	444
MONTH	787	373	411	508	324	416	1160	303	448	1270	150	681

08067118 LAKE CHARLOTTE NEAR ANAHUAC, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	520	409	466	553	467	474	---	---	---	604	564	595
2	1140	236	715	791	477	572	---	---	---	623	563	598
3	951	842	904	538	448	507	---	---	---	661	575	624
4	960	759	888	564	460	500	---	---	---	681	521	634
5	949	579	728	636	448	493	---	---	---	684	603	651
6	633	500	561	549	454	505	---	---	---	732	610	627
7	556	479	520	503	471	495	---	---	---	733	645	680
8	907	545	694	---	---	---	---	---	---	708	650	676
9	968	598	731	---	---	---	---	---	---	758	708	736
10	953	233	660	---	---	---	---	---	---	739	717	728
11	718	295	608	---	---	---	2880	2790	2880	757	720	740
12	716	488	604	---	---	---	3020	1600	2260	742	682	708
13	738	502	586	---	---	---	2170	1700	1950	---	---	---
14	---	---	---	---	---	---	2090	1730	1890	---	---	---
15	590	446	552	---	---	---	1930	1620	1790	760	737	740
16	---	---	---	---	---	---	---	---	---	775	740	s757
17	---	---	---	---	---	---	---	---	---	758	675	697
18	---	---	---	530	494	510	1790	1270	1700	741	666	714
19	---	---	---	---	---	---	1740	707	1490	739	661	685
20	---	---	---	---	---	---	794	538	678	837	739	787
21	527	519	519	---	---	---	1390	747	1060	848	761	800
22	527	380	495	---	---	---	1130	917	1040	835	635	751
23	521	446	489	---	---	---	1080	966	1020	722	649	685
24	515	430	453	---	---	---	1090	1020	1060	680	639	655
25	501	483	483	---	---	---	1080	509	874	715	664	699
26	501	469	484	---	---	---	1030	678	820	689	538	635
27	499	482	489	---	---	---	889	718	778	681	539	620
28	512	433	481	---	---	---	874	673	788	662	569	604
29	---	---	---	---	---	---	852	476	661	667	519	588
30	---	---	---	---	---	---	673	476	604	677	629	660
31	---	---	---	---	---	---	---	---	---	714	630	680
MONTH	1140	233	596	791	448	507	3020	476	1300	848	519	681

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	672	648	657	---	---	---	506	473	489	563	490	527
2	683	613	657	---	---	---	488	476	481	505	484	494
3	715	633	689	---	---	---	495	485	491	520	502	509
4	684	655	671	---	---	---	502	488	495	530	507	519
5	683	611	650	---	---	---	510	497	505	561	518	545
6	612	576	592	---	---	---	510	481	495	564	542	557
7	594	510	553	---	---	---	492	479	485	---	---	---
8	526	520	525	---	---	---	496	479	488	502	454	481
9	---	---	---	---	---	---	489	450	469	795	502	688
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	550	501	520	---	---	---	---	---	---	---	---	---
14	553	503	539	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	616	539	593
16	---	---	---	---	---	---	---	---	---	539	429	458
17	---	---	---	557	554	556	---	---	---	501	460	480
18	---	---	---	578	551	558	---	---	---	---	---	---
19	---	---	---	578	563	570	---	---	---	587	497	532
20	---	---	---	594	563	573	---	---	---	584	492	523
21	---	---	---	586	496	524	514	485	502	544	482	503
22	---	---	---	504	500	504	496	434	460	642	492	578
23	490	470	485	---	---	---	462	434	445	605	523	559
24	482	442	458	---	---	---	451	441	445	606	526	549
25	502	423	465	---	---	---	471	447	455	636	552	586
26	589	459	489	---	---	---	501	468	479	582	465	507
27	646	549	574	---	---	---	519	471	489	514	374	437
28	---	---	---	---	---	---	512	495	503	447	388	425
29	---	---	---	490	484	490	533	472	498	428	354	379
30	---	---	---	496	481	487	542	467	504	363	253	313
31	---	---	---	497	476	492	518	457	472	---	---	---
MONTH	715	423	568	594	476	528	542	434	482	795	253	511
YEAR	3020	150	583									

08067118 LAKE CHARLOTTE NEAR ANAHUAC, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	29.0	---	---	21.0	19.0	20.0	18.5	11.5	15.5	16.5	14.0	15.5
2	28.5	27.0	27.5	23.5	21.0	22.0	17.5	16.5	17.0	14.5	7.5	10.5
3	27.0	23.5	25.0	21.0	14.0	17.0	20.5	20.0	20.5	10.0	7.0	8.0
4	26.0	22.0	24.0	14.0	11.5	12.5	20.5	20.0	20.5	15.0	8.0	11.0
5	26.5	23.0	24.5	12.5	11.0	12.0	21.0	20.5	21.0	16.0	12.0	13.5
6	24.5	20.5	23.0	18.0	12.5	15.5	22.0	21.5	21.5	13.5	8.5	9.5
7	24.5	19.5	22.0	23.0	18.0	20.0	21.5	11.0	18.0	---	---	---
8	25.5	20.0	22.5	21.5	17.0	19.0	19.5	11.5	16.0	---	---	---
9	27.5	20.5	24.0	20.0	14.5	17.5	14.5	6.5	11.0	16.5	10.5	13.5
10	27.5	22.5	25.0	22.0	19.0	20.5	9.0	6.5	7.5	14.5	11.5	12.5
11	27.5	22.0	24.5	22.0	14.5	18.0	16.5	9.5	12.0	14.5	9.5	13.5
12	24.5	22.0	23.5	16.5	11.0	14.5	16.0	11.0	14.0	13.0	6.5	10.0
13	24.5	23.5	24.0	20.5	13.0	17.0	17.5	14.0	16.0	14.0	9.0	11.5
14	24.0	19.5	22.5	20.5	14.5	17.0	19.0	17.0	18.5	13.5	10.5	13.0
15	23.0	16.5	19.5	20.0	12.5	16.5	19.0	18.5	19.0	16.5	14.0	15.5
16	23.5	18.0	21.0	20.5	14.0	17.5	22.0	21.0	21.5	17.5	15.0	17.0
17	24.0	19.0	21.5	17.0	13.5	15.0	21.5	17.5	19.0	17.5	15.5	17.0
18	24.0	21.0	22.5	19.0	15.0	17.0	19.5	16.0	18.0	18.0	9.0	14.5
19	27.0	22.5	24.5	19.0	16.5	18.0	16.0	11.5	13.0	10.5	6.5	9.5
20	26.0	20.0	23.0	22.0	17.5	19.5	12.0	10.0	10.5	11.5	6.5	9.0
21	22.0	16.5	19.0	22.0	18.0	19.5	11.0	10.5	11.0	13.5	10.5	12.0
22	23.5	17.5	20.5	21.0	15.5	18.5	10.5	9.5	10.0	16.5	11.0	14.0
23	24.5	20.5	22.5	21.5	17.5	19.5	9.5	8.5	9.0	17.0	16.0	16.5
24	23.0	19.5	21.5	20.0	14.5	17.0	9.0	8.0	8.5	16.0	10.5	13.5
25	24.5	18.0	21.0	19.5	12.0	16.0	10.0	9.0	9.5	16.0	11.0	13.0
26	27.0	21.5	24.0	20.0	14.5	17.5	9.5	8.0	9.0	15.5	11.5	14.0
27	27.5	23.5	25.5	22.0	18.0	20.0	10.5	8.0	9.0	12.0	7.5	10.0
28	25.5	21.0	23.5	20.0	11.0	15.0	10.5	8.5	9.5	11.0	9.0	10.0
29	21.0	18.5	19.5	16.5	7.5	11.5	9.0	7.0	8.0	17.0	11.0	13.5
30	18.5	16.5	17.5	17.0	10.5	12.5	11.0	8.0	9.5	17.0	16.0	16.5
31	19.0	16.5	17.5	---	---	---	15.0	11.0	13.0	16.5	8.0	11.0
MONTH	29.0	16.5	22.5	23.5	7.5	17.0	22.0	6.5	14.0	18.0	6.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	6.0	6.5	14.5	10.0	12.0	---	---	---	26.0	23.0	24.5
2	---	---	---	16.0	8.5	13.0	---	---	---	27.5	21.0	24.0
3	---	---	---	16.5	10.5	14.0	---	---	---	26.5	22.5	24.5
4	---	---	---	16.5	14.0	16.0	---	---	---	29.0	22.0	25.5
5	11.5	6.0	8.5	20.0	18.0	19.0	---	---	---	30.5	24.5	27.0
6	17.0	8.5	13.0	20.5	17.0	20.0	---	---	---	31.5	25.5	28.0
7	16.5	13.0	15.0	17.0	9.5	11.0	---	---	---	31.5	25.0	28.0
8	16.5	14.0	15.5	---	---	---	---	---	---	31.0	25.0	28.0
9	16.5	16.0	16.5	---	---	---	---	---	---	30.0	25.5	27.5
10	18.0	17.5	17.5	---	---	---	---	---	---	30.0	25.5	27.5
11	18.0	9.0	16.5	---	---	---	24.5	23.5	24.5	28.5	26.0	27.0
12	16.5	9.0	11.5	---	---	---	23.5	21.0	22.0	30.5	24.5	27.5
13	14.5	9.5	11.5	---	---	---	29.0	21.0	24.0	---	---	---
14	16.5	10.5	14.0	---	---	---	27.5	23.0	25.0	---	---	---
15	17.0	10.0	15.5	---	---	---	24.5	17.5	19.5	29.5	27.0	29.5
16	12.0	8.0	9.5	---	---	---	---	---	---	30.5	24.5	27.5
17	16.0	13.0	13.5	---	---	---	---	---	---	32.0	25.0	28.0
18	---	---	---	20.5	17.5	19.5	28.0	24.0	27.0	32.0	25.5	28.5
19	16.5	16.0	16.5	---	---	---	28.5	23.0	25.0	32.0	26.0	29.0
20	17.0	12.5	16.0	---	---	---	29.5	23.0	26.0	32.0	25.5	28.5
21	18.0	17.0	18.0	---	---	---	26.5	24.0	25.0	33.0	26.0	29.5
22	23.0	19.0	21.0	---	---	---	24.0	22.5	23.0	33.5	27.0	30.0
23	23.0	20.0	21.5	---	---	---	25.5	19.5	22.5	33.0	26.5	29.5
24	22.5	18.0	21.0	---	---	---	27.5	18.5	23.0	32.5	26.0	29.0
25	22.5	20.0	21.5	---	---	---	27.0	20.0	23.5	34.0	27.0	30.5
26	23.0	21.0	22.0	---	---	---	25.0	23.0	24.0	32.0	27.5	29.5
27	23.0	21.5	22.0	---	---	---	28.0	23.0	25.0	30.5	27.5	29.0
28	23.0	11.0	17.0	---	---	---	27.5	23.0	25.0	32.5	28.0	30.0
29	11.0	10.0	10.0	---	---	---	25.5	18.5	22.0	33.5	28.5	30.5
30	---	---	---	---	---	---	18.5	15.0	16.0	31.0	26.5	29.0
31	---	---	---	---	---	---	---	---	---	32.5	27.0	30.0
MONTH	23.0	6.0	15.5	20.5	8.5	15.5	29.5	15.0	23.5	34.0	21.0	28.0

08067118 LAKE CHARLOTTE NEAR ANAHUAC, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.0	27.5	29.0	---	---	---	34.0	29.0	31.5	31.5	26.5	28.5
2	34.0	26.5	30.0	---	---	---	33.5	28.5	30.5	34.0	27.5	30.5
3	32.5	28.5	30.5	---	---	---	30.5	28.0	29.5	34.5	28.5	30.5
4	31.5	27.0	29.0	---	---	---	32.5	28.0	30.0	34.0	28.5	31.0
5	32.5	26.0	28.5	---	---	---	31.5	28.5	30.0	34.0	30.0	31.0
6	32.0	26.0	29.0	---	---	---	31.5	29.0	30.5	34.5	30.0	32.0
7	31.5	27.0	29.0	---	---	---	31.0	28.0	29.5	---	---	---
8	28.5	24.5	25.0	---	---	---	30.0	27.5	28.5	29.5	26.5	27.5
9	---	---	---	---	---	---	29.5	27.5	28.0	29.5	26.5	28.0
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	34.5	30.5	33.5	---	---	---	---	---	---	---	---	---
14	31.5	29.0	30.0	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	30.5	27.5	28.5
16	---	---	---	---	---	---	---	---	---	30.5	27.5	28.5
17	---	---	---	34.0	33.0	33.5	---	---	---	33.0	27.0	29.5
18	---	---	---	33.5	31.0	32.0	---	---	---	---	---	---
19	---	---	---	34.0	29.5	32.0	---	---	---	30.0	27.0	27.5
20	---	---	---	33.5	29.0	31.5	---	---	---	29.0	26.0	27.5
21	---	---	---	33.0	28.5	30.5	30.0	27.0	28.0	31.0	26.0	28.5
22	---	---	---	30.5	30.0	30.0	27.5	25.5	26.0	31.0	24.0	27.5
23	28.5	26.5	28.5	---	---	---	27.0	24.5	25.5	32.0	25.0	28.5
24	31.5	25.0	28.0	---	---	---	29.5	26.0	27.0	29.0	26.5	27.5
25	29.0	26.5	28.0	---	---	---	30.5	26.5	28.5	31.0	25.0	28.0
26	34.5	26.5	30.0	---	---	---	31.0	28.0	29.5	29.5	26.5	28.0
27	31.5	28.5	29.0	---	---	---	32.0	27.0	29.5	27.5	23.0	26.0
28	---	---	---	---	---	---	31.0	28.0	29.5	23.0	21.0	22.0
29	---	---	---	33.0	32.0	33.0	30.5	26.5	28.5	23.0	21.0	22.0
30	---	---	---	32.5	30.0	31.0	27.5	26.0	26.5	22.5	21.0	21.5
31	---	---	---	33.0	29.5	31.5	31.0	25.0	28.0	---	---	---
MONTH	34.5	24.5	29.0	34.0	28.5	31.5	34.0	24.5	28.5	34.5	21.0	28.0
YEAR	34.5	6.0	21.5									

08067252 TRINITY RIVER AT WALLISVILLE, TX

LOCATION.--Lat 29°50'10", long 94°44'57", Chambers County, Hydrologic Unit 12030203, on the left bank at the Corp of Engineers boat ramp which is located 3.2 miles west along Interstate 10 highway from the the Interstate overpass over Farm Road 563 and .25 miles south of the Corp of Engineers office and .50 miles west of Wallisville, TX.

DRAINAGE AREA.--17,796 mi²2.

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1994 to current year.

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

REMARKS.--Records fair. Mostly tidal. Satellite telemeter at station.

EXTREME FOR PERIOD OF RECORD.--Maximum gage height, 7.7 ft Oct. 22, 1994 at 0300 hours; minimum, less than -.1 ft at times each year.

EXTREME FOR CURRENT YEAR.--Maximum gage height, 4.1 ft Sept. 29 at 1130 hours and Sept. 30 at 0130 hours; minimum, less than -.1 ft at times during the year.

ELEVATION LOGGER
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.8	1.5	2.0	1.0	1.3	.2	1.4	.4	.6	<-.1	1.2	.1
2	2.9	1.6	1.7	.7	1.0	.0	1.0	<-.1	.5	<-.1	1.1	.0
3	2.4	.8	.7	<-.1	1.0	.0	<-.1	<-.1	<-.1	<-.1	.9	.0
4	2.0	.7	1.3	<-.1	1.0	<-.1	.7	<-.1	<-.1	<-.1	1.1	.5
5	2.5	1.3	1.6	.3	1.0	<-.1	.7	<-.1	.6	<-.1	1.3	.7
6	1.3	.8	1.7	.6	1.0	<-.1	.4	<-.1	.6	<-.1	1.3	.3
7	2.1	.4	1.6	<-.1	.7	<-.1	<-.1	<-.1	.7	.0	.3	<-.1
8	2.0	.5	1.2	<-.1	1.2	.2	.0	<-.1	.7	.1	<-.1	<-.1
9	1.8	.6	1.8	.7	.2	<-.1	.2	<-.1	.6	.1	.6	<-.1
10	1.6	.2	2.3	1.3	.5	<-.1	.0	<-.1	.9	.0	.6	<-.1
11	1.4	.2	2.1	<-.1	.8	.0	.2	<-.1	.8	<-.1	.6	<-.1
12	1.7	.9	.9	<-.1	1.3	.2	.0	<-.1	.6	<-.1	1.0	<-.1
13	1.9	.7	1.6	.1	1.2	.2	.5	<-.1	.9	<-.1	1.0	<-.1
14	1.8	<-.1	.6	<-.1	1.0	.4	.7	<-.1	.9	<-.1	1.0	<-.1
15	1.3	<-.1	1.2	.2	1.3	.4	.7	<-.1	.7	<-.1	1.0	<-.1
16	1.9	.6	.9	.0	1.0	.2	1.0	<-.1	<-.1	<-.1	1.0	.0
17	1.9	.8	.8	.2	1.9	.4	2.0	.4	.6	<-.1	1.2	.2
18	2.0	.9	1.1	.2	2.2	1.2	2.3	<-.1	.6	<-.1	1.4	<-.1
19	1.8	.9	1.4	.3	1.9	1.4	<-.1	<-.1	1.3	.1	.0	<-.1
20	1.4	<-.1	1.2	.0	2.2	1.9	.9	<-.1	.6	<.1	.0	<-.1
21	1.7	.4	1.1	<-.1	2.4	2.1	1.1	<-.1	.8	.1	.0	<-.1
22	2.0	1.2	1.5	.1	2.4	2.0	.8	.0	1.1	.2	.0	<-.1
23	2.2	1.0	1.7	.0	2.2	1.8	1.2	.5	1.1	.3	.7	<-.1
24	1.3	<-.1	.8	<-.1	2.0	1.5	.9	<-.1	.4	<.1	1.7	.1
25	1.7	.5	1.0	<-.1	1.8	1.2	1.3	.1	1.0	.0	1.5	<-.1
26	1.9	.8	1.2	.3	1.3	.7	2.0	.7	1.1	.3	.4	<-.1
27	2.2	1.0	2.0	.2	1.0	.5	.7	<-.1	1.2	.2	1.3	.1
28	1.4	.0	.5	<-.1	.9	.3	1.6	.1	.9	<-.1	1.0	<-.1
29	2.2	.7	.2	<-.1	1.0	.4	1.6	.4	.4	<-.1	.9	<-.1
30	2.1	1.4	.9	<-.1	1.4	.7	1.2	.1	---	---	1.2	.3
31	2.5	.9	---	---	1.4	.3	.8	<-.1	---	---	1.0	<-.1
MONTH	2.9	<-.1	2.3	<-.1	2.4	<-.1	2.3	<-.1	1.3	<-.1	1.7	<-.1

< Actual value is known to be less than the value shown.

08067252 TRINITY RIVER AT WALLISVILLE, TX--Continued

ELEVATION LOGGER
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.3	<-.1	1.8	.5	2.4	.7	1.1	<-.1	2.0	1.2	1.9	1.2
2	.9	<-.1	1.5	.4	1.5	.5	1.3	<-.1	2.0	---	1.8	1.0
3	.9	.2	1.5	.4	1.3	.0	1.1	.0	1.5	---	1.8	.8
4	.7	.1	1.6	.6	1.4	.0	.9	<-.1	1.7	1.0	1.6	.8
5	.3	<-.1	1.6	.3	1.6	.3	.8	<-.1	2.0	1.0	1.6	.8
6	.2	<-.1	1.5	.2	1.6	.4	.8	.0	1.8	.9	1.7	.7
7	1.5	<-.1	1.8	.3	1.2	.2	.9	.3	2.1	.9	1.9	.6
8	1.4	.1	1.8	.5	.3	<-.1	1.2	.0	1.8	.6	1.8	.7
9	1.1	<-.1	1.9	.7	.7	<-.1	.9	.0	1.6	.6	1.5	.6
10	1.4	.0	1.9	1.0	.9	.2	.6	<-.1	1.7	.5	1.1	.5
11	1.5	.4	1.6	.6	1.2	.2	.6	<-.1	1.5	.5	1.1	.4
12	2.1	.7	1.2	.1	1.2	.2	.7	<-.1	1.6	.6	1.3	.5
13	1.9	.4	1.3	.7	1.2	.3	.9	<-.1	1.5	1.0	1.3	.6
14	1.2	.5	1.4	.4	1.1	.1	1.6	.0	1.3	.7	1.6	.9
15	.9	<-.1	2.1	.9	1.0	.0	1.1	.2	1.5	.7	2.4	1.5
16	.9	<-.1	1.7	.7	1.0	-.1	1.1	<-.1	1.5	.9	2.4	.9
17	1.2	.4	1.8	.5	1.0	<-.1	1.4	.2	1.6	1.1	1.3	.3
18	1.7	.6	1.8	.6	1.0	-.1	2.2	.5	1.6	1.2	1.4	.5
19	1.4	.4	1.7	.5	1.1	.0	2.1	1.2	1.5	.9	1.9	.7
20	1.5	.4	2.0	.6	.9	.0	1.9	1.1	1.6	1.1	2.1	.7
21	2.2	.5	1.7	.6	1.1	<-.1	2.0	1.3	2.1	1.4	1.9	.3
22	2.1	1.0	1.4	.4	1.3	.2	1.6	.9	2.8	1.5	1.3	.3
23	1.0	<-.1	1.6	.5	1.5	.6	1.4	1.0	3.0	1.9	1.9	.5
24	1.3	<-.1	1.7	1.0	1.4	.3	1.5	.7	2.5	1.4	1.7	.9
25	2.3	1.3	1.6	1.0	1.3	.3	1.5	.4	2.2	1.2	1.9	.6
26	1.8	.3	2.3	1.1	1.1	.0	1.7	.3	2.6	1.3	2.7	1.5
27	1.3	<-.1	2.0	1.2	.9	.0	1.9	.3	2.2	1.2	2.6	2.0
28	2.0	1.1	1.7	.7	1.0	<-.1	1.8	.5	2.1	1.2	3.9	2.6
29	1.6	<-.1	1.4	.5	.8	<-.1	2.0	.4	1.7	1.1	4.1	3.9
30	1.0	<-.1	1.7	.6	1.2	<-.1	2.3	.8	2.0	1.0	4.1	3.7
31	---	---	1.9	.3	---	---	2.2	1.2	1.9	1.3	---	---
MONTH	2.3	<-.1	2.3	.1	2.4	<-.1	2.3	<-.1	3.0	---	4.1	.3

< Actual value is known to be less than the value shown.

08067252 TRINITY RIVER AT WALLISVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1995 to current year.
SPECIFIC CONDUCTANCE: October 1995 to current year.

INSTRUMENTATION.-- Since July 1995, a Hydrolab Recorder water-quality monitoring system continuously recorded water temperature and specific conductance at this station.

REMARKS.--Interruption in the record was due to malfunctions of the instrumentation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 32.5°C Aug. 5, 1996; minimum, 7.0°C Feb. 4-7, 1996.
SPECIFIC CONDUCTANCE: Maximum, 15,200 microsiemens Mar. 25, 1996; minimum, 285 microsiemens Oct. 11, 1995.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 32.5°C Aug. 5; minimum, 7.0°C Feb. 4-7.
SPECIFIC CONDUCTANCE: Maximum, 15,200 microsiemens Mar. 25; minimum, 285 microsiemens Oct. 11.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	365	352	357	5490	869	2310	609	383	469	381	366	372
2	357	353	355	869	472	681	781	400	534	---	---	---
3	364	355	359	787	333	424	1150	520	791	---	---	---
4	367	356	362	375	362	368	1130	503	748	---	---	---
5	356	348	351	371	363	367	1080	495	848	---	---	---
6	360	348	356	372	345	362	929	429	665	---	---	---
7	367	360	365	356	339	346	731	391	521	---	---	---
8	373	363	367	342	334	339	838	398	612	---	---	---
9	373	365	369	345	336	342	442	379	398	---	---	---
10	377	366	370	1400	340	574	387	377	380	---	---	---
11	380	285	327	1540	383	751	385	376	382	---	---	---
12	297	287	293	383	349	363	810	381	540	---	---	---
13	300	295	298	369	349	356	987	577	825	---	---	---
14	310	295	300	356	351	353	1000	675	830	---	---	---
15	316	306	310	358	351	355	2400	794	1340	---	---	---
16	317	308	313	358	354	356	1520	835	1190	---	---	---
17	626	314	420	361	356	358	1550	1040	1230	---	---	---
18	2420	325	1070	399	357	364	1460	487	923	---	---	---
19	2500	543	1160	462	374	399	491	368	428	---	---	---
20	977	401	672	462	374	392	370	343	358	---	---	---
21	737	347	449	374	372	373	354	334	341	---	---	---
22	710	329	433	376	372	374	367	354	360	392	385	390
23	3070	434	950	377	372	374	376	365	371	390	385	388
24	787	335	469	376	370	373	379	365	375	398	388	395
25	894	340	581	381	365	374	377	363	369	397	394	395
26	1090	343	662	372	361	368	388	377	384	396	385	391
27	3350	422	1310	746	361	530	386	372	379	396	385	391
28	613	340	434	390	364	370	387	374	381	394	375	382
29	1680	392	1130	406	364	380	376	373	374	378	369	374
30	1940	469	1200	384	370	374	391	375	384	385	376	379
31	8360	807	4820	---	---	---	385	374	379	389	383	385
MONTH	8360	285	684	5490	333	468	2400	334	584	398	366	386

08067252 TRINITY RIVER AT WALLISVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	392	387	390	432	414	422	7820	3440	5040	459	433	453
2	394	389	391	673	426	463	6380	4300	4980	433	394	401
3	398	377	385	651	456	516	7060	4820	5980	828	401	466
4	391	383	387	564	493	519	6390	2870	4810	901	421	606
5	392	390	391	1870	500	741	5660	1440	2090	1200	418	662
6	391	388	390	1420	760	903	2420	1340	1680	994	431	554
7	392	389	390	1080	431	684	4510	2130	2860	1050	456	636
8	391	388	390	431	424	428	4510	1580	2790	2500	483	1170
9	393	389	391	440	424	429	2090	777	1090	4640	772	2330
10	392	389	391	444	433	437	919	441	585	6490	2150	4600
11	402	390	395	438	425	431	473	403	423	6160	1810	3650
12	405	399	402	1060	418	569	450	403	411	2690	1260	1770
13	407	402	404	1320	539	943	475	401	433	3160	1610	2460
14	409	402	406	1310	672	943	474	408	425	3830	1390	2650
15	406	399	403	1820	889	1280	556	420	486	8380	2390	5380
16	407	400	404	3450	1350	2380	556	434	488	3880	1330	2220
17	408	404	406	5630	2870	4340	434	381	387	5030	1170	2750
18	409	395	402	8170	1410	5070	390	386	387	3560	1100	2160
19	404	393	400	1410	627	774	419	387	393	2750	1050	1790
20	395	390	393	721	553	608	452	394	412	2590	905	1640
21	393	391	392	1660	546	828	453	402	430	1700	825	1340
22	394	390	392	2310	1380	1790	456	416	443	1600	645	1060
23	391	385	388	8010	1740	3840	550	403	471	2020	679	1210
24	392	384	388	15000	6790	10200	589	502	543	2280	800	1390
25	396	390	393	15200	2950	7380	521	439	467	3610	759	1460
26	396	390	394	3520	2330	2570	439	388	415	8860	1090	4810
27	410	389	395	11800	3520	6460	442	428	433	11000	2220	7310
28	425	389	402	12300	6410	10300	438	431	433	6560	1350	3320
29	429	402	415	11400	4680	8330	434	402	419	2570	1260	1650
30	---	---	---	13100	10500	11900	450	434	445	2920	1120	1610
31	---	---	---	13000	5440	9110	---	---	---	2330	1170	1720
MONTH	429	377	396	15200	414	3080	7820	381	1350	11000	394	2100

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2190	861	1390	---	---	---	---	---	---	478	462	471
2	1000	452	526	---	---	---	449	440	443	462	404	435
3	506	449	468	---	---	---	450	445	447	405	318	378
4	455	432	443	---	---	---	454	448	451	324	301	316
5	441	424	431	---	---	---	457	448	452	310	288	296
6	437	418	425	---	---	---	459	452	455	313	303	308
7	462	418	438	---	---	---	461	456	459	329	313	322
8	497	443	461	---	---	---	464	461	463	342	325	332
9	475	446	455	---	---	---	466	463	465	384	342	364
10	454	434	443	---	---	---	468	462	465	409	384	393
11	438	432	435	---	---	---	468	461	465	416	402	410
12	445	432	437	---	---	---	462	458	460	427	414	424
13	441	430	433	---	---	---	465	457	461	452	426	441
14	446	432	438	---	---	---	459	448	454	467	447	460
15	444	430	438	---	---	---	455	450	452	4130	448	892
16	453	438	447	---	---	---	459	452	456	4520	621	1530
17	454	444	450	---	---	---	461	442	455	621	547	581
18	455	443	448	---	---	---	442	433	437	819	557	743
19	448	440	442	---	---	---	464	440	452	1180	527	904
20	---	---	---	---	---	---	472	464	469	1440	525	929
21	---	---	---	---	---	---	477	472	474	731	500	579
22	---	---	---	---	---	---	480	476	478	---	---	---
23	---	---	---	---	---	---	483	475	479	---	---	---
24	---	---	---	---	---	---	479	473	476	---	---	---
25	---	---	---	---	---	---	474	471	472	---	---	---
26	---	---	---	---	---	---	474	467	472	---	---	---
27	---	---	---	---	---	---	467	458	461	---	---	---
28	---	---	---	---	---	---	466	459	463	---	---	---
29	---	---	---	---	---	---	481	465	474	---	---	---
30	---	---	---	---	---	---	478	473	475	---	---	---
31	---	---	---	---	---	---	481	472	478	---	---	---
MONTH	2190	418	497	---	---	---	483	433	462	4520	288	548
YEAR	15200	285	1040									

08067252 TRINITY RIVER AT WALLISVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	28.5	28.0	28.0	21.5	21.0	21.5	17.0	16.0	16.5	12.5	11.5	12.0
2	28.5	28.0	28.5	22.0	21.5	22.0	17.0	16.0	16.5	---	---	---
3	28.0	27.0	27.5	22.0	19.5	20.5	18.0	17.0	17.5	---	---	---
4	27.0	26.0	26.5	19.5	17.0	18.5	19.0	18.0	18.5	---	---	---
5	26.0	25.5	26.0	18.0	17.0	17.0	19.0	18.5	18.5	---	---	---
6	25.5	24.5	25.0	18.0	17.0	17.5	19.5	19.0	19.5	---	---	---
7	24.5	24.0	24.0	19.0	18.0	18.5	19.5	19.0	19.5	---	---	---
8	24.5	24.0	24.0	19.0	18.5	19.0	19.0	19.0	19.0	---	---	---
9	24.0	23.5	24.0	19.0	18.5	19.0	19.0	16.5	17.5	---	---	---
10	24.0	23.5	24.0	19.5	19.0	19.0	16.5	15.5	16.0	---	---	---
11	24.0	23.5	24.0	19.5	18.0	18.5	15.5	15.0	15.5	---	---	---
12	24.0	23.5	24.0	18.0	17.0	17.5	15.5	14.5	15.0	---	---	---
13	24.5	24.0	24.0	18.0	17.5	17.5	16.5	14.5	15.5	---	---	---
14	24.0	23.5	24.0	18.0	17.5	18.0	17.0	16.0	16.5	---	---	---
15	23.5	22.5	23.0	18.0	17.5	18.0	17.5	15.5	16.5	---	---	---
16	23.5	23.0	23.0	18.5	18.0	18.0	18.0	16.5	17.5	---	---	---
17	23.0	22.5	23.0	18.0	18.0	18.0	18.0	16.5	17.5	---	---	---
18	23.5	22.5	23.0	18.0	18.0	18.0	18.0	16.5	17.0	---	---	---
19	24.0	23.0	23.5	18.0	18.0	18.0	18.0	15.0	17.0	---	---	---
20	24.0	23.0	23.5	18.5	18.0	18.0	15.0	14.0	14.5	---	---	---
21	23.0	22.5	22.5	18.5	18.0	18.0	14.0	12.5	13.0	---	---	---
22	23.0	22.5	22.5	18.5	18.0	18.0	12.5	11.5	12.0	14.0	13.5	13.5
23	23.0	22.0	22.5	18.5	18.0	18.5	11.5	11.5	11.5	14.5	14.0	14.0
24	23.0	22.0	22.5	18.5	18.0	18.0	11.5	11.0	11.0	14.5	12.5	13.5
25	22.5	22.0	22.5	18.0	17.5	17.5	11.5	11.0	11.0	13.0	12.5	13.0
26	23.5	22.5	23.0	18.0	17.5	18.0	11.0	11.0	11.0	13.0	13.0	13.0
27	24.0	22.5	23.5	19.0	18.0	18.5	11.0	10.5	11.0	13.0	12.0	12.5
28	24.0	23.0	23.5	18.5	17.5	18.0	11.0	10.5	11.0	12.5	11.5	12.0
29	23.0	22.5	23.0	17.5	16.0	17.0	11.0	10.5	10.5	12.5	12.0	12.0
30	22.5	22.0	22.0	16.5	16.0	16.5	11.0	10.5	11.0	12.5	12.0	12.5
31	22.5	21.0	21.5	---	---	---	11.5	11.0	11.0	12.5	12.0	12.0
MONTH	28.5	21.0	24.0	22.0	16.0	18.5	19.5	10.5	15.0	14.5	11.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.0	11.0	11.5	17.5	17.0	17.5	19.0	17.5	18.0	23.0	22.0	22.5
2	11.0	9.5	10.5	18.0	16.5	17.0	19.0	17.5	18.0	24.5	23.0	24.0
3	9.5	8.0	8.5	18.0	17.0	17.5	19.0	17.5	18.0	24.5	23.5	24.0
4	8.0	7.0	7.5	18.0	17.5	17.5	19.0	18.0	18.5	24.0	23.5	24.0
5	7.5	7.0	7.0	18.0	17.0	17.5	19.5	18.5	19.0	25.0	23.5	24.0
6	7.5	7.0	7.5	17.5	16.5	17.0	18.5	17.5	18.0	25.0	24.5	24.5
7	8.0	7.0	7.5	17.0	15.0	15.5	18.5	17.5	18.0	25.5	24.5	25.0
8	9.5	8.0	8.5	15.0	13.5	14.0	18.5	18.0	18.0	26.0	25.0	25.5
9	10.5	9.5	10.0	14.0	13.0	13.5	19.5	18.5	19.0	26.5	25.5	26.0
10	11.5	10.5	11.0	13.5	12.5	13.0	20.0	19.0	19.5	26.5	26.0	26.0
11	13.0	11.5	12.5	14.0	13.0	13.5	20.0	19.0	19.5	26.5	26.0	26.0
12	13.5	13.0	13.5	15.0	14.0	14.5	20.5	20.0	20.5	26.5	26.0	26.5
13	14.0	13.0	13.5	16.0	14.5	15.0	22.0	20.5	21.0	27.0	26.5	26.5
14	15.0	13.5	14.0	16.5	15.5	16.0	22.0	21.5	22.0	27.5	26.5	27.0
15	16.0	14.5	15.0	17.0	15.5	16.5	22.0	21.0	21.5	27.5	26.5	27.0
16	16.0	14.5	15.5	17.0	16.0	17.0	21.5	20.0	20.5	28.0	27.0	27.5
17	15.0	14.5	14.5	18.5	16.5	17.0	20.5	20.0	20.0	28.0	27.0	27.5
18	15.0	14.0	14.5	19.0	17.5	18.0	20.5	20.0	20.0	28.5	27.5	27.5
19	16.0	15.0	15.0	18.0	17.0	17.5	21.5	20.5	21.0	28.5	27.5	28.0
20	16.0	15.5	16.0	17.0	16.0	16.5	22.5	21.0	21.5	28.5	28.0	28.0
21	17.5	16.0	16.5	17.0	15.5	16.5	22.5	22.0	22.5	28.5	28.0	28.5
22	18.0	17.0	17.0	18.0	16.5	17.0	23.0	22.5	22.5	29.5	28.5	29.0
23	18.0	17.0	17.5	17.5	16.5	17.0	23.5	22.5	23.0	29.0	28.5	29.0
24	19.0	18.0	18.5	18.0	17.0	17.5	24.0	23.0	23.5	29.5	28.5	29.0
25	19.5	18.5	19.0	18.0	17.5	18.0	24.0	23.5	23.5	29.5	29.0	29.0
26	20.5	19.5	20.0	18.0	16.5	17.0	24.0	23.5	23.5	29.5	28.5	29.0
27	21.0	20.0	20.5	17.0	15.0	16.5	24.0	23.5	23.5	29.5	28.0	28.5
28	21.0	19.5	20.5	16.0	15.0	16.0	24.5	23.5	24.0	30.0	28.5	29.5
29	19.5	17.5	18.5	16.5	15.0	16.0	24.5	23.0	24.0	30.5	29.5	30.0
30	---	---	---	16.5	15.0	16.0	23.0	22.5	22.5	30.0	29.5	29.5
31	---	---	---	19.0	15.5	17.5	---	---	---	30.0	29.5	29.5
MONTH	21.0	7.0	14.0	19.0	12.5	16.5	24.5	17.5	21.0	30.5	22.0	27.0

08067252 TRINITY RIVER AT WALLISVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.0	29.5	29.5	---	---	---	---	---	---	29.0	28.0	28.5
2	29.5	29.0	29.5	---	---	---	32.0	31.5	31.5	28.5	28.0	28.0
3	29.5	29.0	29.5	---	---	---	32.0	31.5	31.5	28.5	28.0	28.5
4	29.5	28.5	29.0	---	---	---	32.0	31.5	32.0	28.5	28.0	28.5
5	29.0	28.0	28.5	---	---	---	32.5	31.5	32.0	29.0	28.5	28.5
6	29.5	28.5	29.0	---	---	---	32.0	31.5	32.0	29.5	29.0	29.0
7	29.0	28.5	28.5	---	---	---	31.5	31.5	31.5	29.5	29.0	29.5
8	28.5	27.5	28.0	---	---	---	31.5	31.0	31.0	29.0	29.0	29.0
9	28.5	28.0	28.0	---	---	---	31.0	30.5	30.5	29.0	29.0	29.0
10	28.5	28.0	28.0	---	---	---	32.0	30.5	31.0	30.0	29.0	29.0
11	29.0	28.0	28.5	---	---	---	31.0	30.5	31.0	30.5	29.0	29.5
12	29.5	28.5	29.0	---	---	---	31.5	30.5	31.0	30.5	29.5	29.5
13	30.0	29.0	29.0	---	---	---	31.5	30.5	31.0	29.5	29.0	29.5
14	30.0	29.0	29.5	---	---	---	31.0	30.5	31.0	29.5	29.0	29.0
15	30.5	29.5	30.0	---	---	---	30.5	30.0	30.5	29.5	29.0	29.0
16	31.0	29.5	30.0	---	---	---	31.0	30.0	30.5	29.5	29.0	29.0
17	31.0	30.0	30.5	---	---	---	31.5	30.5	31.0	29.5	29.0	29.0
18	31.0	30.0	30.5	---	---	---	31.5	30.5	31.0	29.5	29.0	29.5
19	31.5	30.5	31.0	---	---	---	32.0	31.0	31.0	29.5	29.0	29.0
20	---	---	---	---	---	---	31.0	30.5	31.0	29.5	29.0	29.0
21	---	---	---	---	---	---	31.0	30.5	31.0	29.5	29.0	29.0
22	---	---	---	---	---	---	30.5	29.5	30.0	---	---	---
23	---	---	---	---	---	---	29.5	29.0	29.5	---	---	---
24	---	---	---	---	---	---	29.0	28.5	29.0	---	---	---
25	---	---	---	---	---	---	29.5	28.5	29.0	---	---	---
26	---	---	---	---	---	---	29.0	28.5	29.0	---	---	---
27	---	---	---	---	---	---	29.0	28.5	28.5	---	---	---
28	---	---	---	---	---	---	29.0	28.5	29.0	---	---	---
29	---	---	---	---	---	---	29.5	28.5	29.0	---	---	---
30	---	---	---	---	---	---	29.0	28.5	29.0	---	---	---
31	---	---	---	---	---	---	29.0	28.5	29.0	---	---	---
MONTH	31.5	27.5	29.0	---	---	---	32.5	28.5	30.5	30.5	28.0	29.0
YEAR	32.5	7.0	21.5									

08067500 CEDAR BAYOU NEAR CROSBY, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 29°58'21", long 94°59'08", Liberty County, Hydrologic Unit 12040203, on right bank at downstream side of bridge on U.S. Highway 90 and 6.6 mi northeast of Crosby.

DRAINAGE AREA.--64.9 mi^2.

PERIOD OF RECORD.--March to August 1946, March 1963 to February 1964, May to August 1971 (discharge measurements only). October 1971 to September 1991 (daily mean discharge). October 1991 to current year (peak discharges greater than base discharge).
Water-quality records.--Chemical, biochemical, and pesticide analyses: May 1971 to September 1979.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 31.31 ft above sea level.

REMARKS.--Records fair. Stage-discharge relationship is affected by seasonal vegetation during most years. Low flow is sustained by drainage from irrigated lands. There are diversions upstream from station for irrigation. Radio telemeter at station.

AVERAGE DISCHARGE.--20 years (water years 1972-91), 78.7 ft^3/s (57,020 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,800 ft^3/s Oct. 18, 1994 (gage height, 28.33 ft); no flow occasionally during pumping season of some years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 18	1900	2,050	19.96	Sept. 27	2100	3,030	22.70

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 U.S. 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 station during water year 1996

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Neches River Basin				
08041550	Village Creek at State Hwy. 327 near Silsbee, Tex.	Lat 30°20'48", long 94°16'44", Hardin County, at bridge on State Highway 327, about 1.6 mi upstream from Mill Creek, and 2.7 mi west of Silsbee.	1,043	1979-96	04-09-96 07-15-96	177 103
08041720	Pine Island Bayou at State Highway 105 near Sour Lake, Tex.	Lat 30°08'08", long 94°16'44", Hardin-Jefferson County line, at bridge on State Highway 105, about 2.0 mi upstream from mouth of Little Pine Island Bayou, and 7.90 mi east of Sour Lake.	--	1979-96	11-28-95	10.1

Crest-stage 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 relaiton 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 facillitate complete hydrograph definition. At stations where only the maximum stage is given (discharge column is dashed), the data are generally collected for use in stage-frequency studies of flood-profile definition. Gages at these stations usually consist of a device that will register the peak stage occuring 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 1996

Station name	Location	Period of record	Water Year 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
Sabine River Basin								
Long Branch at Greenville, Tex. 08017210	Lat 33°07'20", long 96°05'54", Hunt County, on left edge of low-water channel 80 ft upstream from from culvert under Moulton St. (Business Rte. U.S. Highway 69), 0.5 mi upstream from IH-30, and 1.3 mi southeast of Hunt County Courthouse in Greenville. Drainage area is 5.37 mi^2.	1986-96	05-11-96	7.53	--	03-13-95	12.40	--
Trinity River Basin								
Big Fossil Creek at Haltom City, Tex. 08048800	Lat 32°48'26", long 97°14'54", Tarrant County, at center of channel at downstream side of downstream bridge on State Highway 183, 2.0 mi upstream from Little Fossil Creek, 3.5 mi upstream from mouth, and 6.0 mi northeast of Tarrant County Courthouse in Fort Worth. Drainage area is 52.8 mi^2.	1960-73† 1974-84ϕ 1985-96	08-31-96	7.12	--	09-07-62	26.90	27,000
Cedar River Basin								
Cedar Bayou near Baytown, Tex. 08067510	Lat 29°46'12", long 94°54'59", Chambers-Harris County Line, at bridge on State Highway 146, 0.2 mi downstream from Cary Bayou, 0.2 mi upstream from Saw Pit Gully, and 4.3 mi northeast of Baytown. Drainage area is 169 mi^2.	1984-96	10-02-95	*2.93	--	10-19-94	*10.87	--

* Elevation, in feet.
† Operated as a continuous-record station.
ϕ Operated as an unpublished stage-only station.

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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