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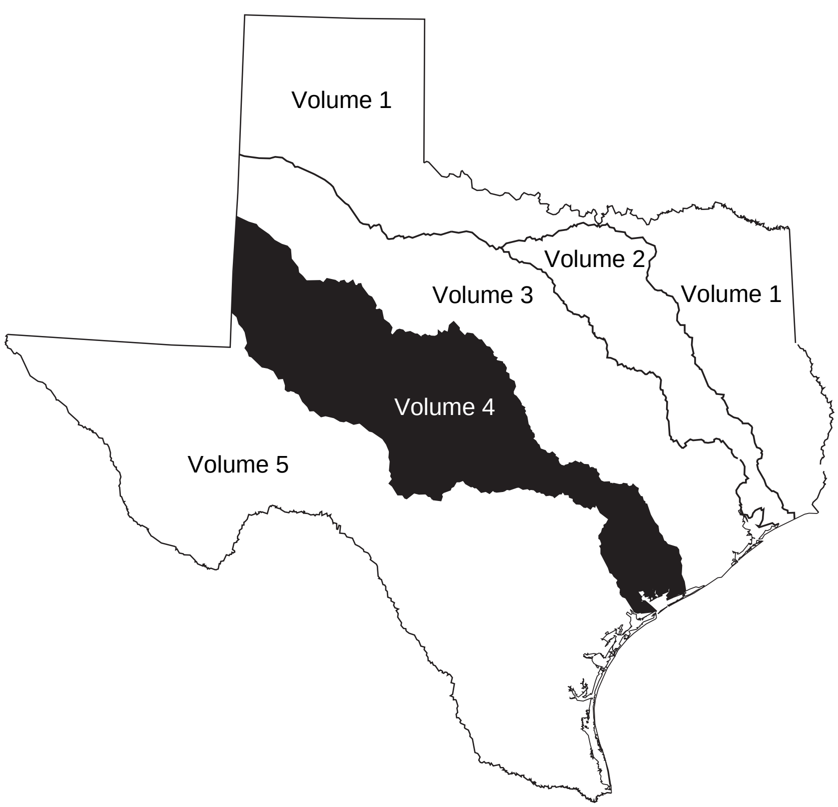
Water Resources Data
Texas
Water Year 2001

Volume 4. Colorado River Basin, Lavaca River Basin, and Intervening Coastal Basins

By S.C. Gandara

Water-Data Report TX-01-4



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

UNITED STATES DEPARTMENT OF THE INTERIOR

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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 6 volumes:

Volume 1.	Arkansas River Basin, Red River Basin, Sabine River Basin, Neches River Basin, and Intervening Coastal Basins
Volume 2.	Trinity River Basin
Volume 3.	San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and Intervening Coastal Basins
Volume 4.	Colorado River Basin, Lavaca River Basin, and Intervening Coastal Basins
Volume 5.	Guadalupe River Basin, Nueces River Basin, Rio Grande Basin, and Intervening Coastal Basins
Volume 6.	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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13. ABSTRACT *(Maximum 200 words)*

Water-resources data for the 2001 water year for Texas are presented in six 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 4 contains records for water discharge at 66 gaging stations; stage and contents at 14 lakes and reservoirs; water quality at 41 gaging stations; and data for 12 partial-record stations comprised of 3 flood-hydrograph, 6 low-flow, 1 crest-stage, and 2 miscellaneous 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.

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CONTENTS

ILLUSTRATIONS

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.]

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
Dixon Creek near Borger (d)	07227920	134	1974-89
Palo Duro Creek near Canyon (e)	07229700	982	1942-54
White Woman Creek Tributary near Darrouzett (e)	07234150	4.03	1966-74
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
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)	07299516	76	1974-76
Salt Creek near Estelline (d)	07299530	142	1974-79
Buck Creek near Wellington (e)	07299550	210	1951-64
Red River near Quanah (d)	07299570	8,321	1960-82
North Groesbeck Creek Tributary near Kirkland (d)	07299575	0.16	1966-74
Wanders Creek at Odell (e)	07299750	199	1949-50, 1952-89
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
Sweetwater Creek near Wheeler (e)	07301400	164	1951-64
Doodlebug Creek near Wheeler (e)	07301405	0.19	1967-73
Elm Creek near Shamrock (e)	07303300	N/A	1947-89
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
Roaring Springs near Roaring Springs (e)	07307700	N/A	1937, 1943-95
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Middle Pease River near Kirkland (e)	07307780	1,250	1973-79
Canal Creek near Crowell (e)	07307950	49.0	1968-70, 1978-79
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
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 Fork Wichita River at Ross Ranch near Benjamin (d)	07311790	499	1971-79
Beaver Creek near Electra (d)	07312200*	652	1960-99
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 Tributary 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
Lake Texoma near Denison (e)	07331500	39,719	1942-93, 2000
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
Red River near DeKalb (d)	07336820	47,348	1967-98
McKinney Bayou near Leary (e)	07336940	3.33	1966-73
Barkman Creek near Leary (e)	07336950	31.5	1958-64
Nelson Branch near Leonard (e)	07342450	0.22	1966-74
South Sulphur River near Commerce (d)	07342470	189	1980-91
Cuthand Creek near Bogata (d)	07343300	69	1964-74
Dial Branch near Bagwell (e)	07343350	1.00	1966-74
White Oak Creek near Mt. Vernon (e)	07343480	434	1966, 1969-75
White Oak Creek below Talco (d)	07343800	579	1938-50
Buck Creek near Cookville (e)	07343900	0.78	1966-74
Sulphur River near Darden (d)	07344000	2,774	1924-56
Sulphur River near Texarkana (d)	07344210	3,443	1980-85
Big Cypress Creek near Winnsboro (d)	07344482	27.2	1974-92
Dragoo Creek near Mt. Pleasant (e)	07344490	4.27	1967-74
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
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
Burnett Branch near Canton (e)	08017700	0.33	1966-74
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
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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 (d)	08021000	120	1940-49
Lake Cherokee near Longview (e)	08021500	158	1951-83
Sabine River near Tatum (d)	08022000	3,493	1939-78,
“ “ “ “ (e)			1979-82
Redmon Branch near Hallesville (e)	08022010	0.46	1966-74
Eight Mile Creek near Tatum (e)	08022050	106	1962-71
Martin Creek near Tatum (d)	08022070	148	1974-96
Martin Creek near Beckville (e)	08022080	192	1962-71
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
Patroon Bayou near Milam (e)	08024300	130	1952-54, 1959-63
Sabine River near Milam (d)	08024400	6,508	1924-25, 1939-68
Palo Gaucho Bayou near Hemphill (d)	08024500	123	1952-65
Housen Bayou near Yellowpine (e)	08025250	92.1	1952-54, 1957, 1959-63
Sandy Creek near Yellowpine (e)	08025300	135	1952-54, 1957, 1959-63
Mill Creek near Burkeville (d)	08025307	17.6	1974-79
Little Cow Creek below McGraw Creek near Burkeville (e)	08026500	112	1952-58
Moore Branch near Newton (e)	08028505	3.77	1967-74
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
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
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
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
Angelina River near Zavalla (d)	08038500	2,892	1952-65

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Ayish Bayou at San Augustine (d)	08039000	15.80	1924-25
Angelina River at Horger (d)	08039500	3,486	1928-51, 1967-73
Little Sandy Creek Tributary near Jasper (e)	08039900	0.46	1967-74
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
Beans Creek at Wizard Wells (e)	08042900	29.60	1993-95
West Fork Trinity River at Bridgeport (d)	08043100	1,113	1984-89
West Fork Trinity River at Bridgeport (d)	08043500	1,147	1908-30
Big Sandy Creek near Bridgeport (d)	08044000	333	1937-95
Garrett Creek near Paradise (e)	08044135	52.5	1992-95
Salt Creek near Paradise (e)	08044140	52.7	1992-95
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
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 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 (e)	08053090	9.10	1987-90
Jones Valley Creek Tributary near Forestburg (e)	08053100	1.70	1966-74
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
Joe’s Creek at Royal Lane, Dallas (e)	08055580	1.94	1973-78
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
Coombs Creek at Sylvan Avenue, Dallas (e)	08057020	4.75	1965-78

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Cedar Creek at Bonnie View Road, Dallas (e)	08057050	9.42	1965-78
White Rock Creek at Keller Springs Road, Dallas (d)	08057100	29.40	1961-79
Spanky Branch at McCallum Lane at Dallas (e)	08057120	6.77	1962-78
Rush Branch at Arapaho Road, Dallas (e)	08057130	1.22	1973-78
Newton Creek at Interstate Highway 635, Dallas (e)	08057135	5.91	1974-78
Cottonwood Creek at Forest Lane, Dallas (e)	08057140	8.50	1962-78
Floyd Branch at Forrest Lane, Dallas (e)	08057160	4.17	1962-78
White Rock Creek at White Rock Lake, Dallas (d)	08057300	100	1963-79
Ash Creek at Highland Road, Dallas (e)	08057320	6.92	1963-78
Forney Creek at Lawnview Avenue, Dallas (e)	08057340	1.84	1963-72
White Rock Creek at Scyene Road, Dallas (d)	08057400	122	1963-79
Trinity River below Dallas (d)	08057410	6,278	1956-98
Elm Creek at Seco Boulevard, Dallas (e)	08057415	1.25	1973-78
Fivemile Creek at Kiest Boulevard, Dallas (e)	08057418	7.65	1974-78
Fivemile Creek at US Highway 77 West, Dallas (e)	08057420	14.30	1965-78
Woody Branch at US Highway 77 West, Dallas (e)	08057425	10.30	1965-78
Fivemile Creek at Lancaster Road, Dallas (e)	08057430	37.90	1965-78
White Branch at Interstate Highway 635, Dallas (e)	08057440	2.53	1974-78
Tenmile Creek at State Highway 342 at Lancaster (d)	08057450	52.80	1970-79
Honey Creek SWS #11 near McKinney (e)	08057500	2.14	1952-73
Honey Creek SWS #12 near McKinney (e)	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
Duck Creek at Buckingham Road, Garland (e)	08061620	8.05	1969-76
Duck Creek near Garland (d)	08061700	31.6	1958-93
South Mesquite Creek at State Highway 352, Mesquite (e)	08061920	13.40	1969-76
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
Briar Creek Tributary near Corsicana (e)	08063180	0.72	1966-74
Pin Oak Creek near Hubbard (d)	08063200	17.60	1956-72
Richland Creek near Richland (d)	08063500	734	1939-88
Alvarado Branch near Alvarado (e)	08063550	0.84	1966-74
Kings Branch near Reagor Springs (e)	08063620	0.62	1966-74
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
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
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
Rocky Creek near Onalaska (e)	08066180	40.6	1966-73
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(e)	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,
Welch Branch near Huntsville (e)	08067550	2.35	1965-74
Lake Conroe near Montgomery (e)	08067580	445	1973-76
Lake Conroe at Outflow Weir near Conroe (d)	08067610	445	1974, 1977-89
Caney Creek near Dobbin (d)	08067700	40.40	1963-65
Landrum Creek Tributary near Montgomery (e)	08067750	0.13	1965-74
Lake Creek near Conroe (e)	08067900	291	1969-89
West Fork San Jacinto River near Porter (e)	08068100	970	1970-76
Mill Creek Tributary near Dobbin (e)	08068300	4.07	1967-73
Swale No. 8 at Woodlands (e)	08068438	0.55	1975-76, 1980-88
Spring Creek at Spring (d)	08068520	419	1975-95
Spring Creek near Humble (e)	08068600	435	1971-76
Cypress Creek at Sharp Road near Hockley (d)	08068700	80.7	1975-85
Cypress Creek near Cypress (e)	08068750*	138	1971-76
Little Cypress Creek near Cypress (d)	08068780*	41.0	1983-92
Cypress Creek at Grant Road near Houston (d)	08068800*	214	1983-92
Cypress Creek at Stuebner-Airline Road near Westfield (d)	08068900*	248	1982-87
Cypress Creek near Humble (e)	08069200	319	1971-76
West Fork San Jacinto River near Humble (d)	08069500	1,741	1929-54
Bear Creek near Cleveland (e)	08069850	1.46	1967-73
Caney Creek near New Caney (e)	08070600	178	1970-76
Peach Creek near New Caney (e)	08071100	155	1970-76
Tarkington Bayou near Dayton (e)	08071200	142	1964-76
Luce Bayou near Huffman (e)	08071300	226	1971-76
San Jacinto River near Huffman (d)	08071500	2,800	1937-53
Buffalo Bayou at Clodine (e)	08072400	84.2	1974-85
Langham Creek at West Little York Road, Addicks (d)	08072760*	25.0	1977-85
Bettina Street Ditch at Houston (e)	08073630	1.37	1979-85
Stony Brook Street Ditch at Houston (e)	08073750	0.50	1967-72
Bering Ditch at Woodway Drive, Houston (e)	08073800	2.77	1965-73
Cole Creek at Guhn Road at Houston (e)	08074100	7.05	1964-72
Bingle Road Storm Sewer at Houston (e)	08074145	0.21	1980-88
Cole Creek at Deihl Road at Houston (d)	08074150*	7.50	1964-86
Brickhouse Gully at Clarblak Street at Houston (e)	08074200	2.56	1965-83
Brickhouse Gully at Costa Rica Street at Houston (d)	08074250*	11.4	1964-81
Lazybrook Street Storm Sewer, Houston (e)	08074400	0.13	1978-88
Little White Oak Bayou at Houston (e)	08074550	20.9	1971-79
Buffalo Bayou at Main St., Houston (d)	08074600*	469	1962-94
Buffalo Bayou at McKee Street, Houston (d)	08074610	469	1992-2000
Buffalo Bayou at 69th Street, Houston (e)	08074700	476	1961-86
Brays Bayou at Addicks-Clodine Rd., Houston (e)	08074750	0.87	1974-77
Brays Bayou at Alief Road, Alief (e)	08074760*	12.9	1977-85
Keegans Bayou at Keegans Road near Houston (e)	08074780*	7.47	1964-71
Keegans Bayou at Roark Road near Houston (d)	08074800*	13.0	1964-85
Bintliff Ditch at Bissonnet Street, Houston (e)	08074850	4.38	1968-82
Willow Waterhole Bayou at Landsdowne Street, Houston (e)	08074900	3.81	1965-72
Hummingbird Street Ditch at Mullins Street, Houston (e)	08074910	0.32	1979-84

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Brays Bayou at Scott Street, Houston (e)	08075100	106	1971-81
Sims Bayou at Carlsbad Street, Houston (e)	08075300	3.81	1964-72
Sims Bayou at MLK Blvd., Houston (e)	08075470	48.4	1978-89
Berry Bayou at Gilpin Street, Houston (e)	08075550	2.87	1965-84
Berry Bayou Tributary at Globe Street, Houston (e)	08075600	1.58	1965-72
Berry Bayou at Forest Oaks Street, Houston (e)	08075650*	10.7	1968-82
Berry Bayou at Galveston Road, Houston (e)	08075700	4.86	1965-72
Huntington Bayou Tributary at Cavalcade Street, Houston (e)	08075750	1.20	1965-72
Huntington Bayou at Falls Street, Houston (e)	08075760	2.75	1964-84
Halls Bayou at Deertrail Street at Houston (e)	08076200	8.69	1965-84
Carpenters Bayou at Cloverleaf (e)	08076900	25.8	1964, 1971-93
Clear Creek near Pearland (d)	08077000	38.8	1944-45, 1946-60, 1963-94
Clear Creek Tributary at Hall Road, Houston (e)	08077100	1.31	1965-86
Clear Creek at Friendswood (d)	08077540	99.6	1994-97
Cowart Creek near Friendswood (e)	08077550	18	1965-74
Clear Creek near Friendswood (e)	08077600	126	1966-94
Armand Bayou near Genoa (e)	08077620	18.2	1968, 1971-73
Highland Bayou at Hitchcock (e)	08077700	15.6	1963-82
Highland Bayou Tributary near Texas City (e)	08077750	1.97	1966-73
Highland Bayou near Texas City (e)	08077780	20.8	1965-88
Flores Bayou near Danbury (e)	08078700	23.3	1967-72
Oyster Creek near Angleton (d)	08079000	171	1945-80
North Fork Double Mountain Fork Brazos River at Lubbock (d)	08079500	5,300	1940-49,
North Fork Double Mountain Fork Brazos River above Buffalo Springs nr Lubbock (e)	08079530	29.3	1952-54, 1957, 1962, 1967-76
Buffalo Springs Lake near Lubbock (e)	08079550	236	1967-77
Barnum Springs Draw near Post (e)	08079570	4.99	1965-73
North Fork Double Mountain Fork Brazos River near Post (d)	08079575	438	1984-93
Rattlesnake Creek near Post (e)	08079580	2.75	1966-74
Double Mountain Fork Brazos River near Rotan (d)	08080000	8,536	1950-51
Guest-Flowers Draw near Aspermont (e)	08080510	3.02	1965-74
McDonald Creek near Post (d)	08080540	103	1966-78
Running Water Draw at Plainview (d)	08080700	1,291	1939-53, 1957-78
Callahan Draw near Lockney (e)	08080750	37.5	1966-77
White River near Crosbytown (e)	08080800	529	1951-64
White River below falls near Crosbytown (e)	08080900	529	1951-64
Salt Fork Brazos River at Farm Road 1081 near Clairemont (e)	08080916	1,135	1968-77
Red Mud Creek near Spur (e)	08080918	65.1	1967-74
Salt Fork Brazos River at State Highway 208 near Clairemont (e)	08080940	1,357	1968-77
Duck Creek near Girard (d)	08080950	431	1965-89
Salt Fork Brazos River at U.S. Highway 380 near Jayton (e)	08080959	1,797	1968-77
Salt Fork Brazos River near Peacock (d)	08081000	4,619	1950-51, 1965-86
Short Croton Creek at mouth near Jayton (e)	08081050	18.1	1959-82
Croton Creek below Short Croton Creek near Jayton (e)	08081100	250	1959-82
Croton Creek near Jayton (d)	08081200	290	1959-86
Salt Croton Creek at Weir D near Aspermont (e)	08081400	55.5	1957-76
Haystack Creek at Weir E near Aspermont (e)	08081450	15.1	1957-77
Salt Croton Creek near Aspermont (d)	08081500	64.30	1957-77
Stinking Creek near Aspermont (d)	08082100	88.80	1966-83
North Croton Creek near Knox City (d)	08082180	251	1965-86
North Elm Creek near Throckmorton (e)	08082900	3.58	1965-77
Elm Creek near Profitt (e)	08082950	275	1969-85
Brazos River near Graham (d)	08083000	16,830	1916-20

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Clear Fork Brazos River at Hawley (d)	08083240	1,416	1968-89
Mulberry Creek near Hawley (d)	08083245	205	1968-89
Elm Creek near Abilene (d)	08083300	133	1964-79
Little Elm Creek near Abilene (d)	08083400	39.10	1964-79
Elm Creek at Abilene (d)	08083430	422	1980-83
Cedar Creek at Abilene (d)	08083470	119	1971-84
Paint Creek near Haskell (d)	08085000	914	1950-51
Humphries Draw near Haskell (e)	08085300	3.51	1965-77
Clear Fork Brazos River at Crystall Falls (d)	08086000	4,323	1922-29
Hubbard Creek near Sedwick (d)	08086015	128	1964-66
Hubbard Creek at Highway 380 near Moran (e)	08086020	152	1963-76
Deep Creek near Putnam (e)	08086030	33.8	1963-66
Brushy Creek near Putnam (e)	08086040	27.6	1963-66
Mexia Creek near Putnam (e)	08086045	67.0	1963-66
Deep Creek at Moran (d)	08086050	228	1963-75
Hubbard Creek near Albany (d)	08086100	454	1962-75
Salt Prong Hubbard Creek below Lake McCarty near Albany (e)	08086110	45.5	1963-66
Salt Prong Hubbard Creek at U.S. 380 near Albany (d)	08086120	61	1964-68
Cook Creek near Albany (e)	08086130	11.3	1963-76
North Fork Hubbard Creek near Albany (d)	08086150	39.3	1963-90
Salt Prong Hubbard Creek near Albany (d)	08086200	115	1962-63
Snailum Creek near Albany (d)	08086210	22.90	1964-66
Big Sandy Creek near Eolian (e)	08086220	91.4	1963-76
Battle Creek near Putnam (e)	08086230	32.0	1963-66
Battle Creek near Moran (d)	08086235	108	1967-68
Battle Creek near Eolian (e)	08086240	137	1963-66
Pecan Creek at FM 1853 near Eolian (e)	08086250	6.95	1963-66
Pecan Creek near Eolian (d)	08086260	26.40	1967-75
Big Sandy Creek near Breckenridge (e)	08086300	288	1962-75
Hubbard Creek near Breckenridge (d)	08086500	1,089	1955-86
Clear Fork Brazos River near Crystal Falls (e)	08087000	5,658	1916-20, 1928-51
Clear Fork Brazos River near Eliasville (d)	08087300	5,697	1916-20, 1924-25, 1928-51, 1962-82
Salt Creek at Olney (d)	08088100	11.80	1958-77
Salt Creek near Newcastle (d)	08088200	120	1958-60
Briar Creek near Graham (d)	08088300	24.20	1958-89
Brazos River at Farm Road 1287 near Graham (e)	08088420	13,432	1970-77
Big Cedar Creek near Ivan (d)	08088450	97	1965-89
Brazos River at Morris Sheppard Dam near Graford (d)	08088600	14,030	1990-94
Elm Creek Tributary near Graford (e)	08089100	1.10	1965-74
Lake Palo Pinto near Santo (e)	08090300	461	1964-82
Palo Pinto Creek near Santo (d)	08090500	573	1925, 1951-76
Cidwell Branch near Granbury (e)	08090850	3.37	1966-73
Morris Branch near Bluff Dale (e)	08091200	0.06	1965-73
Panther Branch near Tolar (e)	08091700	7.82	1966-74
Lake Pat Cleburne near Cleburne (d)	08091900	100	1965-85
Nolan River at Blum (d)	08092000*	282.0	1924-87
Brazos River near Whitney (d)	08093000	17,648	1939-74
Bond Branch near Hillsboro (e)	08093200	0.36	1965-74
Hackberry Creek at Hillsboro (d)	08093250	57.9	1980-92
Hackberry Creek below Hillsboro (e)	08093260	86.8	1980-92
Aquilla Creek above Aquilla (d)	08093360*	255.0	1980-92
Cobb Creek near Abbott (d)	08093400	12.40	1967-79
Aquilla Creek at RR bridge near Aquilla (e)	08093530	345	1976-85
Aquilla Creek at Farm Road 2114 near Aquilla (e)	08093540	351	1976-85
Aquilla Creek at Farm Road and 1858 near Ross (e)	08093560	392	1976-85
Aquilla Creek at Farm Road 933 near Ross (e)	08093580	397	1976-85

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
North Bosque River at Stephenville (d)	08093700	95.90	1958-79
Green Creek SWS #1 near Dublin (d)	08094000	4.19	1955-77
Green Creek near Alexander (d)	08094500	45.40	1958-73
South Bosque River near McGregor (e)	08095220	15.9	1967-73
Willow Branch at McGregor (e)	08095250	2.52	1966-73
Middle Bosque River near McGregor (d)	08095300*	182.0	1959-86
Hog Creek near Crawford (d)	08095400*	78.0	1959-86
South Bosque River near Speegleville (d)	08095500	386	1924-30
Bosque River near Waco (d)	08095600	1,656	1960-82
Box Branch at Robinson (e)	08096550	0.34	1965-73
Cow Bayou SWS No. 4 (inflow) near Bruceville (e)	08096800	5.04	1958-75
Cow Bayou at Mooreville (d)	08097000	83.50	1958-75
Brazos River near Marlin (d)	08097500	30,211	1939-51
Deer Creek at Chilton (d)	08098000	84.50	1934-36
Little Pond Creek at Burlington (d)	08098300	23	1963-82
Leon River near De Leon (d)	08099100*	479.0	1960-87
Sabana River near De Leon (d)	08099300*	264.0	1960-87
Sabana River Tributary near De Leon (e)	08099350	0.48	1966-74
Leon River near Hasse (d)	08099500	1,261	1939-91
Eidson Creek near Hamilton (e)	08100100	2.91	1965-73
Bermuda Branch near Gatesville (e)	08100400	0.50	1966-73
Hoffman Branch near Hamilton (e)	08100800	5.56	1966-74
Cowhouse Creek near Killeen (d)	08101500	667	1925, 1939-42
Nolan Creek at Belton (d)	08102600	112	1974-82
School Branch near Lampasas (e)	08102900	0.90	1966-73
Fleece Branch near Lampasas (e)	08103450	1.08	1965-74
Lampasas River at Youngsport (d)	08104000	1,240	1924-80
Lampasas River near Belton (d)	08104100*	1,321	1963-89
Salado Creek above Salado (e)	08104290*	134	1985-88
Salado Creek below Salado Springs (d)	08104310*	136	1985-87
N. Fork San Gabriel River upstream from State Highway 418 at Georgetown (e)	08104795*	271	1985-88
North Fork San Gabriel River at Georgetown (d)	08104800	268	1964-68
South Fork San Gabriel River near Bertram (e)	08104850	8.9	1967-74
San Gabriel River at Georgetown (d)	08105000*	405	1924-25, 1934-73, 1984-87
Berry Creek at State Hwy. 971 near Georgetown (d)	08105200*	117	1985-87
San Gabriel River near Weir (d)	08105300*	563	1977-90
San Gabriel River near Circleville (d)	08105400	599	1924-34, 1967-77
Avery Branch near Taylor (e)	08105900	3.52	1966-73
Brushy Creek at Coupland (d)	08106000	205.0	1924-26
Brushy Creek near Rockdale (d)	08106300	505	1967-80
San Gabriel River near Rockdale (d)	08106310	1,359	1975-92
Big Elm Creek near Temple (d)	08107000	74.70	1934-36
Big Elm Creek near Buckholts (d)	08107500	171	1934-36
North Elm Creek near Ben Arnold (d)	08108000	32.20	1935-36
North Elm Creek near Cameron (d)	08108200	44.80	1963-73
Little Branch near Bryan (e)	08108800	0.14	1966-73
Brazos River near Bryan (d)	08109000	39,515	1899-1903, 1918-92
Brazos River near College Station (d)	08109500	30,033	1899-1902, 1918-25
Yegua Creek near Somerville (d)	08110000	1,009	1924-92
Brazos River at Washington (e)	08110200	41,192	1966-95
Plummers Creek at Mexia (e)	08110350	4.42	1965-73
Navasota River near Groesbeck (d)	08110400	311	1965-79
Navasota River near Bryan (d)	08111000	1,454	1951-94, 1994-97
Navasota River near College Station (d)	08111010	1,809	1977-85

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Burton Creek at Villa Maria Road, Bryan (d)	08111025	1.33	1968-70
Hudson Creek near Bryan (d)	08111050	1.94	1968-70
Winkleman Creek near Brenham (e)	08111100	0.75	1965-73
Piney Creek near Bellville (e)	08111600	30.7	1948, 1955, 1958, 1964-89
West Fork Mill Creek near Industry (e)	08111650	15.3	1964-89
Mill Creek near Bellville (d)	08111700	376	1963-93
Brazos River near San Felipe (d)	08112000	35,100	1939-57
Brazos River near Wallis (e)	08112200	44,700	1974-75
Brazos River Authority Canal A near Fulshear (d)	08112500	N/A	1932-54, 1958-73
Richmond Irrigation Co. Canal near Richmond (d)	08113500	N/A	1932-54, 1956-78
Brazos River near Juliff (d)	08114500	45,084	1949-69
Seabourne Creek near Rosenberg (e)	08114900	5.78	1968-74
Fairchild Creek near Needville (d)	08115500	26.20	1947-55
Big Creek near Guy (d)	08116000	116	1947-50
Dry Creek near Rosenberg (d)	08116400	8.65	1959-79
Dry Creek near Richmond (d)	08116500	12.20	1947-50, 1957-58
San Bernard River near West Columbia (e)	08117700	766	1949, 1971-77
Mound Creek Tributary at Guy (e)	08117800	1.48	1966-73
Big Boggy Creek near Wadsworth (d)	08117900	10.30	1970-77
Bull Creek near Ira (d)	08118500	26.30	1948-54, 1959-62
Colorado River below Bull Creek near Ira (e)	08118600	3,524	1975-78
Bluff Creek near Ira (d)	08119000	42.60	1948-65
Bluff Creek at mouth near Ira (e)	08119100	44.1	1975-78
Colorado River near Ira (d)	08119500	3,483	1948-52, 1959-89
Morgan Creek near Westbrook (d)	08121500	273	1954-63
Graze Creek near Westbrook (d)	08122000	21.70	1954-59
Morgan Creek near Colorado City (d)	08122500	313	1947-49
Champlin Creek near Colorado City (d)	08123500	198	1948-59
Sulphur Springs Draw near Wellman (e)	08123620	41.80	1966-74
Beals Creek above Big Spring (d)	08123650	9,319	1959-79
Beals Creek at Big Spring (d)	08123700	9,341	1957-59
Beals Creek near Coahoma (d)	08123720	9,383	1983-88
Coahoma Draw Tributary near Big Spring (e)	08123750	2.38	1966-74
Bull Creek Tributary near Forsan (e)	08123760	0.4	1966-74
Colorado River near Silver (d)	08123900	14,997	1957-70
Bitter Creek near Silver (e)	08123920	4.3	1967-74
Salt Creek Tributary near Hylton (e)	08125450	0.25	1966-74
Oak Creek Reservoir near Blackwell (e)	08125500	238	1953-83
Fish Creek Tributary near Hylton (e)	08126300	0.25	1966-71
Colorado River at Ballinger (d)	08126500	16,413	1907-79
Dry Creek near Christoval (e)	08127100	0.79	1965-73
South Concho Irrigation Co. Canal at Christoval (d)	08127500	N/A	1940-83
Middle Concho River near Tankersley (d)	08128500	2,653	1930-61
Spring Creek above Tankersley (d)	08129300*	424.7	1961-95
Dove Creek Springs near Knickerbocker (d)	08129500*	N/A	1944-58
Dove Creek at Knickerbocker (d)	08130500*	226.43	1961-95
Spring Creek near Tankersley (d)	08131000	699	1930-60
South Concho River above Gardner Dam near San Angelo (e)	08131190	434	1966-74, 2000
South Concho River above Pecan Creek near San Angelo (e)	08131300	470	1963-84
Tom Green Co. WCID No. 1 Canal near San Angelo (d)	08131600	N/A	1963-81

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
South Concho River at San Angelo (d)	08132500	3,866	1932-53
Quarry Creek near Sterling City (e)	08133300	3.25	1965-73
North Concho River at Sterling City (d)	08133500*	588.0	1939-87
Broome Creek near Broome (e)	08133800	0.29	1965-73
Nolke Station Creek near San Angelo (e)	08134300	0.59	1965-73
Gravel Pit Creek near San Angelo (e)	08134400	0.19	1965-74
North Concho River at San Angelo (d)	08135000	1,525	1916-31, 1947-90
Concho River near Veribest (e)	08136150	5,610	1970-74, 1998-2000
Puddle Creek near Veribest (e)	08136200	12.0	1966-73
Frog Pond Creek near Eden (e)	08136300	1.96	1967-73
Mukewater Creek SWS No. 10A near Trickham (e)	08136900	15.3	1965-72
Mukewater Creek SWS No. 9 near Trickham (e)	08137000	4.02	1961-72
Mukewater Creek at Trickham (d)	08137500	70	1951-73
Deep Creek SWS No. 3 near Placid (e)	08139000	3.42	1954-60
Deep Creek near Mercury (d)	08139500	43.90	1954-73
Deep Creek SWS No. 8 near Mercury (e)	08140000	5.14	1952-71
Dry Prong Deep Creek near Mercury (d)	08140500	8.31	1951-71
Lake Clyde near Clyde (e)	08140600	36.9	1970-85
Pecan Bayou near Cross Cut (d)	08140700	532	1968-79
Jim Ned Creek near Coleman (d)	08140800	333	1965-80
McCall Branch near Coleman (e)	08141100	2.17	1966-73
Hords Creek near Valera (d)	08141500	54.20	1947-91
Hords Creek at Coleman (d)	08142000	107	1941-70
Brown County WID No. 1 Canal near Brownwood (d)	08142500	N/A	1950-83
Pecan Bayou at Brownwood (d)	08143500	1,660	1917-18, 1924-83
Brown Creek Tributary near Goldthwaite (e)	08143700	2.48	1966-73
Noyes Canal at Menard (d)	08144000	N/A	1924-83
Brady Creek near Eden (d)	08144800	101	1962-85
Brady Creek Tributary near Brady (e)	08145100	4.05	1967-73
Lake Buchanan near Burnet (e)	08148000	31,910	1937-90
Llano River Tributary near London (e)	08150200	0.58	1966-73
Stone Creek Tributary near Art (e)	08150900	0.40	1966-73
Llano River near Castell (d)	08151000	3,747	1924-39
Johnson Creek near Valley Spring (e)	08151300	5.66	1967-73
Sandy Creek near Kingsland (d)	08152000	327	1967-93
Little Flatrock Creek near Marble Falls (e)	08152700	3.20	1966-74
Spring Creek near Fredericksburg (e)	08152800	15.20	1967-73
Pedernales River at Stonewall (d)	08153000	647	1924-34
Cane Branch at Stonewall (e)	08153100	1.37	1965-71
Pedernales River near Spicewood (d)	08154000	1,294	1924-39
Lake Travis near Austin (d)	08154500	38,755	1940-90
Colorado River below Mansfield Dam, Austin (d)	08154510	38,755	1975-90
West Bull Creek at Loop 360 near Austin (e)	08154750	6.77	1976-82
Bull Creek at FM 2222, Austin (e)	08154760	30.4	1975-78
Bee Creek at West Lake Drive near Austin (e)	08154950	3.28	1980-82
Barton Creek near Camp Craft Road near Austin (d)	08155260	109	1982-89
Skunk Hollow Creek below Pond 1 at Austin (e)	08155400	0.12	1982-84
West Bouldin Creek at Riverside Drive, Austin (e)	08155550	3.12	1976-82
Shoal Creek at Steck Avenue, Austin (e)	08156650	2.79	1975-82
Shoal Creek at Northwest Park at Austin (d)	08156700	6.52	1975-84
Shoal Creek at White Rick Drive, Austin (e)	08156750	12.30	1975-82
Waller Creek at 38th Street, Austin (d)	08157000	2.31	1955-80
Waller Creek at 23rd Street, Austin (d)	08157500	4.13	1955-80
Walnut Creek at Farm-Market 1325 near Austin (e)	08158100	12.60	1975-88
Walnut Creek at Dessau Road, Austin (e)	08158200	26.20	1975-88
Ferguson Branch at Springdale Road, Austin (e)	08158300	1.63	1978-82
Little Walnut Creek at Georgian Drive, Austin (e)	08158380	5.22	1975-88
Little Walnut Creek at IH 35, Austin (e)	08158400	5.57	1975-82

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Little Walnut Creek at Manor Road, Austin (e)	08158500	12.1	1975-82
Walnut Creek at Southern Pacific Railroad bridge, Austin (e)	08158640	53.5	1975-86
Onion Creek at Buda (e)	08158800	166	1961-78,
" " " (d)			1979-83, 1992-95
Bear Creek at Farm-Market Road 1626 near Manchaca (e)	08158820	24.0	1979-83
Little Bear Creek at Farm-Market Road 1626 near Manchaca (d)	08158825	21.0	1979
Slaughter Creek at FM 2304 near Austin (e)	08158860	23.1	1978-83
Boggy Creek (South) at Circle S Road, Austin (e)	08158880	3.58	1976-88
Fox Branch near Oak Hill (e)	08158900	0.12	1965-73
Williamson Creek at Oak Hill (d)	08158920	6.30	1978-93
Williamson Creek at Jimmy Clay Road, Austin (d)	08158970	27.60	1975-85
Onion Creek below Del Valle (e)	08159100	339	1962-75
Wilbarger Creek near Pflugerville (d)	08159150	4.6	1963-80
Big Sandy Creek near McDade (d)	08159165	38.70	1979-85
Big Sandy Creek near Elgin (d)	08159170	63.80	1979-85
Dogwood Creek near McDade (e)	08159180	0.53	1980-85
Dogwood Creek at Highway 95 near McDade (e)	08159185	5.03	1980-85
Reeds Creek near Bastrop (e)	08159450	5.22	1967-73
Dry Creek at Buescher Lake near Smithville (d)	08160000	1.48	1940-66
Colorado River at La Grange (d)	08160500	40,430	1939-55
Colorado River above Columbus (d)	08160700	41,403	1983-85
Dry Branch Tributary near Altair (e)	08161580	0.68	1966-73
Little Robin Slough near Matagorda (e)	08162530	3.4	1969
Cashs Creek near Blessing (e)	08162650	14.8	1969-77
East Carancahua Creek near Blessing (e)	08162700	81.2	1968, 1970-83
West Carancahua Creek near Laward (e)	08162800	57.1	1970-76
Navidad River near Speaks (d)	08164350	437	1982-89, 1995-2000
Navidad River at Morales (d)	08164370	549	1995-2000
Navidad River near Ganado (d)	08164500	826	1939-80
Guadalupe River above Kerrville (e)	08166150	488	1976-79
Turtle Creek Tributary near Kerrville (e)	08166300	0.46	1966-74
Guadalupe River near Comfort (d)	08166500	762	1918-32
Rebecca Creek near Spring Branch (d)	08167600	10.90	1960-79
Blieders Creek at New Braunfels (e)	08168600	16.0	1962-89
Panther Canyon at New Braunfels (e)	08168700	0.73	1962-89
Trough Creek near New Braunfels (e)	08168720	0.48	1966-74
W.P. Dry Comal Creek Tributary near New Braunfels (e)	08168750	0.32	1966-74
Dry Comal Creek at New Braunfels (e)	08168800	N/A	1962-74
Walnut Branch near Seguin (e)	08169750	5.46	1967-74
East Pecan Branch near Gonzales (e)	08169850	0.24	1965-74
San Marcos River at San Marcos (d)	08169950	83.7	1915-21
West Elm Creek near Niederwald (e)	08172100	0.44	1965-74
Plum Creek near Lockhart (d)	08172500	184	1925-30
San Marcos River at Ottine (d)	08173500	1,249	1915-43
Guadalupe River below Cuero (d)	08176000	4,923	1903-07, 1916-19, 1921-36
Irish Creek near Cuero (e)	08176200	15.5	1967-74
Three Mile Creek near Cuero (e)	08176600	0.48	1966-74
Coleto Creek Reservoir inflow (Guadalupe diversion) near Schroeder (d)	08176990	357	1980-94
Coleto Creek near Schroeder (d)	08177000	369	1930-34, 1953-79
Olmos Creek Tributary at FM 1535 at Savano Park (e)	08177600	0.33	1969-81
Olmos Reservoir at San Antonio (e)	08177800	32.4	1968-71, 1976-89. 1992-95
San Antonio River at Woodlawn Avenue, San Antonio (e)	08177860	36.4	1989-95

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
San Antonio River at Dolorosa, San Antonio (d)	08177920	N/A	1980-86
San Antonio River at San Antonio (d)	08178000	41.8	1895-1906, 1915-29, 1939-97
Alazan Creek at St. Cloud Street, San Antonio (e)	08178300	3.26	1969-79
San Pedro Creek at Furnish St., San Antonio (d)	08178500*	2.60	1916-29
Harlandale Creek at W. Harding Street, San Antonio (e)	08178555	2.43	1977-81
Panther Springs Creek at FM 2696 near San Antonio (e)	08178600	9.54	1969-77
Lorence Creek at Thousand Oaks Blvd., San Antonio (e)	08178620	4.05	1980-84
West Elm Creek at San Antonio (e)	08178640	2.45	1976-88
East Elm Creek at San Antonio (e)	08178645	2.33	1976-81
Salado Creek Tributary at Bitters Road, San Antonio (e)	08178690	0.26	1969-81
Salado Creek at Rittman Road, San Antonio (e)	08178720	137.1	1968-81
Salado Creek Tributary at Bee Street, San Antonio (e)	08178736	0.45	1970-77
Salado Creek at E. Houston Street, San Antonio (e)	08178740	181	1968-81
Salado Creek at U.S. Highway 87, San Antonio (e)	08178760	186	1968-81
Salado Creek at Southcross Blvd., San Antonio (e)	08178780	188	1968-81
Bandera Creek Tributary near Bandera (e)	08178900	0.27	1966-74
Medina River near Pipe Creek (d)	08179000	474	1923-35, 1953-82
Red Bluff Creek near Pipe Creek (d)	08179100	56.30	1956-81
Medina River Tributary near Pipe Creek (e)	08179200	0.30	1966-74
Medina River at La Coste (d)	08180640	805	1987-2000
Medio Creek at Pearsall Road, San Antonio (e)	08180750	47.9	1987-95
Leon Creek Tributary at FM 1604, San Antonio (e)	08181000	5.57	1968-80
French Creek Tributary near Helotes (e)	08181200	1.08	1966-74
Ranch Creek near Helotes (d)	08181410		1978
Leon Creek Tributary at Kelly Air Force Base (d)	08181450	1.19	1969-79
Calaveras Creek SWS No. 6 (inflow) near Elmendorf (e)	08182400	7.01	1957-77
Calaveras Creek near Elmendorf (d)	08182500	77.20	1954-71
San Antonio River at Calaveras (d)	08183000	1,786	1918-25
Cibolo Creek near Boerne (d)	08183900	68.4	1963-95
Cibolo Creek near Bulverde (d)	08184000	198	1946-66
Cibolo Creek above Bracken (d)	08184500	250	1946-51
Cibolo Creek at Sutherland Springs (d)	08185500	665	1924-29
Ecleto Creek near Runge (d)	08186500	239	1962-89
Escondido Creek SWS No. 1 (inflow) near Kenedy (e)	08187000	3.29	1955-73
Escondido Creek at Kenedy (d)	08187500	72.40	1954-73
Escondido Creek SWS No. 11 (inflow) near Kenedy (e)	08187900	8.45	1959-77
Dry Escondido Creek near Kenedy (d)	08188000	9.43	1954-59
Baugh Creek at Goliad (e)	08188400	3.02	1966-74
Guadalupe-Blanco River Authority Calhoun Canal-Flume No. 2 near Long Mott (d)	08188750	N/A	1972-86
Guadalupe River at State Highway 35 near Tivoli (e)	08188810	10,280	1975-82
Medio Creek near Beeville (d)	08189300	204	1962-77
Olmos Creek Tributary near Skidmore (e)	08189600	0.58	1966-73
Chiltipin Creek at Sinton (d)	08189800	128	1970-91
Nueces River near Uvalde (d)	08191500	1,930	1928-39
Nueces River near Cinonia (d)	08192500	2,150	1915-25
Plant Creek near Tilden (e)	08194550	0.36	1965-74
Nueces River at Simmons (d)	08194600	8,561	1965-77
Frio River at Knippa (d)	08195700	N/A	1953
Dry Frio River at Knippa (d)	08196500	179	1953
East Elm Creek near Sabinal (e)	08198900	10.6	1967-74
Frio River near Frio Town (d)	08199700	1,460	1924-27
Hondo Creek near Hondo (d)	08200500	132	1953-64
Bone Creek near Hondo (e)	08200900	0.19	1965-74
Seco Creek near Utopia (d)	08202000	53.20	1952-61
Seco Creek Reservoir inflow near Utopia (d)	08202450	59.5	1991-98
Seco Creek near D’Hanis (d)	08202500	87.40	1952-64

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Parkers Creek Reservoir (d)	08202800	10.0	1991-99
Leona River Tributary near Uvalde (e)	08203500	1.21	1966-74
Leona River Spring Flow near Uvalde (d)	08204000*	1.21	1939-77
Leona River near Divot (d)	08204500	565	1924-29
Frio River at Calliham (d)	08207000	5,491	1925-26, 1932-81
Rutledge Hollow Creek near Poteet (e)	08207200	9.33	1966-74
Rutledge Hollow at 7th Street, Poteet (d)	08207220	N/A	1979-2000
Atascoas River at U.S. Highway 281, Pleasanton (d)	08207300	N/A	1973-2000
Atascosa River near McCoy (d)	08207500	530	1951-57
Lucas Creek near Pleasanton (e)	08207700	32.80	1966-73
Ramirena Creek near George West (d)	08210300	84.40	1968-72
Lagarto Creek near George West (d)	08210400	155	1972-89
Nueces River below Mathis (d)	08211100	16,726	1966-67
Rincon Bayou Channel near Calallen (d)	08211503	N/A	1996-2000
Pintas Creek Tributary near Banquete (e)	08211550	3.28	1966-74
Hamon Creek near Freer (e)	08211600	0.73	1965-73
San Diego Creek at Alice (d)	08211800	319	1964-89
Lake Alice at Alice (e)	08211850	150	1965-86
San Fernando Creek near Alice (d)	08212000	518	1962-63
North Las Animas Creek Tributary near Freer (e)	08212320	0.07	1969-74
Rio Grande at Vinton Bridge near Anthony (d)	08363840	28,680	1969-74
Northgate Reservoir at El Paso (e)	08365540	6.89	1973-75
Range Reservoir at El Paso (e)	08365545	11.89	1973-75
Franklin Canal at El Paso (d)	08365550	N/A	1969-72
McKelligon Canyon at El Paso (d)	08365600	2.30	1958-77
Government Ditch at El Paso (d)	08365800	6.40	1958-77
Rio Grande at Jaurez, MX (d)	08366000	29,350	1938-56
Riverside Canal near Socorro (d)	08366400	37,830	1969-72
Rio Grande at Island Station near El Paso (d)	08366500	29,743	1938-60
Rio Grande at Tornillo Branch near Fabens (d)	08367000	N/A	1924-38
Tornillo Drain at mouth near Tornillo (d)	08368000	N/A	1969-72
Tornillo Canal near Tornillo (d)	08368300	N/A	1969-72
Hudspeth Feeder Canal near Tornillo (d)	08368900	N/A	1969-72
Rio Grande at County Line Station near El Paso (d)	08369500	30,610	1938-60
Camo Rice Arroyo Tributary near Fort Hancock (e)	08370200	2.35	1966-74
Wild Horse Creek Tributary near Van Horn (e)	08370800	0.74	1966-73
Cibolo Creek near Presidio (d)	08373200	276	1971-77
Rio Grande above Presidio (lower Station) (d)	08373500	N/A	1901-13, 1924-54
Rio Grande at Langtry (d)	08377500	84,795	1900-14, 1920, 1924-60
Rio Grande Tributary near Langtry (e)	08377600	0.32	1966-74
Delaware River Tributary near Orla (e)	08407800	1.6	1966-74
Pecos River near Angeles (d)	08409500	20,540	1914-37
Salt Screwbean Draw near Orla (d)	08411500	464	1939-41, 1944-57
Pecos River near Mentone (d)	08414000	21,650	1922-26, 1969-73
Reeves County WID No. 2 Canal near Mentone (d)	08414500	N/A	1922-25, 1939-57, 1964-90
Ward County WID No. 3 Canal near Barstow (d)	08415000	N/A	1939-57, 1964-90
Pecos River above Barstow (d)	08416500	21,800	1916-21
Ward County Irrigation District No. 1 Canal near Barstow (d)	08418000	N/A	1922-25, 1939-57, 1964-90
Pecos River at Pecos (d)	08420500	22,100	1898-1907, 1914-15, 1922-26, 1939-55

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Madera Canyon near Toyahvale (d)	08424500	53.80	1932-49
Phantom Lake Spring near Toyahvale (d)	08425500*	N/A	1932-34, 1942-66
Giffin Springs at Toyahvale (d)	08427000*	N/A	1932-33
San Solomon Springs at Toyahvale (d)	08427500*	N/A	1932-34, 1941-65
West Sandia Spring at Balmorhea (d)	08429000	N/A	1932-33
East Sandia Spring at Balmorhea (d)	08430000	N/A	1932-33
Toyah Creek near Pecos (d)	08431000	1,024	1940-41, 1944-45
Salt Draw near Pecos (d)	08431500	1,882	1939-41, 1944-45
Limpia Creek below Fort Davis (d)	08431800	227	1962-77
Limpia Creek near Fort Davis (d)	08432000	303	1925-32
Barrilla Draw near Saragosa (d)	08433000	612	1925-26, 1932, 1976-83
Toyah Creek below Toyah Lake near Pecos (d)	08434000	3,709	1939-51
Grandfalls-Big Valley Canal near Barstow (d)	08435000	N/A	1922-26, 1939-57, 1964-76
Pecos River below Barstow (d)	08435500	25,980	1939-41
Toronto Creek near Alpine (d)	08435600	27.90	1971-76
Alpine Creek at Alpine (d)	08435620	18.10	1971-76
Moss Creek near Alpine (d)	08435660	11.30	1971-76
Sunny Glen Canyon near Alpine (d)	08435700	29.70	1968-77
Coyanosa Draw near Fort Stockton (d)	08435800	1,182	1964-77
Pecos County WID No. 2 (Upper Div.) Canal near Grandfalls (d)	08436500	N/A	1922-25, 1939-57, 1964-90
Courtney Creek Tributary near Fort Stockton (e)	08436800	0.44	1966-74
Pecos County WID No. 2 Canal near Imperial (d)	08437500	N/A	1940-57, 1964-90
Lake Leon Tributary near Fort Stockton (e)	08437550	1.59	1966-74
Pecos County WID No. 3 Canal near Imperial (d)	08437600	N/A	1940-57, 1964-90
Monument Draw Tributary at Pyote (e)	08437650	178	1966-74
Ward County WID No. 2 Canal near Grand Falls (d)	08437700	N/A	1939-57, 1964-90
Pecos River near Grand Falls (d)	08438100	27,810	1916-26
Pecos River below Grand Falls (d)	08441500	27,820	1921-26, 1939-56
Three Mile Mesa Creek near Fort Stockton (e)	08444400	1.04	1966-74
Comanche Springs at Fort Stockton (d)	08444500	N/A	1936-64
Pecos River near Sheffield (d)	08447000	31,600	1922-25, 1940-49
Independence Creek near Sheffield (d)	08447020	763	1974-85
Howards Creek Tributary near Ozona (e)	08447200	7.53	1967-73
Pecos River near Shumla (d)	08447400	35,162	1955-60
Pecos River near Comstock (d)	08447500	35,298	1900-54
Goodenough Springs near Comstock (e)	08448500	N/A	1929-60
Sonora Field Creek at Sonora (e)	08448800	2.60	1965-71
Devils River near Juno (d)	08449000	2,730	1925-49, 1964-73
Devils River near Comstock (d)	08449300	3,903	1955-58
Rough Canyon Tributary near Del Rio (e)	08449470	7.90	1967-73
Devils River near Del Rio (d)	08449500	4,185	1900-14, 1924-57
Evans Creek Tributary near Del Rio (e)	08449600	0.39	1966-73
Devils River near mouth, Del Rio (d)	08450500	4,305	1954-60

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Rio Grande near Del Rio (d)	08452500	123,303	1900-15, 1920, 1924-54
San Felipe Creek near Del Rio (e)	08453000	46.0	1931-60
Zorro Creek near Del Rio (e)	08453100	10.0	1966-74
East Perdido Creek near Brackettville (e)	08454900	3.39	1965-74
Pinto Creek near Del Rio (d)	08455000	249	1929-69, 1971-72
Rio Grande at San Antonio Crossing (d)	08458700	129,226	1952-60
Arroyo San Bartolo at Zapata (e)	08459600	0.61	1966-74
Rio Grande near Zapata (d)	08460500	163,344	1932-53
International Falcon Reservoir near Falcon Heights (d)	08461200	N/A	1953-60
Rio Grande at Roma (d)	08462500	166,464	1900-13, 1923-54
Rio Grande near Rio Grande City (d)	08465500	180,941	1932-54
Rio Grande Tributary near Rio Grande City (e)	08466100	1.20	1966-74
Rio Grande Tributary near Sullivan City (e)	08466200	0.40	1966-74
North Floodway South of McAllen (d)	08468000	N/A	1928-60
South Floodway South of McAllen (d)	08470000	N/A	1929-60
Rio Grande at Hildalgo (d)	08471500	176,100	1928-32, 1935, 1939, 1941-51
Rio Grande near Progreso Bridge (d)	08473300	176,228	1953-60
Rio Grande near San Beniot (d)	08473700	176,304	1953-60
Rio Grande at Matamoros, MX (d)	08474500	182,211	1900-13, 1923-54
Rio Grande near Brownsville (d)	08475000	176,333	1935-50

The following stations were discontinued as continuous-record surface-water-quality stations prior to the 2000 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,
				1994-97
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	1973-79,
			S	1994-97
Middle Pease River near Paducah	07307760	1,128	SC	1980-82,
			T	1980
Pease River near Childress	07307800	2,754	SC, T	1968-82,
				1994-97
Pease River near Crowell	07308000	3,037	SC	1942-43
Pease River near Vernon	07308200	3,488	SC,T	1999
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 Guthrie	07311790	499	SC	1971-79,
			Cl	1988-97,
			S	1978-79
Wichita River near Seymour	07311900	1,874	SC, T	1968-79
Beaver Creek near Electra	07312200	652	SC,T	1969-70
				1996-99
Little Wichita River near Archer City	07314500	481	SC	1953-55,
			T	1953-54
Little Wichita River near Henrietta	07314900	1,037	SC, DO	1999
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,

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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
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 near Beckville	08022040	3,589	SC, T	1952-98
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	SC	1945,
				1947-98
			T	1947-98
			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	1955-78,
			SC, T	1955-
Attoyac Bayou near Chireno	08038000	503	SC, T	1984-99
Sam Rayburn Reservoir near Jasper	08039300	3,449	SC, T	1964-84,
				1993-99
Angelina River below Sam Rayburn Dam near Jasper	08039400	3,449	SC, T	1964-79
Angelina River at SH 63 near Ebenezer	08039500	3,435	SC, T	1994-99
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,
Lake Worth above Fort Worth	08045400	2,064	pH, Cl	
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

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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	1967-75
Elm Fork Trinity River near Lewisville	08053000	1,673	SC	1982-86,
			T	1976-86
White Rock Creek at Greenville Avenue, Dallas	08057200	66.4	SC, pH, T, DO	1997-2000
Trinity River below Dallas	08057410	6,278	SC, T	1968-2000,
			S	1972-75,
				1998-2000
			Cl	1970-81,
				1998-99
Lavon Lake near Lavon	08060500	770	SC,T,CL	1969-74,
				1975,82,
				1995-99
Duck Creek near Garland	08061700	31.6	SC, pH, T, DO	1988-89
East Fork Trinity River above Seagoville	08061970	1,183	SC, T, pH, DO	1987-93
East Fork Trinity River at Seagoville	08061980	1,224	SC, pH, T, DO	1987-96
East Fork Trinity River near Crandall	08062000	1,256	SC, T	1968-1981,
				1987-2000
			pH, DO	1977,
				1986-2000
			Cl	1964-81,
				1986-2000
Trinity River at Trinidad	08062700	8,538	SC, T	1967-81
				1986-2000
			pH, DO	1967-81,
				1986-2000
			Cl	1966-94
			S	1978-94
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

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
West Fork San Jacinto River near Conroe	08068000	828	SC, T	1962-90,
			DO	1979-81
Panther Branch near Spring	08068450	34.50	S	1975-76
West Fork San Jacinto River near Humble	08069500	1,741	SC, Cl	1945-46
East Fork San Jacinto River near New Caney	08070200	388	SC,T	1984-99
San Jacinto River near Huffman	08071500	2,800	SC	1945-54,
			T	1949-54
Buffalo Bayou at West Belt Drive at Houston	08073600	307	SC, T	1979-81
Buffalo Bayou at Houston	08074000	358	SC, pH, T, DO	1986-2000
			Cl	1969-81
Whiteoak Bayou at Main Street, Houston	08074598	127	SC, T, DO	1992-97
Buffalo Bayou at Main Street, Houston	08074600	469	SC, T, DO	1986-92
Buffalo Bayou at McKee Street, Houston	08074610	469	SC, T, DO	1992-2000
			pH	1998-2000
Sims Bayou at Houston	08075500	63.0	SC, T, DO	1994-97
Chocolate Bayou near Alvin	08078000	87.70	SC, T	1978-81
North Fork Double Mountain Fork Brazos River near Post	08079575	438	SC, T	1984-93
Double Mountain Fork Brazos River near Rotan	08080000	8,536	SC, T	1950-51
Double Mountain Fork Brazos River near Aspermont	08080500	8,796	SC, T, S	1949-51
			SC, T	1957-95
McDonald Creek near Post	08080540	103	SC, T	1964-78
Salt Fork Brazos River near Peacock	08081000	4,619	SC, T	1950-51,
				1965-86
Croton Creek near Jayton	08081200	290	SC, T	1961-80
Salt Croton Creek near Aspermont	08081500	64.30	SC	1969-77,
			T	1972-73
Salt Fork Brazos River near Aspermont	08082000	5,130	SC, T, pH, Cl	1949-51,
			SC, T	1957-82
Stinking Creek near Aspermont	08082100	88.80	T	1950,
			SC, T	1966-69
North Croton Creek near Knox City	08082180	251	SC, T	1966-86
Brazos River at Seymour	08082500	15,538	SC, T	1960-95
Medina River near Somerset	08082800	967	SC, T, Cl	1998-2000
Clear Fork Brazos River at Hawley	08083240	1,416	SC, T	1968-79,
				1982-84
Clear Fork Brazos River at Nugent	08084000	2,199	SC, T, pH, Cl	1948-53
California Creek near Stamford	08084800	478	SC, T	1963-79
Paint Creek near Haskell	08085000	914	SC, T	1950-5
Clear Fork Brazos River at Fort Griffin	08085500	3,988	SC, T, S	1950-51,
			SC, T	1968-79,
				1982-84
Hubbard Creek near Sedwick	08086015	128	SC, T	1964-66
Deep Creek at Moran	08086050	228	SC, T	1963-75
Hubbard Creek near Albany	08086100	454	SC, T	1962-75
Salt Prong Hubbard Creek at U.S. Highway 380 near Albany	08086120	61	SC, T	1964-68
North Fork Hubbard Creek near Albany	08086150	39.30	SC, T	1964-90
Salt Prong Hubbard Creek near Albany	08086200	115	SC, T	1962-63
Snailum Creek near Albany	08086210	22.90	SC, T	1964-66
Battle Creek near Moran	08086235	108	SC, T	1967-68
Pecan Creek near Eolian	08086260	26.40	SC, T	1967-75
Big Sandy Creek near Breckenridge	08086300	288	SC, T	1962-77
Hubbard Creek near Breckenridge	08086500	1,089	SC, T	1955-75
Clear Fork Brazos River at Eliasville	08087300	5,697	SC, T	1962-82
Brazos River near South Bend	08088000	22,673	SC, Cl	1942-48,
			SC, T	1978-81
Salt Creek at Olney	08088100	11.80	SC, T	1958-60
Salt Creek near Newcastle	08088200	120	SC, T	1958-60

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Brazos River at Morris Sheppard Dam near Graford	08088600	23,596	SC	1942-91,
			T	1950-55,
				1966-91
Brazos River near Dennis	08090800	25,237	SC, T	1971-95
Brazos River at Whitney Dam near Whitney	08092600	27,189	SC, T	1947-97
Aquilla Creek above Aquilla	08093360	255	SC, T	1980-83
Aquilla Creek near Aquilla	08093500	308	SC, T	1966,
				1968-82
Brazos River near Highbank	08098290	30,436	T	1968-84
Leon River near Eastland	08098500	235	SC, T	1950-53
Leon River near Hasse	08099500	1,261	SC, T	1980-82,
				1990-97
Leon River near Belton	08102500	3,542	T	1957-72
South Fork Rocky Creek near Briggs	08103900	33.30	S	1963-65
Lampasas River at Youngsport	08104000	1,240	SC, T	1961-64
Little River near Little River	08104500	5,228	SC, T	1965-73,
				1980-82
Little River near Cameron	08106500	7,065	SC, T	1959-97
San Gabriel River near Weir	08105300	563	T	1977-82
San Gabriel River at Laneport	08105700	738	T	1977-82
Brazos River at State Highway 21 near Bryan	08108700	39,049	SC, T	1961-65
Brazos River near Bryan	08109000	39,515	SC, T	1966
Brazos River near College Station	08109500	39,599	SC, T	1961-84
Yegua Creek near Somerville	08110000	1,009	SC, T	1961-67
Navasota River above Groesbeck	08110325	239	SC, T	1968-89
Navasota River near Groesbeck	08110400	311	SC, T	1968-78
Navasota River near Easterly	08110500	968	SC	1942-43,
				1947
Navasota River near Bryan	08111000	1,454	SC, T	1959-81,
			S	1976-81
Brazos River near Richmond	08114000	45,007	S	1966-86,
			SC	1942-95,
			T	1951-95
Brazos River near Rosharon	08116650	45,399	SC, T	1969-80
Brazos River at Harris Reservoir near Angleton	08116700	44,000	SC	1962-77,
			T	1967-77
Brazos River at Brazoria Reservoir near Brazoria	08117200	44,000	SC	1962-77,
			T	1967-77
San Bernard River near Boling	08117500	727	SC, T	1978-81
Colorado River above Bull Creek near Knapp	08118200	N/A	SC, T, Cl	1950-52
Bull Creek near Ira	08118500	26.30	SC, T, pH, Cl	1950-51
Bluff Creek near Ira	08119000	42.60	SC, T, pH, Cl	1950
Colorado River near Ira	08119500	3,483	SC, T	1950-52,
				1959-70,
				1975-82,
			Cl	1951-52
Deep Creek near Dunn	08120500	198	SC, T	1953-54
Morgan Creek near Westbrook	08121500	273	T	1954-55
Graze Creek near Westbrook	08122000	21.70	T	1954-55
Morgan Creek near Colorado City	08122500	313	T	1947-49
Lake Colorado City near Colorado City	08123000	340	T	1954-55
Beals Creek above Big Spring	08123650	9,319	SC, T	1973-78
Beals Creek near Big Spring	08123700	9,341	SC, T	1956-57
Beals Creek near Coahoma	08123720	9,383	SC, T	1983-88
Colorado River near Silver	08123900	14,997	SC, T	1957-68
Colorado River at Robert Lee	08124000	15,307	SC, T, pH, Cl	1948-51,
			S	1949-51

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Oak Creek near Blackwell	08126000	209	SC, T	1950
Colorado River at Ballinger	08126500	16,413	SC, T	1961-79,
			S	1978-79
Pecan Bayou at Brownwood	08143500	1,660	SC, T	1948-49
Pecan Bayou near Mullin	08143600	2,073	SC, T	1968-91
San Saba River near San Saba	08145500	N/A	SC, T	1962-65
San Saba River at San Saba	08146000	3,046	SC	1962-69,
			T	1963-70
Colorado River near San Saba	08147000	37,217	SC, T	1947-92,
			S	1951-62
Llano River at Llano	08151500	4,197	SC, T	1979-81
Lake Austin at Austin	08154900	38,240	SC, T	1965-80
Barton Creek below Barton Springs at Austin	08155505	125	SC, T,	1965,
				1975-83,
				1989-91,
				1994-97
Waller Creek at 23rd Street at Austin	08157500	4.13	T	1955-60
East Bouldin Creek at South 1st Street, Austin	08157600	2.4	Cl	1997-2000
Colorado River at Austin	08158000	39,009	SC, T	1948-91
Colorado River above Columbus	08160700	41,403	SC, T	1983-86
Colorado River at Columbus	08161000	41,640	SC	1967-73,
			T	1957-59,
				1961-68
			S	1957-73
Colorado River at Wharton	08162000	42,003	SC	1945-92,
			T	1946-48,
Lavaca River near Edna	08164000	817	SC, T	1978-81
Navidad River near Speaks	08164350	437	SC, T, pH, Cl	1996-97
Navidad River near Ganado	08164500	826	SC, T	1960-80
Guadalupe River near Spring Branch	08167500	1,315	SC	1942-45
Guadalupe River at Sattler	08167800	1,436	T	1984-87
Blanco River at Wimberley	08171000	355	T	1977-78
Plum Creek near Luling	08173000	309	SC, T	1968-86
Sandies Creek near Westhoff	08175000	549	S	1966
			Cl	1962-99
Guadalupe River at Victoria	08176500	5,198	SC	1946-81,
			T	1951-81
Coleto Creek Reservoir (Condenser No. 1) near Fannin	08177360	414	T	1980-94
Coleto Creek Reservoir (outflow) near Victoria	08177410	494	T	1980-94
Olmos Creek at Dresden Drive, San Antonio	08177700	21.2	SC, pH, T, DO	1969-99
			S	1973
San Antonio River at San Antonio	08178000	41.8	SC, T	1991-92,
				1996-97
San Antonio River at Mitchell Street, San Antonio	08178050	42.4	SC, pH, T, DO	1992-99
San Antonio River at Loop 410 at San Antonio	08178565	125	SC, pH, T, DO	1987-2000
Medina River near Macdona	08180700	885	SC, pH, T, DO	1998-2000
Medina River at La Coste	08180640	805	SC, pH, T, DO	1987-95
Medio Creek at Pearsall Rd. at San Antonio	08180750	47.9	SC, pH, T, DO	1987-95
Ingram Road Outfall at Leon Creek Tributary at San Antonio	08181410	0.02	SC, pH, T, DO	1994-2000
Leon Creek at Interstate Highway 35 at San Antonio	08181480	219	SC, pH, T, DO	1985-2000
Medina River at San Antonio	08181500	1,317	SC, pH, T, DO	1987-2000
			Cl	1965-2000
San Antonio River near Falls City	08183500	2,113	SC, pH, T, DO	1987-96
Cibolo Creek near Falls City	08186000	827	SC, T	1969-91
Escondido Creek SWS #1 near Kenedy	08187000	3.29	S	1955-65
Guadalupe River at Tivoli	08188800	10,128	SC, T	1966-82
Mission River at Refugio	08189500	690	SC, T	1961-81

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Nueces River at Cotulla	08194000	5,171	SC	1942
Nueces River near Tilden	08194500	8,093	SC, T, S	1950
Frio River at Calliham	08207000	5,491	SC, T	1968-81
Nueces River near Three Rivers	08210000	15,427	SC	1945-47,
			SC, T, pH, Cl, S	1951-52,
			SC, T	1975-81
Nueces River at Bluntzer	08211000	16,772	SC, T	1948-91
Los Olmos Creek near Falfurrias	08212400	480	SC, T	1975-81
Rio Grande at El Paso	08364000	29,267	SC, pH, T, DO	1930-2000
Rio Grande at Fort Quitman	08370500	31,944	SC, T	1975-78.
Rio Grande at Foster Ranch near Langtry	08377200	80,742	SC, T	1975-81
Pecos River below Red Bluff Dam near Orla	08410100	20,720	SC	1937-69,
			T	1953-69
Salt Draw near Orla	08411500	464	SC, T	1943-48
Pecos River near Mentone	08414000	21,650	SC	1939
Pecos River at Pecos	08420500	22,100	SC	1939-41
Toyah Creek near Pecos	08431000	1,024	SC	1940,
				1944
Salt Draw near Pecos	08431500	1,882	SC	1940,
				1944
Toyah Creek below Toyah Lake near Pecos	08434000	3,709	SC	1940-50,
			Cl	1940
Pecos River below Grand Falls	08441500	27,820	SC	1939-42,
				1947-56
Pecos River near Girvin	08446500	29,560	SC	1940-41,
				1947,
				1954-82
			T	1954-59,
				1964-82
Pecos River near Sheffield	08447000	31,600	SC	1940-41,
				1947
Pecos River near Langtry	08447410	35,179	SC, T	1971-76,
				1981-85
Devils River at Pafford Crossing near Comstock	08449400	3,961	SC, T	1978-85
Rio Grande at Laredo	08459000	132,578	SC	1975-86,
			T	1974-76
Rio Grande at Roma	08462500	166,464	SC	1942-43
Rio Grande at Fort Ringgold, Rio Grande City	08464700	174,362	SC, pH, T	1959-2000
Rio Grande near Los Ebanos	08466300	N/A	SC, pH, T	1977-2000
Rio Grande at Mission Pumping Plant	08468000	171,800	SC	1945-50
Rio Grande below Anzalduas Dam	08469200	176,112	SC, pH, T	1967-72,
				1959-2000
Rio Grande at Cameron Co. WID #2 near San Benito	08473800	N/A	SC	1942-43
Rio Grande at Los Fresnos Pumping Plant near Brownsville	08474130	N/A	SC	1945-46
Rio Grande near Brownsville	08475000	176,333	SC	1943-44,
			SC, T	1967-83
			S	1966-83

WATER RESOURCES DATA—TEXAS, 2001

VOLUME 4

COLORADO RIVER BASIN, LAVACA 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 six 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 4 contains records for water discharge at 66 gaging stations; stage and contents at 14 lakes and reservoirs; and water quality at 41 gaging stations. Also included are data for 12 partial-record stations comprised of 3 flood-hydrograph, 6 low-flow, 1 crest-stage, and 2 miscellaneous measurement 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, and expanding to five volumes beginning with the 1999 water year. Ground-water 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-01-4." 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 (703)) 605-6000.

Additional information, including the current prices, for ordering specific reports may be obtained from the Texas District Chief at the address given on the back of the title page or by telephone (512) 927-3500.

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 water year 2001 are:

- Corps of Engineers, U.S. Army.
- International Boundary and Water Commission United States and Mexico, U.S. Section.
- National Park Service
- 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 Aquifer Authority; 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 Office of Emergency Management; Harris County Flood Control District: Houston-Galveston Area Council; Lavaca-Navidad River Authority; Lower Colorado River Authority; Lower Neches Valley Authority; North Central Texas Municipal Water Authority; Northeast Texas Municipal Water District; North Texas Municipal Water District; Orange County; Pecos River Commission; Red Bluff Water Power Control District; Red River Authority of Texas; 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; Titus County Fresh Water Supply District No. 1; Trinity River Authority; Upper Colorado 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.

Streamflow across the State averaged above normal during water year 2001.

Conservation storage in 77 selected reservoirs throughout the State, with a combined conservation capacity of 34,481,000 acre-feet, increased from 67 percent at the end of September 2000 to 76 percent at the end of September 2001. Records from these reservoirs indicate that storage increased in 54, decreased in 20, and remained the same in 3.

The area for which water resources data are presented in volume 4 includes the Colorado River Basin, Lavaca River Basin, and Intervening Costal Basins. The area described in volume 4 and the location of selected streamflow and water-quality stations in the area are shown in figure 1.

Streamflow

In the area covered in volume 4, streamflow averaged above normal during water year 2001. Streamflow for water year 2001 and for the period of record at two selected stations (fig. 1) for which data are included in volume 4 is presented in table 1.

At the four long-term hydrologic index stations in the State, monthly mean streamflow during water year 2001 averaged above normal. Monthly mean discharges for water year 2000 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 North Concho River near Carlsbad had above normal streamflow for October and November, below normal streamflow for May, and normal streamflow for the remaining 9 months. Streamflow for the station Guadalupe River near Spring Branch was above normal for November through April and September, and normal for the remaining 5 months. Streamflow at the station Neches River near Rockland was above normal during November through March, June, and September and normal for the remaining 5 months. The station North Bosque River near Clifton had above normal streamflow during November, January, February and March, below normal streamflow during June and August, and normal streamflow for the remaining 6 months of water year 2001

Conservation storage in 12 selected reservoirs in this area of the State, with a total combined conservation capacity of

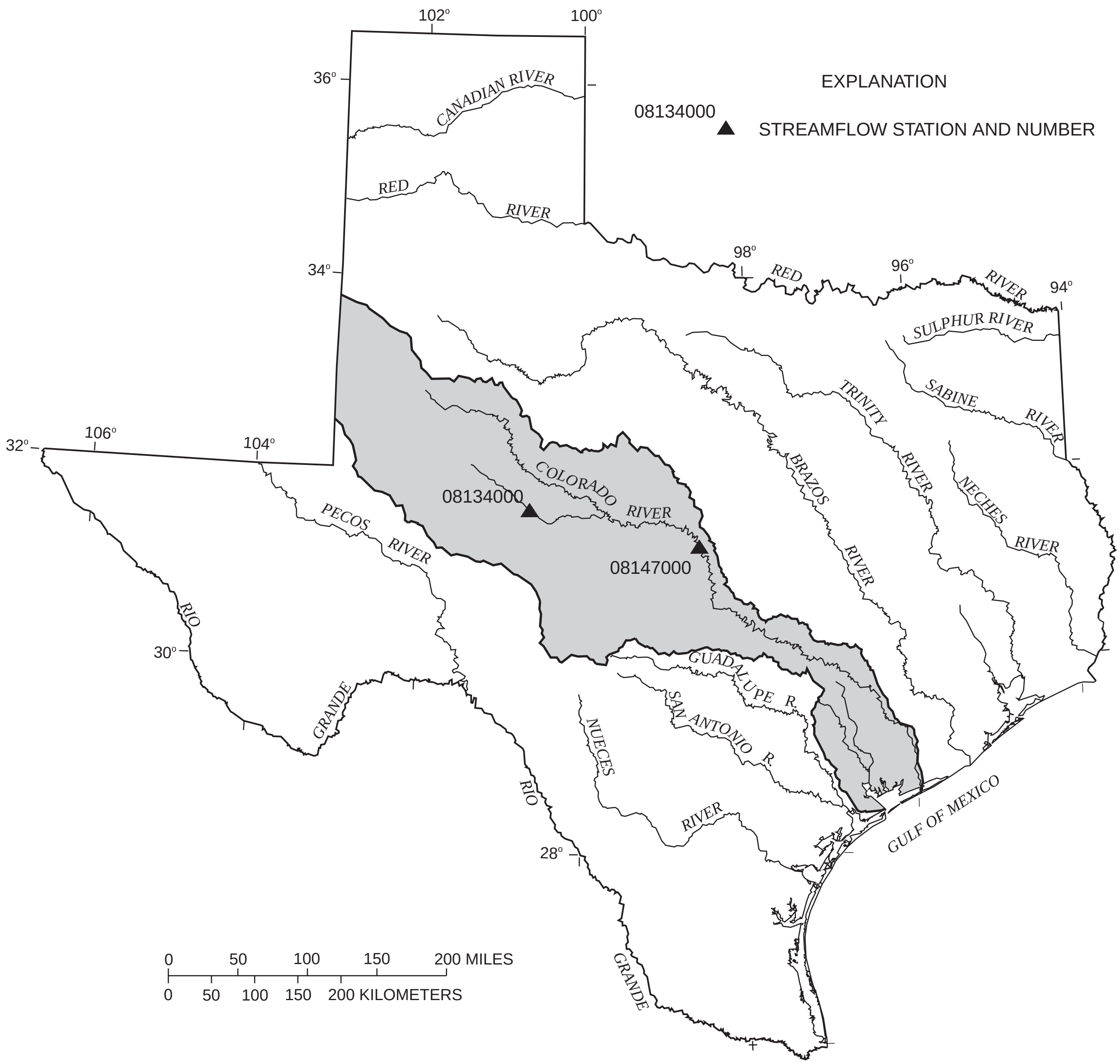
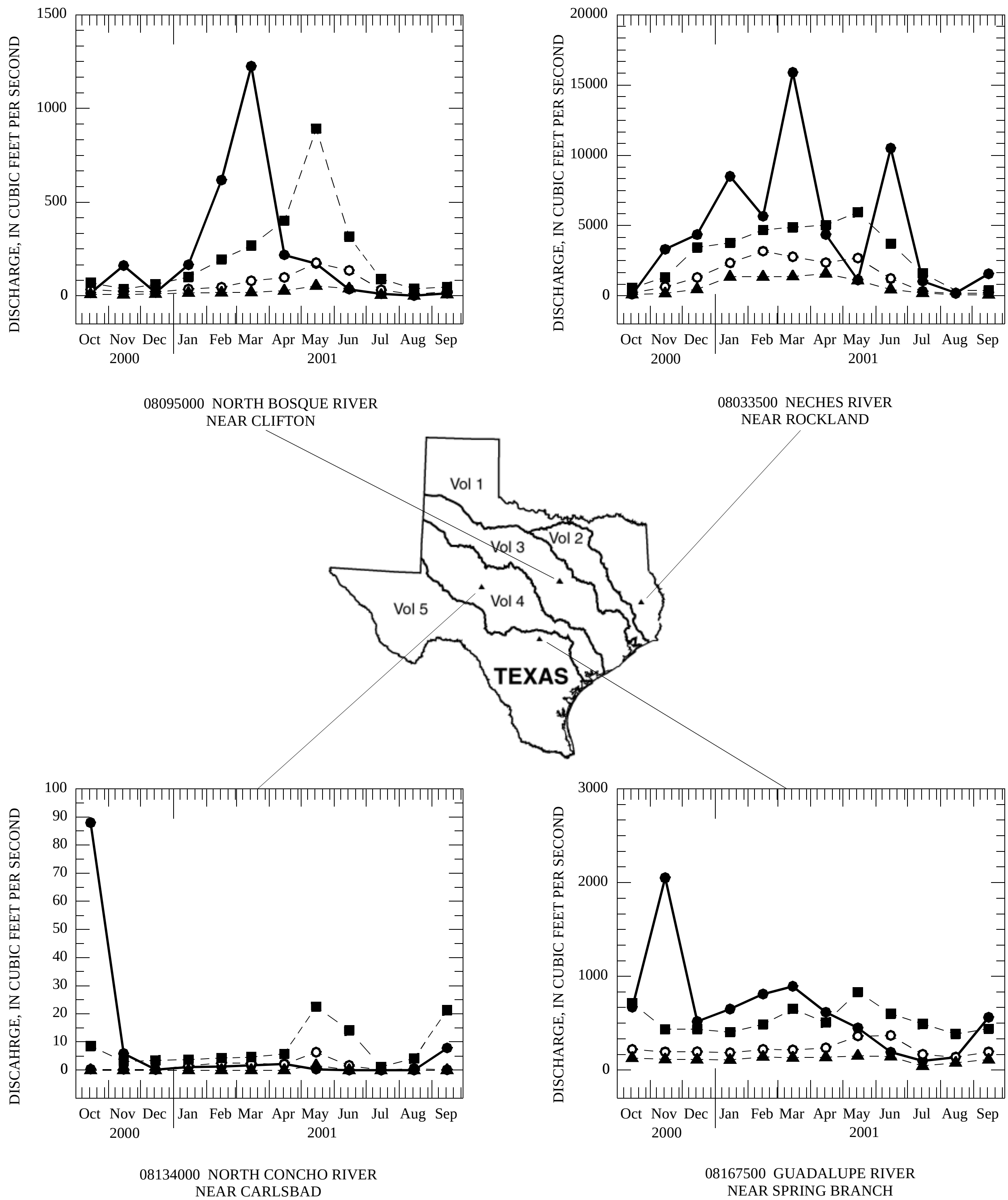


Figure 1. Area of Texas covered by volume 4 (shaded) and location of selected streamflow and water-quality stations in volume 4.



EXPLANATION

- MONTHLY MEAN DISCHARGE FOR 2001 WATER YEAR
- MEDIAN OF MONTHLY MEAN DISCHARGE FOR 1961–90 WATER YEARS
- 25 PERCENT QUARTILE
- 75 PERCENT QUARTILE

Figure 2. Monthly mean discharges at four long-term hydrologic index stations during 2001 water year and median of the monthly mean discharges for 1961–90 water years.

3,962,000 acre-feet, increased from 42 percent of capacity at the end of September 2000 to 60 percent of capacity at the end of September 2001. Records from these reservoirs indicate that storage increased in 5 and decreased in 7.

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 where discharge is controlled by reservoirs, the dissolved-solids concentrations may remain relatively constant despite substantial fluctuations in precipitation and runoff.

Table 1. Streamflow at two selected stations

Station no. and name		Discharge during 2001 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
Colorado River Basin							
08134000	North Concho River near Carlsbad, TX 1/	7,030	0	9.2	94,600	0	28.4 (1924-2001)
08147000	Colorado River near San Saba, TX	58,300	21	649	224,000	0	1,023 (1931-2001)

1/ Hydrologic index station.

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 streamflow representative of 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. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at http://water.usgs.gov/hbn/.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande. From 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. 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. Additional information about the NASQAN program can be found at http://water.usgs.gov/nasqan/.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation-chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Data from the network, as well as information about individual sites, are available through the World Wide Web at: http://nadp.sws.uiuc.edu/.

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 59 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.

The USGS National Water-Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDL's) and laboratory reporting levels (LRL's). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. The chance of falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as <LRL for samples in which the analyte was either not detected or did not pass identification. Analytes that are detected at concentrations between LT-MDL and LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the "E" remark code.

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 three NAWQA Programs operating in Texas; the Trinity NAWQA, the South Central Texas NAWQA, and the southern portion of the High Plains Ground-Water NAWQA.

Additional information about the NAWQA Programs are available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html
http://tx.usgs.gov/trin
http://tx.usgs.gov/sctx
http://co.water.usgs.gov/nawqa/hpgw

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 2001 water year that began October 1, 2000, and ended September 30, 2001. A calendar of the water year is provided on the inside of the front cover. The records contain stage and 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.

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 streamflow may be complete or partial. Complete records of discharge are those obtained using a stage-recording device through which either instantaneous or daily mean 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 for any time, or period of time. They may be obtained using a stage-recording device, but need not be. Because daily-mean discharges and daily-mean reservoir contents commonly are published for such stations, they are referred to as “daily stations.”

By contrast, partial records are obtained through discrete measurements 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 “Flood-hydrograph partial records, "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow channel gain and loss studies, may be considered as partial records, but they are presented separately in this report. Instantaneous peak discharges are presented for all but the low-flow partial-record stations.

Data Collection and Computation

The data obtained at a complete record gaging station on a stream or canal consist of records of stage (that is recorded every 5, 15, 30, or 60 minutes), 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 mean 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 relation between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute lake storage.

Records of stage are obtained with recorders at selected time intervals. Measurements of discharge are made with current meters and indirect procedures 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, TWRI, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves then are constructed. From these curves, rating tables indicating the 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 current-meter measurements, the curves can be 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. Stage-discharge ratings at gaging stations are described in TWRI, Book 3, Chapter A10.

Instantaneous discharges are computed by applying each individual recorded stage (gage height) to the stage-discharge table. The daily mean discharge is computed as the mean of the instantaneous discharges. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the 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 rating 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 backwater from reservoirs, tributary streams, bays, or other sources. This necessitates the use of the slope method in which the slope (fall) in a reach of the stream is a factor in computing discharge. The slope 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 relation 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 are determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. 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 relations much as other stream discharges are computed.

For some streamflow 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 stage sensor or recorder fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily mean 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-mean 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 errors in published water-quality records are discovered after publication, appropriate updates are made in the U.S. Geological Survey’s distributed data system, NWIS, and subsequently to its web-based National data system, NWISWeb [http://water.usgs.gov/nwis/nwis]. 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 NWIS or NWISWeb to ensure the most recent updates. Updates to NWISWeb are currently made on an annual basis.

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. Records of surface-water quality at some National Water Quality Accounting (NAWQA) Sites include data collected by different government agencies as identified in the water-quality data tables under AGENCY COLLECTING SAMPLE (CODE NUMBER). Values for this code are given below:

1028	-	U.S. Geological Survey
84823	-	International Boundary & Water Commission

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. A1, A3, and A4; Book 9, Chap. A1-A9. 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 (NASQAN) (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. Information on the method used to collect the sample at National Stream Quality Accounting Network sites is given in the water-quality data tables under SAMPLING METHOD. Values for this code are given below:

10	-	Equal Width Increment (EWI)
20	-	Equal Discharge Increment (EDI)
25	-	Timed Sampling Interval
30	-	Single Vertical
40	-	Multiple Verticals
50	-	Point Sample
60	-	Weighted Bottle
70	-	Grab Sample (DIP)
90	-	Discharge Integrated, Centroid
120	-	Velocity Integrated
8010	-	Other

Detailed information on sampling methods may be found in the following publications: OFR-90-127 “Guidelines for Collection and Analysis of Water-Quality Samples from Streams in Texas”, OFR-94-455 “Field Guide for Collecting and Processing Stream-Water Samples for the National Water-Quality Assessment Program”, and OFR-94-539 “U.S. Geological Survey protocol for the collection and processing of surface-water samples for the subsequent determination of inorganic constituents in filtered water”. Specific questions pertaining to water-quality sample collection may be directed to the District Water-Quality Specialist in Austin, Texas, or the Regional Water-Quality Specialist in Denver, Colorado.

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.

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 readings beginning at 0100 hours and ending at 2400 hours for the day of record.

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 (2001) 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 in the U.S. Geological Survey's distributed data system, NWIS, and subsequently to its web-based National data system, NWISWeb [http://water.usgs.gov/nwis/nwis]. 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 NWIS or NWISWeb to ensure the most recent updates. Updates to NWISWeb are currently made on an annual basis.

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.
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).
V	Analyte was detected in both the environmental sample and the associated blanks.
&	Biological organism estimated as dominant.
M	Presence of material verified but not quantified.

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 Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820-7495 (217-333-7873).

Water-Quality Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Source solution blank – a blank solution that is transferred to a sample bottle in an area of the office laboratory with an atmosphere that is relatively clean and protected with respect to target analytes.

Ambient blank – a blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

Field blank – a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank – a blank solution that is put in the same type of bottle used for an environmental sample, and kept with the set of sample bottles before and after sample collection.

Equipment blank – a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to field blank but normally done in the more controlled conditions of the office).

Sampler blank – a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Pump blank – a blank solution that is processed through the same pump-and-tubing system used for an environmental sample.

Standpipe blank – a blank solution that is poured from the containment vessel (stand-pipe) before the pump is inserted to obtain the pump blank.

Filter blank – a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank – a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank – a blank solution that is treated with the sample preservatives used for an environmental sample.

Canister blank – a blank solution that is taken directly from a stainless steel canister just before the VOC sampler is submerged to obtain a field blank sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this District are:

Concurrent sample – a type of replicate sample in which the samples are collected simultaneoulsy with two or more samplers or by using one sampler and alternating collection of samples into two or more compositing containers.

Sequential sample – a type of replicate sample in which the samples collected one after the other, typically over a short time.

Split sample – a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Concurrent sample – a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Split sample – a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (www). These data may be accessed at http://tx.usgs.gov

Some water-quality and ground-water data also are available through the www. In addition, data can be provided in various machine-readable formats on magnetic tape, 3-1/2 inch floppy disk or CD-ROM. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

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

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.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 to September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

Artificial substrate is a device that 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. (See also “Substrate”)

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. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also “Biomass”)

Bacteria are microscopic unicellular organisims, typically spherical, rodlike, 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.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peaks per year will be published.

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 ft) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler may also contain a component of the suspended load.

Bedload discharge (tons per day) is rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload” and “Sediment”)

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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 mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton which are autotrophic (plants). This is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) 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. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Bottom material See “Bed material”.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements on cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^3 h$ cylinder $\pi r^3 h$.

pi is the ratio of the circumference to the diameter of a circle; pi = 3.14159…

From cell volume, total algal biomass expressed as biovolume (μm^3/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

Cfs-day (See “Cubic foot per second-day”)

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens *(C. perfringens)* is a spore-forming bacterium that is common in the feces of human and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of waters and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well. (See also “Aquifer”)

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel downstream from a gaging station that physically influences the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, 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 saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-feet” sometimes is used synonymously with “cubic feet per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-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, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily-mean discharges reported in the daily-value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

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

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Daily mean suspended-sediment concentration,” “Sediment,” and “Suspended-sediment concentration”)

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data Collection Platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

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. (See also “Phytoplankton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediments or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents such as suspended sediment, bedload, and dissolved or suspended chemical constituents, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon Index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

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

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, 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. (See also “Ash mass,” “Biomass,” and “Wet mass”)

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants. (See also “Bacteria”)

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive, the index usually decreases with pollution.

Escherichia coli (E. coli) are bacteria present in the intestine and feces of warm-blooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium. Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an ‘E’ code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an ‘E’ code even though the measured value is greater than the MDL. A value reported with an ‘E’ code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also “Phytoplankton”)

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried streambed sediments. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediments.

Fecal coliform bacteria 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 plus or minus 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. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestine of warm-blooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 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. (See also “Bacteria”)

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly larger than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any National geodetic datum. However, if the elevation of the gage datum relative to the National datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the National datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height is often used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

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. (See also “Phytoplankton”)

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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 (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution which uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum\frac{(n)(a)}{N}$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See "Datum")

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

Hydrologic index stations referred to in this report are four continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

Inch (IN., in.), as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it. (See also "Annual runoff")

Instantaneous discharge is the discharge at a particular instant of time. (See also "Discharge")

Laboratory Reporting Level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a non-detection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually based on the most current quality-control data and may, therefore, change. [Note: In several previous NWQL documents (Connor and others, 1998; NWQL Technical Memorandum 98.07, 1998), the LRL was called the non-detection value or NDV—a term that is no longer used.)

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_o e^{-\lambda L} ,$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e\frac{I}{I_o} .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-Term Method Detection Level (LT–MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT–MDL data are collected on a continuous basis to assess year-to-year variations in the LT–MDL. The LT–MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT–MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also "Daily mean suspended-sediment concentration" and "Suspended-sediment concentration")

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

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

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.

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

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 (UG/G, µg/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 kilogram (UG/KG, µg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, µS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent 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.

Minimum Reporting Level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method (Timme, 1995).

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called “Sea Level Datum of 1929” or “mean sea level.” Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See “North American Vertical Datum of 1988”)

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also “Substrate.”)

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the U.S. This datum was established in 1991 by minimum-constraint adjustment of the Canadian**,** Mexican, and U.S. first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

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. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

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.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter Code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, Sedigraph) 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, as 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/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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation to the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

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

Percent shading is determined by using a clinometer to estimate left and right bank shading. The values are added together and divided by 180 to determine percent shading relative to a horizontal surface.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year, but at a frequency insufficient to develop a daily record.

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. Periphyton are useful indicators of water quality.

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed “acidic,” and solutions with a pH greater than 7 are termed “basic.” Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

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. (See also “Plankton”)

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 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. Concentrations are expressed as a number of cells per milliliter (cells/mL of sample).

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.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

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 (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. Carbon method defines 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. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. Oxygen method defines 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. (See also “Primary productivity”)

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

Recoverable from bed (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. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or non-exceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the non-exceedances of the $7Q_{10}$ occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council, and typically used to denote location along a river.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin in a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums, (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums. See conversion of units page (inside back cover) for identification of the datum used in this report.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment 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 and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Seven-day 10-year low flow (7Q10) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-run average. The recurrence interval of the 7Q10 is 10 years; the chance that the annual 7-day minimum flow will be less than the 7Q10 is 10 percent in any given year. (See also “Recurrence interval” and “Annual 7-day minimum”)

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. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 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.

Stable isotope ratio (per MILL/MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific waters, to evaluate mixing of different waters, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

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

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.

Substrate Embeddedness Class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as percent covered by fine sediment:

0	< no gravel or larger substrate		
1	> 75%		
2	51-75%	4	5-25%
3	26-50%	5	< 5%

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 ft) of the bed material such as that material which 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 operationally defined as 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 suspended water-sediment sample that is retained on a 0.45-micrometer 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 directly analyzing the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also "Sediment")

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). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/day) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross 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. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa richness is the total number of distinct species or groups and usually decreases with pollution. (See also "Percent Shading")

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical 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*

Temperature preferences:

Cold – preferred water temperature for the species is less than 20 °C or spawning temperature preference less than 16 °C and native distribution is considered to be predominantly north of 45° N. latitude.

Warm – preferred water temperatures for the species is greater than 20 °C or spawning temperature preference greater than 16 °C and native distribution is considered to be predominantly south of 45° N. latitude.

Cool – intermediate between cold and warm water temperature preferences.

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder’ is used in the table descriptions 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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (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, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 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 plus or minus 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. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as “total in bottom material.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume.”)

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Sediment,” “Suspended sediment,” “Suspended-Sediment Concentration,” “Bedload,” and “Bedload discharge”)

Total sediment load or total load is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-Sediment Load," and "Total load")

Trophic group:

Filter feeder – diet composed of suspended plant and/or animal material.

Herbivore – diet composed predominantly of plant material.

Invertivore – diet composed predominantly of invertebrates.

Omnivore – diet composed of at least 25-percent plant and 25-percent animal material.

Piscivore – diet composed predominantly of fish.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values. Consequently, the method of measurement and type of instrument used to derive turbidity records should be included in the "REMARKS" column of the Annual Data Report.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

Vertical datum (See "Datum")

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

Water table is the level in the saturated zone at which the pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which is found the water table.

Water year in USGS 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, 2001, is called the "2001 water year."

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.

Wet mass is the mass of living matter plus contained water. (See also "Biomass" and "Dry mass")

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also "Dry weight")

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

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, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also "Plankton")

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."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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 pages.

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 pages.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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 pages.

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

Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations,* by W.S. Keys and L.M. MacCary: USGS–TWRI 11.0

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

Section F. Drilling and Sampling Methods

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 pages.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

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 pages.

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 pages.

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

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

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

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

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

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

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 pages.

3-A10. *Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI Book 3, Chapter A10. 1984. 59 pages.

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 pages.

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 pages.

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

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

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

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

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

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 pages.

3-A19. *Levels of streamflow gaging stations,* by E.J. Kennedy: USGS–TWRI Book 3, Chapter A19. 1990. 27 pages.

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 pages.

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

Section B. Ground-Water Techniques

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

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 pages.

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 pages.

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

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 pages.

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 pages.

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 pages.

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 pages.

3-B8. *System and boundary conceptualization in ground-water flow simulation,* by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, Chapter B8. 2001. 29 pages.

Section C. Sedimentation and Erosion Techniques

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

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 pages.

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

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

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

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

Section B. Surface Water

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

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

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

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

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 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI Book 5, Chapter A2. 1971. 31 pages.

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 pages.

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 pages.

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 pages.

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 pages.

Section A. Sediment Analysis

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

Book 6. Modeling Techniques

Section A. Ground Water

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 pages.

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 pages.

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 pages.

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI Book 6, Chapter A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak. USGS–TWRI Book 6, Chapter A5. 1993. 243 pages.

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 pages.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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

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 pages.

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 pages.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

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 pages.

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

Section B. Instruments for Measurement of Discharge

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 pages.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling,* by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A1. 1998. 47 pages.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A2. 1998. 94 pages.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A3. 1998. 75 pages.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A5. 1999. 156 pages.

9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A5. 1999. 149 pages.

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements,* edited by F.D. Wilde and D.B. Radtke: USGS–TWRI Book 9, Chapter A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators,* edited by D.N. Myers and F.D. Wilde: USGS–TWRI Book 9, Chapter A7. 1997 and 1999. Variously paginated.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom Material Samples,* by D.B. Radtke: USGS–TWRI Book 9, Chapter A8. 1998. 48 pages.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Saafety in Field Activities,* by S.L. Lane and R.G. Fay: USGS–TWRI Book 9, Chapter A9. 1998. 60 pages.

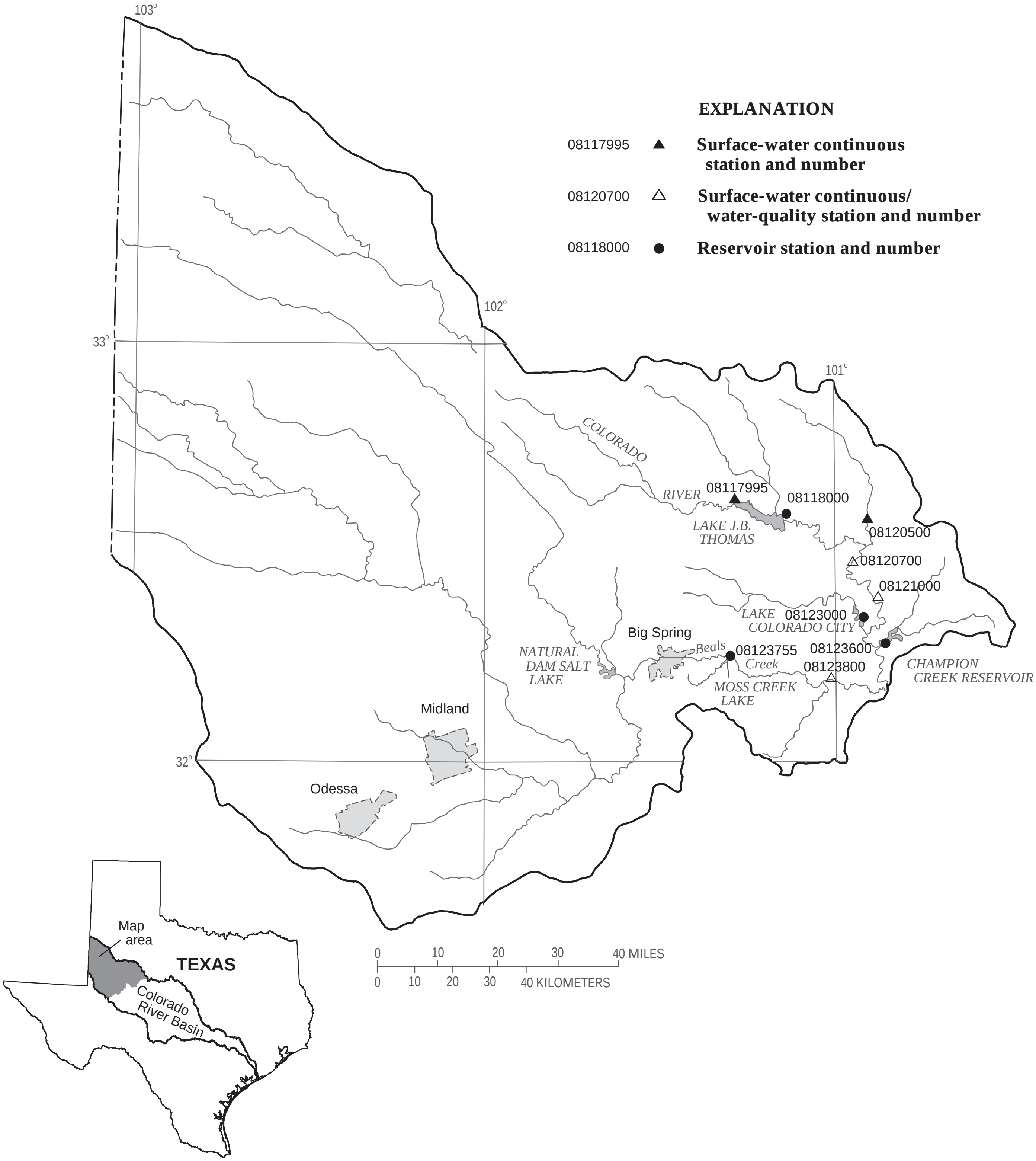


Figure 3.--Map showing location of gaging stations in the first section of the Colorado River Basin

08117995 Colorado River near Gail, TX

LOCATION.--Lat 32°37′43", long 101°17′06", Borden County, Hydrologic Unit 12080002, near right downstream end of bridge on FM 1205, 5.0 mi north of junction with FM 1785, 13 mi southeast of Gail, 14 mi northwest of Vincent, and 25 mi west of Ira.

DRAINAGE AREA.--498 mi^2.

PERIOD OF RECORD.--Mar. 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,240 ft above sea level, from topographic map. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges and Aug. 30 to Sept. 30, which are poor. No known regulation or diversions. No flow at times.

REVISIONS.--Revised maximum discharges for water years 1988-91 and revised daily mean discharges, in ft^3/s, for high-water period in July 1988 are given below. These figures supersede those published in the "Water Resources Data--Texas" reports for 1988-91.

Water year	Date	Discharge (ft^3/s)	Gage height (ft)
1988	July 3, 1988	2,120	15.88
1989	Sept. 14, 1989	1,310	13.19
1990	Apr. 19, 1990	1,490	13.97
1991	May 3, 1991	1,750	14.81

Daily mean discharges:

July 2, 1988....788
July 3, 1988....925

	TOTAL	MEAN	MAX	MIN	ANNUAL-RUNOFF (AC-FT)
July 1988	2,358.36	76.1	925	.41	4,680

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	7.3	.00	.00	.00	.24	.00	.00	.00	.00	.00	e.00
2	.00	5.6	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00
3	.00	4.5	.00	.00	.00	.00	.00	.17	.00	.00	.00	.00
4	.00	3.4	.00	.00	.00	.27	.00	.07	.00	.00	.00	4.1
5	.00	1.3	.00	.00	.00	.01	.00	.00	.00	.00	.00	e1.5
6	.00	.44	.00	.00	.00	.00	.00	1.2	.00	.00	.00	e2.0
7	.00	.28	.00	.00	.00	.00	.00	.10	.00	.00	.00	e10
8	.00	5.7	.00	.00	.00	.35	.00	.00	.00	.00	.00	e.02
9	.00	3.6	.00	.00	.00	3.0	.00	.00	.00	.00	.00	e.00
10	.00	.88	.00	.00	.00	15	.00	.00	.00	.00	.00	e.00
11	.00	.26	.00	.00	.00	3.9	.00	.00	.00	.00	.00	.00
12	.00	.11	.00	.00	.00	.78	.00	.00	.00	.00	.00	.00
13	.00	.04	.00	.00	.00	.14	.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	.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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	348
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	352
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	147
24	24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e5.0
25	184	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.02
26	996	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
27	1000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
28	188	.00	.00	.00	1.1	.00	.00	.00	.00	.00	.00	e.00
29	28	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	e.00
30	16	.00	.00	.00	---	.00	.00	.00	.00	.00	2.1	e.00
31	10	---	.00	.00	---	.00	---	.00	---	.00	e1.5	---
TOTAL	2446.00	33.41	0.00	0.00	1.10	23.76	0.00	1.54	0.00	0.00	3.60	869.81
MEAN	78.9	1.11	.000	.000	.039	.77	.000	.050	.000	.000	.12	29.0
MAX	1000	7.3	.00	.00	1.1	15	.00	1.2	.00	.00	2.1	352
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	4850	66	.00	.00	2.2	47	.00	3.1	.00	.00	7.1	1730

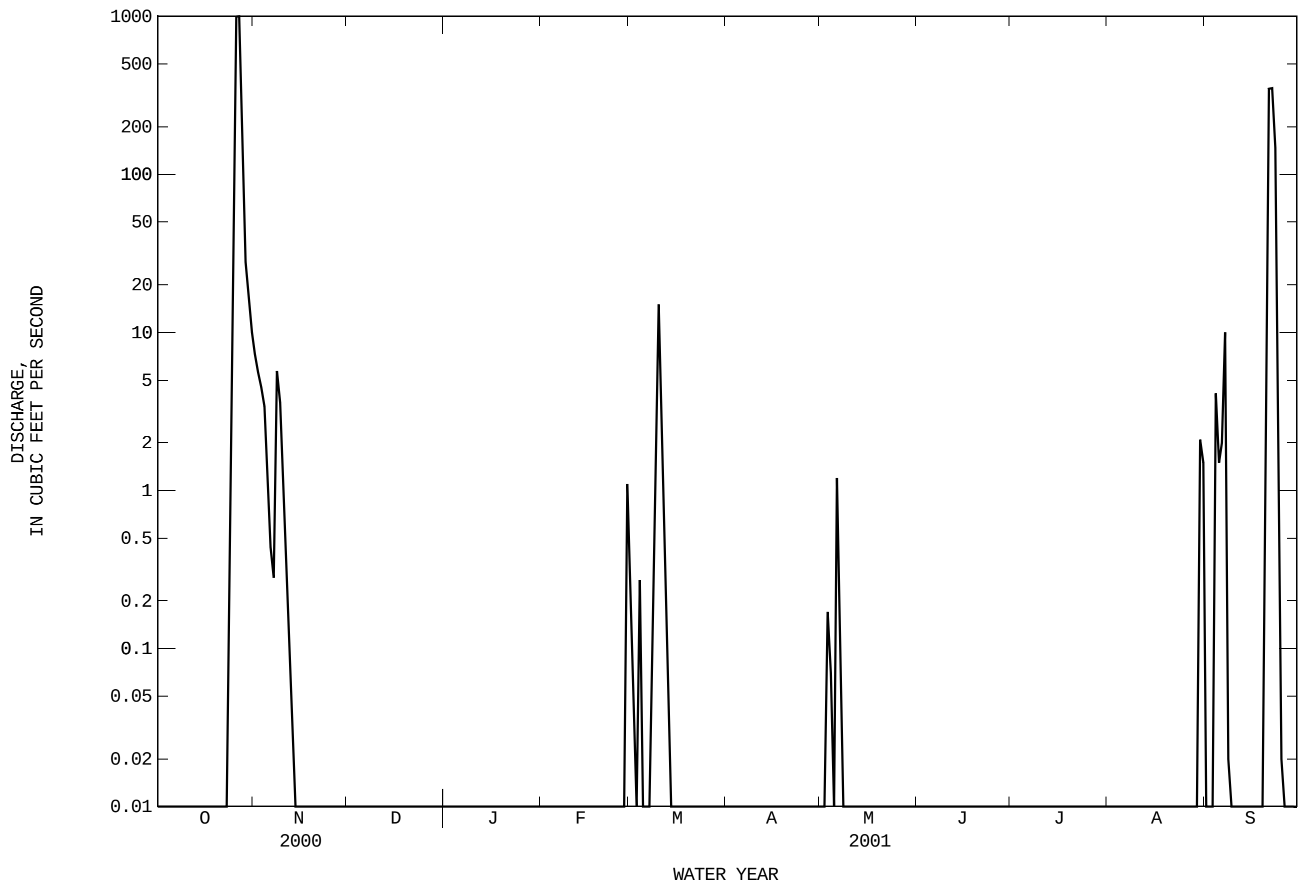
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.31	1.12	1.55	1.30	3.16	5.43	5.03	31.2	48.2	11.3	4.47	15.8
MAX	78.9	4.71	15.6	8.42	23.8	51.2	51.5	263	166	107	22.6	49.1
(WY)	2001	1992	1992	1992	1992	2000	1990	1992	1992	1988	1996	1989
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1990	1990	1995	1991	1991	1991	1993	1990	1994	1994	1997

08117995 Colorado River near Gail, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1988 - 2001	
ANNUAL TOTAL	8497.28		3379.22			
ANNUAL MEAN	23.2		9.26		11.0	
HIGHEST ANNUAL MEAN					46.2	1992
LOWEST ANNUAL MEAN					.48	1998
HIGHEST DAILY MEAN	1080	Jun 3	1000	Oct 27	2060	May 25 1992
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 7 1988
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 7 1988
MAXIMUM PEAK FLOW			1260	Oct 26	4010	Jul 3 1988
MAXIMUM PEAK STAGE			13.11	Oct 26	m16.43	May 26 1992
ANNUAL RUNOFF (AC-FT)	16850		6700		8000	
10 PERCENT EXCEEDS	8.8		.26		6.5	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
m Result of earthen dam.



08118000 Lake J.B. Thomas near Vincent, TX

LOCATION.--Lat 32°35'35", long 101°08'16", Scurry County, Hydrologic Unit 12080002, on upstream edge of dam 500 feet right of valve tower for Snyder pump station near center of dam on Colorado River, 8.5 mi west of Ira, 9.2 mi northeast of Vincent, and at mile 837.0.

DRAINAGE AREA.--3,389 mi^2, of which 2,371 mi^2 probably is noncontributing. Drainage area includes 455 mi^2 above Bull Creek diversion dam, of which 38 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1953 to Sept. 1986, Feb. 1999 to current year.
Water-quality records.--Chemical data: Feb. 1970 to May 1984.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Water-stage recorder and nonrecording gage read once daily from Oct. 1953 to Sept. 1986 at site 4.0 mi upstream at same datum. Nov. 4, 1953, to Feb. 7, 1955, Colorado River Municipal Water District nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records fair. The lake is formed by a rolled earthfill dam, 14,500 ft long. Storage began in July 1952 and the dam was completed in Sept. 1952. There was no appreciable storage prior to July 1953. There are two uncontrolled emergency spillways, both cut through natural ground and located as follows: the first is a 500 ft wide cut located at the left end of dam, and the second cut is 1,600 ft wide located at the right end of dam. These spillways are designed to discharge 161,000 ft^3/s (elevation, 2,275.0 ft). An uncontrolled rectangular concrete drop inlet, 38.0 by 53.0 ft at the crest, discharges into two 10.0 ft concrete conduits. In addition, there is an outlet that can release water through a 24-inch gate into a 30-inch concrete pipe. The dam was built by the Colorado River Municipal Water District to impound water for municipal and industrial supply for the cities of Big Spring, Odessa, and Snyder. A diversion dam on Bull Creek diverts water through a 13,000 ft long gravity canal into Lake J.B. Thomas. These diversions began in Nov. 1953. Conservation pool storage is 199,931 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	2,280.0
Crest of right spillway (south)	2,267.0
Crest of left spillway (north)	2,264.0
Crest of drop inlet	2,258.0
Lowest gated outlet (invert)	2,200.0

COOPERATION.--The capacity table dated July 1, 1953 was derived from area and capacity curves furnished by Colorado River Municipal Water District and is based on surveys made by Freese and Nichols in 1948 and 1950. A volumetric survey by the Texas Water Development Board in Nov. 1999 has not received final approval from the Colorado River Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 218,600 acre-ft, Sept. 8, 1962, elevation, 2,259.85 ft; minimum contents, 4,960 acre-ft, May 28, 1971, elevation, 2,206.43 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,200 acre-ft, Nov. 1, elevation, 2,221.52 ft; minimum contents, 15,390 acre-ft, Sept. 20, elevation, 2,214.35 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

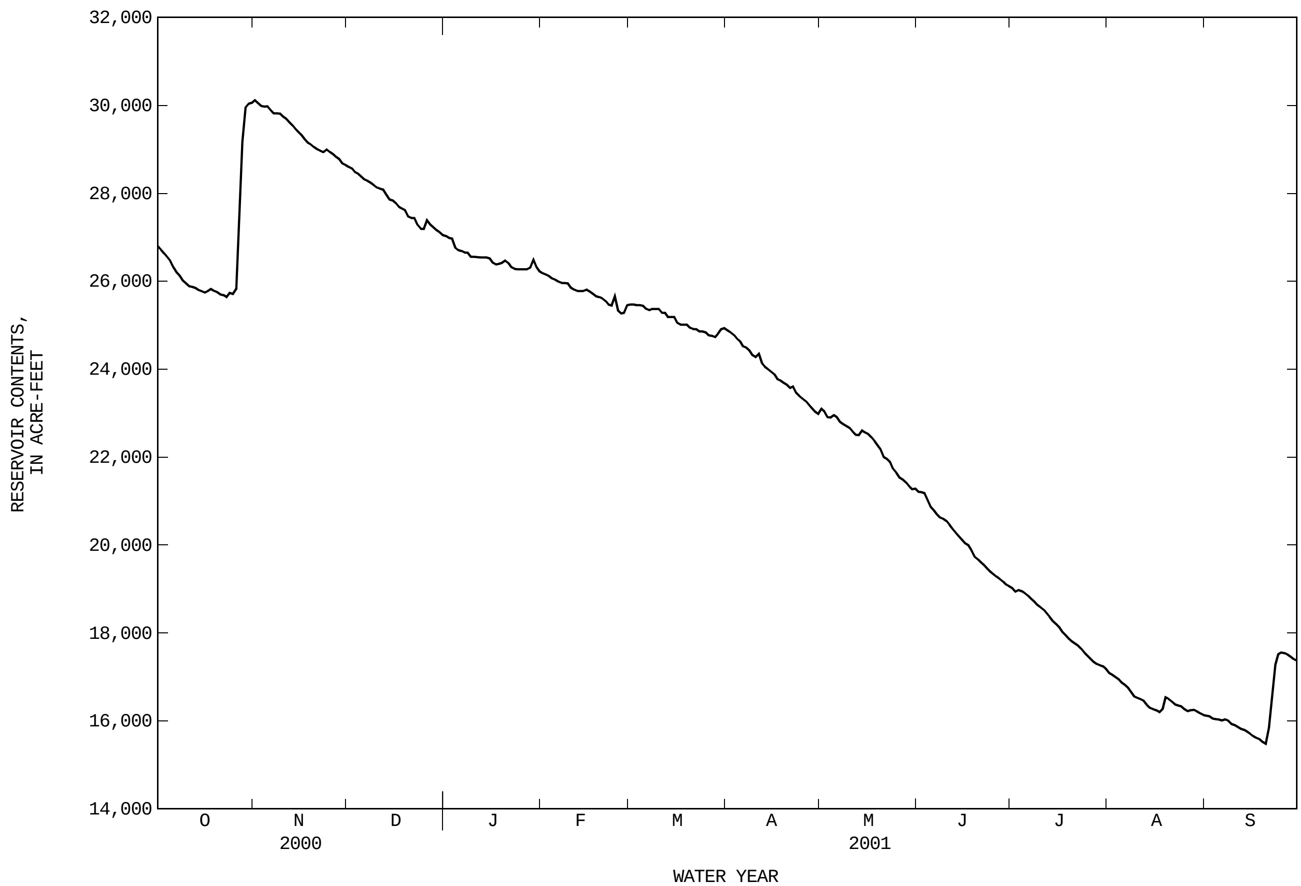
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26800	30120	28600	27030	26180	25470	24880	23100	21210	19020	17090	16120
2	26710	30050	28560	26990	26150	25470	24840	23040	21200	18940	17040	16100
3	26630	29990	28480	26970	26110	25460	24780	22910	21180	18970	16990	16050
4	26550	29970	28440	26770	26060	25460	24700	22900	21020	18950	16940	16040
5	26460	29980	28380	26710	26030	25440	24640	22950	20860	18910	16870	16030
6	26320	29890	28310	26690	25990	25370	24520	22910	20780	18850	16820	16010
7	26200	29820	28280	26650	25960	25340	24490	22800	20690	18780	16750	16030
8	26120	29820	28240	26650	25960	25370	24420	22750	20620	18710	16650	16000
9	26020	29810	28190	26560	25950	25370	24320	22700	20590	18640	16550	15930
10	25950	29750	28130	26560	25850	25370	24280	22660	20540	18590	16520	15910
11	25890	29700	28100	26550	25810	25280	24350	22580	20460	18530	16490	15860
12	25870	29620	28090	26540	25780	25280	24130	22510	20360	18440	16450	15820
13	25850	29540	27970	26540	25780	25190	24050	22500	20270	18360	16360	15800
14	25800	29460	27860	26540	25780	25190	24000	22600	20190	18270	16290	15750
15	25770	29390	27840	26520	25810	25190	23940	22560	20110	18200	16260	15710
16	25740	29320	27780	26420	25760	25050	23880	22520	20040	18130	16240	15650
17	25780	29220	27690	26380	25710	25010	23770	22450	19990	18020	16200	15610
18	25820	29140	27650	26400	25660	25010	23740	22360	19880	17950	16270	15580
19	25780	29110	27610	26420	25640	25010	23690	22260	19730	17870	16530	15520
20	25750	29050	27470	26470	25610	24940	23640	22170	19670	17810	16500	15480
21	25700	29000	27440	26410	25550	24910	23570	22000	19610	17760	16440	15840
22	25680	28960	27440	26320	25470	24910	23610	21950	19540	17710	16370	16590
23	25640	28940	27280	26280	25450	24860	23460	21880	19460	17640	16350	17270
24	25730	29000	27190	26270	25650	24860	23390	21730	19390	17550	16330	17510
25	25710	28940	27190	26270	25330	24840	23330	21640	19340	17480	16260	17550
26	25820	28890	27390	26270	25270	24770	23270	21530	19280	17410	16220	17540
27	27240	28820	27290	26270	25280	24760	23190	21490	19230	17340	16240	17500
28	29170	28780	27230	26310	25460	24730	23110	21420	19170	17290	16250	17450
29	29950	28680	27160	26490	---	24810	23030	21340	19100	17260	16210	17400
30	30040	28640	27120	26320	---	24910	22980	21270	19060	17240	16170	17360
31	30060	---	27050	26220	---	24930	---	21280	---	17180	16130	---

08118000 Lake J.B. Thomas near Vincent, TX--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26530	29380	27790	26510	25750	25110	23930	22280	20090	18120	16480	16300
MAX	30060	30120	28600	27030	26180	25470	24880	23100	21210	19020	17090	17550
MIN	25640	28640	27050	26220	25270	24730	22980	21270	19060	17180	16130	15480
(+)	2221.46	2220.87	2220.18	2219.81	2219.47	2219.23	2218.32	2217.50	2216.38	2215.36	2214.78	2215.46
(@)	+3190	-1420	-1590	-830	-760	-530	-1950	-1700	-2220	-1880	-1050	+1230

CAL YR 2000 MAX 37020 MIN 25640 (@) -2620
WTR YR 2001 MAX 30120 MIN 15480 (@) -9510

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.



08120500 Deep Creek near Dunn, TX

LOCATION.--Lat 32°34'25", long 100°54'27", Scurry County, Hydrologic Unit 12080002, at right end of downstream side of bridge on Farm Road 1606, 1.5 mi northwest of Dunn, 2.7 mi upstream from Sulphur Draw, and 9.6 mi upstream from mouth.

DRAINAGE AREA.--198 mi^2, of which 10 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Apr. 1953 to Sept. 1986, July 2001 to current year.
Water-quality records.--Specific conductance: Mar. 1953 to Sept. 1954. Water temperature: Mar. 1953 to Sept. 1954.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,172.17 ft above sea level (Texas Department of Transportation bridge plans). Prior to Apr. 21, 1955, nonrecording gage at site 128 ft left at same datum. Water-stage recorder 128 ft left at same datum from Apr. 1953 to Sept. 1986. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation or diversions. No flow many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1881, 36,400 ft^3/s June 19, 1939, by slope-area measurement at site 8.0 mi upstream from gage. Flood in 1892 reached about same stage as that of June 19, 1939, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.00	.00
2	---	---	---	---	---	---	---	---	---	---	.00	.00
3	---	---	---	---	---	---	---	---	---	---	.00	.15
4	---	---	---	---	---	---	---	---	---	---	.00	.00
5	---	---	---	---	---	---	---	---	---	---	.00	60
6	---	---	---	---	---	---	---	---	---	---	.00	4.5
7	---	---	---	---	---	---	---	---	---	---	.00	1.1
8	---	---	---	---	---	---	---	---	---	---	.00	.46
9	---	---	---	---	---	---	---	---	---	---	.00	.14
10	---	---	---	---	---	---	---	---	---	---	.00	.05
11	---	---	---	---	---	---	---	---	---	---	.00	.14
12	---	---	---	---	---	---	---	---	---	---	.00	.25
13	---	---	---	---	---	---	---	---	---	---	.00	.29
14	---	---	---	---	---	---	---	---	---	---	.00	.15
15	---	---	---	---	---	---	---	---	---	---	.00	.04
16	---	---	---	---	---	---	---	---	---	---	.00	.01
17	---	---	---	---	---	---	---	---	---	---	.00	.00
18	---	---	---	---	---	---	---	---	---	---	.00	.00
19	---	---	---	---	---	---	---	---	---	---	.00	.00
20	---	---	---	---	---	---	---	---	---	---	.00	.00
21	---	---	---	---	---	---	---	---	---	---	.00	1.4
22	---	---	---	---	---	---	---	---	---	---	.00	.58
23	---	---	---	---	---	---	---	---	---	---	.00	1.6
24	---	---	---	---	---	---	---	---	---	.00	.00	.67
25	---	---	---	---	---	---	---	---	---	.00	.00	.37
26	---	---	---	---	---	---	---	---	---	.00	.00	.35
27	---	---	---	---	---	---	---	---	---	.00	.00	.43
28	---	---	---	---	---	---	---	---	---	.00	.00	.44
29	---	---	---	---	---	---	---	---	---	.00	.00	.38
30	---	---	---	---	---	---	---	---	---	.00	.00	.33
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	0.00	73.83
MEAN	---	---	---	---	---	---	---	---	---	---	.000	2.46
MAX	---	---	---	---	---	---	---	---	---	---	.00	60
MIN	---	---	---	---	---	---	---	---	---	---	.00	.00
AC-FT	---	---	---	---	---	---	---	---	---	---	.00	146

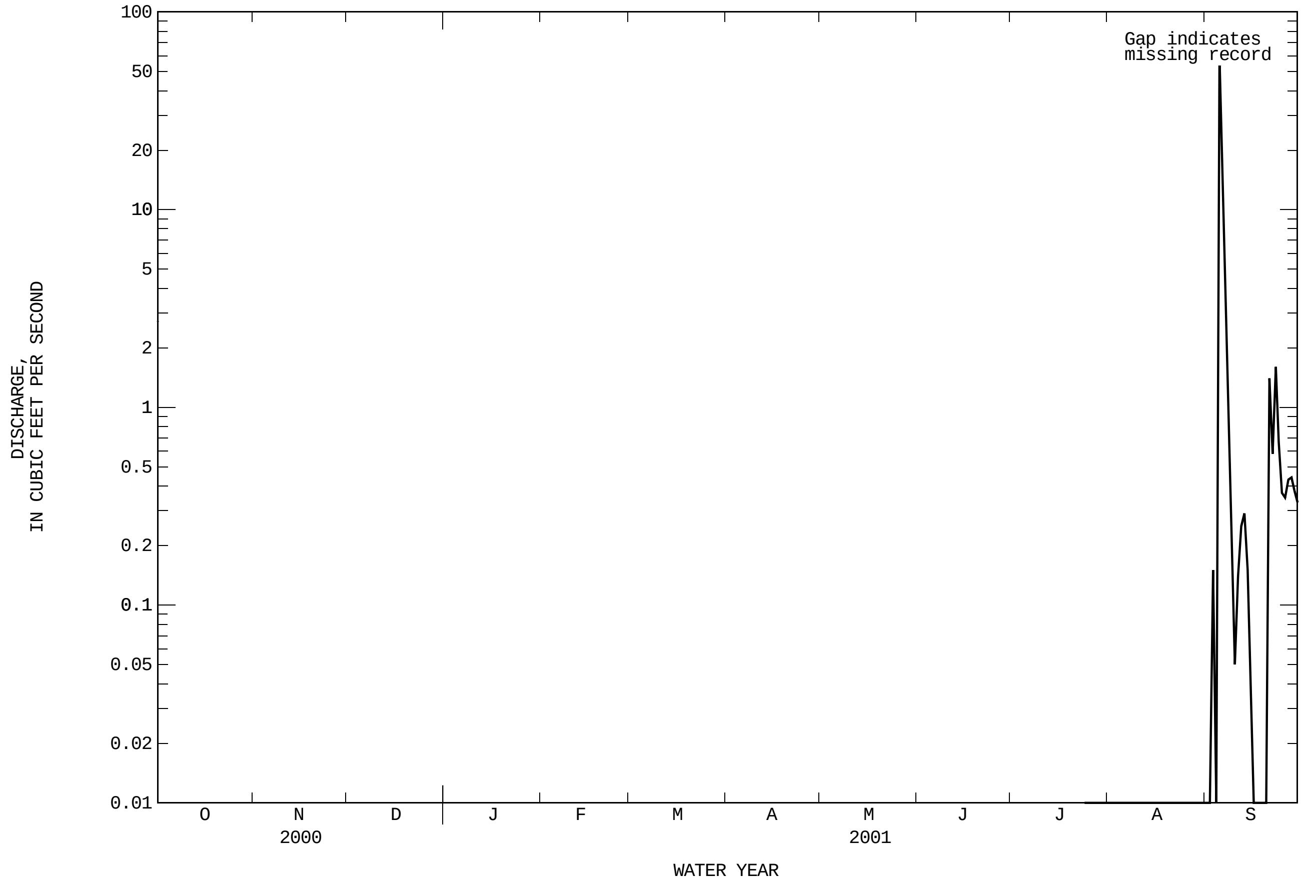
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.09	2.40	1.47	1.39	3.30	2.29	9.54	39.7	26.1	7.01	22.0	15.2
MAX	96.9	18.8	5.92	5.55	58.3	20.5	88.3	253	252	66.0	316	214
(WY)	1956	1985	1985	1983	1957	1973	1957	1957	1967	1959	1972	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.005	.000	.000	.000	.000
(WY)	1955	1955	1954	1955	1965	1954	1955	1967	1953	1954	1956	1954

SUMMARY STATISTICS	FOR 2001 WATER YEAR		WATER YEARS 1953 - 2001h	
ANNUAL MEAN			11.9	
HIGHEST ANNUAL MEAN			38.5	1957
LOWEST ANNUAL MEAN			1.14	1970
HIGHEST DAILY MEAN	60	Sep 5	6990	Aug 14 1972
LOWEST DAILY MEAN	.00	Jul 24	.00	Apr 1 1953
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 24	.00	Apr 1 1953
MAXIMUM PEAK FLOW	cc279	Sep 5	c20700	Aug 14 1972
MAXIMUM PEAK STAGE	5.98	Sep 5	a31.28	Aug 14 1972
ANNUAL RUNOFF (AC-FT)			8630	
10 PERCENT EXCEEDS	.58		3.9	
50 PERCENT EXCEEDS	.00		.57	
90 PERCENT EXCEEDS	.00		.00	

h See PERIOD OF RECORD paragraph.
cc From rating curve extended above 94 ft^3/s.
c From rating curve extended above 12,300 ft^3/s on basis of velocity area study.
a From floodmark.

08120500 Deep Creek near Dunn, TX--Continued



08120700 Colorado River near Cuthbert, TX

LOCATION.--Lat 32°28'38", long 100°56'58", Mitchell County, Hydrologic Unit 12080002, on left bank at downstream side of bridge on Farm Road 1808, 4.0 mi downstream from Deep Creek, 4.8 mi east of Cuthbert, 8.0 mi northwest of Colorado City, and at mile 810.0.

DRAINAGE AREA.--3,912 mi^2, of which 2,381 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Mar. 1965 to current year.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,073.49 ft above sea level. Oct. 29, 1987 to Oct. 23, 1989, water-stage recorder at site on right bank 300 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in Mar. 1965, at least 10% of contributing drainage area has been regulated. There are numerous diversions from Lake J.B. Thomas for municipal use and for oil field operations. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in 1941 and 1946 reached a stage of 36.1 ft, from Texas Department of Transportation bridge plans.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.0	2.8	4.0	3.6	11	5.0	2.3	.93	.00	.00	.00
2	.00	.88	1.9	3.3	2.9	20	5.1	23	4.0	.00	.00	.00
3	.00	2.9	1.3	3.1	2.8	16	5.0	9.4	1.2	.00	.00	1.1
4	.00	2.8	1.4	3.1	3.0	10	5.1	14	.61	.00	.00	7.3
5	.00	1.6	2.2	2.9	3.0	10	5.4	30	.49	.00	.00	26
6	.00	.96	2.6	3.1	3.2	9.0	5.8	33	.32	.00	.00	18
7	.00	.70	2.2	3.6	3.3	5.9	5.8	12	.14	.00	.00	4.9
8	.00	2.0	2.0	3.5	3.6	5.9	5.5	6.9	.05	.00	.00	2.7
9	.00	5.2	2.0	3.1	3.7	6.6	5.5	5.3	.02	.00	.00	.69
10	.00	9.5	2.0	3.9	6.5	9.3	5.6	4.3	.00	.00	.00	.19
11	.00	5.6	1.6	6.5	6.3	7.0	5.5	3.7	.00	.00	.00	.06
12	.00	2.8	1.2	9.5	4.4	5.6	5.2	3.0	.00	.00	.00	.02
13	.00	1.2	1.8	6.7	3.8	5.1	5.1	2.6	.00	.00	.00	.00
14	.00	.80	2.1	4.6	5.4	5.2	5.0	3.1	.00	.00	.00	.00
15	.00	.81	2.6	3.6	11	5.1	6.1	4.6	.00	.00	6.6	.00
16	.00	.87	2.6	3.2	16	4.6	6.8	2.9	.00	.00	.85	.00
17	12	.87	2.1	3.2	11	4.6	6.3	1.9	.00	.00	.00	.00
18	18	.93	1.8	3.3	7.0	5.5	6.1	1.2	.00	.00	.00	.00
19	5.3	1.1	1.4	3.0	5.3	6.2	6.3	.74	.00	.00	.00	.00
20	.88	1.2	1.5	2.9	4.8	6.6	6.1	.53	.00	.00	.00	.00
21	.37	1.0	1.5	2.9	4.4	6.4	6.8	.34	.00	.00	.17	13
22	.29	1.1	1.7	2.8	3.9	5.9	6.2	.19	.00	.00	.62	30
23	.20	1.5	1.6	2.9	4.1	5.7	5.1	.12	.00	.00	.11	28
24	14	11	.88	2.9	4.3	20	4.1	.06	.00	.00	.01	5.4
25	23	15	1.5	3.0	3.6	23	3.8	.05	.00	.00	.00	1.3
26	155	10	2.6	3.1	3.5	8.3	3.7	.04	.00	.00	5.2	.46
27	24	5.9	2.9	2.7	3.6	5.7	3.5	.04	.00	.00	4.2	.21
28	11	3.9	3.3	3.1	4.8	5.7	3.5	.02	.00	.00	.60	.12
29	18	3.0	3.4	4.5	---	5.4	3.2	.01	.00	.00	.05	.09
30	11	2.9	3.5	6.5	---	5.2	2.6	.01	.00	.00	1.7	.05
31	5.0	---	4.4	5.2	---	5.0	---	.02	---	.00	.06	---
TOTAL	298.04	100.02	66.38	119.7	142.8	255.5	154.8	165.37	7.76	0.00	20.17	139.59
MEAN	9.61	3.33	2.14	3.86	5.10	8.24	5.16	5.33	.26	.000	.65	4.65
MAX	155	15	4.4	9.5	16	23	6.8	33	4.0	.00	6.6	30
MIN	.00	.70	.88	2.7	2.8	4.6	2.6	.01	.00	.00	.00	.00
AC-FT	591	198	132	237	283	507	307	328	15	.00	40	277

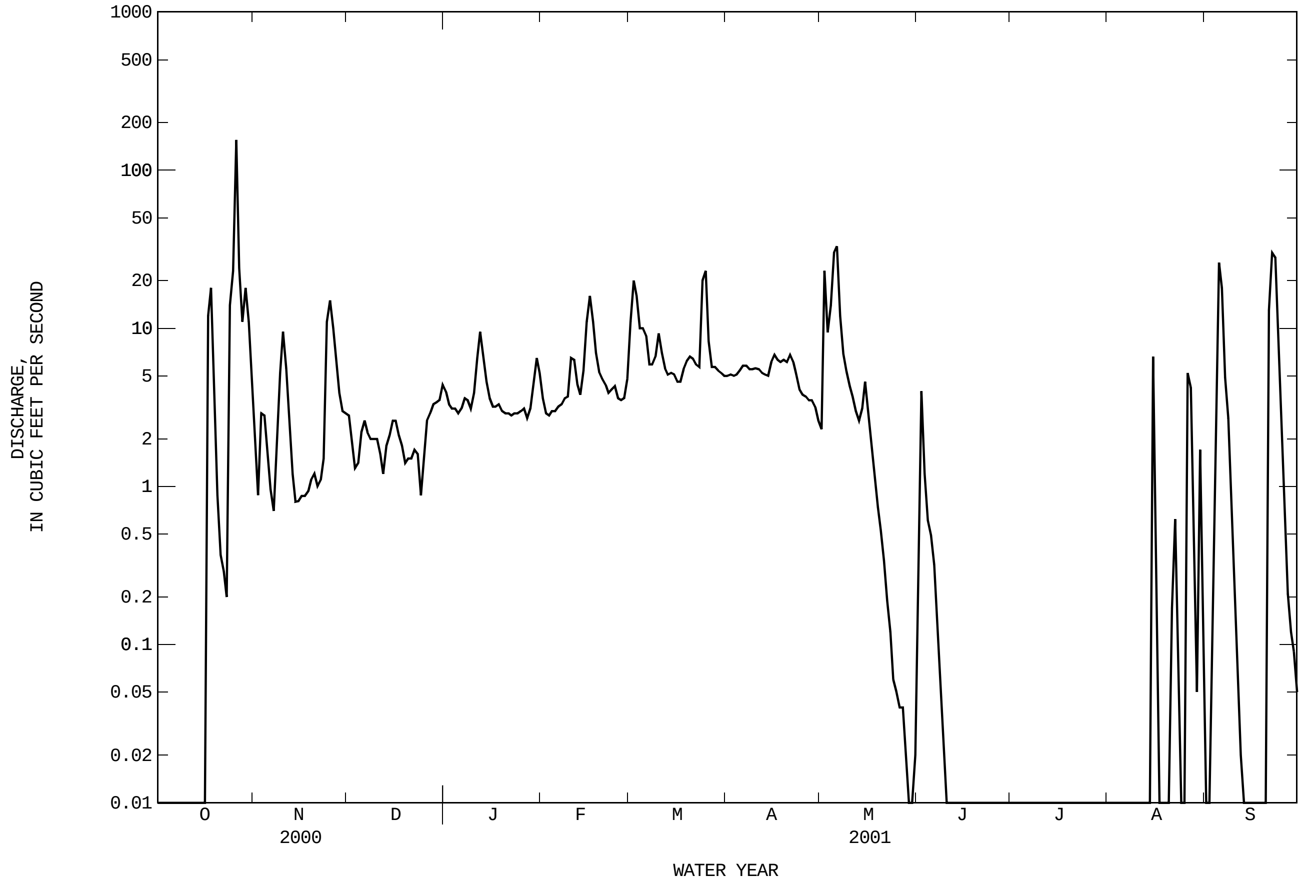
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.9	7.80	7.70	7.05	10.8	21.3	27.1	69.3	80.8	17.3	52.7	47.0
MAX	304	37.1	51.5	30.2	86.5	420	204	403	592	131	771	810
(WY)	1987	1985	1992	1992	1992	2000	1981	1965	1982	1988	1971	1980
MIN	.000	.092	.53	.68	.82	.20	.39	.044	.000	.000	.000	.000
(WY)	1969	1971	1971	1971	1971	1971	1971	1967	1984	1970	1970	1983

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1965 - 2001	
ANNUAL TOTAL	15522.50		1470.13			
ANNUAL MEAN	42.4		4.03		30.8	
HIGHEST ANNUAL MEAN					104	1980
LOWEST ANNUAL MEAN					2.59	1998
HIGHEST DAILY MEAN	8670	Mar 23	155	Oct 26	8770	Sep 29 1980
LOWEST DAILY MEAN	.00	Aug 3	.00	Oct 1	.00	Apr 13 1965
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 3	.00	Oct 1	.00	Apr 13 1965
MAXIMUM PEAK FLOW			216	Oct 26	c15100	Mar 23 2000
MAXIMUM PEAK STAGE			5.80	Oct 26	p29.55	Mar 23 2000
ANNUAL RUNOFF (AC-FT)	30790		2920		22310	
10 PERCENT EXCEEDS	12		9.1		24	
50 PERCENT EXCEEDS	2.0		2.3		3.9	
90 PERCENT EXCEEDS	.00		.00		.00	

c From rating curve extended above 14,800 ft^3/s.
p Observed.

08120700 Colorado River near Cuthbert, TX--Continued



08120700 Colorado River near Cuthbert, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Mar. 1965 to Sept. 1999, Feb. 2001 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Mar. 1965 to May 1980 (local observer), June 1980 to Oct. 1987, Nov. 1987 to Sept. 1989 (local observer), Oct. 1989 to Sept. 1999, Feb. 2001 to current year.
WATER TEMPERATURE: Mar. 1965 to May 1980 (local observer), Apr. 1983 to Oct. 1987, Nov. 1987 to Sept. 1989 (local observer), Oct. 1989 to Sept. 1999, Feb. 2001 to current year.

INSTRUMENTATION.--Specific conductance recorder from Mar. 1965 to Oct. 1987, Oct. 1989 to Sept. 1999, Feb. 2001 to current year. Water temperature recorder from Apr. 1983 to Oct. 1987, Oct. 1989 to Sept. 1999, Feb. 2001 to current year.

REMARKS.--Records good. Interruptions in the record were due to no flow. No flow June 10 to Aug. 14, Aug. 17-20, 25, Sept. 1, 2, 13-20. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed for previous years using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 70,000 microsiemens/cm, Nov. 17, 1968; minimum, 102 microsiemens/cm, Sept. 28, 1980.
WATER TEMPERATURE: Maximum, 36.0°C, Aug. 7, 1985; minimum, 0.0°C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 14,100 microsiemens/cm, May 2; minimum, 232 microsiemens/cm, Aug. 15.
WATER TEMPERATURE: Maximum, 33.2°C, June 6; minimum, 3.2°C, Feb. 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
FEB													
21...	1530	4.4	3620	12.4	563	144	49.7	525	9.63	7.89	413	832	.6
MAR													
29...	1215	5.5	3030	11.4	509	133	42.8	412	7.96	7.18	350	662	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
FEB	
21...	2.5
MAR	
29...	1.1

08120700 Colorado River near Cuthbert, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
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7	---	---	---	---	---	---	---	---	---	---	---	---
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9	---	---	---	---	---	---	---	---	---	---	---	---
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12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
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24	---	---	---	---	---	---	---	---	---	---	---	---
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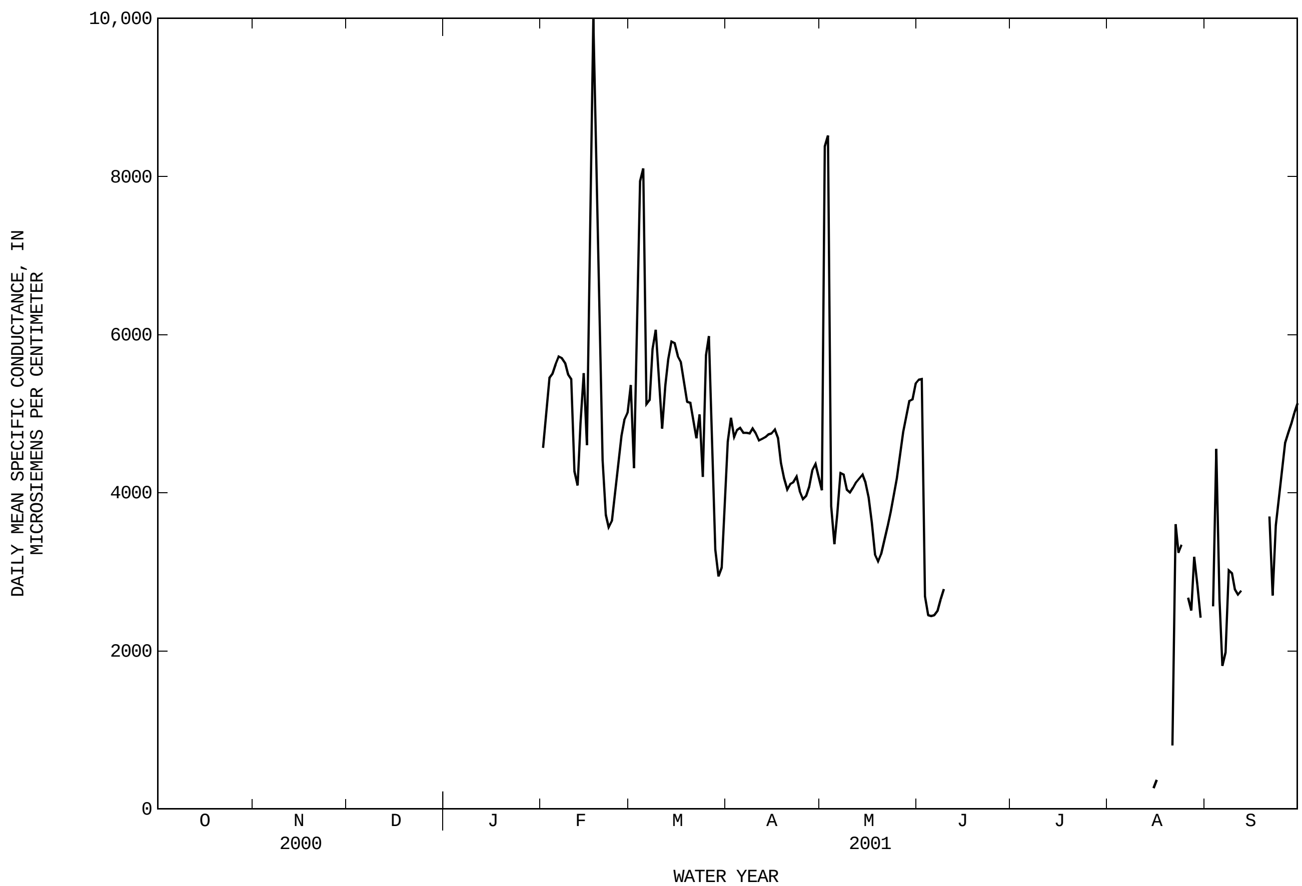
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4790	4440	4570	5890	4840	5360	5010	4340	4650	4080	3930	4030
2	5230	4790	5010	5040	3380	4310	5070	4790	4950	14100	3830	8380
3	5540	5230	5450	7480	5040	6070	4800	4630	4700	13600	5200	8520
4	5540	5460	5500	8250	7480	7940	4870	4720	4790	5200	2330	3830
5	5690	5530	5620	8440	6410	8100	4900	4730	4820	5480	1680	3350
6	5750	5670	5720	6410	4930	5120	4790	4720	4760	5480	3170	3730
7	5770	5640	5700	5530	4980	5170	4820	4700	4760	4460	3580	4250
8	5670	5510	5640	5950	5530	5820	4780	4720	4750	4400	4130	4230
9	5550	5430	5500	6190	5910	6060	4840	4780	4810	4140	3950	4040
10	5590	5360	5440	6290	4280	5390	4830	4670	4750	4030	3970	4000
11	5600	3820	4270	5120	4360	4810	4740	4570	4660	4100	4020	4060
12	4390	3870	4090	5560	5120	5360	4750	4600	4680	4190	4060	4130
13	5360	4390	4880	5860	5560	5690	4740	4650	4700	4220	4130	4180
14	5720	3920	5510	5990	5860	5910	4790	4700	4740	4270	4170	4230
15	5260	3310	4600	6010	5770	5890	4790	4720	4750	4190	4020	4130
16	11400	5260	8070	5910	5570	5730	4870	4730	4800	4030	3830	3940
17	11700	8950	10000	5740	5590	5660	4790	4530	4690	3830	3380	3620
18	9090	6580	8160	5600	5300	5410	4530	4260	4380	3400	3110	3220
19	6580	4940	5670	5330	4950	5150	4290	3990	4180	3160	3100	3130
20	4940	3990	4410	5190	5080	5140	4100	3970	4040	3300	3160	3220
21	3990	3630	3720	5190	4610	4910	4150	4070	4110	3520	3300	3400
22	3650	3510	3560	4910	4610	4690	4180	4070	4130	3700	3500	3570
23	3780	3550	3640	5120	3430	4990	4250	4130	4200	3840	3690	3760
24	4220	3780	4010	8600	1890	4200	4130	3950	4020	4080	3830	3950
25	4490	4220	4350	8590	3480	5740	3970	3860	3920	4400	4060	4180
26	4890	4490	4720	6090	5480	5980	3990	3920	3960	4720	4340	4460
27	4980	4880	4920	5890	3750	4720	4160	3990	4070	4940	4620	4770
28	5160	4800	5010	3750	3000	3280	4390	4160	4280	5070	4870	4970
29	---	---	---	3000	2900	2940	4410	4290	4360	5300	5040	5160
30	---	---	---	3330	2930	3050	4290	3900	4190	5320	5100	5180
31	---	---	---	4340	3330	3780	---	---	---	5500	5250	5380
MONTH	11700	3310	5280	8600	1890	5240	5070	3860	4490	14100	1680	4350

08120700 Colorado River near Cuthbert, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5620	4040	5430	---	---	---	---	---	---	---	---	---
2	7440	3380	5440	---	---	---	---	---	---	---	---	---
3	3380	2460	2690	---	---	---	---	---	---	3460	2140	2560
4	2480	2400	2450	---	---	---	---	---	---	6070	2650	4550
5	2460	2400	2440	---	---	---	---	---	---	4400	1260	2650
6	2470	2410	2450	---	---	---	---	---	---	1900	1330	1810
7	2570	2460	2500	---	---	---	---	---	---	2080	1880	1980
8	2730	2570	2650	---	---	---	---	---	---	3240	2080	3020
9	2850	2720	2780	---	---	---	---	---	---	3200	2850	2980
10	---	---	---	---	---	---	---	---	---	2860	2680	2780
11	---	---	---	---	---	---	---	---	---	2740	2690	2710
12	---	---	---	---	---	---	---	---	---	2800	2720	2760
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	360	232	263	---	---	---
16	---	---	---	---	---	---	388	345	367	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	1670	750	799	6930	705	3700
22	---	---	---	---	---	---	4520	1670	3600	6930	1040	2700
23	---	---	---	---	---	---	3620	2950	3240	4690	1920	3590
24	---	---	---	---	---	---	3830	3130	3340	4100	3860	3920
25	---	---	---	---	---	---	---	---	---	4490	4050	4290
26	---	---	---	---	---	---	3530	399	2670	4700	4490	4630
27	---	---	---	---	---	---	4320	738	2510	4840	4700	4760
28	---	---	---	---	---	---	3600	2810	3190	4940	4840	4880
29	---	---	---	---	---	---	2960	2680	2830	5070	4940	5010
30	---	---	---	---	---	---	3100	369	2420	5240	5070	5130
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---



08120700 Colorado River near Cuthbert, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER MAX	MIN	MEAN	NOVEMBER MAX	MIN	MEAN	DECEMBER MAX	MIN	MEAN	JANUARY MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
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14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
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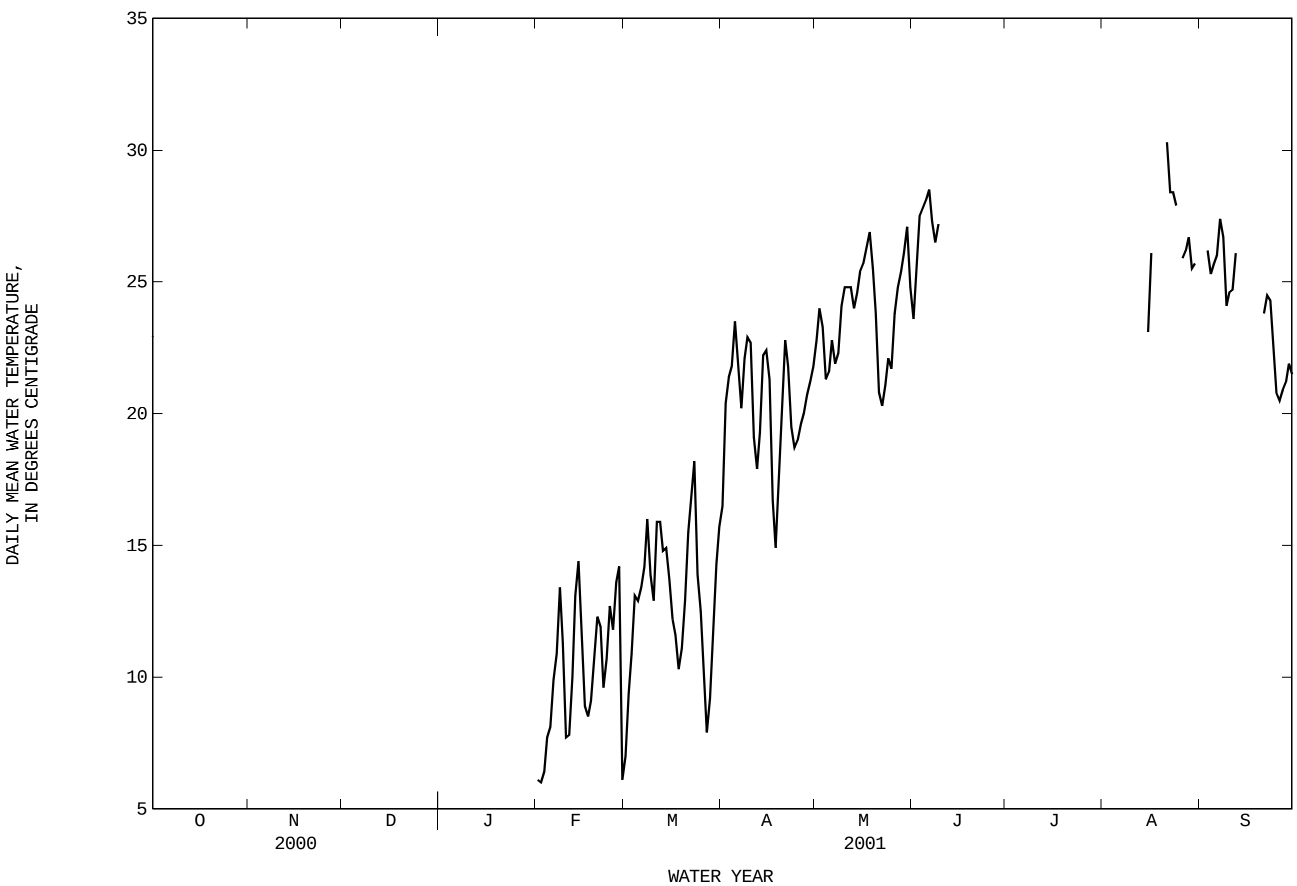
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	FEBRUARY MAX	MIN	MEAN	MARCH MAX	MIN	MEAN	APRIL MAX	MIN	MEAN	MAY MAX	MIN	MEAN
1	8.6	3.6	6.1	10.0	4.7	7.0	20.6	12.9	16.5	26.4	19.7	22.8
2	8.7	3.2	6.0	10.0	8.7	9.4	24.5	17.1	20.4	26.4	22.2	24.0
3	9.0	3.5	6.4	13.1	9.2	10.9	24.0	19.2	21.4	24.3	22.2	23.3
4	10.3	5.3	7.7	16.3	10.6	13.1	25.4	18.3	21.8	22.9	20.2	21.3
5	11.1	4.8	8.1	16.0	10.4	12.9	25.7	21.4	23.5	24.2	19.2	21.6
6	12.5	7.2	9.9	16.2	11.4	13.4	24.2	20.3	21.9	25.9	19.9	22.8
7	13.9	7.9	10.9	17.6	11.2	14.2	23.2	17.5	20.2	23.8	20.8	21.9
8	15.0	12.0	13.4	18.9	14.5	16.0	25.4	19.3	22.1	25.7	19.7	22.3
9	13.7	9.5	11.3	14.8	13.1	13.9	24.7	20.5	22.9	27.3	21.0	24.1
10	9.7	5.8	7.7	15.0	11.3	12.9	23.7	21.5	22.7	27.6	22.3	24.8
11	10.3	5.6	7.8	19.4	13.3	15.9	22.0	16.4	19.1	27.0	22.6	24.8
12	11.6	8.4	10.0	18.8	13.4	15.9	20.7	14.9	17.9	26.8	22.9	24.8
13	15.6	11.0	13.1	17.8	12.1	14.8	21.1	17.5	19.3	27.0	21.4	24.0
14	15.3	13.5	14.4	17.2	13.0	14.9	24.7	20.3	22.2	27.4	22.1	24.6
15	14.4	9.3	11.5	16.2	11.1	13.7	24.6	20.3	22.4	28.3	22.5	25.4
16	9.9	8.0	8.9	15.3	8.8	12.2	24.1	19.0	21.3	28.0	23.3	25.7
17	11.0	6.2	8.5	13.4	10.3	11.6	21.2	14.3	16.7	29.6	23.3	26.3
18	11.7	6.9	9.1	11.5	9.6	10.3	17.6	13.0	14.9	30.8	23.3	26.9
19	14.0	7.7	10.6	13.9	8.9	11.1	20.7	15.0	17.5	27.4	23.6	25.5
20	15.8	9.1	12.3	17.4	8.8	12.9	23.1	18.4	20.6	27.3	21.3	23.8
21	13.7	11.0	11.9	19.6	11.8	15.5	25.7	20.8	22.8	24.4	17.4	20.8
22	11.0	8.9	9.6	20.4	13.4	16.8	23.2	20.5	21.8	26.7	14.8	20.3
23	12.7	9.1	10.7	22.1	14.2	18.2	22.1	17.0	19.5	26.8	15.7	21.1
24	14.0	11.4	12.7	17.5	12.0	13.9	22.0	15.6	18.7	26.5	18.2	22.1
25	15.1	8.8	11.8	14.1	11.0	12.5	22.5	15.8	19.0	26.4	17.3	21.7
26	16.0	11.0	13.6	12.7	8.3	10.0	22.5	16.7	19.6	29.2	19.8	23.8
27	15.5	10.8	14.2	8.3	7.5	7.9	23.4	16.8	20.0	30.2	20.7	24.8
28	10.8	4.9	6.1	11.0	8.0	9.2	23.8	17.9	20.7	28.8	22.3	25.4
29	---	---	---	13.7	10.2	11.7	24.3	18.4	21.2	30.5	23.1	26.1
30	---	---	---	17.6	11.9	14.3	24.9	19.6	21.8	30.6	23.1	27.1
31	---	---	---	18.2	13.5	15.7	---	---	---	29.4	21.0	24.8
MONTH	16.0	3.2	10.2	22.1	4.7	13.0	25.7	12.9	20.3	30.8	14.8	23.8

08120700 Colorado River near Cuthbert, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	21.9	23.6	---	---	---	---	---	---	---	---	---
2	30.5	21.8	25.7	---	---	---	---	---	---	---	---	---
3	30.3	25.0	27.5	---	---	---	---	---	---	27.3	24.3	26.2
4	31.4	25.0	27.8	---	---	---	---	---	---	27.7	23.7	25.3
5	32.3	25.1	28.1	---	---	---	---	---	---	28.2	24.2	25.7
6	33.2	25.1	28.5	---	---	---	---	---	---	29.1	23.7	26.0
7	31.7	24.2	27.3	---	---	---	---	---	---	30.3	25.3	27.4
8	30.8	22.9	26.5	---	---	---	---	---	---	30.4	23.9	26.7
9	32.2	22.6	27.2	---	---	---	---	---	---	26.7	21.5	24.1
10	---	---	---	---	---	---	---	---	---	29.2	21.7	24.6
11	---	---	---	---	---	---	---	---	---	28.0	22.3	24.7
12	---	---	---	---	---	---	---	---	---	31.0	22.3	26.1
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	23.2	22.3	23.1	---	---	---
16	---	---	---	---	---	---	30.4	22.7	26.1	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	30.5	29.6	30.3	28.1	19.2	23.8
22	---	---	---	---	---	---	30.2	26.6	28.4	26.6	23.1	24.5
23	---	---	---	---	---	---	32.3	25.6	28.4	26.5	22.3	24.3
24	---	---	---	---	---	---	29.8	25.0	27.9	24.6	20.3	22.6
25	---	---	---	---	---	---	---	---	---	24.5	17.8	20.8
26	---	---	---	---	---	---	27.2	23.5	25.9	23.4	17.8	20.5
27	---	---	---	---	---	---	29.6	23.5	26.2	23.9	18.3	20.9
28	---	---	---	---	---	---	29.1	24.9	26.7	24.7	18.5	21.2
29	---	---	---	---	---	---	27.2	24.3	25.5	26.4	19.2	21.9
30	---	---	---	---	---	---	28.2	23.8	25.7	26.0	18.7	21.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---



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08121000 Colorado River at Colorado City, TX

LOCATION.--Lat 32°23'33", long 100°52'42", Mitchell County, Hydrologic Unit 12080002, on right bank at Colorado City, 3,517 ft upstream from bridge on State Highway 377, 4,100 ft upstream from the Texas and Pacific Railroad Company bridge, 1.3 mi downstream from bridge on Interstate Highway 20 and U.S. Highway 80, 1.6 mi upstream from Lone Wolf Creek, and at mile 796.3.

DRAINAGE AREA.--3,966 mi^2, of which 2,381 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Nov. 1923 to Aug. 1925 (published as "at Colorado"), May 1946 to current year.

REVISED RECORDS.--WSP 1512: 1946(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,030.16 ft above sea level. Nov. 28, 1923, to Aug. 31, 1925, nonrecording gage at site 1.4 mi downstream at different datum. May 9 to Aug. 5, 1946, nonrecording gage at site 185 ft upstream at present datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since water year 1952 at least 10% of contributing drainage area has been regulated. The Colorado River Municipal Water District diverts low flow into an off channel reservoir 3 mi upstream for brine disposal. There are numerous diversions from Lake J.B. Thomas for municipal use and for oil field operations.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--5 years (water years 1947-51) prior to completion of Lake J.B. Thomas, 102 ft^3/s (73,660 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1947-51).--Maximum discharge, 24,900 ft^3/s July 6, 1948 (gage height, 22.37 ft, from floodmark); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1910, 35.9 ft June 20, 1939, present site and datum, based on floodmarks 1,000 ft upstream and 3,740 ft downstream from gage; discharge, 66,000 ft^3/s, by slope-area measurement of peak flow at site 2.5 mi upstream from gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	9.4	.24	.25	.15	.80	.14	1.1	.02	.00	.00	.06
2	.02	5.6	.17	.39	.15	.33	.09	.10	.02	.00	.00	.06
3	.01	1.3	.21	.41	.15	.98	.09	.05	.01	.00	.00	1.8
4	.01	.83	.24	.46	.15	.27	.10	2.4	.01	.01	.00	6.1
5	.02	.33	.29	.41	.15	.17	.10	13	.01	.01	.00	2.0
6	.02	.21	.40	.41	.15	.16	.09	1.1	.00	.01	.00	13
7	.02	.25	.26	.38	.20	.15	.09	18	.00	.01	.00	2.3
8	.02	1.7	.24	.24	.20	.22	.11	.98	.01	.00	.00	.15
9	.02	1.0	.24	.24	.37	.24	.10	.03	.00	.00	.00	.09
10	.02	1.9	.24	1.2	.15	.20	.42	.02	.00	.00	.00	.31
11	.02	.48	.26	6.2	.18	.24	6.5	.02	.00	.00	.00	2.8
12	.04	.23	.23	1.3	.15	.18	1.5	.02	.00	.00	.00	.53
13	.04	.15	.32	.59	.15	.15	.15	.02	.00	.00	.00	.14
14	.05	.15	.39	5.3	2.1	.15	.09	.02	.00	.00	.00	.09
15	.05	.15	.36	6.4	10	.19	.09	.02	.00	.00	.00	.09
16	.15	.20	.25	1.1	16	.15	.09	.01	.00	.00	.00	.09
17	18	.17	.24	.34	19	.15	.07	.01	.00	.00	.00	.09
18	2.8	.19	.24	.23	14	.23	.09	.01	.00	.00	.00	.09
19	.22	.24	.24	.17	8.9	.22	.08	.01	.00	.00	.00	.09
20	1.1	.24	.24	.15	1.4	.15	.09	.01	.01	.00	.00	.09
21	.08	.18	.24	.16	.56	.11	.09	.00	.01	.00	.00	20
22	.04	.21	.24	.15	.41	.09	.08	.00	.01	.00	.00	45
23	.02	.28	.24	.16	.31	.09	.06	.00	.34	.00	.00	30
24	3.7	2.8	.24	.19	.27	16	.06	.00	.00	.00	.00	26
25	.78	.63	.31	.20	.15	1.1	.06	.00	.01	.00	.00	13
26	66	.37	.59	.23	.15	.29	.06	.01	.01	.00	2.1	7.6
27	94	.24	.57	.17	.15	10	.06	.47	.00	.00	5.3	5.2
28	36	.24	.41	.31	.49	11	.06	.02	.00	.00	.28	3.9
29	25	.24	.41	1.1	---	8.1	.05	.02	.00	.00	.09	3.1
30	8.1	.24	.32	.61	---	.79	.05	.01	.00	.00	.09	2.7
31	12	---	.36	.17	---	.16	---	.02	---	.00	.08	---
TOTAL	268.37	30.15	9.23	29.62	76.19	53.06	10.71	37.48	0.47	0.04	7.94	186.47
MEAN	8.66	1.00	.30	.96	2.72	1.71	.36	1.21	.016	.001	.26	6.22
MAX	94	9.4	.59	6.4	19	16	6.5	18	.34	.01	5.3	45
MIN	.01	.15	.17	.15	.15	.09	.05	.00	.00	.00	.00	.06
AC-FT	532	60	18	59	151	105	21	74	.9	.08	16	370

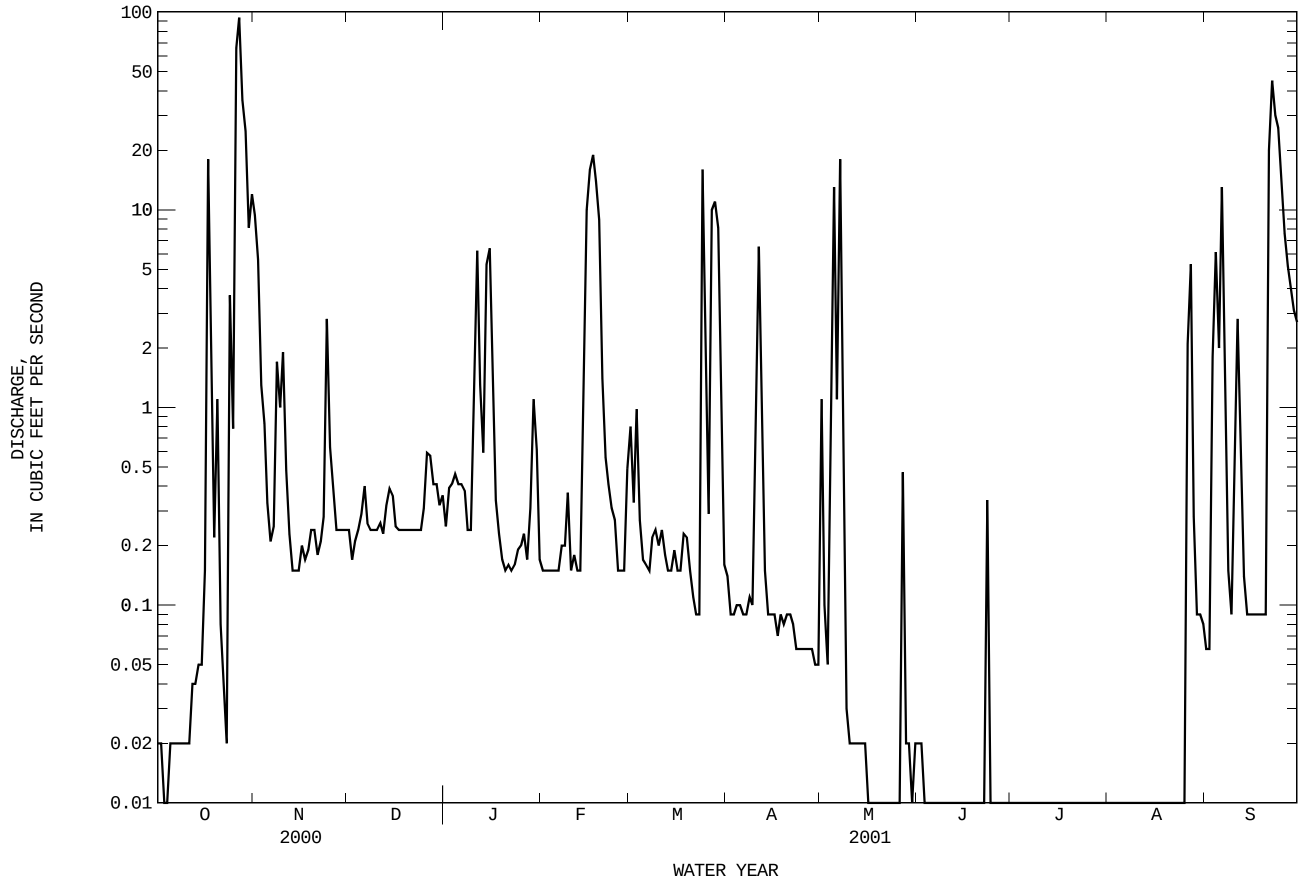
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2001z, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.9	7.10	5.35	4.19	9.63	19.0	34.5	92.4	79.0	20.3	38.0	54.2
MAX	339	61.1	49.6	33.6	99.0	595	332	1048	745	197	684	817
(WY)	1987	1985	1992	1992	1957	2000	1957	1957	1982	1961	1971	1962
MIN	.000	.000	.026	.051	.061	.000	.010	.001	.000	.000	.000	.000
(WY)	1969	1956	1955	1971	1971	1956	1955	1970	1953	1974	1954	1954

08121000 Colorado River at Colorado City, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1952 - 2001z	
ANNUAL TOTAL	20547.34		709.73			
ANNUAL MEAN	56.1		1.94		33.3	
HIGHEST ANNUAL MEAN					143	1957
LOWEST ANNUAL MEAN					.34	1998
HIGHEST DAILY MEAN	9220	Mar 24	94	Oct 27	9560	May 25 1957
LOWEST DAILY MEAN	.01	Sep 9	.00	May 21	.00	Oct 1 1951
ANNUAL SEVEN-DAY MINIMUM	.02	Sep 5	.00	Jun 9	.00	Oct 1 1951
MAXIMUM PEAK FLOW			183	Oct 26	c17700	Mar 24 2000
MAXIMUM PEAK STAGE			5.14	Oct 26	28.58	Mar 24 2000
ANNUAL RUNOFF (AC-FT)	40760		1410		24110	
10 PERCENT EXCEEDS	8.5		3.3		23	
50 PERCENT EXCEEDS	.29		.15		.45	
90 PERCENT EXCEEDS	.03		.00		.00	

z Period of regulated streamflow.
c From rating curve extended above 9,550 ft^3/s on basis of slope-area measurement of 66,000 ft^3/s.



08121000 Colorado River at Colorado City, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: May 1946 to Sept. 1954, Nov. 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1946 to Sept. 1954 and Nov. 1956 to current year (local observer).
WATER TEMPERATURE: Nov. 1952 to Sept. 1954 and Nov. 1956 to current year (local observer).

REMARKS.--Records good except those for estimated daily equivalent mean specific conductance, which are poor. Interruptions in the record are due to no flow except for Dec. 1-4, 26, Mar. 31, Apr. 1-3, and Aug. 28 when specific conductance and water temperature were not determined. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. New regression equations were developed based on data from water years 1992 to 2001. The standard error of estimate for dissolved solids is 6%, chloride is 75%, sulfate is 30% and for hardness is 33%. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 76,000 microsiemens/cm, Sept. 21, 1998; minimum daily, 240 microsiemens/cm, Sept. 29, 1980.
WATER TEMPERATURE: Maximum daily, 39.0°C, July 21, 1995; minimum daily, 0.0°C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 42,400 microsiemens/cm, Sept. 3; minimum daily, 1,750 microsiemens/cm, Oct. 27.
WATER TEMPERATURE: Maximum daily, 37.0°C, June 25; minimum daily, 3.0°C, Dec. 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT													
13...	1400	.08	6810	22.3	1060	213	128	1190	16.0	11.0	1610	1160	.8
18...	1420	2.1	15300	19.9	1010	253	90.8	3060	42.0	12.9	844	4740	.3
NOV													
30...	1515	.31	12300	10.9	1110	259	114	2340	30.5	8.87	1270	3450	.5
FEB													
22...	0945	.45	6180	8.4	743	178	72.1	996	15.9	7.53	730	1560	.5
MAR													
30...	0735	.88	6980	12.0	871	212	82.7	1140	16.7	7.76	673	1800	.6
MAY													
24...	1245	E.01	9800	23.8	1340	265	164	1730	20.6	9.24	1810	2240	.7

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT		
13...	13.8	4550
18...	4.2	9050
NOV		
30...	1.0	7560
FEB		
22...	1.1	3650
MAR		
30...	1.9	4020
MAY		
24...	4.1	6310

08121000 Colorado River at Colorado City, TX--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 2000 TO SEPTEMBER 2001

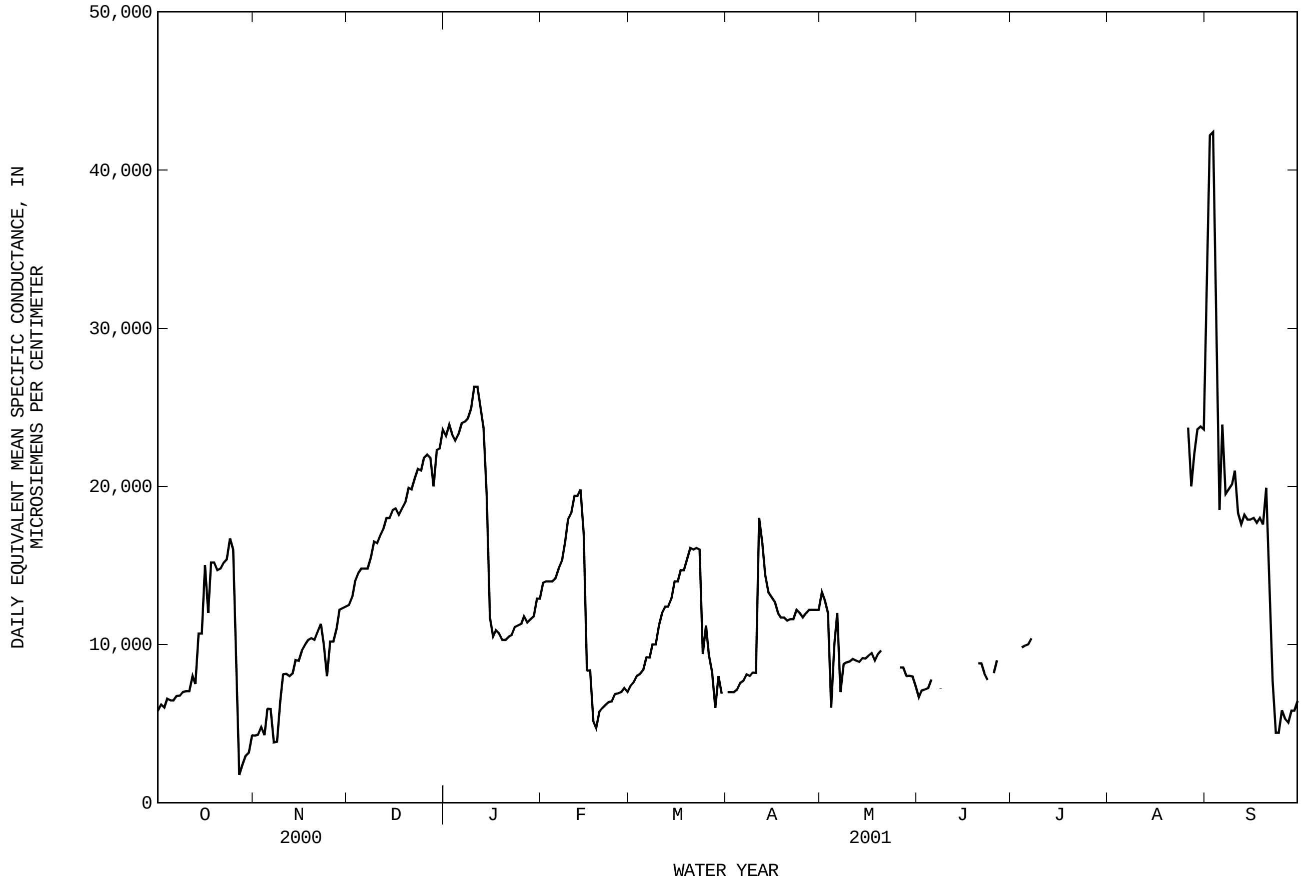
MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 2000	268.37	4810	2900	2100	1400	988	480	348	430
NOV. 2000	30.15	5890	3550	289	1700	135	590	48.2	530
DEC. 2000	9.23	18730	11910	297	5700	142	1800	43.9	1600
JAN. 2001	29.62	18770	12020	962	5800	463	1700	140	1600
FEB. 2001	76.19	6980	4230	870	2000	408	700	143	620
MAR. 2001	53.06	8360	5080	727	2400	342	830	119	740
APR. 2001	10.71	15770	9910	287	4700	137	1500	43.5	1400
MAY 2001	37.48	8410	5110	517	2400	243	840	84.6	750
JUNE 2001	0.47	7750	4680	5.9	2200	2.8	770	0.98	690
JULY 2001	0.04	10040	6130	0.66	2900	0.31	990	0.11	890
AUG. 2001	7.94	21170	13580	291	6500	140	2000	42.2	1800
SEPT 2001	186.47	9770	6120	3080	2900	1470	940	472	850
TOTAL	709.73	**	**	9430	**	4470	**	1490	**
WTD.AVG.	1.9	7960	4920	**	2300	**	780	**	700

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY EQUIVALENT MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5800	4240	e12500	23200	13900	7400	e7000	13300	6660	---	---	30000
2	6210	4300	e13000	23900	14000	7640	e7000	12800	7100	---	---	42200
3	6030	4790	e14000	23300	14000	8000	e7000	12000	7160	---	---	42400
4	6570	4290	e14500	22900	14000	8120	7130	6000	7240	9810	---	29700
5	6470	5940	14800	23300	14200	8400	7560	10000	7790	9930	---	18500
6	6460	5920	14800	24000	14800	9200	7710	12000	---	10000	---	23900
7	6750	3810	14800	24100	15300	9180	8110	7000	---	10400	---	19500
8	6780	3850	15500	24300	16500	10000	8000	8760	7200	---	---	19800
9	7000	6400	16500	24900	17900	10000	8220	8880	---	---	---	20100
10	7060	8130	16400	26300	18300	11200	8200	8940	---	---	---	21000
11	7050	8150	16900	26300	19400	12000	18000	9080	---	---	---	18300
12	8000	8000	17300	25000	19400	12400	16400	8970	---	---	---	17600
13	7500	8180	18000	23700	19800	12400	14400	8900	---	---	---	18200
14	10700	9010	18000	19400	17000	12900	13300	9130	---	---	---	17900
15	10700	8980	18500	11700	8360	14000	13000	9110	---	---	---	17900
16	15000	9630	18600	10500	8380	14000	12700	9310	---	---	---	18000
17	12000	9980	18200	10900	5180	14700	12000	9460	---	---	---	17700
18	15200	10300	18600	10700	4720	14700	11700	9000	---	---	---	18000
19	15200	10400	19000	10300	5770	15400	11700	9430	---	---	---	17600
20	14700	10300	19900	10300	6000	16100	11500	9630	8820	---	---	19900
21	14800	10800	19800	10500	6200	16000	11600	---	8820	---	---	14400
22	15200	11300	20500	10600	6370	16100	11600	---	8160	---	---	7680
23	15400	10000	21100	11100	6410	16000	12200	---	7770	---	---	4430
24	16700	8000	21000	11200	6870	9410	12000	---	---	---	---	4420
25	16000	10200	21800	11300	6910	11200	11700	---	8180	---	---	5840
26	8000	10200	e22000	11800	7000	9350	12000	8560	9000	---	23700	5300
27	1750	11000	21800	11400	7230	8270	12200	8560	---	---	20000	5060
28	2400	12200	20000	11600	6990	6000	12200	8010	---	---	e22000	5820
29	2970	12300	22300	11800	---	8000	12200	8030	---	---	23600	5830
30	3160	12400	22400	12900	---	6890	12200	7990	---	---	23800	6420
31	4260	---	23600	12900	---	---	---	7360	---	---	23600	---
MEAN	9090	8430	18300	17000	11500	---	11000	---	---	---	---	17100
MAX	16700	12400	23600	26300	19800	---	18000	---	---	---	---	42400
MIN	1750	3810	12500	10300	4720	---	7000	---	---	---	---	4420

e Estimated

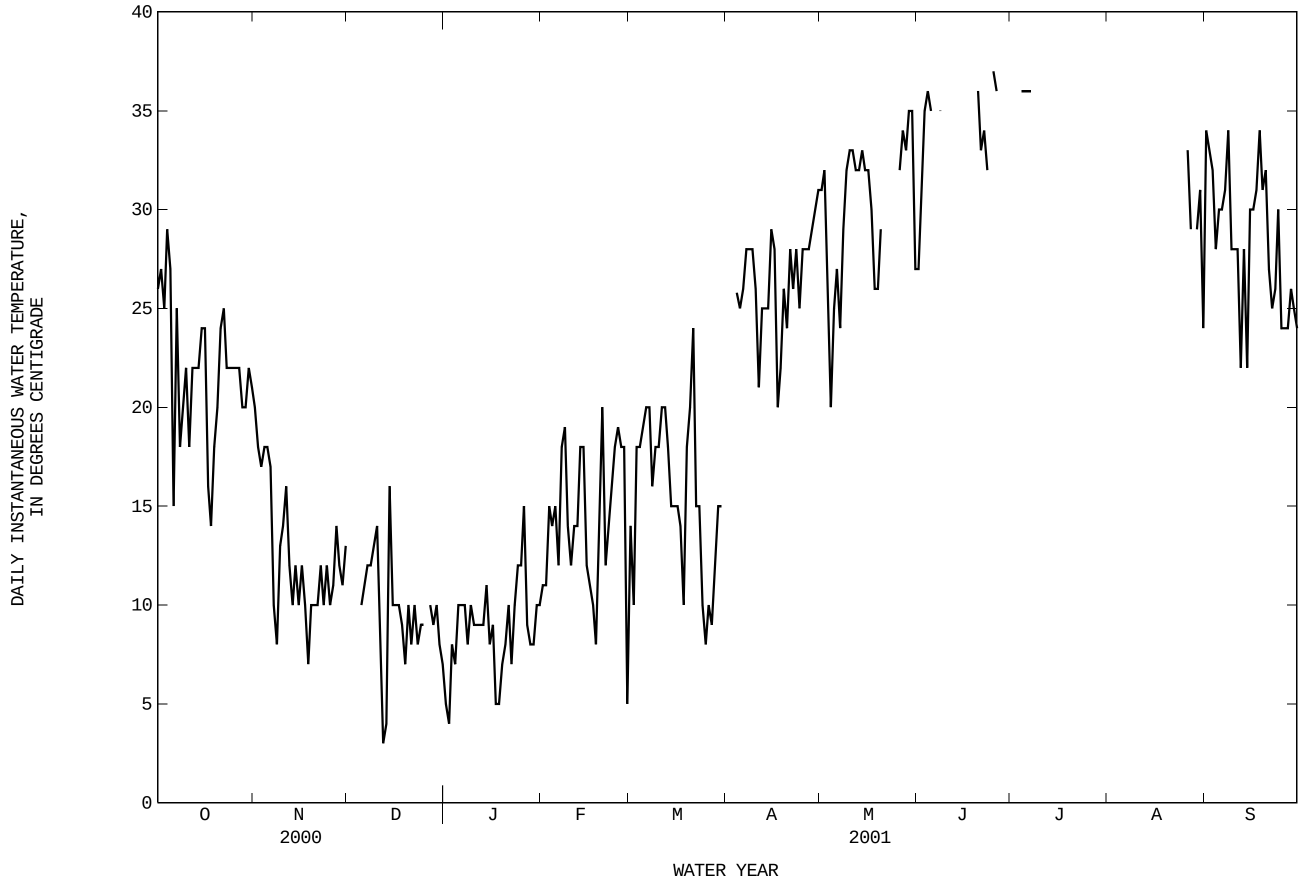
08121000 Colorado River at Colorado City, TX--Continued



TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.0	20.0	---	5.0	11.0	14.0	---	31.0	27.0	---	---	34.0
2	27.0	18.0	---	4.0	11.0	10.0	---	32.0	30.0	---	---	33.0
3	25.0	17.0	---	8.0	15.0	18.0	---	25.0	35.0	---	---	32.0
4	29.0	18.0	---	7.0	14.0	18.0	25.8	20.0	36.0	36.0	---	28.0
5	27.0	18.0	10.0	10.0	15.0	19.0	25.0	25.0	35.0	36.0	---	30.0
6	15.0	17.0	11.0	10.0	12.0	20.0	26.0	27.0	---	36.0	---	30.0
7	25.0	10.0	12.0	10.0	18.0	20.0	28.0	24.0	---	36.0	---	31.0
8	18.0	8.0	12.0	8.0	19.0	16.0	28.0	29.0	35.0	---	---	34.0
9	20.0	13.0	13.0	10.0	14.0	18.0	28.0	32.0	---	---	---	28.0
10	22.0	14.0	14.0	9.0	12.0	18.0	26.0	33.0	---	---	---	28.0
11	18.0	16.0	8.0	9.0	14.0	20.0	21.0	33.0	---	---	---	28.0
12	22.0	12.0	3.0	9.0	14.0	20.0	25.0	32.0	---	---	---	22.0
13	22.0	10.0	4.0	9.0	18.0	18.0	25.0	32.0	---	---	---	28.0
14	22.0	12.0	16.0	11.0	18.0	15.0	25.0	33.0	---	---	---	22.0
15	24.0	10.0	10.0	8.0	12.0	15.0	29.0	32.0	---	---	---	30.0
16	24.0	12.0	10.0	9.0	11.0	15.0	28.0	32.0	---	---	---	30.0
17	16.0	10.0	10.0	5.0	10.0	14.0	20.0	30.0	---	---	---	31.0
18	14.0	7.0	9.0	5.0	8.0	10.0	22.0	26.0	---	---	---	34.0
19	18.0	10.0	7.0	7.0	15.0	18.0	26.0	26.0	---	---	---	31.0
20	20.0	10.0	10.0	8.0	20.0	20.0	24.0	29.0	36.0	---	---	32.0
21	24.0	10.0	8.0	10.0	12.0	24.0	28.0	---	33.0	---	---	27.0
22	25.0	12.0	10.0	7.0	14.0	15.0	26.0	---	34.0	---	---	25.0
23	22.0	10.0	8.0	10.0	16.0	15.0	28.0	---	32.0	---	---	26.0
24	22.0	12.0	9.0	12.0	18.0	10.0	25.0	---	---	---	---	30.0
25	22.0	10.0	9.0	12.0	19.0	8.0	28.0	---	37.0	---	---	24.0
26	22.0	11.0	---	15.0	18.0	10.0	28.0	32.0	36.0	---	33.0	24.0
27	22.0	14.0	10.0	9.0	18.0	9.0	28.0	34.0	---	---	29.0	24.0
28	20.0	12.0	9.0	8.0	5.0	12.0	29.0	33.0	---	---	---	26.0
29	20.0	11.0	10.0	8.0	---	15.0	30.0	35.0	---	---	29.0	25.0
30	22.0	13.0	8.0	10.0	---	15.0	31.0	35.0	---	---	31.0	24.0
31	21.0	---	7.0	10.0	---	---	---	27.0	---	---	24.0	---
MEAN	21.8	12.6	---	8.8	14.3	---	---	---	---	---	---	28.4
MAX	29.0	20.0	---	15.0	20.0	---	---	---	---	---	---	34.0
MIN	14.0	7.0	---	4.0	5.0	---	---	---	---	---	---	22.0

08121000 Colorado River at Colorado City, TX--Continued



08123000 Lake Colorado City near Colorado City, TX

LOCATION.--Lat 32°20'41", long 100°55'10", Mitchell County, Hydrologic Unit 12080002, on left bank at municipal water-intake structure, 1.7 mi upstream from Colorado City Dam on Morgan Creek, 2.2 mi downstream from the Texas and Pacific Railway Co. bridge, 2.5 mi upstream from mouth, and 4.0 mi southwest of Colorado City.

DRAINAGE AREA.--345 mi^2, of which 42.7 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Apr. 1949 to current year.
Water-quality records.--Chemical data: Dec. 1969 to May 1984.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Aug. 23, 1950, nonrecording gages at or near powerplant about 0.7 mi downstream at same datum. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily contents, which are fair. The lake is formed by a rolled earthfill dam 4,800 ft long. Storage began in Apr. 1949, and the dam was completed in Sept. 1949. The dam and lake are owned by the Texas Electric Service Co. to operate their thermal electric powerplant. The uncontrolled spillway is an excavated cut channel through natural ground 1,200 ft wide located 600 ft upstream and to the left of left end of dam. The spillway is designed to discharge 150,000 ft^3/s at the maximum design flood elevation. The service spillway is an uncontrolled rectangular drop inlet located 100 ft upstream from dam with two uncontrolled openings of 10.0 by 12.0 ft. The spillway is designed for a maximum discharge of 5,000 ft^3/s. A service outlet is provided for small releases downstream through a 30-inch valve-controlled concrete pipe. Record of pumpage from Champion Creek Reservoir (station 08123600, conservation pool storage 41,600 acre-ft), into Lake Colorado City can be obtained from the Texas Electric Service Co. Conservation pool storage is 30,800 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam...	2,090.0
Design flood...	2,086.7
Crest of spillway..	2,073.7
Crest of service spillway..	2,069.6
Lowest gated outlet (invert)..	2,024.3

COOPERATION.--Capacity curve dated Oct. 1, 1964 was furnished by the Texas Utilities Electric Co. Record of diversions for municipal use can be obtained from the city of Colorado City.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 40,280 acre-ft, Sept. 7, 1962, elevation, 2,075.10 ft; minimum contents after initial filling, 9,740 acre-ft, Aug. 30, 31, and Sept. 1, 1953, elevation, 2,051.30 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,040 acre-ft, Oct. 1, elevation, 2,063.39 ft; minimum contents, 17,360 acre-ft, Sept. 30, elevation, 2,059.44 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

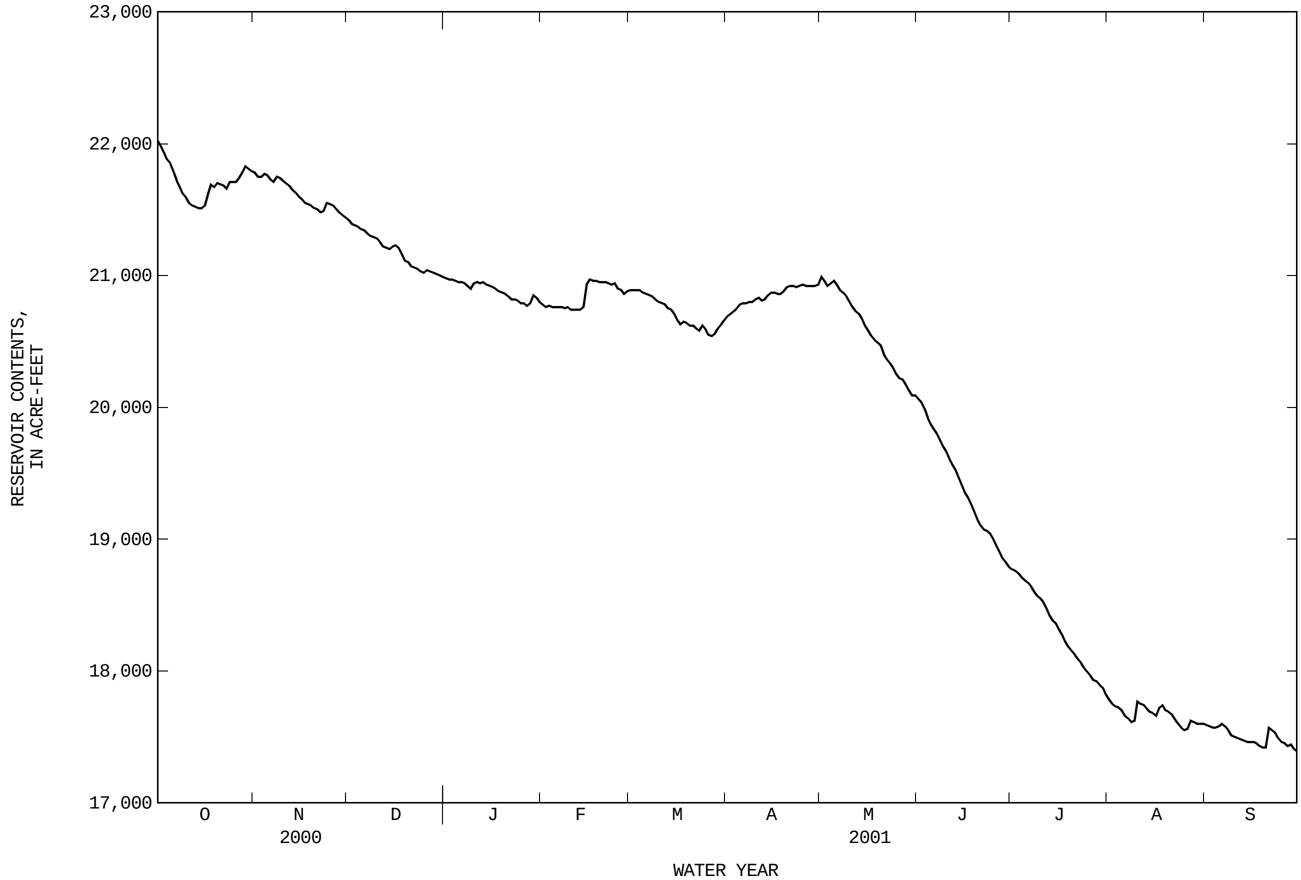
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22020	21780	21420	20980	20780	20890	20690	20990	20060	18770	17780	17590
2	21980	21750	21390	20970	20760	20890	20710	20960	20040	18760	17750	17580
3	21930	21750	21380	20970	20770	20890	20730	20920	19990	18740	17730	17570
4	21880	21770	21370	20960	20760	20890	20750	20940	19920	18710	17720	17570
5	21850	21760	21350	20950	20760	20870	20780	20960	19870	18690	17700	17580
6	21790	21730	21340	20950	20760	20860	20790	20930	19830	18670	17660	17600
7	21720	21710	21320	20940	20760	20850	20790	20890	19800	18640	17640	17580
8	21670	21750	21300	20920	20750	20840	20800	20870	19750	18600	17610	17550
9	21620	21740	21290	20900	20760	20820	20800	20840	19700	18570	17620	17510
10	21590	21720	21280	20940	20740	20800	20820	20800	19660	18550	17770	17500
11	21550	21700	21250	20950	20740	20790	20830	20760	19610	18520	17750	17490
12	21530	21680	21220	20940	20740	20780	20810	20730	19560	18470	17740	17480
13	21520	21650	21210	20950	20740	20750	20820	20710	19520	18420	17710	17470
14	21510	21630	21200	20930	20760	20740	20850	20670	19460	18380	17690	17460
15	21510	21600	21220	20920	20930	20710	20870	20620	19400	18360	17680	17460
16	21530	21580	21230	20910	20970	20660	20870	20580	19350	18310	17660	17460
17	21620	21550	21210	20900	20960	20630	20860	20540	19310	18270	17720	17450
18	21690	21540	21160	20880	20960	20650	20860	20510	19260	18220	17740	17430
19	21670	21530	21110	20870	20950	20640	20880	20490	19200	18180	17700	17420
20	21700	21510	21100	20860	20950	20620	20910	20470	19140	18150	17690	17420
21	21690	21500	21070	20840	20950	20620	20920	20400	e19100	18120	17670	17570
22	21680	21480	21060	20820	20940	20600	20920	20360	19070	18090	17630	17550
23	21660	21490	21050	20820	20930	20580	20910	20330	19060	18060	17600	17530
24	21710	21550	21030	20810	20940	20620	20920	20300	19040	18020	17570	17490
25	21710	21540	21020	20790	20900	20590	20930	20250	19000	17990	17550	17460
26	21710	21530	21040	20790	20890	20550	20920	20220	18950	17960	17560	17450
27	21740	21500	21030	20770	20860	20540	20920	20210	18900	17930	17620	17430
28	21780	21480	21020	20790	20880	20560	20920	20170	18850	17920	17610	17440
29	21830	21460	21010	20850	---	20600	20920	20130	18820	17890	17600	17410
30	21810	21440	21000	20830	---	20630	20930	20090	18790	17870	17600	17390
31	21790	---	20990	20800	---	20660	---	20090	---	17820	17600	---
MEAN	21710	21610	21180	20890	20840	20710	20850	20570	19400	18310	17670	17500
MAX	22020	21780	21420	20980	20970	20890	20930	20990	20060	18770	17780	17600
MIN	21510	21440	20990	20770	20740	20540	20690	20090	18790	17820	17550	17390
(+)	2063.19	2062.92	2062.55	2062.40	2062.47	2062.29	2062.51	2061.82	2060.71	2059.85	2059.65	2059.46
(@)	-250	-350	-450	-190	+80	-220	+270	-840	-1300	-970	-220	-210

CAL YR 2000 MAX 29320 MIN 13520 (@) +6560
WTR YR 2001 MAX 22020 MIN 17390 (@) -4650

e Estimated

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08123000 Lake Colorado City near Colorado City, TX--Continued



08123600 Champion Creek Reservoir near Colorado City, TX

LOCATION.--Lat 32°16'53", long 100°51'30", Mitchell County, Hydrologic Unit 12080002, 50 ft downstream from service outlet structure at Champion Creek Dam on Champion Creek, 1.0 mi upstream from mouth, 4.8 mi downstream from State Highway 208, and 7.2 mi south of Colorado City.

DRAINAGE AREA.--207 mi^2, of which 20.8 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1959 to Sept. 1987 and May 1997 to current year.
Water-quality records.--Chemical data: Aug. 1967 to May 1984.

REVISED RECORDS.--WRD TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Sept. 29, 1959, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good except those for May 1-24, which are fair. The reservoir is formed by a rolled earthfill dam about 6,800 ft long. The dam was completed on Apr. 30, 1959. Closure and storage began in Feb. 1959. The capacity curve is based on U.S. Geological Survey topographic map surveyed in 1950: excavation for borrow, estimated not to exceed 1,200 acre-ft, is not included. The dam and reservoir are owned and operated by the Texas Electric Service Company. Water may be pumped from the reservoir through a 24-inch pipeline to Lake Colorado City (station 08123000, conservation pool storage 30,800 acre-ft) for municipal use and for cooling operations of a steam generating powerplant. There are two spillways. The uncontrolled emergency spillway, 450 ft wide and 800 ft long, is located at the right end of dam. The controlled service spillway is a cut channel 50 ft wide, about 1,800 ft long and 8 ft deep, and cut into the emergency spillway at the extreme right end. There is a controlled drop-inlet structure, 4.0 by 5.0 ft, with a side opening of 1.5 by 3.0 ft. Conservation pool storage is 41,600 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	2,109.0
Design flood..	2,104.0
Crest of emergency spillway.......................................	2,091.0
Crest of service spillway...	2,082.4
Lowest gated outlet (invert)......................................	2,020.0

COOPERATION.--The capacity table dated Apr. 14, 1959, was prepared from curve furnished by Freese and Nichols, Consulting Engineers, Fort Worth, Texas. Record of diversions into Lake Colorado City may be obtained from Texas Utilities Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 47,060 acre-ft, June 29, 1982, elevation, 2,085.79 ft; minimum contents, 1,720 acre-ft, Apr. 11-15, 1971, elevation, 2,026.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,490 acre-ft, Mar. 24, elevation, 2,038.22 ft; minimum contents, 2,140 acre-ft, Sept. 21, elevation, 2,029.07 ft.

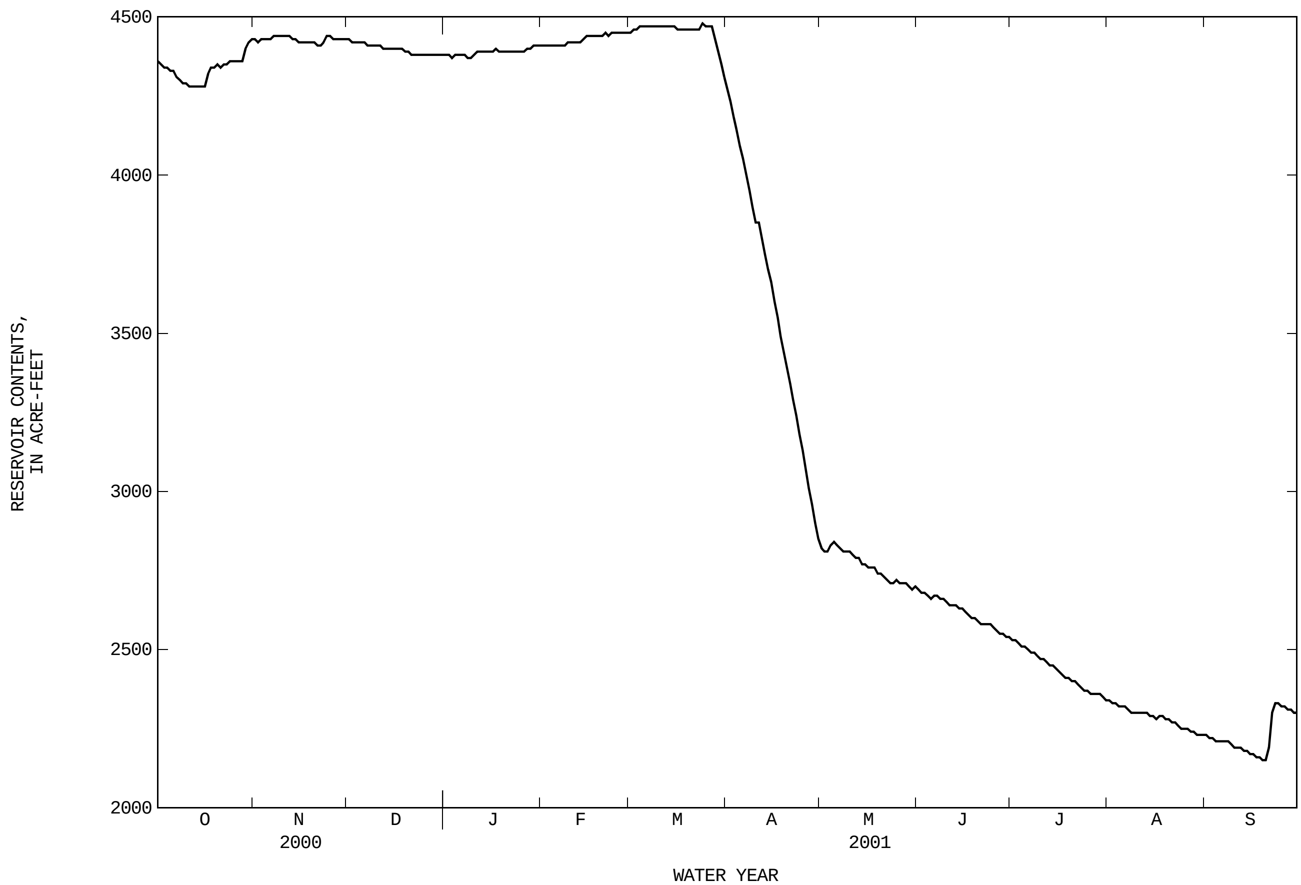
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4360	4430	4430	4380	4410	4450	4270	2820	2690	2530	2340	2230
2	4350	4420	4420	4380	4410	4460	4230	2810	2680	2530	2330	2220
3	4340	4430	4420	4370	4410	4460	4180	2810	2680	2520	2330	2220
4	4340	4430	4420	4380	4410	4470	4140	2830	2670	2510	2320	2210
5	4330	4430	4420	4380	4410	4470	4090	2840	2660	2510	2320	2210
6	4330	4430	4420	4380	4410	4470	4050	2830	2670	2500	2320	2210
7	4310	4440	4410	4380	4410	4470	4000	2820	2670	2490	2310	2210
8	4300	4440	4410	4370	4410	4470	3950	2810	2660	2490	2300	2210
9	4290	4440	4410	4370	4420	4470	3900	2810	2660	2480	2300	2200
10	4290	4440	4410	4380	4420	4470	3850	2810	2650	2470	2300	2190
11	4280	4440	4410	4390	4420	4470	3850	2800	2640	2470	2300	2190
12	4280	4440	4400	4390	4420	4470	3800	2790	2640	2460	2300	2190
13	4280	4430	4400	4390	4420	4470	3750	2790	2640	2450	2300	2180
14	4280	4430	4400	4390	4430	4470	3700	2770	2630	2450	2290	2180
15	4280	4420	4400	4390	4440	4470	3660	2770	2630	2440	2290	2170
16	4280	4420	4400	4390	4440	4460	3600	2760	2620	2430	2280	2170
17	4320	4420	4400	4400	4440	4460	3550	2760	2610	2420	2290	2160
18	4340	4420	4400	4390	4440	4460	3490	2760	2600	2410	2290	2160
19	4340	4420	4390	4390	4440	4460	3440	2740	2600	2410	2280	2150
20	4350	4420	4390	4390	4440	4460	3390	2740	2590	2400	2280	2150
21	4340	4410	4380	4390	4450	4460	3340	2730	2580	2400	2270	2190
22	4350	4410	4380	4390	4440	4460	3290	2720	2580	2390	2270	2300
23	4350	4420	4380	4390	4450	4460	3240	2710	2580	2380	2260	2330
24	4360	4440	4380	4390	4450	4480	3180	2710	2580	2370	2250	2330
25	4360	4440	4380	4390	4450	4470	3130	2720	2570	2370	2250	2320
26	4360	4430	4380	4390	4450	4470	3070	2710	2560	2360	2250	2320
27	4360	4430	4380	4400	4450	4470	3010	2710	2550	2360	2240	2310
28	4360	4430	4380	4400	4450	4430	2960	2710	2550	2360	2240	2310
29	4400	4430	4380	4410	---	4390	2900	2700	2540	2360	2230	2300
30	4420	4430	4380	4410	---	4350	2850	2690	2540	2350	2230	2300
31	4430	---	4380	4410	---	4310	---	2700	---	2340	2230	---
MEAN	4330	4430	4400	4390	4430	4450	3600	2760	2620	2430	2280	2230
MAX	4430	4440	4430	4410	4450	4480	4270	2840	2690	2530	2340	2330
MIN	4280	4410	4380	4370	4410	4310	2850	2690	2540	2340	2230	2150
(+)	2038.02	2038.02	2037.87	2037.97	2038.10	2037.67	2032.50	2031.86	2031.07	2030.12	2029.53	2029.88
(@)	+70	0	-50	+30	+40	-140	-1460	-150	-160	-200	-110	+70

CAL YR 2000 MAX 5420 MIN 4280 (@) -670
WTR YR 2001 MAX 4480 MIN 2150 (@) -2060

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08123600 Champion Creek Reservoir near Colorado City, TX--Continued



08123755 Moss Creek Lake near Coahoma, TX

LOCATION.--Lat 32°14'37", long 101°18'41", Howard County, Hydrologic Unit 12080007, 195 ft left of service outlet structure at Moss Creek Dam on Moss Creek, 1.4 mi upstream from mouth, 3.4 mi south of Coahoma, and 7.4 mi east of Big Spring.

DRAINAGE AREA.--26.0 mi^2.

PERIOD OF RECORD.--Feb. 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily contents, which are fair. The lake is formed by a rolled earthfill dam 2,450 ft long. The dam was completed in 1939. The capacity curve was developed by Freese and Nichols in 1970. The dam and reservoir are owned by the city of Big Spring. The city of Big Spring operates the reservoir for recreational purposes. The Colorado River Municipal Water District owns the water rights for municipal and industrial use. The uncontrolled south emergency spillway is 250 ft wide through natural ground at right end of dam. The uncontrolled north emergency spillway is 400 ft wide with concrete sill at left end of dam. The service spillway is gate operated with a rectangular shaped inlet feeding into a pipe fitted inside the west conduit. Conservation pool storage is 3,522 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	2,343.5
Crest of south emergency spillway....................................	2,338.7
Crest of north emergency spillway....................................	2,337.5
Crest of service outlet..	2,330.5

COOPERATION.--Capacity table furnished by Colorado River Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,090 acre-ft, Mar. 23, 2000, elevation, 2,340.86 ft; minimum contents, 536 acre-ft, Sept. 21, 2001, elevation, 2,311.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,070 acre-ft, Apr. 26, elevation, 2,334.64 ft; minimum contents, 536 acre-ft, Sept. 21, elevation, 2,311.65 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

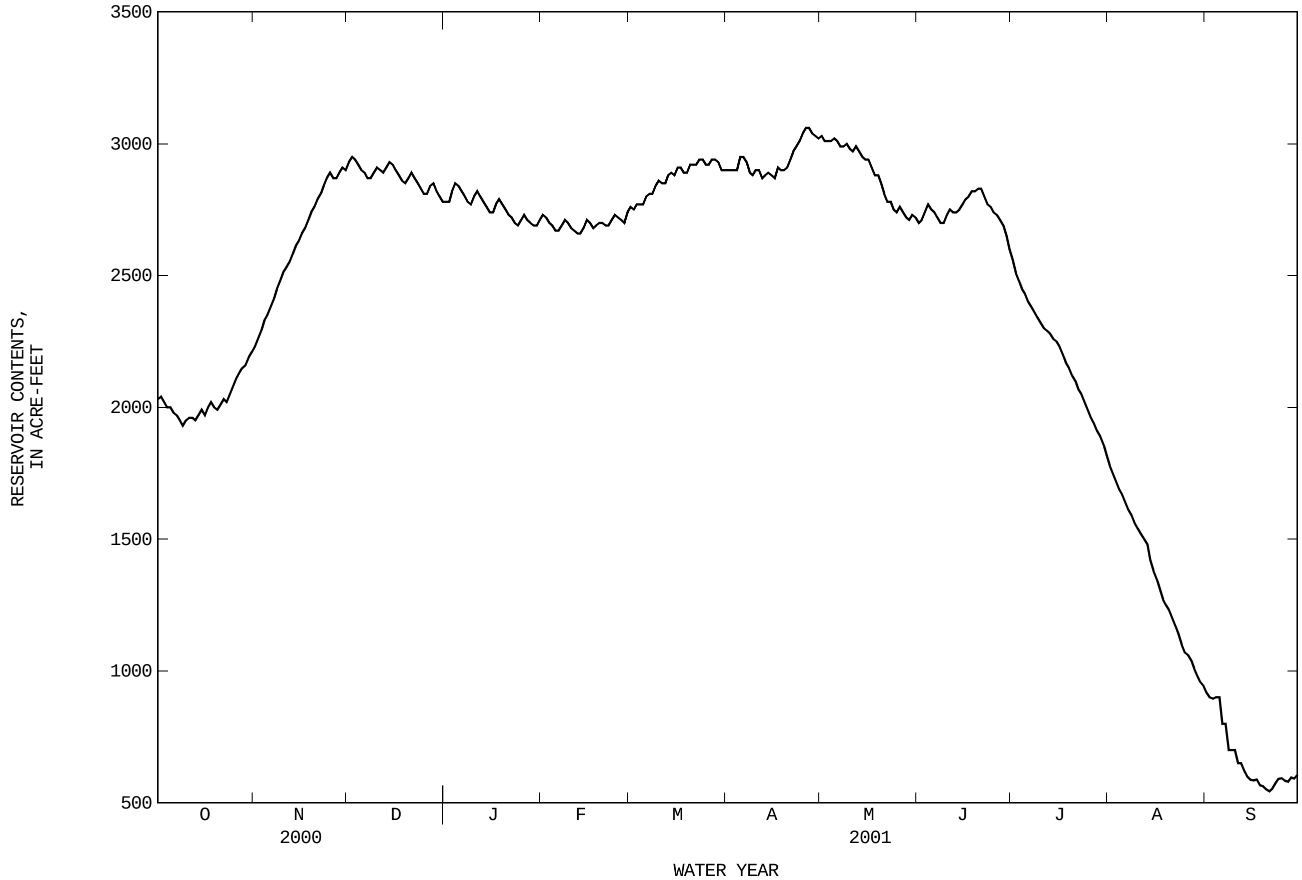
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2030	2230	2930	2780	2730	2760	e2900	3030	2700	2560	1780	917
2	2040	2260	2950	2780	2720	2750	e2900	3010	2710	2510	1750	899
3	2020	2290	2940	2820	2700	2770	e2900	3010	2740	2480	1720	894
4	2000	2330	2920	2850	2690	2770	e2900	3010	2770	2450	1690	e900
5	2000	2350	2900	2840	2670	2770	2950	3020	2750	2430	1670	e900
6	1980	2380	2890	2820	2670	2800	2950	3010	2740	2400	1640	e800
7	1970	2410	2870	2800	2690	2810	2930	2990	2720	2380	1610	e800
8	1950	2450	2870	2780	2710	2810	2890	2990	2700	2360	1590	e700
9	1930	2480	2890	2770	2700	2840	2880	3000	2700	2340	1560	e700
10	1950	2510	2910	2800	2680	2860	2900	2980	2730	2320	1540	e700
11	1960	2530	2900	2820	2670	2850	2900	2970	2750	2300	1520	e650
12	1960	2550	2890	2800	2660	2850	2870	2990	2740	2290	1500	e650
13	1950	2580	2910	2780	2660	2880	2880	2970	2740	2280	1480	621
14	1970	2610	2930	2760	2680	2890	2890	2950	2750	2260	1420	598
15	1990	2630	2920	2740	2710	2880	2880	2940	2770	2250	1380	587
16	1970	2660	2900	2740	2700	2910	2870	2940	2790	2230	1350	585
17	2000	2680	2880	2770	2680	2910	2910	2910	2800	2200	1310	588
18	2020	2710	2860	2790	2690	2890	2900	2880	2820	2170	1270	566
19	2000	2740	2850	2770	e2700	2890	2900	2880	2820	2150	1250	563
20	1990	2760	2870	2750	e2700	2920	2910	2850	2830	2120	1230	550
21	2010	2790	2890	2730	2690	2920	2940	2810	2830	2100	1200	543
22	2030	2810	2870	2720	2690	2920	2970	2780	2800	2070	1170	554
23	2020	2840	2850	2700	2710	2940	2990	2780	2770	2050	1140	575
24	2050	2870	2830	2690	2730	2940	3010	2750	2760	2020	1100	591
25	2080	2890	2810	2710	2720	2920	3040	2740	2740	1990	1070	593
26	2110	2870	2810	2730	2710	2920	3060	2760	2730	1960	1060	583
27	2130	2870	2840	2710	2700	2940	3060	2740	2710	1940	1040	580
28	2150	2890	2850	2700	2740	2940	3040	2720	2690	1910	1010	595
29	2160	2910	2820	2690	---	2930	3030	2710	2650	1890	981	592
30	2190	2900	2800	2690	---	e2900	3020	2730	2600	1860	956	607
31	2210	---	2780	2710	---	e2900	---	2720	---	1820	942	---
MEAN	2030	2630	2880	2760	2700	2870	2940	2890	2740	2200	1350	666
MAX	2210	2910	2950	2850	2740	2940	3060	3030	2830	2560	1780	917
MIN	1930	2230	2780	2690	2660	2750	2870	2710	2600	1820	942	543
(+)	2328.49	2333.50	2332.69	2332.16	2332.35	2333.50	2334.28	2332.21	2331.35	2325.37	2316.88	2312.67
(@)	+190	+690	-120	-70	+30	+160	+120	-300	-120	-780	-878	-335

CAL YR 2000 MAX 3570 MIN 1930 (@) +380
WTR YR 2001 MAX 3060 MIN 543 (@) -1413

e Estimated

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08123755 Moss Creek Lake near Coahoma, TX--Continued



08123800 Beals Creek near Westbrook, TX

LOCATION.--Lat 32°11'57", long 101°00'49", Mitchell County, Hydrologic Unit 12080007, on left bank at downstream side of bridge on State Highway 163, 2.1 mi downstream from Hackberry Creek, 10.8 mi south of Westbrook, 15.7 mi southwest of Colorado City, and 19.1 mi upstream from mouth.

DRAINAGE AREA.--9,802 mi^2, of which 7,814 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1958 to current year.

REVISED RECORDS.--WRD TX-72-1: 1971. WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,048.74 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Low flow is affected by diversion upstream from station. No flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1908, about 24.5 ft in 1922, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.01
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.95	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	7.4	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	2.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	6.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	3.1	.00	.00	.00	.00	.00	.00	.00	.00	12	.00
11	.00	.97	.00	.00	.00	.00	.00	.00	.00	.00	17	.00
12	.00	.02	.00	.00	.00	.00	.00	6.5	.00	.00	3.9	.00
13	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.37	.00
14	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.02	.00
15	.00	.00	.00	.00	11	.00	.00	.04	.00	.00	.00	.00
16	.00	.00	.00	.00	11	.00	.00	.02	.00	.00	.00	.00
17	33	.00	.00	.00	4.4	.00	.00	.01	.00	.00	2.5	.00
18	7.6	.00	.00	.00	.14	.00	.00	.00	.00	.00	.03	.00
19	16	.00	.00	.00	.00	.00	2.7	.00	.00	.00	.00	.00
20	5.9	.00	.00	.00	.00	.00	.67	.00	.00	.00	.00	.00
21	1.9	.00	.00	.00	.00	.00	1.3	.00	.00	.00	.00	.57
22	.05	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	56
23	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	46
24	25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
25	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.3
26	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.92
27	8.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	26	.12
28	17	.00	.00	.00	26	.00	.00	.00	.00	.00	22	.01
29	5.0	.00	.00	.00	---	.00	.00	.00	.00	.00	2.1	.00
30	.36	.00	.00	.00	---	.00	.00	.00	.00	.00	.43	.00
31	.02	---	.00	.00	---	.00	---	.00	---	.00	.05	---
TOTAL	120.64	38.44	0.00	0.00	52.54	0.14	4.70	16.62	0.00	0.00	86.40	119.93
MEAN	3.89	1.28	.000	.000	1.88	.005	.16	.54	.000	.000	2.79	4.00
MAX	33	24	.00	.00	26	.14	2.7	7.4	.00	.00	26	56
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	239	76	.00	.00	104	.3	9.3	33	.00	.00	171	238

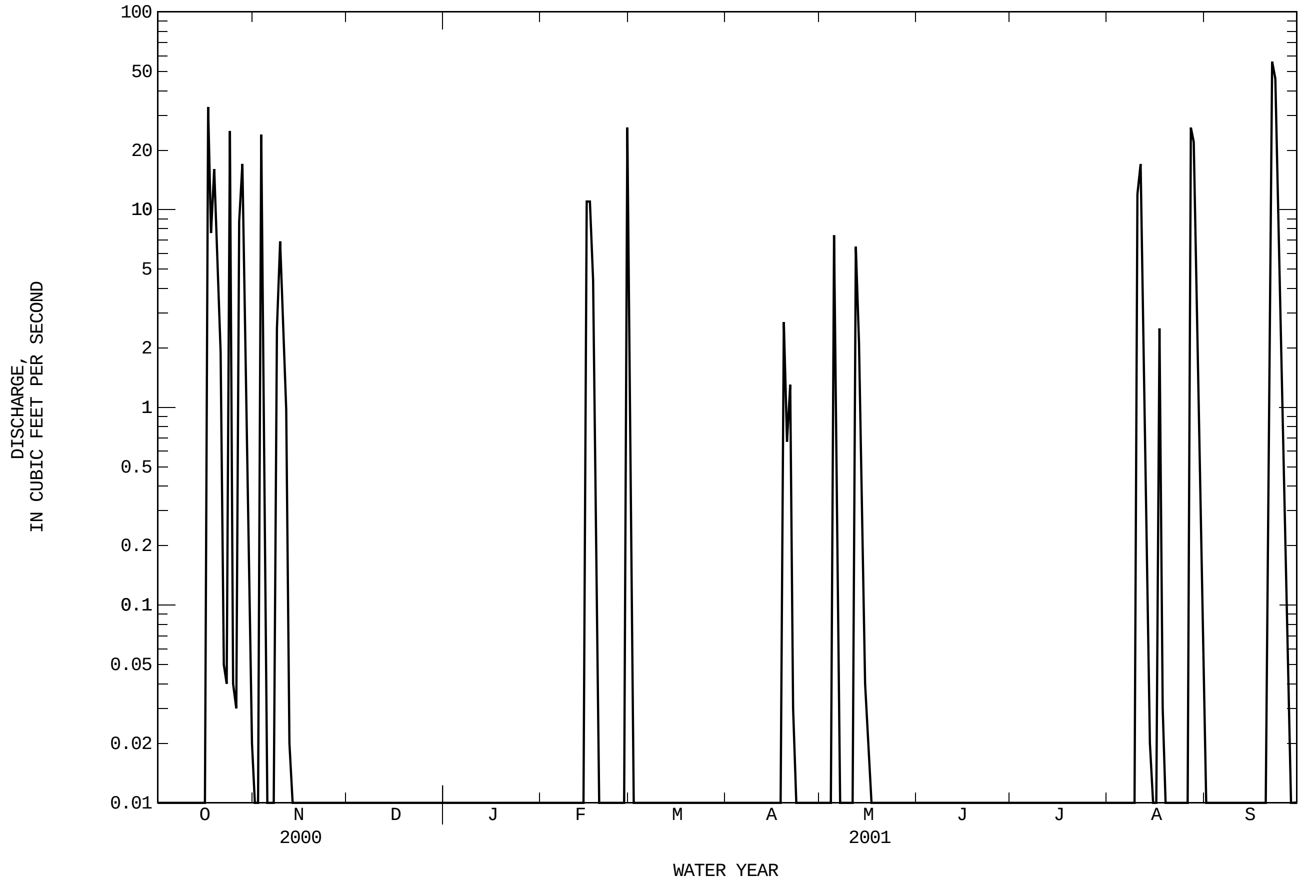
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	38.0	5.96	5.07	4.81	8.28	19.3	19.7	56.1	40.9	24.2	17.7	60.0
MAX	572	29.4	49.2	47.0	94.9	544	256	334	254	258	168	680
(WY)	1987	1987	1992	1987	1992	2000	1966	1994	1987	1961	1971	1980
MIN	.000	.000	.000	.000	.000	.005	.012	.14	.000	.000	.000	.000
(WY)	1964	2000	1999	1999	1999	2001	1998	1962	2001	1964	2000	1998

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1959 - 2001	
ANNUAL TOTAL	20889.22		439.41			
ANNUAL MEAN	57.1		1.20		25.1	
HIGHEST ANNUAL MEAN					107	1987
LOWEST ANNUAL MEAN					1.20	2001
HIGHEST DAILY MEAN	7340	Mar 23	56	Sep 22	7340	Mar 23 2000
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1958
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1958
MAXIMUM PEAK FLOW			182	Feb 28	c13000	Mar 23 2000
MAXIMUM PEAK STAGE			4.49	Feb 28	a23.70	Mar 23 2000
ANNUAL RUNOFF (AC-FT)	41430		872		18150	
10 PERCENT EXCEEDS	25		.77		23	
50 PERCENT EXCEEDS	.00		.00		2.0	
90 PERCENT EXCEEDS	.00		.00		.00	

c From rating curve extended above 5,840 ft^3/s.
a From floodmark.

08123800 Beals Creek near Westbrook, TX--Continued



08123800 Beals Creek near Westbrook, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Nov. 1958 to current year.
BIOCHEMICAL DATA: Nov. 1974 to Oct. 1977.
SEDIMENT DATA: Oct. 1974 to Oct. 1977.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Nov. 1958 to Feb. 1981 (local observer) and Mar. 1981 to current year.
WATER TEMPERATURE: Nov. 1958 to Feb. 1981 (local observer) and Mar. 1981 to current year.

INSTRUMENTATION.--Water-quality monitor since Mar. 5, 1981.

REMARKS.--No estimated daily specific conductance or water temperature. Records good. Interruptions in the specific conductance and water temperature values were due to no flow. No flow for many days. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. The computations of the selected constituent loads might include estimated discharge or specific conductance data. New regression equations were developed based on data from water years 1992 to 2001. The standard error of estimate for dissolved solids is 3%, chloride is 58%, sulfate is 30% and for hardness is 12%. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 24,500 microsiemens/cm, Aug. 9, 1989; minimum, 59 microsiemens/cm, Nov. 1, 1998.
WATER TEMPERATURE: Maximum daily, 37.0°C, June 28, 1960, and July 3, 1976; minimum, 0.0°C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 9,850 microsiemens/cm, Apr. 22; minimum, 156 microsiemens/cm, Feb. 15.
WATER TEMPERATURE: Maximum, 34.1°C, Aug. 13; minimum, 1.6°C, Feb. 28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT													
18...	1215	16	263	16.5	88.8	27.6	4.84	14.1	.649	5.72	16.2	15.6	.3
AUG													
27...	1245	45	530	24.6	99.4	26.5	8.05	63.5	2.77	4.96	44.9	97.7	.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT		
18...	6.0	137
AUG		
27...	6.1	291

08123800 Beals Creek near Westbrook, TX--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 2000 TO SEPTEMBER 2001

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. 2000	120.64	1910	1090	354	460	151	200	65.9	370
NOV. 2000	38.44	1260	704	73.1	300	31.3	130	13.1	240
DEC. 2000	0	--	--	--	--	--	--	--	--
JAN. 2001	0	--	--	--	--	--	--	--	--
FEB. 2001	52.54	2320	1330	189	570	80.3	250	36.0	460
MAR. 2001	0.14	212	116	0.04	50	0.02	20	0.01	40
APR. 2001	4.7	4830	2860	36.3	1200	15.2	580	7.4	970
MAY 2001	16.62	4760	2840	128	1200	53.4	580	26.2	960
JUNE 2001	0	--	--	--	--	--	--	--	--
JULY 2001	0	--	--	--	--	--	--	--	--
AUG. 2001	86.4	785	435	102	190	43.6	77	17.9	150
SEPT 2001	119.93	581	320	104	140	44.6	56	18.1	110
TOTAL	439.41	**	**	985	**	419	**	185	**
WTD.AVG.	1.2	1460	830	**	350	**	160	**	280

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	2080	215	1360	---	---	---	---	---	---
4	---	---	---	424	345	407	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	596	418	473	---	---	---	---	---	---
9	---	---	---	1900	326	848	---	---	---	---	---	---
10	---	---	---	2150	1900	2010	---	---	---	---	---	---
11	---	---	---	2230	2140	2180	---	---	---	---	---	---
12	---	---	---	2260	2140	2210	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	4430	197	2540	---	---	---	---	---	---	---	---	---
18	806	217	359	---	---	---	---	---	---	---	---	---
19	5960	333	1320	---	---	---	---	---	---	---	---	---
20	5980	994	2460	---	---	---	---	---	---	---	---	---
21	994	894	920	---	---	---	---	---	---	---	---	---
22	984	942	962	---	---	---	---	---	---	---	---	---
23	845	682	842	---	---	---	---	---	---	---	---	---
24	1500	433	826	---	---	---	---	---	---	---	---	---
25	1400	1130	1320	---	---	---	---	---	---	---	---	---
26	1820	1520	1650	---	---	---	---	---	---	---	---	---
27	3090	1120	1950	---	---	---	---	---	---	---	---	---
28	4540	1670	3630	---	---	---	---	---	---	---	---	---
29	2580	1080	1310	---	---	---	---	---	---	---	---	---
30	1350	1140	1250	---	---	---	---	---	---	---	---	---
31	1730	1350	1600	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

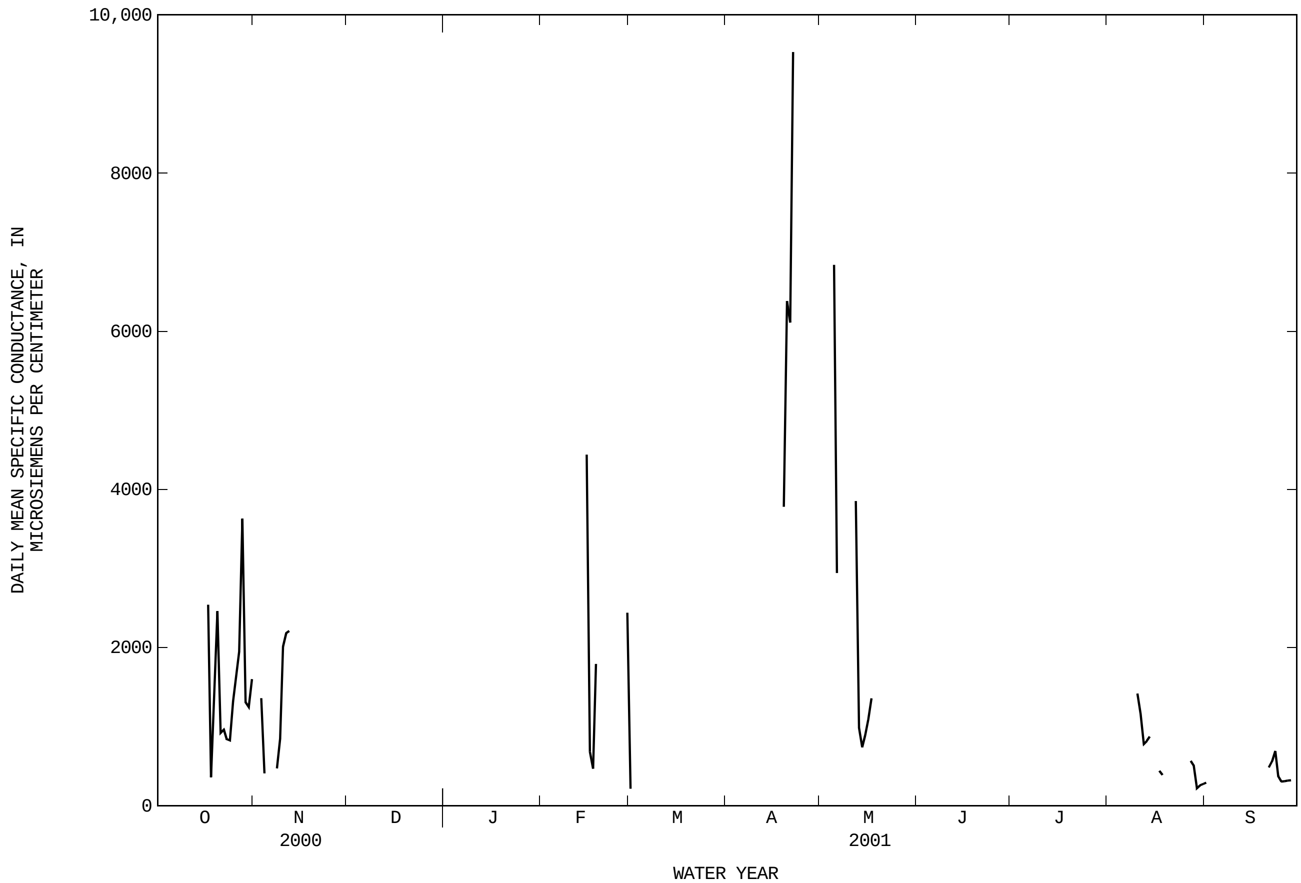
08123800 Beals Creek near Westbrook, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	217	193	212	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	9080	3820	6840
6	---	---	---	---	---	---	---	---	---	3820	2680	2940
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	4150	1360	3850
13	---	---	---	---	---	---	---	---	---	2300	686	986
14	---	---	---	---	---	---	---	---	---	777	688	738
15	6860	156	4440	---	---	---	---	---	---	1000	777	886
16	1970	165	683	---	---	---	---	---	---	1220	988	1090
17	878	319	468	---	---	---	---	---	---	1460	1220	1360
18	2910	668	1790	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	5250	1710	3780	---	---	---
20	---	---	---	---	---	---	6880	5250	6380	---	---	---
21	---	---	---	---	---	---	8130	5380	6110	---	---	---
22	---	---	---	---	---	---	9850	8130	9530	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	5340	190	2440	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	298	281	289
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	2450	416	1420	---	---	---
11	---	---	---	---	---	---	2630	916	1160	---	---	---
12	---	---	---	---	---	---	929	741	781	---	---	---
13	---	---	---	---	---	---	853	777	820	---	---	---
14	---	---	---	---	---	---	886	852	871	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	927	248	439	---	---	---
18	---	---	---	---	---	---	401	378	387	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	546	451	483
22	---	---	---	---	---	---	---	---	---	2260	249	561
23	---	---	---	---	---	---	---	---	---	2640	369	691
24	---	---	---	---	---	---	---	---	---	429	315	375
25	---	---	---	---	---	---	---	---	---	315	304	308
26	---	---	---	---	---	---	---	---	---	315	304	309
27	---	---	---	---	---	---	931	402	567	323	312	318
28	---	---	---	---	---	---	733	185	510	326	318	323
29	---	---	---	---	---	---	245	199	222	---	---	---
30	---	---	---	---	---	---	267	245	258	---	---	---
31	---	---	---	---	---	---	282	264	274	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

08123800 Beals Creek near Westbrook, TX--Continued



TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	16.0	15.3	15.8	---	---	---	---	---	---
4	---	---	---	15.7	15.0	15.4	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	8.7	6.1	6.9	---	---	---	---	---	---
9	---	---	---	8.7	5.3	7.2	---	---	---	---	---	---
10	---	---	---	11.8	7.3	9.2	---	---	---	---	---	---
11	---	---	---	14.3	9.8	11.7	---	---	---	---	---	---
12	---	---	---	12.2	10.1	11.3	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	17.3	16.0	16.8	---	---	---	---	---	---	---	---	---
18	18.4	15.0	16.5	---	---	---	---	---	---	---	---	---
19	18.6	16.0	17.3	---	---	---	---	---	---	---	---	---
20	22.2	18.2	19.8	---	---	---	---	---	---	---	---	---
21	21.1	19.9	20.4	---	---	---	---	---	---	---	---	---
22	22.2	18.6	20.2	---	---	---	---	---	---	---	---	---
23	19.9	18.7	19.9	---	---	---	---	---	---	---	---	---
24	19.9	17.9	18.9	---	---	---	---	---	---	---	---	---
25	19.9	19.1	19.5	---	---	---	---	---	---	---	---	---
26	20.4	18.9	19.5	---	---	---	---	---	---	---	---	---
27	20.2	19.2	19.7	---	---	---	---	---	---	---	---	---
28	20.2	17.0	19.1	---	---	---	---	---	---	---	---	---
29	18.7	15.0	16.7	---	---	---	---	---	---	---	---	---
30	20.5	15.4	17.7	---	---	---	---	---	---	---	---	---
31	20.6	18.2	19.4	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

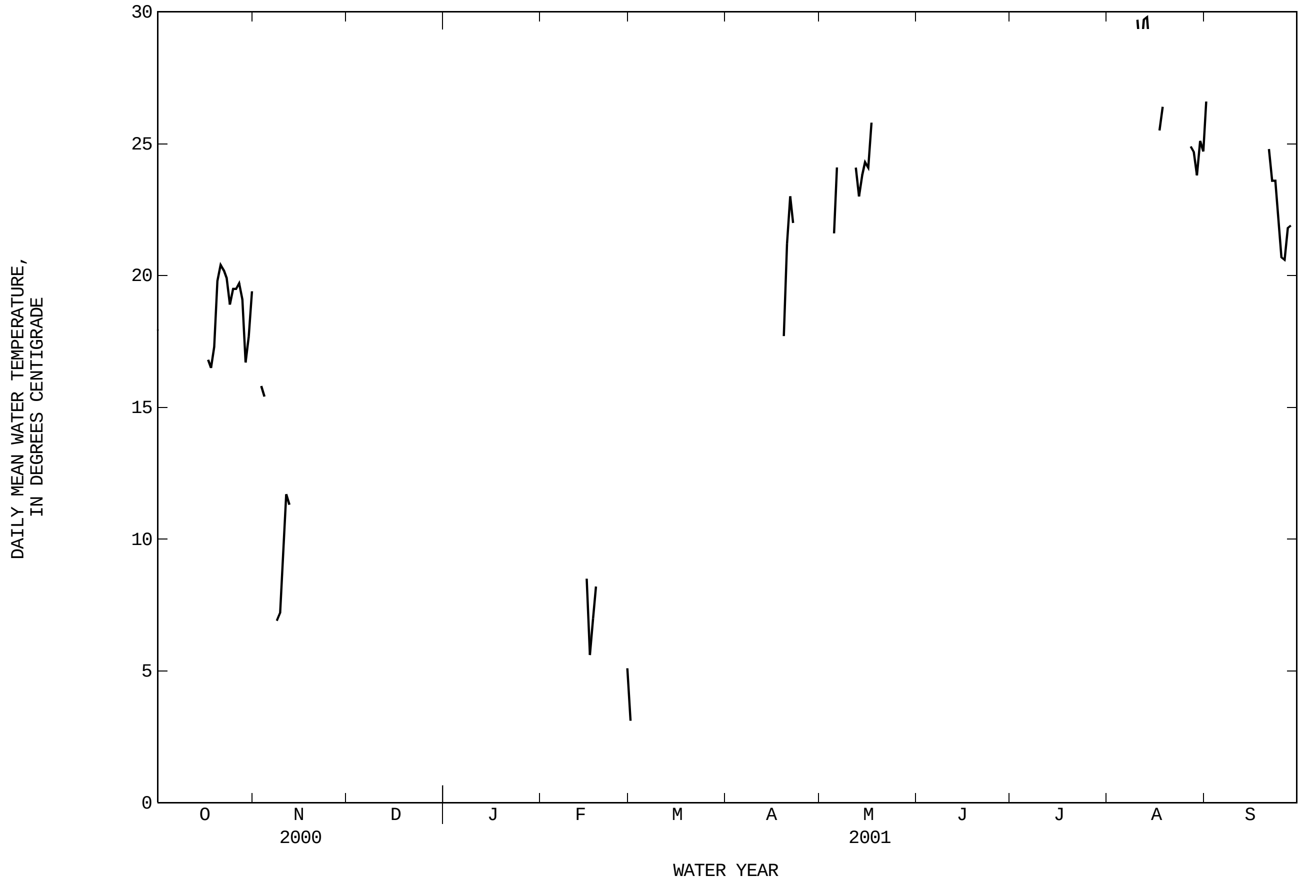
08123800 Beals Creek near Westbrook, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	3.3	2.6	3.1	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	24.6	19.6	21.6
6	---	---	---	---	---	---	---	---	---	28.0	20.6	24.1
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	24.9	22.5	24.1
13	---	---	---	---	---	---	---	---	---	27.3	19.8	23.0
14	---	---	---	---	---	---	---	---	---	27.3	20.9	23.8
15	11.3	2.1	8.5	---	---	---	---	---	---	28.8	21.0	24.3
16	8.0	3.8	5.6	---	---	---	---	---	---	28.0	21.0	24.1
17	9.1	5.0	7.0	---	---	---	---	---	---	29.7	21.4	25.8
18	11.1	5.7	8.2	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	21.4	14.8	17.7	---	---	---
20	---	---	---	---	---	---	24.1	19.0	21.2	---	---	---
21	---	---	---	---	---	---	26.1	20.8	23.0	---	---	---
22	---	---	---	---	---	---	23.1	20.5	22.0	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	8.4	1.6	5.1	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	29.9	22.7	26.6
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	30.1	27.8	29.7	---	---	---
11	---	---	---	---	---	---	30.8	25.7	28.2	---	---	---
12	---	---	---	---	---	---	32.6	27.0	29.7	---	---	---
13	---	---	---	---	---	---	34.1	26.9	29.8	---	---	---
14	---	---	---	---	---	---	31.8	26.8	28.4	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	29.2	23.2	25.5	---	---	---
18	---	---	---	---	---	---	30.7	24.3	26.4	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	29.5	22.1	24.8
22	---	---	---	---	---	---	---	---	---	25.4	22.2	23.6
23	---	---	---	---	---	---	---	---	---	25.8	21.7	23.6
24	---	---	---	---	---	---	---	---	---	24.3	20.4	22.1
25	---	---	---	---	---	---	---	---	---	23.5	18.4	20.7
26	---	---	---	---	---	---	---	---	---	24.5	17.5	20.6
27	---	---	---	---	---	---	26.3	23.1	24.9	27.1	18.5	21.8
28	---	---	---	---	---	---	26.9	23.7	24.7	26.8	18.2	21.9
29	---	---	---	---	---	---	25.1	22.7	23.8	---	---	---
30	---	---	---	---	---	---	29.0	23.0	25.1	---	---	---
31	---	---	---	---	---	---	27.4	23.4	24.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

08123800 Beals Creek near Westbrook, TX--Continued



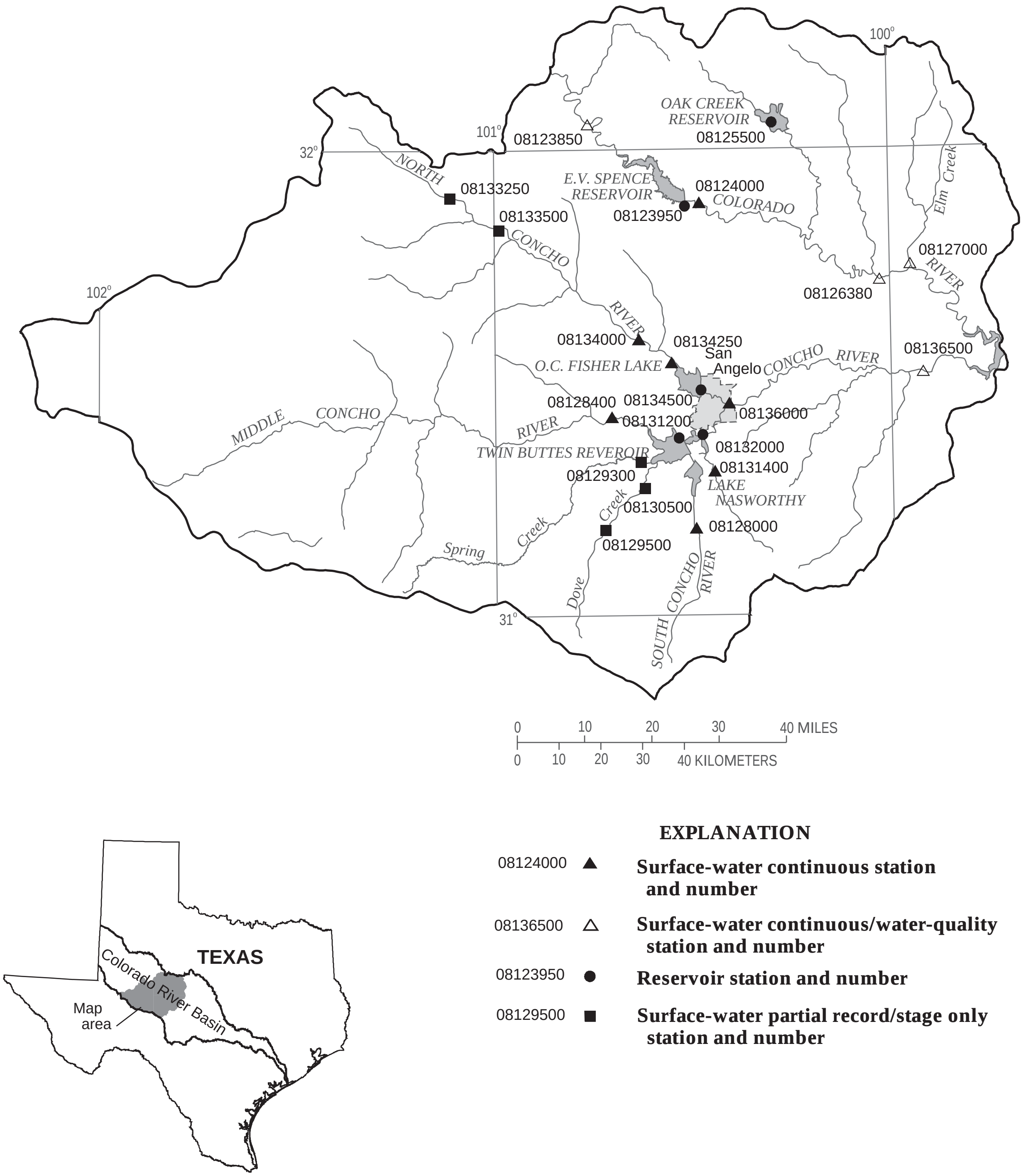


Figure 4.--Map showing location of gaging stations in the second section of the Colorado River Basin

08123850 Colorado River above Silver, TX

LOCATION.--Lat 32°03'13", long 100°45'42", Coke County, Hydrologic Unit 12080008, on right bank 25 ft downstream from Pan American Oil Co. bridge, 4.7 mi west of Silver, and at mile 756.0.

DRAINAGE AREA.--14,910 mi^2, of which 10,260 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,907.66 ft above sea level. Prior to Oct. 4, 1972, water-stage recorder at site 0.5 mi downstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since installation of gage in Aug. 1967, at least 10% of contributing drainage area has been regulated. The Colorado River Municipal Water District diverts low flow into an off channel reservoir 3 mi above Colorado River at Colorado City (station 08121000) for brine disposal. There are numerous diversions from Lake J.B. Thomas for municipal use and for oil field operations. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	23	1.8	2.2	2.2	12	15	.25	1.4	.00	.00	.00
2	.06	11	1.6	2.4	2.9	25	11	.18	.03	.00	.00	.00
3	.06	12	1.6	2.4	2.9	12	7.3	.12	.00	.00	.00	.00
4	.06	30	1.7	2.4	2.2	7.8	5.8	6.0	.00	.00	.00	.00
5	.06	33	1.7	2.2	2.1	5.1	4.9	15	.00	.00	.00	13
6	.05	16	1.4	2.2	1.7	3.9	4.2	5.2	.00	.00	.00	.89
7	.05	10	1.4	2.2	1.8	3.3	3.2	2.3	.00	.00	.00	.07
8	.07	9.3	1.4	2.2	1.9	3.2	3.1	1.4	.00	.00	.00	.00
9	.07	6.6	1.6	2.2	1.8	3.1	2.2	6.5	.00	.00	.00	.00
10	.09	7.6	1.5	2.9	1.8	2.9	2.5	5.2	.00	.00	.00	.00
11	.10	15	1.5	3.0	1.7	2.5	4.4	6.2	.00	.00	.00	.00
12	.12	8.7	1.4	3.8	1.7	2.3	8.1	4.8	.00	.00	.00	.00
13	.13	5.8	1.6	3.5	2.0	2.2	8.5	3.5	.00	.00	.00	.00
14	.11	3.9	1.8	4.0	2.3	2.2	6.0	2.9	.00	.00	.00	.00
15	.10	2.9	1.8	7.1	2.5	1.6	4.7	1.3	.00	.00	.00	.00
16	.10	2.3	1.7	5.6	3.1	1.7	6.2	.52	.00	.00	.00	.00
17	16	2.0	1.9	4.3	18	1.7	13	.22	.00	.00	.00	.00
18	40	1.7	1.6	3.9	33	2.0	8.1	.10	.00	.00	.00	.00
19	48	1.6	1.6	7.0	25	2.0	4.6	.08	.00	.00	.00	.00
20	34	1.8	1.8	5.3	22	2.1	3.5	.05	.00	.00	.00	.00
21	22	1.5	1.6	3.3	15	2.1	2.8	.01	.00	.00	.00	.04
22	35	1.4	1.8	2.7	12	1.9	2.2	.00	.00	.00	.00	2.7
23	20	1.5	1.7	2.3	8.6	1.9	.82	.01	.00	.00	.00	58
24	20	3.0	1.7	2.0	6.1	2.4	.58	.01	.00	.00	.00	73
25	53	3.0	1.9	2.2	4.2	3.3	.52	.00	.00	.00	.00	40
26	22	3.2	2.2	2.0	3.5	2.5	.47	.01	.00	.00	.23	33
27	12	6.1	2.4	2.0	3.1	13	.44	.17	.00	.00	1.5	22
28	192	4.5	2.4	2.2	2.8	10	.35	.06	.00	.00	.00	13
29	302	2.7	2.2	3.6	---	8.4	.27	.06	.00	.00	.00	7.7
30	67	2.2	2.2	3.3	---	8.2	.23	.09	.00	.00	.00	4.8
31	36	---	2.1	2.5	---	16	---	26	---	.00	.00	---
TOTAL	920.30	233.3	54.6	98.9	187.9	168.3	134.98	88.24	1.43	0.00	1.73	268.20
MEAN	29.7	7.78	1.76	3.19	6.71	5.43	4.50	2.85	.048	.000	.056	8.94
MAX	302	33	2.4	7.1	33	25	15	26	1.4	.00	1.5	73
MIN	.05	1.4	1.4	2.0	1.7	1.6	.23	.00	.00	.00	.00	.00
AC-FT	1830	463	108	196	373	334	268	175	2.8	.00	3.4	532

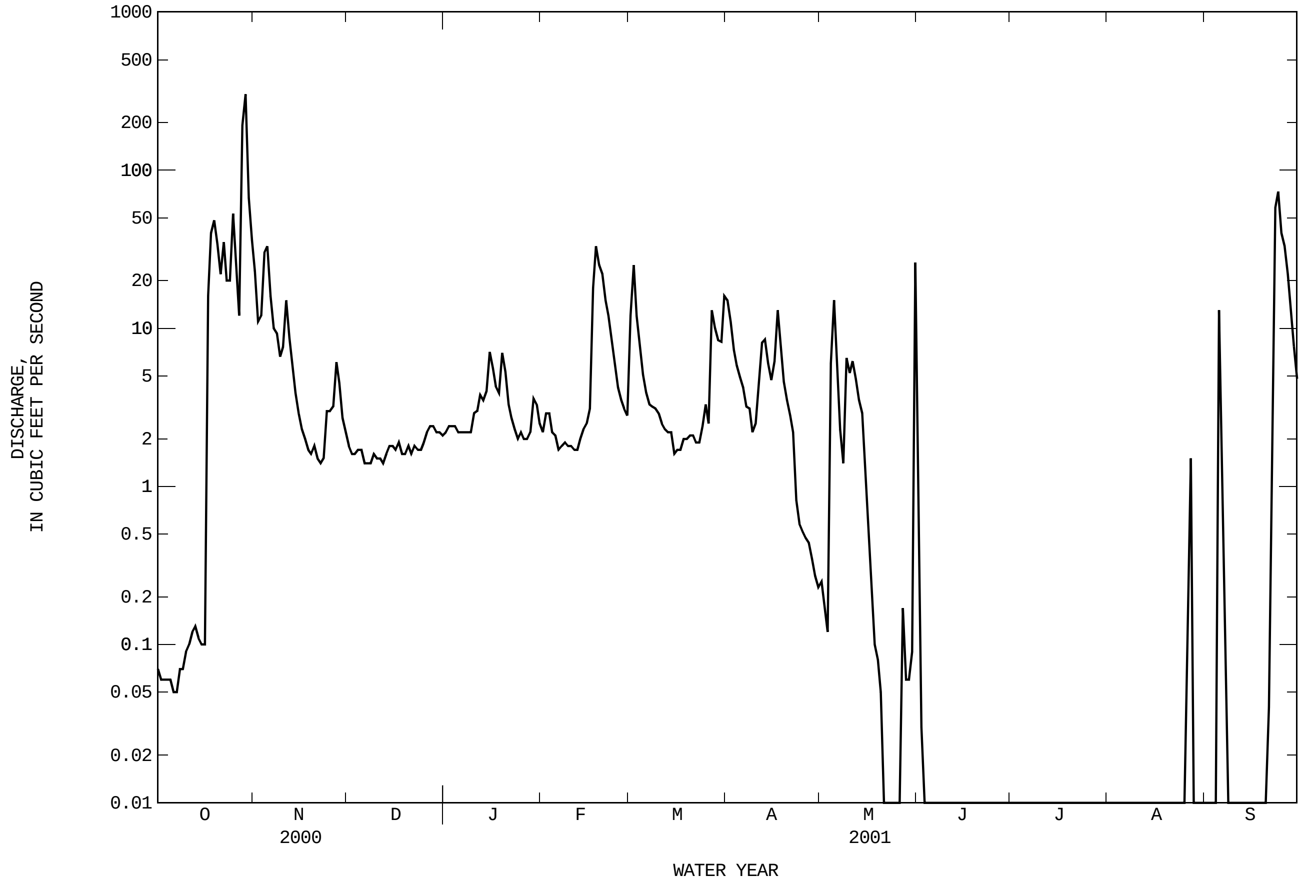
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	116	18.7	17.6	16.7	29.0	55.7	50.5	145	160	49.7	79.6	142
MAX	1834	67.5	120	90.7	256	999	599	681	1242	313	1122	1853
(WY)	1987	1973	1992	1987	1992	2000	1981	1994	1982	1988	1971	1980
MIN	.000	.000	.30	1.17	1.02	.36	.70	1.91	.048	.000	.010	.000
(WY)	1969	1971	1971	1971	1971	1971	1998	1984	2001	1970	1984	1968

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1967 - 2001	
ANNUAL TOTAL	39105.53		2157.88			
ANNUAL MEAN	107		5.91		73.7	
HIGHEST ANNUAL MEAN					298	1987
LOWEST ANNUAL MEAN					4.69	1998
HIGHEST DAILY MEAN	10500	Mar 25	302	Oct 29	15900	Sep 30 1980
LOWEST DAILY MEAN	.05	Sep 18	.00	May 22	.00	Aug 2 1968
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 15	.00	Jun 3	.00	Aug 2 1968
MAXIMUM PEAK FLOW			952	Oct 28	c18900	Sep 9 1980
MAXIMUM PEAK STAGE			5.75	Oct 28	22.73	Sep 9 1980
ANNUAL RUNOFF (AC-FT)	77570		4280		53360	
10 PERCENT EXCEEDS	60		13		91	
50 PERCENT EXCEEDS	2.7		1.7		8.1	
90 PERCENT EXCEEDS	.08		.00		.10	

c From rating curve extended above 12,800 ft^3/s.

08123850 Colorado River above Silver, TX--Continued



08123850 Colorado River above Silver, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Aug. 1967 to current year.
BIOCHEMICAL DATA: Nov. 1977 to current year.
PESTICIDE DATA: Oct. 1969 to Aug. 1981.
SEDIMENT DATA: Aug. 1977 to Aug. 1994.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Dec. 1967 to current year.
WATER TEMPERATURE: Dec. 1967 to May 1981 (local observer) and June 1981 to current year.

INSTRUMENTATION.--Specific conductance recorder since Dec. 1967. Water-temperature recorder since June 1981.

REMARKS.--No estimated daily specific conductance or water temperature. Records fair. Interruptions in the record were due to no flow. No flow June 3 to Aug. 25, Aug. 28 to Sept. 4, Sept. 8-20. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. New regression equations were developed based on data from water years 1992 to 2001. The standard error of estimate for dissolved solids is 6%, chloride is 31%, sulfate is 48% and for hardness is 30%. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 19,900 microsiemens/cm, Sept. 10, 1988; minimum, 154 microsiemens/cm, Sept. 21, 1990.
WATER TEMPERATURE: Maximum, 35.5°C, Aug. 2, 7, 1985; minimum, 0.0°C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 12,300 microsiemens/cm, Feb. 18; minimum, 566 microsiemens/cm, Oct. 28.
WATER TEMPERATURE: Maximum, 31.0°C, May 17; minimum, 1.6°C, Dec. 27.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
OCT													
13...	1200	.14	8560	8.3	18.0	9.1	105	3000	--	831	225	948	7.53
JAN													
11...	1300	2.7	5570	7.8	6.8	11.8	103	1370	1250	362	114	673	7.90
MAR													
06...	1330	4.2	6990	8.1	14.5	9.9	106	987	877	250	88.0	1070	14.8
APR													
25...	1200	.72	6900	8.1	21.4	8.9	109	1430	1300	357	130	908	10.5
SEP													
07...	1200	.11	3610	--	27.8	--	--	1160	--	328	83.9	397	5.06

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
OCT													
13...	2.73	--	--	--	2540	1780	.6	13.8	--	<.006	<.047	.061	.412
JAN													
11...	7.79	0	150	123	1230	1130	.4	1.0	3600	<.006	<.047	E.021	--
MAR													
06...	7.86	0	134	110	835	1770	.5	1.2	4090	<.006	<.047	<.041	--
APR													
25...	9.78	0	156	128	1360	1500	.6	5.6	4350	<.006	<.047	<.041	--
SEP													
07...	7.65	--	--	--	1010	709	.4	9.6	--	--	--	--	--

DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
OCT													
13...	.47	<.060	E.009	3.9	99.8	<.14	<.8	<1.3	<10	<2.00	4.9	<.23	5.2
JAN													
11...	.32	<.060	<.018	E1.6	61.0	<.14	<.8	<1.3	<50	<1.00	21.0	<.23	2.6
MAR													
06...	.35	<.060	<.018	E1.4	16.6	<.42	E.7	E1.8	<50	<3.00	37.3	<.23	<2.4
APR													
25...	.41	<.060	<.018	2.7	106	<.28	E.6	E1.2	<50	<2.00	20.7	<.01	<2.4
SEP													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--

08123850 Colorado River above Silver, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT		
13...	.5	<20
JAN		
11...	<.2	<100
MAR		
06...	<.5	<100
APR		
25...	<.3	<100
SEP		
07...	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 2000 TO SEPTEMBER 2001

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. 2000	920.3	2110	1340	3330	430	1080	410	1020	520
NOV. 2000	233.3	2040	1280	803	410	259	390	245	500
DEC. 2000	54.6	4730	3090	455	1000	149	970	143	1200
JAN. 2001	98.9	6150	4110	1100	1400	363	1300	348	1500
FEB. 2001	187.9	7490	5150	2610	1700	874	1700	841	1900
MAR. 2001	168.3	5860	3910	1780	1300	587	1200	563	1500
APR. 2001	134.98	6010	4000	1460	1300	482	1300	461	1500
MAY 2001	88.24	7100	4840	1150	1600	384	1500	369	1800
JUNE 2001	1.43	4010	2590	10.0	840	3.3	800	3.1	990
JULY 2001	0	--	--	--	--	--	--	--	--
AUG. 2001	1.73	7950	5460	25.5	1800	8.5	1800	8.2	2000
SEPT 2001	268.2	2980	1910	1390	620	451	590	430	730
TOTAL	2157.88	**	**	14110	**	4640	**	4430	**
WTD.AVG.	5.9	3680	2420	**	800	**	760	**	910

08123850 Colorado River above Silver, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

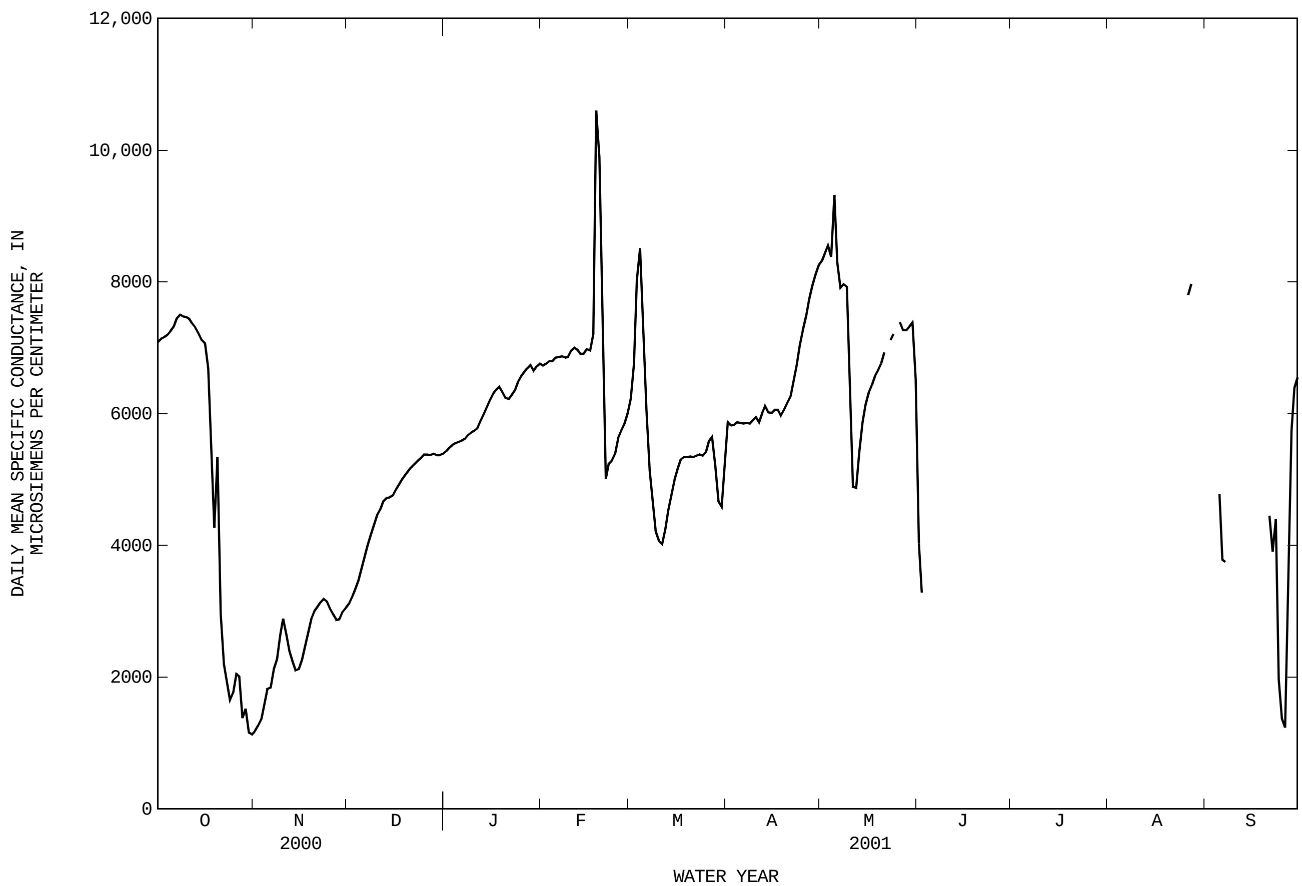
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7150	7030	7090	1230	1160	1180	3170	3070	3110	5460	5400	5430
2	7390	7030	7140	1290	1230	1260	3290	3160	3220	5520	5450	5480
3	7200	7090	7160	1460	1290	1360	3390	3280	3330	5570	5490	5520
4	7220	7120	7190	1780	1460	1610	3550	3390	3460	5600	5490	5550
5	7450	7190	7250	1840	1770	1820	3740	3540	3640	5600	5550	5570
6	7400	7230	7320	2000	1740	1840	3930	3740	3830	5640	5550	5590
7	7500	7390	7450	2210	2000	2120	4070	3930	4000	5650	5590	5620
8	7520	7470	7500	2430	2210	2270	4240	4070	4160	5730	5640	5670
9	7500	7450	7480	2810	2430	2640	4390	4240	4310	5750	5670	5710
10	7490	7430	7470	2930	2810	2890	4570	4390	4460	5760	5730	5740
11	7470	7410	7440	2870	2490	2650	4620	4520	4550	5830	5750	5780
12	7410	7310	7360	2490	2300	2390	4710	4610	4670	5940	5790	5880
13	7470	7280	7310	2310	2150	2230	4750	4690	4720	6040	5930	5980
14	7290	7040	7220	2150	2070	2100	4750	4720	4730	6120	6020	6090
15	7160	6980	7120	2160	2080	2120	4850	4700	4760	6260	6110	6200
16	7140	6950	7070	2360	2160	2260	4890	4790	4840	6320	6250	6300
17	6990	5520	6690	2590	2350	2470	4970	4890	4920	6400	6320	6360
18	6640	3150	5580	2800	2590	2690	5040	4960	5000	6430	6380	6410
19	5920	1520	4270	2950	2790	2880	5120	5030	5070	6420	6250	6330
20	7590	2720	5340	3040	2950	3000	5160	5110	5130	6310	6190	6240
21	3170	2680	2960	3110	3040	3070	5250	5080	5190	6260	6170	6220
22	3100	1660	2200	3180	3100	3140	5270	5210	5240	6320	6200	6280
23	2000	1830	1940	3220	3170	3190	5320	5260	5290	6410	6280	6350
24	1870	1510	1650	3210	3080	3150	5360	5310	5330	6520	6400	6480
25	2040	1510	1760	3110	3000	3040	5420	5360	5380	6610	6510	6570
26	2270	1760	2050	3010	2900	2950	5410	5340	5380	6690	6580	6630
27	2260	1720	2010	2900	2840	2870	5390	5350	5370	6740	6640	6690
28	1720	566	1380	2930	2810	2880	5410	5330	5390	6760	6660	6740
29	2130	1150	1520	3040	2930	2990	5410	5350	5370	6680	6610	6650
30	1290	1070	1160	3090	3030	3050	5410	5330	5370	6750	6650	6720
31	1160	1070	1130	---	---	---	5400	5360	5390	6800	6710	6760
MONTH	7590	566	5100	3220	1160	2470	5420	3070	4660	6800	5400	6110

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6780	6680	6730	7070	6070	6230	5930	5750	5870	8380	8260	8320
2	6890	6710	6760	7350	6370	6760	5880	5730	5820	8460	8360	8430
3	6840	6750	6800	8770	6830	8030	5880	5760	5830	8590	8460	8550
4	6830	6740	6800	8790	8070	8510	5920	5720	5870	8620	8050	8380
5	6900	6810	6850	8070	6800	7520	5890	5820	5860	9800	8120	9320
6	6940	6810	6860	6800	5570	6050	5860	5800	5850	8790	7890	8300
7	6900	6820	6870	5590	4790	5140	5980	5760	5860	7990	7830	7910
8	6870	6830	6850	4840	4470	4660	5880	5790	5850	8020	7930	7970
9	6930	6830	6860	4470	4150	4210	5920	5860	5900	8130	7500	7930
10	7010	6920	6960	4160	3970	4070	5990	5870	5950	7500	5240	6080
11	7050	6930	7000	4060	3980	4020	5950	5810	5870	5240	4710	4890
12	6990	6940	6970	4380	4040	4250	6150	5940	6010	5110	4720	4870
13	6950	6870	6910	4640	4370	4530	6200	6030	6120	5640	5110	5430
14	6930	6890	6910	4900	4640	4770	6070	5960	6020	6040	5630	5870
15	7030	6930	6980	5100	4900	5000	6050	5970	6010	6220	6020	6130
16	7000	6930	6960	5230	5090	5170	6110	6010	6060	6380	6220	6310
17	7820	6960	7210	5360	5220	5300	6110	6000	6060	6510	6340	6430
18	12300	7820	10600	5380	5310	5340	6010	5920	5970	6630	6510	6570
19	12100	7900	9890	5380	5300	5340	6130	6000	6060	6720	6610	6660
20	7900	5490	6680	5430	5260	5350	6200	6130	6160	6840	6700	6760
21	5500	4860	5010	5380	5290	5340	6350	6180	6260	6970	6830	6930
22	5300	5100	5240	5410	5330	5360	6600	6340	6480	---	---	---
23	5310	5270	5290	5440	5320	5380	6900	6600	6730	7150	7080	7120
24	5550	5300	5390	5480	5320	5360	7230	6880	7040	7250	7160	7210
25	5770	5550	5630	5510	5340	5420	7430	7130	7280	---	---	---
26	5790	5680	5750	5640	5510	5580	7640	7400	7490	7430	7340	7390
27	5920	5790	5840	5710	5480	5640	7830	7640	7730	7340	7190	7270
28	6080	5900	6000	5480	4830	5210	8030	7830	7940	7310	7210	7270
29	---	---	---	4840	4580	4670	8180	8030	8110	7350	7280	7320
30	---	---	---	4760	4490	4590	8300	8170	8250	7440	7320	7380
31	---	---	---	5750	4750	5240	---	---	---	7330	6030	6520
MONTH	12300	4860	6740	8790	3970	5420	8300	5720	6410	---	---	---

08123850 Colorado River above Silver, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6100	2900	4030	---	---	---	---	---	---	---	---	---
2	3480	3000	3280	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	6560	3790	4780
6	---	---	---	---	---	---	---	---	---	3890	3700	3780
7	---	---	---	---	---	---	---	---	---	3820	3710	3750
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	4520	4070	4450
22	---	---	---	---	---	---	---	---	---	4250	3620	3910
23	---	---	---	---	---	---	---	---	---	6310	2240	4400
24	---	---	---	---	---	---	---	---	---	3380	1130	1970
25	---	---	---	---	---	---	---	---	---	1440	1180	1370
26	---	---	---	---	---	---	8080	7790	7800	1610	1110	1230
27	---	---	---	---	---	---	8210	7750	7970	5030	1610	3310
28	---	---	---	---	---	---	---	---	---	6210	5020	5740
29	---	---	---	---	---	---	---	---	---	6520	6210	6390
30	---	---	---	---	---	---	---	---	---	6590	6480	6550
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---



08123850 Colorado River above Silver, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

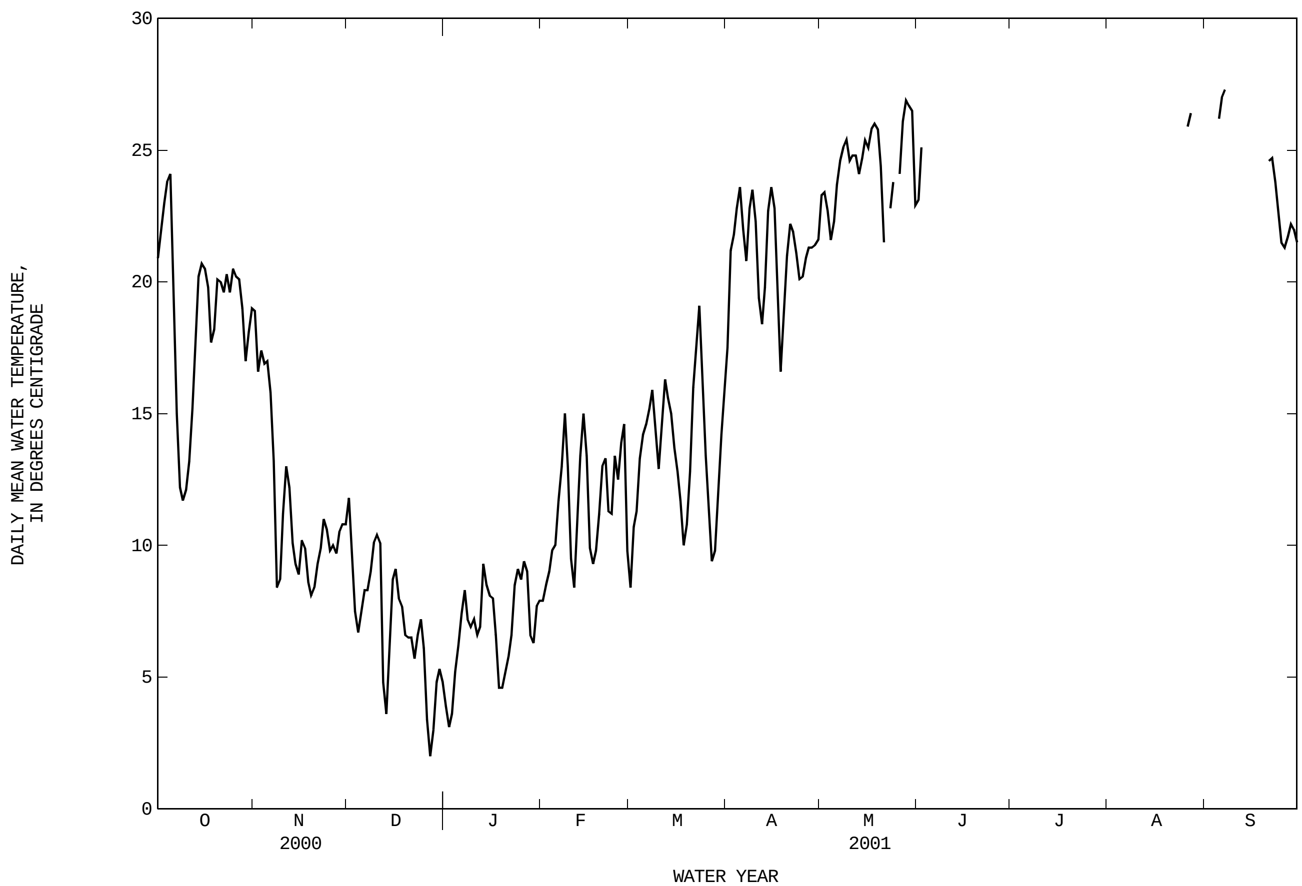
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	23.2	19.1	20.9	20.3	17.5	18.9	12.5	10.9	11.8	4.2	3.7	3.9
2	26.0	19.8	22.0	18.2	15.0	16.6	11.4	8.4	9.4	3.7	2.8	3.1
3	25.6	20.9	23.0	17.8	17.0	17.4	8.9	6.5	7.5	5.1	2.6	3.6
4	26.1	21.8	23.8	17.4	16.4	16.9	7.4	6.3	6.7	7.5	3.6	5.2
5	26.2	22.3	24.1	17.5	16.7	17.0	7.9	7.2	7.5	7.6	4.8	6.2
6	24.1	17.7	20.7	17.0	14.4	15.8	9.2	7.4	8.3	8.9	6.1	7.4
7	17.7	12.8	15.0	15.9	10.4	13.2	9.2	6.7	8.3	8.8	7.5	8.3
8	12.8	11.9	12.2	10.4	7.5	8.4	9.7	8.0	9.0	8.3	6.0	7.2
9	12.3	11.2	11.7	11.3	7.0	8.7	12.0	9.0	10.1	7.6	5.7	6.9
10	13.7	10.7	12.1	13.6	9.1	11.2	11.9	9.5	10.4	7.5	7.0	7.2
11	14.2	12.3	13.2	15.2	10.9	13.0	11.7	7.5	10.1	7.4	5.6	6.6
12	16.7	14.2	15.2	14.1	11.0	12.2	7.5	3.2	4.8	8.2	5.8	6.9
13	19.9	16.7	18.0	11.4	8.7	10.1	5.1	2.3	3.6	10.8	8.2	9.3
14	22.2	18.9	20.2	10.8	7.7	9.3	7.3	4.6	5.9	9.7	6.9	8.5
15	21.3	20.4	20.7	9.8	8.0	8.9	10.4	7.0	8.7	9.3	6.8	8.1
16	22.0	19.5	20.5	11.6	8.9	10.2	9.9	8.1	9.1	8.5	7.7	8.0
17	22.0	17.6	19.8	11.2	9.3	9.9	8.8	6.9	8.0	7.9	5.4	6.6
18	20.5	16.3	17.7	9.7	8.0	8.6	8.3	6.7	7.7	5.4	4.3	4.6
19	19.7	16.5	18.2	9.6	6.6	8.1	7.4	5.5	6.6	6.5	3.0	4.6
20	22.5	18.6	20.1	10.3	6.6	8.4	7.5	5.5	6.5	6.8	3.8	5.2
21	20.7	19.5	20.0	10.8	7.6	9.3	7.4	5.6	6.5	7.5	4.0	5.8
22	21.4	18.3	19.6	10.7	9.5	9.9	6.4	4.6	5.7	8.4	4.4	6.6
23	21.5	19.6	20.3	11.8	10.2	11.0	8.0	5.4	6.6	9.9	7.1	8.5
24	20.7	18.5	19.6	11.4	9.8	10.6	7.5	6.8	7.2	10.4	7.3	9.1
25	21.2	19.9	20.5	11.4	8.3	9.8	6.8	5.2	6.1	10.0	8.1	8.7
26	20.7	19.8	20.2	11.8	8.1	10.0	5.3	2.1	3.4	10.8	8.4	9.4
27	20.8	19.4	20.1	11.2	8.4	9.7	2.6	1.6	2.0	10.5	7.6	9.0
28	20.2	16.0	19.0	12.4	9.1	10.5	4.6	2.0	3.0	7.6	5.4	6.6
29	18.1	15.4	17.0	12.0	9.7	10.8	5.7	3.9	4.8	8.3	4.5	6.3
30	19.8	16.7	18.1	12.6	9.1	10.8	6.1	4.1	5.3	9.5	5.7	7.7
31	20.2	18.3	19.0	---	---	---	5.9	4.2	4.8	9.5	6.0	7.9
MONTH	26.2	10.7	18.8	20.3	6.6	11.5	12.5	1.6	6.9	10.8	2.6	6.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.2	6.0	7.9	12.1	6.3	8.4	21.2	14.3	17.5	26.2	20.9	23.3
2	10.8	6.5	8.5	11.5	10.0	10.7	25.0	18.6	21.2	25.0	21.6	23.4
3	11.1	6.8	9.0	12.8	10.3	11.3	23.4	20.8	21.8	23.8	21.8	22.7
4	11.4	7.9	9.8	15.9	11.1	13.3	25.9	20.2	22.8	22.6	20.7	21.6
5	12.0	7.7	10.0	17.3	11.9	14.2	25.0	22.0	23.6	26.0	19.7	22.3
6	14.4	10.0	11.7	16.3	12.9	14.6	24.3	20.7	22.0	27.0	21.5	23.7
7	14.5	11.3	13.0	17.7	12.4	15.2	24.4	18.8	20.8	26.5	22.1	24.6
8	15.7	14.4	15.0	17.8	14.3	15.9	25.2	20.6	22.8	27.6	23.5	25.1
9	15.2	11.6	13.0	16.0	13.6	14.4	24.6	22.2	23.5	27.9	22.7	25.4
10	11.7	8.3	9.5	14.3	11.5	12.9	23.7	21.5	22.3	27.0	22.1	24.6
11	10.4	6.9	8.4	16.8	13.3	14.8	21.5	17.1	19.4	27.7	21.7	24.8
12	12.1	10.4	11.1	18.0	14.5	16.3	22.1	16.4	18.4	26.9	23.0	24.8
13	15.2	12.0	13.4	16.9	13.4	15.6	21.6	18.4	19.8	26.7	21.9	24.1
14	15.9	14.0	15.0	16.1	13.7	15.0	25.4	20.6	22.7	26.4	22.8	24.7
15	15.9	10.8	13.4	15.1	12.3	13.7	25.4	21.3	23.6	28.6	22.7	25.4
16	10.9	9.1	9.9	14.8	10.7	12.8	25.3	20.1	22.8	28.1	22.5	25.1
17	12.0	7.0	9.3	13.3	10.6	11.7	24.1	16.4	18.9	31.0	22.8	25.8
18	11.9	7.8	9.8	10.6	9.6	10.0	18.7	15.0	16.6	29.9	24.3	26.0
19	13.8	9.1	11.2	12.8	9.3	10.8	21.4	16.1	18.6	28.3	24.3	25.8
20	16.1	10.8	13.0	16.9	10.6	12.8	22.5	19.7	21.0	26.7	22.7	24.4
21	14.9	12.4	13.3	18.3	13.2	16.0	23.5	21.1	22.2	24.3	20.1	21.5
22	12.4	10.6	11.3	20.0	14.9	17.5	23.7	20.5	21.9	---	---	---
23	13.0	9.9	11.2	21.9	16.3	19.1	23.1	19.3	21.1	26.7	19.5	22.8
24	14.5	12.4	13.4	20.9	13.3	16.4	23.5	17.8	20.1	26.9	22.1	23.8
25	16.0	10.8	12.5	15.6	11.5	13.4	23.3	17.5	20.2	---	---	---
26	15.4	12.3	13.9	14.3	10.2	11.7	23.2	18.4	20.9	27.9	22.1	24.1
27	15.8	14.0	14.6	10.2	8.9	9.4	23.8	19.0	21.3	29.5	23.3	26.1
28	14.0	7.4	9.8	12.0	8.7	9.8	23.3	19.5	21.3	30.3	24.5	26.9
29	---	---	---	13.4	10.7	11.8	23.7	19.3	21.4	28.3	24.9	26.7
30	---	---	---	16.5	12.4	14.2	23.4	19.8	21.6	30.4	24.9	26.5
31	---	---	---	18.1	14.0	15.8	---	---	---	26.3	22.3	22.9
MONTH	16.1	6.0	11.5	21.9	6.3	13.5	25.9	14.3	21.1	---	---	---

08123850 Colorado River above Silver, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.0	22.5	23.1	---	---	---	---	---	---	---	---	---
2	29.1	21.5	25.1	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	29.0	24.4	26.2
6	---	---	---	---	---	---	---	---	---	28.8	25.2	27.0
7	---	---	---	---	---	---	---	---	---	30.4	25.5	27.3
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	27.2	23.3	24.6
22	---	---	---	---	---	---	---	---	---	25.0	23.9	24.7
23	---	---	---	---	---	---	---	---	---	25.6	21.8	23.8
24	---	---	---	---	---	---	---	---	---	24.2	21.4	22.8
25	---	---	---	---	---	---	---	---	---	24.1	19.2	21.5
26	---	---	---	---	---	---	26.3	25.9	25.9	24.0	18.8	21.3
27	---	---	---	---	---	---	26.8	26.1	26.4	24.3	19.3	21.7
28	---	---	---	---	---	---	---	---	---	24.8	19.5	22.2
29	---	---	---	---	---	---	---	---	---	24.5	19.7	22.0
30	---	---	---	---	---	---	---	---	---	23.2	19.9	21.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---



08123950 E.V. Spence Reservoir near Robert Lee, TX

LOCATION.--Lat 31°52′46", long 100°31′01", Coke County, Hydrologic Unit 12080008, in outlet works of Robert Lee Dam on the Colorado River, 2.2 mi west of Robert Lee, and at mile 716.0.

DRAINAGE AREA.--15,278 mi^2, approximately, of which 10,260 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Dec. 1968 to current year.
Water-quality records.--Chemical data: Nov. 1969 to Aug. 1988. Biochemical data: Jan. 1978 to Aug. 1988.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to June 24, 1969, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The reservoir is formed by a rolled earthfill dam 21,500 ft long. Closure was made Dec. 30, 1968, and dam was completed in June 1969. The dam is the property of the Colorado River Municipal Water District, which has a permit to divert 50,000 acre-ft annually for municipal, mining, and industrial uses. Inflow into the reservoir is partially regulated by Lake J.B. Thomas (station 08118000, conservation pool storage 199,931 acre-ft), Lake Colorado City (station 08123000, conservation pool storage 30,800 acre-ft), and Champion Creek Reservoir (station 08123600, conservation pool storage 41,600 acre-ft). There are two spillways: The controlled service spillway is a morning-glory type that is partially controlled by 12 lift gates, 14.48 by 22.0 ft, and discharges through a 28.0 ft diameter concrete conduit. The uncontrolled spillway is a 3,200 ft wide cut through natural ground near the right end of dam. Conservation pool storage is 517,272 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	1,928.0
Crest of spillway..	1,908.0
Top of gates...	1,900.0
Crest of spillway..	1,878.0
Lowest gated outlet (invert).......................................	1,815.85

COOPERATION.--Capacity table dated Mar. 1972 was furnished by the Colorado River Municipal Water District. Records of diversions can be obtained from the city of San Angelo and from the Colorado River Municipal Water District. A volumetric survey by the Texas Water Development Board in July 1999 has not received final approval from the Colorado River Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 355,300 acre-ft, June 16, 1987, elevation, 1,887.03 ft; minimum contents after initial filling, 53,950 acre-ft, Mar. 23, 2000, elevation, 1,841.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,330 acre-ft, Nov. 8, elevation, 1,851.54 ft; minimum contents, 60,270 acre-ft, Sept. 30, elevation, 1,843.82 ft.

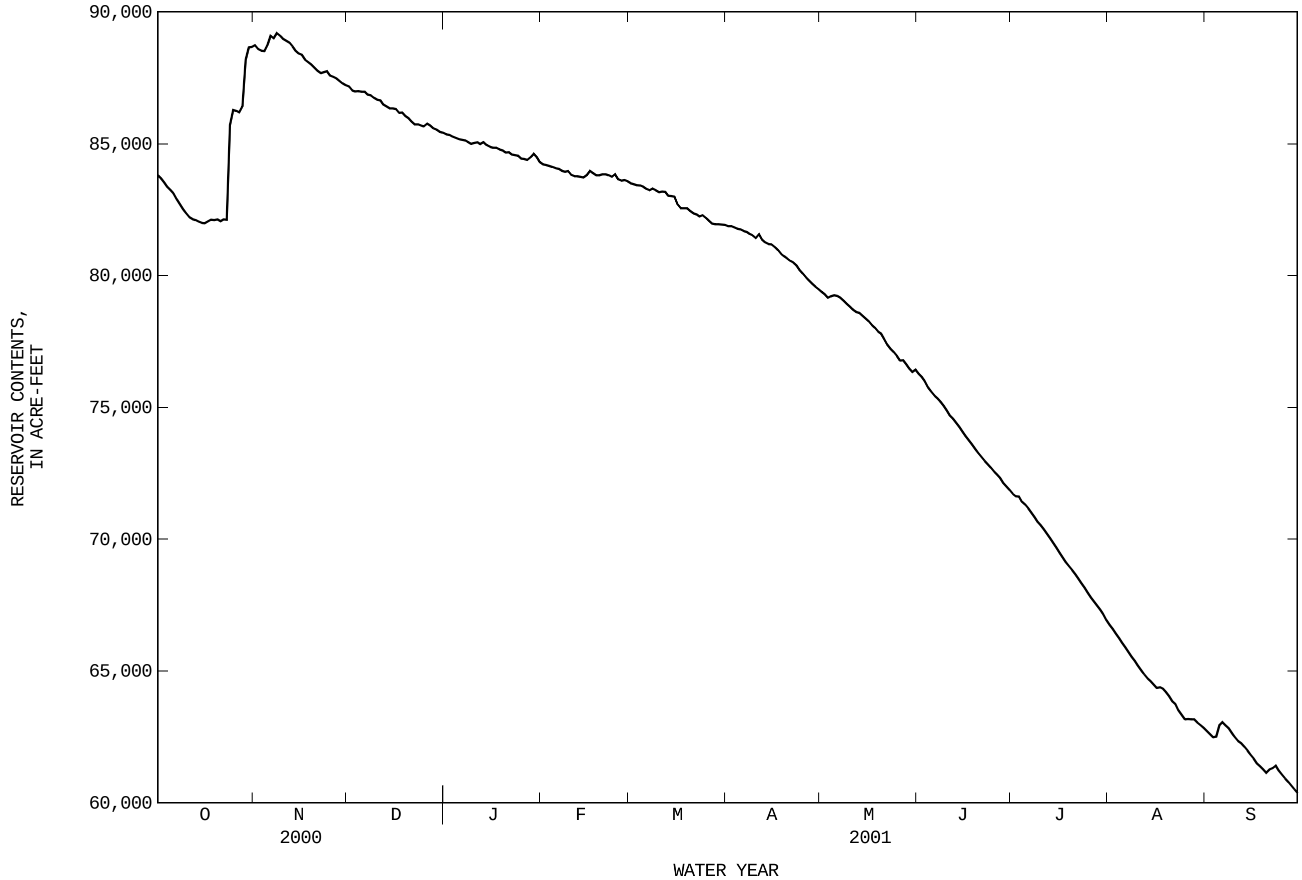
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83810	88730	87170	85360	84220	83500	81880	79370	76270	71730	66750	62730
2	83680	88590	87020	85330	84190	83470	81880	79290	76150	71630	66590	62610
3	83520	88530	86980	85270	84160	83430	81830	79160	75980	71620	66410	62480
4	83370	88510	87000	85220	84120	83420	81780	79210	75760	71420	66240	62510
5	83250	88730	86970	85180	84070	83370	81750	79250	75580	71310	66070	62950
6	83110	89100	86970	85150	84050	83280	81690	79230	75440	71160	65900	63050
7	82890	89000	86870	85130	83970	83230	81650	79150	75340	71000	65710	62940
8	82700	89200	86840	85070	83940	83300	81570	79050	75210	70820	65530	62820
9	82530	89100	86740	85000	83960	83240	81520	78930	75050	70660	65370	62640
10	82360	88980	86670	85030	83820	83160	81430	78820	74870	70520	65200	62480
11	82210	88900	86640	85060	83770	83190	81570	78700	74690	70360	65040	62340
12	82140	88830	86490	84980	83770	83170	81350	78620	74560	70200	64860	62250
13	82110	88690	86420	85050	83750	83030	81250	78590	74410	70040	64720	62120
14	82050	88530	86340	84950	83720	83020	81200	78480	74250	69860	64620	61980
15	81990	88420	86340	84880	83800	82990	81180	78380	74070	69670	64490	61820
16	81980	88370	86320	84850	83960	82690	81080	78270	73910	69480	64350	61670
17	82060	88190	86170	84850	83880	82560	80970	78120	73750	69300	64380	61490
18	82120	88090	86180	84790	83800	82560	80830	78010	73600	69130	64320	61380
19	82100	88010	86050	84750	83810	82560	80730	77870	73430	68970	64200	61270
20	82130	87880	85970	84670	83840	82440	80650	77800	73260	68820	64040	61140
21	82060	87760	85840	84680	83840	82360	80550	77590	73120	68670	63850	61260
22	82130	87680	85740	84590	83800	82320	80490	77370	72970	68510	63730	61310
23	82120	87710	85740	84570	83740	82240	80380	77210	72840	68330	63500	61400
24	85710	87750	85690	84550	83840	82290	80200	77100	72710	68150	63340	61220
25	86280	87580	85660	84440	83650	82190	80060	76960	72580	67960	63170	61060
26	86250	87530	85760	84430	83600	82080	79920	76780	72450	67780	63180	60920
27	86180	87470	85690	84390	83620	81970	79810	76790	72320	67630	63170	60780
28	86410	87390	85580	84480	83580	81950	79690	76630	72130	67480	63160	60640
29	88180	87290	85530	84620	---	81950	79580	76470	71990	67320	63040	60500
30	88660	87220	85460	84480	---	81940	79480	76340	71870	67130	62950	60360
31	88670	---	85420	84300	---	81920	---	76420	---	66930	62840	---
MEAN	83700	88260	86270	84840	83870	82740	80930	78060	74020	69470	64540	61800
MAX	88670	89200	87170	85360	84220	83500	81880	79370	76270	71730	66750	63050
MIN	81980	87220	85420	84300	83580	81920	79480	76340	71870	66930	62840	60360
(+)	1851.39	1851.07	1850.63	1850.35	1850.17	1849.76	1849.15	1848.38	1847.13	1845.72	1844.55	1843.85
(@)	+4770	-1450	-1800	-1120	-720	-1660	-2440	-3060	-4550	-4940	-4090	-2480

CAL YR 2000 MAX 102900 MIN 54040 (@) +27000
WTR YR 2001 MAX 89200 MIN 60360 (@) -23540

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08123950 E.V. Spence Reservoir near Robert Lee, TX--Continued



08124000 Colorado River at Robert Lee, TX

LOCATION.--Lat 31°53′07", long 100°28′49", Coke County, Hydrologic Unit 12080008, on left bank 190 ft upstream from bridge on State Highway 208 in Robert Lee, 0.4 mi upstream from Mountain Creek, 2.7 mi downstream from Messbox Creek, 3.6 mi downstream from Robert Lee Dam, and at mile 712.4.

DRAINAGE AREA.--15,307 mi^2, of which 10,260 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1923 to Dec. 1927, Apr. 1939 to May 1956, Oct. 1968 to current year. Prior to Dec. 1927, published as "near Robert Lee".
Water-quality records.--Chemical data: Oct. 1947 to Sept. 1957.

REVISED RECORDS.--WSP 1723: 1925(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,771.70 ft above sea level. Prior to Dec. 31, 1927, nonrecording gage at site 9 mi downstream at different datum. Apr. 18 to Sept. 26, 1939, nonrecording gage, and Sept. 27, 1939 to May 9, 1956, water-stage recorder at site 200 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since July 1952, at least 10% of contributing drainage area has been regulated. There are many diversions above station for municipal, mining, agricultural, and industrial uses. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--16 years (water years 1924-27, 1940-51) prior to completion of Lake J.B. Thomas, 234 ft^3/s (169,400 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1924-27, 1940-51).--Maximum discharge, 32,500 ft^3/s Sept. 6, 1926 (gage height, 20.20 ft, site and datum then in use), from rating curve extended above 15,000 ft^3/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1907, 26.7 ft Oct. 13, 1957, from floodmarks. Flood in Apr. 1922 reached a stage of 25.5 ft, present datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	e10	13	11	11	11	11	10	9.2	10	11
2	14	15	e10	12	11	11	11	10	10	10	10	11
3	14	e15	e10	12	11	11	11	11	9.8	9.7	10	12
4	15	e15	e10	12	11	11	12	11	9.7	9.6	10	14
5	14	e35	e10	12	11	11	12	10	9.7	9.5	10	41
6	15	e15	e10	12	11	11	11	9.9	9.5	9.5	10	15
7	15	e10	e10	12	11	11	11	9.8	9.5	9.3	10	11
8	14	e15	12	12	11	11	11	10	9.5	9.3	10	11
9	13	e10	12	13	11	11	11	9.7	9.5	9.2	10	11
10	13	e10	12	14	11	11	11	9.4	9.5	9.4	10	11
11	12	e10	12	13	11	11	11	9.3	9.5	9.6	9.9	11
12	12	e10	12	13	12	11	11	9.4	9.4	9.6	9.9	3.5
13	11	e10	13	13	11	11	11	9.4	9.4	9.5	10	1.4
14	10	e10	13	13	11	11	11	9.3	9.6	9.5	11	4.8
15	10	e10	13	13	12	10	11	9.1	9.9	9.6	10	6.3
16	9.8	e10	13	14	12	11	11	9.4	10	9.5	11	6.4
17	12	e10	13	14	11	11	11	9.3	10	9.6	12	6.6
18	10	e10	13	13	11	11	11	9.4	10	9.8	11	6.9
19	11	e10	13	12	11	11	11	9.4	9.9	9.6	11	6.9
20	11	e10	13	12	11	11	11	9.3	9.7	9.6	11	7.2
21	10	e10	13	12	11	10	11	9.5	9.3	9.6	11	11
22	11	e10	13	12	11	11	10	9.8	9.2	9.4	11	8.2
23	11	e10	13	11	11	11	9.9	9.8	9.3	9.6	11	7.3
24	444	e10	13	11	10	11	10	9.9	9.3	9.8	11	7.4
25	12	e10	13	11	11	11	10	10	9.2	9.9	11	7.5
26	10	e10	14	11	11	11	10	10	9.3	10	12	8.2
27	9.8	e10	13	11	11	11	10	10	9.2	9.9	15	8.3
28	308	e10	13	11	11	11	10	9.7	9.1	10	12	7.9
29	e350	e10	13	11	---	11	10	9.7	9.1	10	11	7.8
30	e15	e10	13	11	---	11	11	9.6	9.1	10	11	8.0
31	12	---	13	11	---	11	---	11	---	10	11	---
TOTAL	1441.6	353	378	377	310	339	323.9	304.1	286.2	298.8	333.8	290.6
MEAN	46.5	11.8	12.2	12.2	11.1	10.9	10.8	9.81	9.54	9.64	10.8	9.69
MAX	444	35	14	14	12	11	12	11	10	10	15	41
MIN	9.8	10	10	11	10	10	9.9	9.1	9.1	9.2	9.9	1.4
AC-FT	2860	700	750	748	615	672	642	603	568	593	662	576

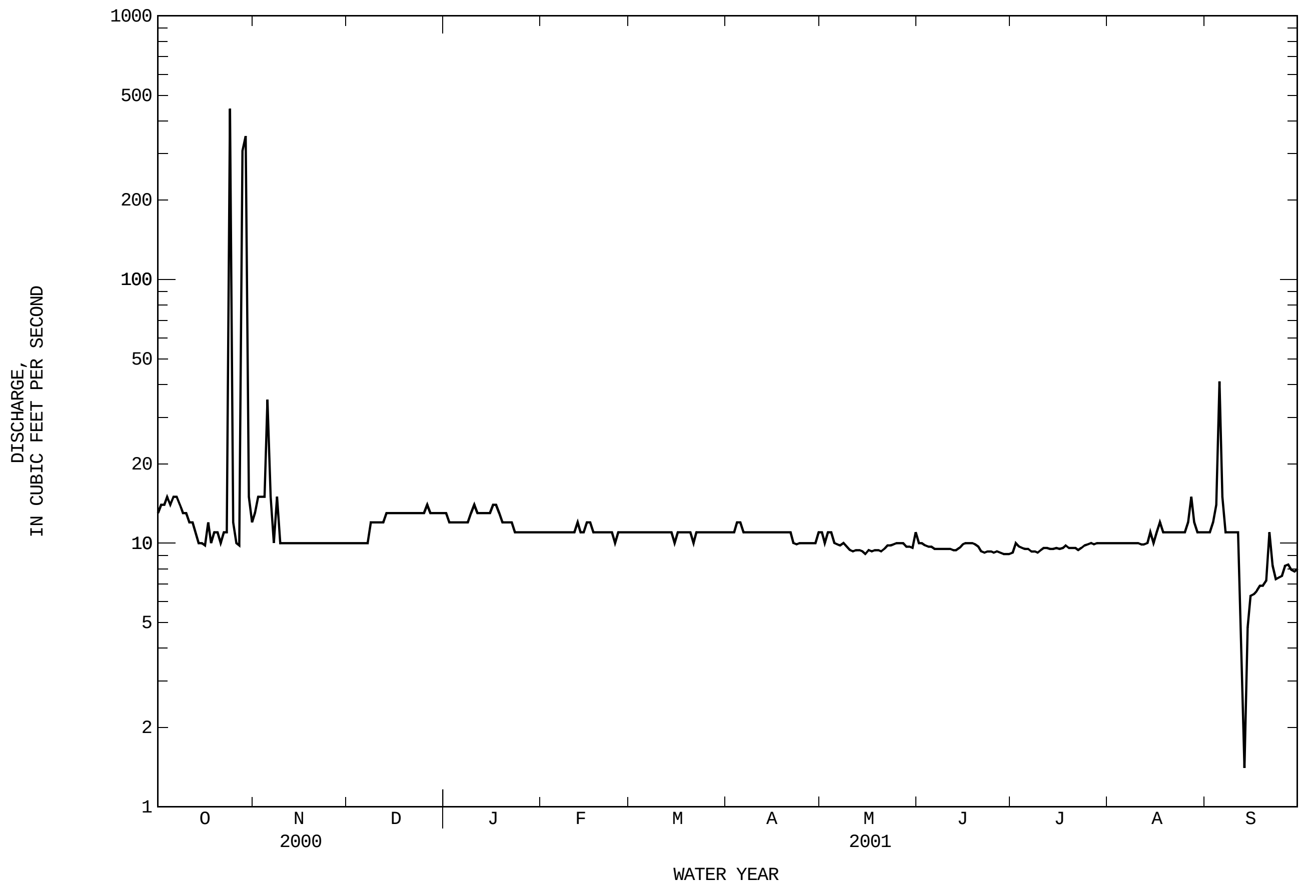
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2001hz, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.5	10.2	3.04	2.29	4.73	9.25	28.1	89.7	38.2	40.6	50.3	33.9
MAX	578	219	16.9	12.2	102	250	714	1540	473	495	578	438
(WY)	1987	1987	2000	2001	1998	1998	1954	1954	1989	1988	1953	1986
MIN	.000	.000	.000	.000	.000	.000	.000	.011	.000	.000	.000	.000
(WY)	1955	1955	1952	1952	1952	1952	1956	1971	1980	1952	1952	1954

08124000 Colorado River at Robert Lee, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1952 - 2001hz	
ANNUAL TOTAL	4631.37		5036.0			
ANNUAL MEAN	12.7		13.8		28.8	
HIGHEST ANNUAL MEAN					237	1954
LOWEST ANNUAL MEAN					1.04	1969
HIGHEST DAILY MEAN	444	Oct 24	444	Oct 24	13400	May 12 1954
LOWEST DAILY MEAN	.79	Mar 20	1.4	Sep 13	.00	Oct 1 1951
ANNUAL SEVEN-DAY MINIMUM	.94	Mar 15	5.1	Sep 12	.00	Oct 1 1951
MAXIMUM PEAK FLOW			2700	Oct 24	c24500	Sep 9 1980
MAXIMUM PEAK STAGE			9.36	Oct 24	20.63	Sep 9 1980
ANNUAL RUNOFF (AC-FT)	9190		9990		20860	
10 PERCENT EXCEEDS	14		13		15	
50 PERCENT EXCEEDS	10		11		.77	
90 PERCENT EXCEEDS	1.5		9.3		.00	

e Estimated
h See PERIOD OF RECORD paragraph.
z Period of regulated streamflow.
c From rating curve extended above 19,200 ft^3/s.



08125500 Oak Creek Reservoir near Blackwell, TX

LOCATION.--Lat 32°03'25", long 100°17'37", Coke County, Hydrologic Unit 12080008, on left bank at municipal pump station, 1.9 mi upstream from dam on Oak Creek, 2.5 mi southeast of Blackwell, 14.0 mi north of Bronte, and 20.0 mi upstream from mouth.

DRAINAGE AREA.--238 mi^2.

PERIOD OF RECORD.--May 1953 to Sept. 1983, Mar. 1999 to current year.
Water-quality records.--Chemical data: Apr. 1964 to Jan. 1967 and Nov. 1970 to Apr. 1983.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. May 1953 to Sept. 1983, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The reservoir is formed by a rolled earthfill dam 3,800 ft long. The dam was completed in May 1952, and deliberate impoundment began May 12, 1953. The uncontrolled emergency spillway is an 800-foot-wide cut through natural ground, located 1,200 ft from right end of dam. The service spillway is an uncontrolled cut channel through natural ground 300 ft wide, located 2,000 ft from right end of dam. The reservoir and dam are the property of city of Sweetwater. The dam was built to impound water for municipal and industrial uses by the cities of Sweetwater, Blackwell, and Bronte. Since Apr. 1962, West Texas Utilities Company has operated a steam generating power plant located on the reservoir. There is a gated outlet at the service spillway that can release water downstream to Oak Creek through a 24-inch concrete pipe. The capacity curve is based on a 1950 topographic survey. Conservation pool storage is 39,360 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	2,014.0
Crest of spillway...	2,005.0
Crest of spillway (top of conservation pool).........................	2,000.0
Lowest gated outlet (invert)..	1,951.0

COOPERATION.--Capacity table dated Nov. 9, 1953, prepared from curve furnished by city of Sweetwater.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 49,100 acre-ft, Oct. 13, 1957, elevation, 2,003.80 ft; minimum contents, 4,690 acre-ft, Sept. 30, 2001, elevation, 1,971.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,180 acre-ft, Nov. 8, elevation, 1,977.86 ft; minimum contents, 4,690 acre-ft, Sept. 30, elevation, 1,971.81 ft.

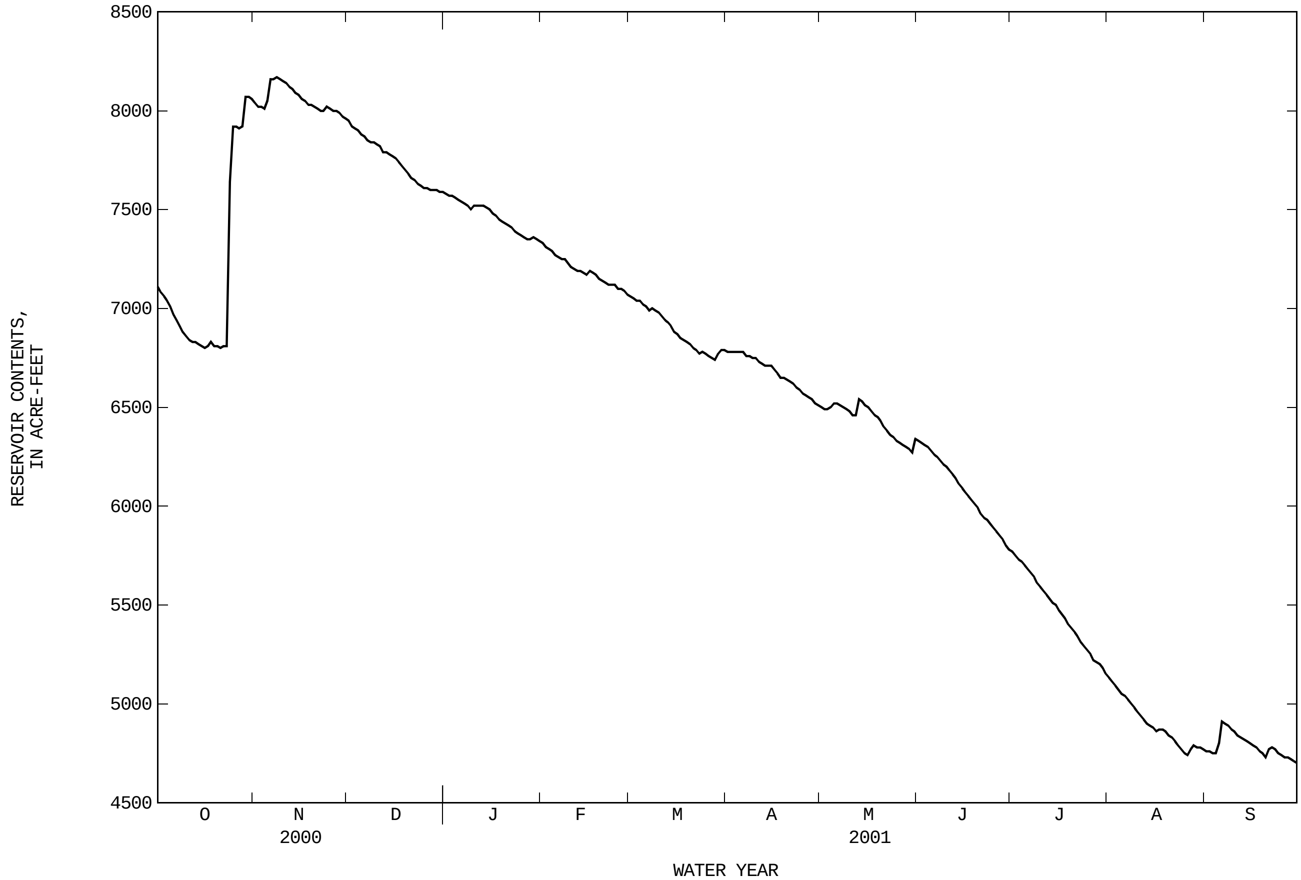
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7110	8040	7950	7580	7330	7060	6780	6500	6330	5770	5130	4760
2	7080	8020	7920	7570	7310	7050	6780	6490	6320	5750	5110	4760
3	7060	8020	7910	7570	7300	7040	6780	6490	6310	5730	5090	4750
4	7040	8010	7900	7560	7290	7040	6780	6500	6300	5720	5070	4750
5	7010	8050	7880	7550	7270	7020	6780	6520	6280	5700	5050	4800
6	6970	8160	7870	7540	7260	7010	6780	6520	6260	5680	5040	4910
7	6940	8160	7850	7530	7250	6990	6760	6510	6250	5660	5020	4900
8	6910	8170	7840	7520	7250	7000	6760	6500	6230	5640	5000	4890
9	6880	8160	7840	7500	7230	6990	6750	6490	6210	5610	4980	4870
10	6860	8150	7830	7520	7210	6980	6750	6480	6200	5590	4960	4860
11	6840	8140	7820	7520	7200	6960	6730	6460	6180	5570	4940	4840
12	6830	8120	7790	7520	7190	6940	6720	6460	6160	5550	4920	4830
13	6830	8110	7790	7520	7190	6930	6710	6540	6140	5530	4900	4820
14	6820	8090	7780	7510	7180	6910	6710	6530	6110	5510	4890	4810
15	6810	8080	7770	7500	7170	6880	6710	6510	6090	5500	4880	4800
16	6800	8060	7760	7480	7190	6870	6690	6500	6070	5470	4860	4790
17	6810	8050	7740	7470	7180	6850	6670	6480	6050	5450	4870	4780
18	6830	8030	7720	7450	7170	6840	6650	6460	6030	5430	4870	4760
19	6810	8030	7700	7440	7150	6830	6650	6450	6010	5400	4860	4750
20	6810	8020	7680	7430	7140	6820	6640	6430	5990	5380	4840	4730
21	6800	8010	7660	7420	7130	6800	6630	6400	5960	5360	4830	4770
22	6810	8000	7650	7410	7120	6790	6620	6380	5940	5340	4810	4780
23	6810	8000	7630	7390	7120	6770	6600	6360	5930	5310	4790	4770
24	7640	8020	7620	7380	7120	6780	6590	6350	5910	5290	4770	4750
25	7920	8010	7610	7370	7100	6770	6570	6330	5890	5270	4750	4740
26	7920	8000	7610	7360	7100	6760	6560	6320	5870	5250	4740	4730
27	7910	8000	7600	7350	7090	6750	6550	6310	5850	5220	4770	4730
28	7920	7990	7600	7350	7070	6740	6540	6300	5830	5210	4790	4720
29	8070	7970	7600	7360	---	6770	6520	6290	5800	5200	4780	4710
30	8070	7960	7590	7350	---	6790	6510	6270	5780	5180	4780	4700
31	8060	---	7590	7340	---	6790	---	6340	---	5150	4770	---
MEAN	7160	8050	7750	7460	7190	6890	6680	6430	6080	5470	4900	4790
MAX	8070	8170	7950	7580	7330	7060	6780	6540	6330	5770	5130	4910
MIN	6800	7960	7590	7340	7070	6740	6510	6270	5780	5150	4740	4700
(+)	1977.69	1977.54	1977.01	1976.62	1976.20	1975.75	1975.28	1975.00	1974.02	1972.81	1972.00	1971.84
(@)	+950	-100	-370	-250	-270	-280	-280	-170	-560	-630	-380	-70

CAL YR 2000 MAX 13640 MIN 6800 (@) -6070
WTR YR 2001 MAX 8170 MIN 4700 (@) -2410

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08125500 Oak Creek Reservoir near Blackwell, TX--Continued



08126380 Colorado River near Ballinger, TX

LOCATION.--Lat 31°42'55", long 100°01'34", Runnels County, Hydrologic Unit 12090101, at right downstream end of bridge on Farm Road 2111, 0.4 mi upstream from Rocky Creek, 5.0 mi northwest of Ballinger, and at mile 665.8.

DRAINAGE AREA.--16,358 mi^2, approximately, of which 10,260 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1907 to Sept. 1979 (published as "at Ballinger", station 08126500) and Oct. 1979 to current year. Monthly discharge only for some periods published in WSP 1312. Gage-height records collected in this vicinity from 1903-29 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1118: Drainage area. WSP 1512: 1916-17, 1919-20, 1921(M), 1922-25, 1928(M), 1930(M). WSP 1712: 1935, 1954-55(M). WDR TX-78-3: 1975-77.

GAGE.--Water-stage recorder. Datum of gage is 1,606.51 ft above sea level. Prior to Nov. 29, 1930, nonrecording gages at several sites and at various datums near site 5.4 mi downstream. Nov. 29, 1930, to May 1, 1975, water-stage recorder at site 6.2 mi downstream and May 1, 1975, to Sept. 30, 1979, water-stage recorder at site 5.4 mi downstream, both at datum 12.77 ft lower. Oct. 1, 1979 to June 20, 2001, water-stage recorder at site 300 ft left at same datum. Satellite telemeter at station.

REMARKS.--Records good except those for May 14 to June 21, which are fair and those for estimated daily discharges, which are poor. Since water year 1968 at least 10% of contributing drainage area has been regulated. Many diversions upstream from station for irrigation, municipal supplies, and for oil field operations. Flow is also affected by Oak Creek Reservoir (station 08125500, conservation pool storage 39,360 acre-ft), and at times by discharge from the floodwater-retarding structures in the Kickapoo and Valley Creeks drainage basins. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--61 years (water years 1908-68) prior to completion of E.V. Spence Reservoir, 336 ft^3/s (243,400 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1908-68).--Maximum discharge, 75,400 ft^3/s Sept. 18, 1936 (gage height, 28.6 ft, at former site and datum); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1882, about 36 ft sometime in 1884, at former site and datum, from information by local residents. Flood of Aug. 6, 1906, reached a stage of about 32.0 ft, at former site and datum, from floodmarks (backwater from Elm Creek).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	31	13	14	15	12	13	8.8	12	3.5	1.8	13
2	5.1	23	12	14	14	16	12	8.7	11	13	1.7	9.6
3	4.9	219	13	14	14	13	13	11	11	13	.85	12
4	4.9	61	13	14	13	12	12	34	7.9	9.5	.66	27
5	4.8	254	13	14	14	11	12	70	8.2	7.3	.68	79
6	4.6	373	13	14	14	11	11	56	6.5	6.6	.77	794
7	4.4	92	13	14	14	11	9.8	27	5.7	6.3	.90	193
8	4.8	101	13	14	14	12	9.7	16	5.5	5.9	.80	63
9	5.4	97	13	14	15	14	9.4	14	6.5	4.1	.86	29
10	5.5	54	13	15	14	13	7.3	e13	6.3	2.1	1.0	18
11	5.8	31	13	16	14	13	16	e13	6.0	2.0	1.7	14
12	6.9	22	13	16	14	13	17	e12	4.3	2.0	1.7	12
13	7.2	17	13	16	15	12	17	e12	5.4	2.0	1.8	11
14	7.6	14	13	15	15	12	13	11	3.6	2.0	1.9	10
15	9.1	14	13	15	16	12	11	11	2.7	2.1	37	9.6
16	8.8	14	13	14	104	11	10	11	2.3	2.0	15	8.6
17	196	13	13	15	52	11	10	11	2.2	2.0	11	7.0
18	76	13	12	15	19	12	10	11	2.2	2.0	27	5.7
19	37	13	12	14	13	12	9.6	10	2.1	2.0	37	5.1
20	27	13	12	15	12	12	9.8	10	3.3	2.0	13	5.3
21	17	13	12	14	12	12	10	9.1	5.1	1.9	8.3	12
22	12	13	12	14	12	12	10	8.6	4.9	1.9	5.4	37
23	14	14	12	14	20	11	9.4	8.9	5.1	1.8	3.9	36
24	129	14	13	14	51	13	8.8	9.3	2.8	1.9	3.1	19
25	404	14	13	14	19	13	8.4	9.3	2.0	1.9	3.6	14
26	108	14	16	14	13	13	8.3	9.3	2.1	1.9	2.2	11
27	51	14	16	14	12	13	8.4	8.9	2.1	1.9	5.5	9.1
28	40	13	15	15	12	12	8.4	9.8	2.2	1.9	8.6	7.9
29	708	13	15	18	---	12	8.9	9.1	4.2	1.9	10	7.3
30	345	13	15	17	---	12	8.5	7.8	3.1	1.8	9.7	7.4
31	73	---	14	15	---	13	---	10	---	1.8	9.7	---
TOTAL	2332.0	1604	409	455	566	381	321.7	470.6	148.3	112.0	227.12	1486.6
MEAN	75.2	53.5	13.2	14.7	20.2	12.3	10.7	15.2	4.94	3.61	7.33	49.6
MAX	708	373	16	18	104	16	17	70	12	13	37	794
MIN	4.4	13	12	14	12	11	7.3	7.8	2.0	1.8	.66	5.1
AC-FT	4630	3180	811	902	1120	756	638	933	294	222	450	2950

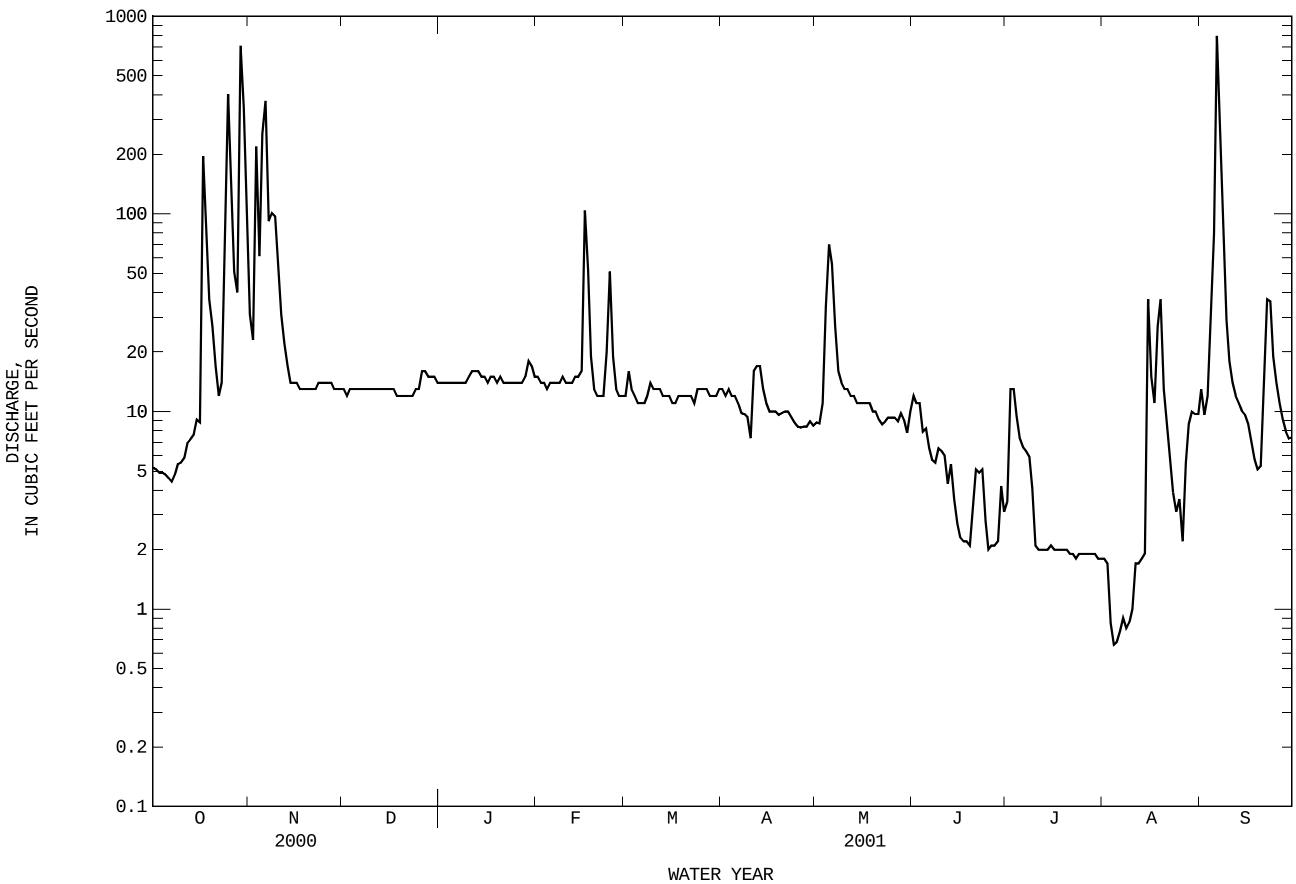
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2001z, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	96.2	40.3	31.8	27.2	54.3	46.2	39.4	86.8	132	48.4	91.4	121
MAX	1194	374	259	159	756	299	161	427	739	455	639	833
(WY)	1987	1987	1992	1992	1992	1987	1996	1996	1982	1987	1987	1986
MIN	.78	.82	2.33	2.48	1.34	.67	.47	1.07	1.13	.000	.000	.23
(WY)	1980	1980	1984	1986	2000	2000	1980	1971	1974	1984	1984	1983

08126380 Colorado River near Ballinger, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1969 - 2001z	
ANNUAL TOTAL	15678.26		8513.32			
ANNUAL MEAN	42.8		23.3		67.9	
HIGHEST ANNUAL MEAN					405	1987
LOWEST ANNUAL MEAN					7.18	1984
HIGHEST DAILY MEAN	5890	Jun 4	794	Sep 6	9220	Aug 28 1986
LOWEST DAILY MEAN	.31	Mar 9	.66	Aug 4	.00	Mar 20 1971
ANNUAL SEVEN-DAY MINIMUM	.36	Mar 4	.79	Aug 3	.00	Mar 20 1971
MAXIMUM PEAK FLOW			1130	Sep 6	g16600	Aug 3 1978
MAXIMUM PEAK STAGE			9.02	Sep 6	27.50	Sep 21 1990
ANNUAL RUNOFF (AC-FT)	31100		16890		49160	
10 PERCENT EXCEEDS	23		28		113	
50 PERCENT EXCEEDS	3.0		12		13	
90 PERCENT EXCEEDS	.63		2.1		1.1	

e Estimated
z Period of regulated streamflow.
g At site and datum then in use.



08126380 Colorado River near Ballinger, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Sept. 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1961 to Sept. 1997 (local observer), Feb. 2001 to current year.
WATER TEMPERATURE: Oct. 1961 to Sept. 1997 (local observer), Feb. 2001 to current year.
SUSPENDED SEDIMENT DISCHARGE: Jan. 1978 to Sept. 1981 (local observer).

INSTRUMENTATION.--Water-quality monitor since Feb. 9, 2001.

REMARKS.--Records good except those for specific conductance from Apr. 8 to June 21 and water temperature from May 2 to June 21, which are fair. Interruptions in the specific conductance and water temperature values were due to malfunction of the instrument. Interruptions in the daily mean specific conductance values Apr. 10, 24-29, May 10-13, 17-23, 31, and June 4-20 were due to malfunction of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed for previous years using daily (or continuous) records of specific conductance and regression relations between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 13,500 microsiemens/cm, May 3, 1963; minimum daily, 244 microsiemens/cm, Sept. 9, 1980.
WATER TEMPERATURE: Maximum daily, 39.0°C, July 3, 1977; minimum daily, 0.0°C, Jan. 9-11, 1973.
SEDIMENT CONCENTRATION: Maximum daily mean, 3,740 mg/L, Sept. 9 1980; minimum daily mean, 4 mg/L, Feb. 2, 1980.
SEDIMENT LOADS: Maximum daily, 94,100 tons Aug. 3, 1978; minimum daily, 0 tons on many days during 1978 and 1980-81.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 6,970 microsiemens/cm, Aug. 15; minimum recorded, 325 microsiemens/cm, Sept. 6.
WATER TEMPERATURE: Maximum recorded, 37.9°C, July 13; minimum, 8.5°C, Feb. 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT													
06...	1100	4.4	4690	21.1	1190	262	131	598	7.54	18.5	974	959	.6
19...	1015	37	2480	18.9	503	114	53.2	280	5.43	10.8	423	478	.4
DEC													
01...	0930	13	4130	12.8	1020	235	105	500	6.81	11.6	786	816	.4
JAN													
25...	1545	14	4260	9.4	951	227	93.0	496	7.00	14.3	806	837	.5
MAR													
30...	1200	13	4400	12.7	1030	249	100	531	7.19	14.2	876	881	.5
SEP													
07...	1300	149	678	25.4	152	38.8	13.4	70.3	2.48	5.29	89.9	117	E.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT		
06...	7.8	3010
19...	2.5	1400
DEC		
01...	4.0	2550
JAN		
25...	1.3	2560
MAR		
30...	1.7	2750
SEP		
07...	3.7	376

08126380 Colorado River near Ballinger, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

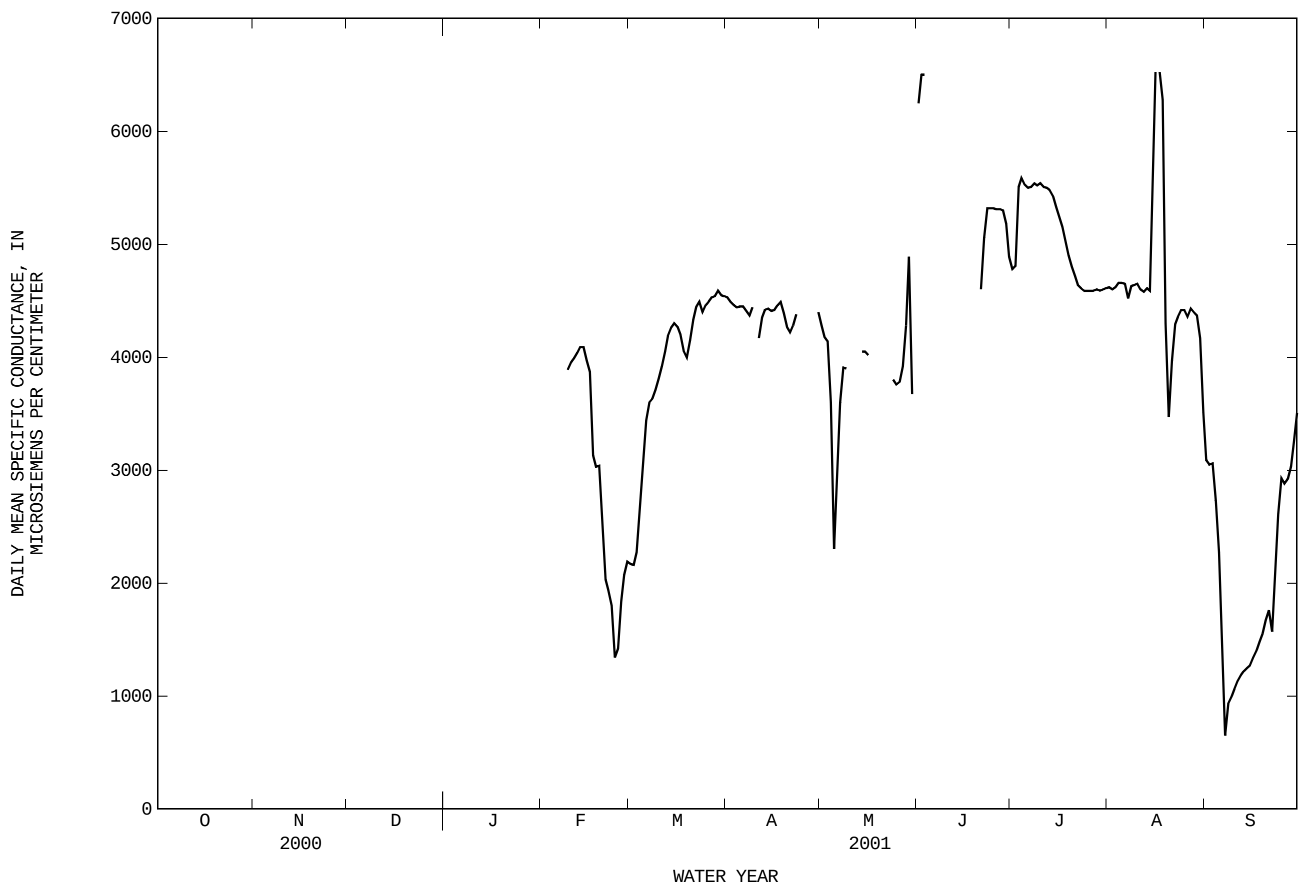
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	2250	2090	2170	4570	4500	4530	---	---	4280
2	---	---	---	2210	2090	2160	4540	4440	4490	---	---	4180
3	---	---	---	2390	2170	2270	4490	4420	4460	4210	4100	4140
4	---	---	---	2800	2380	2630	4470	4410	4440	4340	1680	3600
5	---	---	---	3320	2690	3050	4460	4420	4450	2900	1770	2300
6	---	---	---	3570	3290	3440	4480	4430	4450	3300	2440	2860
7	---	---	---	3730	3380	3600	4470	4280	4410	3830	3300	3600
8	---	---	---	3690	3520	3630	4440	4240	4370	3970	3830	3910
9	3960	3830	3890	3820	3590	3710	4460	4400	4440	---	---	3900
10	4050	3840	3950	3910	3740	3810	---	---	---	---	---	---
11	4120	3910	3990	3980	3830	3920	4320	3840	4170	---	---	---
12	4120	3960	4040	4200	3880	4050	4400	4320	4350	---	---	---
13	4150	4030	4090	4320	4050	4190	4450	4400	4420	---	---	---
14	4140	4030	4090	4380	4150	4260	4450	4410	4430	---	---	4050
15	4090	3800	3970	4410	4210	4300	4440	4370	4410	---	---	4050
16	4110	3580	3870	4310	4220	4270	4440	4390	4420	---	---	4020
17	3930	2660	3130	4250	4130	4200	4510	4410	4460	---	---	---
18	3180	2860	3030	4150	3980	4060	4510	4460	4490	---	---	---
19	3220	2730	3040	4040	3970	4000	4480	4320	4390	---	---	---
20	2770	2360	2610	4300	3980	4150	4320	4220	4270	---	---	---
21	2390	1880	2030	4480	4140	4330	4240	4200	4220	---	---	---
22	2020	1850	1930	4560	4290	4440	4310	4230	4280	---	---	---
23	2120	1310	1800	4580	4370	4490	4420	4310	4380	---	---	---
24	1560	1250	1340	4510	4320	4400	---	---	---	---	---	3800
25	1590	1270	1420	4500	4440	4460	---	---	---	3790	3700	3760
26	1970	1530	1840	4590	4400	4490	---	---	---	---	---	3780
27	2170	1950	2070	4580	4460	4530	---	---	---	---	---	3920
28	2250	2130	2190	4610	4470	4540	---	---	---	5140	3690	4280
29	---	---	---	4680	4520	4590	---	---	---	---	---	4890
30	---	---	---	4620	4510	4550	---	---	4400	---	---	3670
31	---	---	---	4570	4520	4540	---	---	---	---	---	---
MONTH	---	---	---	4680	2090	3910	---	---	---	---	---	---

08126380 Colorado River near Ballinger, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6360	5380	6250	4910	4710	4780	4670	4490	4620	3280	2830	3090
2	---	---	6500	5160	4400	4810	4680	4480	4600	3130	2980	3050
3	---	---	6500	5620	5160	5510	4700	4450	4620	3120	2900	3060
4	---	---	---	5650	5530	5590	4720	4590	4660	3030	2360	2730
5	---	---	---	5580	5480	5530	4730	4580	4660	3390	1880	2270
6	---	---	---	5530	5440	5500	4710	4530	4650	3480	325	1340
7	---	---	---	5540	5480	5510	4620	4420	4520	882	327	647
8	---	---	---	5580	5500	5540	4680	4570	4630	954	882	932
9	---	---	---	5570	5470	5520	4680	4540	4640	1030	938	992
10	---	---	---	5610	5470	5540	4720	4600	4650	1100	1030	1060
11	---	---	---	5600	5440	5510	4670	4530	4600	1160	1100	1130
12	---	---	---	5580	5430	5500	4660	4500	4580	1200	1160	1180
13	---	---	---	5560	5400	5480	4660	4540	4610	1240	1200	1220
14	---	---	---	5500	5350	5430	4650	4520	4590	1270	1210	1250
15	---	---	---	5420	5230	5330	6970	4550	5970	1320	1220	1270
16	---	---	---	5340	5160	5240	6960	6650	6800	1360	1290	1340
17	---	---	---	5260	5060	5150	6710	6370	6540	1480	1360	1400
18	---	---	---	5150	4930	5030	6500	5520	6280	1500	1360	1480
19	---	---	---	5010	4800	4900	5520	3510	4300	1600	1500	1550
20	---	---	---	4890	4710	4800	3640	3350	3470	1800	1590	1670
21	---	---	4600	4800	4630	4720	4300	3640	3970	1910	1290	1760
22	5280	4800	5060	4730	4480	4640	4340	4140	4290	1750	1490	1570
23	5360	5270	5320	4680	4480	4610	4460	4180	4360	2430	1750	2080
24	5370	5260	5320	4660	4520	4590	4480	4220	4420	2920	2430	2610
25	5380	5250	5320	4640	4530	4590	4490	4260	4420	3000	2870	2930
26	5370	5240	5310	4650	4500	4590	4500	4100	4360	2940	2830	2880
27	5360	5240	5310	4640	4400	4590	4480	4120	4430	2980	2860	2920
28	5370	5220	5300	4660	4490	4600	4510	4240	4400	3120	2970	3030
29	5340	5000	5180	4660	4460	4590	4520	4180	4370	3400	3110	3250
30	5050	4730	4890	4660	4530	4600	4380	3940	4170	3610	3380	3510
31	---	---	---	4660	4530	4610	3980	3100	3510	---	---	---
MONTH	---	---	---	5650	4400	5060	6970	3100	4670	3610	325	1970



08126380 Colorado River near Ballinger, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

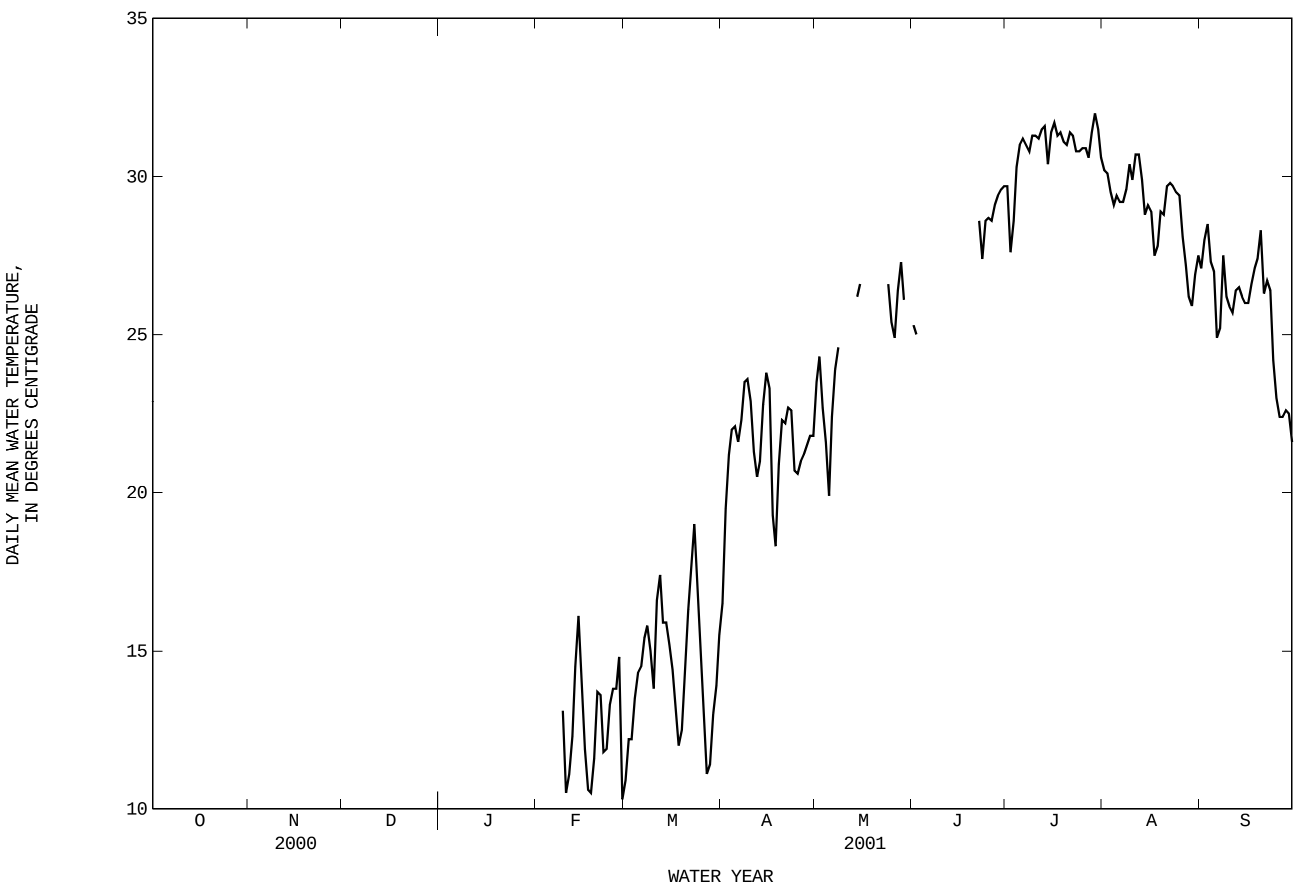
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	13.3	8.7	10.9	19.1	14.2	16.5	26.8	20.9	23.5
2	---	---	---	13.0	11.4	12.2	23.3	16.7	19.5	---	---	24.3
3	---	---	---	13.4	11.4	12.2	23.8	18.9	21.2	23.5	21.8	22.7
4	---	---	---	16.8	11.0	13.5	24.3	20.0	22.0	23.7	19.7	21.6
5	---	---	---	17.2	11.3	14.3	23.1	21.2	22.1	21.1	19.1	19.9
6	---	---	---	16.5	12.5	14.5	22.7	20.3	21.6	26.3	19.6	22.4
7	---	---	---	17.6	12.7	15.4	24.9	20.1	22.3	26.4	22.0	23.9
8	---	---	---	16.9	14.3	15.8	26.4	21.5	23.5	27.9	21.7	24.6
9	14.5	11.3	13.1	16.6	13.6	15.0	25.3	21.9	23.6	---	---	---
10	11.9	8.6	10.5	14.9	12.6	13.8	23.9	21.4	22.9	---	---	---
11	13.2	8.8	11.1	19.9	14.3	16.6	24.2	18.3	21.3	---	---	---
12	12.9	11.4	12.3	20.4	14.6	17.4	22.4	18.2	20.5	---	---	---
13	16.7	12.7	14.5	17.1	14.1	15.9	23.6	18.7	21.0	---	---	---
14	17.9	14.4	16.1	17.9	14.1	15.9	24.5	20.9	22.8	---	---	26.2
15	17.0	11.9	14.3	17.1	13.1	15.2	26.9	20.8	23.8	---	---	26.6
16	13.0	11.1	11.9	16.8	11.7	14.4	25.5	20.7	23.3	---	---	---
17	12.2	9.3	10.6	14.6	12.2	13.3	23.9	16.9	19.3	---	---	---
18	12.8	8.5	10.5	12.5	11.5	12.0	21.5	15.9	18.3	---	---	---
19	13.9	9.0	11.6	14.5	10.9	12.5	23.9	18.4	20.9	---	---	---
20	16.6	10.5	13.7	18.0	10.3	14.1	24.2	20.9	22.3	---	---	---
21	15.1	12.9	13.6	19.9	12.8	16.3	22.8	21.6	22.2	---	---	---
22	13.0	11.1	11.8	21.2	14.1	17.5	25.4	20.5	22.7	---	---	---
23	12.9	11.0	11.9	22.0	16.2	19.0	24.8	20.4	22.6	---	---	---
24	15.2	12.3	13.3	20.1	13.8	16.4	23.0	18.2	20.7	---	---	26.6
25	16.8	11.3	13.8	15.9	13.0	14.4	23.2	17.8	20.6	---	---	25.4
26	15.1	12.1	13.8	14.8	11.8	12.6	23.4	18.6	21.0	---	---	24.9
27	16.6	13.4	14.8	11.8	10.6	11.1	23.7	18.9	21.2	---	---	26.4
28	13.4	8.9	10.3	12.8	10.2	11.4	23.7	19.3	21.5	29.3	25.7	27.3
29	---	---	---	14.9	11.4	13.0	24.4	19.4	21.8	---	---	26.1
30	---	---	---	16.0	12.3	13.9	23.9	20.0	21.8	---	---	---
31	---	---	---	18.1	12.7	15.5	---	---	---	---	---	---
MONTH	---	---	---	22.0	8.7	14.4	26.9	14.2	21.5	---	---	---

08126380 Colorado River near Ballinger, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.7	23.3	25.3	33.2	26.8	29.7	34.4	26.6	30.2	28.9	25.5	27.1
2	---	---	25.0	29.2	26.2	27.6	34.5	26.6	30.1	31.2	25.3	28.0
3	---	---	---	32.6	25.5	28.6	35.1	24.8	29.5	32.0	26.8	28.5
4	---	---	---	34.2	27.3	30.3	33.5	25.0	29.1	30.2	24.5	27.3
5	---	---	---	34.1	28.2	31.0	35.1	24.4	29.4	28.7	26.1	27.0
6	---	---	---	35.0	28.1	31.2	33.5	25.1	29.2	27.3	23.6	24.9
7	---	---	---	34.7	28.1	31.0	35.1	24.7	29.2	26.9	23.8	25.2
8	---	---	---	34.6	27.7	30.8	34.4	25.5	29.6	29.5	25.8	27.5
9	---	---	---	36.2	27.6	31.3	35.8	26.3	30.4	27.8	24.8	26.2
10	---	---	---	36.3	26.6	31.3	35.6	25.8	29.9	28.6	23.9	25.9
11	---	---	---	36.1	26.5	31.2	36.3	26.4	30.7	27.8	23.3	25.7
12	---	---	---	37.5	26.7	31.5	36.3	26.5	30.7	29.0	23.8	26.4
13	---	---	---	37.9	26.7	31.6	34.8	26.4	29.9	28.6	24.4	26.5
14	---	---	---	34.1	27.2	30.4	33.3	26.4	28.8	27.6	24.6	26.2
15	---	---	---	36.9	27.2	31.4	31.9	26.5	29.1	26.7	25.2	26.0
16	---	---	---	37.2	27.4	31.7	30.6	27.3	28.9	28.3	24.1	26.0
17	---	---	---	36.8	27.1	31.3	29.2	26.8	27.5	29.1	24.5	26.6
18	---	---	---	36.8	27.4	31.4	30.1	26.1	27.8	30.7	24.6	27.1
19	---	---	---	36.2	27.4	31.1	32.0	26.3	28.9	30.4	24.8	27.4
20	---	---	---	36.0	27.2	31.0	31.8	25.8	28.8	31.3	26.2	28.3
21	---	---	---	37.0	27.1	31.4	32.5	27.9	29.7	28.2	24.3	26.3
22	32.9	25.8	28.6	36.6	26.8	31.3	33.4	27.4	29.8	29.0	24.8	26.7
23	29.8	25.3	27.4	36.3	26.4	30.8	33.5	27.3	29.7	28.4	24.7	26.4
24	33.9	25.1	28.6	36.1	26.6	30.8	33.9	26.4	29.5	26.2	22.1	24.2
25	33.4	25.0	28.7	36.6	27.0	30.9	33.0	26.9	29.4	25.4	20.6	23.0
26	33.7	24.8	28.6	36.4	26.9	30.9	30.6	25.8	28.1	24.6	19.8	22.4
27	34.1	25.3	29.1	35.4	27.4	30.6	28.5	26.1	27.2	24.6	20.2	22.4
28	34.5	25.0	29.4	36.8	27.6	31.4	27.4	25.2	26.2	24.6	20.7	22.6
29	34.1	26.4	29.6	37.2	28.1	32.0	27.1	24.9	25.9	24.3	20.8	22.5
30	33.6	26.6	29.7	36.2	28.0	31.5	30.2	25.0	26.9	22.8	20.2	21.6
31	---	---	---	36.0	26.6	30.6	29.6	26.1	27.5	---	---	---
MONTH	---	---	---	37.9	25.5	30.9	36.3	24.4	29.0	32.0	19.8	25.7



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08127000 Elm Creek at Ballinger, TX

LOCATION.--Lat 31°44′57", long 99°56′51", Runnels County, Hydrologic Unit 12090101, on right bank 1,000 ft upstream from storage dam at Ballinger and 1.9 mi upstream from mouth.

DRAINAGE AREA.--450 mi^2, of which 63.5 mi^2 is above Lake Winters Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Apr. 1932 to current year.

REVISED RECORDS.--WSP 1442: 1935, 1946, 1954. WDR TX-81-3: Drainage area. WDR TX-96-3.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,617.72 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good except those below 10 ft^3/s, which are fair. The stage-discharge relation during periods of low flow are affected by wind action and by occasional accumulation of drift on dam. Since water year 1983 at least 10% of contributing drainage area has been regulated. Prior to June 1982, capacity of Old Lake Winters (just upstream from new dam) was 3,060 acre-ft. No flow at times many years.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--50 years (water years 1933-82) prior to completion of New Lake Winters, 47.6 ft^3/s (34,490 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1933-82).--Maximum discharge, 50,000 ft^3/s Oct. 13, 1957 (gage height, 14.20 ft, from floodmark); no flow at times. Highest stage not affected by backwater from the Colorado River since at least 1904, was that of Oct. 13, 1957, from information by local residents.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Aug. 1906 reached a stage of 14.5 ft, affected by backwater from Colorado River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.0	1.2	1.0	1.3	3.8	1.3	.09	.01	.00	.00	.00
2	.00	.69	.72	.93	.98	3.3	1.2	.08	.02	.00	.00	.00
3	.00	510	.79	.91	.93	2.6	1.0	.38	.01	.00	.00	.00
4	.00	83	.92	.94	.85	2.2	1.0	53	.00	.00	.00	.00
5	.00	247	.93	1.0	.70	1.7	.98	122	.00	.00	.00	.00
6	.00	214	.97	.93	.78	1.6	.99	46	.00	.00	.00	.00
7	.00	51	.71	1.0	.77	1.8	.91	27	.00	.00	.00	.00
8	.00	42	.67	1.2	.93	3.4	.87	17	.00	.00	.00	.00
9	.00	36	.60	1.4	1.6	3.3	.82	10	.00	.00	.00	.00
10	.00	30	.55	3.4	.98	2.3	.80	7.6	.00	.00	.00	.00
11	.00	24	.54	5.6	.86	2.0	7.7	5.8	.00	.00	.00	.00
12	.00	20	.40	5.3	.79	1.7	4.6	4.9	.00	.00	.00	.00
13	.00	13	.41	4.7	.77	1.4	3.0	3.8	.00	.00	.00	.00
14	.00	10	.43	2.6	.81	1.3	2.2	2.2	.00	.00	.00	.00
15	.00	8.2	.44	1.6	1.2	1.2	1.9	1.9	.00	.00	.00	.00
16	.00	7.4	.50	1.4	11	.78	1.2	1.7	.00	.00	.00	.00
17	18	6.5	.39	1.7	7.0	.78	.83	1.6	.00	.00	.00	.00
18	37	5.4	.40	1.7	4.9	.91	.65	1.4	.00	.00	.00	.00
19	10	4.3	.36	1.6	3.0	.90	.56	1.2	.00	.00	.00	.00
20	7.1	3.1	.40	1.4	1.8	.89	.55	.99	.00	.00	.00	.00
21	2.2	2.2	.38	1.2	1.3	.90	.57	.65	.00	.00	.00	.00
22	.89	2.5	.35	.97	1.3	.96	.60	.41	.00	.00	.00	.00
23	.60	3.7	.36	1.2	10	1.4	.58	.31	.00	.00	.00	.00
24	1.1	4.7	.37	1.4	21	1.8	.43	.26	.00	.00	.00	.00
25	.58	2.5	.37	1.2	13	1.0	.32	.17	.00	.00	.00	.00
26	.29	1.5	.81	1.4	8.7	.94	.26	.12	.00	.00	.00	.00
27	.14	1.1	1.4	1.4	7.0	.99	.21	.10	.00	.00	.00	.00
28	.10	1.2	2.1	2.1	4.8	1.3	.16	.06	.00	.00	.00	.00
29	2.8	1.4	2.1	3.0	---	1.8	.13	.03	.00	.00	.00	.00
30	2.4	1.5	1.6	1.6	---	1.9	.10	.01	.00	.00	.00	.00
31	1.5	---	1.3	1.5	---	1.6	---	.01	---	.00	.00	---
TOTAL	84.70	1338.89	23.47	57.28	109.05	52.45	36.42	310.77	0.04	0.00	0.00	0.00
MEAN	2.73	44.6	.76	1.85	3.89	1.69	1.21	10.0	.001	.000	.000	.000
MAX	37	510	2.1	5.6	21	3.8	7.7	122	.02	.00	.00	.00
MIN	.00	.69	.35	.91	.70	.78	.10	.01	.00	.00	.00	.00
AC-FT	168	2660	47	114	216	104	72	616	.08	.00	.00	.00
CFSM	.01	.10	.00	.00	.01	.00	.00	.02	.00	.00	.00	.00
IN.	.01	.11	.00	.00	.01	.00	.00	.03	.00	.00	.00	.00

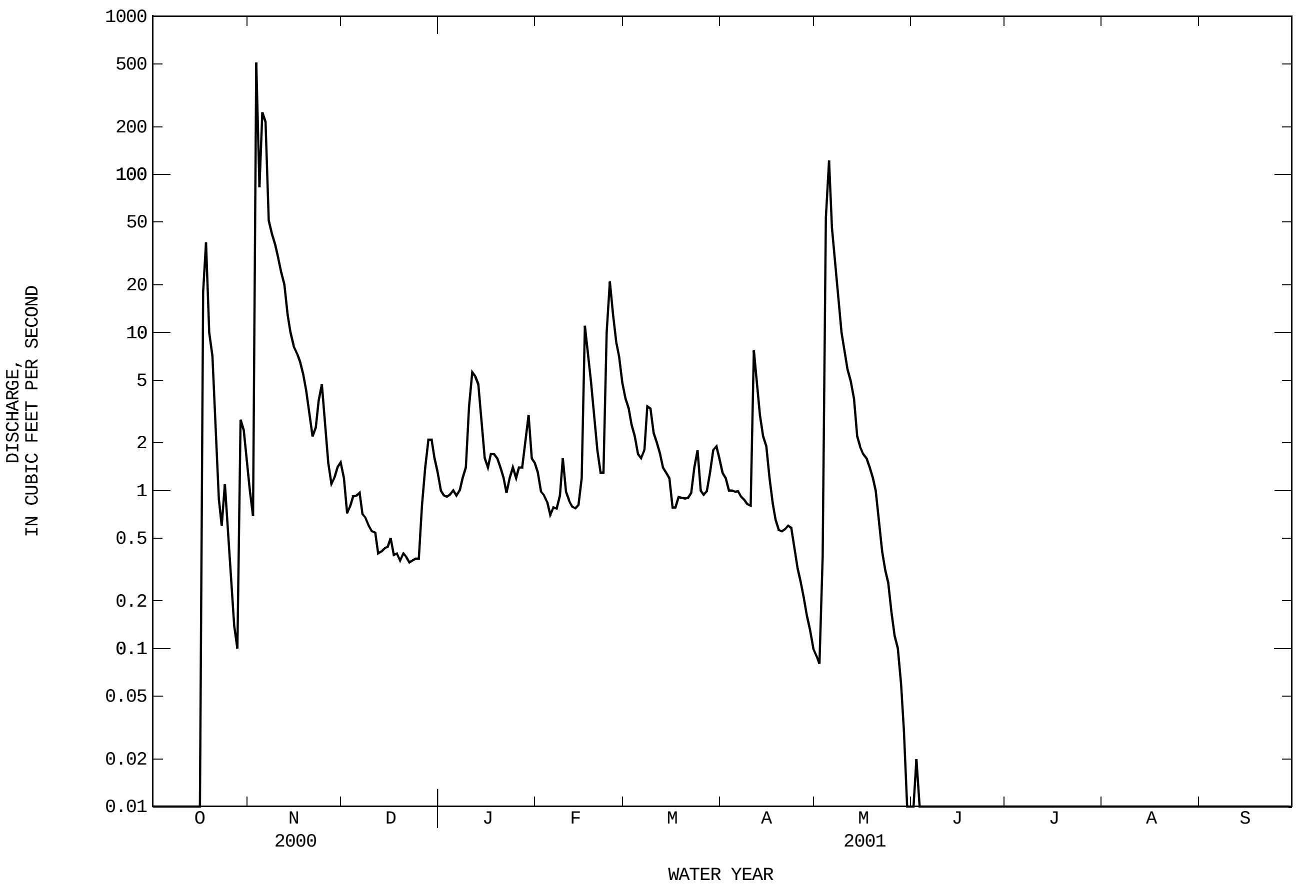
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2001z, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.8	15.2	41.2	18.5	65.9	34.2	19.0	71.1	111	6.87	10.9	56.7
MAX	165	59.7	576	164	911	268	76.4	655	770	42.5	90.1	760
(WY)	1987	1987	1992	1992	1992	1992	1992	1994	1997	1997	1995	1996
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000
(WY)	1984	1989	1999	2000	2000	2000	2000	1984	2001	1984	1983	1983

08127000 Elm Creek at Ballinger, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1983 - 2001z	
ANNUAL TOTAL	4749.22		2013.07			
ANNUAL MEAN	13.0		5.52		39.2	
HIGHEST ANNUAL MEAN					188	1992
LOWEST ANNUAL MEAN					.96	1984
HIGHEST DAILY MEAN	2790	Jun 3	510	Nov 3	12400	Sep 15 1996
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jul 20 1983
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jul 20 1983
MAXIMUM PEAK FLOW			1420	Nov 3	16700	Jun 23 1997
MAXIMUM PEAK STAGE			5.01	Nov 3	9.06	Jun 23 1997
ANNUAL RUNOFF (AC-FT)	9420		3990		28370	
ANNUAL RUNOFF (CFSM)	.029		.012		.087	
ANNUAL RUNOFF (INCHES)	.39		.17		1.18	
10 PERCENT EXCEEDS	2.2		5.5		56	
50 PERCENT EXCEEDS	.00		.60		1.8	
90 PERCENT EXCEEDS	.00		.00		.00	

z Period of regulated streamflow.



08127000 Elm Creek at Ballinger, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1957 to Sept. 1991, Mar. 2001.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct. 1967 to Sept. 1991 (local observer), Feb. 2001 to current year.
WATER TEMPERATURE: Oct. 1967 to Sept. 1997 (local observer), Feb. 2001 to current year.

INSTRUMENTATION.--Water-quality monitor since Feb. 9, 2001.

REMARKS.--Records fair. Interruptions in the record were due to no flow. No flow June 4 to Sept. 30. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed for previous years using daily (or continuous) records of specific conductance and regression relations between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,220 microsiemens/cm, Sept. 12, 17, 1970; minimum daily, 244 microsiemens/cm, Aug. 4, 1978.
WATER TEMPERATURE: Maximum daily, 35.0°C, July 19, 1986; minimum daily, 0.0°C, Jan. 8, 1968, Jan. 10, 13, 1973, and Jan. 11, 14, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,690 microsiemens/cm, Mar. 28; minimum, 958 microsiemens/cm, May 8.
WATER TEMPERATURE: Maximum, 30.6°C, May 18, June 2; minimum, 9.4°C, Feb. 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR													
30...	1450	2.0	2340	13.5	773	172	83.2	174	2.73	32.7	5.39	511	350

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
MAR		
30...	.5	2.0

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
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08127000 Elm Creek at Ballinger, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	2290	2120	2260	2400	2380	2390	2350	2300	2340
2	---	---	---	2280	2210	2260	2430	2370	2380	2350	2320	2340
3	---	---	---	2320	2240	2290	2400	2360	2380	2350	2280	2310
4	---	---	---	2360	2290	2330	2380	2350	2370	2370	2010	2260
5	---	---	---	2380	2320	2350	2370	2340	2370	2390	2030	2170
6	---	---	---	2400	2360	2380	2370	2340	2370	2250	1030	1480
7	---	---	---	2430	2370	2390	2370	2350	2370	1040	969	993
8	---	---	---	2410	2360	2390	2370	2330	2360	996	958	974
9	1180	1130	1160	2420	2330	2410	2370	2350	2360	1040	980	999
10	1200	1170	1190	2440	2410	2430	2370	2300	2360	1090	1030	1050
11	1220	1200	1210	2470	2410	2440	2320	2240	2270	1150	1090	1120
12	1260	1220	1230	2470	2420	2450	2280	2250	2270	1170	1150	1160
13	1310	1230	1280	2490	2420	2460	2280	2240	2270	1190	1170	1180
14	1340	1270	1320	2500	2480	2490	2280	2230	2280	1200	1170	1180
15	1360	1320	1340	2540	2460	2520	2300	2260	2290	1230	1200	1210
16	1350	1310	1340	2550	2510	2530	2300	2250	2290	1220	1200	1220
17	1380	1330	1350	2560	2550	2560	2330	2270	2300	1240	1200	1220
18	1600	1380	1470	2580	2540	2560	2330	2310	2320	1240	1210	1220
19	1650	1580	1610	2590	2550	2570	2340	2310	2320	1220	1210	1220
20	1690	1630	1650	2620	2560	2580	2330	2300	2320	1230	1220	1220
21	1730	1650	1690	2620	2570	2600	2330	2300	2320	1250	1230	1240
22	1740	1720	1730	2630	2570	2610	2330	2300	2320	1270	1240	1260
23	1770	1740	1750	2660	2580	2620	2330	2310	2320	1270	1250	1260
24	1970	1760	1890	2640	2590	2620	2350	2320	2330	1260	1250	1260
25	2020	1940	1980	2650	2580	2630	2350	2310	2340	1260	1240	1260
26	2150	2010	2080	2670	2570	2650	2360	2320	2340	1270	1250	1260
27	2200	2040	2180	2670	2540	2660	2350	2320	2340	1290	1240	1260
28	2260	2180	2240	2690	2520	2660	2350	2280	2340	1260	1240	1260
29	---	---	---	2680	2590	2660	2350	2300	2340	1270	1230	1270
30	---	---	---	2680	2340	2470	2350	2320	2340	1280	1250	1270
31	---	---	---	2400	2370	2390	---	---	---	1280	1250	1270
MONTH	---	---	---	2690	2120	2490	2430	2230	2330	2390	958	1380

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1280	1240	1260	---	---	---	---	---	---	---	---	---
2	1270	1250	1260	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
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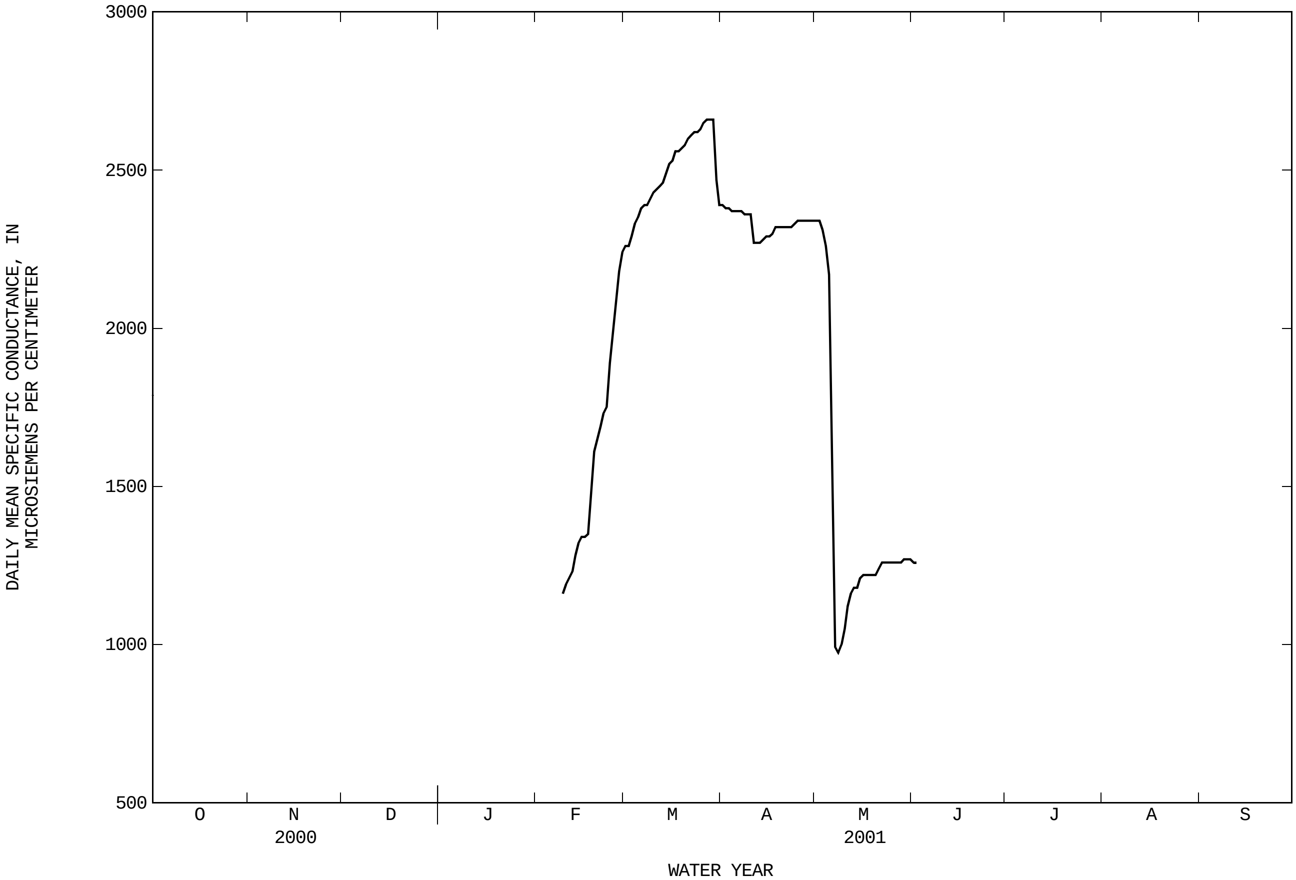
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

08127000 Elm Creek at Ballinger, TX--Continued



TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	---	---	---
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MONTH	---	---	---	---	---	---	---	---	---	---	---	---

08127000 Elm Creek at Ballinger, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	13.2	10.8	11.8	17.1	15.2	16.1	25.0	21.6	23.0
2	---	---	---	12.3	11.2	11.7	20.4	16.6	17.6	25.8	22.4	23.9
3	---	---	---	12.1	11.3	11.7	23.0	18.2	19.4	24.1	22.6	23.1
4	---	---	---	14.7	11.2	12.7	22.3	19.3	20.4	23.1	21.6	22.3
5	---	---	---	16.6	12.3	13.5	21.1	20.3	20.7	21.9	20.1	20.7
6	---	---	---	14.0	12.5	13.2	21.1	20.2	20.7	23.4	19.7	21.0
7	---	---	---	15.8	12.7	14.0	23.7	20.3	21.4	23.8	21.4	22.3
8	---	---	---	15.4	13.9	14.4	23.7	21.0	21.9	26.2	22.1	23.3
9	13.6	11.9	12.6	15.2	13.9	14.3	23.8	21.7	22.6	25.7	23.9	24.7
10	12.2	10.9	11.4	13.9	13.3	13.7	23.0	21.9	22.5	27.2	24.1	25.2
11	12.1	10.4	11.2	18.9	13.5	15.4	22.4	20.4	21.5	27.3	24.3	25.2
12	12.4	11.1	11.5	16.6	14.9	15.8	22.5	20.4	21.2	27.1	24.3	25.1
13	13.6	11.5	12.3	16.7	15.0	15.7	22.9	20.0	21.0	27.9	24.1	25.1
14	15.1	13.4	13.9	15.9	14.7	15.2	23.0	21.5	22.1	27.4	24.2	25.4
15	15.0	12.8	14.1	15.0	14.0	14.5	24.2	21.9	23.0	27.5	24.5	25.7
16	12.8	11.2	12.1	15.5	13.1	14.1	24.8	22.6	23.6	28.0	25.1	26.5
17	12.8	10.5	11.3	13.8	13.0	13.3	23.6	20.5	21.7	29.4	25.8	26.9
18	12.0	9.4	10.7	13.0	12.0	12.5	21.4	19.4	20.4	30.6	26.3	27.9
19	12.1	10.4	11.3	13.4	11.6	12.4	21.9	19.4	20.5	28.0	26.9	27.3
20	15.7	10.9	12.4	16.5	11.7	13.3	22.9	20.6	21.5	28.3	26.0	27.1
21	13.1	12.5	12.8	15.5	12.4	13.7	22.2	21.5	21.8	27.2	24.5	25.6
22	12.7	12.0	12.2	20.5	13.5	16.4	23.8	21.1	22.2	27.3	23.3	24.9
23	12.2	11.8	12.0	20.6	16.5	17.8	23.6	21.6	22.5	26.1	22.8	24.3
24	13.4	12.1	12.7	17.5	15.0	16.2	22.8	20.9	21.7	25.8	23.6	24.6
25	15.9	12.4	13.5	15.2	14.1	14.6	24.0	20.2	21.7	26.2	23.8	24.9
26	14.1	12.8	13.5	14.1	12.6	13.3	23.7	20.5	21.8	27.8	23.8	25.3
27	16.5	13.8	14.5	12.6	11.4	12.0	23.3	20.6	21.9	29.8	24.4	26.0
28	14.1	11.4	12.7	12.7	11.3	11.8	23.8	20.8	22.1	28.3	25.5	26.2
29	---	---	---	15.5	11.4	13.0	24.0	21.1	22.3	28.5	25.1	26.1
30	---	---	---	15.4	12.1	13.3	24.0	21.3	22.4	29.8	24.9	26.7
31	---	---	---	18.6	12.9	15.3	---	---	---	29.7	24.3	26.7
MONTH	---	---	---	20.6	10.8	13.9	24.8	15.2	21.3	30.6	19.7	24.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.2	25.2	26.4	---	---	---	---	---	---	---	---	---
2	30.6	24.5	26.1	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
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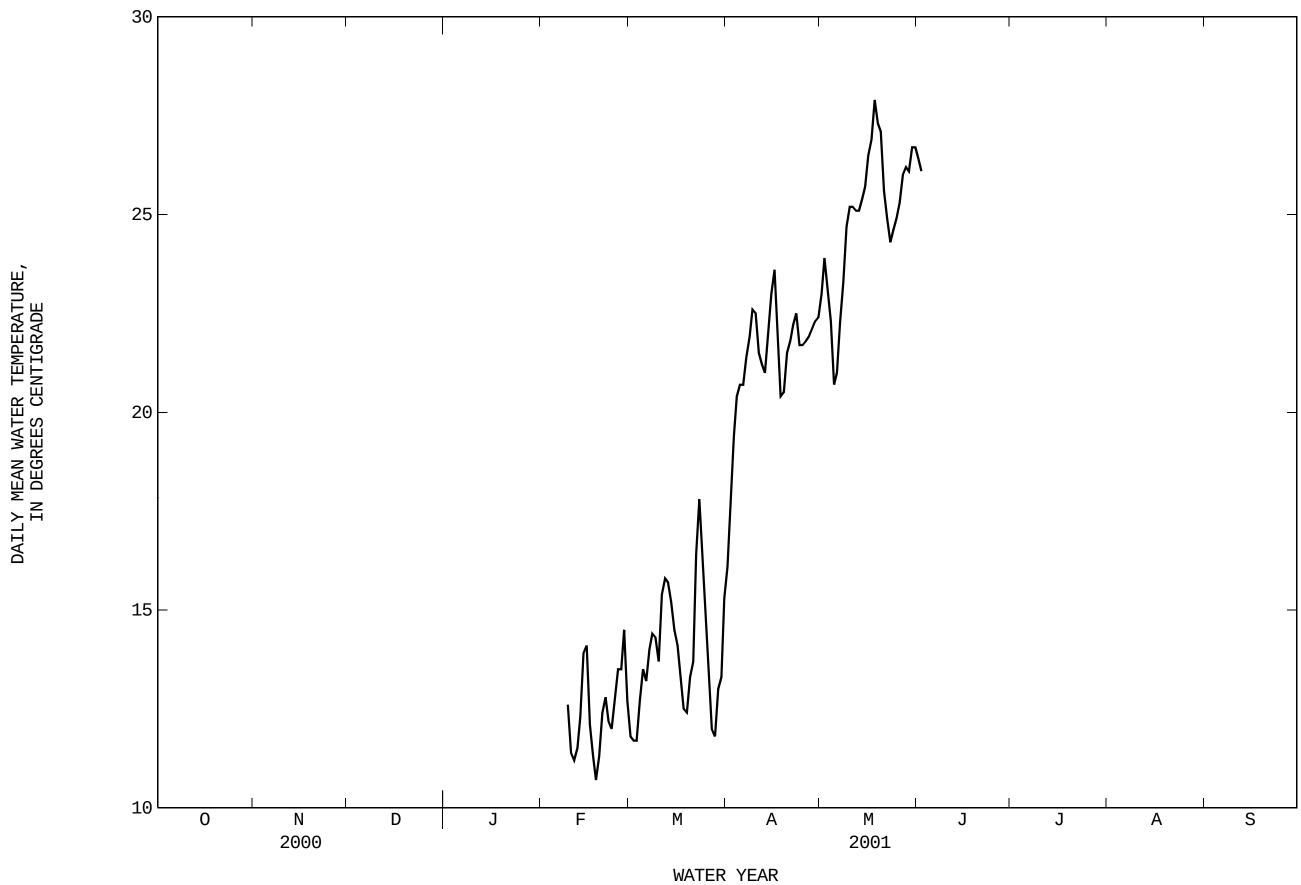
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

08127000 Elm Creek at Ballinger, TX--Continued



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08128000 South Concho River at Christoval, TX

LOCATION.--Lat 31°11'13", long 100°30'06", Tom Green County, Hydrologic Unit 12090102, on left upstream side of U.S. Highway 277 bridge, 9.5 mi upstream from Twin Buttes Dam, and 23.7 mi upstream from mouth.

DRAINAGE AREA.--413 mi^2, of which 58.6 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Feb. 1930 to Sept. 1995, Oct. 1995 to Apr. 2001 (peak discharges greater than base discharge), May 2001 to current year.

REVISED RECORDS.--WSP 1118: 1943(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,010.22 ft above sea level. Prior to July 17, 1930, nonrecording gage at same site and datum. Water-stage recorder at same site and datum from July 17, 1930, to Nov. 15, 1977, at site 160 ft downstream at same datum from Nov. 16, 1977, to May 5, 1987. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Low flow is affected by diversions to the South Concho Irrigation Company canal 800 ft upstream from station. No flow Feb. 28 and Mar. 1, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1882, about 23 ft Aug. 6, 1906 (discharge, 115,000 ft^3/s), from rating curve extended above 15,100 ft^3/s on basis of slope-area measurement of 80,100 ft^3/s, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	6.7	9.5	5.0	2.1	11
2	---	---	---	---	---	---	---	6.3	10	4.8	2.4	9.7
3	---	---	---	---	---	---	---	6.2	9.4	4.7	2.6	10
4	---	---	---	---	---	---	---	11	9.3	4.4	2.2	9.0
5	---	---	---	---	---	---	---	11	10	4.4	2.3	9.0
6	---	---	---	---	---	---	---	8.9	10	3.9	2.3	10
7	---	---	---	---	---	---	---	8.9	9.6	3.9	2.3	11
8	---	---	---	---	---	---	---	8.8	9.8	3.2	3.2	11
9	---	---	---	---	---	---	---	8.7	8.5	3.6	5.5	9.8
10	---	---	---	---	---	---	---	9.4	3.7	3.8	5.3	10
11	---	---	---	---	---	---	---	9.3	3.8	3.9	3.7	10
12	---	---	---	---	---	---	---	10	4.1	3.8	2.2	12
13	---	---	---	---	---	---	---	9.7	4.2	3.8	2.4	12
14	---	---	---	---	---	---	---	9.8	4.0	3.0	2.7	13
15	---	---	---	---	---	---	---	9.6	4.0	2.8	2.5	9.1
16	---	---	---	---	---	---	---	9.5	4.4	2.6	5.5	5.9
17	---	---	---	---	---	---	---	9.7	4.4	2.5	5.1	5.9
18	---	---	---	---	---	---	---	10	4.4	2.7	3.2	6.6
19	---	---	---	---	---	---	---	9.9	4.4	2.6	3.6	7.4
20	---	---	---	---	---	---	---	10	5.0	2.3	3.6	7.5
21	---	---	---	---	---	---	---	10	4.8	2.9	3.5	6.9
22	---	---	---	---	---	---	---	10	4.4	3.2	3.4	7.6
23	---	---	---	---	---	---	---	9.8	4.8	2.6	3.4	7.0
24	---	---	---	---	---	---	---	10	4.9	2.8	3.2	7.3
25	---	---	---	---	---	---	---	11	4.5	2.7	3.1	7.9
26	---	---	---	---	---	---	---	10	4.0	3.8	5.6	8.1
27	---	---	---	---	---	---	---	9.5	3.8	2.5	4.3	7.5
28	---	---	---	---	---	---	---	8.8	4.6	2.3	1480	6.7
29	---	---	---	---	---	---	---	8.9	4.9	2.3	42	6.6
30	---	---	---	---	---	---	---	9.1	5.1	2.2	12	6.6
31	---	---	---	---	---	---	---	8.8	---	2.0	12	---
TOTAL	---	---	---	---	---	---	---	289.3	178.3	101.0	1637.2	262.1
MEAN	---	---	---	---	---	---	---	9.33	5.94	3.26	52.8	8.74
MAX	---	---	---	---	---	---	---	11	10	5.0	1480	13
MIN	---	---	---	---	---	---	---	6.2	3.7	2.0	2.1	5.9
AC-FT	---	---	---	---	---	---	---	574	354	200	3250	520

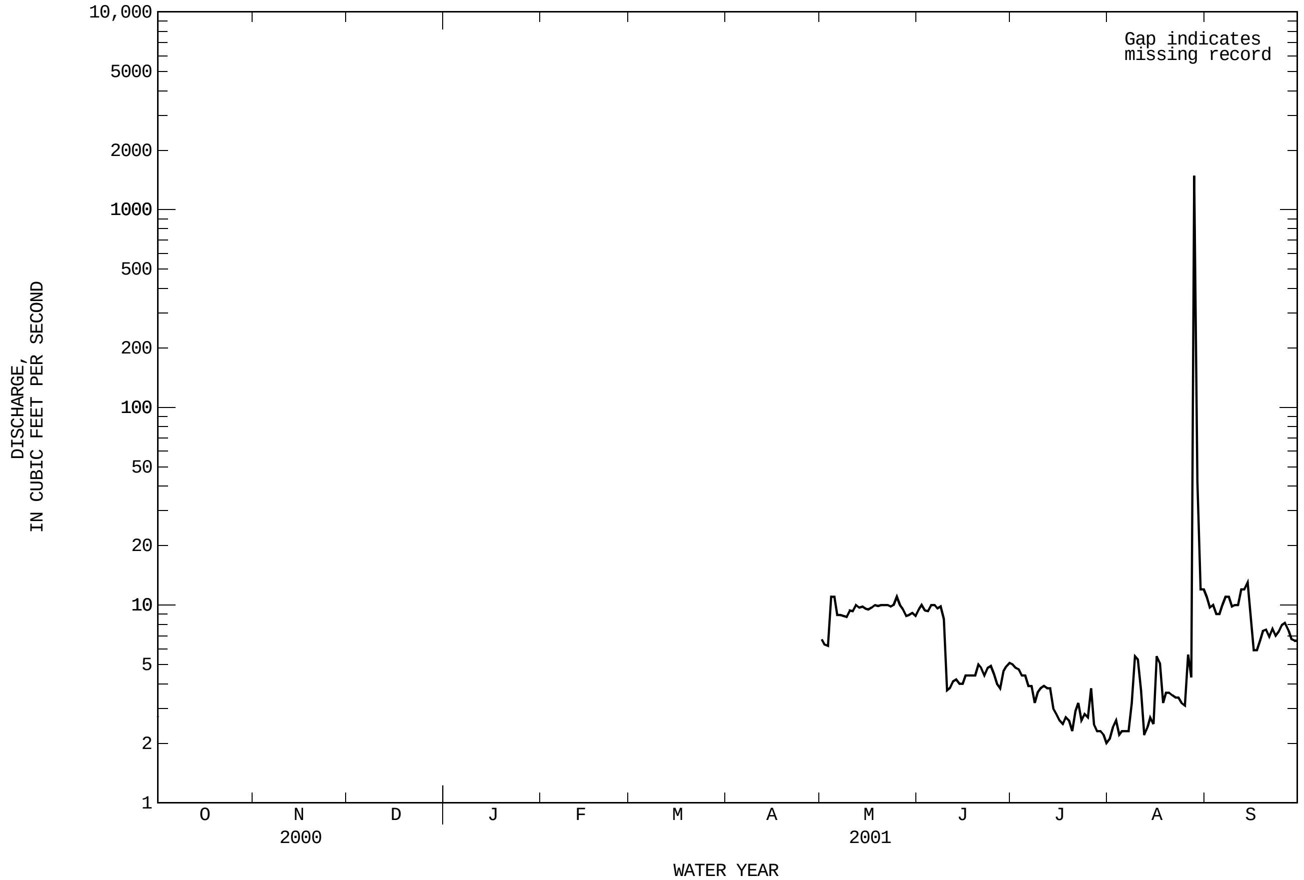
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	47.7	21.8	21.4	20.0	20.7	20.3	28.2	41.9	27.1	40.4	20.3	64.8
MAX	851	146	126	100	91.5	88.4	479	1116	189	1445	162	2352
(WY)	1931	1975	1975	1975	1975	1992	1957	1957	1958	1938	1971	1936
MIN	.54	.51	.57	.40	.35	.39	1.09	2.83	1.08	1.08	1.08	.85
(WY)	1955	1955	1955	1955	1955	1955	1955	1954	1954	1952	1952	1954

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1930 - 2001h	
ANNUAL MEAN					31.4	
HIGHEST ANNUAL MEAN					207	1936
LOWEST ANNUAL MEAN					3.20	1952
HIGHEST DAILY MEAN			1480	Aug 28	29500	Jul 23 1938
LOWEST DAILY MEAN			2.0	Jul 31	.10	Feb 27 1955
ANNUAL SEVEN-DAY MINIMUM	2.4	Feb 26	2.3	Jul 27	.19	Feb 25 1955
MAXIMUM PEAK FLOW			10400	Aug 28	c100000	Jul 23 1938
MAXIMUM PEAK STAGE			a10.54	Aug 28	a21.95	Jul 23 1938
ANNUAL RUNOFF (AC-FT)					22770	
10 PERCENT EXCEEDS			10		40	
50 PERCENT EXCEEDS			5.5		14	
90 PERCENT EXCEEDS			2.5		3.6	

h See PERIOD OF RECORD paragraph.
c From rating curve extended above 15,100 ft^3/s on basis of slope-area measurement of 80,100 ft^3/s.
a From floodmark.

08128000 South Concho River at Christoval, TX--Continued



08128400 Middle Concho River above Tankersley, TX

LOCATION.--Lat 31°25'38", long 100°42'39", Irion County, Hydrologic Unit 12090103, on left bank 0.3 mi upstream from East Rocky Creek, 0.5 mi southwest of Tullos Ranch Headquarters, 6.7 mi northwest of Tankersley, and 20.9 mi upstream from mouth.

DRAINAGE AREA.--2,084 mi^2, of which 968 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Mar. 1961 to Sept. 1995, Oct. 1995 to Mar. 2001 (peak discharges greater than base discharge), Apr. 2001 to current year.
Water-quality records.--Chemical data: Aug. 1964 to Apr. 1965.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,986.47 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation or diversions. No flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1900, 29.5 ft Sept. 26, 1936. A flood in 1900 reached the same stage, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.6	1.1	.03	.00	.00	57
2	---	---	---	---	---	---	6.7	1.0	.03	.00	.00	5.1
3	---	---	---	---	---	---	6.0	1.0	.02	.00	.00	2.0
4	---	---	---	---	---	---	5.5	1.5	.02	.00	.00	1.9
5	---	---	---	---	---	---	5.0	1.6	.01	.00	.00	80
6	---	---	---	---	---	---	4.8	1.0	.01	.00	.00	14
7	---	---	---	---	---	---	4.5	.65	.01	.00	.00	2.4
8	---	---	---	---	---	---	4.8	.52	.00	.00	.00	.80
9	---	---	---	---	---	---	5.0	.45	.00	.00	.00	.48
10	---	---	---	---	---	---	5.4	.44	.00	.00	.00	.36
11	---	---	---	---	---	---	6.2	.48	.00	.00	.00	.32
12	---	---	---	---	---	---	6.0	.56	.00	.00	.00	.29
13	---	---	---	---	---	---	5.8	.55	.00	.00	.00	.26
14	---	---	---	---	---	---	5.9	.53	.00	.00	.00	.22
15	---	---	---	---	---	---	6.0	.49	.00	.00	.00	.18
16	---	---	---	---	---	---	5.9	.54	.00	.00	.00	.18
17	---	---	---	---	---	---	279	.55	.00	.00	.00	.18
18	---	---	---	---	---	---	915	.63	.00	.00	.00	.16
19	---	---	---	---	---	---	74	.66	.00	.00	.00	.18
20	---	---	---	---	---	---	25	.57	.00	.00	.00	.16
21	---	---	---	---	---	---	11	.43	.00	.00	.00	.13
22	---	---	---	---	---	---	6.1	.38	.00	.00	.00	14
23	---	---	---	---	---	---	4.3	.31	.00	.00	.00	7.6
24	---	---	---	---	---	---	2.8	.17	.00	.00	.00	.67
25	---	---	---	---	---	---	2.1	.08	.00	.00	.00	.33
26	---	---	---	---	---	---	1.7	.06	.00	.00	.00	.26
27	---	---	---	---	---	---	1.6	.07	.00	.00	.00	.21
28	---	---	---	---	---	---	1.4	.06	.00	.00	932	.19
29	---	---	---	---	---	---	1.1	.05	.00	.00	159	.18
30	---	---	---	---	---	---	1.0	.04	.00	.00	10	.18
31	---	---	---	---	---	---	---	.04	---	.00	18	---
TOTAL	---	---	---	---	---	---	1416.2	16.51	0.13	0.00	1119.00	189.92
MEAN	---	---	---	---	---	---	47.2	.53	.004	.000	36.1	6.33
MAX	---	---	---	---	---	---	915	1.6	.03	.00	932	80
MIN	---	---	---	---	---	---	1.0	.04	.00	.00	.00	.13
AC-FT	---	---	---	---	---	---	2810	33	.3	.00	2220	377

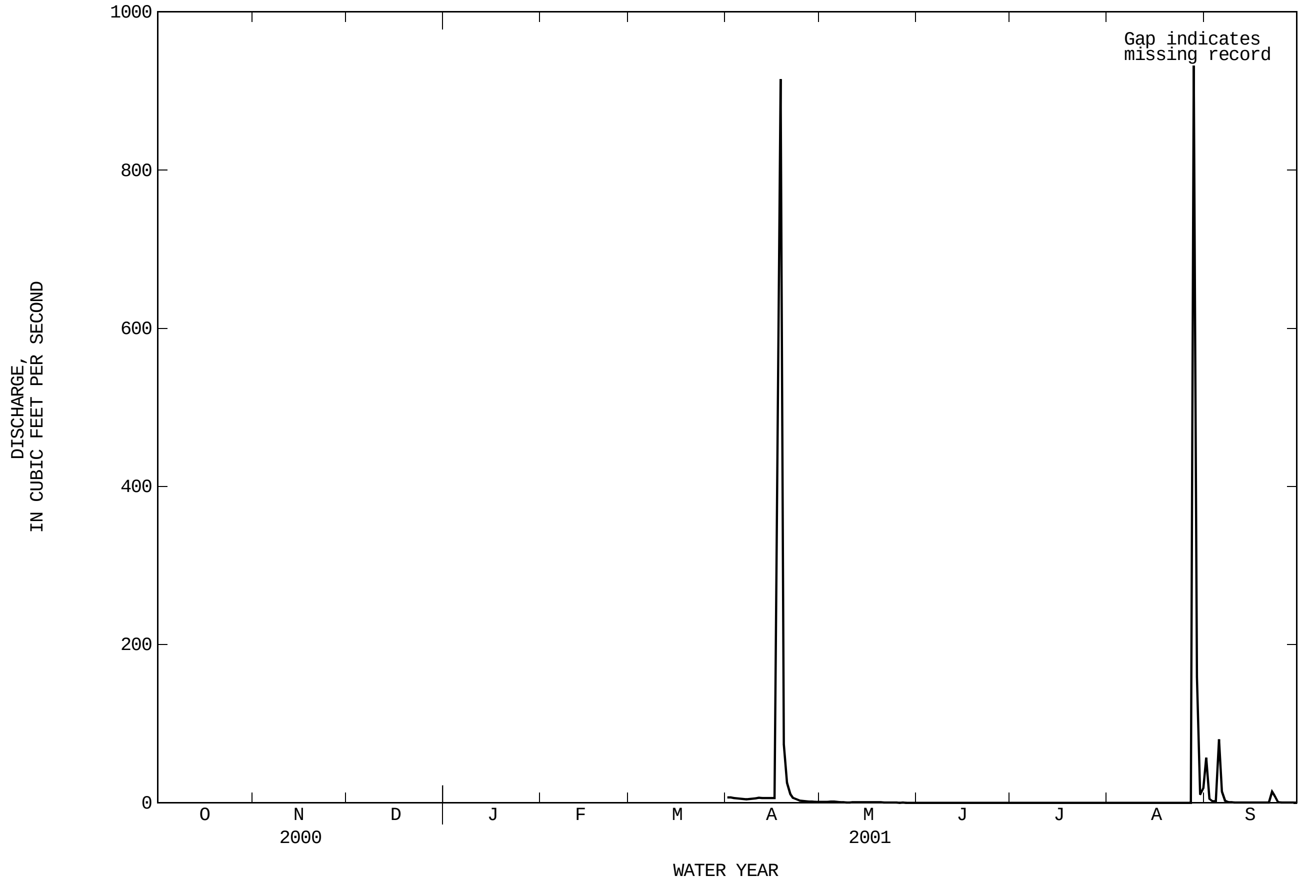
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.5	8.82	8.17	8.33	13.7	11.6	16.0	19.0	19.0	3.19	9.34	55.0
MAX	363	107	59.4	44.3	169	86.7	143	134	375	27.2	115	1181
(WY)	1975	1975	1975	1975	1992	1987	1992	1965	1986	1992	1974	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1962	1962	1962	1962	1962	1962	1961	1961	1962	1961	1961	1962

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1961 - 2001h	
ANNUAL MEAN					16.7	
HIGHEST ANNUAL MEAN					110	1974
LOWEST ANNUAL MEAN					.000	1962
HIGHEST DAILY MEAN			932	Aug 28	12900	Sep 21 1974
LOWEST DAILY MEAN			.00	Jun 8	.00	Apr 1 1961
ANNUAL SEVEN-DAY MINIMUM	.01	Mar 11	.00	Jun 8	.00	Apr 1 1961
MAXIMUM PEAK FLOW			10200	Oct 24	c15500	Sep 21 1974
MAXIMUM PEAK STAGE			a21.15	Oct 24	24.98	Sep 21 1974
ANNUAL RUNOFF (AC-FT)					12060	
10 PERCENT EXCEEDS			6.1		20	
50 PERCENT EXCEEDS			.06		1.5	
90 PERCENT EXCEEDS			.00		.00	

h See PERIOD OF RECORD paragraph.
c From rating curve extended above 12,400 ft^3/s.
a From floodmark.

08128400 Middle Concho River above Tankersley, TX--Continued



08129300 Spring Creek above Tankersley, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 31°19’48", long 100°38’24", Tom Green County, Hydrologic Unit 12090102, on right bank at downstream side of bridge on Farm Road 2335, 1.4 mi south of Tankersley, 2.5 mi upstream from Dove Creek, and 10.4 mi upstream from mouth.

DRAINAGE AREA.--425 mi^2, of which 19.7 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1960 to Sept. 1995 (daily mean discharge), Oct. 1995 to current year (peak discharges greater than base discharge).
Water-quality records.--Chemical data: Sept. 1964 to May 1967.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,964.72 ft above sea level. Prior to Nov. 10, 1960, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records good except those for Dec. 1 to May 30, which are fair. No known regulation. There are many small diversions above station for irrigation.

AVERAGE DISCHARGE.--35 years (water years 1961-95), 13.1 ft^3/s (9,490 acre-ft/year).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft^3/s Aug. 12, 1971 (gage height, 16.57 ft); prior to Oct. 1, 1995, no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Notable floods since at least 1853 occurred in 1882 and 1884. Flood of Oct. 3, 1959, reached a stage of 18.4 ft, from floodmarks. At former gage near Tankersley 8.0 mi downstream, the flood of Oct. 3, 1959, had a discharge of 82,100 ft^3/s and was found to be about 3.0 ft lower than the 1882 flood, the greatest at that location since at least 1853.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 28	1215	8,770	a10.52	No other peak greater than base discharge.			

a From floodmark.

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08130500 Dove Creek at Knickerbocker, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 31°16’26", long 100°37’50", Tom Green County, Hydrologic Unit 12090102, on left downstream end of bridge on Farm Road 2335, 0.5 mi west of Knickerbocker, and 5.7 mi upstream from mouth.

DRAINAGE AREA.--226 mi^2, of which 8.4 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1960 to Sept. 1995 (daily mean discharge), Oct. 1995 to current year (peak discharges greater than base discharge).

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,001.45 ft above sea level. Prior to Nov. 10, 1960, nonrecording gage, Nov. 10, 1960, to Mar. 17, 1986, water-stage recorder, both at site 278 ft to the right at present datum. Satellite telemeter at station.

REMARKS.--Records good except those for Nov. 14 to Dec. 1, Aug. 28, which are fair. No known regulation. Flow is affected by diversions from two small upstream channel dams, and by small upstream diversions (for irrigation). Flow is sustained by springflow from Dove Creek Spring about 9.0 mi upstream.

AVERAGE DISCHARGE.--35 years (water years 1961-95), 16.2 ft^3/s (11,740 acre-ft/year).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft^3/s Aug. 12, 1971 (gage height, 20.66 ft); prior to Oct. 1, 1995, no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1882, 30.4 ft in 1906 and Oct. 3, 1959; floods in 1882 and 1884 reached about the same stage, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 28	1330	1,050	a8.78	No other peak greater than base discharge.			

a From floodmark.

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08131200 Twin Buttes Reservoir near San Angelo, TX

LOCATION.--Lat 31°22′55", long 100°32′17", Tom Green County, Hydrologic Unit 12090102, in outlet control tower at Twin Buttes Dam on Middle Concho River, Spring Creek, and South Concho River, 3.8 mi upstream from Lake Nasworthy Dam, 8.1 mi southwest of San Angelo, and 75.0 mi upstream from mouth.

DRAINAGE AREA.--3,868 mi^2, of which 1,055 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1962 to current year.
Water-quality records.--Chemical data: May 1965 to Nov. 1966 and July 1970 to Apr. 1984.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and nonrecording gage on Middle Concho-Spring Creek pool and nonrecording gage on South Concho pool. Datum of gage is sea level. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good except those for Oct. 1-24 and July 9 to Aug. 29, which are fair. Records good except those for Oct. 1-24 and July 9 to Aug. 29, which are fair when water-stage recorder was isolated at an elevation of 1,888.08 ft. The reservoir is formed by a rolled earthfill dam 8.1 mi long, including a 200-foot-wide uncontrolled off-channel concrete gravity spillway with ogee weir section. Outlet works consist of three 15.5-foot concrete conduits, each controlled by a 12.0- by 15.0-foot fixed-wheel gate and a 12.0- by 15.0-foot radial gate, located in the Middle Concho-Spring Creek pool. Low-flow releases are made through 2.0- by 2.0-foot gates located in the center of three fixed- wheel gates. The South Concho and Middle Concho-Spring Creek pools are connected by a 3.22-mile equalizing channel. The South Concho and Middle Concho-Spring Creek pools were not equalized at an elevation of 1,926.5 ft during the year. Daily contents were obtained from capacity tables for South Concho and Middle Concho-Spring Creek pools and summed to obtain combined daily contents. Lake level elevations below 1,926.5 ft represent Middle Concho-Spring Creek pool only. Deliberate impoundment of water began on Dec. 1, 1962; dam was completed Feb. 13, 1963. In June 1999, construction of a cutoff wall to stop seepage was completed. Capacity curve is based on a survey made in 1958. Reservoir was built for flood control, irrigation, and municipal uses. Conservation pool storage is 177,800 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	1,991.0
Crest of spillway...	1,969.1
Bottom of equalizing channel (Middle Concho-Spring Creek pool)........	1,926.5
Dead storage in South Concho pool....................................	1,926.5
Lowest gated outlet (invert at Middle Concho-Spring Creek pool).......	1,885.0

COOPERATION.--Capacity curve dated Mar. 1964 furnished by the U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 205,200 acre-ft, May 12, 1975, elevation, 1,942.20 ft; minimum since first appreciable storage, 2,120 acre-ft, Apr. 15, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum combined daily mean contents, 17,330 acre-ft, Apr. 21, 22; minimum combined daily mean contents, 6,200 acre-ft, Aug. 27.

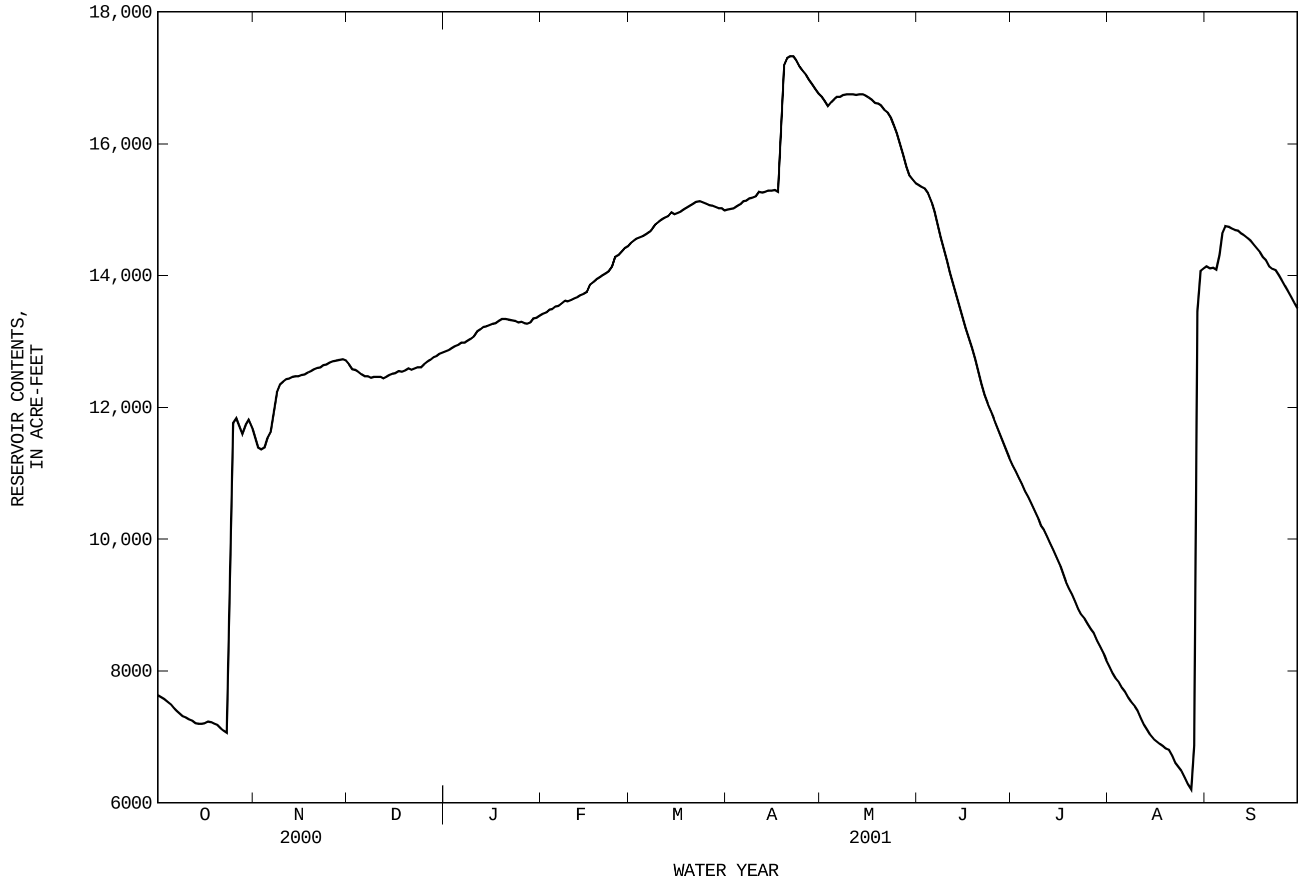
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7630	11550	12650	12850	13420	14490	15000	16710	15370	11120	8060	14140
2	7600	11390	12580	12870	13440	14530	15010	16650	15340	11030	7960	14110
3	7570	11360	12570	12900	13480	14560	15020	16570	15320	10930	7880	14120
4	7540	11390	12540	12930	13490	14580	15050	16630	15250	10840	7820	14090
5	7500	11530	12500	12950	13530	14600	15080	16680	15130	10730	7740	14310
6	7440	11620	12470	12980	13540	14630	15130	16710	14970	10640	7680	14640
7	7390	11920	12470	12980	13580	14660	15140	16710	14790	10540	7590	14750
8	7350	12230	12450	13010	13620	14710	15170	16740	14580	10430	7520	14740
9	7310	12350	12460	13040	13610	14780	15180	16750	14400	10340	7460	14710
10	7290	12390	12460	13080	13630	14820	15200	16750	14220	10210	7390	14690
11	7260	12430	12460	13150	13650	14850	15270	16750	14040	10140	7280	14680
12	7240	12440	12440	13180	13670	14880	15260	16740	13880	10040	7180	14640
13	7210	12460	12460	13220	13700	14900	15270	16750	13710	9940	7100	14610
14	7200	12470	12490	13230	13720	14960	15290	16750	13530	9840	7030	14570
15	7200	12470	12510	13250	13750	14930	15290	16730	13360	9730	6970	14530
16	7210	12490	12520	13270	13860	14950	15300	16700	13200	9620	6930	14470
17	7230	12500	12550	13280	13900	14970	15270	16670	13050	9480	6890	14410
18	7220	12530	12540	13310	13940	15000	16350	16620	12900	9360	6860	14350
19	7200	12550	12560	13340	13970	15030	17190	16610	12730	9250	6820	14280
20	7180	12580	12590	13340	14000	15060	17300	16580	12540	9160	6800	14230
21	7130	12600	12570	13330	14030	15090	17330	16520	12360	9050	6710	14140
22	7090	12610	12590	13320	14060	15120	17330	16480	12190	8940	6600	14100
23	7060	12640	12610	13310	14130	15130	17260	16400	12060	8850	6540	14080
24	8710	12650	12610	13290	14280	15110	17170	16290	11950	8790	6480	14010
25	11760	12680	12650	13300	14310	15090	17100	16160	11830	8710	6380	13930
26	11830	12700	12690	13280	14360	15070	17040	15990	11710	8630	6280	13840
27	11720	12710	12720	13270	14410	15060	16970	15830	11590	8570	6200	13760
28	11600	12720	12760	13290	14440	15040	16900	15650	11460	8460	6870	13670
29	11730	12730	12780	13350	---	15020	16830	15520	11340	8370	13460	13590
30	11810	12710	12810	13360	---	15020	16760	15460	11230	8270	14070	13500
31	11700	---	12830	13390	---	14990	---	15400	---	8160	14110	---
MEAN	8350	12310	12580	13180	13840	14890	15980	16440	13330	9620	7760	14260
MAX	11830	12730	12830	13390	14440	15130	17330	16750	15370	11120	14110	14750
MIN	7060	11360	12440	12850	13420	14490	15000	15400	11230	8160	6200	13500
(+)	1890.33	1890.60	1890.31	1890.86	1891.96	1892.66	1894.58	1893.26	1889.02	1886.02	1890.62	1891.20
(@)	+4050	+1010	+120	+560	+1050	+550	+1770	-1360	-4170	-3070	+5950	-610

CAL YR 2000 MAX 16720 MIN 7060 (@) -2300
WTR YR 2001 MAX 17330 MIN 6200 (@) +5850

(+) Elevation, in feet, at end of month of Middle Concho and Spring Creek pool.
(@) Change in combined contents, in acre-feet.

08131200 Twin Buttes Reservoir near San Angelo, TX--Continued



08131400 Pecan Creek near San Angelo, TX

LOCATION.--Lat 31°18’32", long 100°26’44", Tom Green County, Hydrologic Unit 12090102, on left bank 200 ft upstream from U.S. Highway 277, 3.7 mi upstream from mouth, and 10.5 mi south of San Angelo.

DRAINAGE AREA.--81.1 mi^2.

PERIOD OF RECORD.--June 1961 to Sept. 1986, July 2001 to current year.

REVISED RECORDS.--WDR TX-75-3: 1971, 1972(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,930.72 ft above sea level. Prior to Apr. 30, 1968, at site 1.2 mi downstream at datum 20.21 ft lower. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair except those for daily discharges below 5.0 ft^3/s, which are poor. No known regulation or diversions. No flow many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1908, 14.36 ft, Sept. 15, 1936, former site and datum, (discharge, 30,500 ft^3/s) by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.00	.00
2	---	---	---	---	---	---	---	---	---	---	.00	.00
3	---	---	---	---	---	---	---	---	---	---	.00	.00
4	---	---	---	---	---	---	---	---	---	---	.00	.00
5	---	---	---	---	---	---	---	---	---	---	.00	.00
6	---	---	---	---	---	---	---	---	---	---	.00	.00
7	---	---	---	---	---	---	---	---	---	---	.00	.00
8	---	---	---	---	---	---	---	---	---	---	.00	.00
9	---	---	---	---	---	---	---	---	---	---	.00	.00
10	---	---	---	---	---	---	---	---	---	---	.00	.00
11	---	---	---	---	---	---	---	---	---	---	.00	.00
12	---	---	---	---	---	---	---	---	---	---	.00	.00
13	---	---	---	---	---	---	---	---	---	---	.00	.00
14	---	---	---	---	---	---	---	---	---	---	.00	.00
15	---	---	---	---	---	---	---	---	---	---	.00	.00
16	---	---	---	---	---	---	---	---	---	---	.00	.00
17	---	---	---	---	---	---	---	---	---	---	.00	.00
18	---	---	---	---	---	---	---	---	---	---	.00	.00
19	---	---	---	---	---	---	---	---	---	.00	.00	.00
20	---	---	---	---	---	---	---	---	---	.00	.00	.00
21	---	---	---	---	---	---	---	---	---	.00	.00	.00
22	---	---	---	---	---	---	---	---	---	.00	.00	.00
23	---	---	---	---	---	---	---	---	---	.00	.00	.00
24	---	---	---	---	---	---	---	---	---	.00	.00	.00
25	---	---	---	---	---	---	---	---	---	.00	.00	.00
26	---	---	---	---	---	---	---	---	---	.00	.00	.00
27	---	---	---	---	---	---	---	---	---	.00	.00	.00
28	---	---	---	---	---	---	---	---	---	.00	1450	.00
29	---	---	---	---	---	---	---	---	---	.00	21	.00
30	---	---	---	---	---	---	---	---	---	.00	2.0	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	1473.00	0.00
MEAN	---	---	---	---	---	---	---	---	---	---	47.5	.000
MAX	---	---	---	---	---	---	---	---	---	---	1450	.00
MIN	---	---	---	---	---	---	---	---	---	---	.00	.00
AC-FT	---	---	---	---	---	---	---	---	---	---	2920	.00

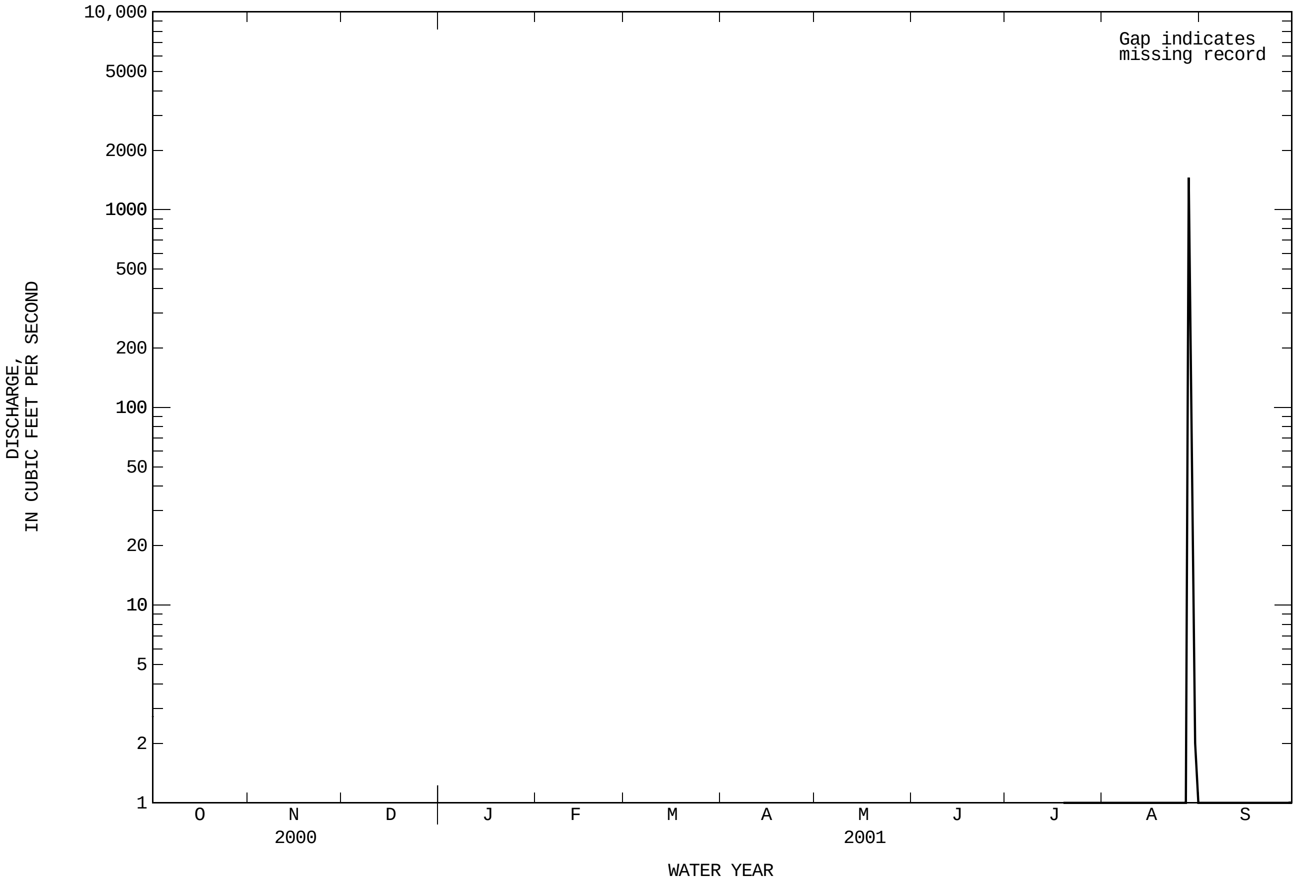
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.61	1.66	1.68	1.21	.94	.75	1.87	1.52	.91	.50	2.73	9.75
MAX	37.7	24.9	16.0	12.6	9.25	7.84	29.8	12.5	6.57	3.46	47.5	189
(WY)	1975	1975	1975	1975	1975	1975	1977	1975	1986	1971	2001	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1963	1962	1962	1962	1962	1962	1962	1962	1962	1961	1961	1962

SUMMARY STATISTICS	FOR 2001 WATER YEAR		WATER YEARS 1961 - 2001h	
ANNUAL MEAN			2.09	
HIGHEST ANNUAL MEAN			15.7	1980
LOWEST ANNUAL MEAN			.000	1969
HIGHEST DAILY MEAN	1450	Aug 28	3940	Sep 8 1980
LOWEST DAILY MEAN	.00	Jul 19	.00	Jul 1 1961
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 19	.00	Jul 1 1961
MAXIMUM PEAK FLOW	14100	Aug 28	c25600	Sep 8 1980
MAXIMUM PEAK STAGE	a7.82	Aug 28	10.63	Sep 8 1980
ANNUAL RUNOFF (AC-FT)			1510	
10 PERCENT EXCEEDS	.00		2.7	
50 PERCENT EXCEEDS	.00		.00	
90 PERCENT EXCEEDS	.00		.00	

h See PERIOD OF RECORD paragraph.
c From rating curve extended above 17,300 ft^3/s on basis of slope-area measurement of 30,500 ft^3/s.
a From floodmark.

08131400 Pecan Creek near San Angelo, TX--Continued



08132000 Lake Nasworthy near San Angelo, TX

LOCATION.--Lat 31°23'19", long 100°28'41", Tom Green County, Hydrologic Unit 12090102, on left bank 250 ft upstream from Nasworthy Dam on South Concho River, 3.8 mi downstream from Twin Buttes Dam, 6.0 mi southwest of San Angelo, and 68.9 mi upstream from mouth.

DRAINAGE AREA.--3,975 mi^2, of which 3,868 mi^2 is above Twin Buttes Reservoir and 1,055 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Mar. 1930 to Sept. 2001 (discontinued). Prior to Oct. 1969, end of month contents only.
Water-quality records.--Chemical data: Mar. 1964 to May 1965 and Nov. 1969 to Apr. 1984.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Oct. 1, 1996, datum was 1,840.00 ft. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The lake is formed by a 6,090-foot dam with a 5,590-foot earthen section that has an earthen spillway 300 ft long, a concrete spillway 475 ft long with a bank of fifteen 25.0- by 18.0-foot tainter gates, and a 25.0- by 3.0-foot collapsible floodgate. The dam was completed and storage began Mar. 28, 1930. Since July 1966, West Texas Utilities Co. has operated a steam generating powerplant on the lake. Since Sept. 1962, the lake has been almost totally controlled by releases or pumpage from Twin Buttes Reservoir (station 08131200). Siltation surveys in Dec. 1938 and May 1953 by the Natural Resources Conservation Service (formerly the Soil Conservation Service) show that 1,191 acre-ft of silt was deposited from Mar. 1930 to Dec. 1938 and an additional 1,023 acre-ft was deposited from Dec. 1938 to May 1953, totaling 2,214 acre-ft. The dam is owned by the city of San Angelo. Water is used for part of San Angelo municipal supply and for irrigation east of San Angelo. The capacity curve is based on a survey by the Texas Water Development Board in Aug. and Sept. 1993 and has been used since Oct. 1995. The city of San Angelo began dredging Lake Nasworthy July 11, 2000, and was approximately 67% complete on Sept. 30, 2001. Conservation pool storage is 9,615 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	1,883.5
Crest of spillway (300 ft)..	1,879.1
Top of gates..	1,873.2
Top of collapsible floodgate..	1,872.2
Lowest outlet to canal (invert).....................................	1,867.5
Crest of spillway (tainter gates sill)..............................	1,855.3
Lowest gated outlet (invert)..	1,836.0

COOPERATION.--Capacity curve dated Dec. 2, 1993, furnished by city of San Angelo.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 26,900 acre-ft, Sept. 15, 1936, elevation, 1,878.36 ft; minimum contents, 209 acre-ft, Aug. 22, 1964, elevation, 1,853.21 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,670 acre-ft, Aug. 29, elevation, 1,871.97 ft; minimum contents, 6,800 acre-ft, Oct. 11, 12, elevation, 1,869.58 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

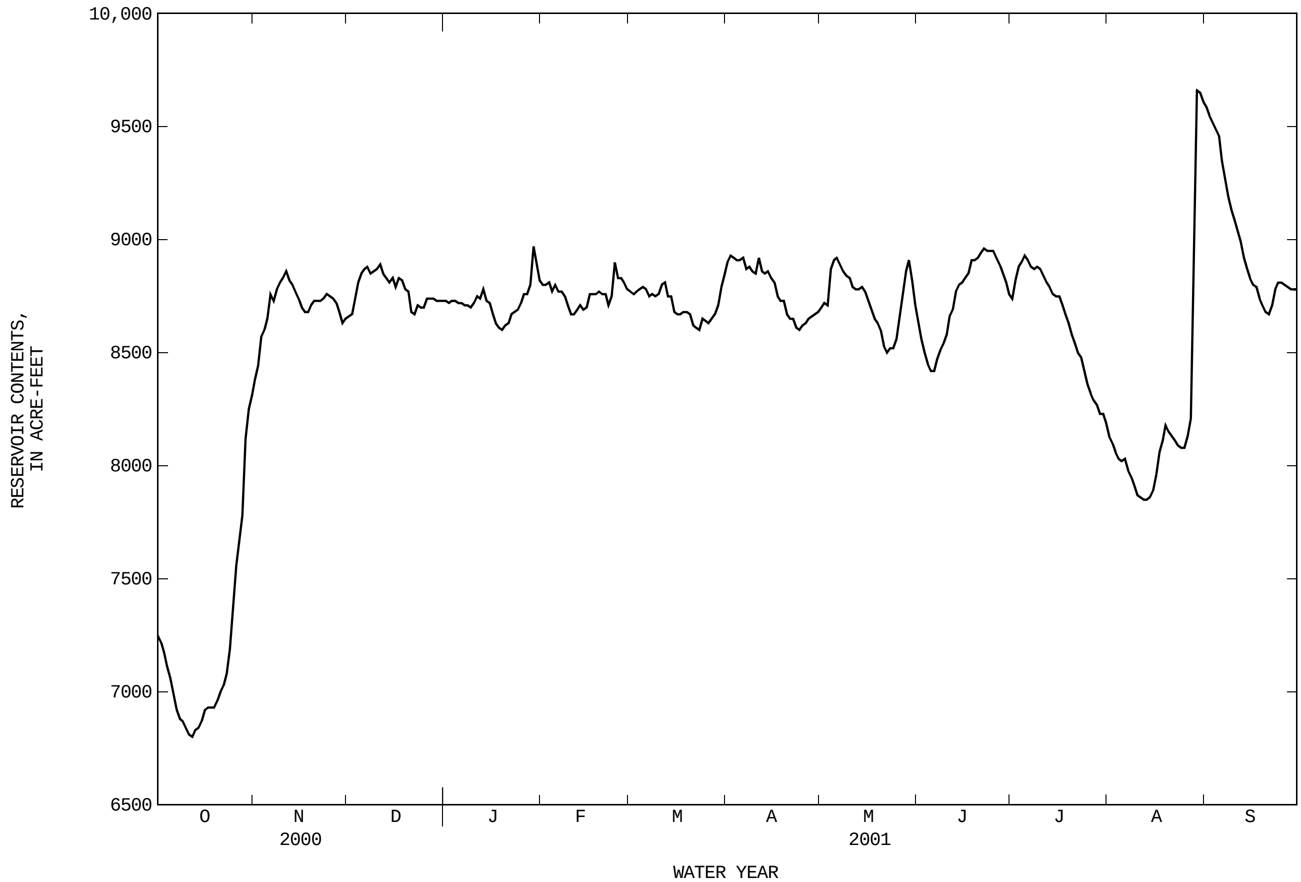
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7250	8380	8660	8730	8800	8770	8900	8700	8630	8740	8130	9590
2	7220	8440	8670	8720	8800	8760	8930	8720	8560	8820	8100	9550
3	7170	8570	8740	8730	8810	8770	8920	8710	8500	8880	8060	9520
4	7110	8600	8810	8730	8770	8780	8910	8870	8450	8900	8030	9490
5	7060	8650	8850	8720	8800	8790	8910	8910	8420	8930	8020	9460
6	6990	8760	8870	8720	8770	8780	8920	8920	8420	8910	8030	9350
7	6920	8730	8880	8710	8770	8750	8870	8890	8470	8880	7980	9270
8	6880	8780	8850	8710	8750	8760	8880	8860	8510	8870	7950	9190
9	6870	8810	8860	8700	8710	8750	8860	8840	8540	8880	7910	9130
10	6840	8830	8870	8720	8670	8760	8850	8830	8580	8870	7870	9090
11	6810	8860	8890	8750	8670	8800	8920	8790	8660	8840	7860	9040
12	6800	8820	8850	8740	8690	8810	8860	8780	8690	8810	7850	8990
13	6830	8800	8830	8780	8710	8750	8850	8780	8770	8790	7850	8920
14	6840	8770	8810	8730	8690	8750	8860	8790	8800	8760	7860	8870
15	6870	8740	8830	8720	8700	8680	8830	8770	8810	8750	7890	8830
16	6920	8700	8790	8670	8760	8670	8810	8730	8830	8750	7960	8800
17	6930	8680	8830	8630	8760	8670	8750	8690	8850	8710	8060	8790
18	6930	8680	8820	8610	8760	8680	8730	8650	8910	8670	8110	8740
19	6930	8710	8780	8600	8770	8680	8730	8630	8910	8630	8180	8710
20	6960	8730	8770	8620	8760	8670	8670	8600	8920	8580	8150	8680
21	7000	8730	8680	8630	8760	8620	8650	8530	8940	8540	8130	8670
22	7030	8730	8670	8670	8710	8610	8650	8500	8960	8500	8110	8710
23	7080	8740	8710	8680	8750	8600	8610	8520	8950	8480	8090	8780
24	7190	8760	8700	8690	8900	8650	8600	8520	8950	8420	8080	8810
25	7370	8750	8700	8720	8830	8640	8620	8560	8950	8360	8080	8810
26	7560	8740	8740	8760	8830	8630	8630	8660	8920	8320	8130	8800
27	7660	8720	8740	8760	8810	8650	8650	8760	8890	8290	8210	8790
28	7780	8680	8740	8800	8780	8670	8660	8860	8850	8270	8820	8780
29	8120	8630	8730	8970	---	8710	8670	8910	8810	8230	9660	8780
30	8250	8650	8730	8890	---	8790	8680	8820	8760	8230	9650	8780
31	8310	---	8730	8820	---	8840	---	8710	---	8190	9610	---

08132000 Lake Nasworthy near San Angelo, TX--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7180	8710	8780	8720	8760	8720	8780	8740	8740	8640	8210	8990
MAX	8310	8860	8890	8970	8900	8840	8930	8920	8960	8930	9660	9590
MIN	6800	8380	8660	8600	8670	8600	8600	8500	8420	8190	7850	8670
(+)	1870.88	1871.16	1871.22	1871.30	1871.27	1871.31	1871.18	1871.21	1871.25	1870.78	1871.92	1871.26
(@)	+1050	+340	+80	+90	-40	+60	-160	+30	+50	-570	+1420	-830

CAL YR 2000 MAX 9140 MIN 6800 (@) 0
WTR YR 2001 MAX 9660 MIN 6800 (@) +1520

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.



08133250 North Concho River above Sterling City, TX
(Partial-record station)

LOCATION.--Lat 31°53'50", long 101°06'17", Sterling County, Hydrologic Unit 12090104, on left bank 0.2 mi southwest of U.S. Highway 87, 2.1 mi upstream from Willow Creek, 3.3 mi upstream from Chalk Creek, 5.0 mi above State Highway 158, 5.5 mi downstream from Sand Bluff Draw, and 8.0 mi northwest of Sterling City.

DRAINAGE AREA.--201 mi^2.

PERIOD OF RECORD.--Feb. 2000 to current year (daily mean discharges less than 10 ft^3/s).

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 2,353.99 ft above sea level (Texas Department of Transportation benchmark). Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow many days.

EXTREMES FOR WATER YEAR 2000.--Maximum gage height, 13.88 ft, Mar. 23, 2000, from floodmark (maximum discharge not determined); minimum, no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.13 ft^3/s, Apr. 10, gage height, 3.55 ft; minimum, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.08	---	.17	.00	.00	.00	.00
2	---	---	---	---	---	.07	1.1	.16	.00	.00	.00	.00
3	---	---	---	---	---	.06	.44	.14	.00	.00	.00	.00
4	---	---	---	---	---	.06	.32	.12	.00	.00	.00	.00
5	---	---	---	---	---	.06	.33	.12	.00	.00	.00	.00
6	---	---	---	---	---	.06	.32	.10	.00	.00	.00	.00
7	---	---	---	---	---	.07	.32	.10	.00	.00	.00	.00
8	---	---	---	---	---	.05	.30	.08	.00	.00	.00	.00
9	---	---	---	---	---	.06	.33	.08	.00	.00	.00	.00
10	---	---	---	---	---	.06	.32	.09	.00	.00	.00	.00
11	---	---	---	---	---	.06	.37	.06	.00	.00	.00	.00
12	---	---	---	---	---	.06	.36	.04	.00	.00	.00	.00
13	---	---	---	---	---	.06	.32	.02	.00	.00	.00	.00
14	---	---	---	---	---	.06	.31	.02	.00	.00	.00	.00
15	---	---	---	---	---	.06	.31	.03	.00	.00	.00	.00
16	---	---	---	---	---	.06	.30	.02	.00	.00	.00	.00
17	---	---	---	---	.08	.05	.30	.01	.00	.00	.00	.00
18	---	---	---	---	.09	.04	.29	.01	.00	.00	.00	.00
19	---	---	---	---	.07	.04	.22	.06	.00	.00	.00	.00
20	---	---	---	---	.07	.04	.19	.06	.00	.00	.00	.00
21	---	---	---	---	.09	.04	.21	.04	.00	.00	.00	.00
22	---	---	---	---	.11	.04	.26	.02	.00	.00	.00	.00
23	---	---	---	---	.07	---	.24	.01	.00	.00	.00	.00
24	---	---	---	---	.11	---	.24	.00	.00	.00	.00	.00
25	---	---	---	---	.07	---	.21	.00	.00	.00	.00	.00
26	---	---	---	---	.06	1.6	.20	.00	.00	.00	.00	.00
27	---	---	---	---	.07	.54	.19	.00	.00	.00	.00	.00
28	---	---	---	---	.08	.35	.20	.00	.00	.00	.00	.00
29	---	---	---	---	.07	.29	.20	.00	.00	.00	.00	.00
30	---	---	---	---	---	.28	.17	.00	.00	.00	.00	.00
31	---	---	---	---	---	.29	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	1.04	4.59	8.87	1.56	0.00	0.00	0.00	0.00
MEAN	---	---	---	---	.080	.16	.31	.050	.000	.000	.000	.000
MAX	---	---	---	---	.11	1.6	1.1	.17	.00	.00	.00	.00
MIN	---	---	---	---	.06	.04	.17	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	2.1	9.1	18	3.1	.00	.00	.00	.00

08133250 North Concho River above Sterling City, TX--Continued
(Partial-record station)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
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	.01	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.01	.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	.01	.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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	e.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00

e Estimated

08133500 North Concho River at Sterling City, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 31°49'48", long 100°59'36", Sterling County, Hydrologic Unit 12090104, on right bank 100 ft upstream from bridge on State Highway 163, 0.5 mi south of Sterling City, 4.0 mi upstream from Sterling Creek, 5.1 mi downstream from Lacy Creek, and at mile 57.2.

DRAINAGE AREA.--588 mi^2, of which 19.6 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Sept. 1939 to Sept. 1985, Oct. 1985 to Sept. 1995 (daily discharges greater than 100 ft^3/s), Oct. 1995 to current year (peak discharges greater than base discharge).

REVISED RECORDS.--WSP 1512: 1945, 1948. WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,242.36 ft above sea level. Prior to Dec. 6, 1939, nonrecording gage at same site and datum. Satellite telemeter at station.

AVERAGE DISCHARGE.--46 years (water years 1940-85), 7.80 ft^3/s (5,650 acre-ft/year).

REMARKS.--Records good. No known regulation. There are several small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft^3/s July 6, 1948 (gage height, 23.70 ft); prior to Oct. 1, 1985, no flow at times each year. Maximum stage since at least 1891, that of July 6, 1948.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 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.

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08134000 North Concho River near Carlsbad, TX
(Hydrologic index station)

LOCATION.--Lat 31°35’33", long 100°38’12", Tom Green County, Hydrologic Unit 12090104, near left bank at downstream side of bridge on county road, 0.6 mi southeast of Carlsbad, 1.5 mi upstream from Mule Creek, 2.5 mi upstream from Grape Creek, 16.2 mi upstream from O.C. Fisher Dam, and 21.3 mi upstream from mouth.

DRAINAGE AREA.--1,266 mi^2, of which 75.1 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Mar. 1924 to current year.
Water-quality records.--Chemical data: Apr. 1980 to July 1982. Biochemical data: Apr. 1980 to July 1982.

REVISED RECORDS.--WSP 1512: 1924(M), 1925, 1926(M), 1928, 1930, 1932(M), 1935, 1937-38(M), 1941(M), 1945(M), 1947-49(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,968.02 ft above sea level. Prior to Feb. 4, 1925, and Sept. 27, 1936, to Feb. 7, 1937, nonrecording gage; Feb. 4, 1925, to Sept. 26, 1936, and Feb. 8, 1937, to Nov. 6, 1955, water-stage recorder, all at site 2.5 mi upstream at datum 32.76 ft higher. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. There are several diversions (by pumping) upstream from station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since June 1853, that of Sept. 26, 1936.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	6.5	.03	.44	.82	1.2	2.8	.55	.00	.00	.00	.00
2	.00	3.1	.03	.28	.59	1.7	2.6	.38	.00	.00	.00	.00
3	.00	1.6	.05	.46	.46	1.8	2.3	.26	.00	.00	.00	.00
4	.00	1.2	.04	.55	.68	1.6	2.7	.40	.00	.00	.00	.00
5	.00	17	.04	.50	.86	1.4	2.8	.66	.00	.00	.00	228
6	.00	78	.03	.39	1.2	1.2	2.4	1.3	.00	.00	.00	6.9
7	.00	31	.04	.45	1.2	1.2	2.8	1.6	.00	.00	.00	.84
8	.00	15	.04	.58	1.0	1.5	2.0	1.8	.00	.00	.00	.04
9	.00	8.8	.04	.80	.88	1.9	1.7	1.6	.00	.00	.00	.00
10	.00	5.4	.04	1.1	.57	1.9	1.9	.65	.00	.00	.00	.00
11	.00	3.2	.05	2.1	.50	1.7	3.6	.31	.00	.00	.00	.00
12	.00	2.3	.04	1.8	.51	1.6	4.6	.12	.00	.00	.00	.00
13	.00	1.4	.05	1.4	.66	1.3	4.1	.08	.00	.00	.00	.00
14	.00	.75	.10	1.2	.81	1.4	3.3	.07	.00	.00	.00	.00
15	.00	.42	.08	.94	1.3	1.3	2.8	.06	.00	.00	.00	.00
16	.00	.21	.08	.85	3.0	1.2	2.4	.04	.00	.00	.00	.00
17	.00	.07	.07	1.0	3.1	1.2	1.9	.00	.00	.00	.00	.00
18	.00	.06	.06	.80	2.7	1.5	1.7	.00	.00	.00	.00	.00
19	.00	.06	.06	.76	1.9	1.7	2.0	.00	.00	.00	.00	.00
20	.00	.05	.05	1.0	1.8	1.8	2.0	.00	.00	.00	.00	.00
21	.00	.05	.05	.78	1.6	1.8	1.9	.00	.00	.00	.00	.00
22	.00	.05	.05	.88	1.5	1.6	2.4	.00	.00	.00	.00	.00
23	.00	.05	.07	1.4	1.6	1.6	2.1	.00	.00	.00	.00	.00
24	2150	.05	.19	1.8	1.7	1.9	1.4	.00	.00	.00	.00	.00
25	103	.05	.15	1.5	2.7	2.1	.99	.00	.00	.00	.00	.00
26	24	.05	.38	1.5	1.3	1.8	.86	.00	.00	.00	.00	.00
27	7.6	.04	.69	1.6	1.1	1.9	.81	.00	.00	.00	.00	.00
28	109	.04	.72	1.4	1.1	2.4	.91	.00	.00	.00	.00	.00
29	272	.04	.64	1.8	---	2.9	.82	.00	.00	.00	.00	.00
30	45	.04	1.6	2.0	---	3.4	.68	.00	.00	.00	.00	.00
31	16	---	.87	1.2	---	3.3	---	.00	---	.00	.00	---
TOTAL	2726.60	176.58	6.43	33.26	37.14	54.8	65.27	9.88	0.00	0.00	0.00	235.78
MEAN	88.0	5.89	.21	1.07	1.33	1.77	2.18	.32	.000	.000	.000	7.86
MAX	2150	78	1.6	2.1	3.1	3.4	4.6	1.8	.00	.00	.00	228
MIN	.00	.04	.03	.28	.46	1.2	.68	.00	.00	.00	.00	.00
AC-FT	5410	350	13	66	74	109	129	20	.00	.00	.00	468

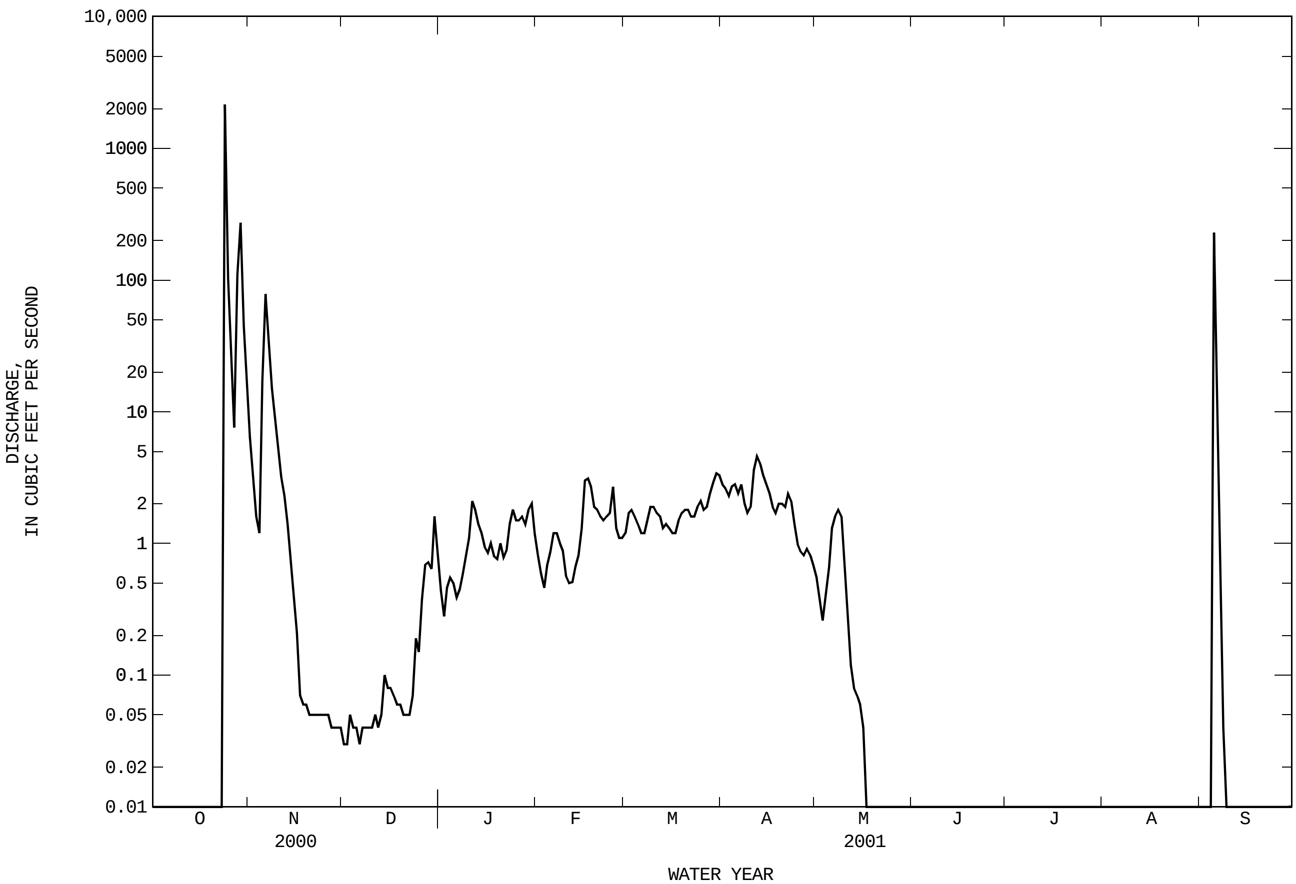
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	36.2	3.99	4.04	3.87	6.59	12.1	34.4	76.6	26.1	38.6	16.0	80.4
MAX	1463	65.2	20.1	16.0	85.0	307	631	1355	252	1195	255	4019
(WY)	1958	1935	1931	1937	1935	1926	1925	1925	1937	1948	1953	1936
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1934	1934	1953	1953	1953	1953	1963	1967	1934	1924	1929	1930

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1924 - 2001	
ANNUAL TOTAL	8215.62		3345.74			
ANNUAL MEAN	22.4		9.17		28.4	
HIGHEST ANNUAL MEAN					336	1936
LOWEST ANNUAL MEAN					.000	1970
HIGHEST DAILY MEAN	4540	Mar 24	2150	Oct 24	62900	Sep 17 1936
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 20 1924
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 20 1924
MAXIMUM PEAK FLOW			7030	Oct 24	c94600	Sep 26 1936
MAXIMUM PEAK STAGE			p16.60	Oct 24	a29.10	Sep 26 1936
ANNUAL RUNOFF (AC-FT)	16300		6640		20600	
10 PERCENT EXCEEDS	4.5		2.5		12	
50 PERCENT EXCEEDS	.00		.05		1.4	
90 PERCENT EXCEEDS	.00		.00		.00	

c From rating curve extended above 15,000 ft^3/s on basis of slope-area measurements of 55,200 and 94,600 ft^3/s at former site.
p Observed.
a From floodmark at present site.

08134000 North Concho River near Carlsbad, TX--Continued
(Hydrologic index station)



08134250 North Concho River near Grape Creek, TX

LOCATION.--Lat 31°32'33", long 100°33'17", Tom Green County, Hydrologic Unit 12090104, on left bank at downstream side of bridge on FM 2288, 1.2 mi upstream from Bald Eagle Creek, 1.3 mi south of U.S. Hwy 87 at community of Grape Creek, 2.8 mi downstream from Grape Creek, and 6.0 mi upstream from O.C. Fisher Dam.

DRAINAGE AREA.--1,400 mi^2, of which 75.1 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Feb. 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,895.83 ft above sea level (Texas Department of Transportation benchmark). Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. There are several diversions (by pumping) upstream from station.

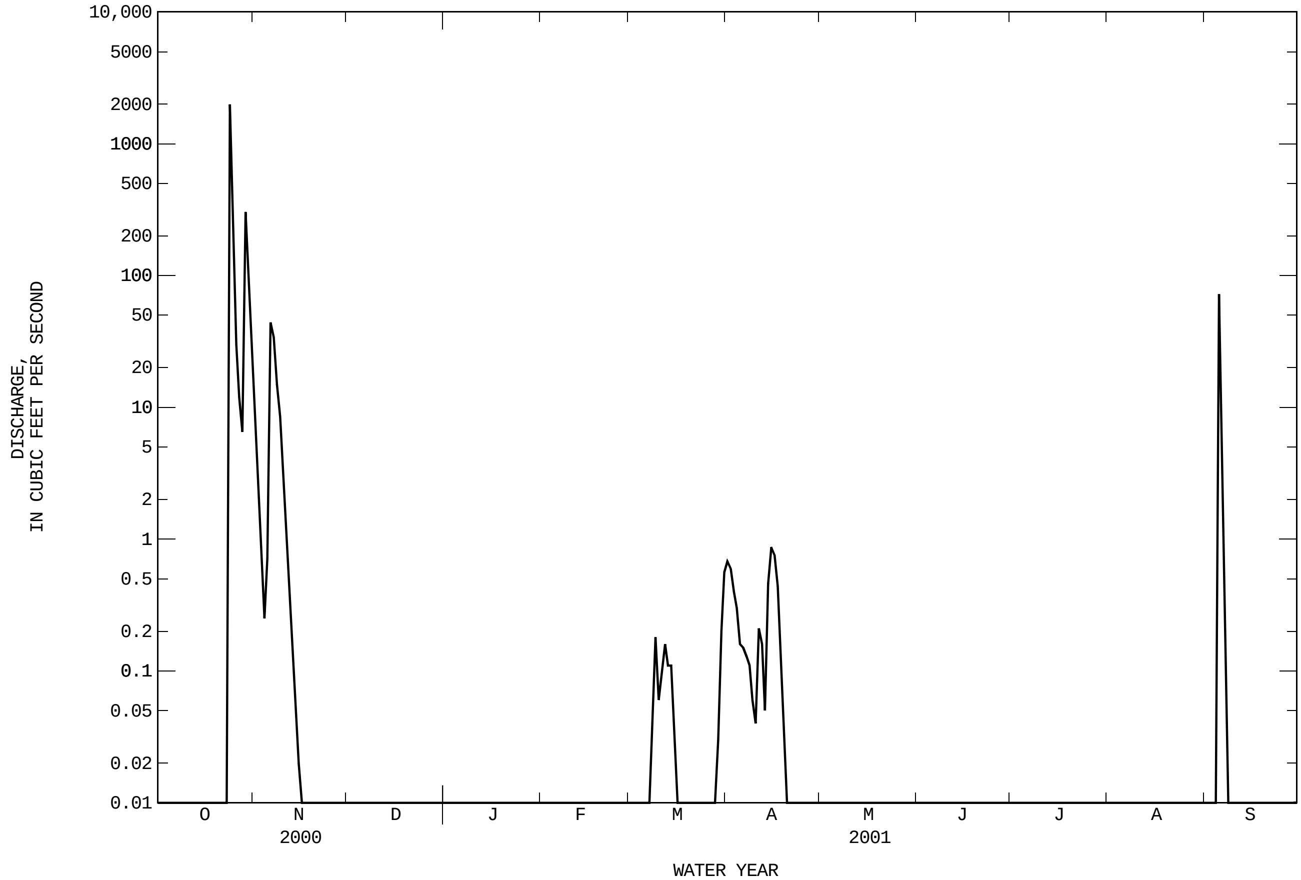
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft^3/s Mar. 24, 2000 (gage height, 24.50 ft, observed); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,660 ft^3/s Oct. 24 (gage height, 21.20 ft, observed); no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	8.1	.00	.00	.00	.00	.68	.00	.00	.00	.00	.00
2	.00	2.6	.00	.00	.00	.00	.60	.00	.00	.00	.00	.00
3	.00	.82	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00
4	.00	.25	.00	.00	.00	.00	.30	.00	.00	.00	.00	.00
5	.00	.71	.00	.00	.00	.00	.16	.00	.00	.00	.00	72
6	.00	44	.00	.00	.00	.00	.15	.00	.00	.00	.00	8.3
7	.00	34	.00	.00	.00	.00	.13	.00	.00	.00	.00	1.1
8	.00	15	.00	.00	.00	.04	.11	.00	.00	.00	.00	.01
9	.00	8.5	.00	.00	.00	.18	.06	.00	.00	.00	.00	.00
10	.00	3.6	.00	.00	.00	.06	.04	.00	.00	.00	.00	.00
11	.00	1.4	.00	.00	.00	.10	.21	.00	.00	.00	.00	.00
12	.00	.38	.00	.00	.00	.16	.16	.00	.00	.00	.00	.00
13	.00	.12	.00	.00	.00	.11	.05	.00	.00	.00	.00	.00
14	.00	.05	.00	.00	.00	.11	.46	.00	.00	.00	.00	.00
15	.00	.02	.00	.00	.00	.04	.87	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.76	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	1990	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	149	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	6.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	304	.00	.00	.00	---	.03	.00	.00	.00	.00	.00	.00
30	55	.00	.00	.00	---	.20	.00	.00	.00	.00	.00	.00
31	18	---	.00	.00	---	.56	---	.00	---	.00	.00	---
TOTAL	2564.50	119.55	0.00	0.00	0.00	1.59	5.76	0.00	0.00	0.00	0.00	81.41
MEAN	82.7	3.99	.000	.000	.000	.051	.19	.000	.000	.000	.000	2.71
MAX	1990	44	.00	.00	.00	.56	.87	.00	.00	.00	.00	72
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	5090	237	.00	.00	.00	3.2	11	.00	.00	.00	.00	161

08134250 North Concho River near Grape Creek, TX--Continued



08134500 O.C. Fisher Lake at San Angelo, TX

LOCATION.--Lat 31°29’04", long 100°28’53", Tom Green County, Hydrologic Unit 12090104, at intake structure of O.C. Fisher Dam on North Concho River, 0.1 mi west of Glenna Drive, 3.1 mi northwest of center of San Angelo, and 6.6 mi upstream from mouth.

DRAINAGE AREA.--1,488 mi^2, of which 105 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Feb. 1952 to Sept. 2000 (U.S. Army Corps of Engineers furnished contents), Oct. 2000 to current year. Published as "San Angelo Reservoir" prior to Oct. 1970, and as "San Angelo Lake", Oct. 1970 to Sept. 1974.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to May 12, 1953, nonrecording gage at same site and datum. Prior to Aug. 16, 2001, water-stage recorder inside intake structure at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records fair. The lake is formed by a rolled earthfill dam 40,885 ft long, including spillway. Closure was completed Mar. 7, 1951, and the dam was completed May 3, 1951. Deliberate impoundment began Feb. 1, 1952. The dam is owned by the U.S. Army Corps of Engineers. The lake is operated for flood control and recreation with part as municipal supply for the city of San Angelo. The spillway is an uncontrolled off-channel concrete gravity dam with ogee weir section 1,150 ft wide located to the right and upstream from the right end of dam. The spillway is designed to discharge 356,000 ft^3/s at maximum design flood level. The control outlet works consist of six gate-controlled outlets, 7.5 by 14.5 ft, opening into two 18.0-foot-diameter concrete conduits, and two 2.5-foot gate-controlled outlets for water-supply outlets. Since Feb. 1973, the capacity is based on a survey made in 1962. Prior to 1973, the capacity was based on a survey made in 1944. Conservation pool storage is 115,743 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	1,964.0
Design flood	1,958.0
Crest of spillway	1,938.5
Top of conservation pool	1,908.0
Lowest gated outlet (invert)	1,840.0

COOPERATION.--The capacity table dated 1972 was furnished by the U.S. Army Corps of Engineers and is based on a resurvey of the lake in 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 174,100 acre-ft, Oct. 14, 1957, elevation, 1,916.47 ft; minimum since first appreciable storage, lake dry July 16, 1970, to Apr. 15, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 10,880 acre-ft, Nov. 8, 9, elevation, 1,870.67 ft; minimum contents, 4,380 acre-ft, Sept. 30, elevation, 1,861.43 ft.

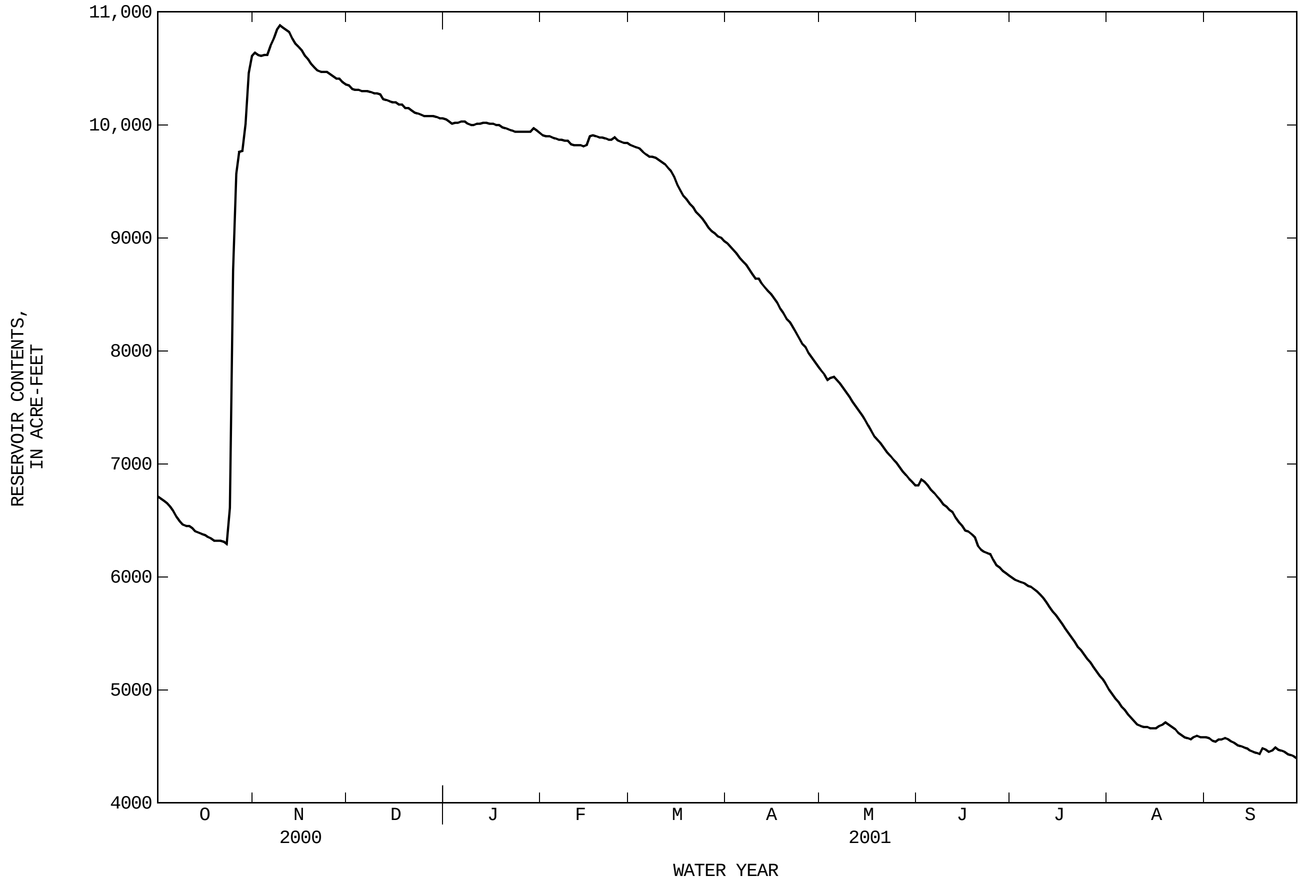
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6710	10640	10350	10050	9910	9820	8950	7820	6810	5990	5000	4580
2	6690	10620	10320	10030	9900	9810	8920	7790	6860	5970	4960	4570
3	6670	10610	10310	10010	9900	9800	8890	7740	6840	5960	4920	4550
4	6650	10620	10310	10020	9890	9790	8860	7760	6810	5950	4890	4540
5	6620	10620	10300	10020	9880	9760	8820	7770	6770	5940	4850	4560
6	6580	10700	10300	10030	9870	9740	8790	7740	6740	5920	4820	4560
7	6530	10760	10300	10030	9870	9720	8760	7710	6710	5910	4780	4570
8	6490	10840	10290	10010	9860	9720	8720	7670	6680	5890	4750	4560
9	6460	10880	10280	10000	9860	9710	8680	7630	6640	5870	4720	4540
10	6450	10860	10280	10000	9830	9690	8640	7590	6620	5840	4690	4530
11	6450	10840	10270	10010	9820	9670	8640	7550	6590	5810	4680	4510
12	6430	10820	10230	10010	9820	9650	8590	7510	6570	5770	4670	4500
13	6400	10760	10220	10020	9820	9620	8560	7470	6520	5730	4670	4490
14	6390	10720	10210	10020	9810	9590	8530	7430	6480	5690	4660	4480
15	6380	10690	10200	10010	9820	9540	8500	7390	6450	5660	4660	4460
16	6370	10660	10200	10010	9900	9470	8460	7340	6410	5620	4660	4450
17	6350	10610	10180	10000	9910	9420	8420	7290	6400	5580	4680	4440
18	6340	10580	10180	10000	9900	9370	8370	7240	6380	5540	4690	4430
19	6320	10540	10150	9980	9890	9340	8330	7210	6350	5500	4710	4480
20	6320	10510	10150	9970	9890	9300	8280	7180	6270	5460	4690	4470
21	6320	10480	10130	9960	9880	9270	8250	7140	6240	5420	4670	4450
22	6310	10470	10110	9950	9870	9230	8210	7100	6220	5380	4650	4460
23	6290	10470	10100	9940	9870	9200	8160	7070	6210	5350	4620	4490
24	6610	10470	10090	9940	9890	9170	8110	7040	6200	5310	4600	4470
25	8710	10450	10080	9940	9860	9130	8060	7010	6150	5270	4580	4460
26	9570	10430	10080	9940	9850	9090	8030	6970	6100	5240	4570	4450
27	9760	10410	10080	9940	9840	9060	7980	6930	6080	5200	4560	4430
28	9770	10410	10080	9940	9840	9040	7940	6900	6050	5160	4580	4420
29	10010	10380	10070	9970	---	9010	7900	6870	6030	5120	4590	4410
30	10460	10360	10060	9950	---	9000	7860	6840	6010	5090	4580	4390
31	10610	---	10060	9930	---	8970	---	6810	---	5050	4580	---
MEAN	7230	10610	10190	9990	9870	9440	8440	7340	6440	5590	4700	4490
MAX	10610	10880	10350	10050	9910	9820	8950	7820	6860	5990	5000	4580
MIN	6290	10360	10060	9930	9810	8970	7860	6810	6010	5050	4560	4390
(+)	1870.39	1870.12	1869.78	1869.63	1869.53	1868.50	1867.07	1865.55	1864.29	1862.65	1861.82	1861.45
(@)	+3790	-250	-300	-130	-90	-870	-1110	-1050	-800	-960	-470	-190

CAL YR 2000 MAX 14720 MIN 6290 (@) +2040
WTR YR 2001 MAX 10880 MIN 4390 (@) -2430

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08134500 O.C. Fisher Lake at San Angelo, TX--Continued



08136000 Concho River at San Angelo, TX

LOCATION.--Lat 31°27'16", long 100°24'37", Tom Green County, Hydrologic Unit 12090105, on left bank 0.4 mi downstream from confluence of North and South Concho Rivers, 1.8 mi southeast of Tom Green County Courthouse, in San Angelo at Rio Concho Sports Complex on Rio Concho Dr. below Bell St. bridge, and 61.9 mi upstream from mouth.

DRAINAGE AREA.--5,542 mi^2, of which 1,131 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Sept. 1915 to current year. Prior to Oct. 1969, published as "near San Angelo".

REVISED RECORDS.--WSP 568: 1915-16, 1919-22. WSP 1148: 1916-22(M), 1924(M), 1925-26, 1929(M), 1930-32, 1935-37. WSP 1512: 1917-18. WSP 1712: 1936. WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,776.79 ft above sea level. Prior to Aug. 11, 1917, nonrecording gage at same site and datum. Aug. 11, 1917, to May 15, 1963, water-stage recorder on right bank at same datum. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 500 ft^3/s, which are poor. Since water year 1931 at least 10% of contributing drainage area has been regulated. There are many diversions upstream from station for irrigation, industrial, and municipal supply. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--15 years (water years 1916-30) prior to completion of Lake Nasworthy, 142 ft^3/s (102,600 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1916-30).--Maximum discharge, 92,000 ft^3/s Apr. 26, 1922 (gage height, 36.8 ft, from floodmarks), on basis of slope-area measurements of 167,000 and 230,000 ft^3/s in 1936; no flow at times in 1921.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1853, 47.5 ft Aug. 6, 1906 (discharge, about 246,000 ft^3/s), from information by local resident. Other large floods are known to have occurred in June 1853, Aug. 1882, and Apr. 1900.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	6.5	10	2.7	6.6	16	.10	.01	37	.23	.06	75
2	.08	6.4	17	2.7	2.8	10	.09	.02	51	.28	.06	8.8
3	.11	43	16	2.6	2.9	8.4	.05	.03	18	.10	.06	5.8
4	.16	24	15	2.3	4.1	9.7	.05	84	.53	.08	.06	17
5	.08	110	13	2.2	3.1	10	.02	46	.27	.11	.06	167
6	.10	48	11	2.1	2.8	11	.02	23	.10	.05	.04	14
7	.11	20	9.8	2.4	2.6	5.3	.02	16	.09	.04	.03	4.4
8	.11	76	8.3	2.2	2.4	.12	.01	23	.09	.04	.03	3.0
9	.11	34	6.8	2.0	2.2	.07	.02	13	.11	.04	.03	2.3
10	.12	17	6.0	2.5	1.9	.02	.03	4.2	.10	.04	.03	2.4
11	.07	10	5.4	2.4	2.1	.03	35	.31	.09	.04	.05	.44
12	.07	.13	5.2	2.0	1.9	.03	24	2.0	.07	.04	.05	.02
13	.07	.09	4.5	1.8	1.8	.02	17	10	.15	.04	.05	.02
14	.08	8.8	3.7	1.6	2.2	.02	16	28	.09	.04	.05	.12
15	.32	11	3.5	3.9	7.0	.01	14	8.4	.09	.11	.05	.18
16	.10	9.8	3.5	9.0	60	.01	5.4	.51	.11	.17	.07	.05
17	.07	9.6	3.4	9.6	56	.01	.03	1.9	.12	.10	6.6	.03
18	.09	9.1	3.3	7.5	34	2.1	.02	.34	.15	.04	23	1.5
19	.11	7.7	3.3	6.8	5.5	4.0	.02	1.5	.16	.04	57	211
20	.11	3.8	3.3	6.4	4.4	.05	.02	.81	.15	.04	9.3	18
21	.08	.26	2.9	2.9	4.0	3.4	.04	.19	.37	.04	2.5	7.7
22	.10	.10	2.6	2.2	e5.0	.03	.03	.13	.72	.03	.19	18
23	.29	.09	2.4	2.2	15	.81	.02	.38	.26	.03	.57	28
24	55	.16	2.4	2.2	35	.17	.02	.44	.19	.04	.81	6.9
25	12	.11	3.0	2.1	50	.03	.03	.37	.20	.04	.96	1.3
26	7.4	.12	3.5	2.6	40	.01	.03	.14	.20	.04	1.6	.08
27	6.7	.06	3.5	2.1	37	.02	.03	.11	.23	.08	1.2	.05
28	76	.06	3.2	4.6	24	.02	.02	.10	.20	.08	82	.05
29	212	.05	2.9	26	---	.02	.02	.09	.34	.07	23	.05
30	16	.05	2.7	21	---	.04	.02	.07	.40	.06	6.1	.05
31	7.7	---	2.7	14	---	.04	---	.06	---	.06	66	---
TOTAL	395.44	455.98	183.8	156.6	416.3	81.48	112.16	265.11	111.58	2.24	281.61	593.24
MEAN	12.8	15.2	5.93	5.05	14.9	2.63	3.74	8.55	3.72	.072	9.08	19.8
MAX	212	110	17	26	60	16	35	84	51	.28	82	211
MIN	.07	.05	2.4	1.6	1.8	.01	.01	.01	.07	.03	.03	.02
AC-FT	784	904	365	311	826	162	222	526	221	4.4	559	1180

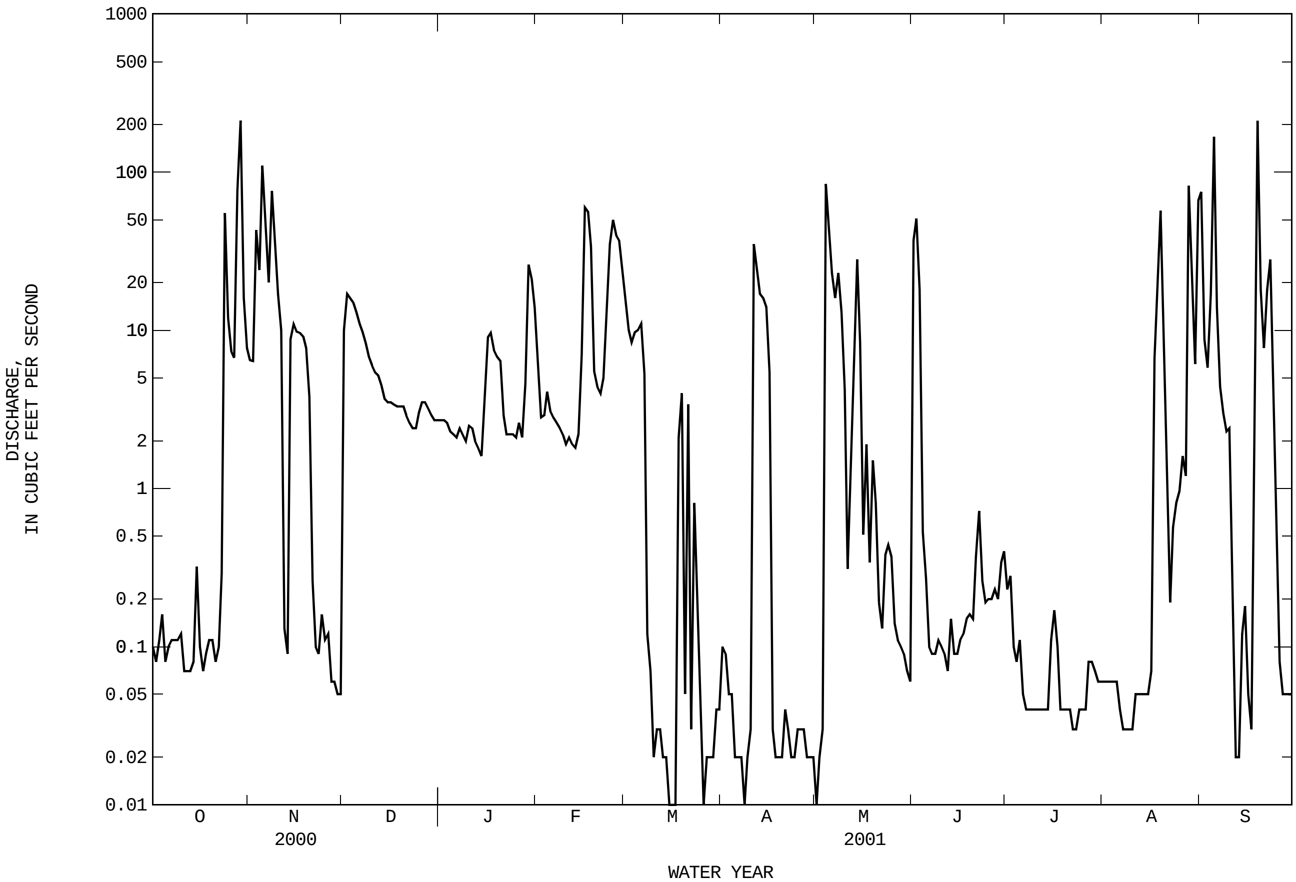
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001z, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	119	32.4	33.2	29.7	35.1	28.3	92.4	185	84.2	102	39.6	252
MAX	2659	434	274	205	213	242	1604	3984	1132	2137	900	13190
(WY)	1960	1975	1975	1938	1975	1941	1949	1957	1941	1938	1942	1936
MIN	.051	.047	.095	.055	.034	.050	.042	.083	.090	.069	.040	.034
(WY)	2000	2000	1974	1974	2000	1971	2000	1971	1971	1969	1999	1999

08136000 Concho River at San Angelo, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1931 - 2001z	
ANNUAL TOTAL	1570.40		3055.54			
ANNUAL MEAN	4.29		8.37		86.1	
HIGHEST ANNUAL MEAN					1132	1936
LOWEST ANNUAL MEAN					1.55	2000
HIGHEST DAILY MEAN	212	Oct 29	212	Oct 29	128000	Sep 17 1936
LOWEST DAILY MEAN	.00	May 26	.01	Mar 15	.00	Sep 14 1952
ANNUAL SEVEN-DAY MINIMUM	.00	May 26	.02	Mar 11	.00	Sep 16 1952
MAXIMUM PEAK FLOW			1070	Sep 19	c230000	Sep 17 1936
MAXIMUM PEAK STAGE			4.47	Sep 19	a46.60	Sep 17 1936
ANNUAL RUNOFF (AC-FT)	3110		6060		62410	
10 PERCENT EXCEEDS	9.7		22		67	
50 PERCENT EXCEEDS	.05		.57		6.9	
90 PERCENT EXCEEDS	.02		.03		.10	

e Estimated
z Period of regulated streamflow.
a From floodmark.
c From rating curve extended above 105,000 ft^3/s on basis of slope-area measurements of 167,000 and 230,000 ft^3/s.



08136500 Concho River at Paint Rock, TX

LOCATION.--Lat 31°30’57", long 99°55’09", Concho County, Hydrologic Unit 12090105, near left bank at downstream end of pier of bridge on U.S. Highway 83, 0.5 mi north of Concho County Courthouse in Paint Rock, 2.7 mi downstream from Kickapoo Creek, and 20.0 mi upstream from mouth.

DRAINAGE AREA.--6,574 mi^2, of which 1,131 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Sept. 1915 to current year. Prior to Oct. 1970, published as "near Paint Rock".

REVISED RECORDS.--WSP 458: 1915-16. WSP 568: 1919-20. WSP 1712: 1922(M). WSP 1732: 1918(M), 1923(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,574.36 ft above sea level. See WSP 1922 for history of changes prior to Jan. 15, 1940. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since water year 1931 at least 10% of contributing drainage area has been regulated. Flow affected at times by discharge from the flood-detention pools of two floodwater-retarding structures. These structures control runoff from 16.5 mi^2 in the Willow Creek drainage basin. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--15 years (water years 1916-30) prior to construction of Lake Nasworthy, 186 ft^3/s (134,700 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1916-30).--Maximum discharge, 76,500 ft^3/s Apr. 27, 1922 (gage height, 27.50 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Aug. 1882 reached a stage of about 39.9 ft, and flood in Aug. 1906 reached a stage of 39.5 ft, from information by local resident. Maximum stage since at least 1853, 43.4 ft Sept. 17, 1936.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	34	3.6	2.3	11	43	5.2	.53	35	.00	.00	18
2	.00	19	2.3	2.2	26	37	5.2	.40	469	.00	.00	19
3	.00	537	2.6	2.5	22	28	4.9	.63	47	.00	.00	11
4	.00	330	2.4	4.1	15	23	4.5	2.7	20	.00	.00	7.5
5	.00	277	2.2	3.8	12	18	4.7	5.2	11	.00	.00	7.5
6	.00	1120	2.6	3.7	12	15	3.7	103	10	.00	.00	9.1
7	.00	268	17	3.4	8.9	14	2.5	79	11	.00	.00	10
8	.00	99	21	4.8	6.7	15	2.1	43	7.7	.00	.00	9.3
9	.00	57	22	6.1	3.5	16	1.6	22	5.3	.00	.00	7.2
10	.00	85	25	9.1	1.6	16	1.5	13	4.2	.00	.00	7.2
11	.00	45	21	10	1.2	15	2.4	9.7	1.5	.00	.00	7.0
12	.00	24	15	8.0	1.8	12	1.2	9.6	.93	.00	.00	5.5
13	.00	15	14	9.0	1.5	10	1.7	8.8	.45	.00	.00	4.8
14	.00	10	14	7.5	1.2	10	3.2	7.1	.20	.00	.00	4.5
15	.00	6.6	15	5.1	1.2	8.5	1.8	5.2	.06	.00	.00	4.2
16	.00	6.4	12	4.6	2.2	7.3	1.2	2.6	.04	.00	.00	3.4
17	.00	5.2	6.0	5.4	1.9	6.2	1.1	1.1	.02	.00	.00	1.8
18	.04	4.4	5.8	6.9	2.7	6.6	1.2	.65	.00	.00	.00	2.1
19	.33	4.5	7.1	8.0	38	6.7	1.2	.36	.00	.00	.00	104
20	.33	8.7	6.8	7.1	30	6.3	1.1	.23	.00	.00	.00	93
21	.13	8.5	8.1	11	19	6.2	1.2	.07	.00	.00	.00	106
22	.10	8.0	6.5	18	8.9	5.5	3.1	.02	.00	.00	.00	79
23	.58	8.5	5.7	14	7.6	4.0	2.3	.01	.00	.00	.00	386
24	.77	12	3.4	11	15	2.8	1.2	.01	.00	.00	.00	92
25	.35	6.8	2.2	8.5	12	2.4	1.2	.00	.00	.00	.00	43
26	.23	6.2	4.1	5.9	28	4.1	1.1	.00	.00	.00	.00	39
27	.10	5.3	4.9	4.6	40	5.0	.94	.00	.00	.00	.00	29
28	6.5	5.5	3.9	5.9	55	5.8	.64	.00	.00	.00	.00	19
29	32	5.0	2.2	10	---	6.2	.46	.00	.00	.00	188	14
30	179	4.5	2.2	4.9	---	6.1	.50	.00	.00	.00	40	10
31	88	---	2.3	4.5	---	5.7	---	.00	---	.00	22	---
TOTAL	308.46	3026.1	262.9	211.9	385.9	367.4	64.64	314.91	623.40	0.00	250.00	1153.1
MEAN	9.95	101	8.48	6.84	13.8	11.9	2.15	10.2	20.8	.000	8.06	38.4
MAX	179	1120	25	18	55	43	5.2	103	469	.00	188	386
MIN	.00	4.4	2.2	2.2	1.2	2.4	.46	.00	.00	.00	.00	1.8
AC-FT	612	6000	521	420	765	729	128	625	1240	.00	496	2290

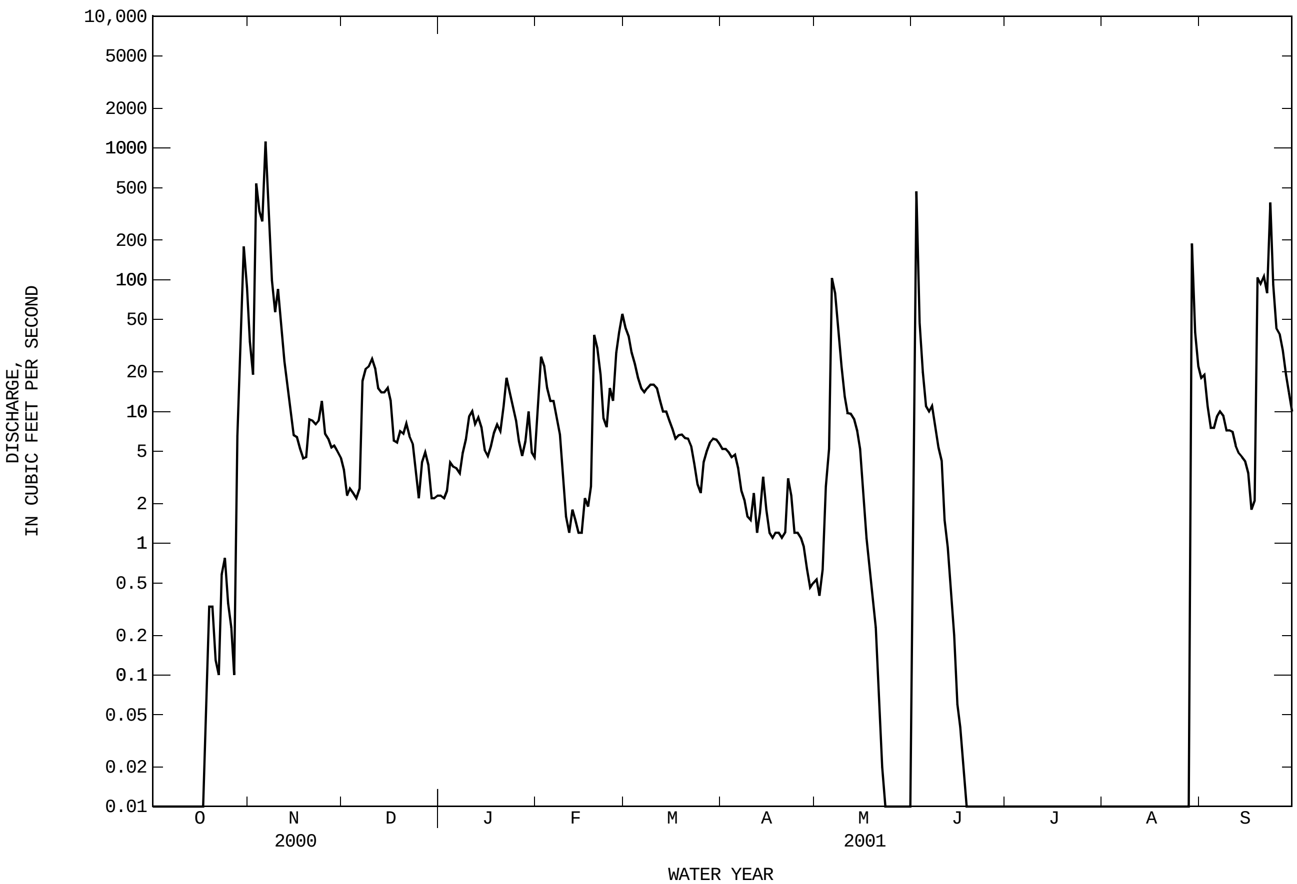
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001z, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	195	57.7	56.3	52.3	65.4	52.2	134	292	134	148	57.1	367
MAX	3805	615	367	274	740	318	2131	4756	1227	3519	980	17220
(WY)	1931	1975	1975	1975	1992	1992	1949	1957	1941	1938	1942	1936
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1935	1952	1952	1955	1955	1955	1955	2000	1967	1934	1952	1954

08136500 Concho River at Paint Rock, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1931 - 2001z	
ANNUAL TOTAL	6365.45		6968.71			
ANNUAL MEAN	17.4		19.1		134	
HIGHEST ANNUAL MEAN					1470	1936
LOWEST ANNUAL MEAN					7.56	2000
HIGHEST DAILY MEAN	1120	Nov 6	1120	Nov 6	134000	Sep 17 1936
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Sep 28 1931
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Sep 28 1931
MAXIMUM PEAK FLOW			2100	Nov 6	c301000	Sep 17 1936
MAXIMUM PEAK STAGE			14.81	Nov 6	a43.40	Sep 17 1936
ANNUAL RUNOFF (AC-FT)	12630		13820		97420	
10 PERCENT EXCEEDS	14		28		126	
50 PERCENT EXCEEDS	.00		3.8		24	
90 PERCENT EXCEEDS	.00		.00		.10	

z Period of regulated streamflow.
a From floodmark.
c From rating curve extended above 98,000 ft^3/s on basis of slope-area measurements of 144,000 and 301,000 ft^3/s.



08136500 Concho River at Paint Rock, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1946 to Oct. 1949, Mar. 1964 to current year.
BIOCHEMICAL DATA: Mar. 1964 to current year.
PESTICIDE DATA: Apr. 1968 to Oct. 1981.
SEDIMENT DATA: Feb. 1978 to Sept. 1981.

INSTRUMENTATION.--Water-quality monitor since Feb. 6, 2001.

REMARKS.--Records fair. Interruptions in the record was due to no flow. No flow May 25-31, June 19 to Aug. 28. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed for previous years using daily (or continuous) records of specific conductance and regression relations between each chemical constituent and specific conductance. The computation of the selected constituent loads might include estimated discharge or specific conductance data. Regression equations developed for this station may be obtained from the U.S. Geological Survey Texas District Office upon request.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Apr. 1946 to Oct. 1949, Oct. 1967 to Sept. 1990 (local observer), Feb. 2001 to current year.
WATER TEMPERATURE: Apr. 1946 to Oct. 1949, Oct. 1967 to Sept. 1990 (local observer), Feb. 2001 to current year.
SUSPENDED SEDIMENT DISCHARGE: Feb. 1978 to Sept. 1981 (local observer).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,690 microsiemens/cm, June 28, Aug. 12, 1984; minimum daily, 268 microsiemens/cm, Sept. 9, 1980.
WATER TEMPERATURE: Maximum daily, 35.0°C, on several days during summer months; minimum daily, 0.0°C, on many days during winter months.
SEDIMENT CONCENTRATION: Maximum daily mean, 4,190 mg/L, Sept. 9, 1980; minimum daily mean, 3 mg/L, Feb. 2, 1979.
SEDIMENT LOADS: Maximum daily, 269,000 tons Sept. 9, 1980; minimum daily, 0.0 tons on several days during Sept. 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,150 microsiemens/cm, Sept. 21; minimum, 391 microsiemens/cm, June 2.
WATER TEMPERATURE: Maximum, 33.2°C, Sept. 2; minimum, 9.7°C, Mar. 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
NOV													
06...	1230	896	349	8.1	16.8	9.1	101	3.1	110	43	30.2	8.35	21.3
JAN													
12...	1200	6.7	1750	7.7	8.0	10.7	94.0	2.3	620	466	147	60.3	127
MAR													
07...	1330	15	2440	8.1	15.4	9.3	99.1	3.9	698	517	156	74.8	215
APR													
26...	1120	.62	2390	8.2	21.3	10.7	128	2.8	674	536	143	76.9	230
JUN													
07...	1600	11	542	9.0	32.5	11.0	163	--	170	86	46.7	12.8	37.9
AUG													
30...	1440	33	349	8.1	27.5	6.6	89.5	4.5	125	51	34.6	9.21	22.4

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV													
06...	.886	5.51	--	67	29.6	41.8	.2	7.7	187	.336	.016	.352	.047
JAN													
12...	2.22	6.02	154	--	311	299	.4	6.8	1070	3.08	.037	3.12	<.041
MAR													
07...	3.54	6.77	181	--	327	496	.5	5.8	1400	1.40	.034	1.43	E.032
APR													
26...	3.86	7.13	138	--	329	491	.4	2.7	1360	.124	.010	.134	<.041
JUN													
07...	1.27	6.64	84	--	57.1	81.2	.3	9.4	304	.237	.033	.270	<.040
AUG													
30...	.875	4.69	74	--	26.1	43.3	E.1	9.8	195	--	E.036	E.651	E.211

08136500 Concho River at Paint Rock, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
NOV 06...	.298	.34	E.059	.053	.163	2	.24	6.5	64.3	<.06	<.04	<.8	.22
JAN 12...	--	.51	E.031	<.018	--	<1	.31	3.0	163	<.06	<.04	<.8	.46
MAR 07...	--	.54	<.060	<.018	--	--	--	--	--	--	--	--	--
APR 26...	--	.54	<.060	<.018	--	--	--	3.2	175	--	<.14	<.8	--
JUN 07...	--	.41	<.060	<.020	--	--	--	17.3	--	--	--	--	--
AUG 30...	--	.72	E.030	E.029	--	--	--	3.8	--	--	--	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 06...	.9	<10	E.05	11.4	.8	<.23	1.2	.61	<2.4	<1.0	343	15.0	<1
JAN 12...	2.2	<10	<.08	39.1	2.7	<.23	4.3	1.72	3.0	<1.0	2580	E6.2	2
MAR 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 26...	E1.1	<10	<1.00	--	8.3	<.01	--	--	E1.8	<.2	--	--	<20
JUN 07...	--	<10	--	13.6	--	<.01	--	--	<2.0	--	608	16.7	--
AUG 30...	--	M	--	4.5	--	<.01	--	--	<2.0	--	299	15.3	--

DATE	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NOV 06...	.54
JAN 12...	3.74
MAR 07...	--
APR 26...	--
JUN 07...	--
AUG 30...	--

08136500 Concho River at Paint Rock, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

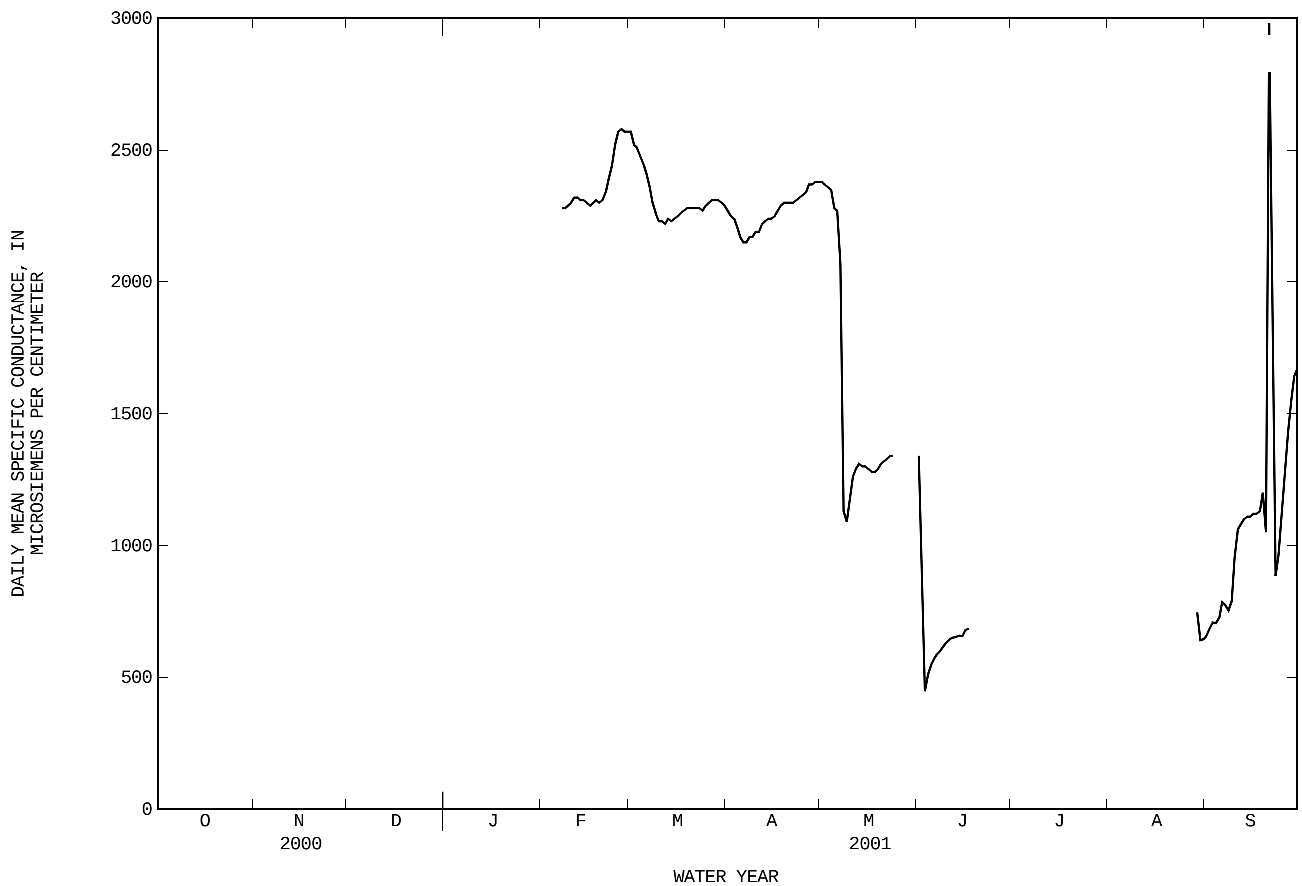
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	2590	2550	2570	2280	2250	2270	2390	2370	2380
2	---	---	---	2550	2510	2520	2270	2220	2250	2380	2340	2370
3	---	---	---	2520	2500	2510	2240	2220	2240	2370	2350	2360
4	---	---	---	2520	2460	2480	2230	2160	2210	2380	2300	2350
5	---	---	---	2470	2430	2450	2180	2150	2170	2320	2250	2280
6	---	---	---	2430	2380	2410	2170	2120	2150	2340	2220	2270
7	2290	2260	2280	2390	2340	2360	2170	2120	2150	2600	1340	2070
8	2290	2280	2280	2360	2270	2300	2180	2130	2170	1340	1020	1130
9	2300	2280	2290	2280	2230	2260	2190	2150	2170	1150	1040	1090
10	2310	2280	2300	2240	2230	2230	2200	2170	2190	1240	1150	1180
11	2330	2310	2320	2240	2210	2230	2210	2160	2190	1280	1240	1260
12	2320	2300	2320	2230	2220	2220	2240	2210	2220	1300	1280	1290
13	2320	2290	2310	2250	2230	2240	2250	2210	2230	1310	1300	1310
14	2320	2300	2310	2250	2200	2230	2250	2230	2240	1310	1300	1300
15	2310	2290	2300	2260	2200	2240	2260	2220	2240	1300	1290	1300
16	2300	2280	2290	2260	2220	2250	2260	2240	2250	1300	1270	1290
17	2320	2280	2300	2270	2240	2260	2290	2260	2270	1300	1270	1280
18	2320	2300	2310	2280	2210	2270	2300	2290	2290	1290	1270	1280
19	2320	2280	2300	2290	2260	2280	2300	2280	2300	1300	1290	1290
20	2330	2280	2310	2290	2240	2280	2300	2280	2300	1310	1300	1310
21	2370	2320	2340	2300	2230	2280	2300	2280	2300	1330	1310	1320
22	2440	2360	2390	2290	2260	2280	2310	2290	2300	1340	1330	1330
23	2460	2400	2440	2290	2250	2280	2310	2300	2310	1340	1330	1340
24	2560	2440	2520	2290	2260	2270	2330	2300	2320	1350	1330	1340
25	2600	2560	2570	2300	2270	2290	2340	2310	2330	---	---	---
26	2590	2570	2580	2310	2280	2300	2360	2320	2340	---	---	---
27	2580	2560	2570	2320	2300	2310	2380	2360	2370	---	---	---
28	2590	2550	2570	2320	2300	2310	2380	2360	2370	---	---	---
29	---	---	---	2330	2290	2310	2390	2370	2380	---	---	---
30	---	---	---	2320	2290	2300	2390	2370	2380	---	---	---
31	---	---	---	2300	2260	2290	---	---	---	---	---	---
MONTH	---	---	---	2590	2200	2320	2390	2120	2260	---	---	---

08136500 Concho River at Paint Rock, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1360	1290	1340	---	---	---	---	---	---	665	650	656
2	1670	391	821	---	---	---	---	---	---	704	665	684
3	489	400	446	---	---	---	---	---	---	728	694	708
4	542	489	511	---	---	---	---	---	---	718	695	705
5	564	541	547	---	---	---	---	---	---	759	705	724
6	590	560	571	---	---	---	---	---	---	800	759	785
7	594	584	589	---	---	---	---	---	---	799	738	774
8	615	593	601	---	---	---	---	---	---	770	736	754
9	635	606	618	---	---	---	---	---	---	856	737	789
10	646	620	634	---	---	---	---	---	---	1030	856	955
11	656	636	645	---	---	---	---	---	---	1070	1030	1060
12	658	641	650	---	---	---	---	---	---	1100	1070	1080
13	663	631	653	---	---	---	---	---	---	1100	1080	1100
14	666	647	658	---	---	---	---	---	---	1110	1100	1110
15	678	641	657	---	---	---	---	---	---	1120	1100	1110
16	684	672	679	---	---	---	---	---	---	1120	1100	1120
17	689	676	684	---	---	---	---	---	---	1140	1120	1120
18	---	---	---	---	---	---	---	---	---	1150	1110	1130
19	---	---	---	---	---	---	---	---	---	1540	1040	1200
20	---	---	---	---	---	---	---	---	---	2490	928	1050
21	---	---	---	---	---	---	---	---	---	3150	2490	2980
22	---	---	---	---	---	---	---	---	---	2930	1860	2390
23	---	---	---	---	---	---	---	---	---	1870	695	885
24	---	---	---	---	---	---	---	---	---	1050	839	963
25	---	---	---	---	---	---	---	---	---	1230	1050	1130
26	---	---	---	---	---	---	---	---	---	1350	1220	1280
27	---	---	---	---	---	---	---	---	---	1510	1340	1430
28	---	---	---	---	---	---	---	---	---	1610	1480	1550
29	---	---	---	---	---	---	975	648	747	1660	1610	1640
30	---	---	---	---	---	---	651	634	641	1690	1640	1670
31	---	---	---	---	---	---	652	639	645	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	3150	650	1150



08136500 Concho River at Paint Rock, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

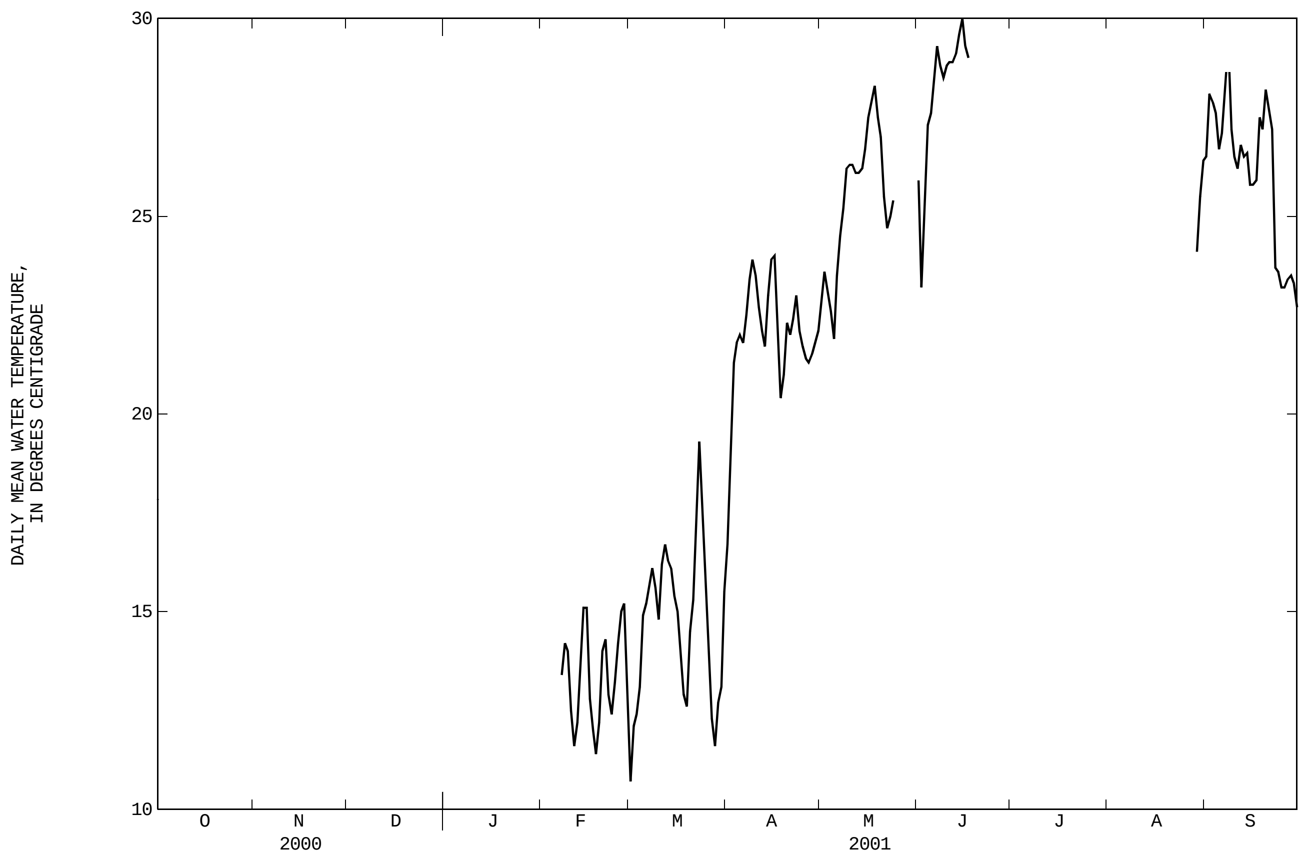
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	11.7	9.7	10.7	18.8	15.1	16.7	25.1	21.4	22.9
2	---	---	---	12.7	11.6	12.1	22.7	17.4	19.2	25.5	22.1	23.6
3	---	---	---	13.5	12.0	12.4	24.6	19.5	21.3	23.8	22.7	23.1
4	---	---	---	14.8	11.7	13.1	23.6	20.5	21.8	23.5	22.1	22.6
5	---	---	---	18.9	12.7	14.9	22.8	21.6	22.0	23.2	21.0	21.9
6	---	---	---	16.5	14.3	15.2	22.3	21.2	21.8	26.3	21.4	23.5
7	14.9	12.0	13.4	17.4	14.2	15.7	24.8	21.1	22.5	25.3	23.7	24.5
8	14.9	13.6	14.2	17.4	15.3	16.1	26.0	21.9	23.4	27.4	23.6	25.2
9	14.6	13.2	14.0	16.5	15.1	15.6	25.4	22.9	23.9	28.9	24.9	26.2
10	13.4	11.8	12.5	15.3	14.4	14.8	24.5	22.7	23.5	28.0	25.0	26.3
11	12.4	11.0	11.6	19.2	14.5	16.2	23.4	21.6	22.7	27.6	25.3	26.3
12	13.4	11.5	12.2	17.5	15.7	16.7	23.5	21.4	22.1	27.2	25.3	26.1
13	15.1	12.3	13.4	17.8	15.2	16.3	22.9	20.7	21.7	27.8	25.0	26.1
14	16.8	13.9	15.1	17.6	15.1	16.1	24.7	21.9	23.0	28.0	24.8	26.2
15	16.2	13.6	15.1	16.2	14.7	15.4	26.3	22.3	23.9	29.0	24.8	26.7
16	13.6	11.8	12.8	17.7	13.5	15.0	25.3	22.7	24.0	30.0	25.5	27.5
17	14.3	10.8	12.0	14.8	13.6	14.1	24.1	20.5	22.0	30.8	26.1	27.9
18	12.7	10.2	11.4	13.6	12.4	12.9	21.6	19.4	20.4	31.7	26.4	28.3
19	14.1	10.7	12.2	13.8	11.9	12.6	23.4	19.5	21.0	28.1	27.0	27.5
20	16.7	12.0	14.0	18.8	11.8	14.5	24.4	20.8	22.3	28.0	26.2	27.0
21	15.2	13.6	14.3	18.2	13.0	15.3	22.4	21.7	22.0	27.2	24.3	25.5
22	13.6	12.4	12.9	21.0	14.7	17.4	24.0	20.8	22.4	27.8	22.8	24.7
23	12.9	12.1	12.4	21.6	17.5	19.3	24.6	21.8	23.0	28.5	22.6	25.0
24	14.1	12.4	13.2	18.9	15.6	17.2	23.8	20.9	22.1	27.4	23.9	25.4
25	17.4	12.3	14.2	16.4	14.9	15.5	24.2	20.1	21.7	---	---	---
26	15.6	14.3	15.0	15.3	13.1	14.1	23.1	19.9	21.4	---	---	---
27	15.9	14.8	15.2	13.1	11.6	12.3	22.9	19.9	21.3	---	---	---
28	14.9	10.7	12.9	12.6	11.0	11.6	22.9	20.4	21.5	---	---	---
29	---	---	---	14.8	11.3	12.7	23.6	20.5	21.8	---	---	---
30	---	---	---	15.5	11.7	13.1	23.5	20.8	22.1	---	---	---
31	---	---	---	18.7	13.0	15.5	---	---	---	---	---	---
MONTH	---	---	---	21.6	9.7	14.7	26.3	15.1	22.0	---	---	---

08136500 Concho River at Paint Rock, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.3	24.4	25.9	---	---	---	---	---	---	28.8	25.2	26.5
2	24.9	20.9	23.2	---	---	---	---	---	---	33.2	25.5	28.1
3	29.0	23.1	25.6	---	---	---	---	---	---	30.9	26.5	27.9
4	29.8	25.8	27.3	---	---	---	---	---	---	31.5	25.6	27.6
5	29.3	26.3	27.6	---	---	---	---	---	---	28.5	25.7	26.7
6	31.7	26.6	28.5	---	---	---	---	---	---	30.5	25.4	27.1
7	32.0	27.5	29.3	---	---	---	---	---	---	32.0	25.7	28.2
8	30.1	27.7	28.8	---	---	---	---	---	---	33.0	27.2	29.4
9	31.5	27.1	28.5	---	---	---	---	---	---	29.5	26.1	27.2
10	32.0	26.8	28.8	---	---	---	---	---	---	29.0	25.4	26.5
11	31.9	27.2	28.9	---	---	---	---	---	---	27.2	25.4	26.2
12	30.9	27.6	28.9	---	---	---	---	---	---	30.5	25.1	26.8
13	31.9	27.4	29.1	---	---	---	---	---	---	29.4	24.9	26.5
14	32.2	27.4	29.6	---	---	---	---	---	---	28.4	25.5	26.6
15	32.0	28.8	30.0	---	---	---	---	---	---	26.4	25.3	25.8
16	32.4	27.8	29.3	---	---	---	---	---	---	27.8	24.8	25.8
17	31.6	27.5	29.0	---	---	---	---	---	---	27.9	24.6	25.9
18	---	---	---	---	---	---	---	---	---	32.4	24.9	27.5
19	---	---	---	---	---	---	---	---	---	29.8	25.8	27.2
20	---	---	---	---	---	---	---	---	---	31.3	26.5	28.2
21	---	---	---	---	---	---	---	---	---	29.4	26.0	27.7
22	---	---	---	---	---	---	---	---	---	29.4	26.2	27.2
23	---	---	---	---	---	---	---	---	---	26.3	22.1	23.7
24	---	---	---	---	---	---	---	---	---	24.9	22.6	23.6
25	---	---	---	---	---	---	---	---	---	26.5	21.7	23.2
26	---	---	---	---	---	---	---	---	---	25.7	21.6	23.2
27	---	---	---	---	---	---	---	---	---	25.9	21.8	23.4
28	---	---	---	---	---	---	---	---	---	25.6	22.2	23.5
29	---	---	---	---	---	---	26.1	22.6	24.1	25.5	22.0	23.3
30	---	---	---	---	---	---	31.8	23.9	25.5	24.6	21.7	22.7
31	---	---	---	---	---	---	28.6	24.8	26.4	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	33.2	21.6	26.1



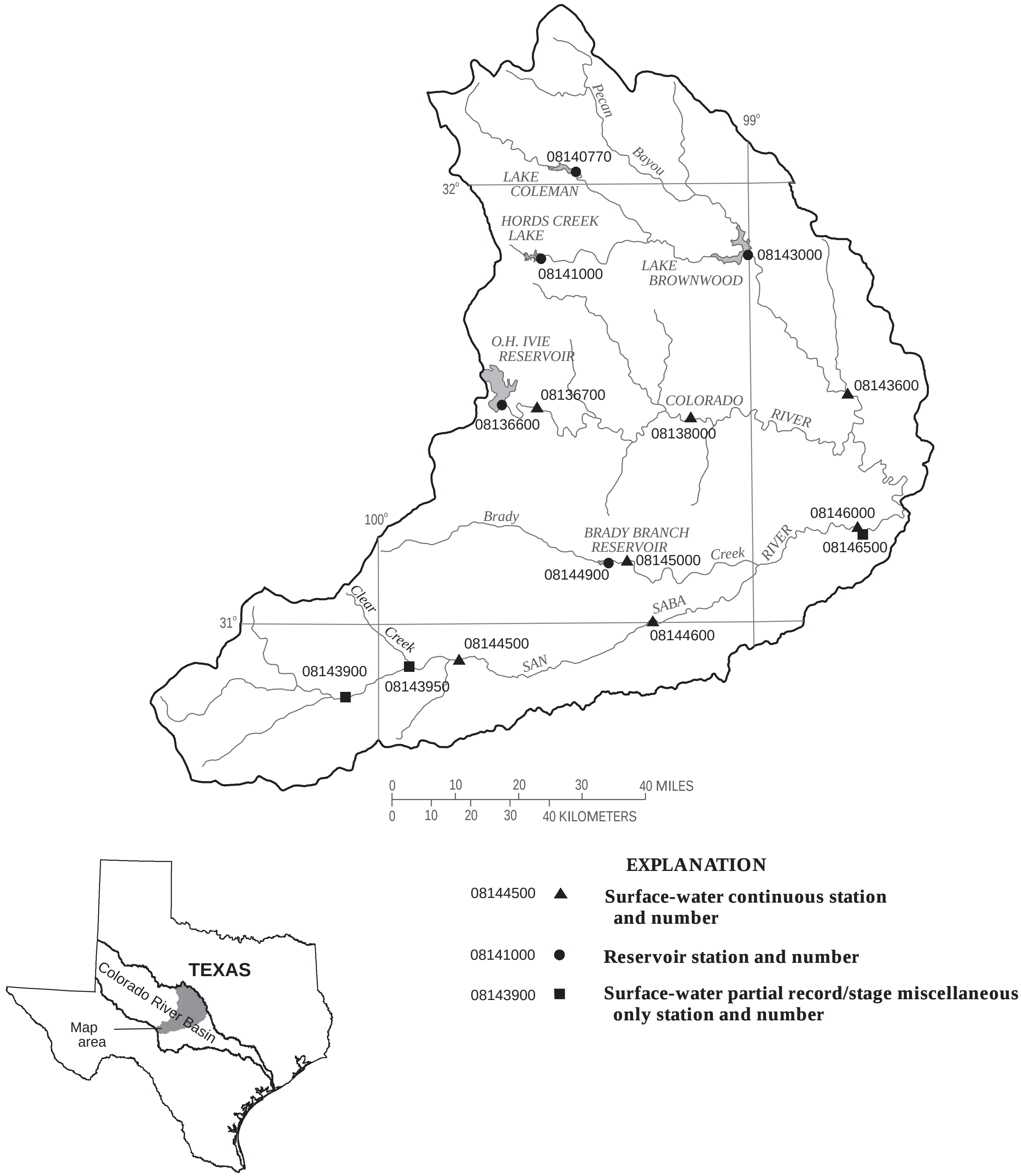


Figure 5.--Map showing location of gaging stations in the third section of the Colorado River Basin

08136600 O.H. Ivie Reservoir near Voss, TX

LOCATION.--Lat 31°30’00", long 99°40’05", Coleman County, Hydrologic Unit 12090106, on left bank, in outlet structure of Freese-Nichols Dam on Colorado River, 8.0 mi northeast of Millersview, 10.0 mi southwest of Voss, and at mile 615.1.

DRAINAGE AREA.--24,038 mi^2, of which 11,391 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Sept. 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The lake is formed by a concrete dam and spillway with six 50- by 40-foot tainter gates, and a 6,000 ft overflow spillway with a 2,000 ft tapered fuse plug release feature. Total length of the dam is 12,000 ft. The dam was completed and storage began Mar. 15, 1990. Recording equipment was installed May 30, 1990, but water did not reach the sensing point until Sept. 21, 1990 (at an elevation of 1,502.05 ft). The dam is owned by the Colorado River Municipal Water District. Water is utilized for municipal use for several West Texas communities, the city of San Angelo being the largest user. The capacity curve is based on a survey made in 1989 by Freese and Nichols, Consulting Engineers, Fort Worth, TX. Conservation pool storage is 554,340 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	1,584.0
Crest of overflow spillway	1,563.0
Top of conservation storage	1,551.5
Crest of spillway (tainter gates sill)	1,528.0
Lowest gated outlet (service outlet)	1,440.0

COOPERATION.--The capacity table dated Sept. 15, 1990 was furnished by the Colorado River Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 574,700 acre-ft, June 26, 1997, elevation, 1,552.55 ft; minimum contents after initial filling, 269,500 acre-ft, Aug. 26, 2001, elevation, 1,532.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 323,600 acre-ft, Nov. 24, elevation, 1,537.25 ft; minimum contents, 269,500 acre-ft, Aug. 26, elevation, 1,532.93 ft.

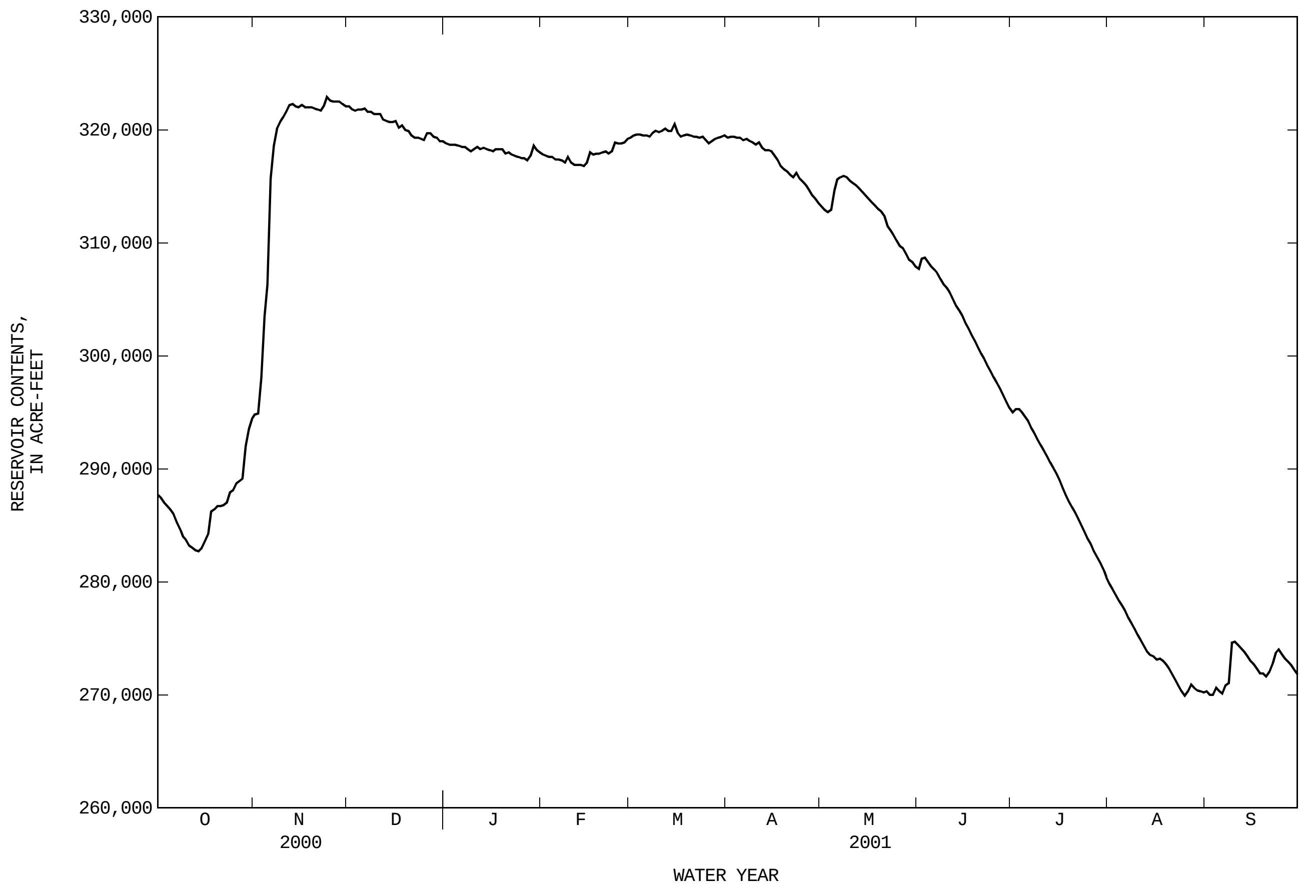
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287700	294800	322100	318800	317800	319300	319300	313200	307700	295000	279800	270300
2	287400	294900	321800	318700	317700	319500	319400	312900	308600	295300	279300	270000
3	287000	298100	321700	318700	317600	319600	319400	312700	308700	295300	278800	270000
4	286700	303500	321800	318700	317600	319600	319300	312900	308300	295000	278300	270600
5	286400	306300	321800	318600	317400	319500	319300	314600	307900	294600	277900	270300
6	286000	315700	321900	318500	317400	319500	319100	315600	307600	294200	277400	270100
7	285300	318600	321600	318500	317300	319400	319200	315800	307300	293600	276800	270800
8	284700	320100	321600	318300	317100	319700	319000	315900	306800	293100	276300	271000
9	284000	320700	321400	318100	317600	319900	318900	315800	306300	292600	275800	274600
10	283700	321100	321400	318300	317100	319800	318700	315500	306000	292100	275300	274700
11	283200	321600	321400	318500	316900	319900	318900	315300	305600	291600	274800	274400
12	283000	322200	320900	318300	316900	320100	318400	315100	305000	291100	274300	274100
13	282800	322300	320800	318400	316900	319900	318200	314800	304400	290600	273800	273800
14	282700	322100	320700	318300	316800	319900	318200	314500	304000	290100	273500	273400
15	283000	322000	320700	318200	317100	320500	318100	314200	303500	289600	273400	273000
16	283600	322200	320800	318100	318000	319700	317700	313900	302900	289000	273100	272700
17	284200	322000	320200	318300	317800	319400	317300	313600	302400	288300	273200	272300
18	286200	322000	320400	318300	317900	319500	316800	313300	301800	287700	273000	271900
19	286400	322000	320000	318300	317900	319600	316500	313000	301300	287100	272700	271900
20	286700	321900	319900	317900	318000	319500	316300	312800	300700	286600	272300	271600
21	286700	321800	319500	318000	318100	319400	316000	312400	300200	286100	271800	272000
22	286800	321700	319300	317800	317900	319400	315800	311500	299700	285600	271300	272700
23	287000	322100	319300	317700	318100	319300	316200	311100	299100	285000	270800	273700
24	287900	322900	319200	317600	318900	319400	315700	310700	298600	284400	270300	274000
25	288100	322600	319100	317500	318800	319100	315400	310200	298100	283800	269900	273600
26	288700	322500	319700	317500	318800	318800	315100	309700	297600	283300	270300	273200
27	288900	322500	319700	317300	318900	319000	314700	309500	297100	282700	270900	272900
28	289100	322500	319400	317700	319200	319200	314200	309000	296500	282200	270600	272600
29	292000	322300	319300	318600	---	319300	313900	308500	295900	281700	270400	272200
30	293500	322100	319000	318200	---	319400	313500	308300	295400	281100	270300	271800
31	294400	---	319000	318000	---	319500	---	307900	---	280400	270200	---
MEAN	286600	317900	320500	318200	317800	319500	317300	312700	302800	288700	273800	272300
MAX	294400	322900	322100	318800	319200	320500	319400	315900	308700	295300	279800	274700
MIN	282700	294800	319000	317300	316800	318800	313500	307900	295400	280400	269900	270000
(+)	1534.99	1537.14	1536.90	1536.83	1536.92	1536.94	1536.49	1536.05	1535.07	1533.84	1532.99	1533.12
(@)	+6400	+27700	-3100	-1000	+1200	+300	-6000	-5600	-12500	-15000	-10200	+1600

CAL YR 2000 MAX 337500 MIN 280000 (@) -3200
WTR YR 2001 MAX 322900 MIN 269900 (@) -16200

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08136600 O.H. Ivie Reservoir near Voss, TX--Continued



08136700 Colorado River near Stacy, TX

LOCATION.--Lat 31°29'37", long 99°34'25", Coleman County, Hydrologic Unit 12090106, on left bank at downstream side of bridge on Farm Road 503, 1.2 mi upstream from Bois d'Arc Creek, 1.8 mi northeast of Stacy, 10.5 mi downstream from O.H. Ivie Reservoir, 24 mi downstream from Concho River, and at mile 604.8.

DRAINAGE AREA.--24,193 mi^2, of which approximately 11,391 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Mar. 1968 to current year. Prior to Oct. 1970, published as "at Stacy".
Water-quality records.--Chemical data: Dec. 1961 to July 1994. Biochemical data: Oct. 1974 to Aug. 1977. Pesticide data: Apr. 1975 to Aug. 1977. Sediment data: Oct. 1974 to Oct. 1977. Specific conductance: Apr. 1968 to Sept. 1994. Water temperature: Apr. 1968 to Sept. 1994.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,394.66 ft above sea level (Texas Department of Transportation bridge plans). Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in Mar. 1968, at least 10% of contributing drainage area has been regulated by upstream reservoirs, and since Mar. 15, 1990, flow completely regulated by O.H. Ivie Reservoir (station 08136600, conservation pool storage 554,340 acre-ft), 10.5 mi upstream. There are many diversions above station for irrigation, municipal, and oil field operations. Wastewater effluent is returned to the river from numerous wastewater plants above station. At times flow may be slightly affected by discharge from the flood-detention pools of 42 floodwater-retarding structures with a combined detention capacity of 56,730 acre-ft. These structures control runoff from 277 mi^2 above this station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1882, 356,000 ft^3/s Sept. 18, 1936 (gage height, 64.59 ft), by slope-area measurement of peak flow. The flood of Sept. 18, 1936, was 4 ft higher than the 1906 flood and 7 to 8 ft higher than the 1882 flood, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.0	4.1	4.3	5.5	3.2	3.2	9.4	30	12	12	24
2	12	6.1	3.6	4.3	8.0	3.9	2.9	9.5	28	29	13	19
3	12	197	4.1	4.3	5.5	3.9	2.7	9.4	13	19	13	18
4	12	154	4.8	4.3	4.3	3.6	2.7	13	10	12	13	22
5	11	41	4.9	4.2	4.0	3.1	2.7	35	9.7	12	13	18
6	6.8	273	4.6	4.2	3.3	2.9	7.1	30	10	11	13	17
7	4.2	65	4.1	4.2	2.6	2.5	10	15	11	11	13	16
8	4.5	32	3.9	4.1	2.9	3.1	10	12	10	11	13	16
9	5.1	22	3.8	4.2	3.1	3.6	10	12	10	11	13	47
10	5.6	13	3.8	5.0	2.8	3.6	9.8	11	10	11	13	22
11	5.7	8.9	3.8	5.8	3.0	3.4	10	11	10	11	13	16
12	4.7	7.0	3.7	5.6	2.7	3.2	15	11	10	11	13	15
13	3.6	5.7	3.8	5.1	2.7	3.0	11	12	9.6	11	14	14
14	2.9	5.2	4.0	4.6	3.1	3.1	10	12	10	11	15	14
15	5.3	4.7	4.3	4.5	3.5	2.8	9.9	11	13	11	16	14
16	7.4	4.5	4.1	4.5	8.7	2.2	9.3	11	12	11	16	14
17	6.4	4.3	4.0	4.7	6.8	2.3	8.5	11	11	10	33	14
18	5.2	4.2	4.0	5.0	4.7	2.6	8.6	11	11	11	25	14
19	5.6	4.0	3.7	4.9	3.6	2.5	9.3	11	10	11	17	23
20	8.4	3.9	3.9	4.6	2.9	2.6	9.5	12	10	11	16	18
21	5.8	3.7	3.7	4.4	2.7	2.6	9.7	11	11	11	15	20
22	4.8	3.8	3.8	4.1	2.6	2.3	11	10	11	11	15	80
23	11	5.1	4.0	4.3	3.6	2.0	19	10	11	11	15	59
24	20	7.0	4.1	4.3	4.3	2.1	11	10	12	11	15	19
25	9.2	6.6	4.4	4.1	3.9	2.0	8.7	11	11	11	15	14
26	5.0	5.2	6.0	4.4	3.5	2.0	8.9	11	11	12	22	14
27	3.9	4.3	7.0	4.4	2.9	2.2	8.8	11	11	12	35	14
28	5.3	8.9	6.2	5.0	2.6	2.7	8.8	11	10	12	22	14
29	191	7.7	5.0	6.9	---	3.4	8.8	11	10	12	19	14
30	64	5.0	4.5	6.5	---	3.7	8.8	11	10	12	18	14
31	17	---	4.5	5.4	---	3.5	---	10	---	12	19	---
TOTAL	478.4	920.8	134.2	146.2	109.8	89.6	265.7	386.3	356.3	375	517	637
MEAN	15.4	30.7	4.33	4.72	3.92	2.89	8.86	12.5	11.9	12.1	16.7	21.2
MAX	191	273	7.0	6.9	8.7	3.9	19	35	30	29	35	80
MIN	2.9	3.7	3.6	4.1	2.6	2.0	2.7	9.4	9.6	10	12	14
AC-FT	949	1830	266	290	218	178	527	766	707	744	1030	1260

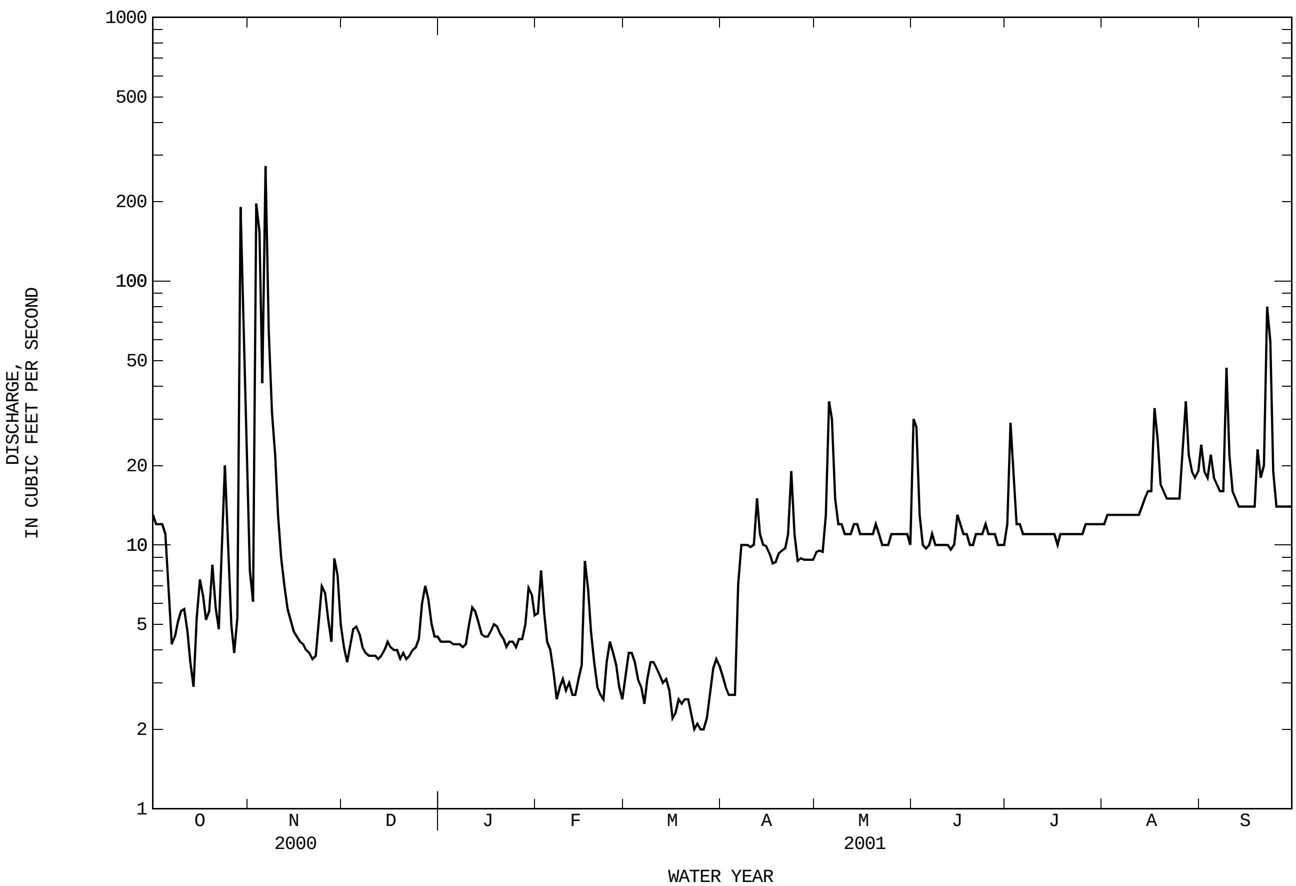
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	221	114	96.9	97.9	99.9	138	135	314	357	111	163	257
MAX	1475	1344	562	470	666	732	873	1440	1783	623	1516	2953
(WY)	1987	1975	1975	1975	1975	1987	1977	1987	1996	1987	1978	1980
MIN	4.42	4.57	2.07	2.09	2.19	2.78	.41	.000	.000	.000	2.24	.000
(WY)	1999	1999	1999	1999	1999	2000	1986	1984	1984	1974	1983	1983

08136700 Colorado River near Stacy, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1968 - 2001	
ANNUAL TOTAL	6734.5		4416.3			
ANNUAL MEAN	18.4		12.1		174	
HIGHEST ANNUAL MEAN					719	1987
LOWEST ANNUAL MEAN					12.1	2001
HIGHEST DAILY MEAN	1480	Jun 15	273	Nov 6	31300	Sep 10 1980
LOWEST DAILY MEAN	1.6	Mar 30	2.0	Mar 23	.00	Jun 22 1974
ANNUAL SEVEN-DAY MINIMUM	2.0	Mar 26	2.2	Mar 21	.00	Jun 22 1974
MAXIMUM PEAK FLOW			635	Nov 6	c45000	Sep 10 1980
MAXIMUM PEAK STAGE			6.22	Nov 6	28.00	Sep 10 1980
ANNUAL RUNOFF (AC-FT)	13360		8760		125800	
10 PERCENT EXCEEDS	17		18		358	
50 PERCENT EXCEEDS	8.9		9.5		42	
90 PERCENT EXCEEDS	3.2		3.1		6.1	

c From rating curve extended above 36,600 ft^3/s.



08138000 Colorado River at Winchell, TX

LOCATION.--Lat 31°28'04", long 99°09'43", McCulloch-Brown County line, Hydrologic Unit 12090106, near left bank at downstream end of pier of old abandoned bridge, 300 ft upstream from bridge on U.S. Highway 377, 0.3 mi south of Winchell, 5.9 mi downstream from Home Creek, and at mile 560.7.

DRAINAGE AREA.--25,179 mi^2, approximately, of which 11,391 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Nov. 1923 to Sept. 1934 published as "near Milburn", June 1939 to Sept. 1993, and Oct. 1997 to current year. Water-quality records.--Chemical data: Nov. 1967 to Sept. 1985, Dec. 1990 to Sept. 1993. Biochemical data: Dec. 1990 to Aug. 1993. Specific conductance: Feb. 1991 to Sept. 1993. Water temperature: Feb. 1991 to Sept. 1993.

REVISED RECORDS.--WDR TX-81-3: Drainage area. WDR TX-88-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,264.86 ft above sea level. Nov. 1923 to Sept. 1934, nonrecording gage at site 4.2 mi downstream at datum 10.14 ft lower. Jan. 13, 1939, to Mar. 24, 1940, nonrecording gage at present site and datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since water year 1931, at least 10% of contributing drainage area has been regulated. At times, flow may also be affected by discharge from the flood-detention pools of 89 floodwater-retarding structures. These flood-detention structures control runoff from 512 mi^2 above this station. There are many diversions above station for irrigation, municipal supply, and for oil field operation. No flow at times.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, and computes and publishes streamflow record.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--6 years (water years 1925-30) prior to construction of Lake Nasworthy, 798 ft^3/s (578,400 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1925-30).--Maximum discharge, 42,300 ft^3/s June 15, 1930 (gage height, 38.3 ft, at site 4.2 mi downstream at datum 10.14 ft lower); no flow Aug. 8-10, Sept. 1-5, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest stages since 1882 were 62.2 ft Sept. 19, 1936, and 56.2 ft Aug. 8, 1906, at railway bridge 1,000 ft upstream and converted to present site and datum, from information by Gulf, Colorado, and Santa Fe Railway Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	213	47	32	55	97	18	6.5	23	4.0	.00	25
2	.00	446	43	32	49	100	18	5.0	298	4.2	.00	61
3	.00	6350	43	32	45	89	17	4.1	69	6.4	.00	169
4	.00	3610	44	31	43	81	15	4.4	35	7.6	.00	93
5	.00	1240	42	31	41	72	14	e5.0	25	7.5	.00	71
6	.00	5490	40	30	39	66	13	e8.5	19	7.4	.00	48
7	.00	1570	37	30	38	59	12	e30	16	9.7	.00	24
8	.00	959	36	29	38	72	9.9	e210	13	12	.00	21
9	.57	756	35	29	37	145	8.8	100	11	10	.00	170
10	3.1	420	34	30	35	152	7.5	62	10	8.5	.00	109
11	3.6	235	34	31	33	111	19	39	9.7	7.4	.00	49
12	3.4	156	32	31	31	173	24	28	9.4	6.3	.00	41
13	3.1	131	32	31	31	102	17	21	8.7	5.2	.00	26
14	3.1	109	31	31	32	83	15	17	8.0	3.9	.00	18
15	3.3	91	31	31	34	74	16	13	228	3.2	.00	14
16	5.6	79	30	31	236	62	17	9.9	57	2.0	.00	11
17	15	71	29	32	237	51	15	8.9	29	.88	.00	8.5
18	83	66	30	33	142	46	31	7.4	20	.31	.00	7.6
19	192	63	28	35	105	44	19	6.2	15	.08	.00	7.5
20	94	58	27	33	90	38	12	4.6	12	.00	.00	7.3
21	51	53	28	32	75	34	9.9	3.5	10	.00	.00	19
22	34	50	27	31	66	30	8.5	2.3	9.4	.00	.00	21
23	48	50	27	31	60	27	79	2.1	8.2	.00	.00	53
24	137	195	28	31	221	26	92	2.2	7.7	.00	.00	138
25	132	155	28	30	188	24	44	2.3	7.5	.00	.00	57
26	78	136	30	30	130	22	34	3.0	6.8	.00	.00	33
27	40	92	33	31	177	20	25	3.1	6.4	.00	.03	22
28	39	71	35	32	114	23	17	2.5	6.0	.00	67	15
29	3100	60	34	81	---	23	12	2.0	5.5	.00	32	11
30	1520	52	32	94	---	20	8.1	1.8	4.8	.00	30	8.6
31	419	---	32	64	---	19	---	2.0	---	.00	32	---
TOTAL	6007.77	23027	1039	1112	2422	1985	647.7	617.3	988.1	106.57	161.03	1358.5
MEAN	194	768	33.5	35.9	86.5	64.0	21.6	19.9	32.9	3.44	5.19	45.3
MAX	3100	6350	47	94	237	173	92	210	298	12	67	170
MIN	.00	50	27	29	31	19	7.5	1.8	4.8	.00	.00	7.3
AC-FT	11920	45670	2060	2210	4800	3940	1280	1220	1960	211	319	2690

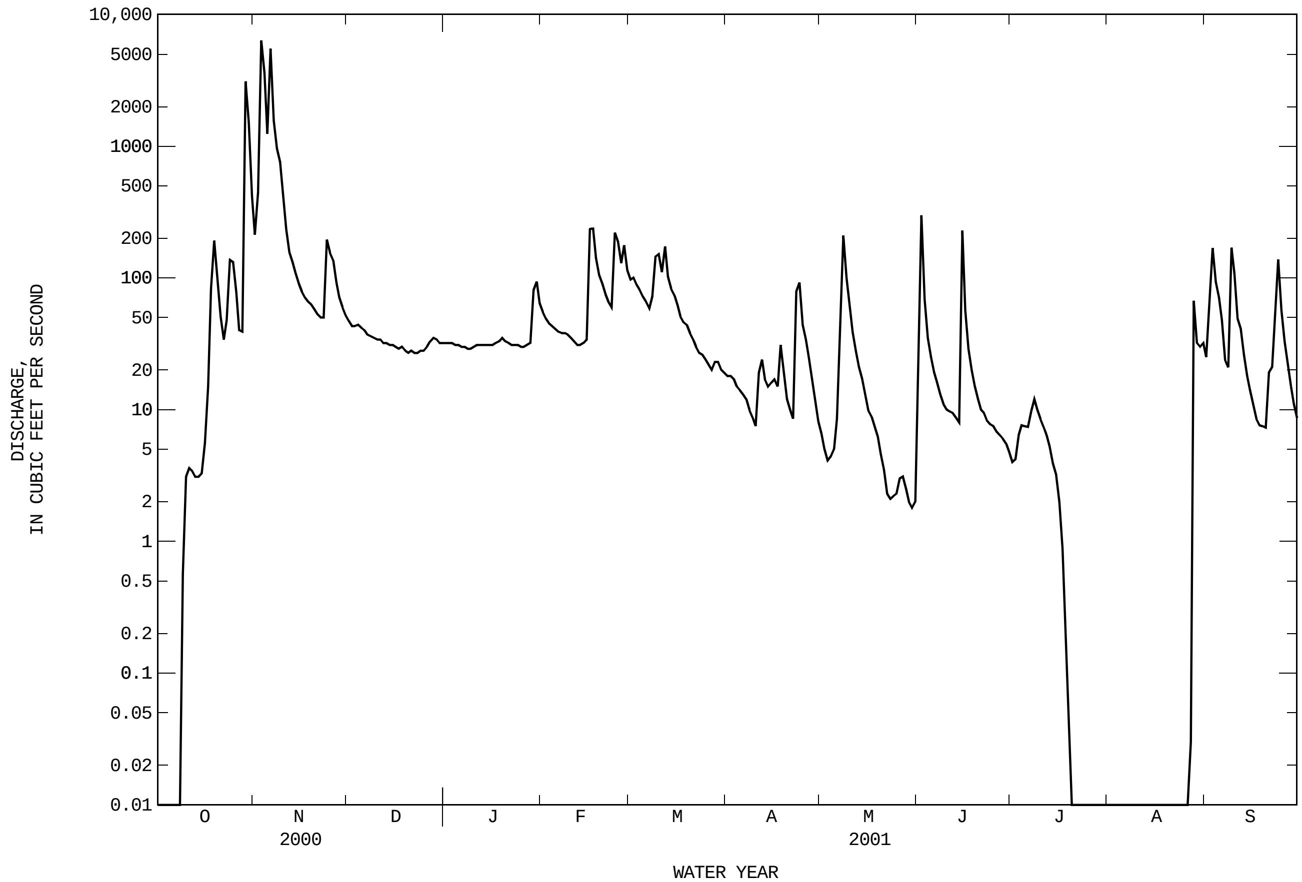
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001hz, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	700	157	156	147	172	193	475	1269	749	411	262	542
MAX	9878	1515	1907	1718	2453	1069	4576	13910	5313	4746	2227	6020
(WY)	1931	1975	1992	1968	1992	1987	1949	1957	1941	1945	1942	1932
MIN	.074	1.09	.000	.000	.000	.000	.29	.000	.000	.000	.000	.000
(WY)	1964	1952	1952	1952	1952	1952	1959	1984	1984	1974	1952	1954

08138000 Colorado River at Winchell, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1931 - 2001hz	
ANNUAL TOTAL	52088.36		39471.97			
ANNUAL MEAN	142		108		434	
HIGHEST ANNUAL MEAN					2070	1957
LOWEST ANNUAL MEAN					19.6	1999
HIGHEST DAILY MEAN	6350	Nov 3	6350	Nov 3	67000	Oct 14 1930
LOWEST DAILY MEAN	.00	Mar 16	.00	Oct 1	.00	Aug 15 1934
ANNUAL SEVEN-DAY MINIMUM	.00	Mar 16	.00	Oct 1	.00	Aug 15 1934
MAXIMUM PEAK FLOW			12800	Nov 3	c76100	Oct 15 1930
MAXIMUM PEAK STAGE			a19.68	Nov 3	aa51.80	Oct 15 1930
ANNUAL RUNOFF (AC-FT)	103300		78290		314300	
10 PERCENT EXCEEDS	136		131		649	
50 PERCENT EXCEEDS	3.6		28		58	
90 PERCENT EXCEEDS	.00		.00		2.6	

e Estimated
h See PERIOD OF RECORD paragraph.
z Period of regulated streamflow.
c From rating curve extended above 8,600 ft^3/s at site then in use.
a From floodmark.
aa From floodmark at present site and datum.



08140770 Lake Coleman near Novice, TX

LOCATION.--Lat 32°01'48", long 99°27'54", Coleman County, Hydrologic Unit 12090108, 800 ft left of service outlet structure at Coleman Dam on Jim Ned Creek, 2.0 mi upstream from Salt Branch, 2.5 mi west of U.S. Highway 283, 3.0 mi south of Coleman and Callahan County line, 10.0 mi northeast of Novice, and 14.0 mi north of Coleman.

DRAINAGE AREA.--292 mi^2.

PERIOD OF RECORD.--Feb. 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good except those for June 26 through Sept. 30, which are fair. The lake is formed by a rolled earthfill dam 3,200 ft long. Impoundment began Apr. 1966 and dam was completed in May 1966. The top of the dam was raised 2.0 ft in 1975. The dam and reservoir are owned and operated by the city of Coleman. The uncontrolled emergency spillway is 1,500 ft long across natural earth. The uncontrolled morning glory service spillway is 28 ft wide at the crest. A service outlet is provided for small releases through a 24-inch conduit. Water may be pumped from reservoir for municipal and industrial use. Conservation pool storage is 40,000 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam...	1,742.0
Crest of emergency spillway..	1,726.0
Crest of service spillway..	1,717.5
Lowest gated outlet (invert)...	1,662.5

COOPERATION.--The capacity table based on area and capacity table furnished by city of Coleman was revised to reflect topography from recent quadrangle maps east of longitude 99°30'. Record of diversions may be obtained from city of Coleman.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 29,670 acre-ft, Feb. 27, 1999, elevation, 1,712.25 ft; minimum contents, 14,320 acre-ft, Sept. 30, 2001, elevation, 1,700.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,250 acre-ft, Apr. 11, elevation, 1,704.06 ft; minimum contents, 14,320 acre-ft, Sept. 30, elevation, 1,700.28 ft.

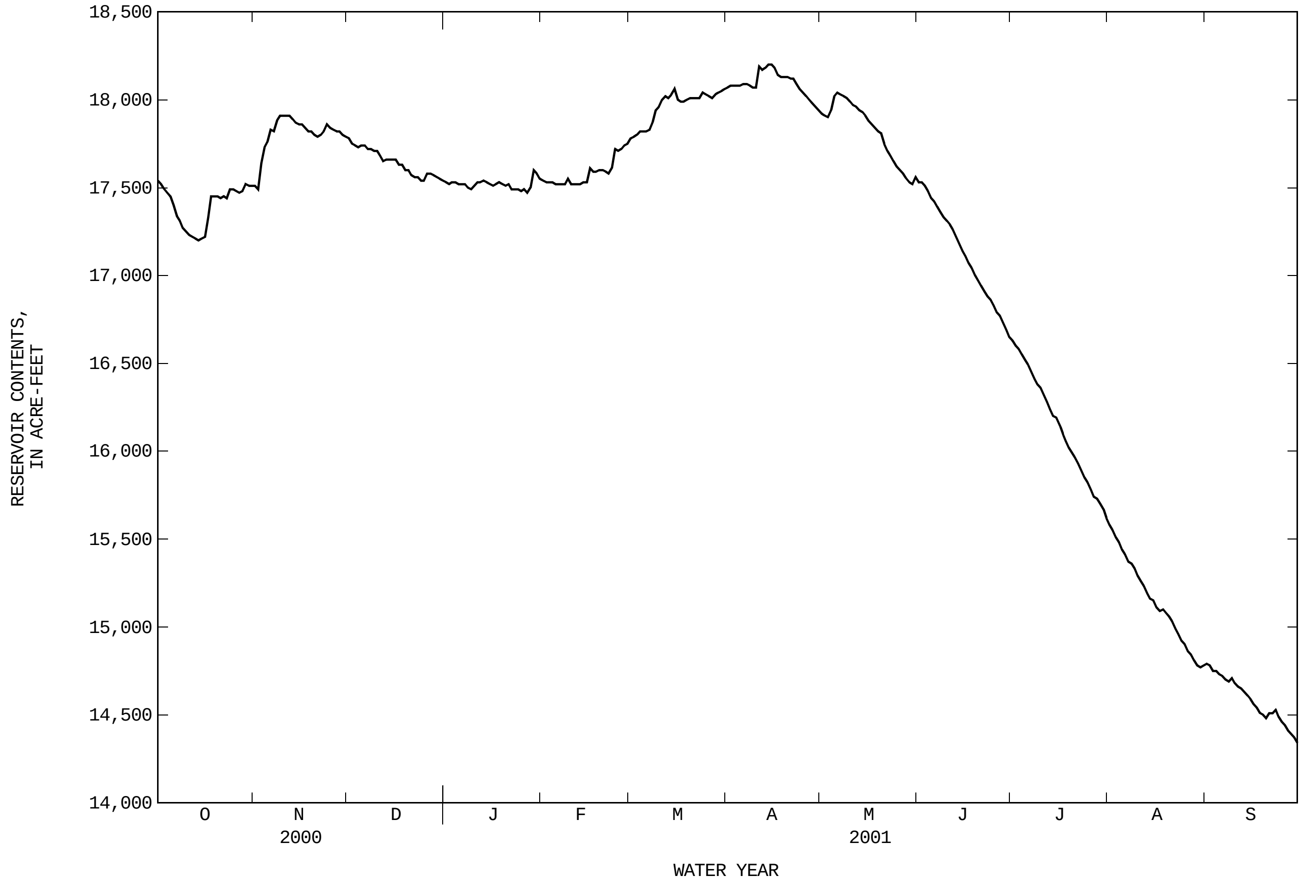
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17540	17510	17780	17530	17540	17780	18070	17920	17530	16630	15580	14790
2	17520	17490	17750	17520	17530	17790	18080	17910	17530	16600	15550	14780
3	17490	17640	17740	17530	17530	17800	18080	17900	17510	16580	15510	14750
4	17470	17730	17730	17530	17530	17820	18080	17940	17480	16550	15480	14750
5	17450	17760	17740	17520	17520	17820	18080	18020	17440	16520	15440	14730
6	17400	17830	17740	17520	17520	17820	18090	18040	17420	16490	15410	14720
7	17340	17820	17720	17520	17520	17830	18090	18030	17390	16450	15370	14700
8	17310	17880	17720	17500	17520	17870	18080	18020	17360	16410	15360	14690
9	17270	17910	17710	17490	17550	17940	18070	18010	17330	16380	15330	14710
10	17250	17910	17710	17510	17520	17960	18070	17990	17310	16360	15290	14680
11	17230	17910	17680	17530	17520	18000	18190	17970	17290	16320	15260	14660
12	17220	17910	17650	17530	17520	18020	18170	17960	17260	16280	15230	14650
13	17210	17890	17660	17540	17520	18010	18180	17940	17220	16240	15190	14630
14	17200	17870	17660	17530	17530	18030	18200	17930	17180	16200	15160	14610
15	17210	17860	17660	17520	17530	18060	18200	17910	17140	16190	15150	14590
16	17220	17860	17660	17510	17610	18000	18180	17880	17110	16150	15110	14560
17	17330	17840	17630	17520	17590	17990	18140	17860	17070	16100	15090	14540
18	17450	17820	17630	17530	17590	17990	18130	17840	17040	16060	15100	14510
19	17450	17820	17600	17520	17600	18000	18130	17820	17000	16020	15080	14500
20	17450	17800	17600	17510	17600	18010	18130	17810	16970	15990	15060	14480
21	17440	17790	17570	17520	17590	18010	18120	17750	16940	15960	15030	14510
22	17450	17800	17560	17490	17580	18010	18120	17710	16910	15930	14990	14510
23	17440	17820	17560	17490	17610	18010	18090	17680	16880	15890	14960	14530
24	17490	17860	17540	17490	17720	18040	18060	17650	16860	15850	14920	14490
25	17490	17840	17540	17480	17710	18030	18040	17620	16830	15820	14900	14460
26	17480	17830	17580	17490	17720	18020	18020	17600	16790	15780	14860	14440
27	17470	17820	17580	17470	17740	18010	18000	17580	16770	15740	14840	14410
28	17480	17820	17570	17500	17750	18030	17980	17550	16730	15730	14810	14390
29	17520	17800	17560	17600	---	18040	17960	17530	16690	15700	14780	14370
30	17510	17790	17550	17580	---	18050	17940	17520	16650	15670	14770	14340
31	17510	---	17540	17550	---	18060	---	17560	---	15620	14780	---
MEAN	17400	17810	17640	17520	17580	17960	18090	17820	17120	16140	15140	14580
MAX	17540	17910	17780	17600	17750	18060	18200	18040	17530	16630	15580	14790
MIN	17200	17490	17540	17470	17520	17780	17940	17520	16650	15620	14770	14340
(+)	1703.39	1703.64	1703.42	1703.42	1703.61	1703.89	1703.78	1703.44	1702.59	1701.60	1700.75	1700.30
(@)	-30	+280	-250	+10	+200	+310	-120	-380	-910	-1030	-840	-440

CAL YR 2000 MAX 22350 MIN 17200 (@) -4790
WTR YR 2001 MAX 18200 MIN 14340 (@) -3200

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08140770 Lake Coleman near Novice, TX--Continued



08141000 Hords Creek Lake near Valera, TX

LOCATION.--Lat 31°49'58", long 99°33'38", Coleman County, Hydrologic Unit 12090108, at outlet-works structure near right end of dam on Hords Creek, 5.6 mi north of Valera, and 8.8 mi west of Coleman.

DRAINAGE AREA.--48 mi^2, approximately.

PERIOD OF RECORD.--Apr. 1948 to Sept. 2000 (U.S. Army Corps of Engineers furnished contents), Oct. 2000 to current year. Prior to Oct. 1970, published as "Hords Creek Reservoir".
Water-quality records.--Chemical data: Oct. 1969 to Aug. 1982.

GAGE.--Water-stage recorder. Datum of gage is sea level. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily contents, which are fair. The lake is formed by a rolled earthfill dam 6,800 ft long, including spillway. Deliberate impoundment of water began Apr. 7, 1948, and the dam was completed in June 1948. The spillway is an excavated channel through natural ground, 500 ft wide, located about 600 ft from the right end of dam. The spillway consists of three concrete conduits; two controlled by 5.0- by 6.0-foot slide gates, and a third uncontrolled ogee spillway 4.0 ft wide and 19.5 ft high. The dam is owned by the U.S. Army Corps of Engineers. The lake is operated for flood control and municipal water supply for the city of Coleman. The capacity table of Aug. 1974 based on a sedimentation survey was made in 1948. Flow is affected at times by discharge from the flood-detention pool of one floodwater-retarding structure with a detention capacity of 1,370 acre-ft. This structure controls runoff from 6.82 mi^2 in the Jim Ned Creek drainage basin. Conservation pool storage is 8,112 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam...	1,939.0
Design flood...	1,933.6
Crest of spillway..	1,920.0
Crest of spillway (top of conservation pool).........................	1,900.0
Lowest gated outlet (invert)..	1,856.0

COOPERATION.--Capacity table dated May 2, 1990 was furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,790 acre-ft, May 1, 1956, elevation, 1906.86 ft; maximum elevation, Mar. 4, 1992, elevation, 1907.31 ft; minimum since first appreciable storage in June 1951, 1,550 acre-ft, Sept. 2, 1984, elevation, 1878.01 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,540 acre-ft, Apr. 11, elevation, 1,891.25 ft; minimum estimated daily contents, 3,250 acre-ft, Oct. 22.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

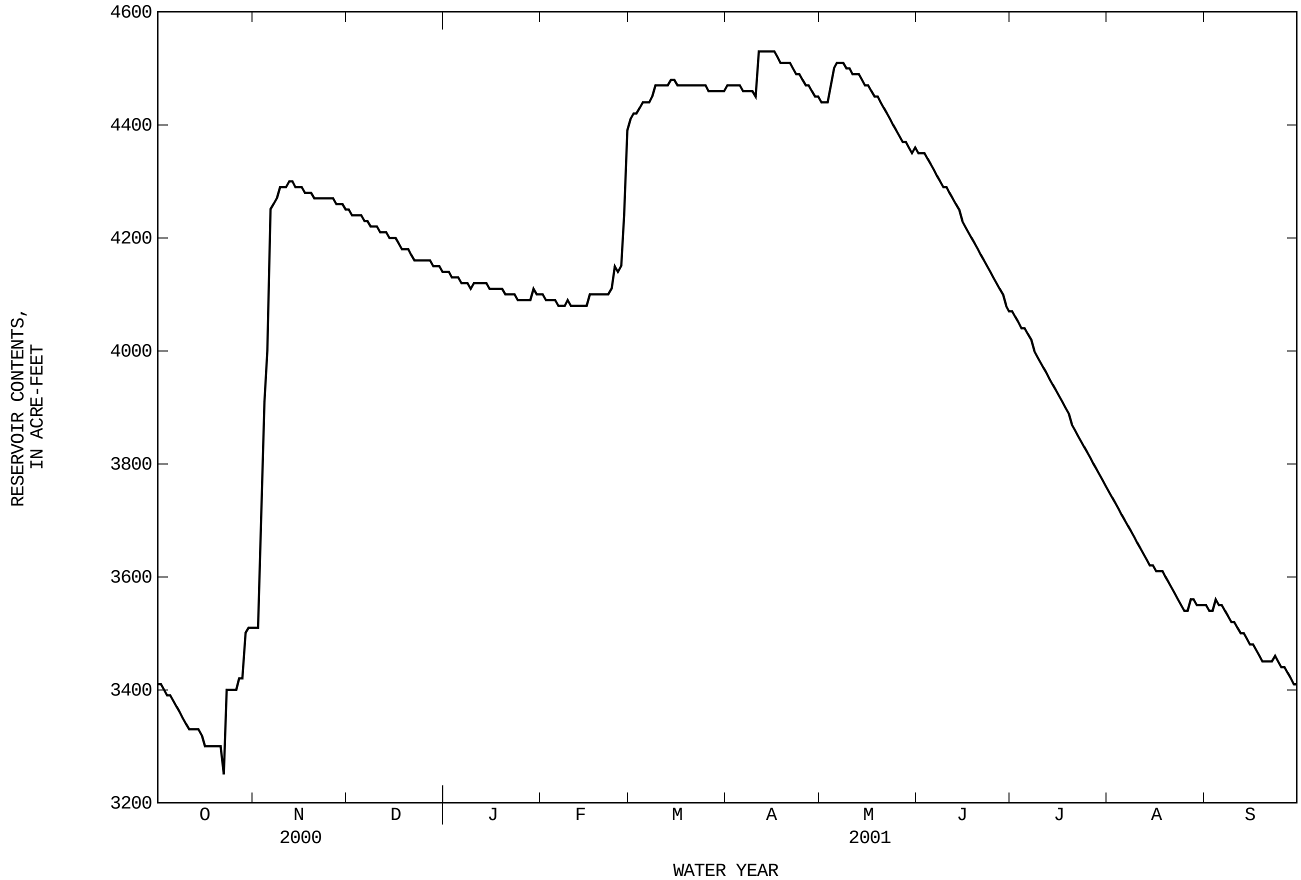
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3410	3510	4250	4140	4100	4410	4470	4440	4350	4070	3750	3550
2	3410	3510	4240	4140	4090	4420	4470	4440	4350	4060	3740	3540
3	3400	3750	4240	4130	4090	4420	4470	4440	4350	4050	3730	3540
4	3390	3910	4240	4130	4090	4430	4470	4470	4340	4040	3720	3560
5	3390	4000	4240	4130	4090	4440	4470	4500	4330	4040	3710	3550
6	3380	4250	4230	4120	4080	4440	4460	4510	4320	4030	3700	3550
7	3370	4260	4230	4120	4080	4440	4460	4510	4310	4020	3690	3540
8	3360	4270	4220	4120	4080	4450	4460	4510	4300	4000	3680	3530
9	3350	4290	4220	4110	4090	4470	4460	4500	4290	3990	3670	3520
10	3340	4290	4220	4120	4080	4470	4450	4500	4290	3980	3660	3520
11	3330	4290	4210	4120	4080	4470	4530	4490	4280	3970	3650	3510
12	3330	4300	4210	4120	4080	4470	4530	4490	4270	3960	3640	3500
13	3330	4300	4210	4120	4080	4470	4530	4490	4260	3950	3630	3500
14	3330	4290	4200	4120	4080	4480	4530	4480	4250	3940	3620	3490
15	3320	4290	4200	4110	4080	4480	4530	4470	4230	3930	3620	3480
16	e3300	4290	4200	4110	4100	4470	4530	4470	4220	3920	3610	3480
17	e3300	4280	4190	4110	4100	4470	4520	4460	4210	3910	3610	3470
18	e3300	4280	4180	4110	4100	4470	4510	4450	4200	3900	3610	3460
19	e3300	4280	4180	4110	4100	4470	4510	4450	4190	3890	3600	3450
20	e3300	4270	4180	4100	4100	4470	4510	4440	4180	3870	3590	3450
21	e3300	4270	4170	4100	4100	4470	4510	4430	4170	3860	3580	3450
22	e3250	4270	4160	4100	4100	4470	4500	4420	4160	3850	3570	3450
23	e3400	4270	4160	4100	4110	4470	4490	4410	4150	3840	3560	3460
24	e3400	4270	4160	4090	4150	4470	4490	4400	4140	3830	3550	3450
25	e3400	4270	4160	4090	4140	4470	4480	4390	4130	3820	3540	3440
26	e3400	4270	4160	4090	4150	4460	4470	4380	4120	3810	3540	3440
27	3420	4260	4160	4090	4240	4460	4470	4370	4110	3800	3560	3430
28	3420	4260	4150	4090	4390	4460	4460	4370	4100	3790	3560	3420
29	3500	4260	4150	4110	---	4460	4450	4360	4080	3780	3550	3410
30	3510	4250	4150	4100	---	4460	4450	4350	4070	3770	3550	3410
31	3510	---	4140	4100	---	4460	---	4360	---	3760	3550	---
MEAN	3370	4190	4190	4110	4110	4460	4490	4440	4220	3920	3620	3480
MAX	3510	4300	4250	4140	4390	4480	4530	4510	4350	4070	3750	3560
MIN	3250	3510	4140	4090	4080	4410	4450	4350	4070	3760	3540	3410
(+)	1887.67	1890.32	1889.96	1889.80	1890.77	1891.01	1890.95	1890.66	1889.72	1888.60	1887.82	1887.28
(@)	+100	+740	-110	-40	+290	+70	-10	-90	-290	-310	-210	-140

CAL YR 2000 MAX 4500 MIN 2600 (@) +740
WTR YR 2001 MAX 4530 MIN 3250 (@) 0

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

e Estimated

08141000 Hords Creek Lake near Valera, TX--Continued



08143000 Lake Brownwood near Brownwood, TX

LOCATION.--Lat 31°50'13", long 99°00'13", Brown County, Hydrologic Unit 12090107, on abandoned service outlet structure near center of dam on Pecan Bayou, 0.2 mi downstream from Jim Ned Creek, 8.0 mi north of Brownwood, and 57.1 mi upstream from mouth.

DRAINAGE AREA.--1,565 mi^2.

PERIOD OF RECORD.--July 1933 to May 1941, Nov. 1944 to Sept. 1986, and Feb. 1999 to current year. Fragmentary records July 1934 to Apr. 1935 and Oct. 1940 to May 1941. Prior to Oct. 1970, published as "Brownwood Reservoir".
Water-quality records.--Chemical data: Oct. 1970 to Apr. 1984.

REVISED RECORDS.--WSP 1212: 1948-50. WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. From July 1933 to May 1941, July 23, 1946 to May 12, 1948, non-recording gage at irrigation outlet structure near right end of dam, Nov. 21, 1944 to July 22, 1946, water-stage recorder on irrigation outlet structure near right end of dam, May 13, 1948 to June 30, 1949, water-stage recorder in right downstream corner of outlet control tower, July 1, 1949 to Sept. 30, 1986, non-recording gage at irrigation outlet structure near right end of dam all at datum 0.50 ft higher. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The lake is formed by a rolled earthfill dam, 1,580 ft long. The dam was completed in 1933 and deliberate impoundment began in July 1933. In Aug. 1983, work was completed to reinforce backside of dam and dam was raised 20 ft. The uncontrolled emergency spillway is a broad-crested weir 479 ft long located 800 ft to left of dam. The controlled service spillway consists of two 48-inch horseshoe-shaped concrete conduits. Water is used for irrigation, municipal, and industrial supply. Flow is affected at times by discharge from the flood-detention pools of 59 floodwater-retarding structures with a combined capacity of 73,310 acre-ft. These structures control runoff from 353 mi^2 in the Jim Ned Creek and Pecan Bayou drainage basins. The dam is owned by Brown County WID No. 1. Conservation pool storage is 131,428 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	1,470.0
Crest of spillway...	1,424.6
Lowest gated outlet (invert)......................................	1,329.5

COOPERATION.--The capacity table dated Feb. 23, 1999, was furnished by Brown County Water Improvement District No. 1 and is based on a volumetric survey of Apr. 1997 by Texas Water Development Board. Records of diversions may be obtained from the city of Brownwood.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 192,300 acre-ft, May 2, 1956, elevation, 1,430.9 ft; minimum contents observed, 11,900 acre-ft, July 15, 1934, elevation, 1,389.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 133,700 acre-ft, May 7, elevation, 1,424.83 ft; minimum contents, 80,650 acre-ft, Oct. 15, elevation, 1,415.65 ft.

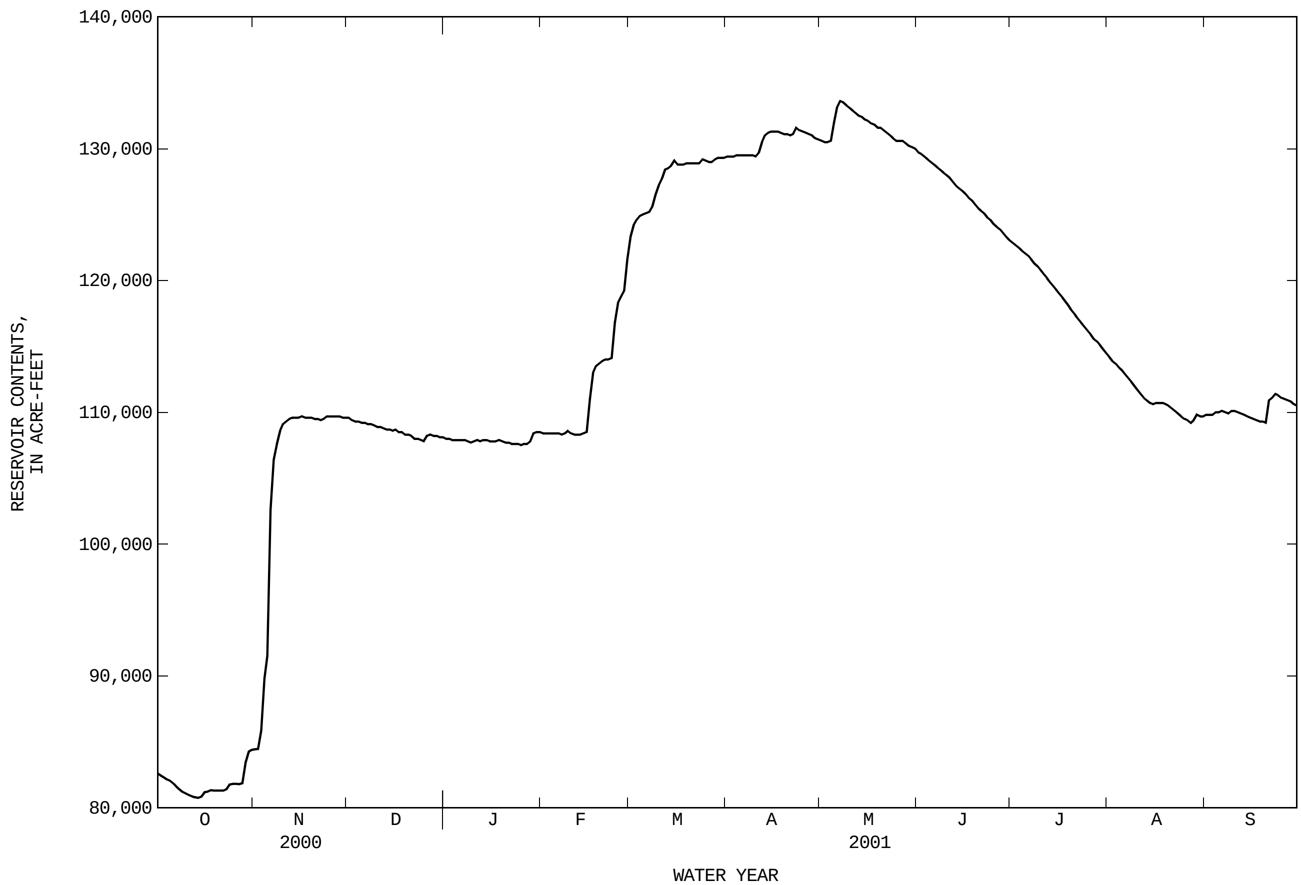
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82580	84440	109600	108000	108400	123300	129400	130600	129700	122900	114200	109800
2	82420	84460	109400	108000	108400	124200	129400	130500	129600	122700	113900	109800
3	82270	85880	109300	107900	108400	124600	129400	130500	129400	122500	113700	109800
4	82140	89800	109300	107900	108400	124900	129500	130600	129200	122300	113400	110000
5	82020	91530	109200	107900	108400	125000	129500	132000	129000	122100	113200	110000
6	81840	102600	109200	107900	108400	125100	129500	133100	128800	121900	112900	110100
7	81570	106400	109100	107900	108300	125200	129500	133600	128600	121600	112600	110000
8	81340	107600	109100	107800	108400	125600	129500	133500	128400	121300	112300	109900
9	81180	108600	109000	107700	108600	126500	129500	133300	128200	121100	112000	110100
10	81060	109100	108900	107800	108400	127200	129400	133100	128000	120800	111700	110100
11	80940	109300	108900	107900	108300	127700	129700	132900	127800	120500	111400	110000
12	80850	109500	108800	107800	108300	128400	130500	132700	127500	120200	111100	109900
13	80790	109600	108700	107900	108300	128500	131000	132500	127200	119900	110900	109800
14	80740	109600	108700	107900	108400	128700	131200	132400	127000	119600	110700	109700
15	80830	109600	108600	107800	108500	129100	131300	132200	126800	119300	110600	109600
16	81180	109700	108700	107800	111000	128800	131300	132100	126600	119000	110700	109500
17	81230	109600	108500	107800	113000	128800	131300	131900	126300	118700	110700	109400
18	81320	109600	108500	107900	113500	128800	131200	131800	126100	118400	110700	109300
19	81300	109600	108300	107800	113700	128900	131100	131600	125800	118100	110600	109300
20	81310	109500	108300	107700	113900	128900	131100	131600	125500	117700	110500	109200
21	81300	109500	108200	107700	114000	128900	131000	131400	125300	117400	110300	110900
22	81310	109400	108000	107600	114000	128900	131100	131200	125100	117100	110100	111100
23	81400	109500	108000	107600	114100	128900	131600	131000	124800	116800	109900	111400
24	81760	109700	107900	107600	116800	129200	131400	130800	124600	116500	109700	111300
25	81810	109700	107800	107500	118300	129100	131300	130600	124300	116200	109500	111100
26	81820	109700	108200	107600	118800	129000	131200	130600	124100	115900	109400	111000
27	81790	109700	108300	107600	119200	129000	131100	130600	123900	115600	109200	110900
28	81850	109700	108200	107800	121600	129200	131000	130400	123600	115400	109400	110800
29	83410	109600	108200	108400	---	129300	130800	130200	123300	115100	109800	110600
30	84230	109600	108100	108500	---	129300	130700	130100	123100	114800	109700	110500
31	84380	---	108100	108500	---	129300	---	130000	---	114500	109700	---
MEAN	81740	105400	108600	107900	111700	127700	130500	131600	126600	118900	111100	110200
MAX	84380	109700	109600	108500	121600	129300	131600	133600	129700	122900	114200	111400
MIN	80740	84440	107800	107500	108300	123300	129400	130000	123100	114500	109200	109200
(+)	1416.41	1420.99	1420.74	1420.81	1422.96	1424.18	1424.39	1424.28	1423.19	1421.81	1421.02	1421.15
(@)	+1740	+25220	-1500	+400	+13100	+7700	+1400	-700	-6900	-8600	-4800	+800

CAL YR 2000 MAX 109700 MIN 73190 (@) +23510
WTR YR 2001 MAX 133600 MIN 80740 (@) +27860

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08143000 Lake Brownwood near Brownwood, TX--Continued



08143600 Pecan Bayou near Mullin, TX

LOCATION.--Lat 31°31'02", long 98°44'25", Mills County, Hydrologic Unit 12090107, on right bank 44 ft downstream from bridge on Farm Road 573, 0.6 mi downstream from Blanket Creek, 5.5 mi southwest of Mullin, and 13.6 mi upstream from mouth.

DRAINAGE AREA.--2,073 mi^2.

PERIOD OF RECORD.--Oct. 1967 to current year.
Water-quality records.--Chemical data: Oct. 1967 to Aug. 1996. Biochemical data: Nov. 1991 to Aug. 1996. Specific conductance: Oct. 1967 to Sept. 1991. Water temperature: Oct. 1967 to Sept. 1991.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,202.93 ft above sea level. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in water year 1968, at least 10% of contributing drainage area has been regulated. In addition, flow from 152 mi^2 (from an intervening drainage area of 641 mi^2) above this station and below Lake Brownwood is partly controlled by 41 floodwater-retarding structures. No flow at times many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

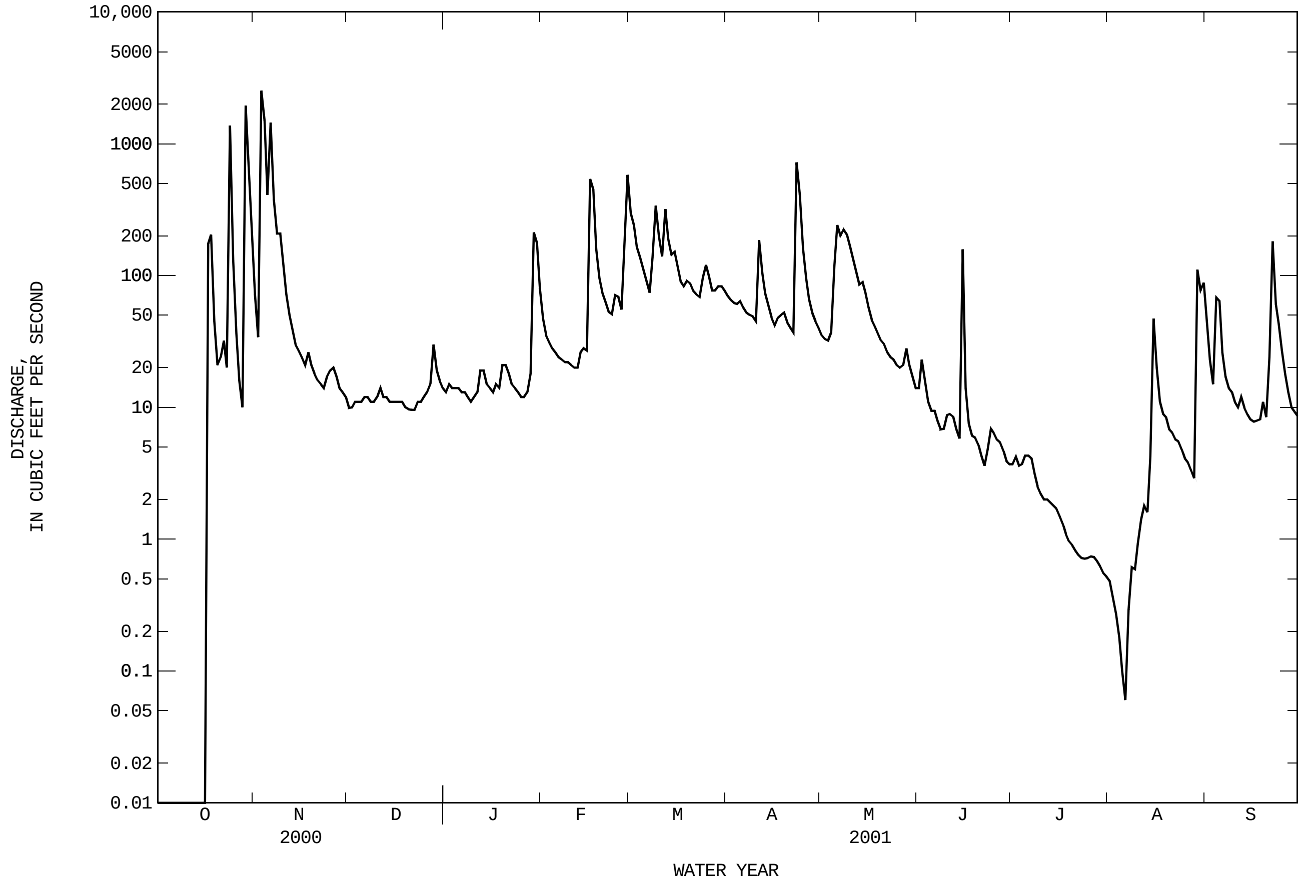
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	72	9.9	13	47	297	70	35	14	3.7	.48	45
2	.00	34	10	15	35	240	65	33	23	4.2	.36	23
3	.00	2530	11	14	31	164	62	32	16	3.6	.27	15
4	.00	1500	11	14	28	137	61	37	11	3.7	.18	68
5	.00	407	11	14	26	111	64	118	9.4	4.3	.10	64
6	.00	1440	12	13	24	90	57	241	9.4	4.3	.06	26
7	.00	377	12	13	23	74	52	201	7.9	4.1	.29	17
8	.00	208	11	12	22	138	50	223	6.8	3.1	.61	14
9	.00	208	11	11	22	339	49	205	6.9	2.5	.59	13
10	.00	128	12	12	21	198	45	166	8.7	2.2	.93	11
11	.00	72	14	13	20	139	185	134	8.9	2.0	1.4	10
12	.00	50	12	19	20	318	104	106	8.5	2.0	1.8	12
13	.00	38	12	19	26	190	73	85	6.8	1.9	1.6	9.9
14	.00	30	11	15	28	144	59	89	5.8	1.8	4.2	8.8
15	.00	27	11	14	27	152	48	74	158	1.7	47	8.1
16	.00	24	11	13	538	115	42	57	14	1.5	20	7.8
17	174	21	11	15	448	90	48	46	7.5	1.3	11	7.9
18	204	26	11	14	159	83	50	41	6.1	1.1	8.9	8.1
19	45	21	10	21	96	91	52	36	5.9	.96	8.4	11
20	21	18	9.7	21	73	87	44	32	5.2	.90	6.8	8.4
21	24	16	9.6	18	62	76	40	30	4.3	.82	6.4	24
22	32	15	9.6	15	53	72	37	26	3.6	.76	5.7	181
23	20	14	11	14	51	69	722	24	4.8	.72	5.5	61
24	1370	17	11	13	71	96	412	23	6.9	.71	4.8	43
25	130	19	12	12	69	120	161	21	6.4	.72	4.1	27
26	36	20	13	12	55	99	95	20	5.7	.74	3.8	18
27	16	17	15	13	177	77	66	21	5.4	.73	3.3	13
28	10	14	30	18	581	77	52	28	4.7	.68	2.9	10
29	1940	13	19	212	---	83	45	21	3.9	.62	111	9.3
30	754	12	16	176	---	83	40	17	3.7	.55	77	8.6
31	201	---	14	80	---	77	---	14	---	.52	88	---
TOTAL	4977.00	7388	383.8	878	2833	4126	2950	2236	389.2	58.43	427.47	782.9
MEAN	161	246	12.4	28.3	101	133	98.3	72.1	13.0	1.88	13.8	26.1
MAX	1940	2530	30	212	581	339	722	241	158	4.3	111	181
MIN	.00	12	9.6	11	20	69	37	14	3.6	.52	.06	7.8
AC-FT	9870	14650	761	1740	5620	8180	5850	4440	772	116	848	1550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	147	85.1	183	138	230	236	220	279	341	52.3	25.4	76.8
MAX	987	1227	4741	1965	4416	2361	3510	1975	2898	434	195	980
(WY)	1975	1975	1992	1968	1992	1992	1990	1994	1997	1997	1971	1991
MIN	.59	4.79	3.90	4.57	6.52	5.45	3.63	.12	.000	.000	.000	.000
(WY)	1989	1989	1984	1986	2000	1996	1984	1984	1984	1974	1980	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1968 - 2001	
ANNUAL TOTAL	19594.56		27429.80			
ANNUAL MEAN	53.5		75.2		167	
HIGHEST ANNUAL MEAN					1245	1992
LOWEST ANNUAL MEAN					9.01	1984
HIGHEST DAILY MEAN	2530	Nov 3	2530	Nov 3	37000	Apr 27 1990
LOWEST DAILY MEAN	.00	Aug 24	.00	Oct 1	.00	Jun 29 1974
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 24	.00	Oct 1	.00	Jun 29 1974
MAXIMUM PEAK FLOW			4760	Nov 3	38300	Apr 27 1990
MAXIMUM PEAK STAGE			12.27	Nov 3	42.15	Apr 27 1990
ANNUAL RUNOFF (AC-FT)	38870		54410		121200	
10 PERCENT EXCEEDS	33		160		253	
50 PERCENT EXCEEDS	4.8		17		14	
90 PERCENT EXCEEDS	.00		.87		2.7	

08143600 Pecan Bayou near Mullin, TX--Continued



08144500 San Saba River at Menard, TX

LOCATION.--Lat 30°55'08", long 99°47'07", Menard County, Hydrologic Unit 12090109, at downstream side of bridge on U.S. Highway 83 in Menard, 1.1 mi downstream from Las Moras Creek, 1.9 mi upstream from Volkmann Draw, and 116.3 mi upstream from mouth.

DRAINAGE AREA.--1,135 mi^2, of which 6.6 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Sept. 1915 to Sept. 1993, Oct. 1997 to current year.
Water-quality records.--Chemical data: Nov. 1964 to July 1967.

REVISED RECORDS.--WDR TX-81-3: Drainage area. WSP 1512: 1918-20, 1922-25, 1926(M), 1927-32, 1934(M), 1936, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 1,863.05 ft above sea level. Sept. 14, 1915, to Mar. 12, 1924, nonrecording gage at site 635 ft downstream at datum 2.20 ft lower. Mar. 13, 1924, to Feb. 21, 1939, nonrecording gage at site 1,000 ft upstream at datum 2.00 ft higher. Feb. 22, 1939, to Jan. 25, 1940, nonrecording gage at present site and datum. Jan. 26, 1940, to Sept. 19, 1957, water-stage recorder at site 240 ft to right at present datum. Feb. 8, 1962, to Jan. 22, 1963, nonrecording gage at site 600 ft downstream at present datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since about 1890, low flow regulated during irrigation season by diversions to Noyes Canal at Menard (discontinued station 08144000) 4.6 mi upstream and diversions by pumping at several locations upstream. No flow at times.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage-discharge relation at medium to high stages and computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1880, 23.3 ft June 6, 1899, present site and datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	43	56	48	47	44	25	23	31	7.2	3.2	20
2	5.1	156	55	49	47	27	26	23	25	14	3.2	18
3	5.5	17100	58	50	47	44	26	22	17	18	3.6	18
4	5.7	2970	60	50	46	46	25	25	16	13	3.9	17
5	5.9	400	57	49	45	44	26	31	15	11	4.1	57
6	5.6	700	56	49	45	34	26	32	14	10	4.8	68
7	6.0	320	54	49	45	24	24	40	15	8.9	4.4	26
8	7.2	152	55	48	46	24	22	111	15	7.6	4.7	18
9	9.2	109	54	48	45	27	23	52	15	7.1	4.9	2690
10	9.7	86	53	50	43	26	24	33	16	7.1	5.1	309
11	9.7	76	53	53	44	24	39	29	15	6.9	5.0	105
12	9.8	71	53	51	45	24	36	28	15	6.9	4.9	65
13	9.9	68	52	51	46	23	31	27	15	5.4	4.6	53
14	9.7	65	52	50	46	24	29	25	14	5.8	4.5	47
15	12	64	52	49	46	23	28	23	14	6.3	5.1	43
16	38	64	52	49	55	23	26	22	10	6.1	6.6	44
17	39	63	50	50	51	22	25	20	9.6	5.5	11	43
18	23	86	50	50	47	26	24	19	9.6	5.5	11	42
19	16	79	50	50	46	27	25	20	9.7	5.2	13	60
20	13	70	50	49	46	26	25	20	8.8	5.3	9.9	76
21	13	66	50	49	45	25	25	19	8.2	5.3	8.1	54
22	15	65	50	48	44	24	25	17	8.1	4.9	7.2	58
23	24	64	50	47	44	24	29	17	7.9	4.8	6.8	56
24	38	63	50	47	46	24	27	18	10	4.8	6.4	48
25	26	61	50	45	44	23	25	17	11	4.1	5.3	45
26	22	61	55	45	42	23	24	17	10	3.8	5.2	44
27	16	60	57	47	43	26	24	18	9.5	4.4	15	44
28	15	59	52	50	44	28	23	17	8.5	5.0	120	43
29	2410	57	50	58	---	27	23	16	7.5	4.9	120	43
30	532	56	50	54	---	27	22	16	6.9	4.7	39	42
31	72	---	49	48	---	26	---	18	---	3.6	24	---
TOTAL	3428.2	23354	1635	1530	1280	859	782	815	387.3	213.1	474.5	4296
MEAN	111	778	52.7	49.4	45.7	27.7	26.1	26.3	12.9	6.87	15.3	143
MAX	2410	17100	60	58	55	46	39	111	31	18	120	2690
MIN	5.1	43	49	45	42	22	22	16	6.9	3.6	3.2	17
AC-FT	6800	46320	3240	3030	2540	1700	1550	1620	768	423	941	8520

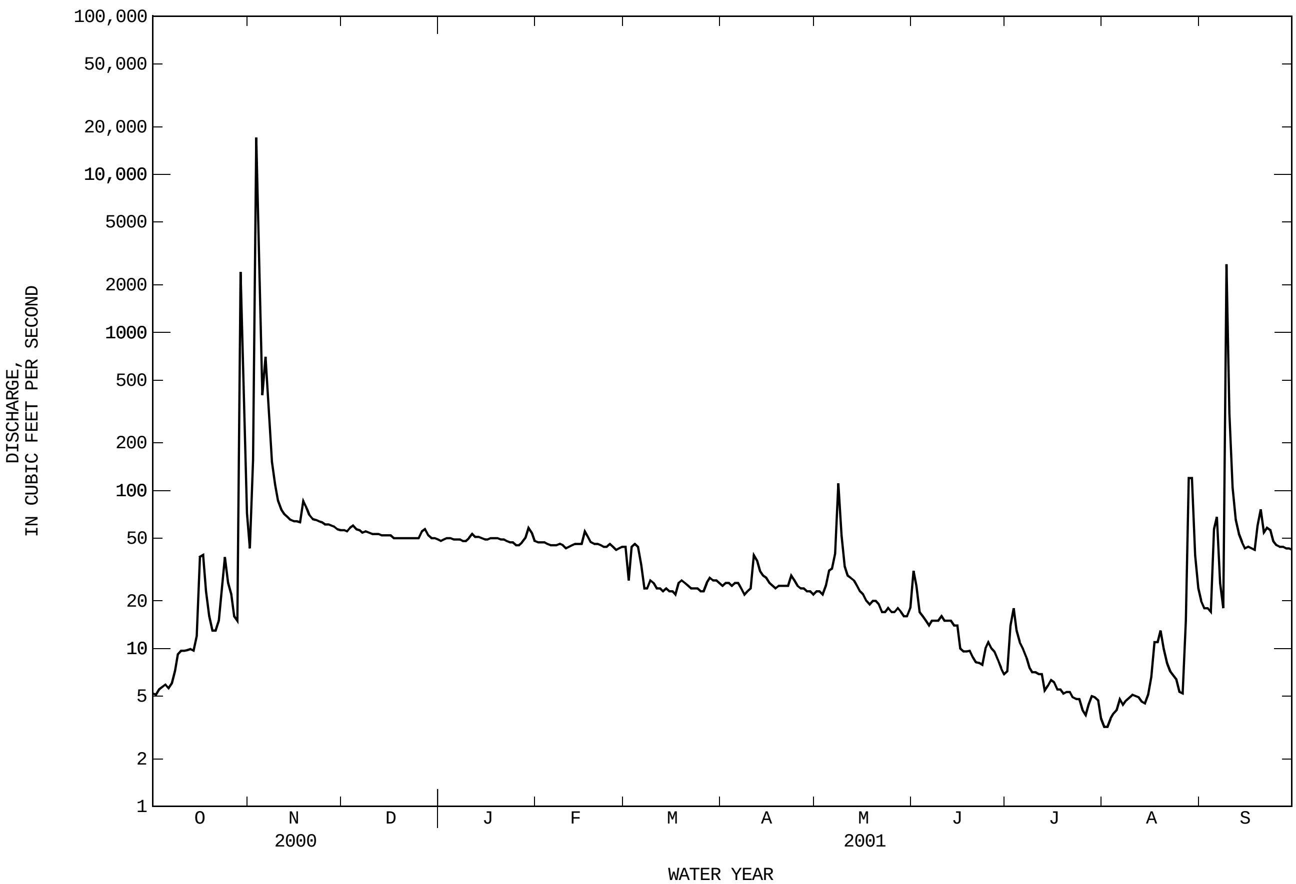
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	88.3	45.5	31.9	32.0	38.1	32.9	67.8	76.3	56.7	101	42.2	134
MAX	914	778	152	80.4	261	251	1206	1631	667	5140	869	2870
(WY)	1942	2001	1985	1985	1958	1922	1922	1957	1958	1938	1974	1936
MIN	.000	.000	.000	.035	.82	.99	.89	1.22	.000	.000	.000	.000
(WY)	1957	1957	1955	1957	1955	1956	1955	1964	1953	1952	1952	1954

08144500 San Saba River at Menard, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1916 - 2001h	
ANNUAL TOTAL	31449.60		39054.1			
ANNUAL MEAN	85.9		107		62.3	
HIGHEST ANNUAL MEAN					485	1938
LOWEST ANNUAL MEAN					6.12	1952
HIGHEST DAILY MEAN	17100	Nov 3	17100	Nov 3	53300	Jul 23 1938
LOWEST DAILY MEAN	.56	Aug 13	3.2	Aug 1	.00	Jul 12 1918
ANNUAL SEVEN-DAY MINIMUM	.97	Aug 12	3.8	Jul 30	.00	Jul 19 1918
MAXIMUM PEAK FLOW			47000	Nov 3	c130000	Jul 23 1938
MAXIMUM PEAK STAGE			a18.00	Nov 3	a22.20	Jul 23 1938
ANNUAL RUNOFF (AC-FT)	62380		77460		45140	
10 PERCENT EXCEEDS	56		61		59	
50 PERCENT EXCEEDS	14		26		22	
90 PERCENT EXCEEDS	2.9		5.6		2.2	

h See PERIOD OF RECORD paragraph.
c From rating curve extended above 56,000 ft^3/s on basis of slope-area measurement of 130,000 ft^3/s.
a From floodmark.



08144600 San Saba River near Brady, TX

LOCATION.--Lat 31°00’14", long 99°16’07", McCulloch County, Hydrologic Unit 12090109, on right bank at downstream side of bridge on U.S. Highways 87 and 377, 0.4 mi upstream from Hudson Branch, and 8.4 mi southeast of Brady, and 72.9 mi upstream from mouth.

DRAINAGE AREA.--1,633 mi^2, of which 6.60 mi^2 probably is noncontributing.

PERIOD OF RECORD.--July 1979 to Sept. 1993, Oct. 1997 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,530.98 ft above sea level. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No known regulation. Since about 1890, water diverted to Noyes Canal at Menard (discontinued station 08144000) during irrigation season.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, and computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest stage since June 1899, 33.8 ft July 23, 1938, from floodmark on left bank 150 ft upstream from present site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	182	88	61	65	55	51	30	27	10	1.0	45
2	.09	112	83	59	60	56	50	29	29	9.2	.98	33
3	.08	19300	92	58	58	60	49	31	43	8.0	.95	27
4	.07	12000	97	59	57	52	48	38	40	7.1	1.0	26
5	.06	1250	92	59	56	53	46	736	30	6.6	1.0	21
6	.05	4310	88	58	55	56	44	434	26	6.0	1.1	24
7	.10	728	82	58	55	54	41	113	24	e6.0	1.1	38
8	.25	454	80	55	55	60	38	94	23	e6.0	1.1	63
9	.18	305	76	54	53	62	38	193	23	6.5	1.1	1390
10	.16	227	74	58	51	47	41	139	22	6.1	1.1	1390
11	.15	185	73	65	51	45	42	82	22	6.0	1.0	273
12	.16	159	69	61	53	44	40	85	21	5.9	1.0	136
13	.16	138	70	62	57	39	55	67	20	5.2	.93	79
14	.16	123	72	59	57	40	57	56	16	4.5	1.0	61
15	.40	114	69	57	59	41	48	52	23	3.9	1.1	50
16	3.0	121	69	57	93	37	44	48	20	3.2	1.4	44
17	46	113	66	57	77	35	41	46	19	2.7	1.5	41
18	31	329	63	59	73	50	40	43	17	2.4	1.6	37
19	49	324	62	59	69	64	39	42	17	2.1	1.6	36
20	35	206	65	57	64	50	39	43	16	1.9	1.4	34
21	27	168	61	55	62	47	39	41	15	1.7	1.3	62
22	25	148	61	53	60	45	39	38	13	1.6	1.1	67
23	1500	152	61	52	64	43	76	36	15	1.5	1.0	51
24	698	140	61	51	62	51	69	31	19	1.4	.96	45
25	103	121	64	51	58	51	46	31	12	1.4	.91	43
26	65	113	74	51	58	47	40	33	12	1.5	.89	42
27	47	103	76	53	57	48	38	30	11	1.4	1.5	39
28	42	108	71	56	55	56	34	28	11	1.3	3.8	37
29	797	93	68	81	---	55	32	25	11	1.3	7.9	36
30	1940	91	63	72	---	55	30	24	11	1.2	75	35
31	404	---	61	70	---	54	---	25	---	1.1	74	---
TOTAL	5814.17	41917	2251	1817	1694	1552	1334	2743	608	124.7	191.32	4305
MEAN	188	1397	72.6	58.6	60.5	50.1	44.5	88.5	20.3	4.02	6.17	144
MAX	1940	19300	97	81	93	64	76	736	43	10	75	1390
MIN	.05	91	61	51	51	35	30	24	11	1.1	.89	21
AC-FT	11530	83140	4460	3600	3360	3080	2650	5440	1210	247	379	8540

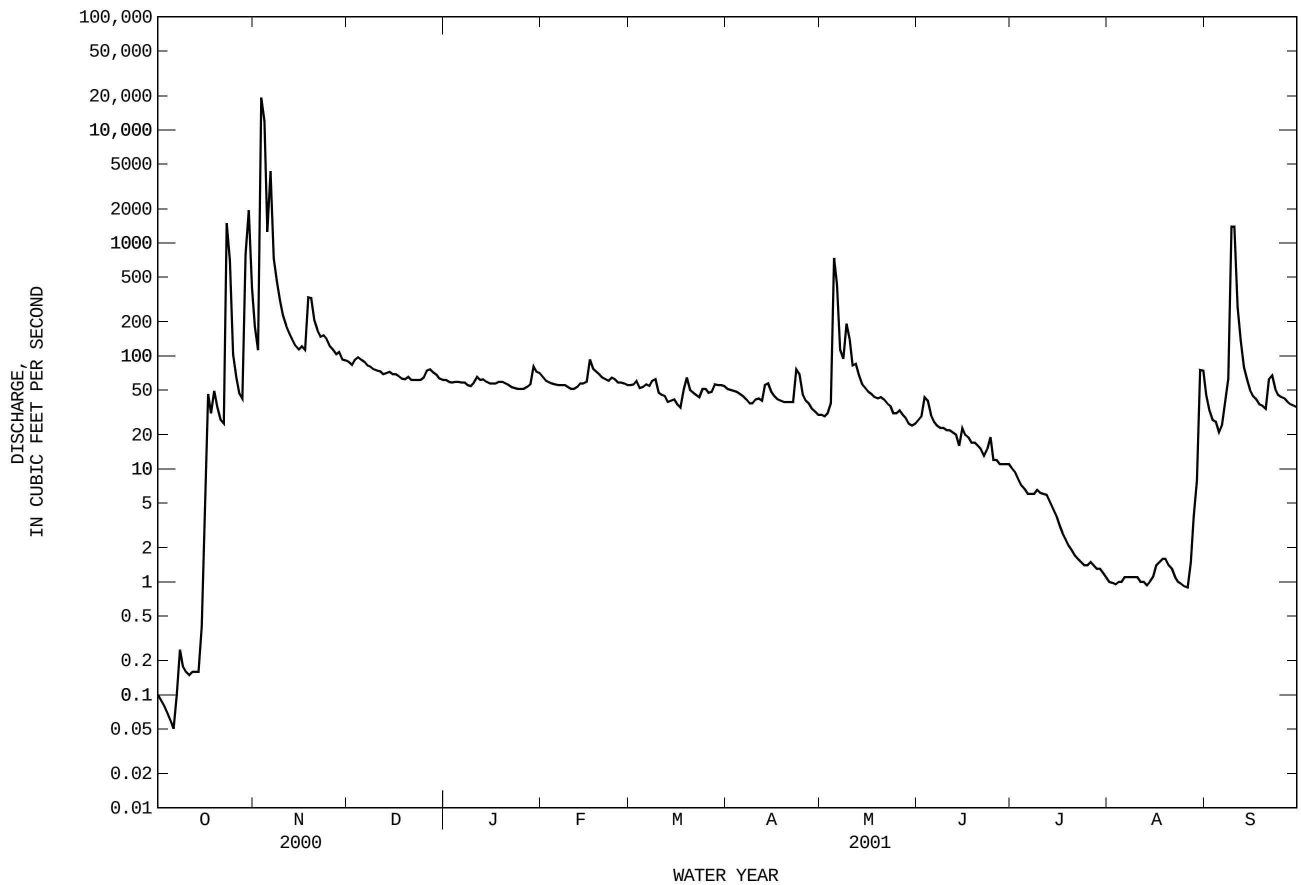
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	54.0	118	83.0	65.0	71.6	61.1	49.3	61.1	90.9	73.6	50.2	182
MAX	188	1397	516	282	400	160	144	167	511	901	543	1631
(WY)	2001	2001	1985	1985	1992	1992	1992	1987	1987	1990	1990	1980
MIN	3.35	16.5	22.6	24.0	23.3	18.3	16.3	6.35	.75	.49	.13	.074
(WY)	2000	2000	1986	2000	2000	2000	1986	1984	1984	1998	2000	1984

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1979 - 2001h	
ANNUAL TOTAL	54262.37		64351.19			
ANNUAL MEAN	148		176		80.3	
HIGHEST ANNUAL MEAN					256	1990
LOWEST ANNUAL MEAN					15.4	2000
HIGHEST DAILY MEAN	19300	Nov 3	19300	Nov 3	23900	Sep 8 1980
LOWEST DAILY MEAN	.02	Sep 3	.05	Oct 6	.00	Sep 26 1999
ANNUAL SEVEN-DAY MINIMUM	.04	Aug 30	.08	Oct 1	.00	Sep 26 1999
MAXIMUM PEAK FLOW			43800	Nov 3	66000	Sep 8 1980
MAXIMUM PEAK STAGE			a20.10	Nov 3	25.50	Sep 8 1980
ANNUAL RUNOFF (AC-FT)	107600		127600		58190	
10 PERCENT EXCEEDS	104		113		89	
50 PERCENT EXCEEDS	17		47		39	
90 PERCENT EXCEEDS	.11		1.2		4.4	

e Estimated
h See PERIOD OF RECORD paragraph.
a From floodmark.

08144600 San Saba River near Brady, TX--Continued



08144900 Brady Creek Reservoir near Brady, TX

LOCATION.--Lat 31°08'17", long 99°23'07", McCulloch County, Hydrologic Unit 12090110, at mouth of Bear Creek on Brady Creek, 280 ft upstream from Farm Road 3022 over Brady Creek Dam, 3.0 mi west of Brady, and 34.1 mi upstream from mouth.

DRAINAGE AREA.--523 mi^2.

PERIOD OF RECORD.--May 1963 to Sept. 1983, Jan. 1999 to current year.
Water-quality records.--Chemical data: Sept. 1964 to Apr. 1983.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily contents, which are fair. The reservoir is formed by a compacted earthfill dam 8,400 ft long. The dam was completed and storage began in May 1963. The dam was built by the city of Brady in cooperation with the Natural Resources Conservation Service and the Farmers Home Administration for flood control, municipal, and industrial water supply. The spillway is a cut channel through natural ground 1,000 ft wide located at right end of dam. The service spillway is an uncontrolled concrete drop-inlet structure that discharges through a 7.0 by 7.0-foot concrete box conduit and is designed to discharge 4,000 ft^3/s at a 19.4-ft head. The gated outlet is a 36-inch pipe that extends through the embankment and is equipped with three sluice gates for controlled releases downstream. Flow into reservoir is affected at times by discharge from the flood-detention pools of 35 floodwater-retarding structures with a combined detention capacity of 77,950 acre-ft. These structures were built during the period Feb. 1955 to July 1962 and control runoff from 263 mi^2 in the Brady Creek watershed above this station. Conservation pool storage is 30,430 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	1,783.0
Crest of emergency spillway	1,762.4
Crest of service spillway	1,743.0
Lowest gated outlet (invert)	1,712.0

COOPERATION.--The capacity table dated May 22, 1963, was prepared from curve obtained from the city of Brady. The capacity curve is based on U.S. Geological Survey topographic map but was not adjusted for earth material that might have been moved. Records of diversions may be obtained from the city of Brady.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 40,880 acre-ft, Sept. 24, 1971, elevation, 1,747.70 ft; minimum contents, 1,030 acre-ft, Sept. 18, 1964, elevation, 1,710.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,860 acre-ft, Apr. 11, elevation, 1,742.71 ft; minimum contents, 9,350 acre-ft, Oct. 11, elevation, 1,728.31 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

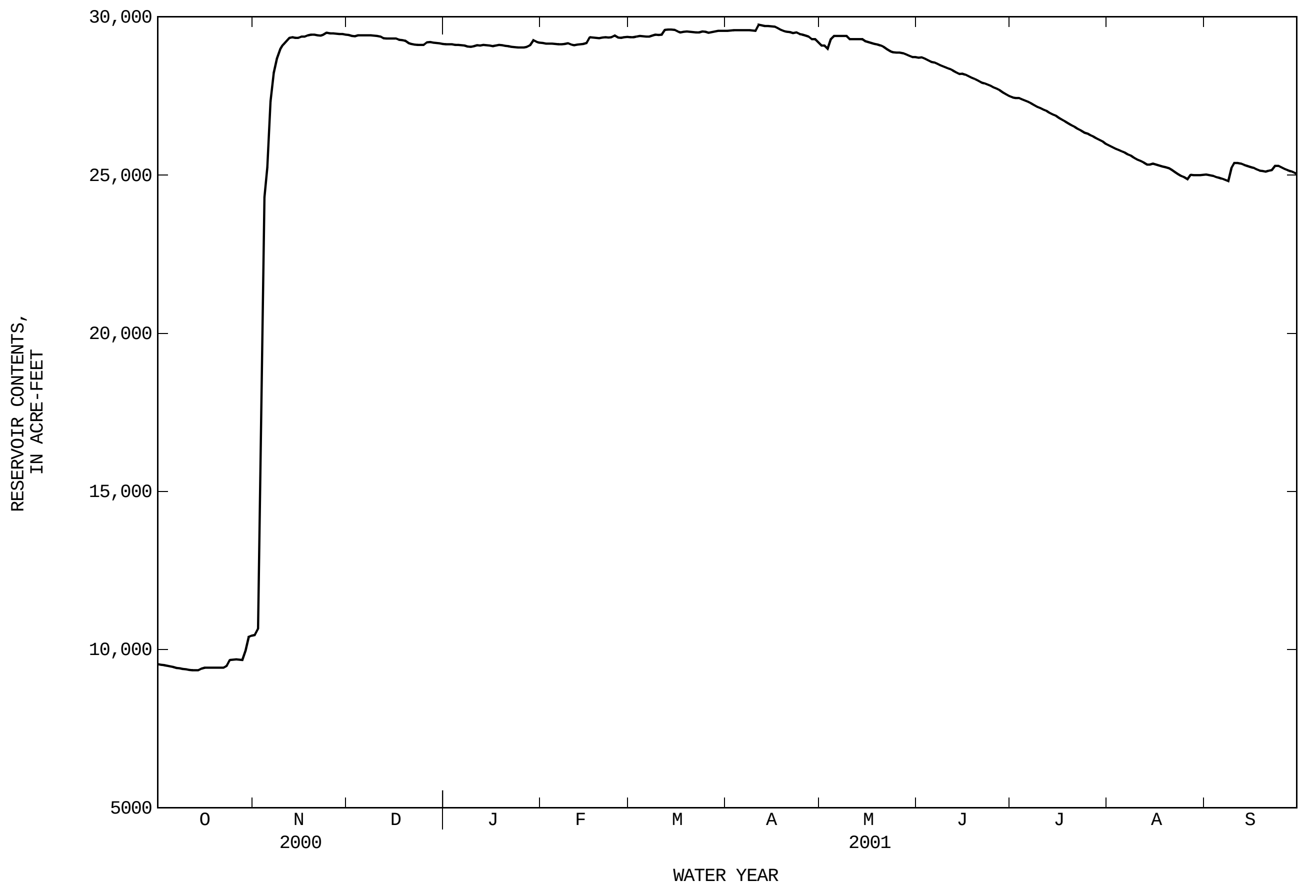
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9540	10460	29430	29140	29180	29360	29560	29100	28710	27460	25930	25020
2	9520	10650	29400	29140	29160	29360	29570	e29100	28720	27440	25880	25000
3	9510	17920	29390	29140	29160	29380	29580	e29000	28680	27440	25830	24980
4	9490	24300	29420	29120	29160	29400	29580	e29300	28630	27400	25790	24940
5	9470	25250	29420	29120	29150	29390	29580	e29400	28580	27360	25750	24920
6	9450	27340	29420	29110	29140	29380	29580	e29400	28560	27320	25710	24890
7	9420	28230	29420	29100	29140	29380	29580	e29400	28520	27270	25650	24850
8	9410	28680	29420	29070	29150	29410	29580	e29400	28470	27200	25610	24810
9	9390	28970	29410	29060	29170	29440	29570	e29400	28430	27150	25540	25220
10	9380	29120	29400	29080	29130	29430	29560	e29300	28390	27110	25490	25380
11	9360	29230	29380	29110	29110	29440	29750	e29300	28360	27060	25440	25380
12	e9350	29340	29330	29100	29130	29590	29730	e29300	28310	27020	25390	25360
13	e9350	29360	29320	29120	29140	29600	29710	e29300	28250	26960	25330	25320
14	e9350	29340	29320	29110	29150	29600	29710	e29300	28200	26910	25330	25290
15	e9400	29340	29320	29100	29180	29590	29700	29240	28210	26870	25360	25260
16	9430	29380	29320	29080	29360	29540	29690	29210	28180	26800	25330	25230
17	9430	29380	29280	29100	29350	29510	29640	29180	28130	26740	25300	25180
18	9430	29420	29270	29120	29340	29530	29590	29150	28080	26690	25270	25140
19	9430	29440	29250	29110	29330	29540	29550	29130	28030	26630	25250	25130
20	9430	29440	29180	29090	29350	29530	29530	29100	27980	26570	25220	25110
21	9430	29420	29150	29080	29360	29520	29520	29050	27930	26520	25160	25140
22	9430	29410	29130	29060	29350	29510	29490	28980	27900	26460	25090	25160
23	9480	29440	29120	29050	29360	29510	29510	28920	27860	26410	25030	25290
24	9670	29500	29120	29040	29410	29540	29460	28880	27820	26350	24970	25290
25	9680	29480	29120	29040	29350	29530	29440	28870	27770	26310	24930	25240
26	9690	29480	29200	29040	29340	29500	29410	28870	27730	26250	24870	25190
27	9680	29470	29210	29060	29360	29520	29380	28850	27680	26210	25010	25150
28	9670	29460	29190	29110	29370	29540	e29300	28810	27610	26150	25000	25120
29	9960	29460	29180	29260	---	29560	e29300	28770	27550	26100	25000	25080
30	10400	29440	29170	29210	---	29560	e29200	28730	27500	26050	25000	25030
31	10440	---	29150	29190	---	29560	---	28730	---	25980	25010	---
MEAN	9550	27300	29290	29110	29250	29490	29540	29110	28160	26780	25340	25140
MAX	10440	29500	29430	29260	29410	29600	29750	29400	28720	27460	25930	25380
MIN	9350	10460	29120	29040	29110	29360	29200	28730	27500	25980	24870	24810
(+)	1729.46	1742.50	1742.36	1742.37	1742.46	1742.56	1742.38	1742.14	1741.50	1740.69	1740.15	1740.16
(@)	+900	+19000	-290	+40	+180	+190	-360	-470	-1230	-1520	-970	+20

CAL YR 2000 MAX 29500 MIN 7470 (@) +20140
WTR YR 2001 MAX 29750 MIN 9350 (@) +15490

e Estimated

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08144900 Brady Creek Reservoir near Brady, TX--Continued



08145000 Brady Creek at Brady, TX

LOCATION.--Lat 31°08'17", long 99°20'05", McCulloch County, Hydrologic Unit 12090110, on left bank 60 ft upstream from bridge on U.S. Highway 377 on North Bridge Street in Brady, 0.4 mi downstream from Live Oak Creek, and 30.4 mi upstream from mouth.

DRAINAGE AREA.--588 mi^2.

PERIOD OF RECORD.--May 1939 to Sept. 1986, Apr. 2001 to current year.

REVISED RECORDS.--WSP 1512: 1941(M), 1951(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,646.50 ft above sea level. Prior to July 9, 1940, nonrecording gage at site 3,600 ft upstream at datum 8.24 ft higher. Satellite telemeter at station.

REMARKS.--Records poor. The city of Brady returns sewage effluent downstream from the gage. Since water year 1962 at least 10% of contributing drainage area has been regulated. Flow is also affected at times by discharge from the flood-detention pools of several flood-retarding structures above this station. No flow at times most years.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--23 years (water years 1940-62) prior to completion of Brady Creek Reservoir, 25.2 ft^3/s (18,260,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1939-62).--Maximum discharge, 39,100 ft^3/s Sept. 10, 1952 (gage height, 24.80 ft); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1882, 29.1 ft July 23, 1938, present site and datum (discharge at site 5.0 mi downstream, 86,000 ft^3/s), by slope-area measurement. Flood of Oct. 6, 1930 (second highest since 1882), reached a stage of 25.9 ft (discharge, 50,300 ft^3/s, present site and datum), from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.20	.45	.00	.00	2.7
2	---	---	---	---	---	---	---	.19	.48	.00	.00	1.2
3	---	---	---	---	---	---	---	.16	.45	.00	.00	1.0
4	---	---	---	---	---	---	---	4.6	.41	.00	.00	.84
5	---	---	---	---	---	---	---	16	.37	.00	.00	.75
6	---	---	---	---	---	---	---	10	.33	.00	.00	.70
7	---	---	---	---	---	---	---	2.4	.29	.00	.00	.44
8	---	---	---	---	---	---	---	1.4	.27	.00	.00	.28
9	---	---	---	---	---	---	---	1.3	.25	.00	.00	16
10	---	---	---	---	---	---	---	1.3	.20	.00	.00	1.4
11	---	---	---	---	---	---	---	1.3	.16	.00	.00	.96
12	---	---	---	---	---	---	---	1.3	.11	.00	.00	.39
13	---	---	---	---	---	---	---	1.3	.07	.00	.00	.11
14	---	---	---	---	---	---	---	1.3	.04	.00	.03	.03
15	---	---	---	---	---	---	---	1.2	.09	.00	.05	.00
16	---	---	---	---	---	---	---	1.2	.07	.00	.01	.00
17	---	---	---	---	---	---	---	1.0	.05	.00	.00	.00
18	---	---	---	---	---	---	---	.90	.03	.00	.00	.00
19	---	---	---	---	---	---	---	.80	.01	.00	.00	e.00
20	---	---	---	---	---	---	---	.73	.00	.00	.00	e.00
21	---	---	---	---	---	---	---	.61	.00	.00	.00	.80
22	---	---	---	---	---	---	---	.51	.00	.00	.00	24
23	---	---	---	---	---	---	---	.41	.00	.00	.00	4.5
24	---	---	---	---	---	---	---	.38	.00	.00	.00	1.4
25	---	---	---	---	---	---	---	.61	.00	.00	.00	1.3
26	---	---	---	---	---	---	.00	1.1	.00	.00	.00	.97
27	---	---	---	---	---	---	.03	1.0	.00	.00	.04	.68
28	---	---	---	---	---	---	.09	.80	.00	.00	1.4	.49
29	---	---	---	---	---	---	.15	.69	.00	.00	1.3	.31
30	---	---	---	---	---	---	.20	.58	.00	.00	.95	.19
31	---	---	---	---	---	---	---	.48	---	.00	12	---
TOTAL	---	---	---	---	---	---	---	55.75	4.13	0.00	15.78	61.44
MEAN	---	---	---	---	---	---	---	1.80	.14	.000	.51	2.05
MAX	---	---	---	---	---	---	---	16	.48	.00	12	24
MIN	---	---	---	---	---	---	---	.16	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	--	111	8.2	.00	31	122

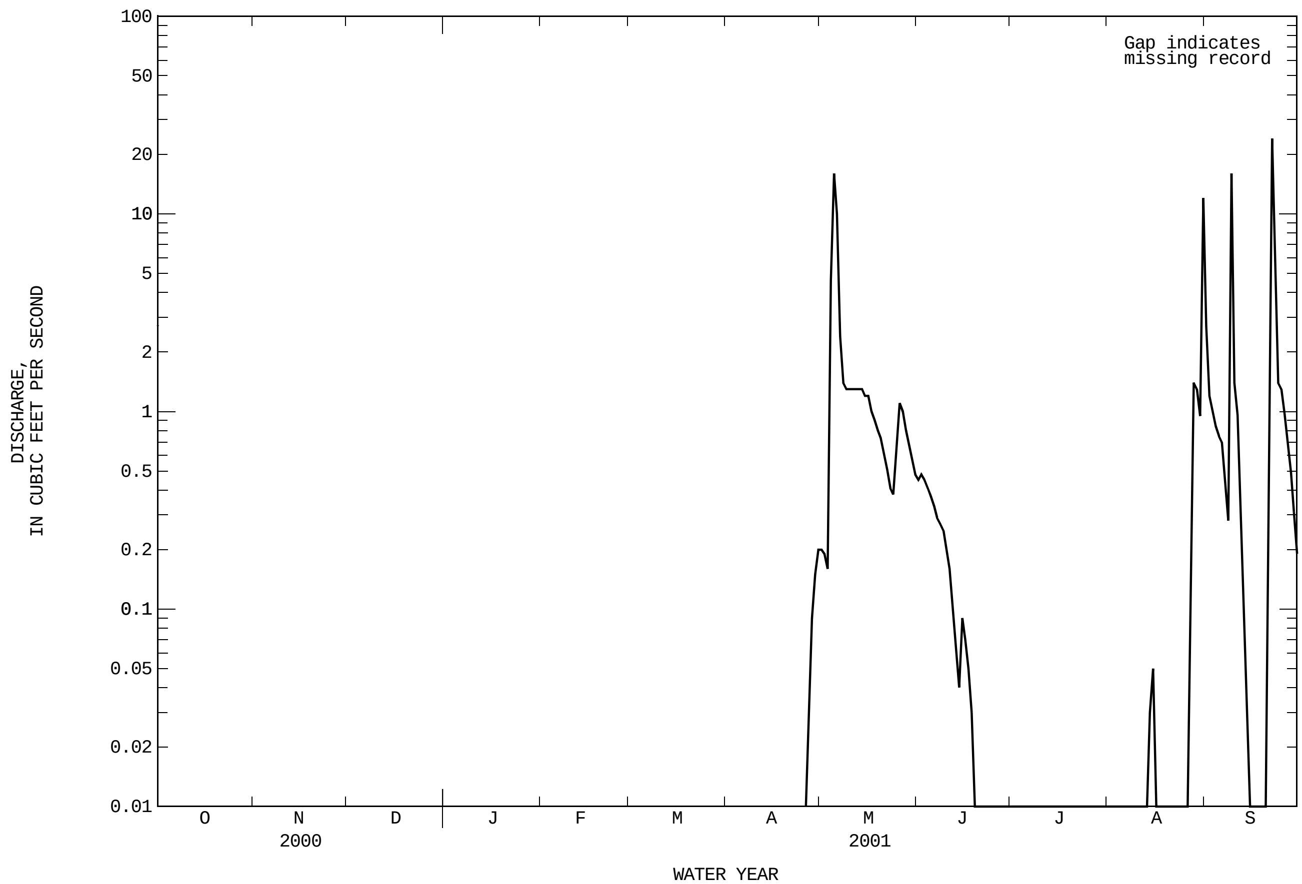
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2001hz, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.9	4.13	3.53	4.24	3.13	3.86	5.82	8.21	6.35	16.8	13.6	19.7
MAX	134	60.8	32.8	50.4	43.0	26.1	82.2	95.7	90.6	388	300	364
(WY)	1974	1975	1985	1968	1975	1977	1975	1975	1986	1971	1971	1971
MIN	.000	.000	.000	.000	.007	.000	.000	.035	.001	.000	.000	.000
(WY)	1969	1971	1971	1963	1963	1963	1984	1971	1984	1963	1963	1963

08145000 Brady Creek at Brady, TX--Continued

SUMMARY STATISTICS	FOR 2001 WATER YEAR		WATER YEARS 1963 - 2001hz	
ANNUAL MEAN			8.85	
HIGHEST ANNUAL MEAN			88.4	1971
LOWEST ANNUAL MEAN			.034	1963
HIGHEST DAILY MEAN	24	Sep 22	4580	Jul 26 1971
LOWEST DAILY MEAN	.00	Apr 26	.00	Oct 1 1962
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 20	.00	Oct 1 1962
MAXIMUM PEAK FLOW	198	Sep 22	24700	Jul 26 1971
MAXIMUM PEAK STAGE	7.59	Sep 22	19.80	Jul 26 1971
ANNUAL RUNOFF (AC-FT)			6410	
10 PERCENT EXCEEDS	1.3		5.4	
50 PERCENT EXCEEDS	.04		.09	
90 PERCENT EXCEEDS	.00		.00	

e Estimated
h See PERIOD OF RECORD paragraph.
z Period of regulated streamflow.



08146000 San Saba River at San Saba, TX

LOCATION.--Lat 31°12’47", long 98°43’09", San Saba County, Hydrologic Unit 12090109, on left bank near left downstream end of bridge on State Highway 16, 1.2 mi north of San Saba, 2.7 mi upstream from Mill Creek, 4.8 mi downstream from China Creek, and 16.8 mi upstream from mouth.

DRAINAGE AREA.--3,046 mi^2, of which 6.6 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Dec. 1904 to Dec. 1906 (gage heights only), Sept. 1915 to Sept. 1993, and Oct. 1997 to current year. Published as "near San Saba" Dec. 1904 to Dec. 1906 and Sept. 1915 to Aug. 1930.
Water-quality records.--Chemical data: Sept. 1947 to Feb. 1949, Nov. 1958 to Sept. 1969. Water temperature: Sept. 1962 to Sept. 1969.

REVISED RECORDS.--WSP 458: 1915-16. WSP 1282: WDR TX-81-3: Drainage area. WSP 1512: 1918-19(M), 1922, 1931(M), 1935. WSP 1922: 1917. WDR TX-00-4: 1992.

GAGE.--Water-stage recorder. Datum of gage is 1,162.16 ft above sea level. See WSP 1922 for brief history of changes prior to July 8, 1953. From Oct. 1956 to Sept. 1993, at site 250 ft to right and supplementary water-stage recorder 2,780 ft to right of main channel gage used for floodflows at same datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since water year 1963, at least 10% of contributing drainage area has been regulated. Many diversions above station for irrigation and municipal use affect low flows. No flow at times.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, and computes and publishes streamflow record.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--47 years (water years 1916-1962) prior to completion of Brady Creek Reservoir, 248 ft^3/s (179,900 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1916-1962).--Maximum discharge, 203,000 ft^3/s July 23, 1938 (gage height, 39.30 ft, from floodmarks, at site then in use, adjusted to present datum), from rating curve extended above 40,600 ft^3/s on basis of slope-area measurement of 203,000 ft^3/s; no flow at times in 1918, 1930, 1954-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 6, 1899, reached a stage of 36.7 ft, present site and datum, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	462	261	156	213	152	182	83	107	41	19	e40
2	18	258	250	151	204	148	179	83	122	46	23	e40
3	17	4520	240	144	185	158	177	79	128	54	20	e40
4	17	32700	252	134	169	173	173	80	109	46	22	e35
5	16	6150	266	133	161	168	166	275	106	45	23	e35
6	16	6960	280	131	156	156	157	914	123	37	21	e35
7	17	4280	247	129	163	153	149	640	109	33	19	e35
8	18	1560	240	123	167	171	141	330	101	34	16	e30
9	19	1290	225	124	165	180	132	243	97	32	16	e30
10	20	1000	217	135	160	e190	127	257	91	27	20	1510
11	20	811	216	141	153	188	131	297	89	22	22	1090
12	19	660	204	140	161	180	139	236	87	20	22	434
13	19	568	200	150	183	177	131	255	83	20	23	254
14	20	485	196	134	188	174	127	287	74	21	21	183
15	20	434	196	128	186	168	138	228	98	22	23	141
16	23	418	194	127	471	163	139	198	94	24	21	120
17	25	389	186	122	459	156	131	178	83	20	26	108
18	24	397	182	125	295	159	115	167	80	17	28	96
19	24	868	174	135	239	229	110	160	73	17	26	90
20	25	705	171	135	224	287	106	155	71	16	24	84
21	27	517	165	127	203	208	104	147	64	13	20	109
22	28	444	166	127	180	180	100	139	61	14	17	107
23	30	409	161	129	174	172	100	135	60	15	19	143
24	1700	429	159	122	189	172	102	127	59	11	19	143
25	713	429	163	119	177	171	149	122	57	9.8	20	100
26	289	353	185	112	161	194	129	125	54	11	20	100
27	164	342	191	118	161	175	105	120	58	15	22	95
28	115	299	191	137	157	188	95	118	51	17	25	e90
29	113	288	184	194	---	206	90	116	42	16	33	e85
30	1010	269	173	289	---	211	87	114	44	15	e40	e80
31	1240	---	165	269	---	194	---	111	---	18	e40	---
TOTAL	5824	68694	6300	4440	5704	5601	3911	6519	2475	748.8	710	5482
MEAN	188	2290	203	143	204	181	130	210	82.5	24.2	22.9	183
MAX	1700	32700	280	289	471	287	182	914	128	54	40	1510
MIN	16	258	159	112	153	148	87	79	42	9.8	16	30
AC-FT	11550	136300	12500	8810	11310	11110	7760	12930	4910	1490	1410	10870

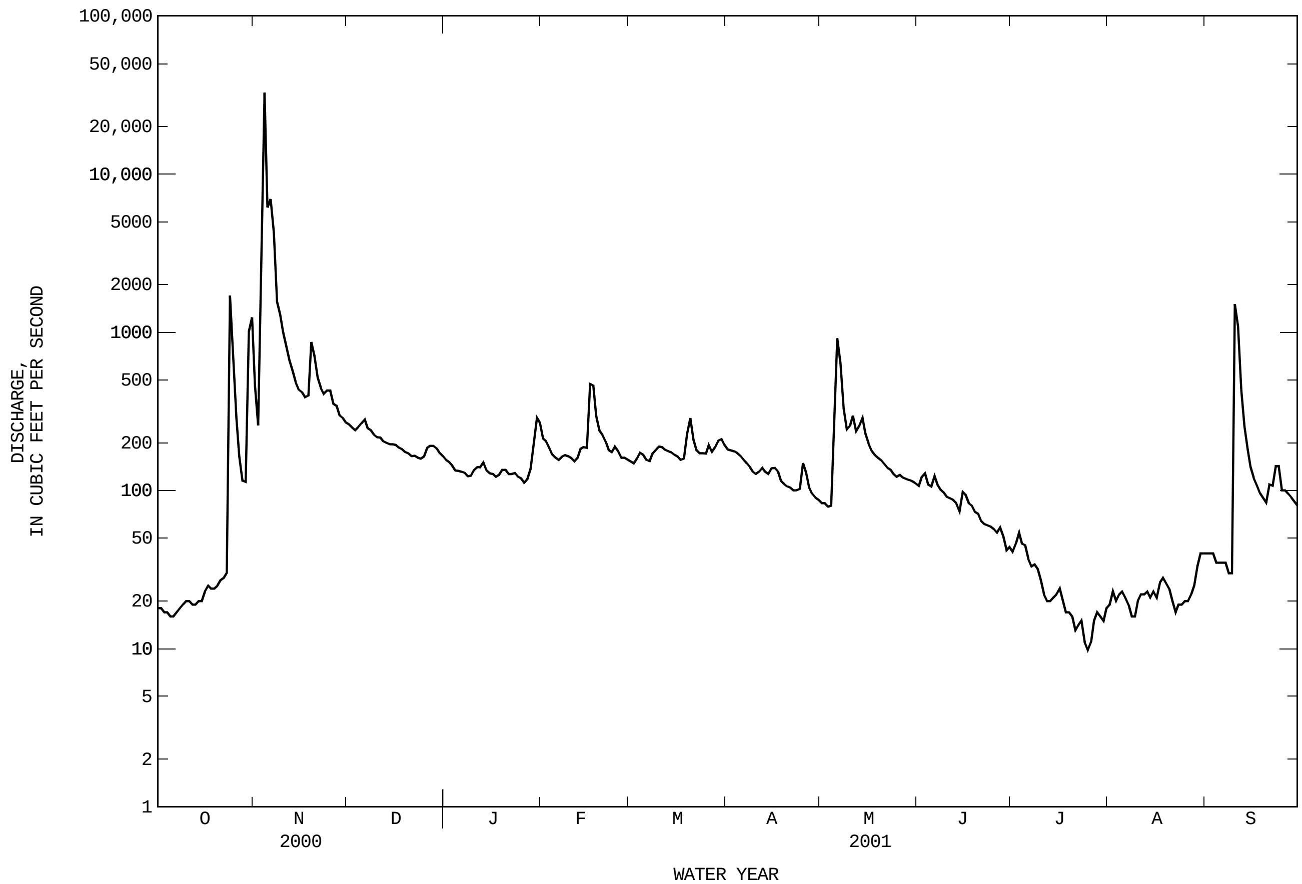
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2001hz, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	214	184	154	159	179	165	156	201	164	144	164	305
MAX	1716	2290	935	896	1542	635	777	1195	695	1201	1768	2144
(WY)	1974	2001	1992	1968	1992	1992	1977	1965	1992	1971	1971	1974
MIN	17.6	32.7	47.8	46.1	44.9	34.7	23.4	10.3	5.31	.32	9.43	11.1
(WY)	1964	2000	1964	1964	1984	1986	1986	1984	1984	1964	1980	1984

08146000 San Saba River at San Saba, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1963 - 2001hz	
ANNUAL TOTAL	93755.8		116408.8			
ANNUAL MEAN	256		319		182	
HIGHEST ANNUAL MEAN					493	1974
LOWEST ANNUAL MEAN					29.2	1984
HIGHEST DAILY MEAN	32700	Nov 4	32700	Nov 4	32700	Nov 4 2000
LOWEST DAILY MEAN	6.2	Aug 4	9.8	Jul 25	.00	Jul 17 1963
ANNUAL SEVEN-DAY MINIMUM	7.9	Jul 31	13	Jul 21	.00	Jul 25 1963
MAXIMUM PEAK FLOW			c46200	Nov 4	c46200	Nov 4 2000
MAXIMUM PEAK STAGE			29.72	Nov 4	29.94	Sep 18 1990
ANNUAL RUNOFF (AC-FT)	186000		230900		132100	
10 PERCENT EXCEEDS	303		346		272	
50 PERCENT EXCEEDS	37		131		89	
90 PERCENT EXCEEDS	13		20		26	

e Estimated
h See PERIOD OF RECORD paragraph.
z Period of regulated streamflow.
c From rating curve extended above 40,600 ft^3/s on basis of slope-area measurement of 203,000 ft^3/s.



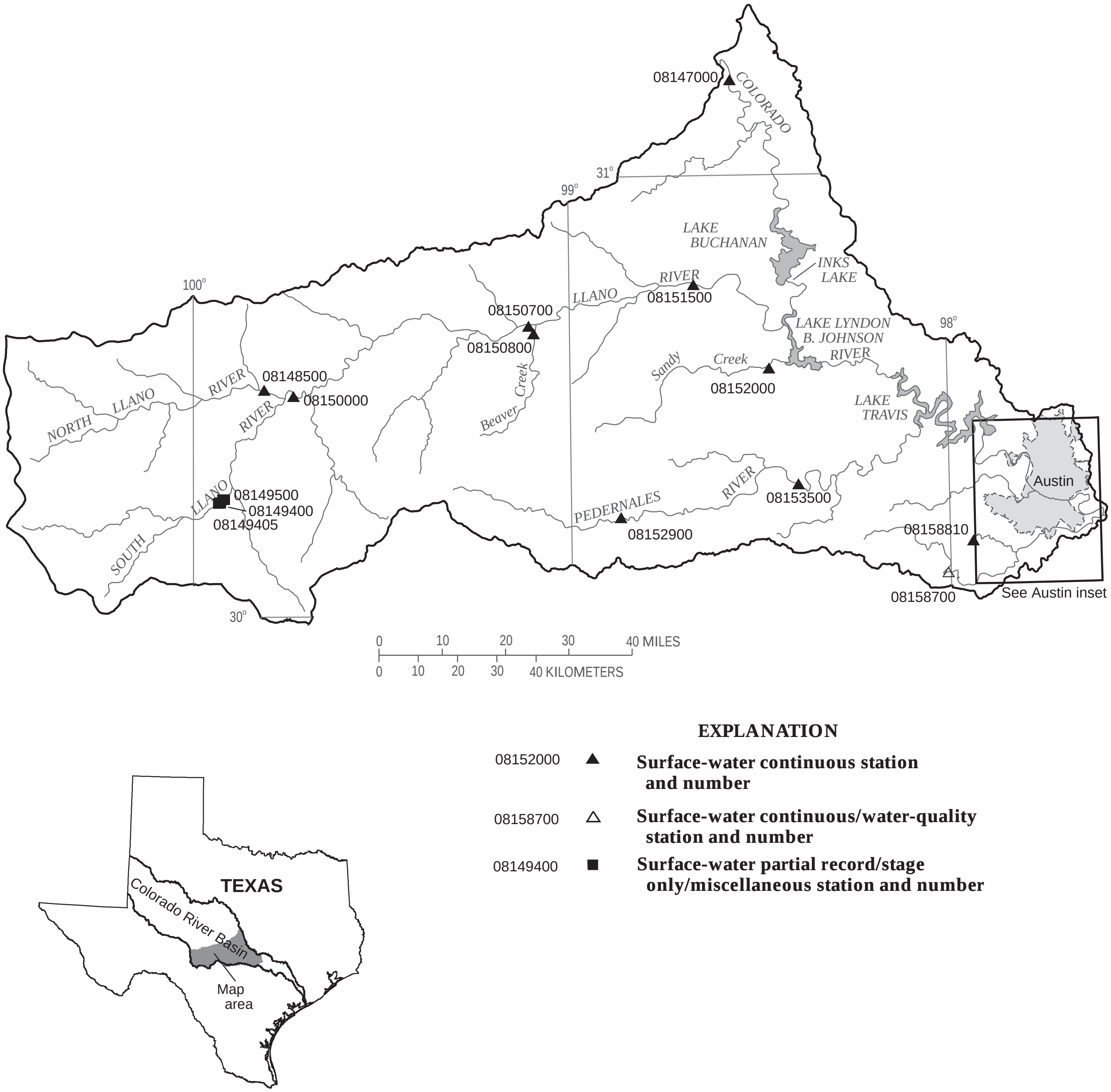
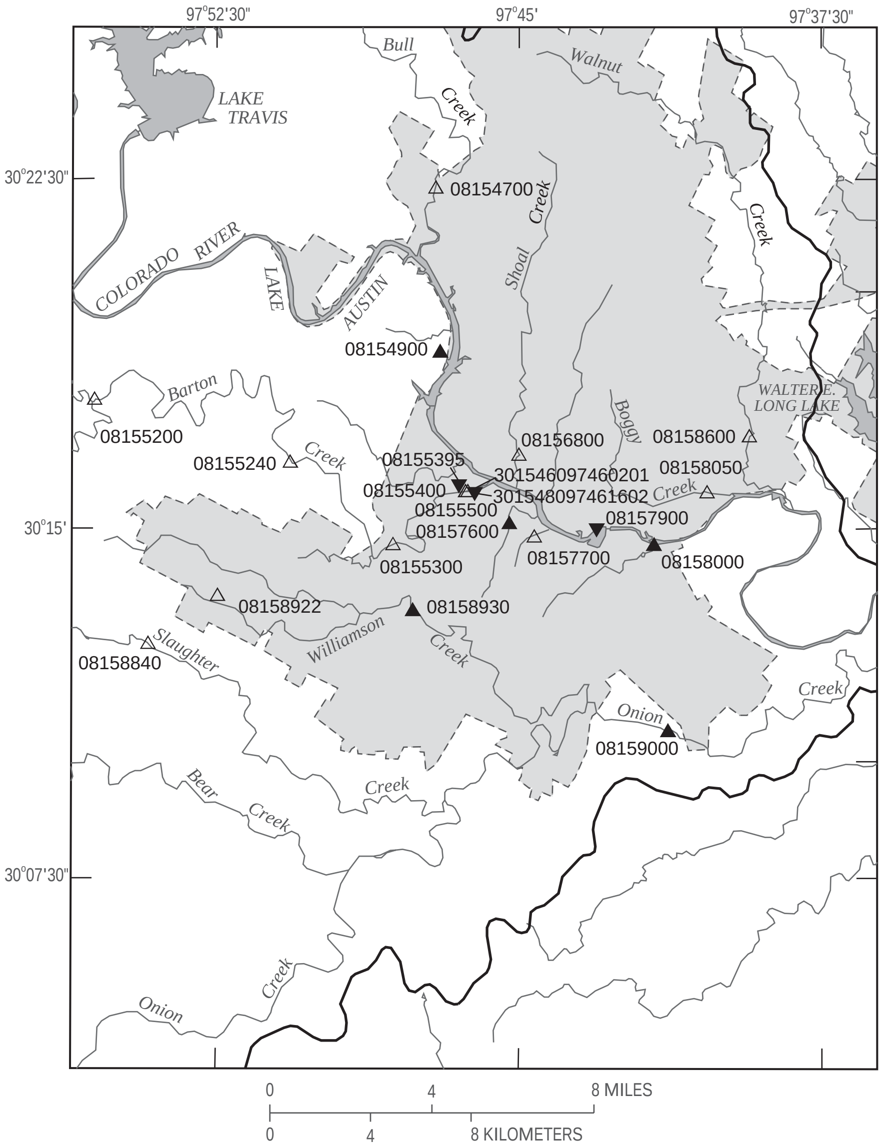


Figure 6.--Map showing location of gaging stations in the fourth section of the Colorado River Basin



EXPLANATION

08158000	▲	**Surface-water continuous station and number**
08155500	△	**Surface-water continuous/water-quality station and number**
08157900	▼	**Water-quality station and number**

Figure 7.--Map showing location of gaging stations in the Austin inset of the Colorado River Basin

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08147000 Colorado River near San Saba, TX

LOCATION.--Lat 31°13'04", long 98°33'51", San Saba-Lampasas County line, Hydrologic Unit 12090201, on left bank at downstream side of bridge on U.S. Highway 190, 5.2 mi downstream from San Saba River, 9.2 mi east of San Saba, and at mile 474.3.

DRAINAGE AREA.--31,217 mi^2, approximately, of which 11,398 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Oct. 1915 to Oct. 1922, published as "near Chadwick", Oct. 1923 to Aug. 1930, published as "near Tow", Sept. 1930 to current year. Monthly discharge only for some periods, published in WSP 1312.
Water-quality records.--Chemical data: Aug. 1941, Sept. 1947 to Sept. 1967, Jan. 1968 to Aug. 1993. Biochemical data: Jan. 1968 to Aug. 1993. Pesticide data: Jan. 1968 to Apr. 1982. Sediment data: May 1951 to Oct. 1962 and Oct. 1977 to Aug. 1993. Suspended sediment discharge: Dec. 1950 to Sept. 1962. Specific conductance: Sept. 1947 to Sept. 1992. Water temperature: Sept. 1947 to Sept. 1992.

REVISED RECORDS.--WSP 458: 1916. WSP 858: 1900(M), 1936(M). WDR TX-81-3: Drainage area. WSP 1512: 1916-18(M), 1936. WSP 1732: 1925-26(M).

GAGE.--Water-stage recorder. Datum of gage is 1,096.22 ft above sea level. See WSP 1922 for brief history of changes prior to May 23, 1940. From May 1940 to Nov. 1996, at site 150 ft right at same datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since water year 1931 at least 10% of contributing drainage area has been regulated. Flow is also affected at times by discharge from the flood-detention pools of 187 floodwater-retarding structures. These flood-detention structures control runoff from an 944 mi^2 area above this station. There are many diversions above station for irrigation, municipal use, and for oil field operations. No flow at times.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation of low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, and computes and publishes streamflow record.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--12 years (water years 1917-19, 1921-22, 1924-30) prior to completion of Lake Nasworthy, 1,440 ft^3/s (1,040,000 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1917-19, 1921-22, 1924-30).--Maximum discharge, 130,000 ft^3/s Apr. 26, 1922 (gage height about 54.0 ft, present site), from information by local residents; minimum observed discharge, 1.5 ft^3/s Aug. 22, 23, 1918.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage during period 1878 to July 22, 1938, 58.4 ft Sept. 25, 1900 (discharge, 184,000 ft^3/s, present site), from floodmarks at former site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	1650	373	214	510	1290	356	213	128	64	38	64
2	24	921	348	205	404	790	337	192	125	65	38	70
3	23	3310	323	202	346	697	322	170	188	67	43	141
4	22	43900	313	197	307	619	309	170	295	72	42	178
5	23	28100	319	194	287	560	305	315	225	66	39	125
6	23	11800	312	191	271	499	299	1290	176	63	44	293
7	21	14800	296	187	263	434	285	1900	161	60	31	216
8	23	4850	284	184	260	415	271	1170	137	54	27	169
9	25	3400	273	182	250	573	259	803	127	52	25	221
10	27	2620	264	185	223	870	250	681	126	51	23	563
11	29	1900	255	182	215	735	247	545	122	44	22	1850
12	31	1430	250	186	213	1220	636	450	119	39	26	704
13	30	1130	241	191	221	1400	527	370	115	37	31	370
14	29	921	235	190	273	827	377	369	107	38	33	251
15	31	772	232	192	294	628	311	310	142	40	32	195
16	37	681	230	192	1630	575	289	261	721	42	32	158
17	75	603	226	189	2030	485	273	227	384	47	33	134
18	253	598	218	192	1260	434	255	201	213	43	35	117
19	163	820	215	194	810	409	264	187	157	36	40	104
20	158	1060	210	195	613	497	248	178	127	35	41	96
21	185	747	204	193	514	451	233	170	110	36	39	119
22	248	604	202	191	455	395	231	158	104	34	34	111
23	230	536	200	189	415	362	216	149	99	32	30	116
24	3450	512	196	186	416	357	1160	146	93	34	27	216
25	3410	580	197	184	422	363	651	142	92	33	29	171
26	948	650	214	181	532	393	519	147	90	29	32	195
27	557	570	221	187	507	386	364	143	82	28	34	205
28	377	523	226	198	727	353	293	143	79	29	42	158
29	425	457	226	415	---	354	257	143	72	36	47	133
30	5830	412	222	816	---	376	236	139	65	36	53	118
31	4460	---	223	655	---	371	---	e135	---	37	61	---
TOTAL	21191	130857	7748	7239	14668	18118	10580	11617	4781	1379	1103	7561
MEAN	684	4362	250	234	524	584	353	375	159	44.5	35.6	252
MAX	5830	43900	373	816	2030	1400	1160	1900	721	72	61	1850
MIN	21	412	196	181	213	353	216	135	65	28	22	64
AC-FT	42030	259600	15370	14360	29090	35940	20990	23040	9480	2740	2190	15000

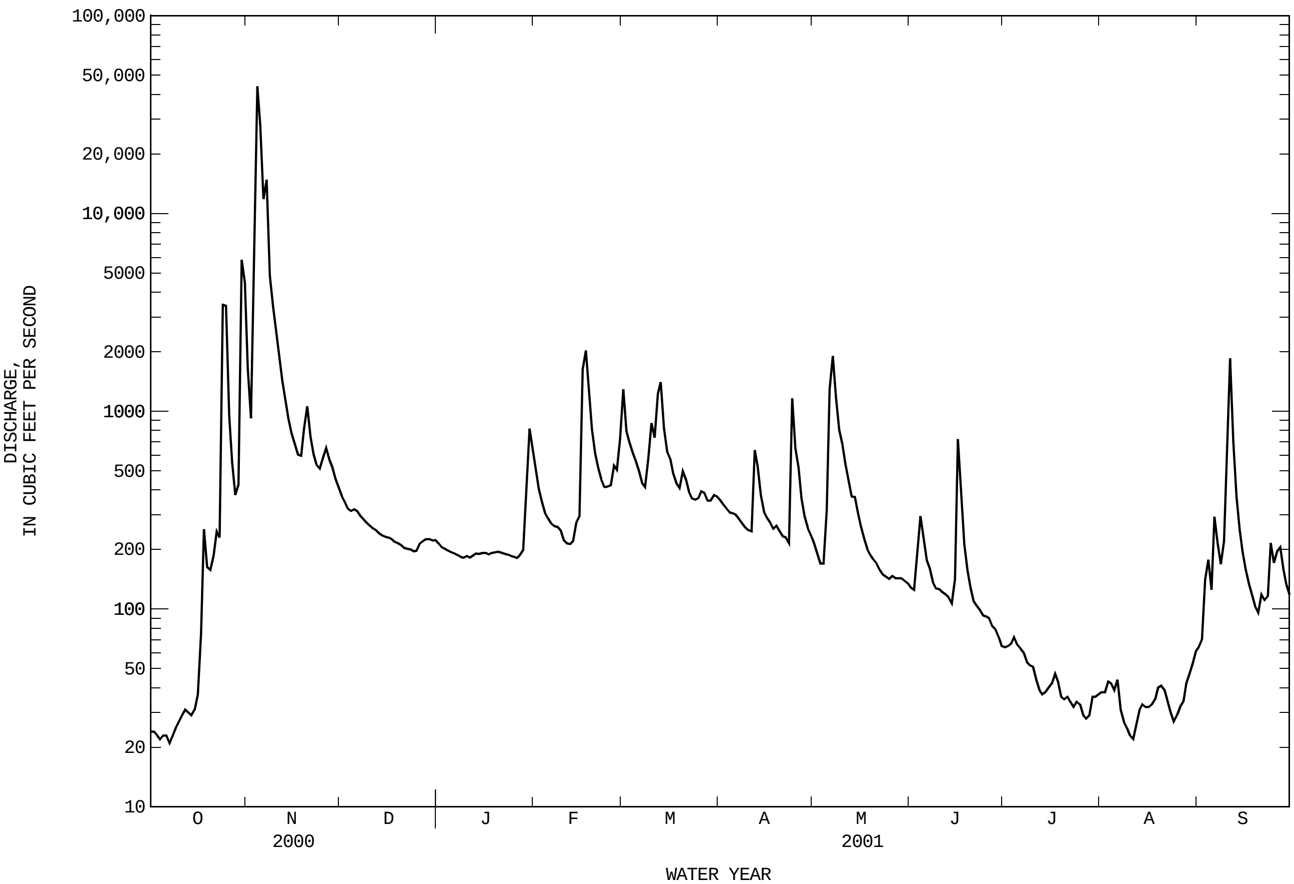
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001z, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1338	462	465	508	650	615	978	2335	1699	1242	470	1500
MAX	15300	4362	9242	5105	10760	5002	6907	23620	10940	32210	3915	29380
(WY)	1931	2001	1992	1968	1992	1992	1957	1957	1935	1938	1971	1936
MIN	29.5	39.3	31.8	41.5	40.5	24.4	33.6	11.2	4.16	2.06	2.68	11.9
(WY)	1952	1952	1955	1955	1952	1952	1986	1984	1984	1964	1952	1954

08147000 Colorado River near San Saba, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1931 - 2001z	
ANNUAL TOTAL	206090.0		236842			
ANNUAL MEAN	563		649		1023	
HIGHEST ANNUAL MEAN					3880	1938
LOWEST ANNUAL MEAN					84.1	1984
HIGHEST DAILY MEAN	43900	Nov 4	43900	Nov 4	191000	Jul 23 1938
LOWEST DAILY MEAN	3.4	Aug 1	21	Oct 7	.00	Aug 27 1954
ANNUAL SEVEN-DAY MINIMUM	5.4	Jul 31	23	Oct 2	.00	Aug 3 1963
MAXIMUM PEAK FLOW			58300	Nov 4	c224000	Jul 23 1938
MAXIMUM PEAK STAGE			a35.06	Nov 4	aa62.24	Jul 23 1938
ANNUAL RUNOFF (AC-FT)	408800		469800		741200	
10 PERCENT EXCEEDS	681		806		1590	
50 PERCENT EXCEEDS	72		214		221	
90 PERCENT EXCEEDS	8.0		34		52	

e Estimated
z Period of regulated streamflow.
c From rating curve extended above 215,000 ft^3/s.
a From floodmark.
aa From floodmarks at site then in use adjusted to present datum.



08148500 North Llano River near Junction, TX

LOCATION.--Lat 30°31'02", long 99°48'21", Kimble County, Hydrologic Unit 12090202, on left bank 50 ft south of Ranch Road 1674, 600 ft west of county road KC 171, 1.7 mi northwest of Junction, and 3.7 mi upstream from confluence with South Llano River.

DRAINAGE AREA.--914 mi^2.

PERIOD OF RECORD.--Sept. 1915 to Sept. 1977, June 2001 to current year.

REVISED RECORDS.--WSP 568: 1920, 1922. WSP 1512: 1915, 1918-19, 1923(M), 1924-26, 1928, 1930(M), 1931-33, 1934(M), 1935. WDR TX-76-3: 1942(M), 1948(M), 1957(M), 1958(P), 1959(M), 1961(M), 1964(M), 1970-71(M), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 1,709.92 ft above sea level. Prior to Aug. 1925, nonrecording gage at site 1,450 ft upstream at datum 10 ft lower. Aug. 1925 to Sept. 1936, water-stage recorder 1,450 ft upstream at datum 10 ft lower. Sept. 1936 to June 1940, nonrecording gages at various sites at datum 10 ft lower. June 1940 to Sept. 1977, water-stage recorder at site 2,000 ft upstream at datum 10 ft lower. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. Low flow affected by diversions from irrigation. No flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, that of Sept. 16, 1936; maximum stage during period 1875 to Sept. 15, 1936, 27 ft in 1889, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	11	3.6	1.5
2	---	---	---	---	---	---	---	---	---	13	3.3	.53
3	---	---	---	---	---	---	---	---	---	11	3.3	1.3
4	---	---	---	---	---	---	---	---	---	11	3.0	4.3
5	---	---	---	---	---	---	---	---	---	9.5	2.5	7.5
6	---	---	---	---	---	---	---	---	---	9.1	2.5	34
7	---	---	---	---	---	---	---	---	---	8.9	2.6	35
8	---	---	---	---	---	---	---	---	---	8.6	1.7	24
9	---	---	---	---	---	---	---	---	---	8.6	1.3	174
10	---	---	---	---	---	---	---	---	---	8.8	.66	146
11	---	---	---	---	---	---	---	---	---	8.8	.73	58
12	---	---	---	---	---	---	---	---	---	8.4	.05	40
13	---	---	---	---	---	---	---	---	15	7.7	.00	33
14	---	---	---	---	---	---	---	---	15	7.3	.00	31
15	---	---	---	---	---	---	---	---	15	7.7	.00	31
16	---	---	---	---	---	---	---	---	15	7.2	.00	29
17	---	---	---	---	---	---	---	---	14	7.3	.09	28
18	---	---	---	---	---	---	---	---	14	7.4	.01	27
19	---	---	---	---	---	---	---	---	13	6.7	.00	27
20	---	---	---	---	---	---	---	---	13	6.1	.00	26
21	---	---	---	---	---	---	---	---	11	5.5	.00	28
22	---	---	---	---	---	---	---	---	11	4.7	.00	34
23	---	---	---	---	---	---	---	---	12	5.2	.00	31
24	---	---	---	---	---	---	---	---	15	5.6	.00	29
25	---	---	---	---	---	---	---	---	16	5.2	.00	28
26	---	---	---	---	---	---	---	---	13	4.6	.00	25
27	---	---	---	---	---	---	---	---	11	4.0	.53	24
28	---	---	---	---	---	---	---	---	11	3.9	.42	23
29	---	---	---	---	---	---	---	---	10	3.6	.02	21
30	---	---	---	---	---	---	---	---	10	2.6	.90	22
31	---	---	---	---	---	---	---	---	---	3.6	1.5	---
TOTAL	---	---	---	---	---	---	---	---	---	222.6	28.71	1023.13
MEAN	---	---	---	---	---	---	---	---	---	7.18	.93	34.1
MAX	---	---	---	---	---	---	---	---	--	13	3.6	174
MIN	---	---	---	---	---	---	---	---	--	2.6	.00	.53
AC-FT	---	---	---	---	---	---	---	---	---	442	57	2030

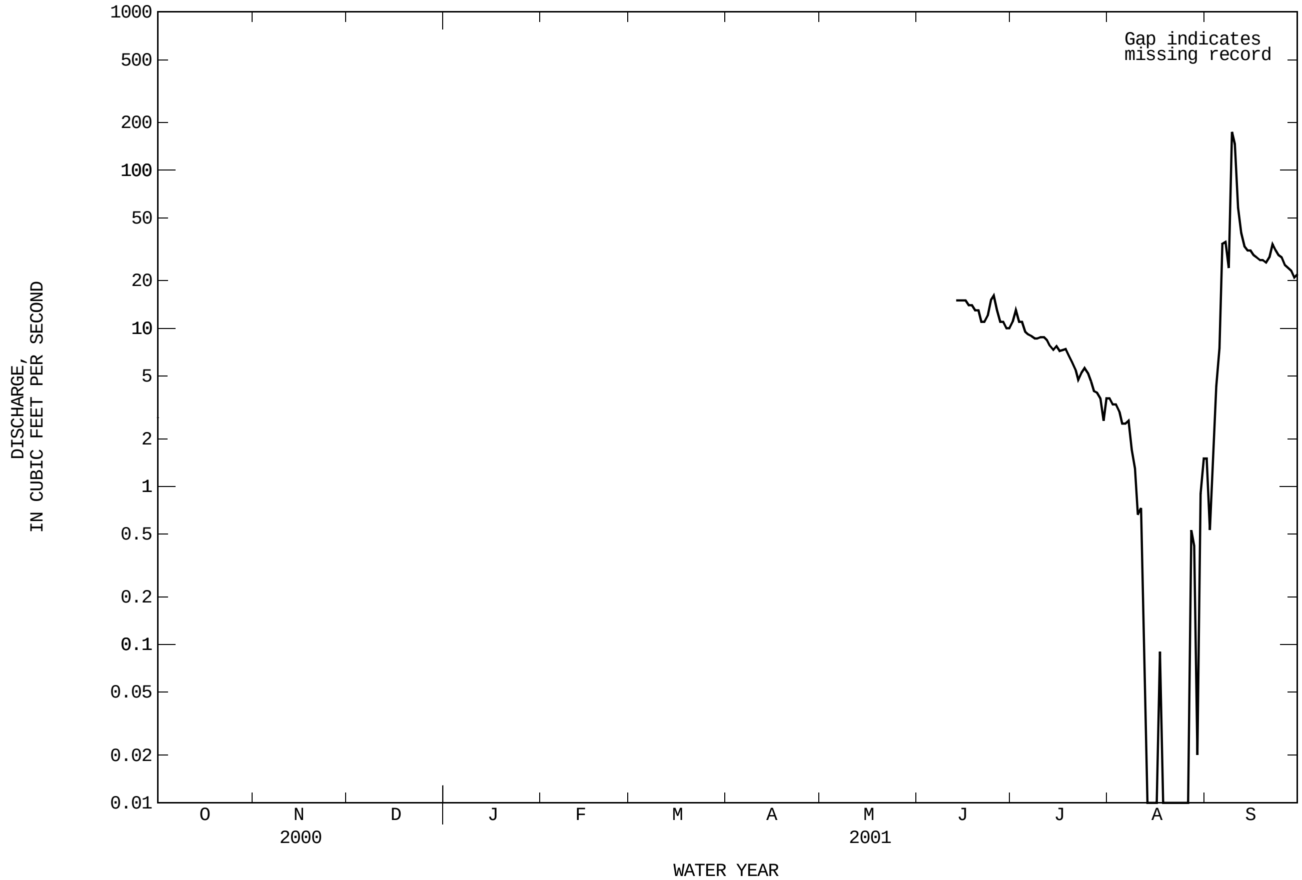
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	85.2	43.4	30.9	29.6	34.7	30.3	62.4	112	112	82.2	61.0	161
MAX	944	662	203	124	450	134	886	1524	1938	2924	1456	2730
(WY)	1931	1924	1924	1924	1958	1941	1918	1925	1935	1938	1974	1932
MIN	.000	.000	.000	.000	.000	.18	.35	4.67	.46	.000	.000	.000
(WY)	1935	1918	1955	1955	1955	1957	1955	1927	1953	1953	1917	1934

SUMMARY STATISTICS	FOR 2001 WATER YEAR		WATER YEARS 1916 - 2001h	
ANNUAL MEAN			70.8	
HIGHEST ANNUAL MEAN			298	1938
LOWEST ANNUAL MEAN			.80	1954
HIGHEST DAILY MEAN	174	Sep 9	42400	May 29 1925
LOWEST DAILY MEAN	.00	Aug 13	.00	Jul 16 1917
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 19	.00	Jul 16 1917
MAXIMUM PEAK FLOW	cc784	Sep 9	c94800	Sep 16 1936
MAXIMUM PEAK STAGE	9.77	Sep 9	g29.20	Sep 16 1936
ANNUAL RUNOFF (AC-FT)			51290	
10 PERCENT EXCEEDS	31		72	
50 PERCENT EXCEEDS	8.0		20	
90 PERCENT EXCEEDS	.00		.80	

h See PERIOD OF RECORD paragraph.
cc From rating curve extended above 146 ft^3/s on basis of slope-area measurements of 94,800 ft^3/s.
c From rating curve extended above 68,000 ft^3/s on basis of slope-area measurement of 94,800 ft^3/s.
g At former site and datum based on gage-height relation curve.

08148500 North Llano River near Junction, TX--Continued



08150000 Llano River near Junction, TX

LOCATION.--Lat 30°30’15", long 99°44’03", Kimble County, Hydrologic Unit 12090204, on right bank 960 ft upstream from abandoned low-water crossing, 1.0 mi east of Junction, 2.6 mi downstream from bridge on Interstate Highway 10, 2.8 mi downstream from confluence of North and South Llano Rivers, 5.3 mi upstream from Johnson Fork, and 114.8 mi upstream from mouth.

DRAINAGE AREA.--1,854 mi^2, of which 5.1 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Sept. 1915 to May 1993, Oct. 1997 to current year.

REVISED RECORDS.--WSP 568: 1915-16, 1918-20, 1922. WDR TX-81-3: Drainage area. WSP 1922: 1920, 1923.

GAGE.--Water-stage recorder. Datum of gage is 1,634.32 ft above sea level. Prior to Aug. 14, 1925, nonrecording gage, and Aug. 14, 1925, to May 17, 1940, and Aug. 18, 1944, to Oct. 12, 1981, water-stage recorder at site 5,330 ft downstream at datum 6.0 ft lower, designated as regular gage (destroyed by flood of Oct. 13, 1981). Prior to June 13, 1990, at datum 2.0 ft higher. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation. There are diversions above station for irrigation.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, and computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, that of June 14, 1935. A major flood in 1889 was the highest known prior to June 14, 1935.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	394	388	257	189	202	212	153	167	104	95	117
2	93	400	378	255	188	200	210	149	118	129	95	113
3	90	57500	379	252	183	207	210	146	100	112	98	116
4	89	29200	373	250	181	209	206	202	94	108	104	129
5	89	3510	361	248	177	200	204	269	90	106	103	228
6	88	5400	350	246	179	199	202	198	85	106	100	183
7	105	2060	343	244	179	200	200	175	91	103	101	125
8	111	1160	336	240	167	210	199	172	95	100	99	118
9	121	891	331	238	162	208	197	226	98	101	103	170
10	113	765	326	255	165	205	192	175	108	100	97	294
11	107	690	321	253	167	205	203	167	116	101	100	177
12	104	634	315	241	169	209	185	172	121	101	102	152
13	101	593	313	236	172	202	183	173	120	99	107	141
14	99	557	308	231	170	203	185	170	117	98	108	135
15	98	536	301	226	170	203	187	167	123	102	108	133
16	98	558	299	224	238	196	177	166	113	102	111	131
17	108	516	295	223	205	192	176	158	123	98	112	128
18	221	556	290	220	193	217	171	154	125	95	106	126
19	190	585	287	217	187	205	172	147	131	94	96	126
20	157	554	285	214	182	198	173	146	111	97	103	124
21	154	533	280	210	180	203	171	148	105	98	103	142
22	251	518	278	209	183	237	172	151	108	101	102	141
23	10200	510	276	198	205	232	202	153	109	99	109	148
24	25500	505	274	198	199	226	191	160	114	99	106	134
25	2600	473	277	199	187	218	174	166	124	97	97	130
26	952	448	298	198	188	215	170	167	115	96	105	129
27	698	430	286	198	193	247	166	169	108	95	116	128
28	587	414	274	195	210	237	163	163	105	97	119	126
29	1700	402	267	212	---	229	155	159	104	98	111	124
30	833	397	262	201	---	216	153	154	104	98	118	124
31	568	---	259	194	---	211	---	172	---	97	117	---
TOTAL	46320	111689	9610	6982	5168	6541	5561	5247	3342	3131	3251	4292
MEAN	1494	3723	310	225	185	211	185	169	111	101	105	143
MAX	25500	57500	388	257	238	247	212	269	167	129	119	294
MIN	88	394	259	194	162	192	153	146	85	94	95	113
AC-FT	91880	221500	19060	13850	10250	12970	11030	10410	6630	6210	6450	8510
CFSM	.81	2.01	.17	.12	.10	.11	.10	.09	.06	.05	.06	.08
IN.	.93	2.25	.19	.14	.10	.13	.11	.11	.07	.06	.07	.09

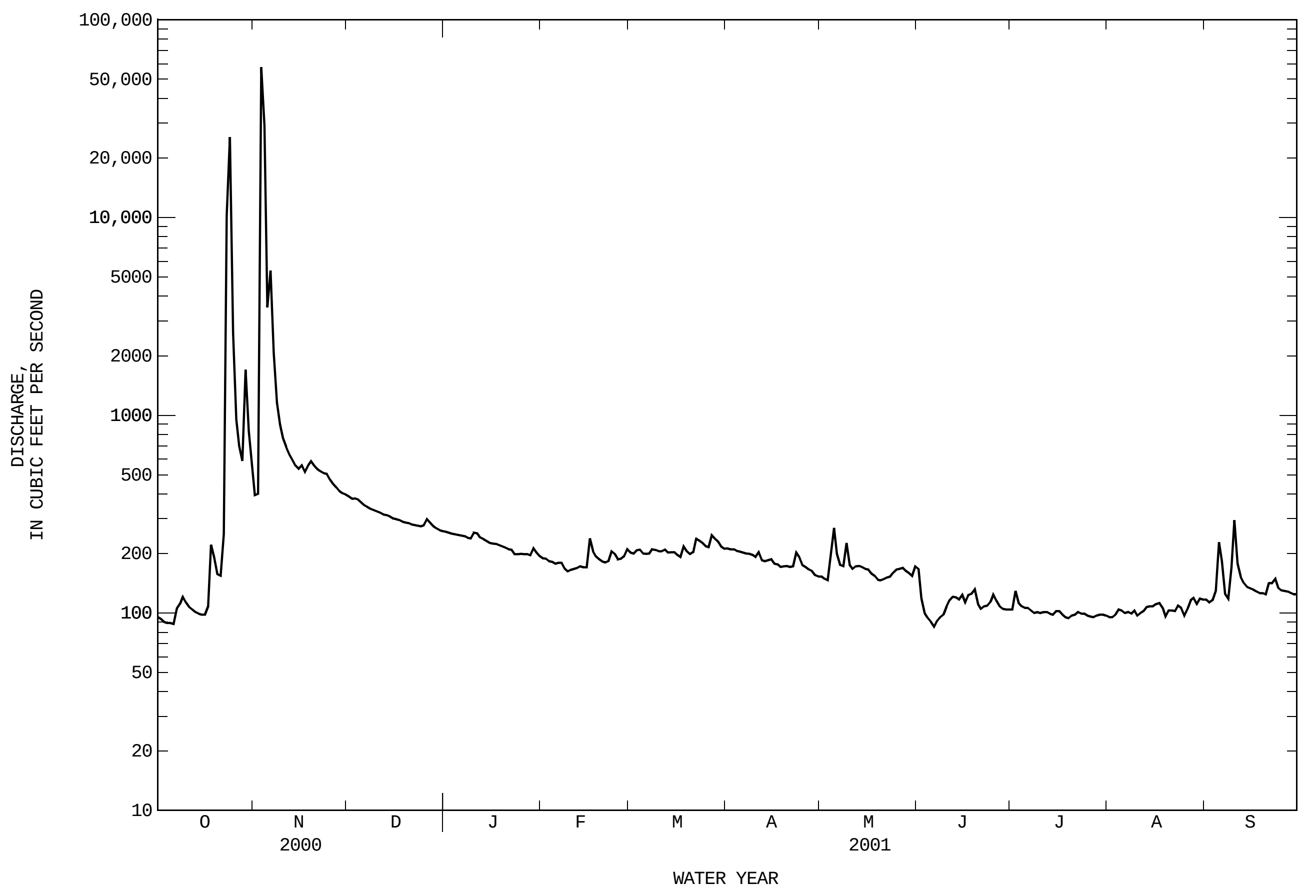
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	274	185	142	125	132	118	171	239	288	203	183	332
MAX	2708	3723	1229	641	816	428	1222	2395	5797	4236	2299	4298
(WY)	1924	2001	1985	1968	1958	1992	1977	1925	1935	1938	1974	1932
MIN	15.8	21.5	25.3	26.2	27.9	27.0	21.3	30.3	12.4	10.5	11.4	13.1
(WY)	1957	1957	1957	1957	1954	1954	1955	1954	1953	1956	1956	1956

08150000 Llano River near Junction, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1916 - 2001h	
ANNUAL TOTAL	192960		211134			
ANNUAL MEAN	527		578		199	
HIGHEST ANNUAL MEAN					708	1935
LOWEST ANNUAL MEAN					29.8	1953
HIGHEST DAILY MEAN	57500	Nov 3	57500	Nov 3	124000	Jun 14 1935
LOWEST DAILY MEAN	69	Sep 7	85	Jun 6	3.7	Aug 17 1956
ANNUAL SEVEN-DAY MINIMUM	70	Sep 3	93	Oct 1	4.2	Aug 11 1956
MAXIMUM PEAK FLOW			cc158000	Nov 3	c319000	Jun 14 1935
MAXIMUM PEAK STAGE			a35.08	Nov 3	a43.30	Jun 14 1935
ANNUAL RUNOFF (AC-FT)	382700		418800		144500	
ANNUAL RUNOFF (CFSM)	.29		.31		.11	
ANNUAL RUNOFF (INCHES)	3.88		4.25		1.47	
10 PERCENT EXCEEDS	401		401		221	
50 PERCENT EXCEEDS	97		175		99	
90 PERCENT EXCEEDS	74		99		43	

h See PERIOD OF RECORD paragraph.
cc From rating curve extended above 144,000 ft^3/s on basis of slope-area measurements of 154,000 and 319,000 ft^3/s.
c From rating curve extended above 54,000 ft^3/s on basis of slope-area measurements of 154,000 and 319,000 ft^3/s.
a From floodmark.



08150700 Llano River near Mason, TX

LOCATION.--Lat 30°39'38", long 99°06'32", Mason County, Hydrologic Unit 12090204, on right bank 98 ft downstream from downstream bridge on U.S. Highway 87, 1.0 mi upstream from Beaver Creek, 9.1 mi southeast of Mason, 10.2 mi downstream from James River, and 61.1 mi upstream from mouth.

DRAINAGE AREA.--3,247 mi^2, of which 5.1 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Mar. 1968 to May 1993, Oct. 1997 to current year.

REVISED RECORDS.--WDR TX-75-3: 1968(P). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,230.36 ft above sea level. Prior to Jan. 19, 1971, at site 190 ft upstream at same datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. No known regulation or diversion.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage-discharge relation at medium to high stages and computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, about 46 ft June 14, 1935 (discharge, about 380,000 ft^3/s), from information by Texas Department of Transportation; at site 17.0 mi downstream discharge was 388,000 ft^3/s by slope-area measurement. Discharges for other floods are 258,000 ft^3/s, 1952; 218,000 ft^3/s, 1889.

REVISIONS.--The maximum discharge for calendar and water year 1980 has been revised to 215,000 ft^3/s, Sept. 8, 1980, gage height, 37.00 ft, from floodmark; daily mean discharge for Sept. 8, 1980 has been revised to 64,800 ft^3/s. These figures supersede those published in the report for 1980.

	TOTAL	MEAN	MAX	MIN	ANNUAL RUNOFF (AC-FT)
SEPT. 1980	98,395	3,280	64,800	26	195,200
CAL YR 1980	143,539	392	64,800	26	284,700
WTR YR 1980	131,879	360	64,800	26	261,600

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	1210	672	412	362	363	405	269	254	141	111	142
2	105	1380	641	408	349	366	395	267	276	156	110	136
3	103	35600	632	401	343	392	391	260	239	293	109	132
4	101	80800	637	394	337	421	386	278	212	165	108	172
5	99	8180	607	391	331	383	375	664	197	154	109	146
6	97	9430	584	389	330	356	367	450	190	147	108	183
7	96	4330	560	384	326	340	362	370	189	143	111	234
8	125	2680	548	374	328	354	356	730	182	139	112	173
9	159	2200	537	370	321	423	347	552	178	135	113	172
10	132	1910	528	388	297	387	338	388	175	133	112	196
11	130	1670	523	413	298	359	341	346	174	131	108	228
12	125	1440	500	399	308	350	334	381	170	131	108	237
13	120	1290	497	389	326	334	330	449	166	131	107	171
14	116	1170	496	377	332	334	330	347	162	e130	119	158
15	120	1050	493	369	332	334	325	315	162	e130	135	151
16	159	1170	485	364	1430	316	311	295	161	e125	116	147
17	148	1160	471	371	656	309	305	286	160	123	114	144
18	137	1740	463	378	482	432	296	278	158	121	114	142
19	134	1980	453	380	429	549	292	273	157	119	116	139
20	174	1400	447	365	408	419	295	284	153	116	111	139
21	165	1220	440	355	394	379	297	312	150	115	118	467
22	161	1120	434	349	379	356	294	272	151	111	111	300
23	2950	1110	432	345	377	343	667	258	152	114	110	190
24	32700	1050	432	342	383	337	485	257	149	117	110	162
25	6600	1000	439	332	384	325	357	256	145	115	106	e150
26	2500	890	480	331	357	325	313	280	143	111	104	145
27	1720	822	479	342	353	429	297	255	143	111	127	142
28	1370	770	454	354	349	614	287	240	139	111	187	140
29	2240	726	434	452	---	484	277	229	135	111	177	140
30	2350	703	423	430	---	439	272	225	135	111	150	139
31	1520	---	416	385	---	431	---	232	---	111	145	---
TOTAL	56767	171201	15637	11733	11301	11983	10427	10298	5157	4101	3696	5317
MEAN	1831	5707	504	378	404	387	348	332	172	132	119	177
MAX	32700	80800	672	452	1430	614	667	730	276	293	187	467
MIN	96	703	416	331	297	309	272	225	135	111	104	132
AC-FT	112600	339600	31020	23270	22420	23770	20680	20430	10230	8130	7330	10550

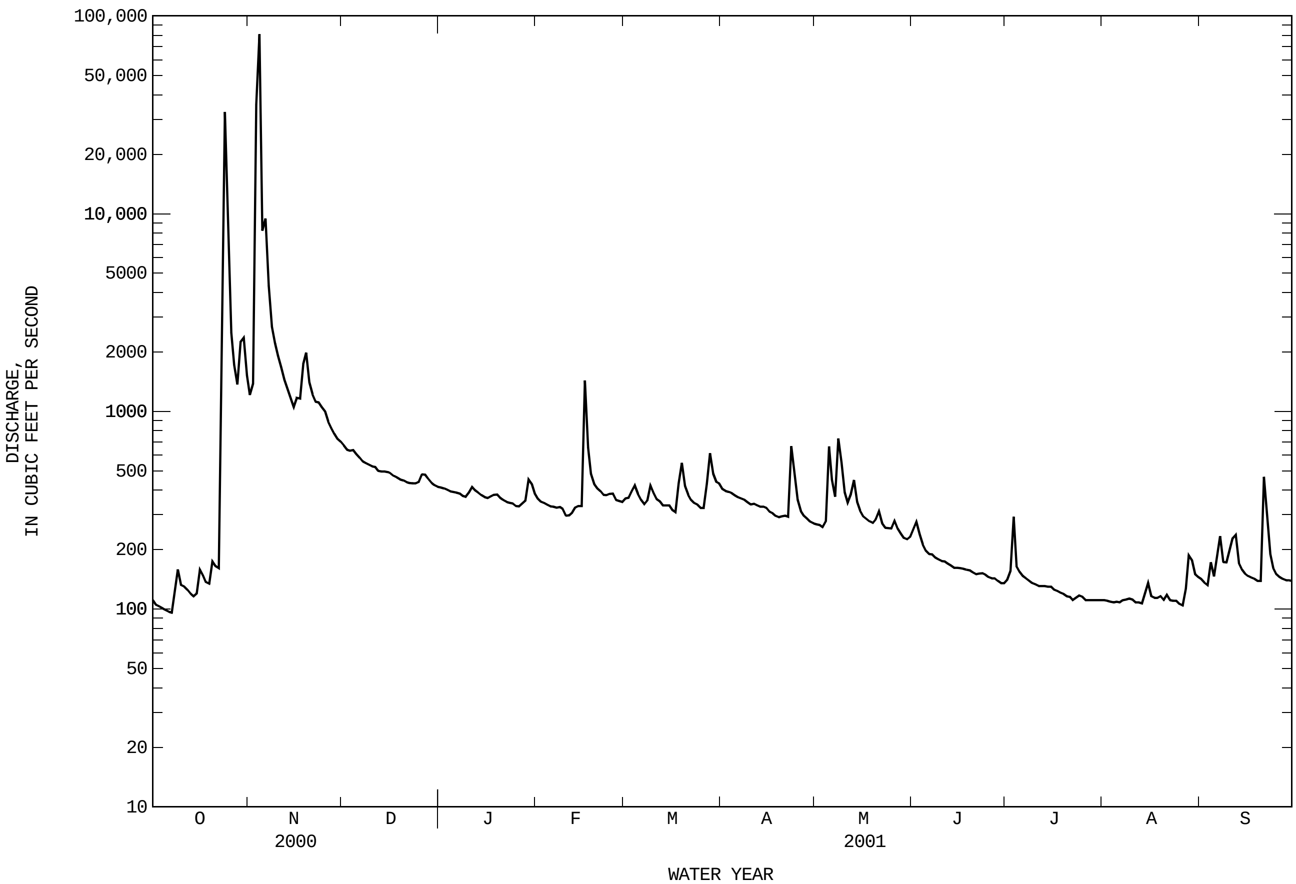
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	549	422	303	241	262	238	291	361	339	233	392	390
MAX	3222	5707	1929	1053	1530	875	2097	1559	1791	1439	3331	3280
(WY)	1974	2001	1985	1985	1992	1992	1977	1990	1987	1988	1974	1980
MIN	72.9	105	108	118	98.5	89.0	71.5	66.0	49.1	38.4	31.2	38.1
(WY)	1984	1969	1984	1984	1984	1984	1984	1984	1984	1980	1980	1984

08150700 Llano River near Mason, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1968 - 2001h	
ANNUAL TOTAL	274316		317618			
ANNUAL MEAN	749		870		337	
HIGHEST ANNUAL MEAN					870	2001
LOWEST ANNUAL MEAN					77.7	1984
HIGHEST DAILY MEAN	80800	Nov 4	80800	Nov 4	80800	Nov 4 2000
LOWEST DAILY MEAN	59	Aug 22	96	Oct 7	10	Jul 17 1984
ANNUAL SEVEN-DAY MINIMUM	61	Aug 17	102	Oct 1	18	Jul 12 1984
MAXIMUM PEAK FLOW			c170000	Nov 4	c215000	Sep 8 1980
MAXIMUM PEAK STAGE			a32.00	Nov 4	a37.00	Sep 8 1980
ANNUAL RUNOFF (AC-FT)	544100		630000		244400	
10 PERCENT EXCEEDS	842		849		425	
50 PERCENT EXCEEDS	119		325		176	
90 PERCENT EXCEEDS	67		115		90	

e Estimated
h See PERIOD OF RECORD paragraph.
c From rating curve extended above 145,000 ft^3/s.
a From floodmark.



08150800 Beaver Creek near Mason, TX

LOCATION.--Lat 30°38'36", long 99°05'44", Mason County, Hydrologic Unit 12090204, on left bank at downstream side of downstream bridge on U.S. Highway 87, 1.8 mi upstream from Llano River, 6.4 mi downstream from Spring Creek, and 11.1 mi southeast of Mason.

DRAINAGE AREA.--215 mi^2.

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

REVISED RECORDS.--WSP 2122: 1964-65. WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,253.24 ft above sea level. Prior to Aug. 3, 1978, at site 300 ft upstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good except those for Nov. 3-6, which are fair. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	13	27	22	38	34	46	16	17	1.7	.07	19
2	.75	15	25	21	36	35	44	16	19	3.5	.07	12
3	.64	1760	27	20	34	44	42	15	10	3.7	.07	7.5
4	.51	764	31	20	33	46	41	18	8.1	2.9	.07	7.5
5	.43	1130	26	19	31	37	38	71	6.8	2.6	.06	5.8
6	.38	1130	25	18	30	34	36	29	6.8	2.0	.06	9.1
7	.45	115	22	18	30	33	36	22	6.8	1.5	.06	8.0
8	.69	292	21	16	29	46	36	22	6.6	1.1	.06	4.3
9	2.6	92	20	16	27	55	33	19	6.7	.80	.05	6.7
10	4.7	63	20	22	25	41	32	17	6.6	.63	.04	7.3
11	3.6	52	19	30	27	39	32	15	5.8	.47	.04	4.9
12	2.8	51	17	22	27	39	30	16	5.1	.39	.04	3.8
13	2.3	45	18	21	33	35	31	17	4.3	.33	.04	3.4
14	2.1	39	19	21	34	35	31	15	3.7	.26	.14	2.9
15	2.9	37	18	19	30	34	28	13	3.8	.22	.64	2.6
16	9.3	49	18	19	198	32	27	12	4.0	.20	1.2	2.5
17	8.2	47	15	22	53	31	26	11	4.0	.17	.76	2.2
18	7.3	193	15	25	44	38	26	11	3.4	.16	.52	2.0
19	6.0	113	14	25	40	37	24	11	3.1	.15	2.5	1.8
20	4.2	62	14	21	38	33	25	13	2.9	.14	26	1.6
21	4.3	52	14	20	36	31	24	21	2.8	.13	8.3	16
22	18	46	13	19	34	29	23	12	2.6	.11	3.1	11
23	123	48	14	18	36	28	36	10	4.1	.11	1.8	7.9
24	67	45	14	18	40	28	28	9.4	6.1	.11	1.2	3.8
25	23	40	15	18	33	28	22	24	4.6	.10	.80	2.9
26	16	36	41	18	32	27	20	20	3.4	.10	.59	2.2
27	12	34	38	22	32	172	19	13	2.7	.09	2.3	2.1
28	9.0	32	28	33	32	104	18	11	2.0	.08	15	2.1
29	230	30	25	136	---	58	17	10	1.6	.08	13	2.0
30	30	28	22	52	---	53	16	9.0	1.3	.07	8.4	1.9
31	18	---	22	42	---	52	---	12	---	.07	6.8	---
TOTAL	611.12	6453	657	813	1112	1368	887	530.4	165.7	23.97	93.78	166.8
MEAN	19.7	215	21.2	26.2	39.7	44.1	29.6	17.1	5.52	.77	3.03	5.56
MAX	230	1760	41	136	198	172	46	71	19	3.7	26	19
MIN	.38	13	13	16	25	27	16	9.0	1.3	.07	.04	1.6
AC-FT	1210	12800	1300	1610	2210	2710	1760	1050	329	48	186	331
CFSM	.09	1.00	.10	.12	.18	.21	.14	.08	.03	.00	.01	.03
IN.	.11	1.12	.11	.14	.19	.24	.15	.09	.03	.00	.02	.03

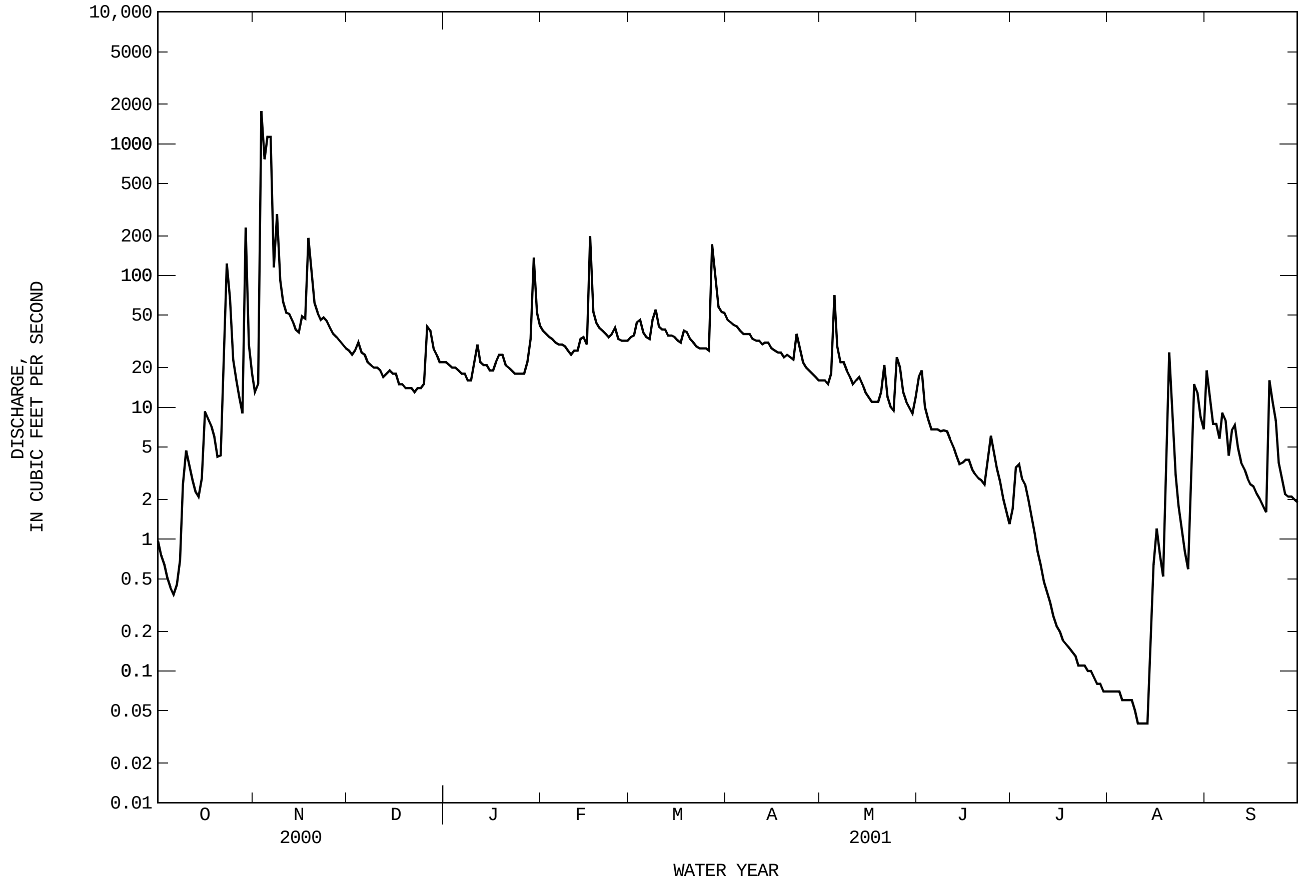
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.6	13.4	14.4	13.3	23.2	22.8	19.3	28.5	27.0	3.68	19.0	10.5
MAX	329	215	220	183	285	164	132	197	327	24.3	443	167
(WY)	1997	2001	1992	1968	1992	1997	1977	1975	1987	1997	1978	1964
MIN	.37	.91	1.44	1.84	1.41	1.29	.49	.72	.21	.003	.000	.021
(WY)	1983	1980	1983	1971	1984	1967	1984	1996	1971	1964	1985	1977

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1963 - 2001	
ANNUAL TOTAL	8768.76		12881.77			
ANNUAL MEAN	24.0		35.3		18.8	
HIGHEST ANNUAL MEAN					91.5	1997
LOWEST ANNUAL MEAN					1.97	1967
HIGHEST DAILY MEAN	1760	Nov 3	1760	Nov 3	12800	Aug 3 1978
LOWEST DAILY MEAN	.00	Jul 19	.04	Aug 10	.00	Aug 3 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 19	.05	Aug 7	.00	Aug 3 1963
MAXIMUM PEAK FLOW			8600	Nov 3	c66900	Aug 3 1978
MAXIMUM PEAK STAGE			a8.12	Nov 3	a24.00	Aug 3 1978
ANNUAL RUNOFF (AC-FT)	17390		25550		13590	
ANNUAL RUNOFF (CFSM)	.11		.16		.087	
ANNUAL RUNOFF (INCHES)	1.52		2.23		1.19	
10 PERCENT EXCEEDS	29		45		24	
50 PERCENT EXCEEDS	2.8		18		3.2	
90 PERCENT EXCEEDS	.00		.44		.18	

c From rating curve extended above 7,430 ft^3/s based on slope-area measurements of 20,100 and 66,900 ft^3/s.
a From floodmark.

08150800 Beaver Creek near Mason, TX--Continued



08151500 Llano River at Llano, TX

LOCATION.--Lat 30°45'04", long 98°40'10", Llano County, Hydrologic Unit 12090204, on right bank in Llano, 0.4 mi downstream from bridge on State Highway 16, 7.0 mi upstream from Little Llano River, and 29.3 mi upstream from mouth.

DRAINAGE AREA.--4,197 mi^2, of which 5.1 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Sept. 1939 to current year.
Water-quality records.--Chemical data: Apr. 1948 to Oct. 1967, Apr. 1979 to Sept. 1986. Biochemical data: Apr. 1979 to Sept. 1986. Sediment data: Sept. 1964, Apr. 1979 to Sept. 1986. Specific conductance: Apr. 1979 to Sept. 1980. Water temperature: Apr. 1979 to Sept. 1980.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 970.01 ft above sea level. Radio telemeter at station. Satellite telemeter at station.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes and publishes streamflow record.

REMARKS.--Records fair. No known regulation or diversions. Part of low flow of the Llano River disappears into various formations, many of which are faulted, between this station and Llano River near Junction (station 08150000). No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1879, 41.5 ft June 14, 1935 (discharge, 380,000 ft^3/s), from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	856	718	423	484	536	739	276	242	143	83	201
2	129	760	696	416	426	619	665	272	280	163	83	146
3	117	18200	680	410	398	717	639	266	274	156	84	138
4	110	88500	747	410	382	1110	612	284	236	253	84	204
5	107	17400	732	406	363	704	585	565	206	184	84	175
6	104	24000	691	401	353	575	552	903	195	156	81	187
7	105	10600	649	398	351	520	522	891	190	145	82	---
8	106	8510	611	390	340	662	511	472	189	135	83	192
9	110	5290	587	381	342	1290	488	872	190	129	84	242
10	187	3670	576	448	321	773	460	551	192	123	84	194
11	165	2890	564	590	303	655	440	402	186	118	87	201
12	154	2470	537	495	314	631	433	378	183	115	85	183
13	150	2160	518	453	343	558	428	532	178	114	92	217
14	143	1700	513	434	414	514	426	452	175	112	92	176
15	142	1460	511	412	386	519	420	345	173	110	86	155
16	153	1990	505	400	3770	472	402	313	167	108	108	144
17	194	1980	479	435	1730	428	384	290	166	105	103	137
18	219	4180	463	515	916	819	391	274	164	104	90	132
19	179	4730	440	512	727	1240	371	266	159	104	112	129
20	167	2360	434	454	636	787	368	272	154	103	108	126
21	215	1570	427	416	596	614	366	328	151	100	98	160
22	472	1370	419	399	550	534	362	304	147	97	99	383
23	287	1300	417	391	552	488	640	257	145	92	95	285
24	28200	1270	419	387	701	500	955	247	194	90	87	193
25	10800	1020	429	382	572	543	519	279	190	92	86	169
26	e3000	954	558	373	517	468	394	274	160	93	85	158
27	1470	914	760	395	477	954	340	275	147	89	89	149
28	1000	829	569	537	501	2110	318	244	141	85	202	143
29	1470	792	492	2520	---	1150	295	228	136	86	158	143
30	1980	747	452	1050	---	900	282	215	139	86	188	144
31	1290	---	431	612	---	861	---	226	---	82	157	---
TOTAL	53072	214472	17024	16245	17765	23251	14307	11753	5449	3672	3139	5206
MEAN	1712	7149	549	524	634	750	477	379	182	118	101	180
MAX	28200	88500	760	2520	3770	2110	955	903	280	253	202	383
MIN	104	747	417	373	303	428	282	215	136	82	81	126
AC-FT	105300	425400	33770	32220	35240	46120	28380	23310	10810	7280	6230	10330

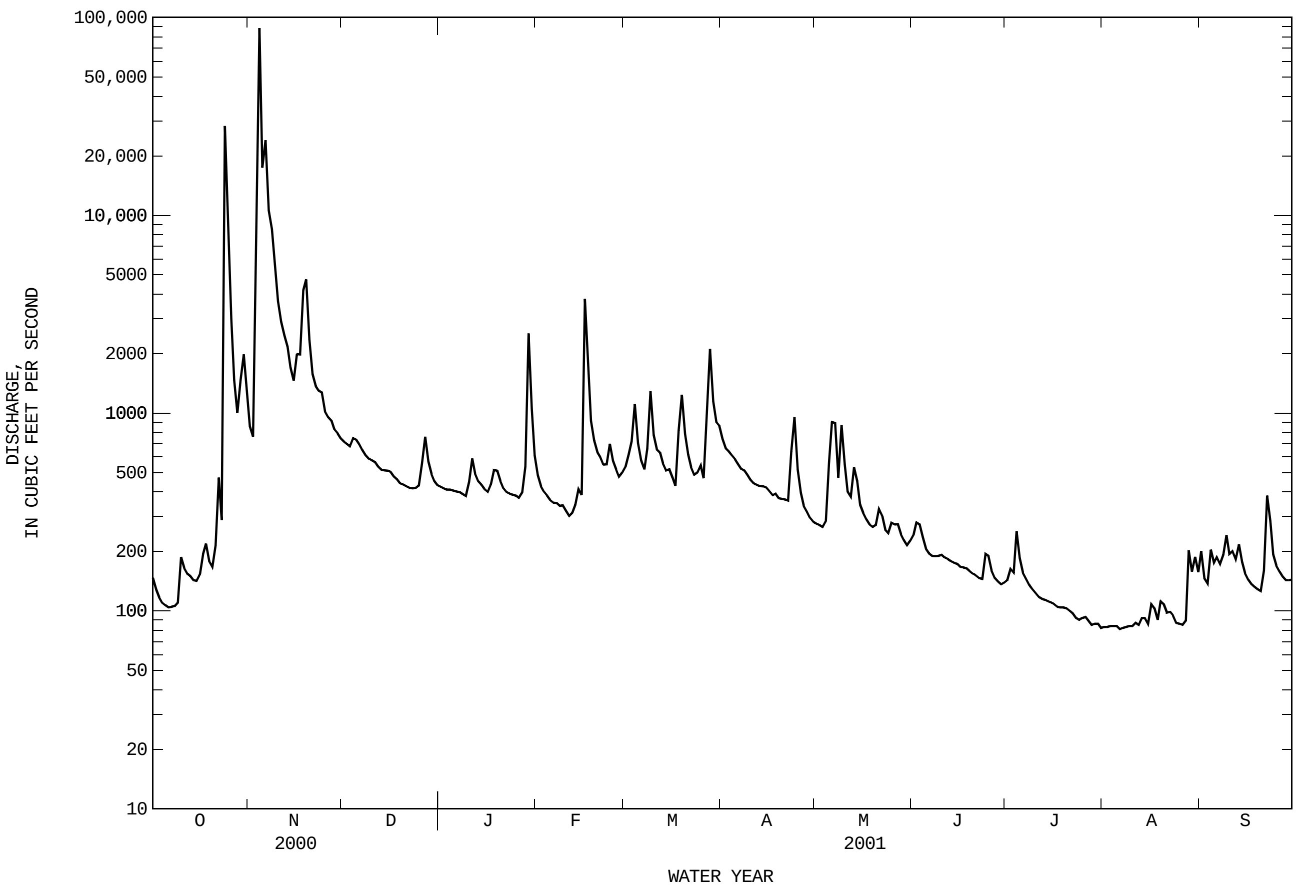
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	541	343	296	286	386	332	376	512	560	225	313	444
MAX	3700	7149	3179	2483	3754	2798	3115	3350	4620	1796	3605	3891
(WY)	1974	2001	1992	1968	1992	1997	1977	1957	1997	1988	1974	1952
MIN	18.0	20.7	27.5	31.7	37.7	23.7	20.9	41.0	7.93	.000	.087	.56
(WY)	1952	1957	1955	1957	1954	1954	1955	1984	1953	1956	1952	1954

08151500 Llano River at Llano, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1939 - 2001	
ANNUAL TOTAL	313492					
ANNUAL MEAN	857				373	
HIGHEST ANNUAL MEAN					1308	1997
LOWEST ANNUAL MEAN					50.0	1954
HIGHEST DAILY MEAN	88500	Nov 4	88500	Nov 4	88500	Nov 4 2000
LOWEST DAILY MEAN	14	Sep 6	81	Aug 6	.00	Aug 5 1952
ANNUAL SEVEN-DAY MINIMUM	23	Sep 3	83	Jul 31	.00	Aug 27 1952
MAXIMUM PEAK FLOW			151000	Nov 4	260000	Jun 23 1997
MAXIMUM PEAK STAGE			29.05	Nov 4	38.86	Jun 23 1997
ANNUAL RUNOFF (AC-FT)	621800				269900	
10 PERCENT EXCEEDS	837		1130		541	
50 PERCENT EXCEEDS	112		380		156	
90 PERCENT EXCEEDS	35		104		41	

e Estimated



08152000 Sandy Creek near Kingsland, TX

LOCATION.--Lat 30°33'27", long 98°28'19", Llano County, Hydrologic Unit 12090201, at right downstream end of bridge on State Highway 71, 6.6 mi upstream from mouth.

DRAINAGE AREA.--346 mi^2.

PERIOD OF RECORD.--Oct. 1966 to Mar. 1993, Oct. 1997 to current year.
Water-quality records.--Sediment data: Jan. 1968 to Sept. 1975.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 862.31 ft above sea level. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair except those for daily discharges below 1 ft^3/s which are poor. No known regulation. There are several small diversions above station for irrigation. No flow at times.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 11, 1952, the highest since at least 1881, reached a stage of 34.2 ft (discharge, 163,000 ft^3/s), from slope-area measurement at gage site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	6.5	40	36	157	58	159	32	35	4.6	.04	.82
2	.00	1.6	37	32	109	120	164	34	27	6.6	.01	.40
3	.00	37	40	27	95	123	148	35	20	6.4	.00	5.0
4	.00	1430	44	24	84	232	147	32	17	4.8	.00	41
5	.00	359	40	23	78	112	138	238	13	3.7	.00	52
6	.00	3720	37	21	88	77	126	110	12	1.1	.00	98
7	.00	524	32	22	74	73	110	55	10	.34	.01	66
8	.00	262	28	22	62	135	95	46	9.3	.19	.01	34
9	.00	164	27	20	58	579	96	39	9.4	.11	.11	23
10	.00	91	26	35	57	162	95	38	8.2	.06	.17	21
11	.00	60	25	197	61	107	80	31	6.8	.04	.16	18
12	.00	57	23	102	63	193	80	26	5.7	.04	.18	8.8
13	.00	61	24	65	66	128	75	26	4.5	.05	.07	3.7
14	.00	47	24	61	71	116	65	23	4.1	.04	.07	2.4
15	.00	39	24	54	70	97	60	22	9.4	.10	.08	1.8
16	.00	44	24	48	203	76	54	19	11	.13	2.5	1.3
17	.00	55	23	78	177	73	51	16	6.8	.25	1.5	1.3
18	.00	96	22	134	84	70	50	14	4.4	.16	.23	1.0
19	.00	418	19	135	76	87	47	13	3.3	.20	.44	.33
20	.00	175	19	88	71	65	47	15	1.6	.35	.22	.14
21	.00	98	19	73	72	60	48	30	.40	.26	.15	5.5
22	.02	68	19	68	63	53	47	24	.91	.22	.15	58
23	1.1	90	19	63	58	46	262	17	.23	.32	.14	37
24	.96	81	19	55	86	49	168	12	1.2	.37	.16	27
25	.36	63	23	51	70	46	70	75	.31	.20	.16	20
26	1.1	61	54	47	52	43	52	61	.12	.08	.30	13
27	1.7	53	76	84	43	1880	51	37	.08	.09	1.2	3.8
28	2.1	51	57	230	46	1420	45	28	.03	.06	.57	2.6
29	16	48	48	1190	---	531	40	24	.01	.03	.85	1.8
30	29	41	41	492	---	274	33	18	.02	.04	.66	2.1
31	12	---	38	217	---	186	---	21	---	.05	1.2	---
TOTAL	64.34	8301.1	991	3794	2294	7271	2703	1211	221.81	30.98	11.34	550.79
MEAN	2.08	277	32.0	122	81.9	235	90.1	39.1	7.39	1.00	.37	18.4
MAX	29	3720	76	1190	203	1880	262	238	35	6.6	2.5	98
MIN	.00	1.6	19	20	43	43	33	12	.01	.03	.00	.14
AC-FT	128	16470	1970	7530	4550	14420	5360	2400	440	61	22	1090
CFSM	.01	.80	.09	.35	.24	.68	.26	.11	.02	.00	.00	.05
IN.	.01	.89	.11	.41	.25	.78	.29	.13	.02	.00	.00	.06

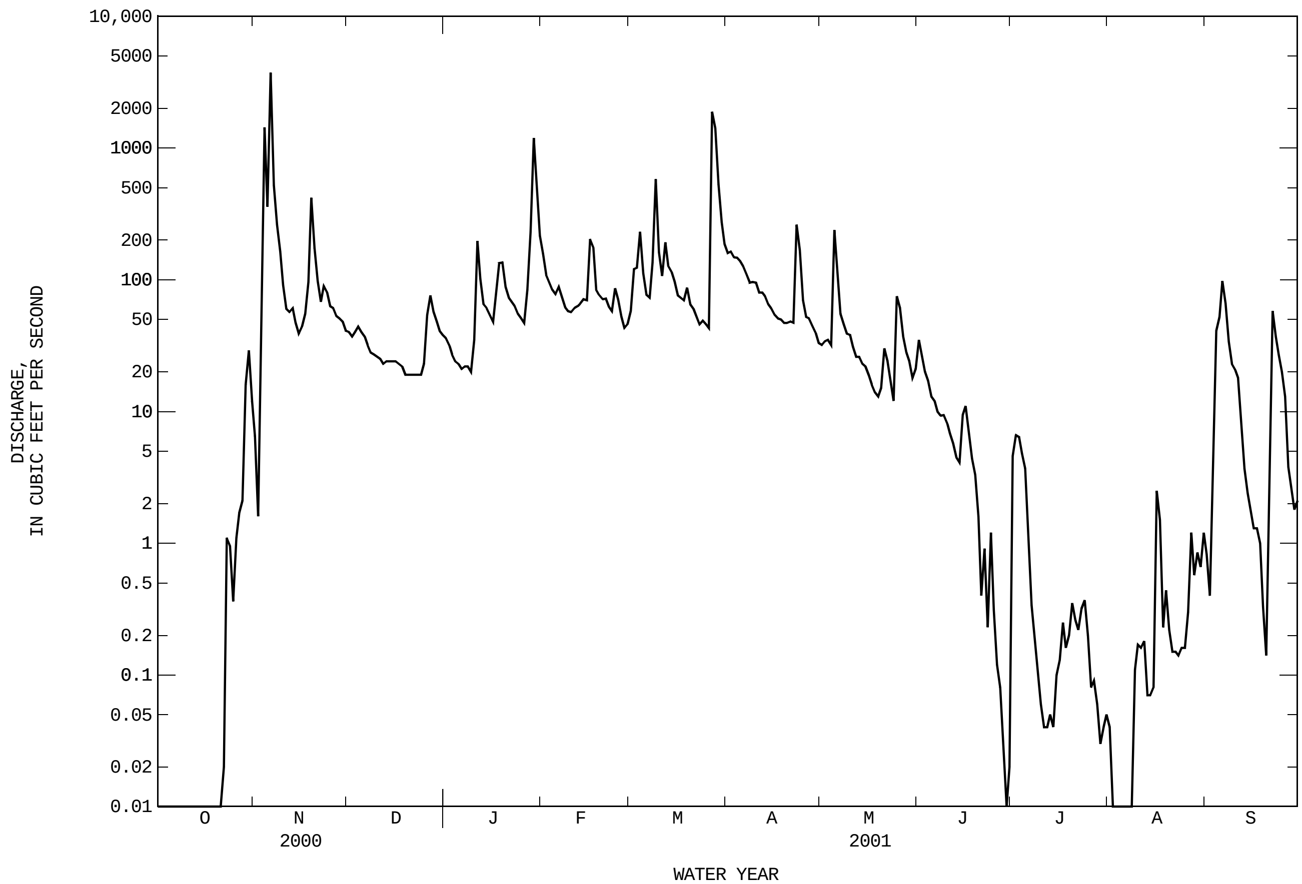
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	63.0	42.1	76.6	59.2	89.4	85.6	59.7	122	113	22.5	22.2	27.3
MAX	306	277	1074	511	936	425	528	510	862	258	358	188
(WY)	1972	2001	1992	1968	1992	1992	1977	1975	1987	1976	1974	1976
MIN	.045	.045	1.10	1.06	4.19	1.86	1.41	.71	.055	.10	.000	.000
(WY)	1990	1989	1990	1990	1967	1967	1984	1984	1971	1980	1989	1989

08152000 Sandy Creek near Kingsland, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1967 - 2001h	
ANNUAL TOTAL	11812.56		27444.36			
ANNUAL MEAN	32.3		75.2		65.7	
HIGHEST ANNUAL MEAN					279	1992
LOWEST ANNUAL MEAN					3.62	1984
HIGHEST DAILY MEAN	3720	Nov 6	3720	Nov 6	14200	Dec 21 1991
LOWEST DAILY MEAN	.00	Jul 12	.00	Oct 1	.00	Jul 16 1967
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 12	.00	Oct 1	.00	Jul 16 1967
MAXIMUM PEAK FLOW			9620	Nov 6	39500	Dec 20 1991
MAXIMUM PEAK STAGE			10.92	Nov 6	17.63	Jun 16 1987
ANNUAL RUNOFF (AC-FT)	23430		54440		47590	
ANNUAL RUNOFF (CFSM)	.093		.22		.19	
ANNUAL RUNOFF (INCHES)	1.27		2.95		2.58	
10 PERCENT EXCEEDS	41		130		96	
50 PERCENT EXCEEDS	2.9		27		11	
90 PERCENT EXCEEDS	.00		.04		.09	

h See PERIOD OF RECORD paragraph.



08152900 Pedernales River near Fredericksburg, TX

LOCATION.--Lat 30°13’13", long 98°52’10", Gillespie County, Hydrologic Unit 12090206, on left bank at downstream side of bridge on U.S. Highway 87, 2.0 mi upstream from Mueseback Creek, 3.8 mi south of Fredericksburg, and 88.7 mi upstream from mouth.

DRAINAGE AREA.--369 mi^2.

PERIOD OF RECORD.--July 1979 to May 1993, Mar. 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,564,96 ft above sea level. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair except those for daily discharges below 5.0 ft^3/s, which are poor. No known regulation or diversion above station. No flow at times some years.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 2, 1978, which is the highest since 1907, reached a stage of 41.6 ft (discharge not determined). The highest known discharge was 64,000 ft^3/s June 1, 1979 (gage height, 34.4 ft, from floodmark), from rating curve extended above a discharge measurement of 42,300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	4.5	48	45	83	64	105	79	42	10	10	137
2	1.2	13	47	43	78	73	104	79	39	12	10	25
3	1.2	1910	47	43	74	88	103	79	35	13	11	12
4	1.2	2150	48	43	71	113	101	81	32	13	10	15
5	1.2	871	47	44	67	86	100	246	30	16	11	223
6	1.0	2070	46	43	66	77	99	102	28	18	11	128
7	1.4	269	46	43	65	75	98	e49	27	14	11	33
8	3.2	269	45	43	64	154	97	e25	27	12	10	20
9	3.8	148	44	41	64	283	96	72	27	10	10	14
10	2.8	102	44	128	59	127	94	92	26	9.1	10	12
11	2.3	82	44	118	58	116	94	74	25	9.0	10	12
12	1.9	75	43	66	60	227	92	69	22	9.5	10	12
13	1.6	69	43	59	62	138	91	69	19	9.6	10	11
14	1.5	60	44	58	71	122	93	65	17	9.6	10	11
15	1.4	57	43	53	65	119	92	60	19	9.7	10	11
16	1.3	58	43	52	221	109	90	57	19	10	10	12
17	1.6	59	43	61	122	106	88	54	19	10	9.6	12
18	2.2	96	41	69	83	111	86	52	18	10	9.6	12
19	1.7	156	41	61	77	118	86	52	15	10	9.6	12
20	1.4	93	41	56	74	108	88	52	14	10	9.6	12
21	2.0	77	41	54	71	104	88	50	13	10	9.6	12
22	4.1	70	40	52	68	103	86	46	13	10	9.6	13
23	95	72	41	52	70	101	104	45	13	10	9.6	12
24	76	70	41	51	83	100	104	44	13	10	9.6	14
25	24	62	42	50	70	99	90	45	15	10	9.6	12
26	19	59	50	49	63	98	85	47	18	10	10	11
27	11	56	69	70	65	106	84	45	14	11	17	11
28	7.5	55	52	82	65	127	82	43	13	10	11	11
29	5.9	52	46	370	---	113	82	40	11	10	8.8	9.9
30	5.1	49	45	141	---	111	80	37	9.9	10	8.5	10
31	4.4	---	45	94	---	110	---	38	---	10	122	---
TOTAL	289.0	9233.5	1400	2234	2139	3586	2782	1988	632.9	335.5	427.7	851.9
MEAN	9.32	308	45.2	72.1	76.4	116	92.7	64.1	21.1	10.8	13.8	28.4
MAX	95	2150	69	370	221	283	105	246	42	18	122	223
MIN	1.0	4.5	40	41	58	64	80	25	9.9	9.0	8.5	9.9
AC-FT	573	18310	2780	4430	4240	7110	5520	3940	1260	665	848	1690

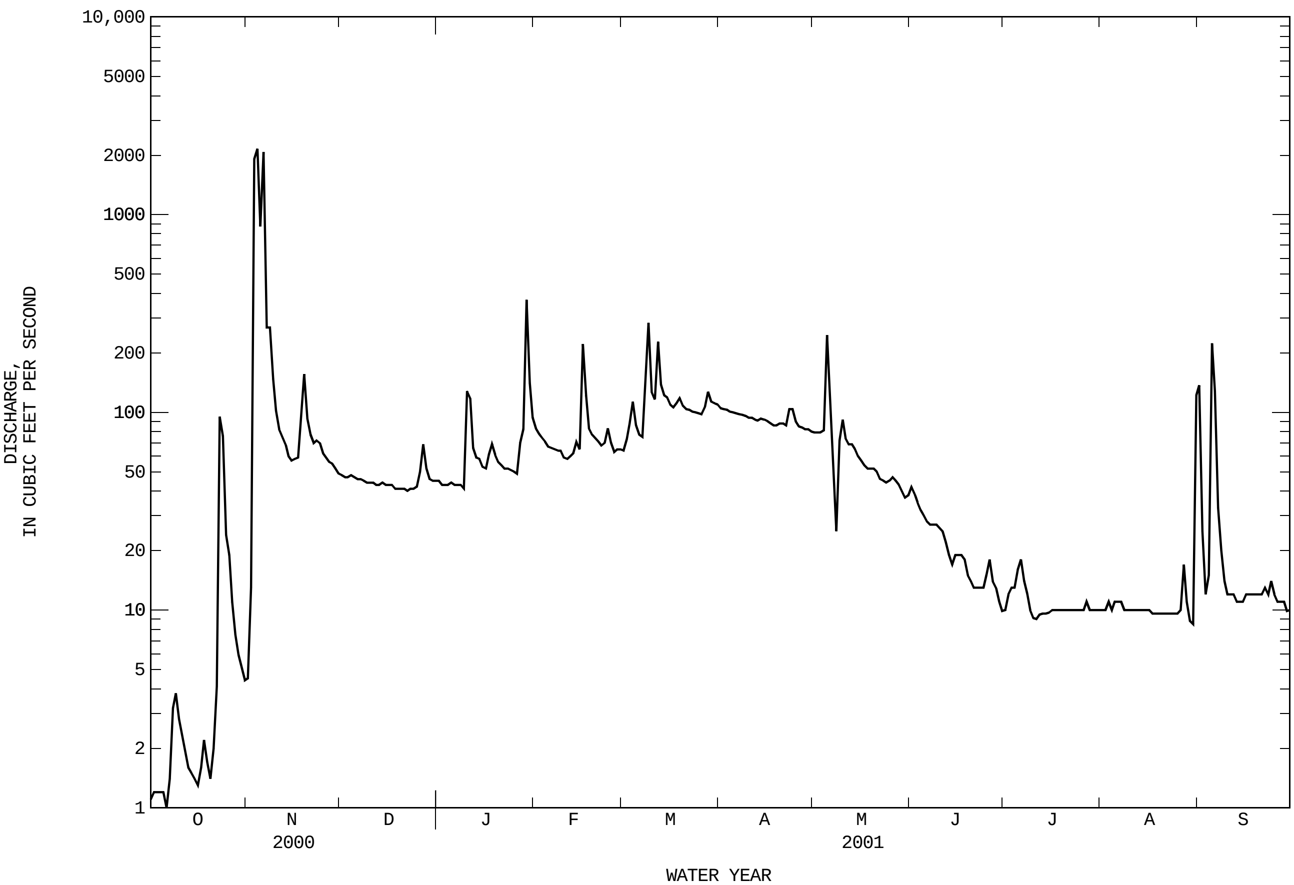
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.9	45.2	97.5	42.3	73.1	65.8	49.5	85.5	103	35.6	13.8	16.6
MAX	408	308	993	173	631	370	224	261	635	191	48.2	48.8
(WY)	1986	2001	1992	1992	1992	1992	1992	1990	1987	1987	1987	1981
MIN	3.25	5.70	7.18	8.78	8.32	9.77	5.96	2.95	2.33	.78	.23	.31
(WY)	2000	2000	1990	1990	1984	1984	1984	1984	1984	2000	1985	1984

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1980 - 2001h	
ANNUAL TOTAL	13662.26		25899.5			
ANNUAL MEAN	37.3		71.0		59.0	
HIGHEST ANNUAL MEAN					244	1992
LOWEST ANNUAL MEAN					5.31	1984
HIGHEST DAILY MEAN	2150	Nov 4	2150	Nov 4	14800	Dec 20 1991
LOWEST DAILY MEAN	.00	Sep 2	1.0	Oct 6	.00	Jul 13 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 2	1.2	Oct 1	.00	Sep 2 2000
MAXIMUM PEAK FLOW			8880	Nov 3	49900	Dec 20 1991
MAXIMUM PEAK STAGE			15.07	Nov 3	32.09	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	27100		51370		42770	
10 PERCENT EXCEEDS	54		107		88	
50 PERCENT EXCEEDS	8.6		45		21	
90 PERCENT EXCEEDS	.51		9.6		3.1	

e Estimated
h See PERIOD OF RECORD paragraph.

08152900 Pedernales River near Fredericksburg, TX--Continued



08153500 Pedernales River near Johnson City, TX

LOCATION.--Lat 30°17'30", long 98°23'57", Blanco County, Hydrologic Unit 12090206, near left downstream end of bridge on U.S. Highway 281, 0.2 mi downstream from Towhead Creek, 1.1 mi northeast of Johnson City, 3.4 mi downstream from Buffalo Creek, and 48.0 mi upstream from mouth.

DRAINAGE AREA.--901 mi^2.

PERIOD OF RECORD.--May 1939 to current year.
Water-quality records.--Chemical data: Apr. 1948 to Sept. 1950, Oct. 1971 to Sept. 1985.

REVISED RECORDS.--WSP 1632: 1953(M), 1957, 1958(M). WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,096.70 ft above sea level. May 4 to Sept. 13, 1939, nonrecording gage, and Sept. 14, 1939, to Sept. 10, 1952, water-stage recorder at upstream side of bridge at same datum. Sept. 11, 1952, to June 29, 1953, nonrecording gage, and June 30, 1953, to Oct. 7, 1954, water-stage recorder at site 360 ft downstream at same datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. There are diversions above station for irrigation. During the year, the city of Fredericksburg discharged varying amounts of wastewater effluent into the river upstream from station. The city of Johnson City diverts varying amounts of water from the pool at gage and discharges wastewater effluent into river below the gage. Flow is affected at times by discharge from the flood-detention pools of four floodwater-retarding structures. These structures control runoff from 15.6 mi^2 in the Williamson Creek drainage basin. No flow at times.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1869, reached a stage of 33 ft from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

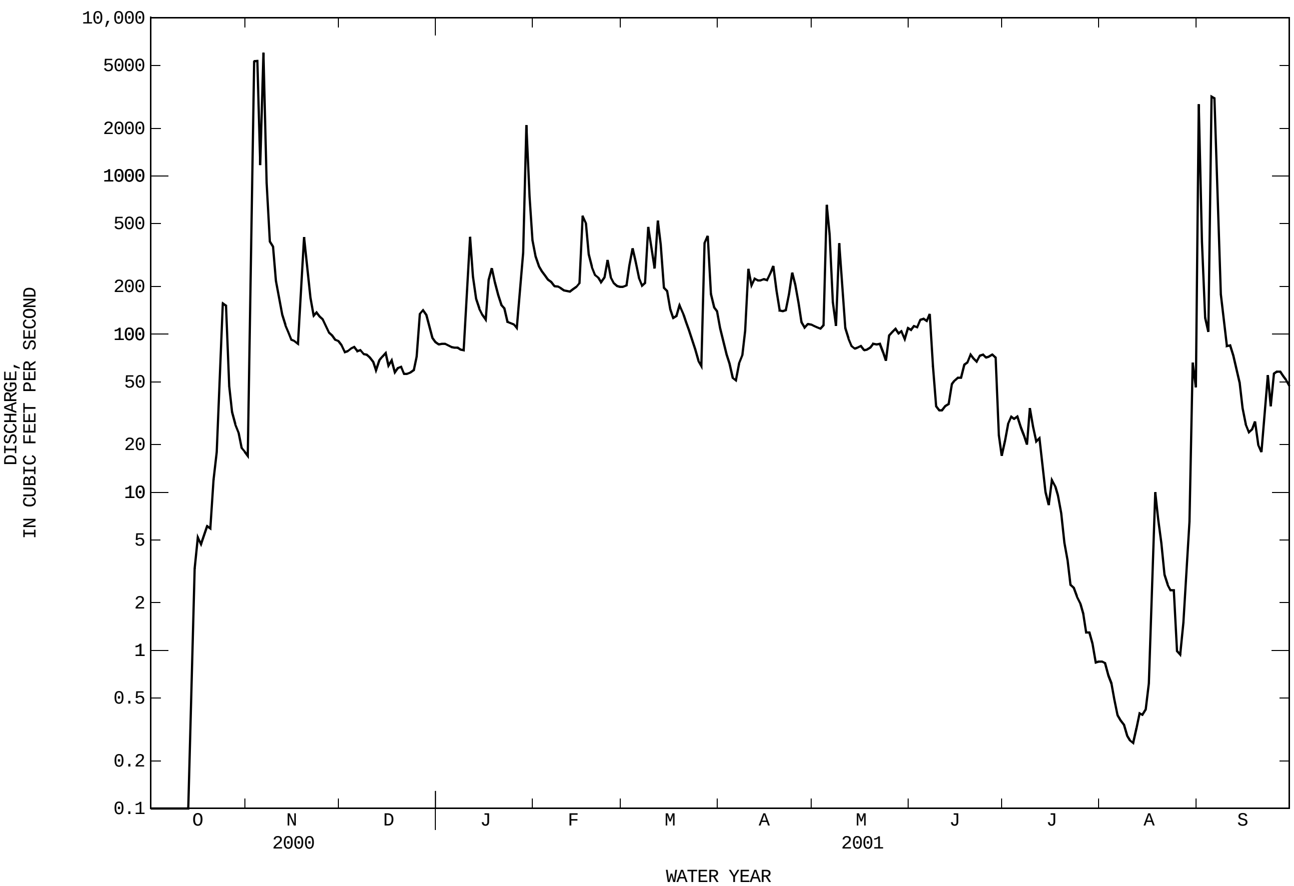
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	17	85	86	308	199	108	112	106	21	.85	2840
2	.00	598	77	87	269	203	89	110	112	27	.83	383
3	.00	5310	78	87	249	272	74	108	110	30	.70	127
4	.00	5340	81	85	235	349	65	114	123	29	.62	103
5	.00	1170	83	83	221	285	53	657	125	30	.49	3170
6	.00	6000	78	82	214	228	51	427	121	26	.39	3100
7	.00	901	79	82	201	203	65	160	134	23	.36	581
8	.00	386	75	80	200	211	73	113	63	20	.34	179
9	.00	358	74	79	195	477	105	376	35	34	.29	118
10	.00	218	71	196	189	357	258	207	33	26	.27	84
11	.00	168	67	411	187	260	203	109	33	21	.26	85
12	.00	132	59	231	186	522	224	94	35	22	.32	73
13	.00	114	68	167	192	368	219	84	36	15	.40	60
14	.68	103	72	145	198	196	219	81	48	10	.39	49
15	3.3	92	76	132	210	187	223	82	51	8.3	.42	34
16	5.2	90	63	124	561	143	220	84	53	12	.62	27
17	4.7	87	68	220	506	126	242	79	53	11	3.4	24
18	5.3	216	57	261	319	130	269	80	64	9.5	10	25
19	6.1	410	61	211	266	153	188	82	66	7.4	6.8	28
20	5.9	255	62	176	237	137	141	87	74	4.8	4.8	20
21	12	170	56	153	228	119	140	86	70	3.7	3.0	18
22	18	131	56	146	213	106	142	87	67	2.6	2.6	32
23	62	137	57	119	227	92	179	77	73	2.5	2.4	55
24	156	129	59	117	294	80	245	68	74	2.2	2.4	35
25	151	124	72	115	229	68	204	98	71	2.0	.99	56
26	47	112	134	109	210	63	157	103	72	1.7	.94	58
27	32	102	142	196	202	375	119	108	74	1.3	1.5	58
28	27	98	133	328	199	418	110	101	71	1.3	3.2	54
29	24	92	111	2090	---	179	116	104	23	1.1	6.5	51
30	19	90	95	736	---	148	115	93	17	.84	66	47
31	18	---	89	393	---	140	---	109	---	.85	46	---
TOTAL	597.18	23150	2438	7527	6945	6794	4616	4280	2087	407.09	168.08	11574
MEAN	19.3	772	78.6	243	248	219	154	138	69.6	13.1	5.42	386
MAX	156	6000	142	2090	561	522	269	657	134	34	66	3170
MIN	.00	17	56	79	186	63	51	68	17	.84	.26	18
AC-FT	1180	45920	4840	14930	13780	13480	9160	8490	4140	807	333	22960

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	223	103	177	128	209	179	237	329	323	97.6	112	196
MAX	2041	772	3161	1177	2794	1289	2368	1673	2905	872	1953	6332
(WY)	1960	2001	1992	1968	1992	1992	1977	1975	1987	1987	1978	1952
MIN	.44	2.51	2.44	1.68	4.83	2.07	.060	2.05	.52	.001	.000	.000
(WY)	1952	1952	1955	1957	1957	1956	1956	1956	1971	1971	1954	1984

08153500 Pedernales River near Johnson City, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1939 - 2001	
ANNUAL TOTAL	31483.94		70583.35			
ANNUAL MEAN	86.0		193		193	
HIGHEST ANNUAL MEAN					840	1992
LOWEST ANNUAL MEAN					4.12	1956
HIGHEST DAILY MEAN	6000	Nov 6	6000	Nov 6	129000	Sep 11 1952
LOWEST DAILY MEAN	.00	Jul 20	.00	Oct 1	.00	Aug 8 1951
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 20	.00	Oct 1	.00	Aug 8 1951
MAXIMUM PEAK FLOW			16400	Sep 5	441000	Sep 11 1952
MAXIMUM PEAK STAGE			15.13	Sep 5	42.50	Sep 11 1952
ANNUAL RUNOFF (AC-FT)	62450		140000		140000	
10 PERCENT EXCEEDS	94		270		280	
50 PERCENT EXCEEDS	17		85		51	
90 PERCENT EXCEEDS	.00		1.3		4.5	



08154700 Bull Creek at Loop 360 near Austin, TX

LOCATION.--Lat 30°22'19", long 97°47'04", Travis County, Hydrologic Unit 12090205, on right bank at downstream side of bridge at Loop 360, 1.0 mi upstream from West Fork Bull Creek and Farm Road 2222, and 7.1 mi northwest of the State Capitol Building in Austin.

DRAINAGE AREA.--22.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Apr. 1976 to July 1978 (peak discharge greater than base discharge), July 1978 to current year.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 534.08 ft above sea level (levels from city of Austin benchmark). Satellite telemeter at station.

REMARKS.--Records good. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.38	9.3	26	33	29	19	82	11	53	6.4	.12	37
2	.13	43	21	30	26	19	73	7.8	46	4.5	.14	25
3	.12	451	19	27	25	69	65	7.4	20	9.0	.11	17
4	.15	133	19	26	23	52	59	8.1	14	4.2	.08	44
5	.14	104	17	25	21	40	54	22	10	2.4	.08	38
6	.12	233	18	23	21	31	50	37	8.7	2.3	.06	26
7	e.16	125	18	21	22	26	46	70	8.0	1.9	.05	16
8	e.18	100	21	19	22	46	41	25	8.8	1.7	.09	12
9	e.25	68	17	18	27	41	38	19	10	1.3	.05	11
10	.21	53	16	105	21	30	35	30	8.8	.99	.04	10
11	.21	44	13	66	20	30	32	13	7.5	1.1	.04	9.0
12	.22	54	11	43	19	45	30	9.6	6.1	.80	.06	8.1
13	.23	45	36	42	18	32	28	8.4	4.2	.65	.25	7.3
14	.26	35	23	38	17	50	26	7.4	4.1	.66	.43	7.4
15	8.9	31	19	33	20	42	23	6.9	15	.62	.39	6.4
16	29	28	17	32	58	34	22	9.9	9.8	.53	.32	6.5
17	8.8	23	15	45	27	31	20	7.4	5.5	.58	.22	4.1
18	2.7	59	14	53	21	43	23	6.3	4.1	.36	.17	3.8
19	1.3	53	14	47	19	37	24	5.6	3.3	.45	.18	4.6
20	.98	41	14	41	18	31	22	62	3.0	.22	.11	4.8
21	157	35	12	37	17	28	20	135	2.8	.19	.07	4.0
22	109	31	12	32	17	25	18	21	2.9	.16	.08	4.2
23	65	34	12	30	17	23	23	13	2.6	.13	.20	3.4
24	33	131	11	28	19	29	19	9.8	2.6	.11	.18	3.2
25	19	54	69	26	16	22	16	45	4.5	.11	.10	2.4
26	14	46	148	25	15	20	14	24	3.4	.11	26	2.5
27	13	40	106	27	15	511	13	22	3.4	.17	71	2.3
28	13	31	67	27	16	219	11	18	2.0	.16	21	2.1
29	11	29	50	67	---	131	11	14	1.7	.11	12	1.9
30	9.9	27	41	40	---	104	9.5	12	2.8	.09	119	1.8
31	9.3	---	37	33	---	96	---	14	---	.09	56	---
TOTAL	507.64	2190.3	933	1139	606	1956	947.5	701.6	278.6	42.09	308.62	325.8
MEAN	16.4	73.0	30.1	36.7	21.6	63.1	31.6	22.6	9.29	1.36	9.96	10.9
MAX	157	451	148	105	58	511	82	135	53	9.0	119	44
MIN	.12	9.3	11	18	15	19	9.5	5.6	1.7	.09	.04	1.8
AC-FT	1010	4340	1850	2260	1200	3880	1880	1390	553	83	612	646

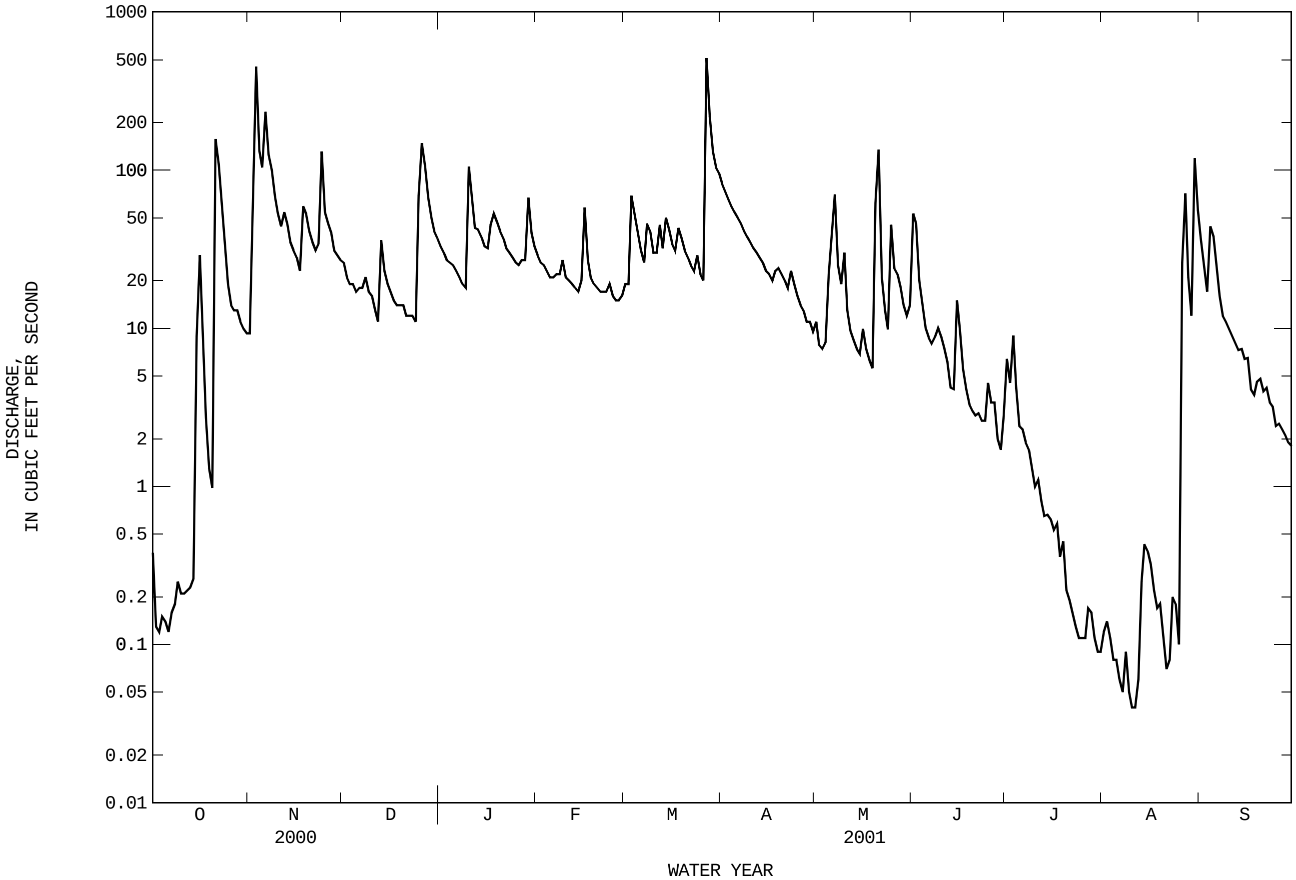
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.6	13.1	16.8	13.7	17.2	17.3	12.4	24.4	25.7	3.98	4.00	3.99
MAX	120	73.0	130	55.9	114	64.7	69.4	58.9	141	22.6	26.3	15.3
(WY)	1999	2001	1992	1992	1992	1992	1997	1992	1987	1997	1991	1987
MIN	.17	.061	.64	1.08	1.92	2.06	1.28	.33	.57	.043	.006	.009
(WY)	2000	2000	1990	1990	1996	1996	1984	1984	1998	1994	2000	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1978 - 2001	
ANNUAL TOTAL	4333.42		9936.15			
ANNUAL MEAN	11.8		27.2		14.1	
HIGHEST ANNUAL MEAN					40.6	1992
LOWEST ANNUAL MEAN					1.86	1984
HIGHEST DAILY MEAN	451	Nov 3	511	Mar 27	1180	Oct 17 1998
LOWEST DAILY MEAN	.00	Aug 6	.04	Aug 10	.00	Jul 4 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 6	.06	Aug 6	.00	Jul 4 1984
MAXIMUM PEAK FLOW			1570	Mar 27	13700	May 13 1982
MAXIMUM PEAK STAGE			5.88	Mar 27	12.31	Oct 7 1994
ANNUAL RUNOFF (AC-FT)	8600		19710		10220	
10 PERCENT EXCEEDS	31		55		27	
50 PERCENT EXCEEDS	1.9		18		4.1	
90 PERCENT EXCEEDS	.00		.19		.25	

e Estimated

08154700 Bull Creek at Loop 360 near Austin, TX--Continued



08154700 Bull Creek at Loop 360 near Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1978 to current year.
BIOCHEMICAL DATA: Apr. 1978 to current year.
RADIOCHEMICAL DATA: Jan. to Apr. 1980.
PESTICIDE DATA: June 1978 to Sept. 1986, Jan. 1993 to June 1995.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT													
15-16	2115	30	--	413	7.9	--	25	26	--	--	--	26	94000
DEC													
05...	1330	--	16	767	8.4	13.0	<1	.5	--	11.5	110	<10	E14
MAY													
06-07	2130	168	--	434	7.6	--	12	56	--	--	--	38	17000
SEP													
17...	1115	--	3.7	737	7.8	24.5	<1	--	1.4	7.5	92.3	<10	27

DATE	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT													
15-16	32000	99	61	.416	.011	.427	.047	1.21	.734	.78	.099	<.060	<.018
DEC													
05...	30	244	<10	--	<.006	1.32	<.041	1.61	--	.30	<.060	<.060	<.018
MAY													
06-07	22000	145	175	.514	.011	.525	E.022	1.90	--	1.4	.153	<.060	<.018
SEP													
17...	17	210	<10	--	E.004	.060	<.040	.316	--	.26	<.060	<.060	<.020

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT							
15-16	9.4	--	--	E.05	3.0	2	E18
DEC							
05...	2.9	.1	<.1	<.11	E.8	<1	4
MAY							
06-07	15	--	--	E.08	3.6	3	17
SEP							
17...	3.1	.3	<.1	<.10	E.8	<1	<1

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08154900 Lake Austin at Austin, TX

LOCATION.--Lat 30°18'55", long 97°47'10", Travis County, Hydrologic Unit 12090205, at city of Austin Waterplant No. 2 and 1.5 mi upstream from Tom Miller Dam on the Colorado River at Austin.

DRAINAGE AREA.--38,846 mi^2, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1978 to Aug. 1990, Oct. 1990 to current year.
BIOCHEMICAL DATA: Oct. 1978 to Aug. 1990, Oct. 1990 to current year.
PESTICIDE DATA: Oct. 1978 to Aug. 1990.

REMARKS.--Trace metal and pesticide analyses of bottom sediments at selected sites June 2001.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301739097471601 -- Lk Austin Site AR

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
OCT							
22...	0845	1.00	483	7.8	21.7	5.8	67
22...	0847	10.0	482	7.7	21.6	5.8	67
22...	0851	25.0	498	7.4	21.1	3.6	41
22...	0932	10.0	483	7.9	21.8	7.2	83
22...	0934	20.0	479	7.8	21.6	6.8	78
MAR							
28...	0926	1.00	451	7.9	13.5	9.5	92
28...	0928	10.0	451	7.9	13.5	9.5	92
28...	0930	25.0	453	7.9	13.5	9.5	92

301739097471201 -- Lk Austin Site AC

DATE	TIME	TRANSPARENCY (SECCHI DISK) (M) (00078)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT													
22...	0855	3.00	1.00	482	7.9	21.7	1.0	1.2	6.8	78	E48	E36	146
22...	0857	--	10.0	484	7.8	21.6	--	--	6.5	75	--	--	--
22...	0859	--	20.0	497	7.8	21.6	--	--	6.5	75	--	--	--
22...	0901	--	30.0	496	7.5	20.7	--	--	4.0	45	--	--	--
22...	0903	--	40.0	498	7.5	20.6	--	--	20.6	232	--	--	--
22...	0905	--	50.0	500	7.4	20.6	1.7	5.4	3.1	35	--	--	--
MAR													
28...	0948	2.10	1.00	451	7.9	13.5	--	5.7	9.4	91	E41	E29	141
28...	0950	--	10.0	450	7.9	13.5	--	--	9.5	92	--	--	--
28...	0952	--	20.0	451	7.9	13.5	--	--	9.5	92	--	--	--
28...	0954	--	30.0	450	7.9	13.5	--	--	9.4	91	--	--	--
28...	0956	--	40.0	450	7.9	13.5	--	--	9.4	91	--	--	--
28...	0958	--	50.0	453	7.9	13.5	--	7.1	9.4	91	--	--	142
JUN													
21...	0940	--	--	--	--	--	--	--	--	--	--	--	--

301739097471201 -- Lk Austin Site AC

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT													
22...	267	<10	--	E.003	E.028	<.041	--	--	.26	<.060	<.060	<.018	3.4
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	278	<10	.049	.013	.062	.104	.45	.29	.39	<.060	<.060	<.018	3.8
MAR													
28...	261	<10	--	E.003	.456	E.023	.75	--	.29	<.060	<.060	<.018	5.7
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	262	<10	--	<.006	.428	E.022	.69	--	.26	<.060	<.060	<.018	3.9
JUN													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08154900 Lake Austin at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301739097471201 -- Lk Austin Site AC

DATE	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, SEDIMT, BED MA-TERIAL AS FE) (01170)
OCT													
22...	--	--	--	--	--	--	--	--	--	--	2.8	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	3.4	--	--
MAR													
28...	.3	<.1	--	--	--	--	--	--	--	E1.6	1.4	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	E1.5	1.7	--	--
JUN													
21...	--	--	95	98	100	100	100	.3	13	--	--	18	15000

301739097471201 -- Lk Austin Site AC

DATE	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
OCT					
22...	--	<1.00	--	--	--
22...	--	--	--	--	--
22...	--	--	--	--	--
22...	--	--	--	--	--
22...	--	--	--	--	--
22...	--	<1.00	--	--	--
MAR					
28...	--	--	--	--	--
28...	--	--	--	--	--
28...	--	--	--	--	--
28...	--	--	--	--	--
28...	--	--	--	--	--
28...	--	--	--	--	--
JUN					
21...	24	--	1500	.03	60

301739097470901 -- Lk Austin Site AL

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
OCT							
22...	0915	1.00	483	7.9	21.7	7.2	83
22...	0917	10.0	486	7.8	21.6	6.2	71
22...	0919	24.0	497	7.4	21.0	3.8	43
MAR							
28...	1010	1.00	451	7.9	13.5	9.5	92
28...	1012	10.0	453	7.9	13.5	9.4	91
28...	1014	23.0	457	7.9	13.5	9.3	90

08154900 Lake Austin at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

302043097472401 -- Lk Austin Site BC

DATE	TIME	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT													
22...	0930	2.00	1.00	482	7.9	21.8	1.0	1.8	7.0	81	400	E280	142
22...	0936	--	30.0	459	7.6	21.1	15	23	5.9	67	--	--	133
MAR													
28...	1034	2.40	1.00	444	8.0	13.0	--	4.0	9.6	92	44	58	142
28...	1036	--	10.0	446	8.0	13.0	--	--	9.6	92	--	--	--
28...	1038	--	20.0	446	8.0	12.5	--	--	9.8	93	--	--	--
28...	1040	--	30.0	435	8.0	12.0	--	17	9.8	92	--	--	149
JUN													
21...	1015	--	--	--	--	--	--	--	--	--	--	--	--

302043097472401 -- Lk Austin Site BC

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)
OCT													
22...	266	<10	--	E.004	.055	<.041	.33	--	.27	<.060	<.060	<.018	--
22...	259	26	.289	.008	.297	E.038	.71	--	.42	E.040	<.060	<.018	--
MAR													
28...	260	<10	--	<.006	.404	E.021	.74	--	.34	<.060	<.060	<.018	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	254	10	--	E.004	.746	.041	1.2	.39	.43	E.050	E.048	.025	.077
JUN													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

302043097472401 -- Lk Austin Site BC

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)
OCT													
22...	3.9	--	--	--	--	--	--	--	--	--	--	2.6	--
22...	4.9	--	--	--	--	--	--	--	--	--	--	3.5	--
MAR													
28...	3.6	.2	<.1	--	--	--	--	--	--	--	E1.5	1.5	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	4.0	--	--	--	--	--	--	--	--	--	E1.7	1.4	--
JUN													
21...	--	--	--	93	98	100	100	100	.2	7.8	--	--	14

302043097472401 -- Lk Austin Site BC

DATE	IRON, SEDIMT, BED MA-TERIAL AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
OCT						
22...	--	--	<1.00	--	--	--
22...	--	--	<1.00	--	--	--
MAR						
28...	--	--	--	--	--	--
28...	--	--	--	--	--	--
28...	--	--	--	--	--	--
28...	--	--	--	--	--	--
JUN						
21...	8900	19	--	730	.03	40

08154900 Lake Austin at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

302044097472301 -- Lk Austin Site BL

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
OCT							
22...	0950	1.00	480	7.8	21.8	6.9	80
22...	0952	10.0	481	7.9	21.8	7.2	83
22...	0954	19.0	481	7.9	21.8	7.2	83
MAR							
28...	1024	1.00	444	7.9	13.0	9.4	90
28...	1026	10.0	447	7.9	13.0	9.4	90
28...	1028	20.0	440	7.9	13.0	9.5	91

301926097502201 -- Lk Austin Site CC

DATE	TIME	TRANSPARENCY (SECCHI DISK) (M) (00078)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT													
22...	1015	3.00	1.00	484	7.8	21.6	.9	1.4	6.8	--	E84	E22	148
22...	1017	--	10.0	484	7.8	21.5	--	--	6.8	78	--	--	--
22...	1019	--	22.0	491	7.5	21.4	5.2	8.3	5.0	57	--	--	145
MAR													
28...	1100	2.10	1.00	439	7.9	11.5	--	8.2	8.9	83	46	56	138
28...	1102	--	10.0	441	7.8	11.5	--	--	8.8	82	--	--	--
28...	1104	--	23.0	439	7.8	11.5	--	5.7	8.8	82	--	--	140
JUN													
21...	1050	--	--	--	--	--	--	--	--	--	--	--	--

301926097502201 -- Lk Austin Site CC

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)
OCT													
22...	266	<10	<.006	E.038	E.026	--	.38	<.060	<.060	<.018	3.5	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	273	31	<.006	.070	E.021	.42	.35	<.060	<.060	<.018	4.4	--	--
MAR													
28...	256	<10	<.006	.473	<.041	.77	.30	<.060	<.060	E.011	4.0	.2	<.1
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	253	<10	<.006	.463	<.041	.77	.31	<.060	<.060	E.011	5.3	--	--
JUN													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

301926097502201 -- Lk Austin Site CC

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, SEDIMT, BED MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	LEAD, DISSOLVED (UG/L AS PB) (01049)
OCT													
22...	--	--	--	--	--	--	--	--	2.4	--	--	--	<1.00
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	2.8	--	--	--	<1.00
MAR													
28...	--	--	--	--	--	--	--	E1.4	E1.3	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	E1.3	1.4	--	--	--	--
JUN													
21...	37	46	75	100	100	.1	3.3	--	--	<10	4900	4.4	--

08154900 Lake Austin at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301926097502201 -- Lk Austin Site CC

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT			
22...	--	--	--
22...	--	--	--
22...	--	--	--
MAR			
28...	--	--	--
28...	--	--	--
28...	--	--	--
JUN			
21...	540	<.01	20

302021097540001 -- Lk Austin Site DC

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)
OCT													
22...	1040	1.00	495	7.6	22.6	5.5	64	--	--	--	--	--	--
22...	1042	10.0	495	7.6	22.5	5.3	62	--	--	--	--	--	--
22...	1044	17.0	506	7.3	22.2	1.6	19	--	--	--	--	--	--
MAR													
28...	1124	1.00	439	7.8	11.5	8.4	78	--	--	--	--	--	--
28...	1126	10.0	438	7.8	11.5	8.4	78	--	--	--	--	--	--
28...	1128	19.0	437	7.8	11.5	8.4	78	--	--	--	--	--	--
JUN													
21...	1130	--	--	--	--	--	--	26	32	51	95	100	.1

302021097540001 -- Lk Austin Site DC

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, SEDIMT, BED MATERIAL AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT							
22...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
MAR							
28...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
JUN							
21...	4.0	<10	4700	4.6	410	<.01	<20

302314097544901 -- Lk Austin Site EC

DATE	TIME	TRANSPARENCY (SECCHI DISK) (M) (00078)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT													
22...	1100	.60	1.00	508	7.6	22.1	4.5	10	3.6	42	560	720	149
22...	1102	--	7.00	492	7.5	21.8	25	29	3.2	37	--	--	--
MAR													
28...	1142	1.70	1.00	440	7.9	12.0	--	3.5	9.0	85	E33	E52	137
28...	1144	--	9.00	443	7.9	12.0	--	--	8.9	84	--	--	--

08154900 Lake Austin at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

302314097544901 -- Lk Austin Site EC

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT													
22...	281	<10	.043	.017	.060	.127	.53	.34	.47	<.060	<.060	<.018	4.1
22...	269	29	.070	.019	.089	.101	.65	.46	.56	E.038	<.060	<.018	4.6
MAR													
28...	256	<10	--	<.006	.478	<.041	.98	--	.51	<.060	<.060	E.014	3.8
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

302314097544901 -- Lk Austin Site EC

DATE	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT					
22...	--	--	--	2.7	<1.00
22...	--	--	--	3.1	E.61
MAR					
28...	.9	<.1	E1.3	1.6	--
28...	--	--	--	--	--

08155200 Barton Creek at State Highway 71 near Oak Hill, TX

LOCATION.--Lat 30°17'46", long 97°55'31", Travis County, Hydrologic Unit 12090205, at upstream side of bridge on State Highway 71, 0.1 mi downstream from Little Barton Creek, and 5.8 mi northwest of Oak Hill.

DRAINAGE AREA.--89.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Aug. 1975 to Feb. 1978 (peak discharge greater than base discharge), Feb. 1978 to Sept. 1982, Jan. 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 737.04 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair except those below 15.0 ft^3/s, which are poor. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.36	67	112	114	72	110	61	32	1.5	.00	2.2
2	.00	14	64	105	109	73	110	60	32	1.4	.00	.91
3	.00	191	61	99	106	104	108	58	29	1.5	.00	1.6
4	.00	102	61	96	101	121	105	57	27	1.4	.00	30
5	.00	94	61	90	95	100	102	76	24	1.3	.00	15
6	.00	440	60	85	93	96	99	80	22	1.2	.00	10
7	.00	170	57	83	90	93	99	196	21	.95	.00	6.4
8	.00	179	56	79	89	94	108	97	21	.80	.00	4.9
9	.00	125	54	76	87	94	103	114	22	.69	.00	4.9
10	.00	96	54	194	82	91	100	82	22	.65	.00	4.7
11	.00	84	54	226	81	91	97	74	19	.63	.00	4.7
12	.00	78	51	147	80	144	93	70	16	.58	.00	3.5
13	.00	71	71	139	78	107	93	78	14	.54	.00	3.1
14	.00	65	74	135	78	112	91	69	12	.52	.00	3.0
15	.00	63	66	120	77	123	86	63	12	.50	.00	2.7
16	.00	61	63	118	99	107	e78	61	13	.47	.00	2.5
17	.00	57	59	145	88	107	77	57	13	.46	.00	2.4
18	.00	75	60	180	80	121	79	55	11	.45	.00	2.5
19	.00	102	57	165	79	133	76	52	8.7	.43	.00	2.4
20	.00	83	58	148	77	115	75	52	7.4	.41	.00	2.1
21	.27	77	57	140	76	114	72	50	6.2	.38	.00	2.2
22	4.6	75	56	131	72	108	69	47	5.2	.36	.00	2.4
23	1.4	77	56	124	73	101	89	44	5.0	.35	.00	2.2
24	.71	103	56	120	76	99	84	39	4.4	.32	.00	2.2
25	.61	90	88	116	70	94	71	44	3.8	.30	.00	2.9
26	.52	81	193	113	68	92	66	e45	3.2	.29	.01	2.4
27	.44	77	188	115	69	121	65	e46	2.7	.28	.18	1.9
28	.40	76	152	134	67	165	66	41	2.3	.25	.51	1.8
29	.41	72	136	143	---	127	63	40	1.8	.11	e.42	1.5
30	.39	69	125	131	---	120	61	36	1.4	.00	3.8	1.3
31	.36	---	119	120	---	115	---	34	---	.00	7.3	---
TOTAL	10.11	2947.36	2434	3929	2354	3354	2595	1978	414.1	19.02	12.22	130.31
MEAN	.33	98.2	78.5	127	84.1	108	86.5	63.8	13.8	.61	.39	4.34
MAX	4.6	440	193	226	114	165	110	196	32	1.5	7.3	30
MIN	.00	.36	51	76	67	72	61	34	1.4	.00	.00	.91
AC-FT	20	5850	4830	7790	4670	6650	5150	3920	821	38	24	258
CFSM	.00	1.10	.88	1.41	.94	1.21	.96	.71	.15	.01	.00	.05
IN.	.00	1.22	1.01	1.63	.98	1.39	1.08	.82	.17	.01	.01	.05

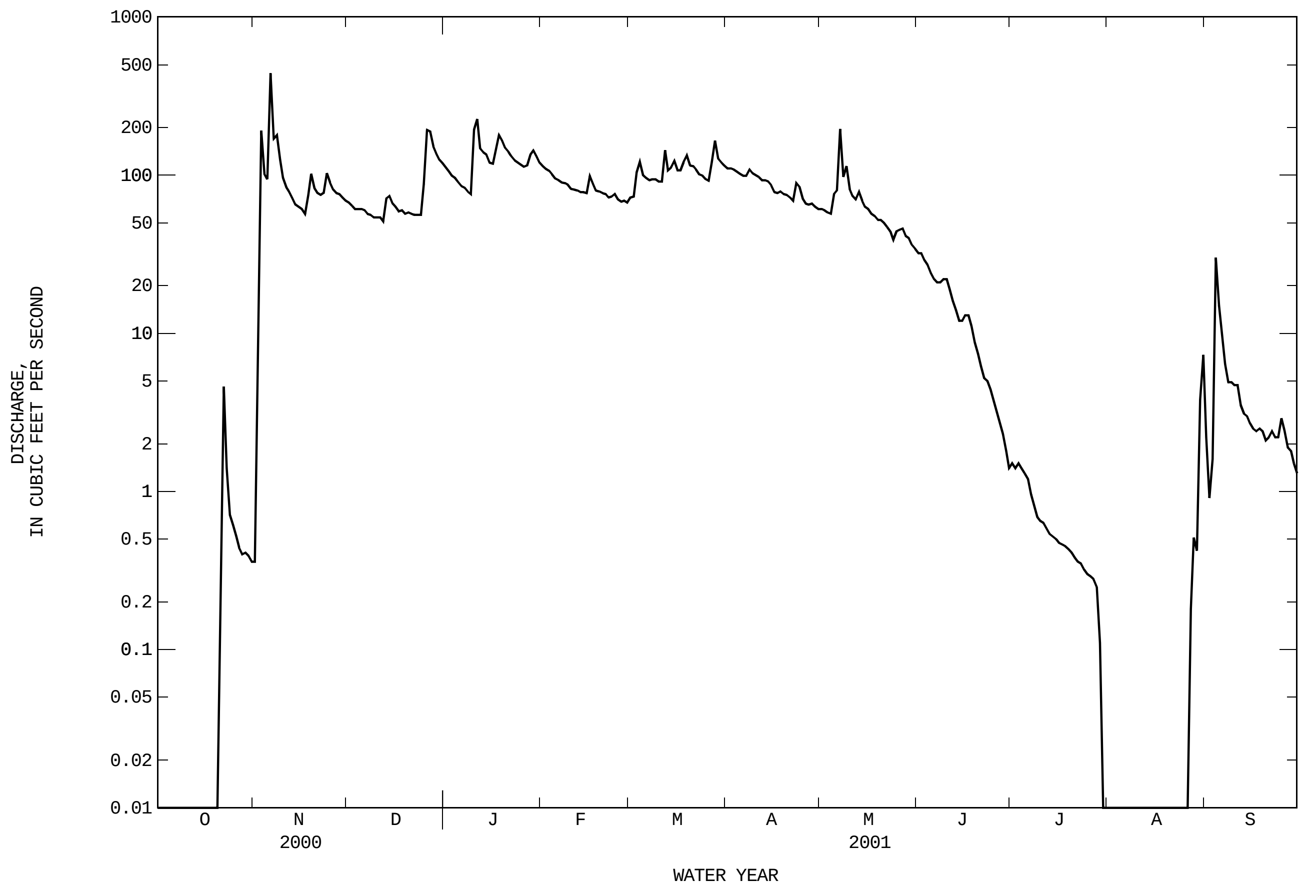
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	21.7	22.1	51.6	49.5	63.2	63.6	47.4	66.5	95.7	11.7	2.64	2.25
MAX	192	156	520	293	465	338	196	226	613	56.5	15.2	24.2
(WY)	1999	1999	1992	1992	1992	1992	1979	1992	1981	1997	1991	1991
MIN	.000	.000	.000	.000	.000	.000	.040	.001	.000	.000	.000	.000
(WY)	1991	2000	2000	2000	2000	2000	2000	1996	1996	1978	1996	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1978 - 2001h	
ANNUAL TOTAL	5994.47		20177.12			
ANNUAL MEAN	16.4		55.3		43.9	
HIGHEST ANNUAL MEAN					182	1992
LOWEST ANNUAL MEAN					.17	1996
HIGHEST DAILY MEAN	440	Nov 6	440	Nov 6	4960	Dec 21 1991
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Feb 7 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Feb 7 1978
MAXIMUM PEAK FLOW			905	Nov 6	14900	Dec 20 1991
MAXIMUM PEAK STAGE			5.74	Nov 6	18.10	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	11890		40020		31830	
ANNUAL RUNOFF (CFSM)	.18		.62		.49	
ANNUAL RUNOFF (INCHES)	2.49		8.37		6.66	
10 PERCENT EXCEEDS	66		120		94	
50 PERCENT EXCEEDS	.00		57		3.8	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
h See PERIOD OF RECORD paragraph.

08155200 Barton Creek at State Highway 71 near Oak Hill, TX--Continued



08155200 Barton Creek at State Highway 71 near Oak Hill, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1978 to Sept. 1982, Feb. 1989 to current year.
BIOCHEMICAL DATA: Apr. 1978 to Sept. 1982, Feb. 1989 to current year.
RADIOCHEMICAL DATA: Oct. 1979 to Sept. 1980.
PESTICIDE DATA: Apr. 1978 to Sept. 1982, Jan. 1998 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV 02-03	2030	57	--	354	8.0	--	250	340	--	--	--	35	E8000
DEC 04...	0925	--	61	626	8.1	11.0	<1	.4	--	10.2	93.1	<10	E14
APR 16...	0855	--	79	592	7.6	23.0	<1	2.0	--	6.6	78.4	<10	41
MAY 06-07	2320	204	--	433	7.6	--	100	280	--	--	--	31	E4200
JUN 04...	1130	--	26	573	7.8	27.5	<1	--	2.5	7.0	91.0	<10	45
JUL 10...	0920	--	.73	557	7.8	26.5	<1	--	6.1	4.8	61.0	<10	49

DATE	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV 02-03	14000	124	--	780	.330	.011	.341	<.041	2.46	2.1	.551	E.030	<.018
DEC 04...	48	254	--	<10	--	<.006	.251	E.033	.510	.26	<.060	<.060	<.018
APR 16...	23	214	--	<10	--	<.006	.070	E.023	.270	.20	<.060	<.060	<.018
MAY 06-07	5000	--	150	221	.222	.009	.231	E.034	1.62	1.4	.231	<.060	<.018
JUN 04...	40	185	--	<10	--	<.006	<.050	<.040	--	.12	<.060	<.060	<.020
JUL 10...	36	211	--	<10	--	.010	E.024	E.025	--	.11	<.060	<.060	<.020

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV 02-03	20	--	--	.18	9.2	12	35
DEC 04...	1.7	.1	<.1	<.11	<1.2	<1	1
APR 16...	1.8	.1	<.1	<.11	<1.8	<1	14
MAY 06-07	14	--	--	E.10	4.1	6	21
JUN 04...	1.9	<.1	<.1	<.10	<1.0	<1	1
JUL 10...	1.6	.1	<.1	<.10	<1.0	<1	4

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08155240 Barton Creek at Lost Creek Boulevard, Austin, TX

LOCATION.--Lat 30°16'26", long 97°50'40", Travis County, Hydrologic Unit 12090205, 1.4 mi southwest of intersection of Lost Creek Boulevard and Loop 360, and 6.2 mi west of State Capitol Building in Austin.

DRAINAGE AREA.--107 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Jan. 1979 to Sept. 1980 (periodic gage heights and discharge measurements only), Dec. 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600 ft above sea level, from topographic map. Satellite telemeter at station.

REMARKS.--Records fair except those below 15.0 ft^3/s, which are poor. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1929, was probably the highest since that date (discharge 39,400 ft^3/s), based on slope-area measurement of peak flow at a site about 2.1 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.5	73	122	139	75	195	43	22	1.3	.00	3.0
2	.00	8.6	68	107	134	81	182	40	21	1.2	.00	5.1
3	.00	454	63	102	126	118	170	39	21	1.3	.00	4.0
4	.00	255	62	99	122	159	162	37	17	1.1	.00	15
5	.00	118	61	94	114	132	157	52	15	1.2	.00	21
6	.00	619	59	87	111	125	150	74	14	1.0	.00	15
7	.00	307	54	83	106	122	143	257	14	.95	.00	12
8	.00	334	51	77	103	123	137	116	13	.77	.00	9.8
9	.00	232	47	75	103	124	128	131	13	.70	.00	8.5
10	.00	171	44	137	95	118	120	84	13	.60	.00	8.4
11	.00	140	43	326	91	116	114	70	12	.48	.00	8.0
12	.00	115	34	174	89	201	106	64	11	.43	.00	8.2
13	.00	98	48	163	85	170	102	67	8.9	.40	.00	7.5
14	.00	87	63	156	84	171	99	65	6.9	.40	.00	7.2
15	.00	81	58	144	82	209	92	55	6.3	.43	.00	6.3
16	.00	78	56	138	108	171	87	50	5.8	.45	.00	5.9
17	.03	73	51	148	114	160	81	48	5.8	.33	.00	5.4
18	.02	92	50	199	92	185	80	43	5.8	.31	.00	4.7
19	.02	126	50	191	87	223	76	40	5.0	.29	.00	4.4
20	.02	115	48	164	85	175	71	38	4.2	.26	.00	4.0
21	.26	e105	48	157	83	173	68	37	3.4	.25	.01	4.3
22	3.8	94	45	151	81	161	66	34	3.6	.23	.01	3.7
23	4.7	97	45	145	81	154	79	30	3.3	.20	.01	4.0
24	7.4	119	45	144	83	151	98	28	3.1	.17	.02	3.8
25	5.8	112	46	139	77	141	69	30	2.8	.16	.02	3.8
26	4.0	99	e194	142	70	134	59	39	2.5	.16	1.5	3.5
27	3.7	94	156	147	70	188	53	43	2.1	.13	.64	3.8
28	3.9	90	186	160	71	307	49	36	1.7	.07	.07	4.0
29	3.1	86	e150	175	---	240	46	30	1.3	.04	.10	3.5
30	2.1	78	137	168	---	222	44	26	1.2	.03	1.2	3.0
31	1.7	---	137	149	---	216	---	26	---	.01	10	---
TOTAL	40.55	4479.1	2272	4463	2686	5045	3083	1772	259.7	15.35	13.58	200.8
MEAN	1.31	149	73.3	144	95.9	163	103	57.2	8.66	.50	.44	6.69
MAX	7.4	619	194	326	139	307	195	257	22	1.3	10	21
MIN	.00	1.5	34	75	70	75	44	26	1.2	.01	.00	3.0
AC-FT	80	8880	4510	8850	5330	10010	6120	3510	515	30	27	398

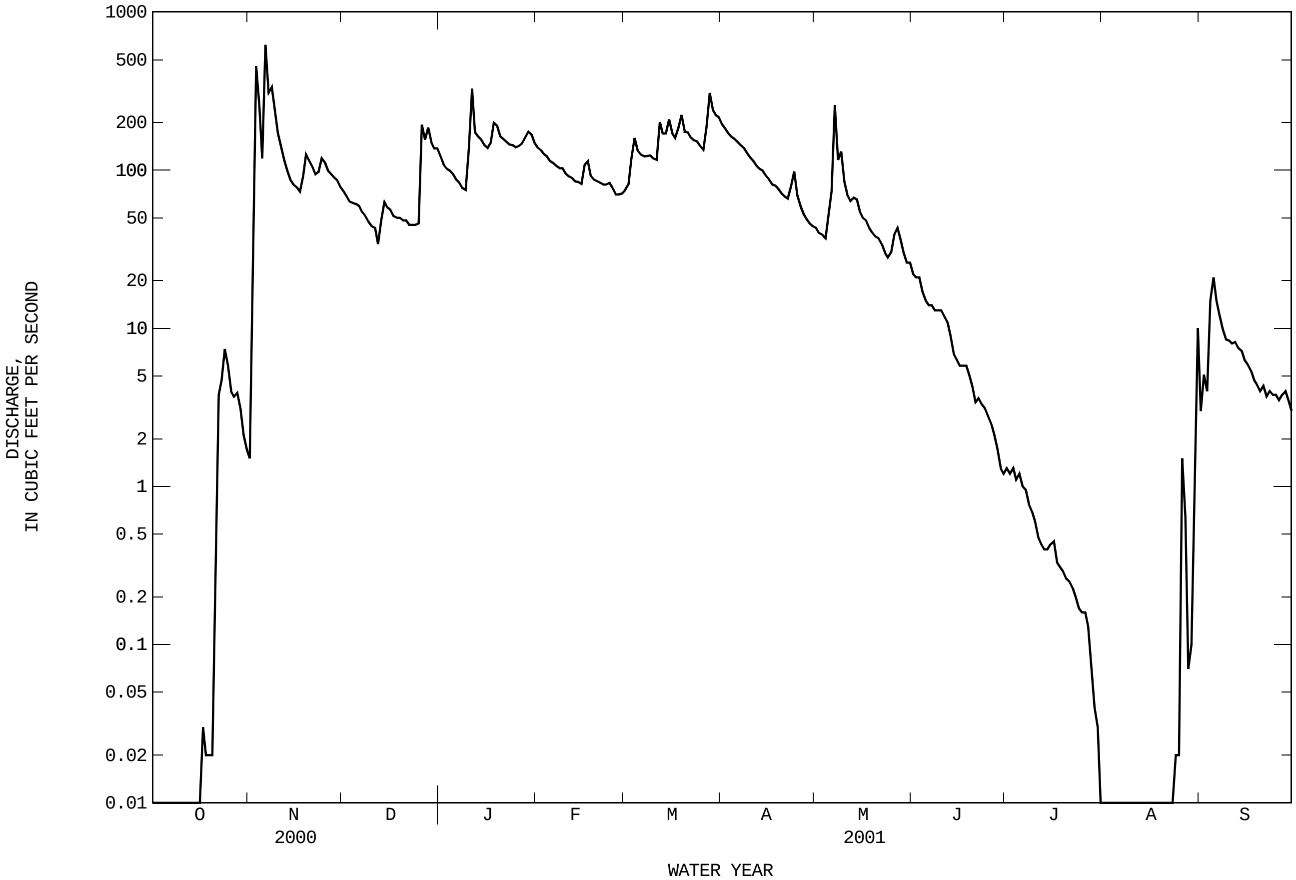
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.4	33.5	76.1	69.5	92.9	80.0	61.2	87.1	105	12.1	3.25	3.27
MAX	269	188	627	307	581	381	247	264	701	67.8	23.2	25.6
(WY)	1999	1999	1992	1992	1992	1992	1997	1992	1997	1997	1991	1991
MIN	.025	.23	.22	.40	.96	.81	.84	.42	.93	.17	.005	.001
(WY)	2000	2000	1990	1990	1996	1996	1996	1996	1998	1996	1998	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1989 - 2001	
ANNUAL TOTAL	8430.98		24330.08			
ANNUAL MEAN	23.0		66.7		55.6	
HIGHEST ANNUAL MEAN					212	1992
LOWEST ANNUAL MEAN					1.14	1996
HIGHEST DAILY MEAN	619	Nov 6	619	Nov 6	7000	Dec 21 1991
LOWEST DAILY MEAN	.00	Aug 30	.00	Oct 1	.00	Aug 24 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 30	.00	Oct 1	.00	Aug 24 1993
MAXIMUM PEAK FLOW			1070	Nov 6	16400	Dec 21 1991
MAXIMUM PEAK STAGE			4.74	Nov 6	12.90	Dec 21 1991
ANNUAL RUNOFF (AC-FT)	16720		48260		40320	
10 PERCENT EXCEEDS	74		161		127	
50 PERCENT EXCEEDS	1.9		47		5.6	
90 PERCENT EXCEEDS	.00		.01		.18	

e Estimated

08155240 Barton Creek at Lost Creek Boulevard, Austin, TX--Continued



08155240 Barton Creek at Lost Creek Boulevard, Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Dec. 1988 to current year.
BIOCHEMICAL DATA: Dec. 1988 to current year.
PESTICIDE DATA: Jan. 1993 to May 1995.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV													
02-03	2235	120	--	571	8.1	--	13	18	--	--	--	11	16000
DEC													
06...	1100	--	61	652	8.1	12.7	<1	.4	--	9.5	90.2	<10	100
APR													
16...	1035	--	86	589	7.7	23.0	2	1.8	--	6.1	72.0	<10	27
MAY													
06-07	2135	228	--	471	7.7	--	18	46	--	--	--	14	E3200
JUN													
04...	1250	--	17	582	7.8	27.5	2	--	3.1	6.8	87.8	<10	96
JUL													
10...	1015	--	.72	653	7.9	27.5	<1	--	5.2	5.5	70.8	<10	30

DATE	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV													
02-03	8000	145	34	.783	.010	.793	E.037	1.48	--	.68	.099	E.041	.036
DEC													
06...	84	225	<10	--	<.006	.410	<.041	.702	--	.29	<.060	<.060	<.018
APR													
16...	26	194	<10	--	<.006	.116	<.041	.313	--	.20	<.060	<.060	<.018
MAY													
06-07	E4200	162	68	--	E.004	.136	<.041	.977	--	.84	.074	<.060	<.018
JUN													
04...	21	181	<10	--	E.003	.066	<.040	.252	--	.19	<.060	<.060	<.020
JUL													
10...	30	213	<10	--	<.006	E.041	.049	--	.224	.27	<.060	<.060	<.020

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV								
02-03	.110	6.2	--	--	<.11	E1.3	M	7
DEC								
06...	--	1.9	<.1	<.1	<.11	<1.2	<1	3
APR								
16...	--	2.1	.2	<.1	<.11	<1.8	<1	2
MAY								
06-07	--	6.4	--	--	<.11	E1.2	1	7
JUN								
04...	--	1.9	<.1	<.1	<.10	<1.0	<1	2
JUL								
10...	--	3.0	.3	<.1	<.10	<1.0	<1	1

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08155300 Barton Creek at Loop 360, Austin, TX

LOCATION.--Lat 30°14′40", long 97°48′07", Travis County, Hydrologic Unit 12090205, on Loop 360, 0.9 mi west of the intersection of Ben White and Lamar Boulevards, and 4.3 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--116 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to Jan. 1977 (peak discharge greater than base discharge), Feb. 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 510.32 ft above sea level (Texas Department of Transportation bench mark). Satellite telemeter at station.

REMARKS.--Records fair except those below 5.0 ft^3/s, which are poor. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1929, was probably the highest since that date (discharge 39,400 ft^3/s), based on a slope-area measurement of peak flow at a site about 2 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	38	111	108	43	140	19	1.9	.00	.00	.63
2	.00	16	34	103	103	50	133	17	.91	.00	.00	.00
3	.00	415	32	97	101	82	130	15	.32	.00	.00	.63
4	.00	228	30	92	96	129	124	13	.04	.00	.00	.21
5	.00	86	29	87	92	103	117	23	.00	.00	.00	.00
6	.00	487	26	82	86	95	111	45	.00	.00	.00	.00
7	.00	235	24	75	78	91	105	191	.00	.00	.00	.00
8	.00	245	21	66	73	92	99	101	.00	.00	.00	.00
9	.00	176	18	61	71	93	94	104	.00	.00	.00	.00
10	.00	127	16	113	64	88	90	71	.00	.00	.00	.00
11	.00	103	14	273	60	85	86	51	.00	.00	.00	.00
12	.00	89	14	152	58	160	78	42	.00	.00	.00	.00
13	.00	71	25	138	56	134	71	43	.00	.00	.00	.00
14	.00	54	38	135	52	131	65	47	.00	.00	.00	.00
15	.27	46	31	123	50	151	61	36	.00	.00	.00	.00
16	.00	31	24	115	77	128	58	30	.00	.00	.00	.00
17	.00	26	21	122	88	119	53	26	.00	.00	.00	.00
18	.00	45	19	168	63	129	52	22	.00	.00	.00	.00
19	.00	93	19	160	57	153	50	19	.00	.00	.00	.00
20	.00	73	18	145	54	136	46	18	.00	.00	.00	.00
21	1.2	60	16	136	50	127	42	16	.00	.00	.00	.37
22	.77	53	15	127	47	120	37	14	.01	.00	.00	.00
23	.00	54	14	121	46	111	42	12	.00	.00	.00	.00
24	.00	71	14	115	49	108	71	9.3	.00	.00	.00	.00
25	.00	e65	33	107	45	101	44	8.6	.00	.00	.00	.00
26	.00	e58	186	102	39	96	34	14	.00	.00	63	.00
27	.00	e51	221	105	38	130	29	20	.00	.00	5.9	.00
28	.00	e51	167	117	39	208	26	14	.00	.00	.00	.00
29	.00	46	141	134	---	169	23	8.0	.00	.00	.04	.00
30	.00	41	128	130	---	155	21	4.6	.00	.00	23	.00
31	.00	---	119	114	---	152	---	3.4	---	.00	92	---
TOTAL	2.24	3196.00	1545	3726	1840	3669	2132	1056.9	3.18	0.00	183.94	1.84
MEAN	.072	107	49.8	120	65.7	118	71.1	34.1	.11	.000	5.93	.061
MAX	1.2	487	221	273	108	208	140	191	1.9	.00	92	.63
MIN	.00	.00	14	61	38	43	21	3.4	.00	.00	.00	.00
AC-FT	4.4	6340	3060	7390	3650	7280	4230	2100	6.3	.00	365	3.6
CFSM	.00	.92	.43	1.04	.57	1.02	.61	.29	.00	.00	.05	.00
IN.	.00	1.02	.50	1.19	.59	1.18	.68	.34	.00	.00	.06	.00

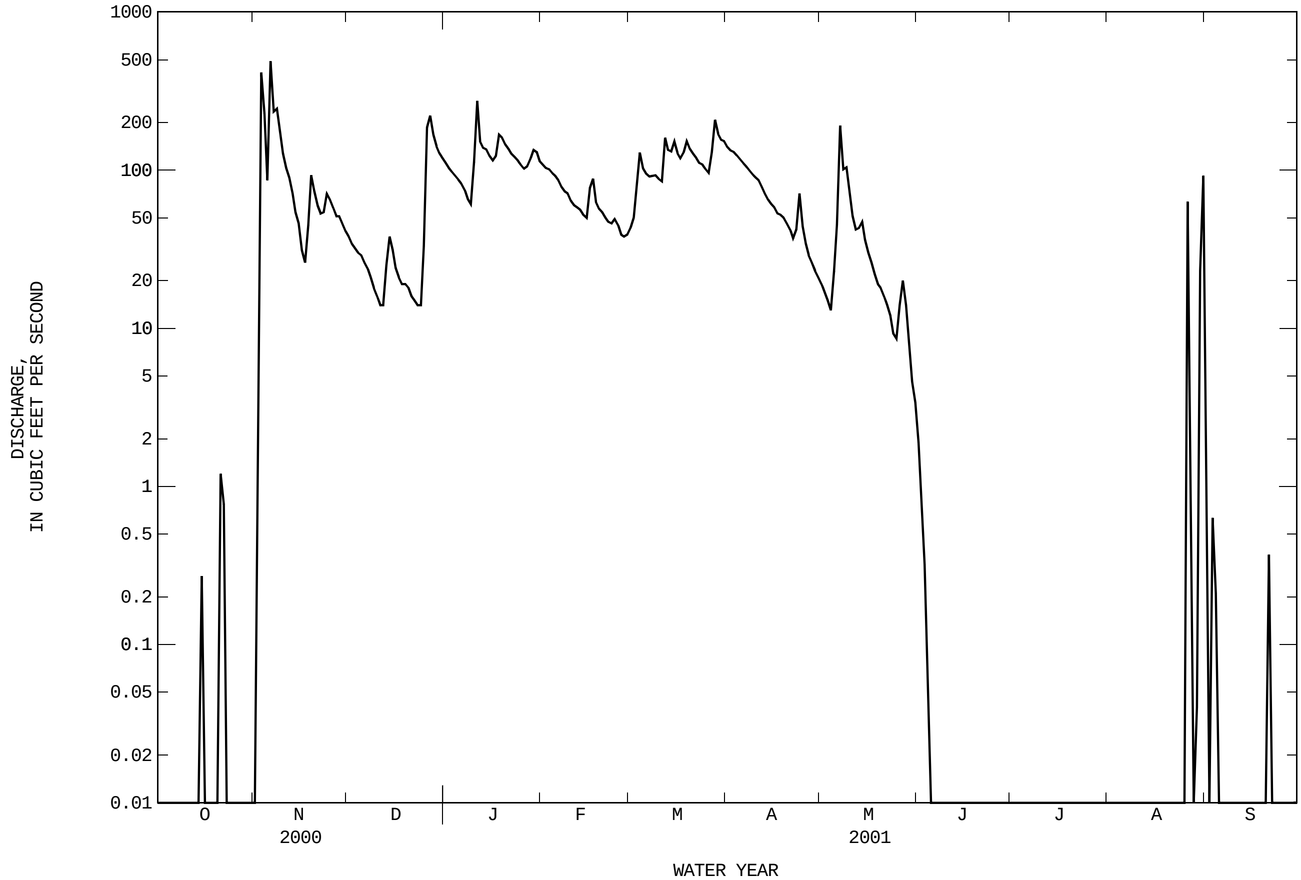
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.3	20.1	69.1	42.6	61.7	55.2	48.1	75.0	145	7.62	.93	.48
MAX	282	204	865	281	609	342	319	321	1142	73.1	13.9	7.57
(WY)	1999	1999	1992	1992	1992	1992	1977	1992	1987	1981	1991	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1978	1978	1978	1978	1978	1978	1978	1978	1978	1977	1977	1977

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1977 - 2001	
ANNUAL TOTAL	5433.82		17356.10			
ANNUAL MEAN	14.8		47.6		45.4	
HIGHEST ANNUAL MEAN					229	1992
LOWEST ANNUAL MEAN					.000	1978
HIGHEST DAILY MEAN	487	Nov 6	487	Nov 6	10800	Dec 21 1991
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Apr 11 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 9	.00	Oct 1	.00	Jun 10 1977
MAXIMUM PEAK FLOW			1080	Aug 26	18100	May 25 1981
MAXIMUM PEAK STAGE			6.26	Aug 26	15.03	May 25 1981
ANNUAL RUNOFF (AC-FT)	10780		34430		32920	
ANNUAL RUNOFF (CFSM)	.13		.41		.39	
ANNUAL RUNOFF (INCHES)	1.74		5.57		5.32	
10 PERCENT EXCEEDS	39		129		98	
50 PERCENT EXCEEDS	.00		21		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08155300 Barton Creek at Loop 360, Austin, TX--Continued



08155300 Barton Creek at Loop 360, Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 1979 to current year.
BIOCHEMICAL DATA: Jan. 1979 to current year.
RADIOCHEMICAL DATA: Apr. 1980.
PESTICIDE DATA: Jan. 1979 to Sept. 1986.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV													
02-03	1420	110	--	221	7.6	--	50	20	--	--	--	13	120000
DEC													
04...	1050	--	30	629	8.2	10.5	<1	.7	--	10.5	93.6	<10	E1
APR													
16...	1235	--	59	572	8.1	24.0	<1	1.7	--	6.9	82.7	<10	80
MAY													
06-07	2150	205	--	306	7.8	--	12	26	--	--	--	<10	92000
30...	0915	--	4.7	533	7.8	27.0	5	.6	--	5.3	67.3	<10	E85
AUG													
26...	1915	177	--	92	7.1	--	70	--	83	--	--	57	72000

DATE	E COLI, MTEC MF WATER (COL/100 ML) (31633)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
NOV													
02-03	74000	--	69	41	.334	.008	.342	.051	.846	.453	.50	.431	E.052
DEC													
04...	E9	4	212	<10	--	<.006	.400	<.041	.630	--	.23	<.060	<.060
APR													
16...	44	--	197	<10	--	<.006	.093	E.026	.285	--	.19	<.060	<.060
MAY													
06-07	68000	--	103	145	.182	.010	.192	<.041	.733	--	.54	E.042	<.060
30...	64	--	169	<10	--	E.004	E.039	E.023	--	--	.20	<.060	<.060
AUG													
26...	60000	--	30	280	.711	.042	.753	.215	2.91	1.94	2.2	.416	.195

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV									
02-03	.044	.135	6.9	--	--	<.11	2.0	3	18
DEC									
04...	<.018	--	1.9	<.1	<.1	<.11	<1.2	<1	5
APR									
16...	<.018	--	2.1	.1	<.1	<.11	<1.8	<1	2
MAY									
06-07	<.018	--	7.6	--	--	<.11	1.7	2	36
30...	<.020	--	2.0	.2	<.1	<.10	<1.0	<1	<1
AUG									
26...	E.154	--	30	--	--	.16	6.7	9	38

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08155400 Barton Creek above Barton Springs, Austin, TX

LOCATION.--Lat 30°15’48", long 97°46’19", Travis County, Hydrologic Unit 12090205, on left bank of Barton Creek approximately 200 ft above Barton Springs Pool.

DRAINAGE AREA.--125 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Sept. 1981 to Oct. 1984 (daily mean discharge less than base discharge), Sept. 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 430.5 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records poor except those for daily discharges after May 10, which are fair. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

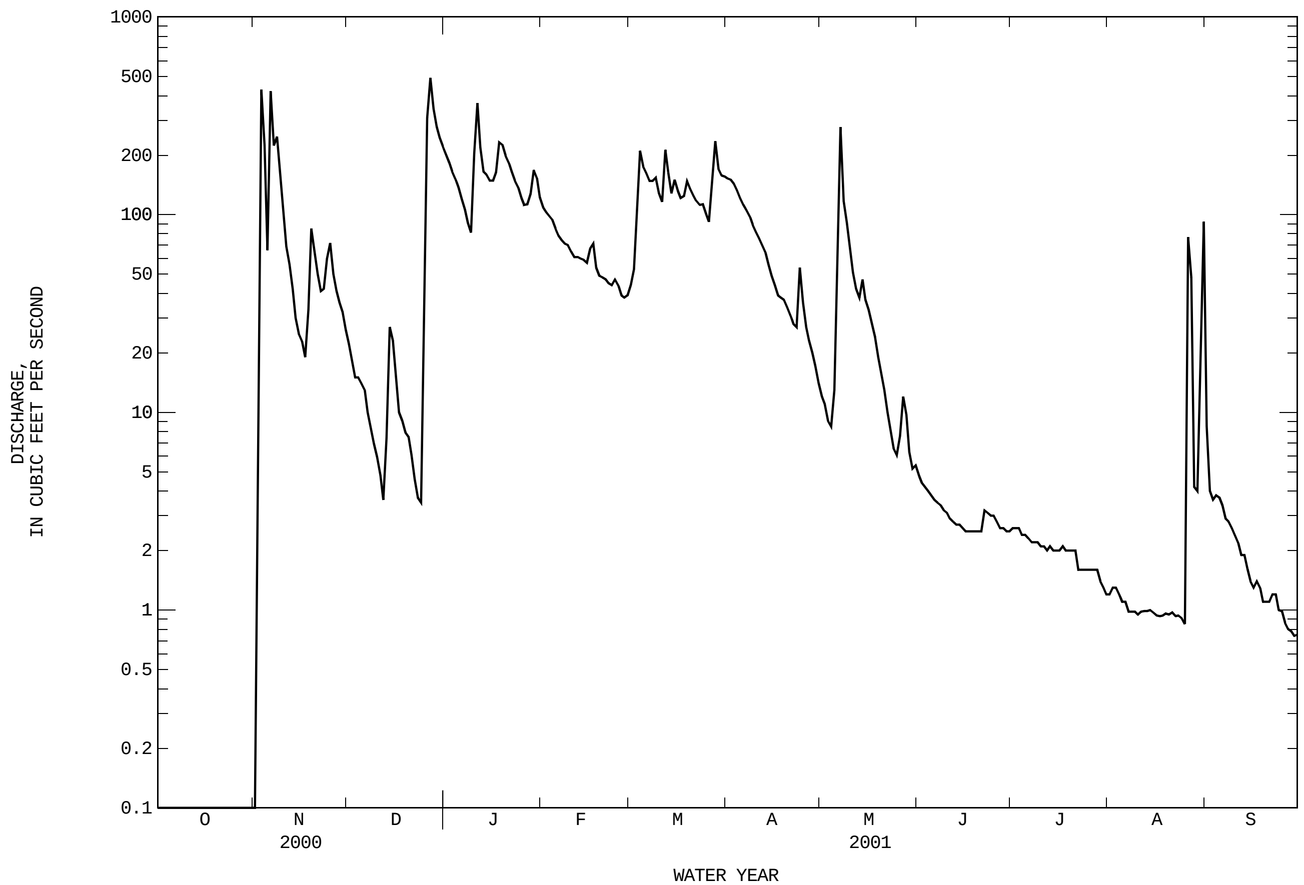
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	22	202	109	44	152	12	4.8	2.6	1.2	8.5
2	.00	20	18	183	103	53	150	11	4.4	2.6	1.3	4.0
3	.00	429	15	166	98	95	143	9.1	4.2	2.6	1.3	3.6
4	.00	224	15	152	94	210	133	8.5	4.0	2.4	1.2	3.8
5	.00	66	14	137	85	175	121	13	3.8	2.4	1.1	3.7
6	.00	421	13	120	78	162	112	58	3.6	2.3	1.1	3.4
7	.00	223	10	106	74	148	105	277	3.5	2.2	.98	2.9
8	.00	248	8.3	91	71	148	98	117	3.4	2.2	.98	2.8
9	.00	148	6.9	81	70	154	89	91	3.2	2.2	.98	2.6
10	.00	100	5.9	204	65	128	82	66	3.1	2.1	.95	2.4
11	.00	69	4.8	366	61	116	76	51	2.9	2.1	.98	2.2
12	.00	56	3.6	219	61	213	70	42	2.8	2.0	.99	1.9
13	.00	42	7.4	165	60	164	65	38	2.7	2.1	.99	1.9
14	.00	30	27	159	59	128	56	47	2.7	2.0	1.0	1.6
15	.00	25	23	149	57	150	49	37	2.6	2.0	.97	1.4
16	.00	23	16	149	67	132	44	33	2.5	2.0	.94	1.3
17	.00	19	10	163	71	121	39	28	2.5	2.1	.93	1.4
18	.00	33	9.1	233	54	124	38	24	2.5	2.0	.94	1.3
19	.00	85	7.9	226	49	148	37	19	2.5	2.0	.96	1.1
20	.00	65	7.5	199	48	135	34	16	2.5	2.0	.95	1.1
21	.00	50	6.1	183	47	125	31	13	2.5	2.0	.97	1.1
22	.00	41	4.6	165	45	117	28	10	3.2	1.6	.93	1.2
23	.00	42	3.7	149	44	112	27	8.1	3.1	1.6	.94	1.2
24	.00	60	3.5	138	47	113	54	6.6	3.0	1.6	.91	1.0
25	.00	72	23	122	44	101	36	6.1	3.0	1.6	.85	.99
26	.00	50	309	112	39	92	27	7.6	2.8	1.6	77	.86
27	.00	41	492	113	38	144	23	12	2.6	1.6	48	.80
28	.00	36	343	127	39	235	20	9.7	2.6	1.6	4.2	.78
29	.00	32	277	168	---	171	17	6.3	2.5	1.4	4.0	.74
30	.00	26	245	153	---	158	14	5.2	2.5	1.3	30	.75
31	.00	---	222	122	---	156	---	5.4	---	1.2	92	---
TOTAL	0.00	2776.00	2173.3	5022	1777	4272	1970	1087.6	92.0	61.0	280.54	62.32
MEAN	.000	92.5	70.1	162	63.5	138	65.7	35.1	3.07	1.97	9.05	2.08
MAX	.00	429	492	366	109	235	152	277	4.8	2.6	92	8.5
MIN	.00	.00	3.5	81	38	44	14	5.2	2.5	1.2	.85	.74
AC-FT	.00	5510	4310	9960	3520	8470	3910	2160	182	121	556	124

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	141	220	70.4	57.9	21.7	46.5	22.5	13.8	13.6	1.25	3.08	.69
MAX	422	566	141	162	63.5	138	65.7	35.1	32.5	1.97	9.05	2.08
(WY)	1999	1999	1999	2001	2001	2001	2001	2001	2000	2001	2001	2001
MIN	.000	.000	.000	.000	.000	.000	.000	.31	3.07	.001	.000	.000
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	2001	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1998 - 2001	
ANNUAL TOTAL	5932.56		19573.76			
ANNUAL MEAN	16.2		53.6		51.0	
HIGHEST ANNUAL MEAN					96.9	1999
LOWEST ANNUAL MEAN					2.69	2000
HIGHEST DAILY MEAN	644	Jun 10	492	Dec 27	2040	Oct 17 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Sep 4 1999
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Sep 6 1999
MAXIMUM PEAK FLOW			1000	Aug 26	7300	Oct 17 1998
MAXIMUM PEAK STAGE			9.98	Nov 3	14.71	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	11770		38820		36970	
10 PERCENT EXCEEDS	25		155		142	
50 PERCENT EXCEEDS	.00		14		1.3	
90 PERCENT EXCEEDS	.00		.83		.00	

08155400 Barton Creek above Barton Springs, Austin, TX--Continued



08155400 Barton Creek above Barton Springs, Austin, TX

LOCATION.--Lat 30°15'48", long 97°46'19", Travis County, Hydrologic Unit 12090205, on left bank of Barton Creek approximately 200 ft above Barton Springs pool.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1998 to current year.
BIOCHEMICAL DATA: Oct. 1998 to current year.
PESTICIDE DATA: Oct. 1998 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E COLI, MTEC MF WATER (COL/100 ML) (31633)
NOV													
02-03	1940	194	--	163	--	--	60	30	--	--	18	38000	53000
DEC													
04...	1240	--	15	626	7.8	13.0	<1	.8	9.9	93.4	<10	E13	56
MAR													
12-12	0130	244	--	434	7.7	--	100	65	--	--	26	5000	E750
APR													
16...	1400	--	44	572	8.0	24.0	2	2.4	6.9	82.6	<10	46	28
MAY													
03...	2315	--	8.6	--	--	--	--	--	--	--	--	--	--
MAY													
06-07	2135	323	25	313	7.4	--	20	68	--	--	32	28000	60000
06...	2245	--	682	--	--	--	--	--	--	--	--	--	--
07...	1700	--	368	--	--	--	--	--	--	--	--	--	--
07...	1702	--	369	--	--	--	--	--	--	--	--	--	--
08...	1940	--	78	--	--	--	--	--	--	--	--	--	--
10...	1505	--	114	--	--	--	--	--	--	--	--	--	--
30...	0950	--	5.4	616	7.2	23.0	--	.5	4.7	55.4	<10	110	41

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)
NOV													
02-03	66	58	.952	.009	.961	.041	1.64	.634	.68	.164	.071	.056	.172
DEC													
04...	222	<10	--	<.006	.630	<.041	.905	--	.28	<.060	<.060	<.018	--
MAR													
12-12	134	134	.313	.006	.319	E.038	1.29	--	.97	.164	E.032	.021	.064
APR													
16...	198	<10	--	<.006	.206	<.041	.404	--	.20	<.060	<.060	<.018	--
MAY													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06-07	104	150	.278	.010	.288	E.029	1.45	--	1.2	.230	<.060	.023	.071
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	287	<10	.836	.009	.845	<.040	.934	--	.09	<.060	<.060	<.020	--

08155400 Barton Creek above Barton Springs, Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)
NOV													
02-03	9.8	--	--	E.05	2.4	3	37	--	--	--	--	--	--
DEC													
04...	2.7	.2	<.1	<.11	1.9	<1	5	--	--	--	--	--	--
MAR													
12-12	9.8	--	--	E.06	3.1	9	27	--	--	--	--	--	--
APR													
16...	2.2	.2	<.1	<.11	<1.8	<1	7	--	--	--	--	--	--
MAY													
03...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	.015	<.050
MAY													
06-07	13	--	--	<.11	3.6	10	30	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	.583	<.050
07...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	.173	<.050
07...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	<.007	<.050
08...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	.068	<.050
10...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	.058	<.050
30...	1.5	.5	<.1	<.10	<1.0	M	1	--	--	--	--	--	--

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
NOV													
02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12-12	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
03...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	E.005	<.005	<.005	<.021	<.002
MAY													
06-07	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	<.010	<.002	E.062	<.020	E.003	<.006	<.018	<.003	E.015	.104	<.005	<.021	<.002
07...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	E.015	.055	<.005	<.021	<.002
07...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.006	<.005	<.005	<.021	<.002
08...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	E.010	.013	<.005	<.021	<.002
10...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	E.012	E.002	<.005	<.021	<.002
30...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)
NOV													
02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12-12	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
03...	<.009	<.005	<.003	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006
MAY													
06-07	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	<.009	<.005	<.003	<.004	<.035	E.003	E.004	<.006	<.002	<.007	<.003	<.007	<.006
07...	<.009	<.005	<.003	<.004	<.035	<.027	E.003	<.006	<.002	<.007	<.003	<.007	<.006
07...	<.009	<.005	<.003	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006
08...	<.009	<.005	<.003	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006
10...	<.009	<.005	<.003	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006
30...	--	--	--	--	--	--	--	--	--	--	--	--	--

08155400 Barton Creek above Barton Springs, Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
NOV													
02-03	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
12-12	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
03...	<.002	<.010	<.011	<.015	<.010	<.011	<.023	<.004	<.011	<.016	<.034	<.017	<.005
MAY													
06-07	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	<.002	<.010	<.011	<.015	<.010	<.011	<.023	<.004	E.009	<.016	<.034	<.017	<.005
07...	<.002	<.010	<.011	<.015	<.010	<.011	<.023	<.004	.268	<.016	<.034	<.017	<.005
07...	<.002	<.010	<.011	<.015	<.010	<.011	<.023	<.004	<.011	<.016	<.034	<.017	<.005
08...	<.002	<.010	<.011	<.015	<.010	<.011	<.023	<.004	.043	<.016	<.034	<.017	<.005
10...	<.002	<.010	<.011	E.002	<.010	<.011	<.023	<.004	.030	<.016	<.034	<.017	<.005
30...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
NOV		
02-03	--	--
DEC		
04...	--	--
MAR		
12-12	--	--
APR		
16...	--	--
MAY		
03...	<.002	<.009
MAY		
06-07	--	--
06...	<.002	<.009
07...	<.002	<.009
07...	<.002	<.009
08...	<.002	<.009
10...	<.002	<.009
30...	--	--

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08155500 Barton Springs at Austin, TX

LOCATION.--Lat 30°15'48", long 97°46'16", Travis County, Hydrologic Unit 12090205, at ground-water well (YD 58-42-903), on right bank 0.4 mi upstream from Barton Springs Road bridge over Barton Creek, 0.7 mi upstream from mouth, and 1.8 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--Not applicable. Only springflow is published for this station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Nov. 1894 to Apr. 1917, and Oct. 1918 to Feb. 1978 (discharge measurements only), May 1917 to Sept. 1918 (published as "Barton Creek at Austin, TX"), Mar. 1978 to Sept. 1994 (daily mean discharge), Oct. 1994 to Sept. 1999 (discharge at 1200 hours), Oct. 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage, at ground-water well (YD-58-42-903), is 462.34 ft above sea level. May 1917 to Sept. 1918, nonrecording gage at site 1,000 ft downstream at different datum. Satellite telemeter at station.

REMARKS.--Records poor. Only springflow from the Edwards and associated limestones in the Balcones Fault Zone is published for this station. Operation of Barton Springs pool significantly affects level recorded in well. Pool is drained at closing and allowed to fill after cleaning operations. Under normal conditions gage height is in direct relation with discharge. Determination of flow from spring is considered best when pool/well level has stabilized at 1200 hrs. From Oct. 1, 1994, to Sept. 30, 1999, daily flow has been determined using the recorded level at 1200 hrs. Beginning Oct. 1, 1999, flow is determined from daily mean.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	37	84	90	99	e99	103	102	100	93	82	e80
2	18	e44	84	90	99	e99	104	102	100	93	81	e81
3	17	e51	85	90	99	e99	103	102	100	93	80	e81
4	17	e58	84	90	99	99	103	102	99	93	80	e82
5	16	e62	84	90	99	99	103	103	99	92	79	82
6	e16	e64	84	89	99	99	103	103	98	92	79	81
7	18	e67	84	89	99	99	103	105	98	92	78	81
8	24	e69	84	89	100	99	103	105	97	91	78	80
9	24	e70	84	89	100	100	103	105	97	91	78	80
10	24	e72	84	89	100	100	103	105	97	91	77	79
11	22	e73	85	e92	100	100	103	104	96	90	77	79
12	18	e75	85	e93	100	101	103	104	96	90	76	78
13	e18	e76	86	e93	100	101	103	103	96	89	76	78
14	19	e77	85	e93	100	102	103	103	95	89	75	77
15	20	e78	85	e94	99	102	103	103	95	89	75	77
16	26	e79	85	e94	100	102	103	103	95	88	74	77
17	26	e79	85	93	100	102	102	102	95	88	73	76
18	26	e80	85	94	100	102	103	102	95	87	73	76
19	24	e80	85	95	100	103	103	102	94	87	72	75
20	25	e81	85	95	100	102	103	102	94	87	72	75
21	30	e81	85	95	100	102	103	102	94	86	71	75
22	41	e82	83	96	100	102	103	102	94	86	71	75
23	47	e82	83	96	99	102	103	102	94	85	70	75
24	46	e82	83	96	99	102	103	102	94	85	70	75
25	45	e83	83	96	99	102	103	102	94	84	69	74
26	44	e83	86	96	e99	102	102	102	93	84	69	74
27	41	e84	90	96	e99	103	102	103	93	84	e76	73
28	41	e84	90	97	e99	104	102	103	93	83	e78	73
29	40	e84	90	98	---	103	102	102	93	83	e79	72
30	38	84	90	98	---	103	102	102	93	83	e80	72
31	37	---	90	98	---	103	---	101	---	82	e80	---
TOTAL	868	2201	2645	2893	2786	3137	3085	3185	2871	2730	2348	2313
MEAN	28.0	73.4	85.3	93.3	99.5	101	103	103	95.7	88.1	75.7	77.1
MAX	47	84	90	98	100	104	104	105	100	93	82	82
MIN	16	37	83	89	99	99	102	101	93	82	69	72
AC-FT	1720	4370	5250	5740	5530	6220	6120	6320	5690	5410	4660	4590

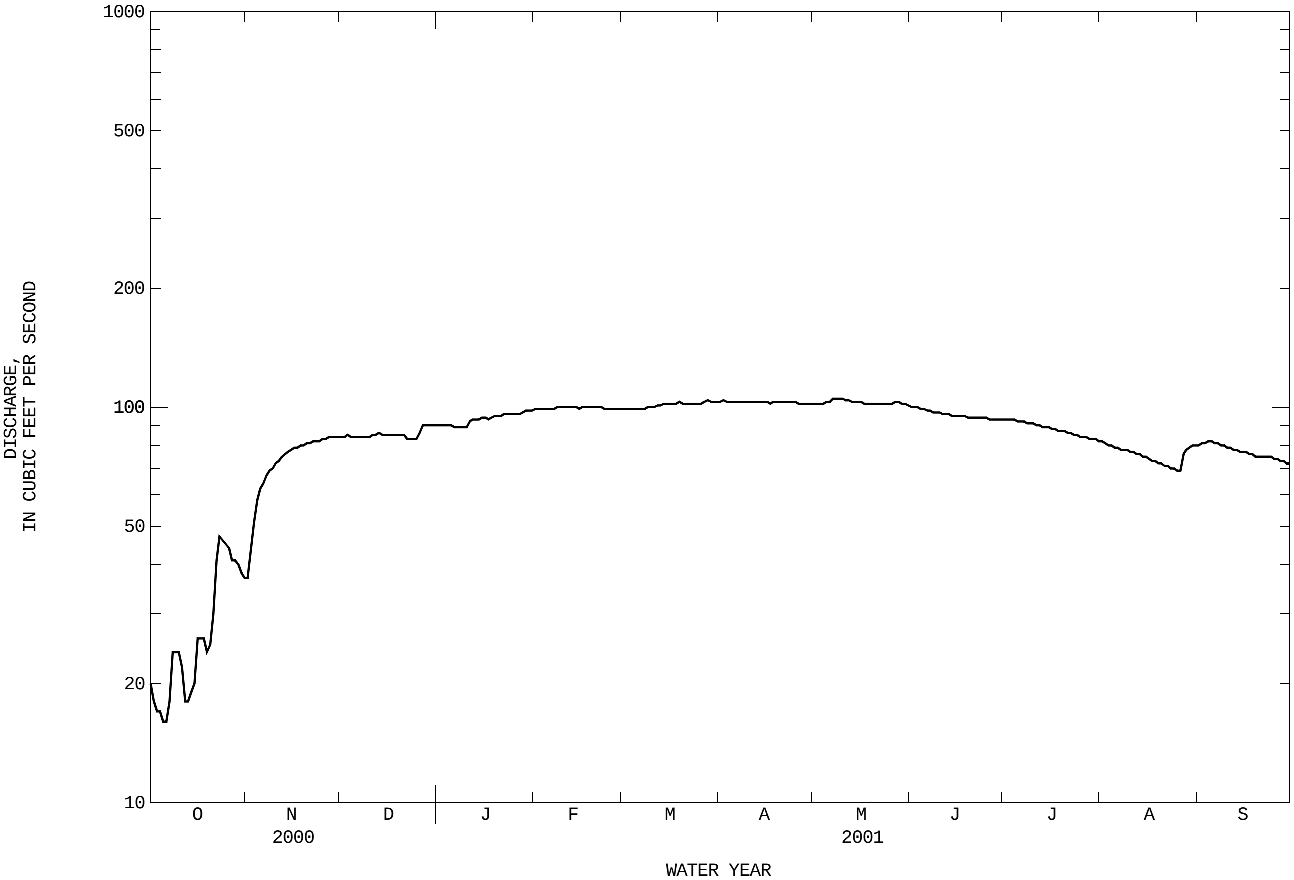
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	53.6	55.6	55.8	58.9	61.7	64.0	65.8	68.9	72.2	67.3	60.8	55.4
MAX	116	104	105	102	120	106	108	108	106	112	126	123
(WY)	1993	1999	1999	1999	1992	1993	1993	1993	1987	1997	1992	1992
MIN	18.5	20.6	18.2	15.8	16.8	21.6	25.2	20.7	26.2	21.0	21.5	21.1
(WY)	1990	1990	1990	1990	1990	1990	1996	1996	1996	1996	1996	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1978 - 2001	
ANNUAL TOTAL	13875		31062			
ANNUAL MEAN	37.9		85.1		62.6	
HIGHEST ANNUAL MEAN					99.3	1993
LOWEST ANNUAL MEAN					26.8	1990
HIGHEST DAILY MEAN	90	Dec 27	105	May 7	130	Dec 24 1991
LOWEST DAILY MEAN	16	Oct 5	16	Oct 5	14	Dec 30 1989
ANNUAL SEVEN-DAY MINIMUM	17	Oct 1	17	Oct 1	15	Jan 9 1990
ANNUAL RUNOFF (AC-FT)	27520		61610		45340	
10 PERCENT EXCEEDS	83		103		100	
50 PERCENT EXCEEDS	28		90		60	
90 PERCENT EXCEEDS	21		63		26	

e Estimated

08155500 Barton Springs at Austin, TX--Continued



08155500 Barton Springs at Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1903, June 1941 to Feb. 1959, Dec. 1978 to current year.
BIOCHEMICAL DATA: Dec. 1978 to current year.
RADIOCHEMICAL DATA: Jan. to Sept. 1980.
PESTICIDE DATA: Dec. 1978 to Nov. 1994, Aug. 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
DEC													
06...	1240	84	637	7.1	20.0	<1	.5	--	6.2	68.2	<10	20	E10
MAY													
03...	2320	102	--	--	--	--	--	--	--	--	--	--	--
07...	1430	105	614	6.9	--	<1	2.1	--	--	--	<10	E280	600
08...	1950	105	--	--	--	--	--	--	--	--	--	--	--
10...	1440	105	--	--	--	--	--	--	--	--	--	--	--
10...	1442	105	--	--	--	--	--	--	--	--	--	--	--
13...	1955	103	--	--	--	--	--	--	--	--	--	--	--
18...	2100	104	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	1430	99	642	6.9	21.0	--	--	1.2	7.0	79.8	<10	E73	49
AUG													
28...	0830	4.7	575	6.5	21.0	<1	--	5.4	6.4	72.4	<10	560	1500

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
DEC													
06...	262	<10	<.006	1.16	E.024	1.27	.10	<.060	<.060	<.018	2.0	<.1	<.1
MAY													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	254	<10	<.006	1.04	<.041	--	E.06	<.060	<.060	<.018	1.4	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	250	<10	<.006	1.25	<.040	--	E.05	<.060	<.060	<.020	E.42	<.1	<.1
AUG													
28...	242	<10	<.006	1.52	<.040	1.63	.11	<.060	<.060	<.020	2.3	--	--

DATE	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
DEC													
06...	<.11	<1.2	<1	<1	--	--	--	--	--	--	--	--	--
MAY													
03...	--	--	--	--	<.002	<.004	<.002	<.005	.017	<.050	<.010	<.002	<.041
07...	<.11	<1.2	<1	1	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	<.002	<.004	<.002	<.005	.207	<.050	<.010	<.002	<.041
10...	--	--	--	--	<.002	<.004	<.002	<.005	.104	<.050	<.010	<.002	<.041
10...	--	--	--	--	<.002	<.004	<.002	<.005	.091	<.050	<.010	<.002	<.041
13...	--	--	--	--	<.002	<.004	<.002	<.005	.028	<.050	<.010	<.002	<.041
18...	--	--	--	--	<.002	<.004	<.002	<.005	.020	<.050	<.010	<.002	<.041
JUN													
04...	<.10	<1.0	<1	<1	--	--	--	--	--	--	--	--	--
AUG													
28...	<.10	<1.0	<1	<1	--	--	--	--	--	--	--	--	--

08155500 Barton Springs at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)
DEC													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
03...	<.020	<.005	<.006	<.018	<.003	E.011	<.005	<.005	<.021	<.002	<.009	<.005	<.003
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.020	<.005	<.006	<.018	<.003	E.022	E.005	<.005	<.021	<.002	<.009	<.005	<.003
10...	<.020	<.005	<.006	<.018	<.003	E.018	<.005	<.005	<.021	<.002	<.009	<.005	<.003
10...	<.020	<.005	<.006	<.018	<.003	E.019	<.005	<.005	<.021	<.002	<.009	<.005	<.003
13...	<.020	<.005	<.006	<.018	<.003	E.011	<.005	<.005	<.021	<.005	<.009	<.005	<.003
18...	<.020	<.005	<.006	<.018	<.003	E.010	<.005	<.005	<.021	<.002	<.009	<.005	<.003
JUN													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
DEC													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
03...	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006	<.002	<.010	<.011
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006	<.002	<.010	<.011
10...	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.004	<.007	<.006	<.002	<.010	<.011
10...	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006	<.002	<.010	<.011
13...	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006	<.002	<.010	<.011
18...	<.004	<.035	<.027	<.013	<.006	<.002	<.007	<.003	<.007	<.006	<.002	<.010	<.011
JUN													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
03...	<.015	<.010	<.011	<.023	<.004	E.011	<.016	<.034	<.017	<.005	<.002	<.009
07...	--	--	--	--	--	--	--	--	--	--	--	--
08...	<.015	<.010	<.011	<.023	<.004	E.005	<.016	<.034	<.017	<.005	<.002	<.009
10...	E.002	<.010	<.011	<.023	<.004	E.008	<.016	<.034	<.017	<.005	<.002	<.009
10...	E.002	<.010	<.011	<.023	<.004	E.007	<.016	<.034	<.017	<.005	<.002	<.009
13...	<.015	<.010	<.011	<.023	<.004	E.004	<.016	<.034	<.017	<.005	<.002	<.009
18...	<.015	<.010	<.011	<.023	<.004	E.006	<.016	<.034	<.017	<.005	<.002	<.009
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
28...	--	--	--	--	--	--	--	--	--	--	--	--

08156800 Shoal Creek at 12th Street, Austin, TX

LOCATION.--Lat 30°16'35", long 97°45'00", Travis County, Hydrologic Unit 12090205, on left bank at downstream side of bridge at 12th Street, and 0.6 mi west of the State Capitol Building in Austin.

DRAINAGE AREA.--12.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Nov. 1974 to Mar. 1975 (periodic discharge measurement, and associated peak discharges along with annual maximum), Apr. 1975 to Sept. 1984 (peak discharges greater than base discharge), Oct. 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 455.33 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

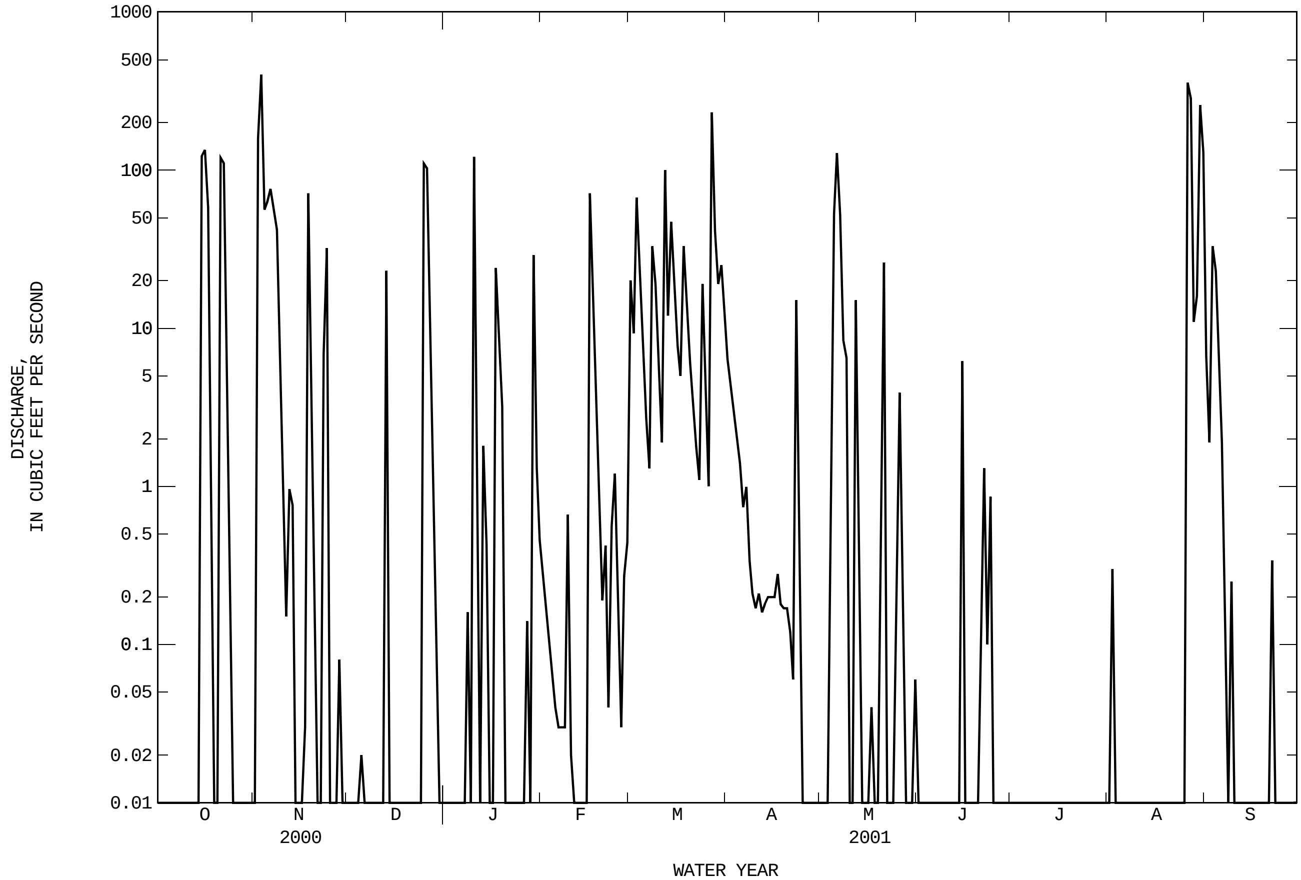
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.25	20	6.4	.00	.00	.00	.00	6.7
2	.00	159	.00	.00	.15	9.3	4.6	.00	.00	.00	.30	1.9
3	.00	400	.00	.00	.09	67	3.2	.00	.00	.00	.00	33
4	.00	56	.00	.00	.06	19	2.2	.84	.00	.00	.00	23
5	.00	63	.02	.00	.04	7.6	1.4	53	.00	.00	.00	5.9
6	.00	76	.00	.00	.03	2.7	.74	128	.00	.00	.00	1.9
7	.00	56	.00	.00	.03	1.3	.99	52	.00	.00	.00	.09
8	.00	42	.00	.16	.03	33	.34	8.4	.00	.00	.00	.00
9	.00	9.2	.00	.00	.66	19	.21	6.5	.00	.00	.00	.25
10	.00	1.9	.00	121	.02	5.6	.17	.01	.00	.00	.00	.00
11	.00	.15	.00	3.3	.01	1.9	.21	.00	.00	.00	.00	.00
12	.00	.96	.00	.01	.01	100	.16	15	.00	.00	.00	.00
13	.00	.76	23	1.8	.01	12	.18	1.1	.00	.00	.00	.00
14	.00	.00	.00	.43	.01	47	.20	.00	.00	.00	.00	.00
15	122	.00	.00	.00	.01	18	.20	.00	6.2	.00	.00	.00
16	134	.00	.00	.00	71	7.8	.20	.00	.00	.00	.00	.00
17	58	.03	.00	24	6.5	5.0	.28	.04	.00	.00	.00	.00
18	2.4	71	.00	8.5	1.6	33	.18	.00	.00	.00	.00	.00
19	.00	18	.00	3.2	.48	14	.17	.00	.00	.00	.00	.00
20	.00	2.3	.00	.01	.19	6.1	.17	2.4	.00	.00	.00	.00
21	120	.01	.00	.00	.42	3.4	.12	26	.23	.00	.00	.00
22	111	.00	.00	.00	.04	1.8	.06	.00	1.3	.00	.00	.34
23	35	6.9	.00	.00	.56	1.1	15	.00	.10	.00	.00	.00
24	3.6	32	.00	.00	1.2	19	1.6	.00	.86	.00	.00	.00
25	.00	.01	110	.00	.18	4.8	.01	.69	.00	.00	.00	.00
26	.00	.00	103	.00	.03	1.0	.01	3.9	.00	.00	357	.00
27	.00	.00	16	.14	.27	231	.01	.34	.00	.00	284	.00
28	.00	.08	.60	.00	.44	41	.01	.00	.00	.00	11	.00
29	.00	.00	.04	29	---	19	.00	.00	.00	.00	16	.00
30	.00	.00	.01	1.3	---	25	.00	.00	.00	.00	257	.00
31	.00	---	.01	.46	---	12	---	.06	---	.00	129	---
TOTAL	586.00	995.30	252.68	193.31	84.32	788.4	39.02	298.28	8.69	0.00	1054.30	73.08
MEAN	18.9	33.2	8.15	6.24	3.01	25.4	1.30	9.62	.29	.000	34.0	2.44
MAX	134	400	110	121	71	231	15	128	6.2	.00	357	33
MIN	.00	.00	.00	.00	.01	1.0	.00	.00	.00	.00	.00	.00
AC-FT	1160	1970	501	383	167	1560	77	592	17	.00	2090	145
CFSM	1.54	2.70	.66	.51	.24	2.07	.11	.78	.02	.00	2.77	.20
IN.	1.77	3.01	.76	.58	.26	2.38	.12	.90	.03	.00	3.19	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.9	7.36	9.71	5.30	5.55	6.24	5.14	15.9	10.4	2.24	7.38	5.04
MAX	67.6	33.2	70.8	22.6	29.2	25.4	18.2	38.7	46.1	11.9	38.9	12.5
(WY)	1999	2001	1992	1991	1992	2001	1997	1995	1987	1987	1996	1986
MIN	.22	.000	.065	.000	.000	.012	.41	.11	.29	.000	.000	.000
(WY)	1997	2000	1996	1996	1999	1996	1998	1998	2001	1989	1993	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1985 - 2001	
ANNUAL TOTAL	3076.83		4373.38			
ANNUAL MEAN	8.41		12.0		7.87	
HIGHEST ANNUAL MEAN					15.7	1992
LOWEST ANNUAL MEAN					3.26	1988
HIGHEST DAILY MEAN	400	Nov 3	400	Nov 3	1030	Oct 17 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 10	.00	Oct 1	.00	May 6 1985
MAXIMUM PEAK FLOW			5680	Aug 26	16000	May 24 1981
MAXIMUM PEAK STAGE			15.97	Aug 26	23.11	May 24 1981
ANNUAL RUNOFF (AC-FT)	6100		8670		5700	
ANNUAL RUNOFF (CFSM)	.68		.97		.64	
ANNUAL RUNOFF (INCHES)	9.31		13.23		8.70	
10 PERCENT EXCEEDS	19		25		13	
50 PERCENT EXCEEDS	.00		.00		.01	
90 PERCENT EXCEEDS	.00		.00		.00	

08156800 Shoal Creek at 12th Street, Austin, TX--Continued



08156800 Shoal Creek at 12th Street, Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Feb. 1943, Nov. 1974 to current year.
BIOCHEMICAL DATA: Feb. 1943, Nov. 1974 to current year.
RADIOCHEMICAL DATA: Apr. 1980.
PESTICIDE DATA: Jan. 1975 to Sept. 1985, Jan. 1993 to May 1996, Dec. 1997 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
OCT													
15-16	1950	355	137	7.9	22.0	55	400	71	E140000	55000	42	960	.410
MAR													
27-27	1035	481	165	7.5	--	80	200	17	12000	30000	51	<10	.383

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
OCT													
15-16	.015	.425	.099	2.73	2.21	2.3	.864	E.059	.051	.156	32	.45	15.9
MAR													
27-27	.016	.398	.191	2.09	1.50	1.7	.475	.086	.078	.238	17	.17	9.6

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT		
15-16	32	111
MAR		
27-27	22	63

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08157600 East Bouldin Creek at South 1st Street, Austin, TX

LOCATION.--Lat 30°15′07", long 97°45′14", Travis County, Hydrologic Unit 12090205, at bridge on South 1st Street, and 1.75 mi south of State Capitol Building in Austin.

DRAINAGE AREA.--2.4 mi^2.

PERIOD OF RECORD.--Apr. 1997 to Jan. 2001 (discontinued).
Water-quality records.--Chemical data: June 1997 to June 2001. Biochemical data: June 1997 to June 2001.

GAGE.--Water-stage recorder. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversion. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.13	.74	.86	---	---	---	---	---	---	---	---
2	.04	75	.78	.77	---	---	---	---	---	---	---	---
3	.01	63	.77	.76	---	---	---	---	---	---	---	---
4	.01	2.6	.84	.64	---	---	---	---	---	---	---	---
5	.00	17	.65	.62	---	---	---	---	---	---	---	---
6	1.4	4.7	.71	.61	---	---	---	---	---	---	---	---
7	4.2	5.9	.78	.60	---	---	---	---	---	---	---	---
8	.56	4.7	.74	.57	---	---	---	---	---	---	---	---
9	.41	1.1	.80	.55	---	---	---	---	---	---	---	---
10	.15	.88	.82	18	---	---	---	---	---	---	---	---
11	.13	.79	.79	1.4	---	---	---	---	---	---	---	---
12	.13	9.2	.58	1.0	---	---	---	---	---	---	---	---
13	.11	1.0	5.6	1.8	---	---	---	---	---	---	---	---
14	.10	.76	.47	.95	---	---	---	---	---	---	---	---
15	10	.65	.41	.86	---	---	---	---	---	---	---	---
16	.31	.70	.40	.94	---	---	---	---	---	---	---	---
17	6.3	.61	.42	8.9	---	---	---	---	---	---	---	---
18	.35	14	.42	5.1	---	---	---	---	---	---	---	---
19	.12	1.6	.44	1.6	---	---	---	---	---	---	---	---
20	.07	1.0	.50	1.3	---	---	---	---	---	---	---	---
21	19	.79	.51	1.2	---	---	---	---	---	---	---	---
22	18	.84	.50	1.2	---	---	---	---	---	---	---	---
23	3.0	3.9	.48	1.1	---	---	---	---	---	---	---	---
24	7.3	3.5	.53	1.1	---	---	---	---	---	---	---	---
25	.83	.87	15	1.0	---	---	---	---	---	---	---	---
26	e2.7	.74	26	.99	---	---	---	---	---	---	---	---
27	e2.8	.72	2.5	2.9	---	---	---	---	---	---	---	---
28	e.21	.76	1.2	1.1	---	---	---	---	---	---	---	---
29	e.15	.81	.96	7.2	---	---	---	---	---	---	---	---
30	.13	.80	.89	1.1	---	---	---	---	---	---	---	---
31	.12	---	.96	1.1	---	---	---	---	---	---	---	---
TOTAL	78.69	219.05	67.19	67.82	---	---	---	---	---	---	---	---
MEAN	2.54	7.30	2.17	2.19	---	---	---	---	---	---	---	---
MAX	19	75	26	18	---	---	---	---	---	---	---	---
MIN	.00	.13	.40	.55	---	---	---	---	---	---	---	---
AC-FT	156	434	133	135	---	---	---	---	---	---	---	---

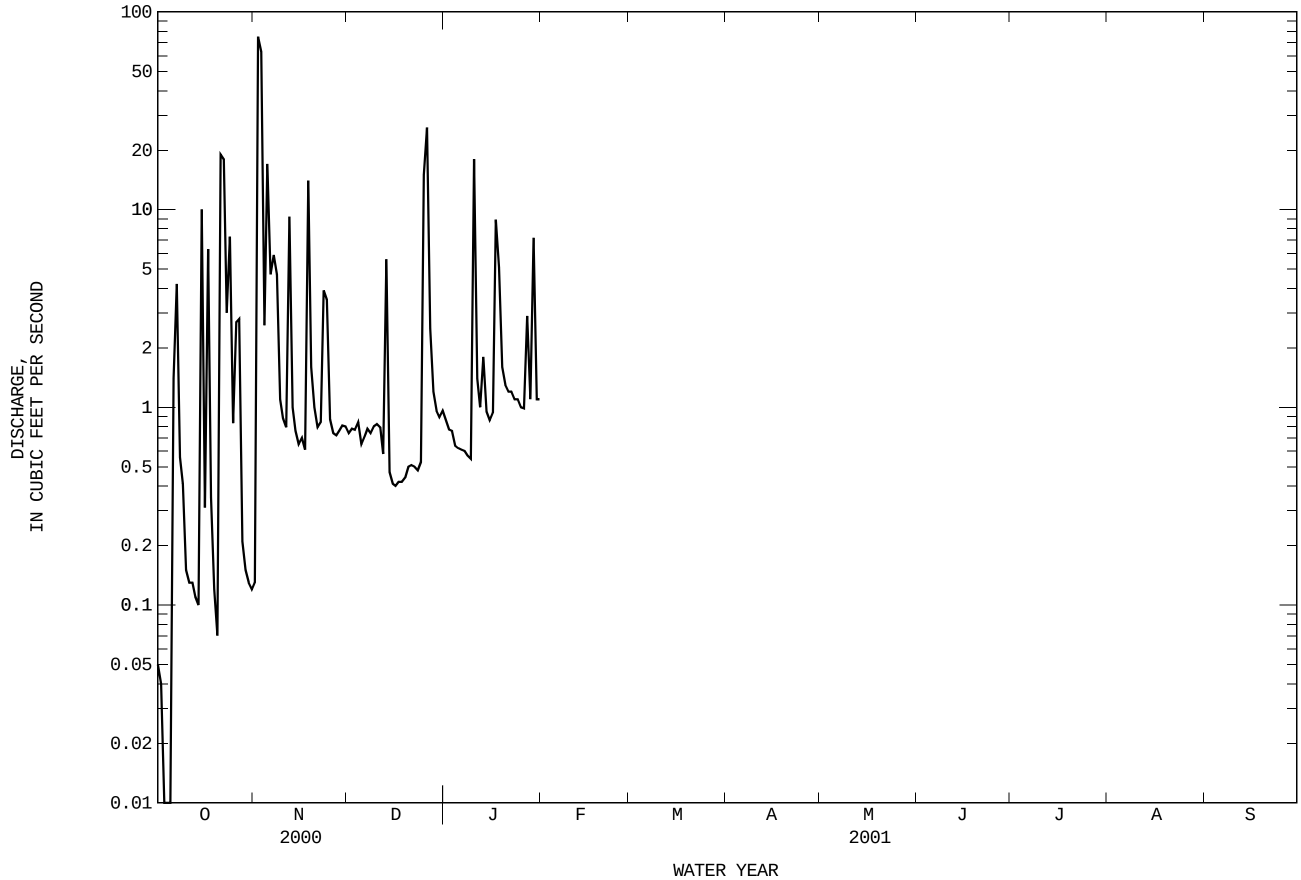
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.70	2.49	1.29	1.24	.72	1.35	1.07	1.89	2.68	.65	.51	.52
MAX	6.17	7.30	2.17	2.19	1.07	2.03	2.58	4.07	6.12	1.80	.81	1.52
(WY)	1999	2001	2001	2001	1998	1999	1997	1997	1997	1999	1997	1998
MIN	.55	.37	.76	.52	.31	.50	.30	.21	.24	.11	.075	.11
(WY)	2000	2000	1999	1999	1999	2000	1999	1998	1998	1998	2000	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1997 - 2001	
ANNUAL TOTAL	598.17					
ANNUAL MEAN	1.63				1.05	
HIGHEST ANNUAL MEAN					1.50	1999
LOWEST ANNUAL MEAN					.81	2000
HIGHEST DAILY MEAN	75	Nov 2	75	Nov 2	110	Oct 17 1998
LOWEST DAILY MEAN	.00	May 15	.00	Oct 5	.00	Sep 14 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 29	.23	Oct 8	.00	Sep 14 1997
MAXIMUM PEAK FLOW			818	Nov 2	943	Oct 17 1998
MAXIMUM PEAK STAGE			6.14	Nov 2	7.01	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	1190				764	
10 PERCENT EXCEEDS	2.9		8.3		2.1	
50 PERCENT EXCEEDS	.19		.82		.26	
90 PERCENT EXCEEDS	.00		.13		.01	

e Estimated

08157600 East Bouldin Creek at South 1st Street, Austin, TX--Continued



08157700 Blunn Creek near Little Stacy Park, Austin, TX

LOCATION.--Lat 30°14’50", long 97°44’37", Travis County, Hydrologic Unit 12090205, on right bank near intersection of Sunset Lane and Eastside Drive.

DRAINAGE AREA.--1.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Apr. 1997 to Jan. 2001 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 490 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair except those below 0.50 ft^3/s, which are poor. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

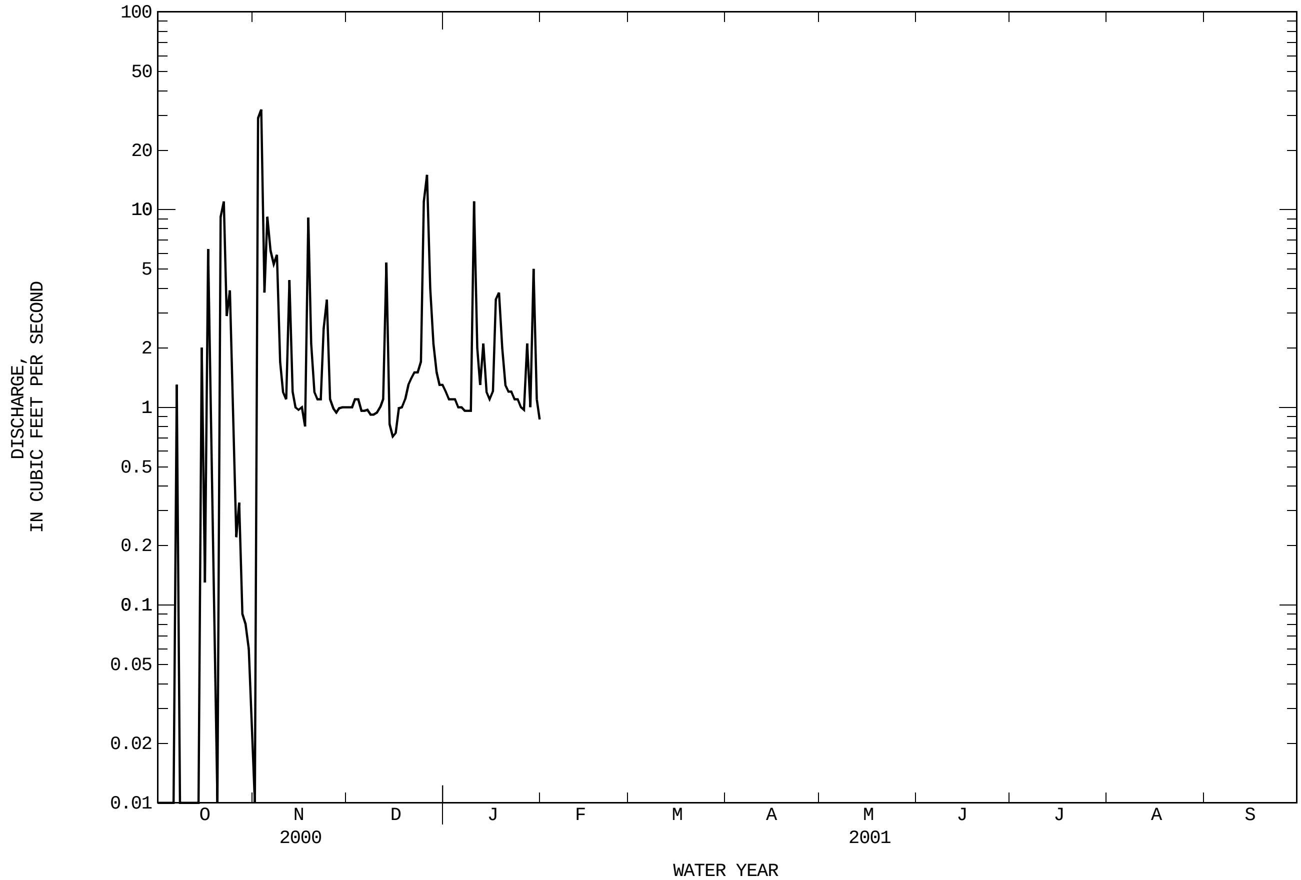
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.0	1.2	---	---	---	---	---	---	---	---
2	.00	29	1.0	1.1	---	---	---	---	---	---	---	---
3	.00	32	1.1	1.1	---	---	---	---	---	---	---	---
4	.00	3.8	1.1	1.1	---	---	---	---	---	---	---	---
5	.00	9.2	.96	1.0	---	---	---	---	---	---	---	---
6	.00	6.2	.96	1.0	---	---	---	---	---	---	---	---
7	1.3	5.3	.97	.96	---	---	---	---	---	---	---	---
8	.00	5.9	.92	.96	---	---	---	---	---	---	---	---
9	.00	1.7	.92	.96	---	---	---	---	---	---	---	---
10	.00	1.2	.94	11	---	---	---	---	---	---	---	---
11	.00	1.1	1.0	2.0	---	---	---	---	---	---	---	---
12	.00	4.4	1.1	1.3	---	---	---	---	---	---	---	---
13	.00	1.2	5.4	2.1	---	---	---	---	---	---	---	---
14	.00	1.0	.82	1.2	---	---	---	---	---	---	---	---
15	2.0	.97	.71	1.1	---	---	---	---	---	---	---	---
16	.13	1.0	.74	1.2	---	---	---	---	---	---	---	---
17	6.3	.80	.99	3.5	---	---	---	---	---	---	---	---
18	.57	9.1	1.0	3.8	---	---	---	---	---	---	---	---
19	.05	2.1	1.1	2.0	---	---	---	---	---	---	---	---
20	.00	1.2	1.3	1.3	---	---	---	---	---	---	---	---
21	9.2	1.1	1.4	1.2	---	---	---	---	---	---	---	---
22	11	1.1	1.5	1.2	---	---	---	---	---	---	---	---
23	2.9	2.5	1.5	1.1	---	---	---	---	---	---	---	---
24	3.9	3.5	1.7	1.1	---	---	---	---	---	---	---	---
25	1.4	1.1	11	1.0	---	---	---	---	---	---	---	---
26	.22	.99	15	.97	---	---	---	---	---	---	---	---
27	.33	.94	4.0	2.1	---	---	---	---	---	---	---	---
28	.09	.99	2.1	1.0	---	---	---	---	---	---	---	---
29	.08	1.0	1.5	5.0	---	---	---	---	---	---	---	---
30	.06	1.0	1.3	1.1	---	---	---	---	---	---	---	---
31	.02	---	1.3	.87	---	---	---	---	---	---	---	---
TOTAL	39.55	131.39	66.33	56.52	---	---	---	---	---	---	---	---
MEAN	1.28	4.38	2.14	1.82	---	---	---	---	---	---	---	---
MAX	11	32	15	11	---	---	---	---	---	---	---	---
MIN	.00	.00	.71	.87	---	---	---	---	---	---	---	---
AC-FT	78	261	132	112	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.08	2.01	1.02	.88	.39	1.65	.33	.78	1.39	.53	.20	.42
MAX	6.32	4.38	2.14	1.82	.44	3.71	.41	1.50	2.57	1.79	.51	1.51
(WY)	1999	2001	2001	2001	2000	1999	2000	1999	1999	1999	1998	1998
MIN	.21	.003	.14	.27	.35	.21	.27	.097	.086	.067	.000	.000
(WY)	2000	2000	2000	1998	1999	2000	1999	1998	1998	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1997 - 2001	
ANNUAL TOTAL	390.02					
ANNUAL MEAN	1.07				.91	
HIGHEST ANNUAL MEAN					1.65	1999
LOWEST ANNUAL MEAN					.45	2000
HIGHEST DAILY MEAN	32	Nov 3	32	Nov 3	96	Oct 17 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Apr 19 1998
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 28	.00	Oct 8	.00	May 3 1998
MAXIMUM PEAK FLOW			245	Nov 3	827	Oct 17 1998
MAXIMUM PEAK STAGE			4.21	Nov 3	6.65	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	774				660	
10 PERCENT EXCEEDS	2.6		5.7		2.0	
50 PERCENT EXCEEDS	.03		1.1		.15	
90 PERCENT EXCEEDS	.00		.00		.00	

08157700 Blunn Creek near Little Stacy Park, Austin, TX--Continued



08157700 Blunn Creek near Little Stacy Park, Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Mar. 1999 to June 1999.
BIOCHEMICAL DATA: Mar. 1999 to Feb. 2001 (discontinued).

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT													
15-15	2005	9.8	207	8.0	50	200	120	E140000	92000	56	668	.700	.024

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
OCT													
15-15	.724	.276	5.23	4.23	4.5	1.35	.115	.102	.313	54	.66	21.7	59

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT	
15-15	190

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08157900 Town Lake at Austin, TX

LOCATION.--Lat 30°14'56", long 97°43'03", Travis County, Hydrologic Unit 12090205, at Longhorn Dam on the Colorado River at Austin, 1.5 mi downstream from Interstate Highway 35, and 2.3 mi southeast of the State Capitol Building in Austin.

DRAINAGE AREA.--39,003 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--
CHEMICAL DATA: Feb. 1975 to Aug. 1990, Oct. 1990 to current year.
BIOCHEMICAL DATA: Feb. 1975 to Aug. 1990, Oct. 1990 to current year.
PESTICIDE DATA: Feb. 1975 to Aug. 1990, Feb. 1991 to current year.

REMARKS.--Trace metal and pesticide analyses of bottom sediments at selected sites Feb. 1991 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301559097424801 -- Twn Lk AR

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
OCT							
16...	0905	1.00	509	8.2	25.9	7.6	94
16...	0907	10.0	516	7.8	23.1	6.2	73
16...	0909	20.0	517	7.5	20.9	3.0	34
16...	0911	27.0	522	7.5	21.3	2.6	30
MAY							
07...	0823	1.00	451	7.7	20.5	7.6	85
07...	0825	10.0	450	7.7	20.5	7.5	84
07...	0827	22.0	472	7.6	19.5	6.3	69

301500097424801 -- Twn Lk AC

DATE	TIME	TRANSPARENCY (SECCHI DISK) (M) (00078)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
OCT													
16...	0840	2.10	1.00	512	8.2	26.0	.8	.9	7.8	97	<10	390	480
16...	0842	--	10.0	507	8.0	23.9	--	--	7.1	85	--	--	--
16...	0844	--	20.0	509	7.9	23.4	--	--	7.0	83	--	--	--
16...	0846	--	27.0	516	7.5	21.0	.6	.8	4.4	50	--	--	--
MAY													
07...	0757	.82	1.00	444	7.7	20.5	--	10	7.7	86	--	3800	5400
07...	0759	--	10.0	454	7.7	20.0	--	--	7.4	82	--	--	--
07...	0801	--	20.0	470	7.6	19.5	--	--	6.4	70	--	--	--
07...	0803	--	25.0	470	7.4	19.0	--	--	4.8	52	--	--	--
07...	0805	--	28.0	477	7.4	19.0	--	7.9	4.2	46	--	--	--
JUN													
21...	1335	--	--	--	--	--	--	--	--	--	--	--	--

301500097424801 -- Twn Lk AC

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT													
16...	153	289	<10	.042	.006	.048	<.041	.33	--	.28	<.060	<.060	<.018
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	176	284	<10	.126	.010	.136	.060	.50	.30	.36	<.060	<.060	<.018
MAY													
07...	135	267	<10	.398	.006	.404	<.041	.77	--	.37	E.031	<.060	<.018
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	147	278	<10	.340	.013	.353	.065	.79	.37	.44	E.031	<.060	<.018
JUN													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08157900 Town Lake at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301500097424801 -- Twn Lk AC

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)
OCT													
16...	3.7	5.9	E.2	--	--	--	--	--	--	--	--	5.1	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	3.9	--	--	--	--	--	--	--	--	--	--	4.5	--
MAY													
07...	6.0	.8	<.1	--	--	--	--	--	--	--	2.5	E1.3	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	4.5	--	--	--	--	--	--	--	--	--	3.0	2.5	--
JUN													
21...	--	--	--	87	90	95	100	100	.5	12	--	--	22

301500097424801 -- Twn Lk AC

DATE	IRON, SEDIMT, BED MA-TERIAL AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
OCT						
16...	--	--	<1.00	--	--	--
16...	--	--	--	--	--	--
16...	--	--	--	--	--	--
16...	--	--	<1.00	--	--	--
MAY						
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
JUN						
21...	8700	52	--	500	.06	90

301503097424701 -- Twn Lk AL

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
OCT							
16...	0915	1.00	512	8.1	26.7	6.9	87
16...	0917	10.0	485	7.8	23.4	6.2	73
16...	0919	17.0	521	7.4	21.8	2.5	29

301504097440901 -- Twn Lk BC

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
OCT							
16...	0925	1.00	498	8.3	25.0	8.3	101
16...	0927	10.0	402	8.1	23.7	7.0	83
16...	0929	20.0	524	7.4	21.0	2.2	25
16...	0931	29.0	525	7.3	21.2	1.3	15

08157900 Town Lake at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301503097424701 -- Twn Lk AL

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
MAY							
07...	0832	1.00	422	7.7	20.5	7.5	84
07...	0834	10.0	460	7.7	20.5	7.2	81
07...	0836	18.0	460	7.6	20.0	7.0	78

301500097440801 -- Twn Lk BR

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
OCT							
16...	0935	1.00	498	8.3	24.8	8.0	97
16...	0937	10.0	412	8.0	23.6	6.4	76
16...	0939	20.0	524	7.4	21.0	2.6	29
16...	0941	26.0	526	7.3	21.2	1.9	22
MAY							
07...	0855	1.00	330	7.8	21.0	7.3	82
07...	0857	10.0	336	7.7	20.5	7.3	82
07...	0859	20.0	331	7.8	20.5	7.3	82

301504097440901 -- Twn Lk BC

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)
MAY													
07...	0844	1.00	307	7.8	20.5	7.3	82	--	--	--	--	--	--
07...	0846	10.0	310	7.8	20.5	7.3	82	--	--	--	--	--	--
07...	0848	20.0	320	7.8	20.5	7.3	82	--	--	--	--	--	--
07...	0850	29.0	367	7.7	20.5	7.3	82	--	--	--	--	--	--
JUN													
21...	1355	--	--	--	--	--	--	95	98	100	100	100	.4

301504097440901 -- Twn Lk BC

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, SEDIMT, BED MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
MAY							
07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--
JUN							
21...	8.5	24	6300	52	390	.06	110

301544097445201 -- Twn Lk CR

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
MAY							
07...	0938	1.00	270	7.7	21.0	7.6	86
07...	0940	10.0	402	7.7	20.0	7.3	81
07...	0942	14.0	408	7.6	20.0	7.3	81

08157900 Town Lake at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301546097445101 -- Twn Lk CC

DATE	TIME	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
OCT													
16...	1000	.30	1.00	419	8.2	23.6	30	32	7.3	87	13	E32000	22000
16...	1002	--	10.0	441	7.8	22.4	--	--	6.9	80	--	--	--
16...	1004	--	18.0	313	7.8	22.2	58	.3	6.4	74	--	--	--
MAY													
07...	0918	.31	1.00	327	7.6	20.0	--	51	7.6	84	--	22000	17000
07...	0920	--	10.0	424	7.6	20.0	--	--	7.3	81	--	--	--
07...	0922	--	16.0	422	7.6	20.0	--	30	7.3	81	--	--	--
JUN													
21...	1415	--	--	--	--	--	--	--	--	--	--	--	--

301546097445101 -- Twn Lk CC

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT													
16...	126	232	32	.155	.009	.164	E.036	.75	--	.59	.109	<.060	.018
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	136	194	76	.219	.007	.226	.071	.81	.51	.58	.133	<.060	E.014
MAY													
07...	92	187	45	.476	.012	.488	.088	1.0	.45	.54	.109	.065	.050
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	141	248	22	.459	.006	.465	E.040	.92	--	.45	.072	<.060	.022
JUN													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

301546097445101 -- Twn Lk CC

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
OCT													
16...	.055	5.1	10.8	E.4	--	--	--	--	--	--	--	--	3.6
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	5.1	--	--	--	--	--	--	--	--	--	--	2.9
MAY													
07...	.153	5.8	.3	<.1	--	--	--	--	--	--	--	3.0	1.6
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	.067	6.8	--	--	--	--	--	--	--	--	--	2.5	1.3
JUN													
21...	--	--	--	--	85	92	98	100	100	.5	16	--	--

301546097445101 -- Twn Lk CC

DATE	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, SEDIMT, BED MA-TERIAL AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
OCT							
16...	--	--	--	<1.00	--	--	--
16...	--	--	--	--	--	--	--
16...	--	--	--	<1.00	--	--	--
MAY							
07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--
JUN							
21...	22	12000	55	--	370	.04	130

08157900 Town Lake at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301556097452301 -- Twn Lk DR

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
OCT							
16...	1100	1.00	513	7.9	22.4	7.5	87
16...	1102	13.0	524	7.6	21.4	5.6	64
MAY							
07...	1012	1.00	458	7.4	21.0	6.9	78
07...	1014	13.0	462	7.6	20.0	6.8	75

301558097452201 -- Twn Lk DC

DATE	TIME	TRANSPARENCY (SECCHI DISK) (M) (00078)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E COLI, MTEC MF WATER (COL/100 ML) (31633)
OCT													
16...	1045	.80	1.00	512	8.0	22.5	1.6	6.4	7.9	92	<10	10000	7500
16...	1047	--	10.0	528	7.6	21.7	--	--	6.4	73	--	--	--
16...	1049	--	19.0	525	7.4	21.1	2.5	2.4	2.7	31	--	--	--
MAY													
07...	0953	.61	1.00	464	7.6	20.0	--	21	7.5	83	--	9200	8000
07...	0955	--	10.0	456	7.7	20.0	--	--	7.5	83	--	--	--
07...	0957	--	20.0	440	7.8	19.8	--	7.3	7.3	80	--	--	--
JUN													
21...	1435	--	--	--	--	--	--	--	--	--	--	--	--

301558097452201 -- Twn Lk DC

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT													
16...	161	282	<10	--	E.005	.220	<.041	.55	--	.33	E.037	<.060	<.018
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	161	290	<10	.159	.006	.165	.158	.60	.28	.43	E.038	<.060	E.017
MAY													
07...	158	267	15	--	E.005	.518	E.023	.87	--	.35	E.041	E.030	E.013
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	138	260	14	--	E.005	.380	.052	.78	.34	.40	E.044	<.060	E.012
JUN													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

301558097452201 -- Twn Lk DC

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
OCT													
16...	3.7	6.0	E.2	--	--	--	--	--	--	--	--	2.8	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	3.5	--	--	--	--	--	--	--	--	--	--	3.0	--
MAY													
07...	3.8	.2	<.1	--	--	--	--	--	--	--	1.6	1.4	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	4.7	--	--	--	--	--	--	--	--	--	1.8	E1.0	--
JUN													
21...	--	--	--	74	79	90	99	100	.3	11	--	--	16

08157900 Town Lake at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301558097452201 -- Twn Lk DC

DATE	IRON, SEDIMT, BED MATERIAL AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT						
16...	--	--	<1.00	--	--	--
16...	--	--	--	--	--	--
16...	--	--	<1.00	--	--	--
MAY						
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
07...	--	--	--	--	--	--
JUN						
21...	9800	39	--	510	.04	70

301712097470701 -- Twn Lk EC

DATE	TIME	TRANSPARENCY (SECCHI DISK) (M) (00078)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
OCT													
16...	1125	2.60	1.00	513	7.8	22.2	.7	1.0	7.3	85	10	410	370
16...	1127	--	10.0	634	7.0	21.3	--	--	6.2	71	--	--	--
16...	1129	--	18.0	676	6.9	21.0	.4	.3	6.0	68	--	--	--
MAY													
07...	1036	1.84	1.00	476	7.7	19.5	--	4.0	7.7	84	--	210	330
07...	1038	--	10.0	476	7.6	19.5	--	--	7.6	83	--	--	--
07...	1040	--	20.0	467	7.7	19.5	--	5.6	7.6	83	--	--	--

301712097470701 -- Twn Lk EC

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)
OCT													
16...	158	282	<10	E.003	.101	<.041	.39	.29	<.060	<.060	<.018	3.2	2.0
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	273	387	<10	<.006	1.48	<.041	--	E.07	<.060	<.060	<.018	3.2	--
MAY													
07...	152	276	<10	E.005	.378	<.041	.67	.29	<.060	<.060	<.018	3.9	.9
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	152	274	<10	E.004	.398	<.041	.70	.30	<.060	<.060	<.018	3.7	--

301712097470701 -- Twn Lk EC

DATE	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	LEAD, DISSOLVED (UG/L AS PB) (01049)
OCT				
16...	E.1	--	3.0	<1.00
16...	--	--	--	--
16...	--	--	5.6	<1.00
MAY				
07...	<.1	1.5	E1.2	--
07...	--	--	--	--
07...	--	1.7	1.3	--

08157900 Town Lake at Austin, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

301601097454001 -- Twn Lk FC

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
OCT							
16...	1110	2.00	541	7.2	22.3	4.3	50
MAY							
07...	1020	1.50	475	7.4	21.5	7.7	88

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08158000 Colorado River at Austin, TX

LOCATION.--Lat 30°14’40", long 97°41’39", Travis County, Hydrologic Unit 12090205, on right bank 1,000 ft upstream from upstream bridge on U.S. Highway 183 in Austin, 1.4 mi downstream from Longhorn Dam, and at mile 290.3.

DRAINAGE AREA.-39,009 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Feb. 1898 to current year. Records of daily discharge for Dec. 13-26, 1914, and Feb. 9-17, 1915, published in WSP 408, have been found unreliable and should not be used.
Water-quality records.--Chemical data: Oct. 1947 to Sept. 1993. Specific conductance: Oct. 1947 to Sept. 1991. Water temperature: Oct. 1947 to Sept. 1991.

REVISED RECORDS.--WSP 508: 1915(m). WSP 528: 1900(M), 1918(m). WSP 548: 1901-16. WSP 1342: Drainage area. WSP 1562: 1908, 1929(M), 1936.

GAGE.--Water-stage recorder. Datum of gage is 402.27 ft above sea level. Prior to June 19, 1939, all records collected at or near Congress Avenue bridge 3.9 mi upstream at datum 19.6 ft higher; prior to June 18, 1915, nonrecording gages, recording gages thereafter; June 20, 1939, to Oct. 16, 1963, at site 1,000 ft downstream from present site at datum 5.0 ft higher. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in 1898, at least 10% of contributing drainage area has been regulated by Town Lake, Lake Austin, Lake Travis, and other reservoirs. The city of Austin diverts water for municipal use upstream from station and returns wastewater effluent downstream. There are many other diversions above Lake Buchanan for irrigation, municipal supplies, and oil field operations.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage-discharge relation at medium to high stages, computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1833, 51 ft July 7, 1869, present site and datum (adjusted to present site on basis of record for flood of June 15, 1935), determined from information concerning stage at former site furnished by Dean T.U. Taylor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	176	155	2870	3440	1540	4320	1640	1780	1810	1270	596
2	1180	1180	112	2220	3970	1360	4250	1870	1770	2220	1290	806
3	912	3660	138	1710	3580	1630	4220	1440	1630	2030	1290	1900
4	807	872	554	1440	3910	1460	4240	1750	1630	2070	1520	1970
5	231	450	282	1370	3940	2060	4250	2320	1730	2010	1420	885
6	434	1510	177	1320	3990	2070	4130	1920	1540	2090	1630	904
7	420	798	387	1160	3990	3190	4240	3220	1490	1470	1650	946
8	393	606	277	319	1380	2990	4250	3210	1540	1810	1650	1530
9	405	525	137	848	219	3470	2550	3490	1510	1830	1660	1840
10	254	306	109	1990	210	2870	569	3110	1480	1850	1690	259
11	155	222	138	3050	207	3030	933	3450	1600	1790	1620	701
12	157	234	1580	3440	193	3580	1170	3550	1470	1630	1640	1250
13	115	200	1050	3420	173	3320	1580	3490	1550	1550	1680	1460
14	48	181	959	3540	191	3200	1600	3450	1550	1550	1640	1520
15	e63	188	614	2800	187	3130	1560	3410	1550	1700	1510	1720
16	101	188	252	726	456	1690	1330	e2410	1580	1380	1680	1510
17	287	141	636	1130	2360	876	2190	1980	e1550	1730	2200	1530
18	133	549	748	1340	3460	1070	2200	1360	e1550	1690	1760	1370
19	423	270	973	2570	3350	882	1290	1910	e1550	1530	1900	1000
20	23	193	324	284	3600	3110	1280	2040	1550	1770	2020	897
21	387	428	787	368	3640	3130	1460	1740	1590	1690	2120	1630
22	691	402	146	1020	3580	3060	1340	2300	1920	1710	2250	1110
23	257	198	401	1710	3650	937	1390	1720	1830	1570	2120	1060
24	103	387	113	1930	3490	1770	3380	1780	1930	1600	1850	1490
25	217	200	542	1910	3540	1490	1520	1800	1770	1440	2580	1370
26	81	184	2040	1910	3540	1350	1470	1850	2030	1500	3470	1050
27	79	160	2950	1150	825	3260	1450	1820	2210	1570	2600	1240
28	52	164	1700	210	824	3710	1600	1920	2030	1350	1340	799
29	40	166	3170	1820	---	3690	1970	1850	1820	1320	2440	861
30	164	159	2600	3630	---	3430	1640	1820	2080	1270	2950	1070
31	184	---	1950	2710	---	4290	---	1530	---	1270	1830	---
TOTAL	10006	14897	26001	55915	65895	76645	69372	71150	50810	51800	58270	36274
MEAN	323	497	839	1804	2353	2472	2312	2295	1694	1671	1880	1209
MAX	1210	3660	3170	3630	3990	4290	4320	3550	2210	2220	3470	1970
MIN	23	141	109	210	173	876	569	1360	1470	1270	1270	259
AC-FT	19850	29550	51570	110900	130700	152000	137600	141100	100800	102700	115600	71950

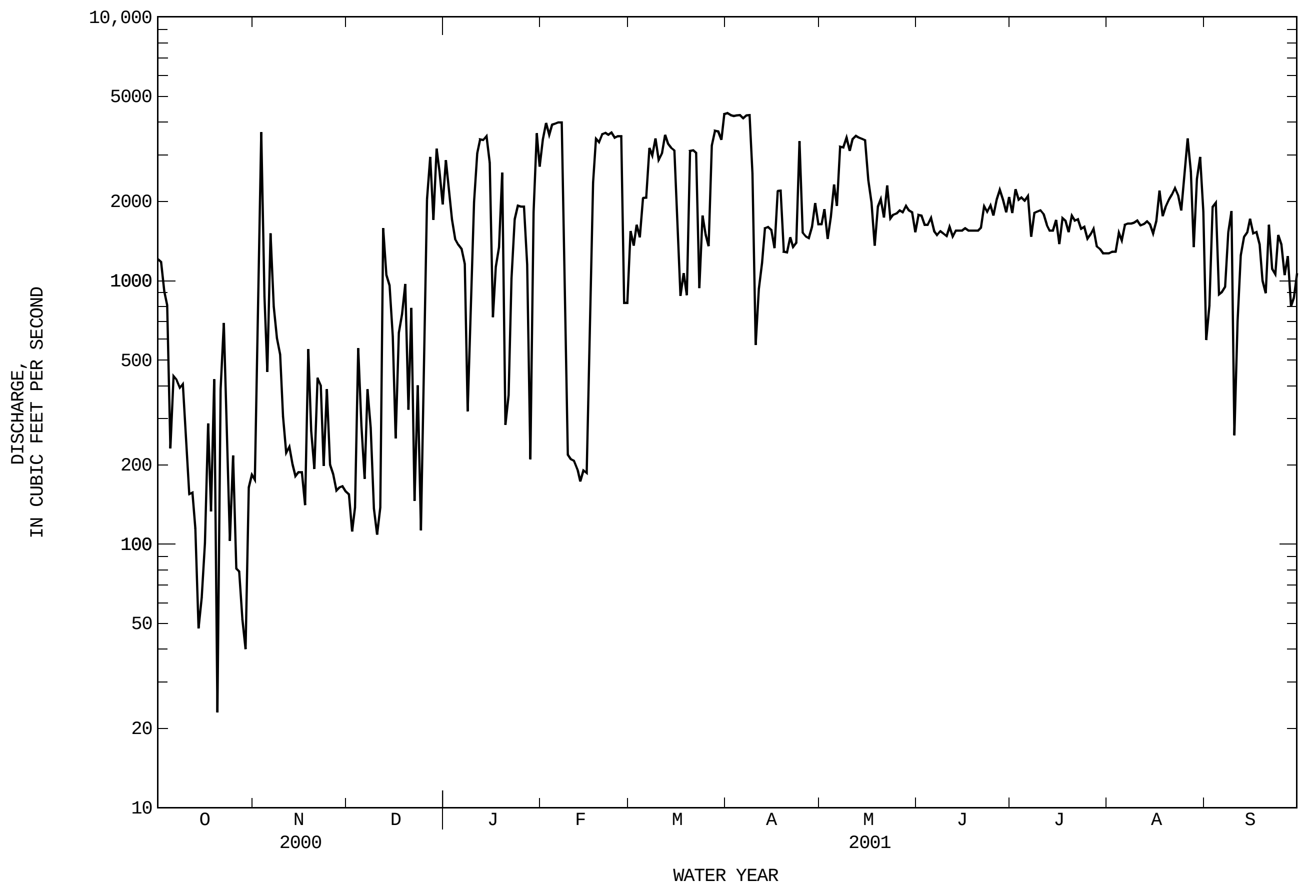
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1965	1457	1331	1222	1473	1538	2665	4130	3796	2728	1789	2548
MAX	20080	11050	23800	15080	25890	13640	21800	30710	31940	36110	12310	42630
(WY)	1931	1919	1914	1992	1992	1992	1900	1922	1935	1938	1906	1936
MIN	57.5	38.7	43.9	46.2	49.7	55.0	145	964	238	256	70.3	156
(WY)	1935	1990	1964	1967	1964	1964	1907	1921	1910	1933	1917	1907

08158000 Colorado River at Austin, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1898 - 2001	
ANNUAL TOTAL	347660		587035			
ANNUAL MEAN	950		1608		2183	
HIGHEST ANNUAL MEAN					7535	1914
LOWEST ANNUAL MEAN					590	1917
HIGHEST DAILY MEAN	4030	Jul 22	4320	Apr 1	323000	Jun 15 1935
LOWEST DAILY MEAN	23	Oct 20	23	Oct 20	.00	Sep 29 1914
ANNUAL SEVEN-DAY MINIMUM	105	Oct 24	105	Oct 24	18	Oct 25 1990
MAXIMUM PEAK FLOW			15600	Aug 26	481000	Jun 15 1935
MAXIMUM PEAK STAGE			14.20	Aug 26	a50.00	Jun 15 1935
ANNUAL RUNOFF (AC-FT)	689600		1164000		1581000	
10 PERCENT EXCEEDS	1960		3440		3860	
50 PERCENT EXCEEDS	894		1550		1140	
90 PERCENT EXCEEDS	144		190		175	

e Estimated
a From floodmark.



08158050 Boggy Creek at U.S. Highway 183, Austin, TX

LOCATION.--Lat 30°15'47", long 97°40'20", Travis County, Hydrologic Unit 12090205, on U.S. Highway 183, 1.6 mi south of the intersection of Webberville Road and U.S. Highway 183, and 4.1 mi east of the State Capitol Building in Austin.

DRAINAGE AREA.--13.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Jan. to July 1975 (periodic discharge measurements only), Aug. 1975 to June 1977 (peak discharge greater than base discharge), June 1977 to Sept. 1986, (daily mean discharge), Oct. 1986 to May 1994 (annual maximum discharge), May 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 411.29 ft sea level (levels from city of Austin benchmark). Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge 4,370 ft^3/s May 17, 1989, gage height, 14.79 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.3	3.7	2.8	21	3.0	.82	1.4	.12	.00	6.5
2	.00	244	.91	2.5	2.3	17	3.3	1.1	2.8	.16	.00	2.0
3	.00	392	.88	2.4	2.0	88	3.4	.66	.75	.18	.00	70
4	.00	46	2.3	1.8	2.0	18	4.0	.54	.54	.23	.00	44
5	.00	79	1.5	1.3	2.3	9.5	4.0	77	.42	.14	.00	13
6	2.5	78	1.3	1.4	2.0	8.4	3.7	137	.30	.00	.00	2.5
7	9.8	43	1.1	1.4	2.3	9.2	3.7	56	.03	.00	.00	1.2
8	6.8	49	.86	1.1	2.5	17	4.4	1.8	1.1	.00	.00	.85
9	4.9	4.9	.79	1.0	4.3	11	4.4	1.4	1.9	.00	.00	33
10	.77	2.5	.97	132	2.2	7.0	4.2	.93	.82	.00	.00	1.5
11	.23	2.0	1.0	9.7	2.5	7.9	3.8	.98	.58	.00	.00	.93
12	.00	24	.64	4.4	2.7	153	2.8	.91	e.20	.00	.00	.76
13	.00	4.6	55	9.8	2.9	4.4	3.1	.99	.00	.00	.00	.66
14	.00	1.2	2.9	4.6	2.9	61	3.7	.79	.00	.00	.00	.48
15	112	1.1	1.6	3.4	2.8	8.1	2.5	.74	.00	.00	.00	.31
16	39	3.9	1.4	3.4	85	3.5	2.2	.59	.00	.00	.00	.42
17	33	2.7	.93	42	3.9	2.8	3.0	.44	.00	.00	.00	.38
18	3.8	114	1.0	29	3.3	28	3.3	.42	.00	.00	.00	.18
19	1.1	15	.88	13	3.6	5.1	1.6	.45	.00	.00	.00	.01
20	.49	3.3	1.2	4.7	3.6	3.1	1.4	.59	.00	.00	.00	.00
21	81	2.3	.80	3.8	3.9	2.8	1.3	.42	.00	.00	.00	.06
22	53	2.4	.77	3.4	3.5	2.9	1.1	.43	.02	.00	.00	1.4
23	17	14	.87	3.5	5.3	3.2	7.7	.31	.04	.00	.00	.55
24	6.5	56	3.9	3.3	7.6	18	2.3	.12	.02	.00	.00	.52
25	1.5	3.4	142	2.9	3.8	5.3	1.5	16	.03	.00	.00	.28
26	2.8	2.4	257	2.8	3.9	3.6	1.5	7.0	.05	.00	e1200	.21
27	1.6	2.1	27	4.5	7.2	187	1.2	2.4	.06	.00	117	.07
28	.91	2.1	10	4.2	8.7	18	1.5	1.0	.06	.00	47	.00
29	.63	1.9	6.4	44	---	5.7	.86	.59	.10	.00	51	.00
30	.42	1.2	3.9	4.0	---	9.9	.85	.40	.13	.00	556	.00
31	.13	---	3.5	2.8	---	4.5	---	3.1	---	.00	363	---
TOTAL	379.88	1198.00	534.60	351.8	181.8	743.9	85.31	315.92	11.35	0.83	2334.00	181.77
MEAN	12.3	39.9	17.2	11.3	6.49	24.0	2.84	10.2	.38	.027	75.3	6.06
MAX	112	392	257	132	85	187	7.7	137	2.8	.23	1200	70
MIN	.00	.00	.64	1.0	2.0	2.8	.85	.12	.00	.00	.00	.00
AC-FT	753	2380	1060	698	361	1480	169	627	23	1.6	4630	361
CFSM	.94	3.05	1.32	.87	.50	1.83	.22	.78	.03	.00	5.75	.46
IN.	1.08	3.40	1.52	1.00	.52	2.11	.24	.90	.03	.00	6.63	.52

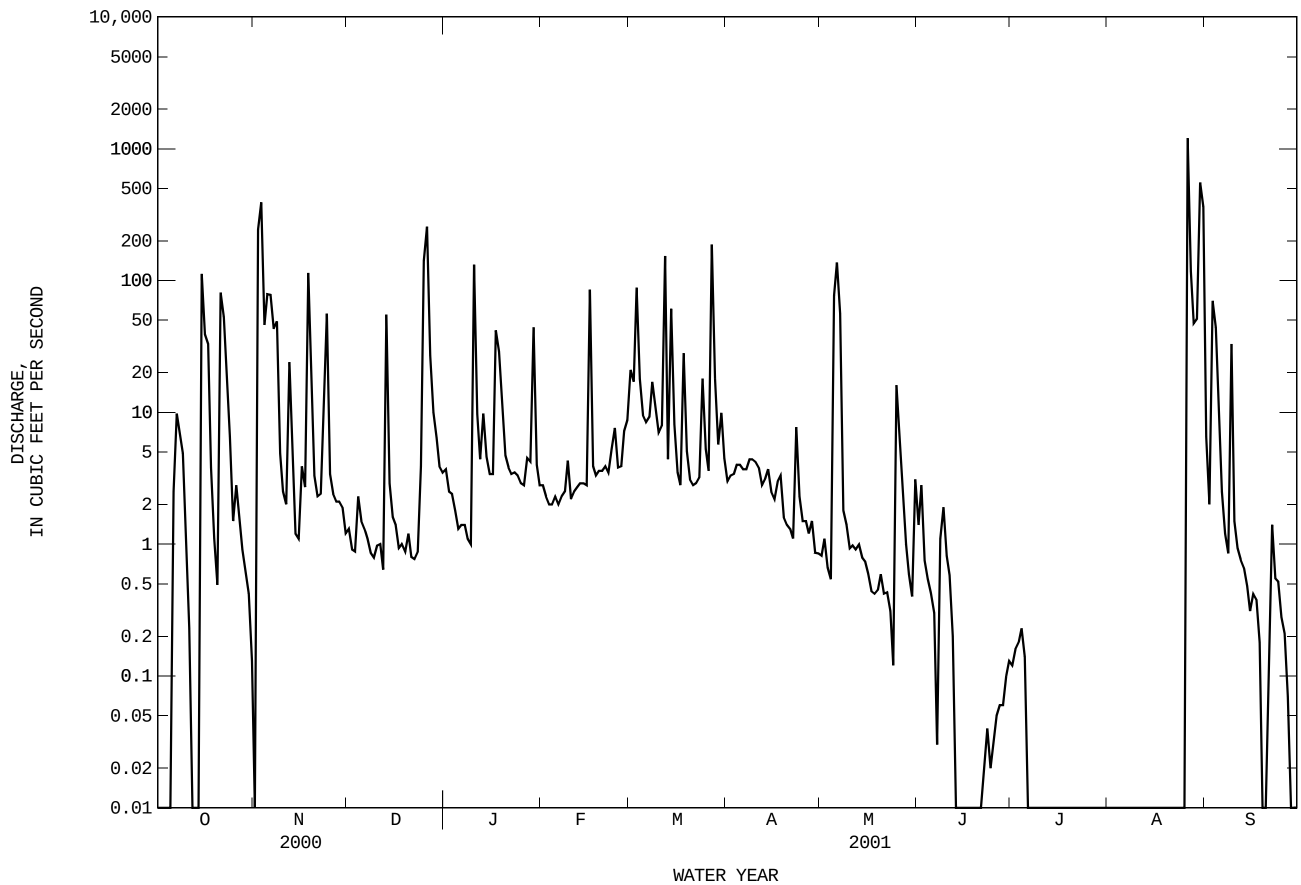
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.5	8.02	5.71	3.25	97.4	7.10	4.41	15.4	10.9	4.96	9.70	6.26
MAX	60.4	39.9	17.2	11.3	1580	24.0	18.5	48.7	55.2	54.5	75.3	20.2
(WY)	1999	2001	2001	2001	1977	2001	1997	1979	1981	1979	2001	1998
MIN	.44	.10	.027	.055	.28	.31	.063	.39	.025	.025	.002	.000
(WY)	1979	1980	1978	1996	1996	1986	1984	1984	1994	1986	1984	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1977 - 2001h	
ANNUAL TOTAL	3285.11		6319.16			
ANNUAL MEAN	8.98		17.3		7.82	
HIGHEST ANNUAL MEAN					17.3	2001
LOWEST ANNUAL MEAN					1.29	1984
HIGHEST DAILY MEAN	392	Nov 3	1200	Aug 26	1660	Feb 11 1977
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jul 13 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 15	.00	Jun 13	.00	Jul 13 1978
MAXIMUM PEAK FLOW			3310	Aug 26	6100	May 23 1975
MAXIMUM PEAK STAGE			11.20	Aug 26	17.24	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	6520		12530		5660	
ANNUAL RUNOFF (CFSM)	.69		1.32		.60	
ANNUAL RUNOFF (INCHES)	9.33		17.94		8.11	
10 PERCENT EXCEEDS	15		33		9.5	
50 PERCENT EXCEEDS	.11		1.5		.30	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
h See PERIOD OF RECORD paragraph.

08158050 Boggy Creek at U.S. Highway 183, Austin, TX--Continued



08158050 Boggy Creek at U.S. Highway 183, Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 1975 to Sept. 1986, Apr. 1994 to current year.
BIOCHEMICAL DATA: Jan. 1975 to Sept. 1986, Apr. 1994 to current year.
RADIOCHEMICAL DATA: Jan. 1980.
PESTICIDE DATA: Jan. 1975 to Dec. 1984.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
OCT													
15-16	2105	481	--	106	7.9	--	50	350	--	--	61	E150000	110000
DEC													
05...	0855	--	1.3	679	7.9	11.0	10	1.4	9.5	86.5	12	4900	5900
JAN													
10-10	0940	380	--	219	6.6	6.5	60	130	--	--	43	E1600	2800
MAY													
30...	0820	--	.40	601	7.2	26.0	8	3.3	6.5	81.1	16	92	E72

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)
OCT													
15-16	37	940	.421	.014	.435	.096	3.08	2.55	2.6	.958	.081	.070	.215
DEC													
05...	244	<10	.142	.013	.155	.062	.774	.557	.62	E.042	<.060	E.013	--
JAN													
10-10	70	344	.529	.023	.552	<.041	2.04	--	1.5	.453	.090	.028	.086
MAY													
30...	198	<10	--	.010	E.029	<.040	--	--	.25	<.060	<.060	<.020	--

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT							
15-16	30	--	--	.54	14.9	48	108
DEC							
05...	5.1	3.2	.2	<.11	1.8	<1	6
JAN							
10-10	16	--	--	.75	9.0	20	60
MAY							
30...	4.7	1.1	.2	<.10	E.6	<1	2

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08158600 Walnut Creek at Webberville Road, Austin, TX

LOCATION.--Lat 30°16'59", long 97°39'17", Travis County, Hydrologic Unit 12090205, on left bank 190 ft downstream from bridge on Farm Road 969, 0.8 mi downstream from Little Walnut Creek, 2.8 mi upstream from Colorado River, 5.2 mi east of the State Capitol Building in Austin, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--51.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

REVISED RECORDS.--WDR TX-00-4: daily mean discharge, Feb. 11, 1999.

GAGE.--Water-stage recorder. Datum of gage is 425.96 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges and those above 150 ft^3/s, which are poor. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1935, reached a stage of 24 ft, backwater from Colorado River. A flood in 1919 reached a stage of 22 ft, from information by local residents. Maximum stage since at least 1891, that of May 25, 1981.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	e280	26	34	29	e56	57	8.6	14	19	.72	167
2	.19	e640	23	31	27	e36	51	7.8	36	17	1.1	59
3	.19	854	22	30	26	e136	44	7.0	10	39	4.0	109
4	e.19	173	22	30	25	60	40	7.0	7.7	14	4.2	251
5	e7.0	118	20	27	24	38	36	106	8.6	7.3	5.9	89
6	e25	224	20	26	21	33	33	163	8.6	5.0	4.3	49
7	e42	121	19	25	18	30	30	283	8.6	3.6	5.3	39
8	15	121	17	23	18	117	28	53	21	2.5	.77	32
9	11	69	16	22	25	93	25	35	28	2.0	1.2	89
10	e4.0	56	16	234	18	45	24	21	21	3.9	5.4	34
11	.70	47	15	81	18	39	28	17	14	6.9	1.3	28
12	.73	50	13	46	18	257	25	15	7.4	6.2	.72	24
13	2.0	48	83	54	18	59	24	11	4.2	2.7	.72	18
14	2.0	35	25	41	17	177	24	9.5	4.0	1.8	13	16
15	119	32	18	35	17	77	20	8.9	83	1.5	2.7	15
16	211	38	15	33	122	52	19	9.1	32	1.3	2.1	12
17	100	30	13	98	30	46	24	7.9	23	1.0	2.8	11
18	46	139	12	88	e26	113	25	7.1	18	.89	3.2	11
19	24	75	11	65	e24	62	17	6.8	15	.90	3.3	11
20	19	50	11	44	e22	45	16	7.1	14	1.0	4.4	8.3
21	e260	41	11	39	e21	40	15	225	12	.78	3.4	19
22	203	34	10	35	e20	34	13	24	21	.73	3.9	13
23	138	55	9.5	33	e22	28	48	13	15	.73	4.6	7.7
24	78	124	14	30	e23	64	17	9.6	41	.74	3.4	7.5
25	e49	54	248	28	e18	27	12	52	15	.73	3.6	4.5
26	e37	44	382	27	e17	22	11	47	11	1.0	462	4.0
27	e30	37	127	34	e20	804	10	27	8.6	.84	768	3.8
28	e29	34	68	31	e23	277	11	13	6.8	2.5	196	4.3
29	e25	32	51	107	---	121	9.2	9.7	6.0	.82	100	3.9
30	22	28	44	41	---	111	8.6	7.8	5.0	.72	830	4.7
31	e21	---	39	32	---	70	---	11	---	.72	662	---
TOTAL	1521.19	3683	1420.5	1504	707	3169	744.8	1229.9	519.5	147.80	3104.03	1144.7
MEAN	49.1	123	45.8	48.5	25.2	102	24.8	39.7	17.3	4.77	100	38.2
MAX	260	854	382	234	122	804	57	283	83	39	830	251
MIN	.19	28	9.5	22	17	22	8.6	6.8	4.0	.72	.72	3.8
AC-FT	3020	7310	2820	2980	1400	6290	1480	2440	1030	293	6160	2270
CFSM	.96	2.39	.89	.95	.49	1.99	.48	.77	.34	.09	1.95	.74
IN.	1.10	2.67	1.03	1.09	.51	2.30	.54	.89	.38	.11	2.25	.83

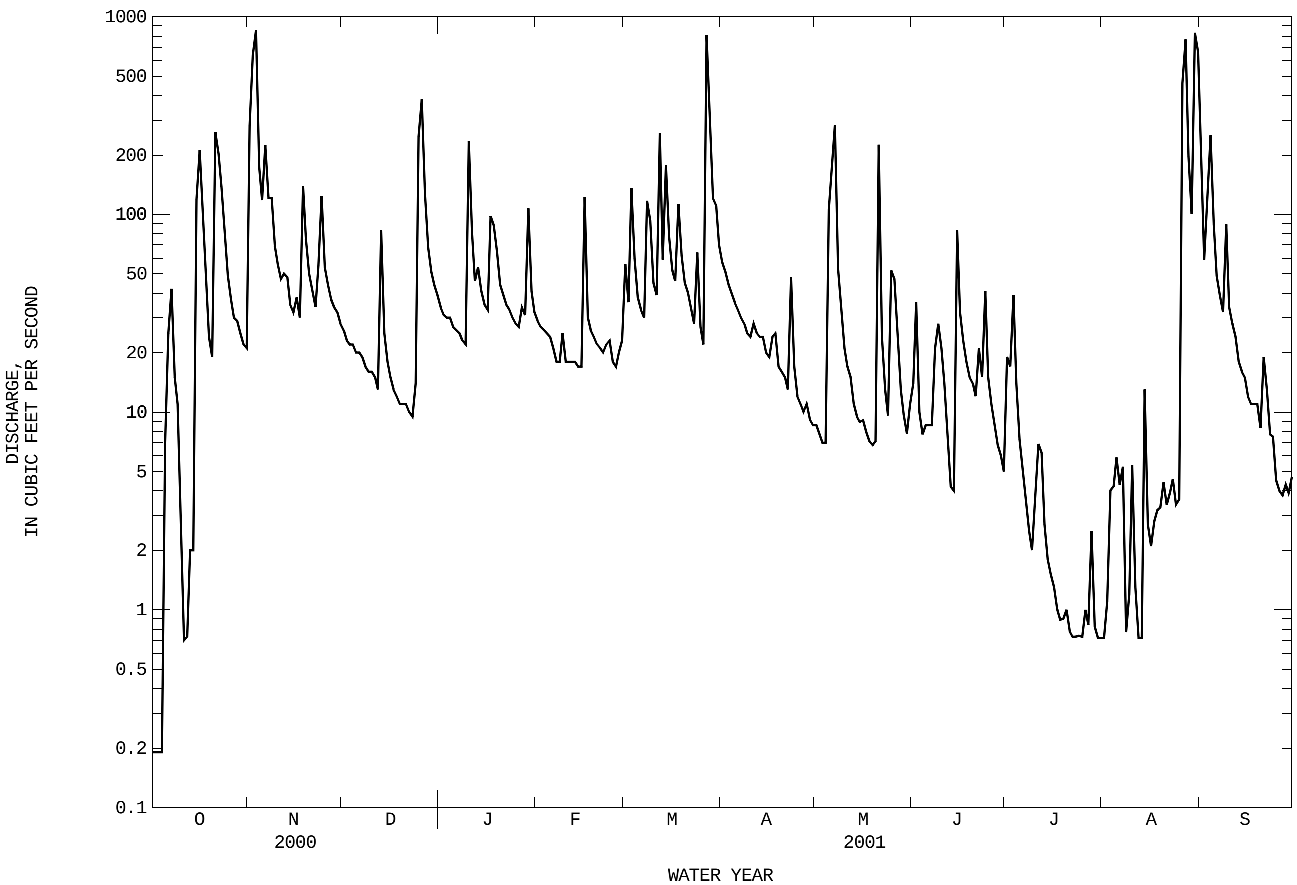
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	33.5	24.7	33.8	29.8	31.3	28.9	24.5	57.8	42.0	11.1	13.5	13.8
MAX	215	161	367	237	203	121	90.0	170	435	55.7	100	51.7
(WY)	1999	1975	1992	1968	1992	1992	1977	1981	1981	1987	2001	1973
MIN	1.37	1.03	1.22	1.07	1.88	1.06	1.79	.58	.23	.052	.32	.59
(WY)	1979	1967	1967	1967	1967	1967	1971	1971	1967	1971	1977	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1966 - 2001	
ANNUAL TOTAL	11424.89		18895.42			
ANNUAL MEAN	31.2		51.8		28.9	
HIGHEST ANNUAL MEAN					94.6	1992
LOWEST ANNUAL MEAN					1.91	1967
HIGHEST DAILY MEAN	854	Nov 3	854	Nov 3	4330	Dec 21 1991
LOWEST DAILY MEAN	.00	Aug 14	.19	Oct 1	.00	Jun 17 1967
ANNUAL SEVEN-DAY MINIMUM	.07	Aug 9	.79	Jul 21	.00	Jun 17 1967
MAXIMUM PEAK FLOW			4640	Aug 26	14300	May 25 1981
MAXIMUM PEAK STAGE			17.64	Aug 26	27.24	May 25 1981
ANNUAL RUNOFF (AC-FT)	22660		37480		20910	
ANNUAL RUNOFF (CFSM)	.61		1.01		.56	
ANNUAL RUNOFF (INCHES)	8.28		13.70		7.64	
10 PERCENT EXCEEDS	82		117		45	
50 PERCENT EXCEEDS	7.0		22		7.5	
90 PERCENT EXCEEDS	.27		2.6		1.0	

e Estimated

08158600 Walnut Creek at Webberville Road, Austin, TX--Continued



08158600 Walnut Creek at Webberville Road, Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1976 to current year.
BIOCHEMICAL DATA: Apr. 1976 to current year.
RADIOCHEMICAL DATA: Jan. 1980.
PESTICIDE DATA: Nov. 1976 to Sept. 1986.
SEDIMENT DATA: Dec. 1977 to July 1982.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT													
15-16	2100	528	--	176	8.0	--	40	380	--	--	--	35	44000
DEC													
05...	1050	--	20	700	8.1	11.5	5	.6	--	10.5	96.8	<10	94
MAR													
27...	0950	1260	--	236	7.7	--	120	480	--	--	--	10	24000
SEP													
17...	1250	--	11	535	7.9	24.5	<1	--	9.2	7.8	95.8	<10	30

DATE	E COLI, MTEC MF WATER (COL/100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT													
15-16	24000	66	904	.291	.016	.307	.089	2.22	1.83	1.9	.996	.060	.012
DEC													
05...	150	219	<10	1.87	.009	1.88	<.041	2.23	--	.35	<.060	<.060	<.018
MAR													
27...	19000	77	2110	.578	.010	.588	.124	5.20	4.49	4.6	1.81	.060	.027
SEP													
17...	11	154	<10	.451	.039	.490	.061	.816	.265	.33	.076	E.055	.046

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT								
15-16	.037	21	--	--	.37	8.9	15	80
DEC								
05...	--	3.1	.2	<.1	<.11	E1.0	<1	2
MAR								
27...	.082	39	--	--	.48	19.1	26	91
SEP								
17...	.141	3.5	.1	<.1	<.10	E1.2	<1	1

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08158700 Onion Creek near Driftwood, TX

LOCATION.--Lat 30°04'58", long 98°00'27", Hays County, Hydrologic Unit 12090205, on left bank, 160 ft left of the upstream side of bridge at low-water crossing on Farm Road 150, 3.2 mi southeast of Driftwood, and 10 mi west of Buda.

DRAINAGE AREA.--124 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Apr. 1958, Nov. 1961 to June 1979 (periodic discharge measurements only), July 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 878.13 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.11	70	95	110	69	105	23	53	7.5	1.3	64
2	.00	551	65	90	106	71	104	21	51	7.0	1.4	26
3	.00	615	63	87	104	111	101	19	41	6.5	1.3	13
4	.00	129	63	85	100	113	97	17	36	6.0	1.2	13
5	.00	103	61	82	97	98	93	33	33	5.6	1.2	20
6	.00	374	60	79	95	95	89	53	33	5.1	1.2	15
7	.00	148	57	77	93	94	84	1040	30	4.6	1.2	12
8	.00	140	54	72	93	94	80	215	29	4.3	.98	10
9	.00	106	52	69	90	93	75	195	31	4.2	.95	9.7
10	.00	90	52	214	84	91	70	162	29	4.3	.83	8.0
11	.00	80	50	239	83	90	66	147	26	4.4	.70	7.7
12	.00	74	44	149	81	268	62	159	24	4.2	.57	7.6
13	.00	66	66	137	80	225	61	175	23	4.0	.46	7.0
14	.00	60	65	128	79	228	57	135	21	3.6	.38	6.4
15	.00	58	59	119	78	227	52	125	20	3.3	.35	5.9
16	.00	56	57	115	104	205	49	116	20	3.0	.37	e5.4
17	.00	52	50	135	86	194	46	112	18	3.0	.54	e5.1
18	.00	67	50	159	80	197	45	106	17	2.8	.47	e4.6
19	.00	94	47	144	79	194	43	103	16	2.7	.40	e4.4
20	.00	81	48	128	77	171	42	101	15	2.7	.35	e4.4
21	.00	75	45	125	76	157	39	96	14	2.5	.33	e4.3
22	.04	74	42	119	73	150	36	87	14	2.3	.33	e4.1
23	.01	77	43	116	73	143	55	76	13	2.1	.29	e3.7
24	.02	101	44	110	78	136	53	72	12	2.0	.28	e3.8
25	.03	95	62	105	71	124	38	88	12	2.0	.28	e3.6
26	.05	87	157	104	67	118	33	79	11	1.8	3.0	3.7
27	.07	82	155	108	67	126	30	71	9.3	1.8	5.0	3.9
28	.09	79	123	127	65	154	27	64	8.4	1.8	1.4	3.8
29	.10	75	109	138	---	133	25	58	7.8	1.5	1.4	3.6
30	.10	71	102	124	---	118	24	55	7.3	e1.2	3.2	3.2
31	.10	---	99	114	---	111	---	53	---	e1.3	60	---
TOTAL	0.61	3760.11	2114	3693	2369	4398	1781	3856	674.8	109.1	91.66	286.9
MEAN	.020	125	68.2	119	84.6	142	59.4	124	22.5	3.52	2.96	9.56
MAX	.10	615	157	239	110	268	105	1040	53	7.5	60	64
MIN	.00	.11	42	69	65	69	24	17	7.3	1.2	.28	3.2
AC-FT	1.2	7460	4190	7330	4700	8720	3530	7650	1340	216	182	569
CFSM	.00	1.01	.55	.96	.68	1.14	.48	1.00	.18	.03	.02	.08
IN.	.00	1.13	.63	1.11	.71	1.32	.53	1.16	.20	.03	.03	.09

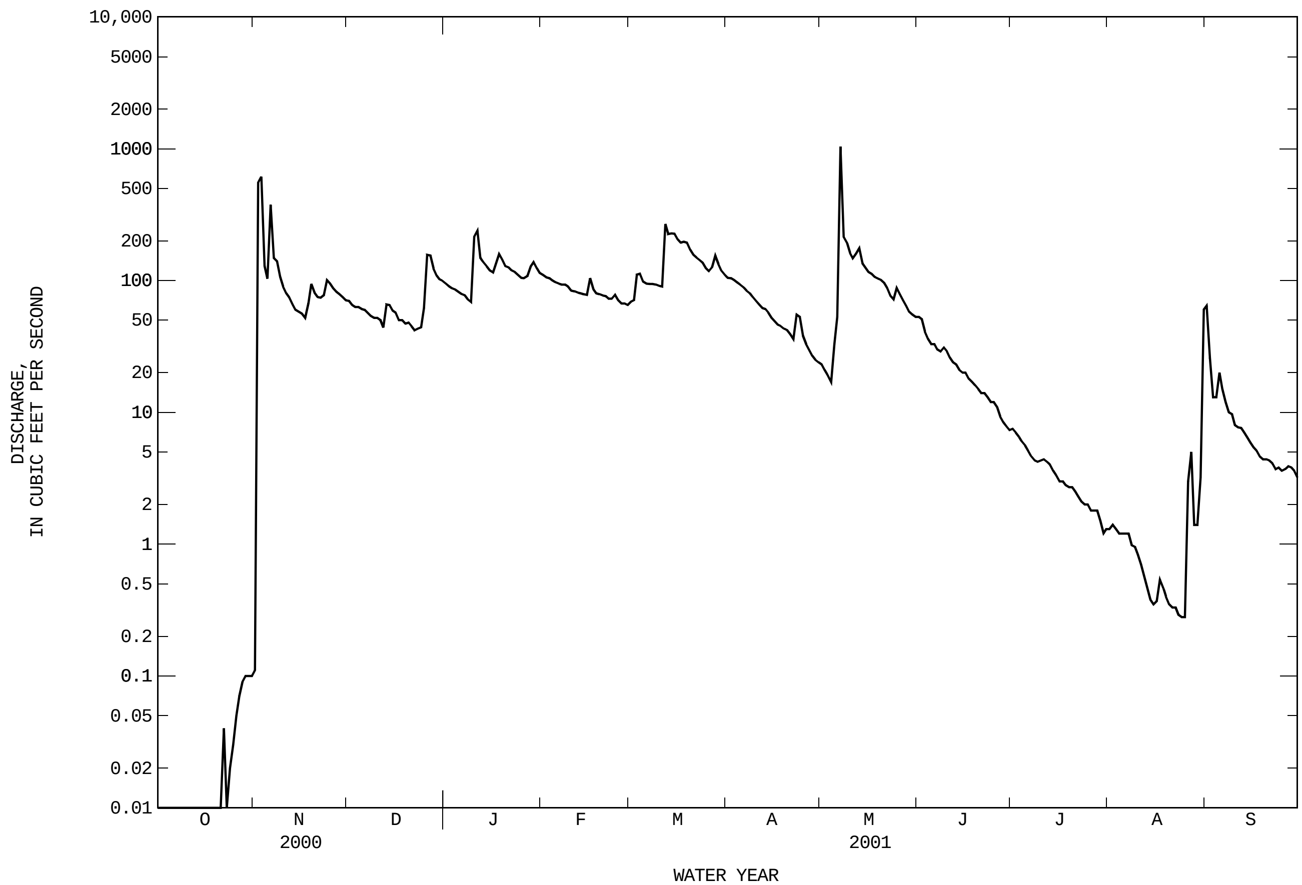
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	33.7	34.8	67.6	56.5	69.1	73.1	50.7	72.3	140	24.6	5.33	7.32
MAX	391	320	548	316	506	356	231	202	792	109	22.0	49.8
(WY)	1999	1999	1992	1992	1992	1992	1997	1992	1987	1997	1987	1998
MIN	.020	.10	.10	.25	.26	.40	.25	.27	.089	.13	.055	.006
(WY)	2001	1989	1989	2000	2000	2000	2000	1996	1996	1996	1996	1994

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1979 - 2001	
ANNUAL TOTAL	6262.49		23134.18			
ANNUAL MEAN	17.1		63.4		52.7	
HIGHEST ANNUAL MEAN					196	1992
LOWEST ANNUAL MEAN					1.11	2000
HIGHEST DAILY MEAN	615	Nov 3	1040	May 7	5060	Dec 21 1991
LOWEST DAILY MEAN	.00	Sep 6	.00	Oct 1	.00	Aug 21 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 6	.00	Oct 1	.00	Sep 14 1984
MAXIMUM PEAK FLOW			4800	May 7	15800	Oct 17 1998
MAXIMUM PEAK STAGE			11.20	May 7	25.10	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	12420		45890		38200	
ANNUAL RUNOFF (CFSM)	.14		.51		.43	
ANNUAL RUNOFF (INCHES)	1.88		6.94		5.78	
10 PERCENT EXCEEDS	64		135		123	
50 PERCENT EXCEEDS	.28		52		8.9	
90 PERCENT EXCEEDS	.00		.33		.28	

e Estimated

08158700 Onion Creek near Driftwood, TX--Continued



08158700 Onion Creek near Driftwood, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 1974 to current year.
BIOCHEMICAL DATA: Jan. 1974 to current year.
RADIOCHEMICAL DATA: Jan. 1980.
PESTICIDE DATA: Jan. 1978 to Sept. 1986.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV													
02-03	1910	1750	--	115	7.6	--	150	280	--	--	--	110	14000
DEC													
06...	0835	--	61	550	8.1	13.5	<1	.4	--	9.7	94.9	<10	180
SEP													
17...	1005	--	5.0	S495	7.9	25.0	<1	--	1.4	5.5	--	<10	<1

DATE	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
NOV													
02-03	21000	--	47	1060	.218	.008	.226	.124	5.25	4.90	5.0	.666	<.060
DEC													
06...	180	24	230	<10	--	<.006	.543	<.041	.641	--	.10	<.060	<.060
SEP													
17...	6	--	195	<10	--	<.006	.052	<.040	.190	--	.14	<.060	<.060

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV								
02-03	E.010	56	--	--	.24	9.3	17	32
DEC								
06...	<.018	1.5	.2	<.1	.11	1.2	1	3
SEP								
17...	<.020	3.0	<.1	<.1	<.10	<1.0	<1	<1

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08158810 Bear Creek below Farm Road 1826, near Driftwood, TX

LOCATION.--Lat 30°09'19", long 97°56'23", Hays County, Hydrologic Unit 12090205, 0.8 mi southeast of Farm Road 1826 and 5.9 mi northeast of Driftwood.

DRAINAGE AREA.--12.2 mi^2.

PERIOD OF RECORD.--Mar. 1978 to July 1979 (periodic discharge measurements only), Oct. 1978 to June 1979 (peak discharges greater than base discharge), July 1979 to current year. Water-quality records.--Chemical data: Mar. 1978 to June 1997. Biochemical data: Mar 1978 to June 1997. Radiochemical data: Jan. 1980. Pesticide data: June 1978 to Sept. 1986.

GAGE.--Water-stage recorder. Elevation of gage is 860 ft above sea level from topographic map. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges and those below 0.50 ft^3/s, which are poor. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 9, 1939, reached a stage of 16.2 ft; discharge, 14,200 ft^3/s, and is the highest since at least 1924, from information by local resident. A flood in 1915 was reported to be 2.0 ft higher than the 1939 flood, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.39	12	16	13	9.4	11	3.8	2.5	e.25	.00	2.7
2	.00	109	11	15	13	9.3	10	3.6	2.4	e.24	.00	1.7
3	.00	127	11	15	13	16	10	3.6	2.2	e.19	.00	1.3
4	.00	36	11	14	12	13	10	3.6	2.1	e.17	.00	1.5
5	.00	66	10	14	12	12	9.5	4.5	2.0	e.16	.00	1.7
6	.00	97	10	13	12	12	9.0	5.4	2.0	e.15	.00	1.8
7	.00	52	9.7	13	11	12	8.5	13	1.9	e.13	.00	.99
8	.00	44	9.6	12	11	12	8.1	7.9	2.0	e.10	.00	.89
9	.00	32	9.2	12	11	12	7.9	6.6	1.9	.10	.00	.87
10	.00	26	9.0	45	10	12	7.6	5.4	1.7	.07	.00	.83
11	.00	22	8.8	24	10	12	7.2	4.9	1.6	.04	.00	.76
12	.00	21	8.2	20	10	37	7.1	4.7	1.5	.05	.00	.70
13	.00	17	11	21	10	15	7.0	4.6	1.3	.03	.00	.68
14	.00	16	10	19	10	20	6.6	4.4	1.2	.02	.00	.69
15	.00	15	10	17	10	19	6.1	4.3	1.3	.01	.00	.67
16	.00	14	9.4	17	12	16	5.7	4.1	1.1	.00	.00	.65
17	.00	13	8.9	20	10	16	5.5	4.0	1.0	.00	.00	.63
18	.00	22	8.8	21	10	19	5.4	3.8	.89	.00	.00	.61
19	.00	21	8.5	20	10	18	5.3	3.9	.82	.00	.00	.58
20	.00	17	8.5	e19	9.9	16	5.0	3.8	.78	.00	.00	.54
21	.08	16	8.2	e17	9.6	14	4.7	3.8	e.74	.00	.00	.62
22	1.8	15	8.1	e16	9.3	13	4.6	3.4	e.70	.00	.00	.62
23	3.0	16	8.1	16	9.5	12	5.7	3.2	e.59	.00	.00	.58
24	1.0	19	8.0	15	9.5	12	4.8	3.1	e.59	.00	.00	.51
25	.69	16	16	14	8.9	11	4.5	3.2	e.52	.00	.00	.50
26	.56	15	38	14	8.9	10	4.3	3.4	e.43	.00	.00	.49
27	.52	14	29	15	8.9	12	4.1	3.3	e.43	.00	1.2	.46
28	.47	13	24	15	8.9	14	4.0	2.9	e.37	.00	.43	.45
29	.47	13	21	16	---	12	3.9	2.8	e.32	.00	.45	.41
30	.44	12	19	15	---	12	3.9	2.7	e.29	.00	1.3	.39
31	.40	---	18	14	---	11	---	2.6	---	.00	24	---
TOTAL	9.43	916.39	392.0	534	293.4	440.7	197.0	134.3	37.17	1.71	27.38	25.82
MEAN	.30	30.5	12.6	17.2	10.5	14.2	6.57	4.33	1.24	.055	.88	.86
MAX	3.0	127	38	45	13	37	11	13	2.5	.25	24	2.7
MIN	.00	.39	8.0	12	8.9	9.3	3.9	2.6	.29	.00	.00	.39
AC-FT	19	1820	778	1060	582	874	391	266	74	3.4	54	51
CFSM	.02	2.50	1.04	1.41	.86	1.17	.54	.36	.10	.00	.07	.07
IN.	.03	2.79	1.20	1.63	.89	1.34	.60	.41	.11	.01	.08	.08

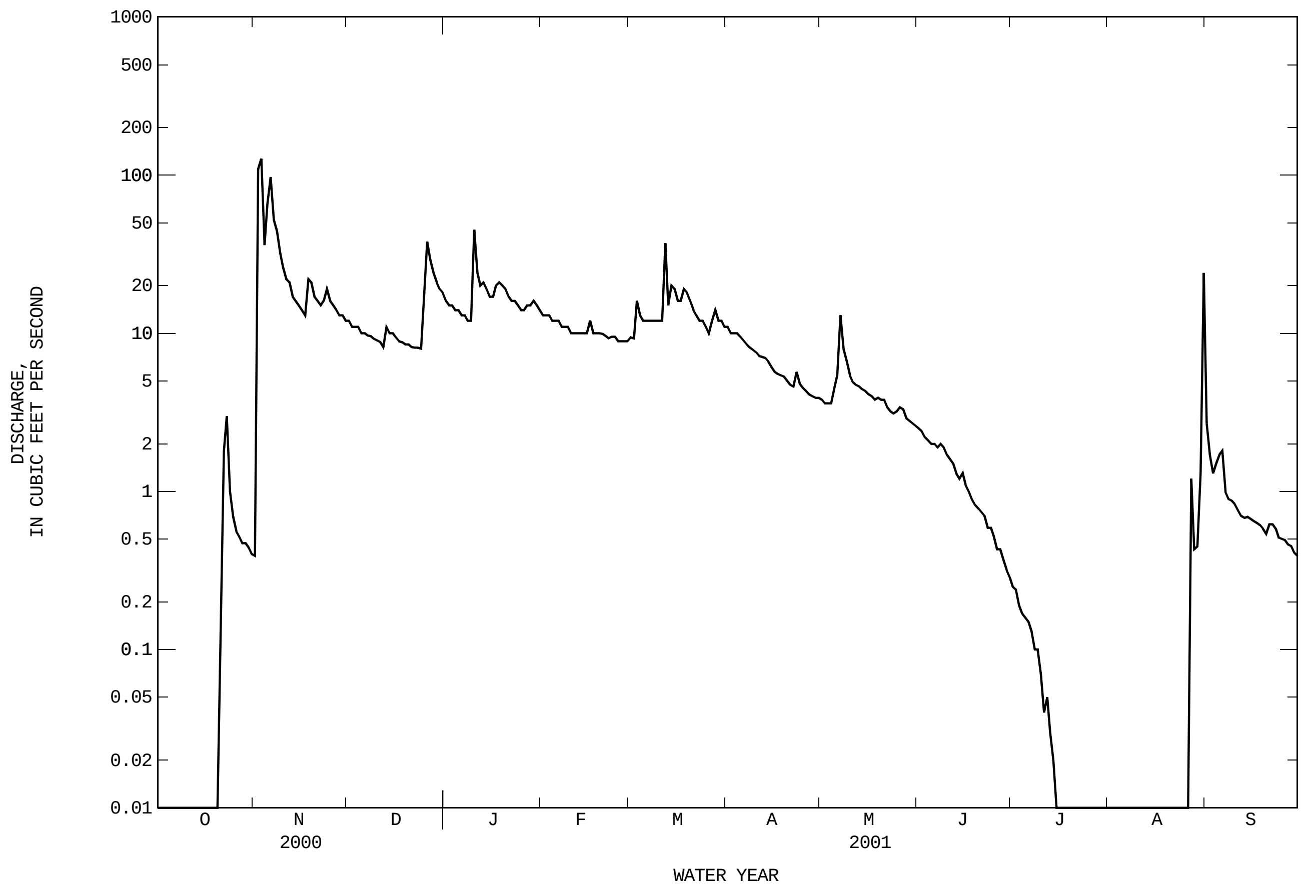
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.25	4.42	9.11	6.64	8.20	7.74	5.88	7.85	17.3	2.15	.69	.54
MAX	46.3	30.5	91.8	33.3	49.4	32.3	26.2	23.7	144	8.22	3.59	2.71
(WY)	1999	2001	1992	1992	1992	1992	1991	1992	1981	1997	1979	1991
MIN	.000	.000	.000	.000	.017	.053	.048	.013	.001	.000	.000	.000
(WY)	1989	1989	1989	1989	1990	1996	1996	1996	1984	1984	1984	1984

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1979 - 2001	
ANNUAL TOTAL	1517.62		3009.30			
ANNUAL MEAN	4.15		8.24		6.19	
HIGHEST ANNUAL MEAN					22.3	1992
LOWEST ANNUAL MEAN					.10	1996
HIGHEST DAILY MEAN	127	Nov 3	127	Nov 3	1000	Dec 20 1991
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Aug 28 1980
MAXIMUM PEAK FLOW			1790	Nov 2	10200	Dec 20 1991
MAXIMUM PEAK STAGE			7.77	Nov 2	14.23	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	3010		5970		4490	
ANNUAL RUNOFF (CFSM)	.34		.68		.51	
ANNUAL RUNOFF (INCHES)	4.63		9.18		6.89	
10 PERCENT EXCEEDS	13		17		14	
50 PERCENT EXCEEDS	.07		4.6		1.1	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08158810 Bear Creek below Farm Road 1826, near Driftwood, TX--Continued



08158840 Slaughter Creek at Farm to Market Road 1826 near Austin, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: June 1983 to current year.
BIOCHEMICAL DATA: June 1983 to current year.
PESTICIDE DATA: June 1983 to Sept. 1986.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV													
02-03	1940	53	--	162	7.7	--	75	42	--	--	--	26	34000
DEC													
06...	0945	--	4.4	861	8.0	14.0	<1	.5	--	9.0	88.8	<10	55
JUN													
04...	1013	--	1.0	818	7.6	26.5	2	--	2.3	6.8	87.3	<10	40

DATE	E COLI, MTEC MF WATER (COL/100 ML) (31633)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV													
02-03	44000	--	57	94	.178	.007	.185	<.041	1.18	.99	.157	E.043	.035
DEC													
06...	58	340	278	<10	--	<.006	.601	<.041	.722	.12	<.060	<.060	<.018
JUN													
04...	25	--	249	<10	--	E.003	E.023	<.040	--	.18	<.060	<.060	<.020

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV								
02-03	.107	14	--	--	E.08	2.3	3	16
DEC								
06...	--	2.4	.1	<.1	<.11	<1.2	<1	32
JUN								
04...	--	2.3	.5	<.1	<.10	<1.0	<1	<1

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08158922 Williamson Creek at Brush Country Boulevard, Oak Hill, TX

LOCATION.--Lat 30°13'34", long 97°50'28", Travis County, Hydrologic Unit 12090205, at downstream side of bridge on Brush Country Boulevard near Oak Hill, and 7.7 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--6.79 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Mar. 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 740.25 ft above sea level, city of Austin bench mark. Satellite telemeter at station.

REMARKS.--Records poor. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.25	.14	.00	.05	.00	.00	.00	.00	.02
2	.00	33	.00	.09	.06	.00	.00	.00	.00	.00	.00	.00
3	.00	179	.00	.00	.02	4.2	.00	.00	.00	.00	.00	.00
4	.00	34	.00	.00	.00	.99	.00	.01	.00	.00	.00	.00
5	.00	26	.00	.00	.00	.11	.00	.01	.00	.00	.00	.96
6	.01	51	.00	.00	.00	.00	.00	11	.00	.00	.00	.00
7	.03	21	.00	.00	.00	.00	.00	9.1	.00	.00	.00	.00
8	.01	9.8	.00	.00	.00	.00	.00	.94	.00	.00	.00	.00
9	.01	3.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.12	.00	17	.00	.04	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	5.3	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.69	.00	2.3	.00	27	.00	.00	.00	.00	.00	.00
13	.00	.00	.37	2.1	.00	2.1	.00	.00	.00	.00	.00	.00
14	.00	.00	.01	1.4	.00	8.6	.00	.00	.00	.00	.00	.00
15	.02	.00	.00	.86	.00	4.2	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.54	1.2	1.3	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	1.4	.00	.91	.00	.00	.00	.00	.00	.00
18	.00	4.2	.00	2.7	.00	3.3	.00	.00	.00	.00	.00	.00
19	.00	1.8	.00	2.1	.00	1.3	.00	.00	.00	.00	.00	.00
20	.00	.49	.00	1.0	.00	.53	.00	.00	.00	.00	.00	.00
21	.12	.11	.00	.60	.00	.10	.00	.00	.00	.00	.00	.00
22	.53	.00	.00	.31	.00	.00	.00	.00	.00	.00	.00	.00
23	.02	.01	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	1.2	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00
25	.00	.17	3.7	.00	.00	.01	.00	.00	.00	.00	.00	.00
26	.00	.00	23	.00	.00	.00	.00	.00	.00	.00	e47	.00
27	.00	.00	14	.47	.00	4.3	.00	.00	.00	.00	.41	.00
28	.00	.00	5.1	.31	.00	2.6	.00	.00	.00	.00	.00	.00
29	.00	.00	1.8	2.7	---	1.2	.00	.00	.00	.00	.00	.00
30	.00	.00	.79	1.0	---	.72	.00	.00	.00	.00	5.7	.00
31	.00	---	.46	.36	---	.32	---	.00	---	.00	32	---
TOTAL	0.75	366.09	49.23	42.90	1.42	63.89	0.05	21.06	0.00	0.00	85.11	0.98
MEAN	.024	12.2	1.59	1.38	.051	2.06	.002	.68	.000	.000	2.75	.033
MAX	.53	179	23	17	1.2	27	.05	11	.00	.00	47	.96
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1.5	726	98	85	2.8	127	.1	42	.00	.00	169	1.9

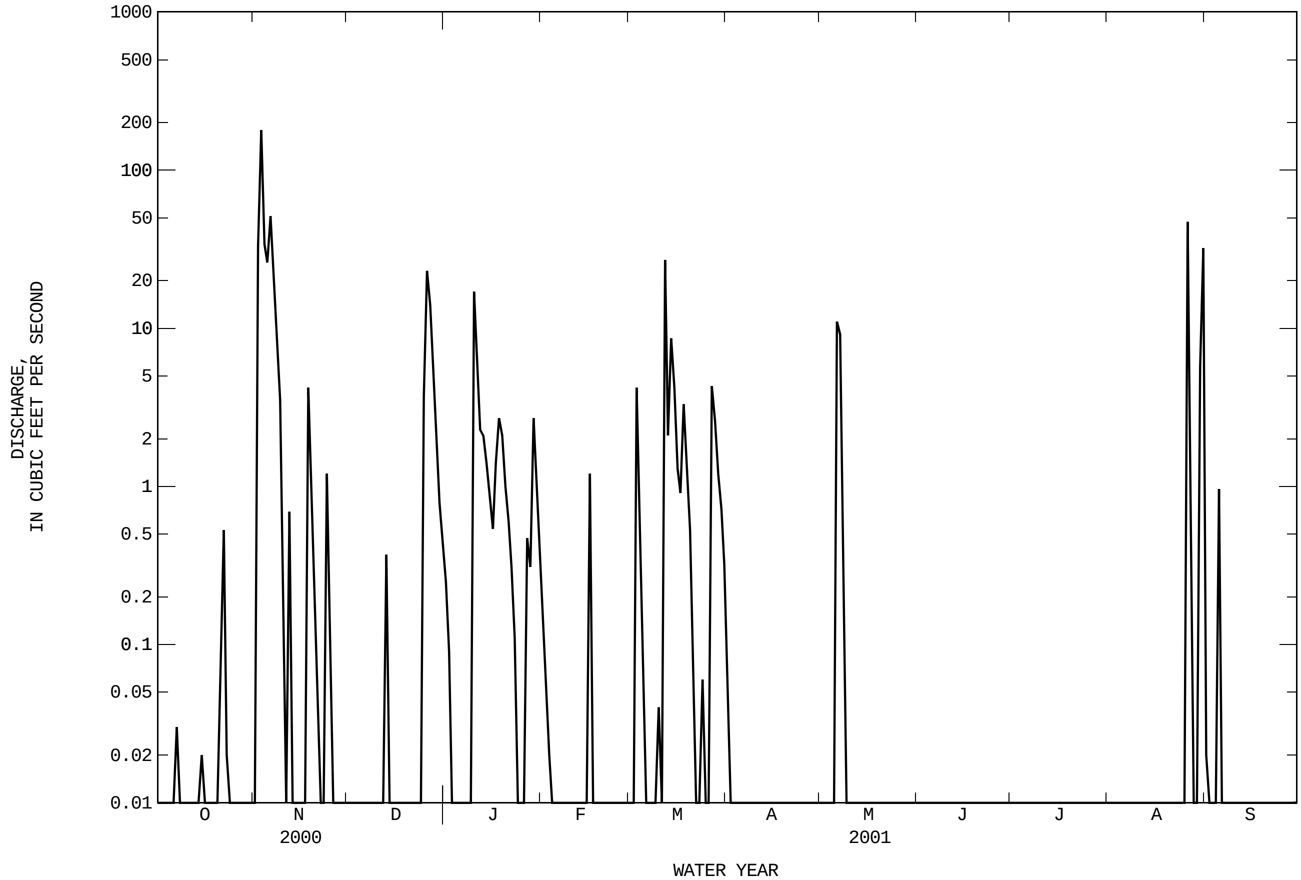
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.73	2.14	.66	.41	2.00	.92	.43	2.29	2.36	.003	.37	.029
MAX	24.8	12.2	2.38	1.76	15.9	4.88	3.48	10.3	13.1	.014	2.75	.14
(WY)	1999	2001	1995	1998	1998	1998	1997	1997	1997	1999	2001	1994
MIN	.000	.000	.000	.000	.000	.000	.000	.004	.000	.000	.000	.000
(WY)	1997	2000	1996	1994	1999	1996	1999	1998	2001	1993	1999	1993

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1993 - 2001	
ANNUAL TOTAL	521.50		631.48			
ANNUAL MEAN	1.42		1.73		1.33	
HIGHEST ANNUAL MEAN					2.51	1999
LOWEST ANNUAL MEAN					.039	1996
HIGHEST DAILY MEAN	179	Nov 3	179	Nov 3	455	Oct 17 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Mar 11 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 9	.00	Oct 24	.00	Mar 11 1993
MAXIMUM PEAK FLOW			510	Nov 3	2700	Oct 17 1998
MAXIMUM PEAK STAGE			4.44	Nov 3	7.10	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	1030		1250		962	
10 PERCENT EXCEEDS	.03		1.4		.04	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08158922 Williamson Creek at Brush Country Boulevard, Oak Hill, TX--Continued



08158922 Williamson Creek at Brush Country Boulevard, Oak Hill, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1993 to current year.
BIOCHEMICAL DATA: Oct. 1993 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
NOV													
02-03	1630	95	140	7.4	100	65	27	110000	130000	50	136	.431	.011
MAY													
06-07	2205	85	150	7.7	50	91	39	E9400	16000	55	191	.313	.011

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
NOV													
02-03	.442	E.039	1.58	1.1	.270	.090	.077	.236	13	E.06	3.8	6	22
MAY													
06-07	.324	<.041	1.86	1.5	.258	.071	.034	.104	15	E.09	4.0	6	24

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08158930 Williamson Creek at Manchaca Road, Austin, TX

LOCATION.--Lat 30°13'16", long 97°47'36", Travis County, Hydrologic Unit 12090205, on downstream side of the bridge on Manchaca Road, 0.7 mile south of the intersection of Ben White Boulevard and Manchaca Road, and 4.9 miles southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--19.0 mi^2.

PERIOD OF RECORD.--May 1975 to Sept. 1985 (discharge measurements and annual maximum), Jan. 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 618.39 ft above sea level. Satellite telemeter at gage.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions.

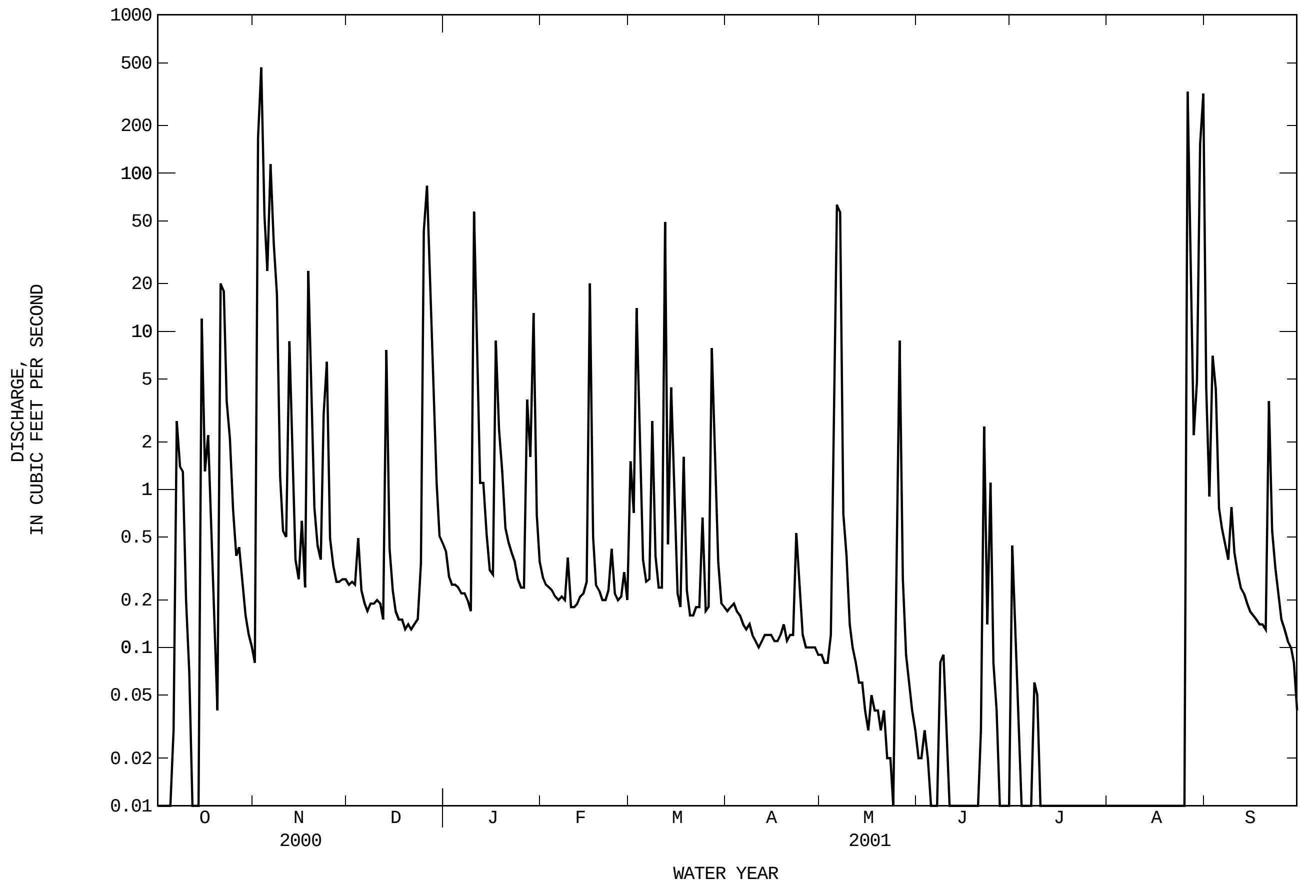
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,490 ft^3/s June 11, 1981 (gage height, 16.00 ft); minimum discharge, no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft^3/s Aug. 26 (gage height, 9.42 ft); minimum discharge, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.08	.25	.41	.28	1.5	.17	.09	.02	.44	.00	4.4
2	.00	168	.26	.28	.25	.71	.18	.08	.02	.10	.00	.90
3	.00	466	.25	.25	.24	14	.19	.08	.03	.03	.00	7.0
4	.00	54	.49	.25	.23	1.5	.17	.12	.02	.00	.00	4.3
5	.00	24	.23	.24	.21	.36	.16	10	.00	.00	.00	.76
6	.03	114	.19	.22	.20	.26	.14	63	.00	.00	.00	.57
7	2.7	36	.17	.22	.21	.27	.13	57	.00	.00	.00	.45
8	1.4	17	.19	.20	.20	2.7	.14	.70	.08	.06	.00	.36
9	1.3	1.2	.19	.17	.37	.38	.12	.38	.09	.05	.00	.77
10	.20	.55	.20	57	.18	.24	.11	.14	.03	.00	.00	.40
11	.07	.50	.19	11	.18	.24	.10	.10	.01	.00	.00	.30
12	.01	8.6	.15	1.1	.19	49	.11	.08	.00	.00	.00	.24
13	.00	1.4	7.6	1.1	.21	.45	.12	.06	.00	.00	.00	.22
14	.00	.36	.42	.53	.22	4.4	.12	.06	.00	.00	.00	.19
15	12	.27	.23	.31	.26	1.0	.12	.04	.00	.00	.00	.17
16	1.3	.63	.17	.29	20	.22	.11	.03	.00	.00	.00	.16
17	2.2	.24	.15	8.7	.50	.18	.11	.05	.00	.00	.00	.15
18	.78	24	.15	2.4	.25	1.6	.12	.04	.00	.00	.00	.14
19	.16	6.3	.13	1.3	.23	.23	.14	.04	.00	.00	.00	.14
20	.04	.77	.14	.57	.20	.16	.11	.03	.00	.00	.00	.13
21	20	.44	.13	.46	.20	.16	.12	.04	.03	.00	.00	3.6
22	18	.36	.14	.40	.23	.18	.12	.02	2.5	.00	.00	.55
23	3.6	3.0	.15	.35	.42	.18	.53	.02	.14	.00	.00	.32
24	2.1	6.4	.34	.27	.22	.66	.24	.01	1.1	.00	.00	.23
25	.74	.49	43	.24	.20	.17	.12	.39	.08	.00	.00	.15
26	.38	.33	83	.24	.21	.18	.10	8.7	.04	.00	326	.13
27	.43	.26	24	3.7	.30	7.8	.10	.27	.01	.00	34	.11
28	.27	.26	4.3	1.6	.20	1.5	.10	.09	.00	.00	2.2	.10
29	.16	.27	1.1	13	---	.35	.10	.06	.00	.00	4.8	.08
30	.12	.27	.51	.69	---	.19	.09	.04	.00	.00	153	.04
31	.10	---	.46	.35	---	.18	---	.03	---	.00	317	---
TOTAL	68.09	935.98	168.88	107.84	26.59	90.95	4.29	141.79	4.20	0.68	837.00	27.06
MEAN	2.20	31.2	5.45	3.48	.95	2.93	.14	4.57	.14	.022	27.0	.90
MAX	20	466	83	57	20	49	.53	63	2.5	.44	326	7.0
MIN	.00	.08	.13	.17	.18	.16	.09	.01	.00	.00	.00	.04
AC-FT	135	1860	335	214	53	180	8.5	281	8.3	1.3	1660	54

08158930 Williamson Creek at Manchaca Road, Austin, TX--Continued



08159000 Onion Creek at U.S. Highway 183, Austin, TX

LOCATION.--Lat 30°10'40", long 97°41'18", Travis County, Hydrologic Unit 12090205, on right bank at downstream side of downstream bridge on U.S. Highway 183, 2.4 mi downstream from Williamson Creek, 3.2 mi southwest of Del Valle, and 7.5 mi southeast of the State Capitol Building in Austin.

DRAINAGE AREA.--321 mi^2.

PERIOD OF RECORD.--May 1924 to Mar. 1930 station was published as "near Del Valle", Mar. 1976 to current year.
Water-quality records.--Chemical data: Oct. 1976 to Sept. 1988. Biochemical data: Oct. 1976 to Sept. 1988. Radiochemical data: Jan. 1980. Pesticide data: Oct. 1976 to Sept. 1986. Sediment data: Oct. 1976 to Sept. 1982.

GAGE.--Water-stage recorder. Datum of gage is 442.85 ft above sea level (Texas Department of Transportation datum). May 15, 1924, to Mar. 15, 1930, nonrecording gage at highway bridge 1,700 ft upstream at 6.42 ft higher datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good except those for daily discharges below 4.0 ft^3/s, which are poor. No known regulation or diversions. Flow is slightly affected by several small ponds on main channel and tributaries above station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1869 occurred about July 3, 1869, stage about 38 ft, from newspaper accounts, and Sept. 9, 1921, stage 38.0 ft, from floodmark, present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	18	68	60	22	52	9.9	12	3.7	.00	125
2	.00	161	16	59	50	26	46	9.5	11	5.9	.00	37
3	.00	5260	15	51	49	99	41	8.9	9.3	4.8	.00	19
4	.00	566	15	46	46	114	37	8.3	7.6	3.9	.00	37
5	.00	139	15	42	40	78	31	48	7.2	3.0	.00	21
6	.00	864	14	36	36	54	29	71	7.1	2.3	.00	13
7	.00	321	13	34	36	48	26	2030	6.7	1.7	.00	8.7
8	.00	234	12	29	33	47	23	322	9.7	1.1	.00	6.4
9	.00	103	12	25	30	49	21	222	12	.37	.00	31
10	.00	71	12	189	24	45	20	153	7.8	.10	.00	15
11	.00	41	12	423	24	42	19	75	6.6	.00	.00	8.1
12	.00	30	11	199	22	259	18	57	5.7	.00	.00	6.0
13	.00	27	40	145	21	176	18	80	4.8	.00	.00	5.0
14	.00	18	26	134	21	164	18	79	4.4	.00	.00	4.6
15	.00	14	20	109	20	198	16	48	4.1	.00	.00	4.4
16	.00	13	15	97	168	113	20	36	4.1	.00	.00	4.1
17	26	12	13	117	66	94	18	28	4.0	.00	.00	3.9
18	15	87	12	155	41	110	19	24	3.9	.00	.00	3.7
19	1.7	82	11	192	30	135	18	20	3.8	.00	.00	3.5
20	.25	38	11	137	25	108	16	18	3.0	.00	.00	3.4
21	27	25	11	115	24	93	15	15	16	.00	.00	3.6
22	130	21	10	103	23	81	14	13	41	.00	.00	121
23	37	20	10	99	23	74	16	11	19	.00	.00	56
24	8.6	345	12	93	26	70	20	11	23	.00	.00	22
25	6.7	91	72	79	22	55	16	13	7.8	.00	.00	12
26	1.9	48	382	70	20	50	14	53	4.7	.00	.00	8.3
27	1.3	33	392	55	21	86	12	27	3.5	.00	283	6.8
28	.76	29	190	51	22	98	12	21	2.9	.00	76	5.8
29	.43	24	124	182	---	94	11	19	2.3	.00	39	5.1
30	.19	21	89	111	---	73	10	15	2.0	.00	488	4.8
31	.04	---	75	74	---	60	---	13	---	.00	948	---
TOTAL	256.87	8738.00	1680	3319	1023	2815	646	3558.6	257.0	26.87	1834.00	605.2
MEAN	8.29	291	54.2	107	36.5	90.8	21.5	115	8.57	.87	59.2	20.2
MAX	130	5260	392	423	168	259	52	2030	41	5.9	948	125
MIN	.00	.00	10	25	20	22	10	8.3	2.0	.00	.00	3.4
AC-FT	510	17330	3330	6580	2030	5580	1280	7060	510	53	3640	1200
CFSM	.03	.91	.17	.33	.11	.28	.07	.36	.03	.00	.18	.06
IN.	.03	1.01	.19	.38	.12	.33	.07	.41	.03	.00	.21	.07

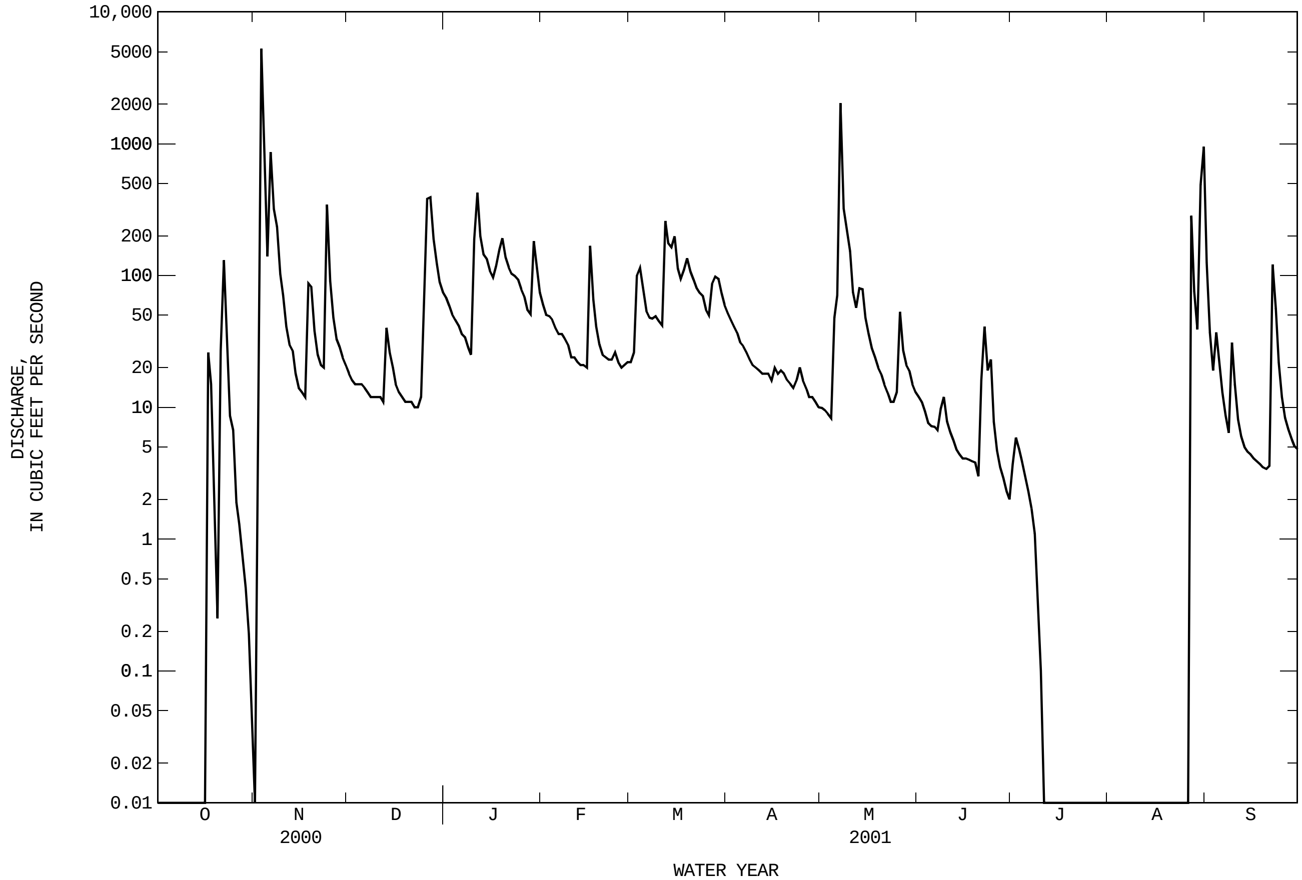
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	79.5	45.1	91.5	53.3	77.5	82.0	100	173	230	31.2	8.61	8.83
MAX	1346	400	1526	487	908	576	847	1767	2305	133	59.2	48.0
(WY)	1999	1999	1992	1992	1992	1992	1926	1929	1981	1981	2001	1986
MIN	.000	.27	.000	.002	1.65	1.80	1.39	1.40	.010	.000	.000	.000
(WY)	1929	1994	1990	1990	1925	1996	1994	1984	1925	1925	1925	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1924 - 2001h	
ANNUAL TOTAL	13789.01		24759.54			
ANNUAL MEAN	37.7		67.8		80.7	
HIGHEST ANNUAL MEAN					379	1992
LOWEST ANNUAL MEAN					1.49	1925
HIGHEST DAILY MEAN	5260	Nov 3	5260	Nov 3	30500	May 28 1929
LOWEST DAILY MEAN	.00	May 29	.00	Oct 1	.00	Jun 3 1925
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 1	.00	Oct 1	.00	Jun 3 1925
MAXIMUM PEAK FLOW			9550	Nov 3	76000	May 28 1929
MAXIMUM PEAK STAGE			18.76	Nov 3	32.36	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	27350		49110		58440	
ANNUAL RUNOFF (CFSM)	.12		.21		.25	
ANNUAL RUNOFF (INCHES)	1.60		2.87		3.41	
10 PERCENT EXCEEDS	38		122		125	
50 PERCENT EXCEEDS	1.5		18		6.2	
90 PERCENT EXCEEDS	.00		.00		.00	

h See PERIOD OF RECORD paragraph.

08159000 Onion Creek at U.S. Highway 183, Austin, TX--Continued



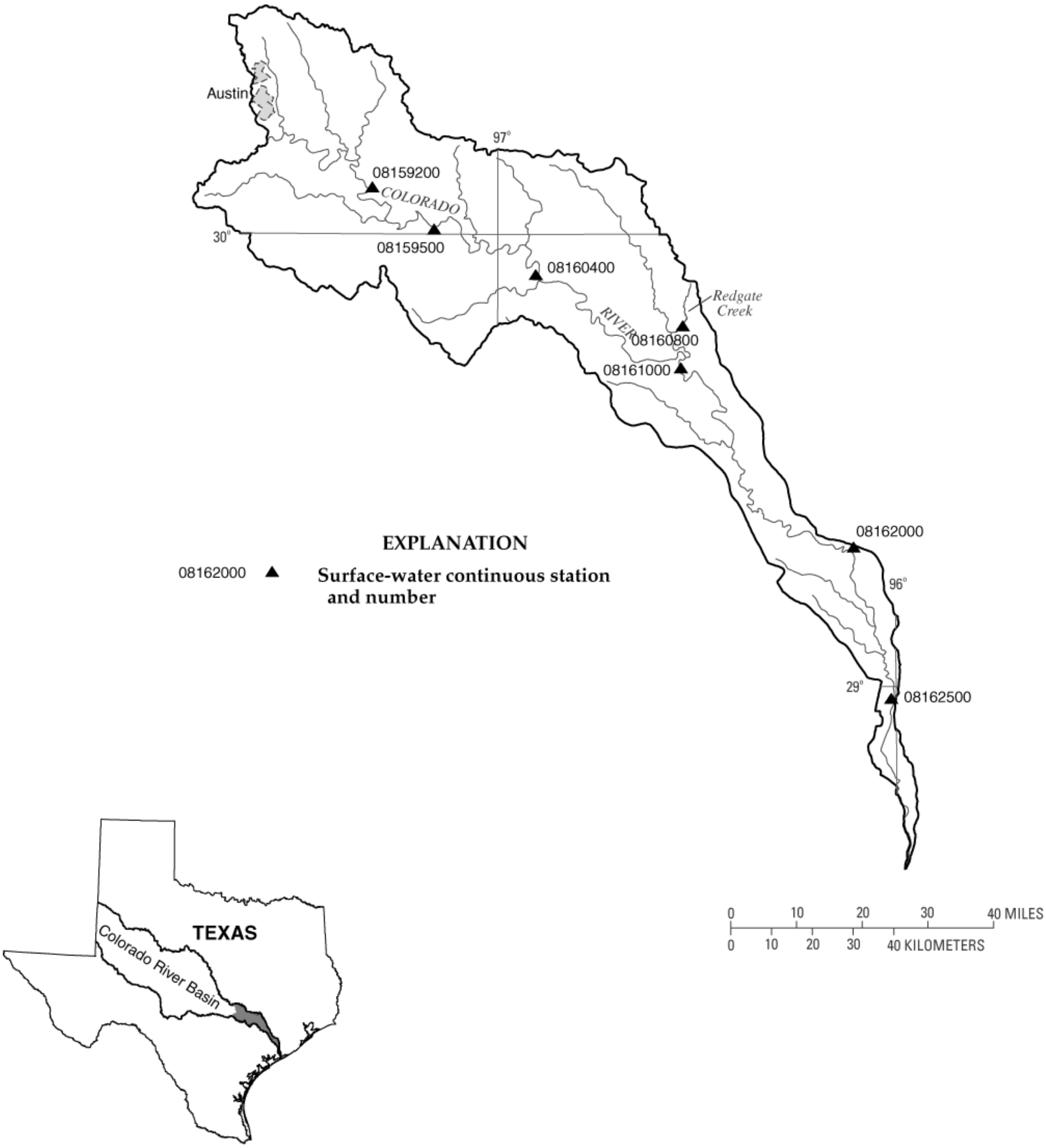


Figure 8.--Map showing location of gaging stations in the fifth section of the Colorado River Basin

08159200 Colorado River at Bastrop, TX

LOCATION.--Lat 30°06'16", long 97°19'09", Bastrop County, Hydrologic Unit 12090301, at the downstream side of bridge on State Highway 71 bridge, at Bastrop, 0.3 mi upstream from Gills Branch, 1.2 mi downstream from Piney Creek, and at mile 236.6.

DRAINAGE AREA.--39,979 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Mar. 1960 to current year. Oct. 1973 to Sept. 1975, daily discharges estimated by hydrographic comparison with Colorado River at Austin (station 08158000) and Colorado River near Smithville (station 08159500).
Water-quality records.--Chemical data: Mar. 1944, Feb. 1968 to Sept. 1994. Biochemical data: Feb. 1968 to Sept. 1994. Specific conductance: Nov. 1986 to Sept. 1994. pH: Nov. 1986 to Sept. 1994. Water temperature: Nov. 1986 to Sept. 1994. Dissolved oxygen: Nov. 1986 to Sept. 1994.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 307.38 ft above sea level. Prior to May 10, 1960, nonrecording gage at a site 400 ft upstream from present site and at same datum. May 10, 1960, to Sept. 30, 1973, Oct. 1, 1975, to Oct. 28, 1986, at a site 400 ft upstream from present site and at same datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Since installation of gage in 1960, at least 10% of contributing drainage area has been regulated. There are many diversions above station for irrigation and for municipal supply. The city of Austin diverts water into Decker Lake (by pumpage) upstream from this station. The Lower Colorado River Authority also diverts water from the Colorado into Lake Bastrop (by pumpage) upstream from this station.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes, and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1845, 60.3 ft July 7 or 8, 1869. Flood of June 16, 1935, reached a stage of 57.0 ft, and flood of Dec. 4, 1913, reached a stage of 53.3 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

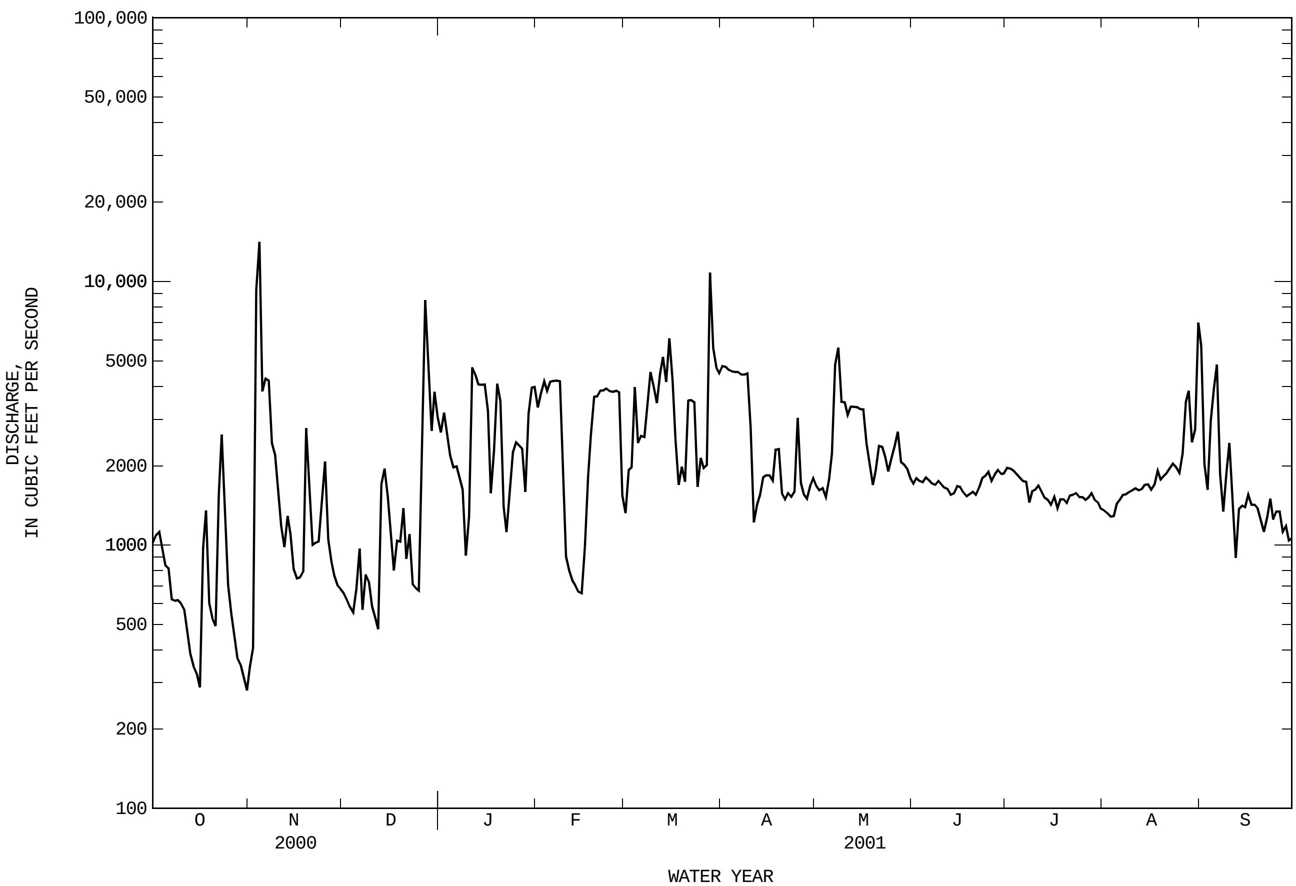
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	344	655	2670	3320	1320	4770	1670	1710	1960	1350	5700
2	1090	407	617	3180	3770	1930	4740	1610	1790	1950	1320	2030
3	1120	9280	583	2640	4170	1970	4610	1640	1750	1910	1280	1620
4	981	14100	555	2180	3850	3960	4560	1520	1730	1860	1290	2970
5	839	3820	683	1970	4170	2440	4530	1770	1800	1800	1430	3950
6	814	4280	968	1990	4190	2590	4530	2220	1760	1750	1480	4840
7	621	4210	568	1780	4200	2570	4430	4830	1710	1740	1550	1860
8	615	2430	773	1620	4180	3410	4430	5600	1690	1450	1560	1340
9	618	2190	727	910	1860	4540	4470	3500	1750	1600	1590	1890
10	600	1590	585	1280	903	3990	2780	3480	1690	1620	1610	2440
11	570	1180	528	4710	799	3460	1220	3120	1650	1680	1640	1380
12	470	983	479	4460	733	4470	1420	3350	1630	1590	1610	893
13	386	1290	1700	4070	704	5170	1540	3340	1550	1510	1630	1370
14	347	1100	1950	4060	664	4160	1800	3330	1570	1480	1690	1410
15	326	809	1530	4070	656	6080	1840	3280	1670	1420	1700	1390
16	288	748	1100	3230	982	4220	1840	3270	1660	1520	1620	1550
17	977	753	802	1570	1810	2520	1760	2430	1580	1380	1690	1420
18	1350	792	1040	2280	2640	1690	2300	2010	1530	1490	1910	1420
19	602	2770	1030	4090	3660	1980	2310	1690	1560	1490	1770	1380
20	529	1640	1380	3520	3670	1740	1570	1930	1590	1440	1830	1240
21	492	1000	885	1400	3860	3540	1490	2380	1550	1540	1880	1120
22	1560	1020	1100	1120	3860	3550	1570	2360	1650	1550	1960	1270
23	2620	1030	708	1580	3920	3480	1520	2150	1790	1570	2030	1500
24	1300	1450	685	2240	3830	1660	1590	1900	1830	1520	1970	1250
25	706	2070	672	2450	3810	2140	3030	2130	1890	1520	1880	1340
26	550	1050	3320	2390	3850	1960	1720	2370	1750	1480	2230	1340
27	456	864	8470	2320	3790	2010	1560	2690	1850	1510	3490	1120
28	373	763	4530	1590	1540	10800	1500	2060	1920	1570	3840	1180
29	352	702	2710	3150	---	5590	1670	2020	1860	1480	2450	1040
30	316	679	3810	3950	---	4710	1790	1950	1870	1450	2740	1060
31	281	---	3050	3980	---	4490	---	1790	---	1370	6970	---
TOTAL	23169	65344	48193	82450	79391	108140	78890	79390	51330	49200	62990	54313
MEAN	747	2178	1555	2660	2835	3488	2630	2561	1711	1587	2032	1810
MAX	2620	14100	8470	4710	4200	10800	4770	5600	1920	1960	6970	5700
MIN	281	344	479	910	656	1320	1220	1520	1530	1370	1280	893
AC-FT	45960	129600	95590	163500	157500	214500	156500	157500	101800	97590	124900	107700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1412	1255	1465	1695	2140	2335	2505	3403	4398	2563	1883	1719
MAX	6380	11330	14770	17490	29140	16910	11080	10420	23620	12750	3705	4930
(WY)	1974	1975	1992	1992	1992	1992	1977	1975	1987	1997	1961	1974
MIN	291	94.6	111	109	138	131	565	1471	1489	1302	1125	1003
(WY)	1965	1964	1964	1964	1964	1964	1962	1962	1993	1967	1999	1999

08159200 Colorado River at Bastrop, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1960 - 2001	
ANNUAL TOTAL	450253		782800			
ANNUAL MEAN	1230		2145		2230	
HIGHEST ANNUAL MEAN					9073	1992
LOWEST ANNUAL MEAN					828	1964
HIGHEST DAILY MEAN	14100	Nov 4	14100	Nov 4	65800	Dec 22 1991
LOWEST DAILY MEAN	218	Feb 20	281	Oct 31	75	Apr 1 1964
ANNUAL SEVEN-DAY MINIMUM	254	Feb 17	361	Oct 27	84	Oct 19 1964
MAXIMUM PEAK FLOW			16800	Nov 4	79600	Oct 29 1960
MAXIMUM PEAK STAGE			15.01	Nov 4	37.48	Dec 22 1991
ANNUAL RUNOFF (AC-FT)	893100		1553000		1615000	
10 PERCENT EXCEEDS	1900		4160		4170	
50 PERCENT EXCEEDS	1080		1690		1550	
90 PERCENT EXCEEDS	326		703		257	



08159500 Colorado River at Smithville, TX

LOCATION.--Lat 30°00'45", long 97°09'42", Bastrop County, Hydrologic Unit 12090301, on right bank 28 ft downstream from bridge on Business State Highway 71 in Smithville, 500 ft below mouth of Gazley Creek, 3.9 mi below mouth of Alum Creek, and at mile 212.1.

DRAINAGE AREA.--40,371 mi^2 approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--July 1930 to Sept. 1975, Oct. 1997 to current year. Gage-height records collected in this vicinity since 1920 are contained in reports of the National Weather Service.
Water-quality records.--Chemical data: Oct. 1973 to Sept. 1975. Biological data: Oct. 1973 to Sept. 1975.

REVISED RECORDS.--WSP 1342: Drainage are. WSP 1562: 1934. WSP 1712: 1953, 1954(M), 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 270.14 ft above sea level. Prior to Apr. 9, 1931, nonrecording gage at same site and datum. Apr. 9, 1931, to Sept. 2, 1971, water-stage recorder at site 360 ft downstream at same datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in 1930, at least 10% of contributing drainage area has been regulated. At times, low-flow releases from Lake Travis are made for generation of electric power and to fulfill downstream water contracts. There are many diversions above station for irrigation and municipal supply.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes, and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, occurred July 8, 1869, and was several feet higher than flood of Dec. 4, 1913, which reached a stage of 47.4 ft and was the highest since 1869, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	323	684	2570	3650	1590	4930	1860	1780	1860	1090	6050
2	1150	415	639	3150	3980	1820	4900	1860	1790	1940	1070	2560
3	1260	3710	601	3190	4300	2240	4800	1780	1830	1940	1050	1550
4	1270	18200	566	2500	4100	4570	4770	1710	1750	1980	1070	1780
5	1080	8190	554	2250	4280	3420	4690	1840	1710	1880	1100	3510
6	990	3780	956	2310	4350	2690	4680	2390	1720	1830	1210	5200
7	833	5700	696	1950	4360	2870	4570	3770	1590	1800	1230	2420
8	759	2710	590	1760	4370	3320	4620	6380	1610	1600	1250	1440
9	752	2670	788	1400	3200	4030	4590	4060	1610	1570	1300	1510
10	734	1830	698	1210	1280	4710	3990	3760	1630	1600	1320	2220
11	706	1380	552	4390	1000	3530	1700	3360	1570	1620	1320	1810
12	635	1120	510	5280	885	3810	1390	3450	1540	1590	1350	923
13	557	1920	782	4400	811	5670	1650	3600	1520	1480	1290	942
14	451	1450	2600	4240	776	4450	1700	3610	1500	1430	1340	1310
15	418	941	1760	4350	733	6210	1980	3500	1640	1360	1370	1140
16	379	767	1430	3980	789	5130	1970	3400	1620	1350	1380	1320
17	655	728	946	2130	2260	3480	1990	2700	1630	1410	1350	1390
18	1370	781	917	2340	2080	2230	2240	2360	1530	1360	e1350	1280
19	1100	2930	982	4450	3680	1870	2400	1920	1510	1400	e1500	1300
20	658	2700	1410	5070	3790	2230	2080	1940	1480	1410	e1570	1210
21	682	1310	1120	2410	4000	3020	1720	2190	1470	1400	1510	1120
22	738	978	990	1410	4020	3740	1660	2660	1520	1420	1530	1010
23	2680	1060	1020	1450	4000	3660	1730	2340	e1780	1390	1660	1140
24	1930	2930	674	2230	4070	2610	1720	2040	e1850	1370	1710	1390
25	1170	3570	823	2650	3960	2200	2640	1970	e1970	1360	1680	1080
26	783	1520	2020	2580	4000	2290	2350	2390	1750	1290	e1660	1260
27	682	1040	8430	2620	4010	2080	1780	2610	1750	1250	e3980	1110
28	526	868	7210	2250	2590	7770	1690	2340	1820	1270	e3130	1030
29	441	770	2880	2350	---	7870	1630	2040	1800	1240	2540	973
30	406	714	3640	5880	---	4920	1920	1970	1750	1140	2040	886
31	361	---	3780	4470	---	4540	---	1950	---	1120	4940	---
TOTAL	27236	77005	51248	93220	85324	114570	84480	83750	50020	46660	51890	51864
MEAN	879	2567	1653	3007	3047	3696	2816	2702	1667	1505	1674	1729
MAX	2680	18200	8430	5880	4370	7870	4930	6380	1970	1980	4940	6050
MIN	361	323	510	1210	733	1590	1390	1710	1470	1120	1050	886
AC-FT	54020	152700	101700	184900	169200	227200	167600	166100	99210	92550	102900	102900

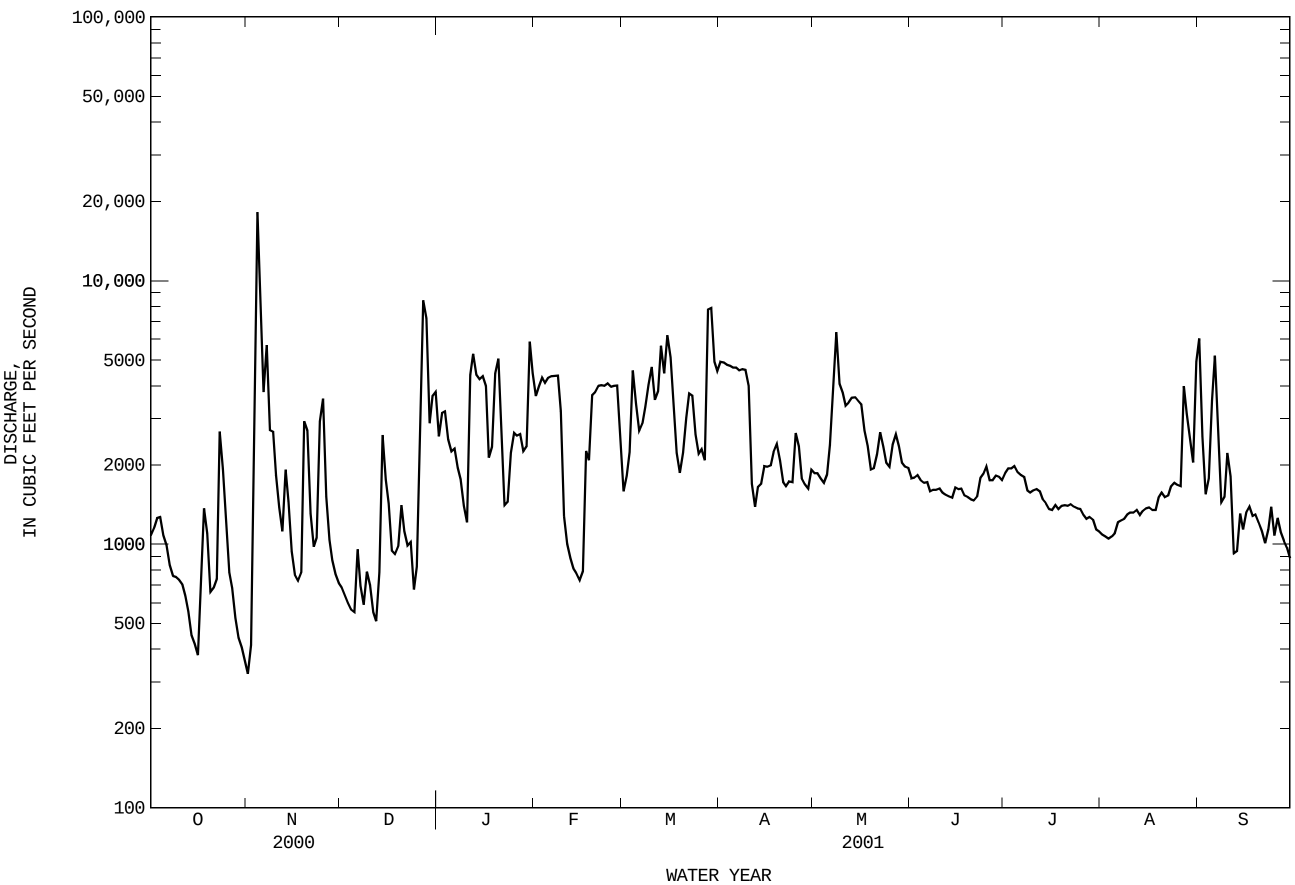
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2001h, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2835	1919	1678	1894	2174	2043	2523	4426	4132	3424	1915	2960
MAX	20380	13480	5738	7823	8516	7292	11300	27980	31510	31310	7303	38090
(WY)	1931	1975	1941	1968	1958	1958	1941	1957	1935	1938	1938	1936
MIN	117	133	129	133	145	176	471	1088	391	852	240	337
(WY)	1935	1964	1964	1964	1964	1964	1952	1942	1934	1933	1930	1934

08159500 Colorado River at Smithville, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1930 - 2001h	
ANNUAL TOTAL	473957		817267			
ANNUAL MEAN	1295		2239		2668	
HIGHEST ANNUAL MEAN					6780	1935
LOWEST ANNUAL MEAN					794	1952
HIGHEST DAILY MEAN	18200	Nov 4	18200	Nov 4	219000	Jun 16 1935
LOWEST DAILY MEAN	314	Feb 21	323	Nov 1	79	Nov 1 1934
ANNUAL SEVEN-DAY MINIMUM	355	Feb 17	451	Oct 27	84	Oct 27 1934
MAXIMUM PEAK FLOW			21000	Nov 4	305000	Jun 16 1935
MAXIMUM PEAK STAGE			13.46	Nov 4	42.50	Jun 16 1935
ANNUAL RUNOFF (AC-FT)	940100		1621000		1933000	
10 PERCENT EXCEEDS	1940		4360		4700	
50 PERCENT EXCEEDS	1100		1750		1620	
90 PERCENT EXCEEDS	415		774		342	

e Estimated
h See PERIOD OF RECORD paragraph.



08160400 Colorado River above LaGrange, TX

LOCATION.--Lat 29°54'44", long 96°54'13", Fayette County, Hydrologic Unit 12090301, at right downstream end of bridge on new State Highway 71, 1.4 mi upstream from Buckners Creek, and at mile 177.

DRAINAGE AREA.--40,874 mi^2, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Dec. 1979 to Sept. 1982 (discharge measurements only), Apr. 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 210.04 ft above sea level. Dec. 12, 1979, to Sept. 30, 1982, discharge measurements only were made at old State Highway 71 bridge, 1.0 mi downstream and at different datum. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair. Since installation of gage in 1988, at least 10% of contributing drainage area has been regulated. At times, low-flow releases from Lake Travis are made for generation of electric power and to fulfill downstream water contracts. There are many diversions above station for irrigation and municipal supply.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage discharge relation at low stages. U.S. Geological Survey maintains stage discharge relation at medium to high stages, computes, and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, about 56.7 ft on July 9, 1869 (from marble high-water marker in LaGrange). Stages of other floods are as follows: Dec. 5, 1913, 56.4 ft, from floodmark; June 17, 1935, 50.84 ft, from floodmarks (discharge 255,000 ft^3/s from rating curve extended above 200,000 ft^3/s); July 27, 1938, 42.95 ft (discharge, 200,000 ft^3/s). These data were collected at a site 2.6 mi downstream at streamflow station and published as Colorado River at LaGrange at datum different than at present site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	901	323	526	3020	3990	1530	4810	1740	1750	1580	988	8600
2	877	281	498	2760	3520	1850	4910	1660	1560	1930	970	5690
3	919	367	474	3240	3820	3810	4810	1560	1610	2150	945	2780
4	989	9990	455	2640	4100	e6040	4730	1590	1580	1930	921	2160
5	975	13500	428	2220	3900	e4110	4640	1570	1480	1810	949	4310
6	844	4770	419	1990	4140	2590	4610	1780	1460	1710	1010	8070
7	847	5740	730	1990	4150	2580	4560	4830	1430	1630	1220	5650
8	704	4090	477	1740	4160	2540	4480	6000	1380	1590	1180	2380
9	637	2690	461	1550	3960	3130	4470	5780	1380	1320	1210	2510
10	618	2230	528	939	2130	4210	4430	3780	1400	1430	1270	4440
11	601	1590	481	2690	e1400	3470	2660	3610	1360	1430	1310	2960
12	581	1660	403	5800	827	e3440	1380	3270	1320	1420	1350	1840
13	533	3640	458	4590	734	4490	1430	3400	1320	1350	1350	1050
14	480	2110	1670	4170	680	4800	1540	3560	1270	1270	1350	1170
15	417	1150	1960	4180	636	6590	1760	3450	1400	1200	1430	1530
16	382	773	1470	4380	822	6170	1800	3370	1470	1170	1450	1390
17	357	609	1060	3830	1330	4020	1770	3280	1440	1220	1450	1640
18	562	880	662	2550	1810	2540	1700	2490	1340	1180	1470	1570
19	1000	3260	758	4810	2490	1750	2240	2050	1290	1230	1650	1520
20	730	3810	758	6230	3280	1960	2280	1720	1270	1240	1610	1480
21	539	1840	1170	3800	3340	1800	e1760	1910	1280	1210	1610	1380
22	566	1040	741	1740	3440	3290	e1740	2330	1310	1270	1670	1320
23	1050	870	815	1260	3430	3360	1550	2300	1390	1260	1760	1240
24	2240	2820	645	1640	3490	3280	1510	2070	1550	1260	1880	1550
25	1260	4580	842	2330	3390	1750	1560	1870	1600	1210	1860	1520
26	823	2520	2050	2520	3370	2070	2830	2070	1650	1210	1780	1320
27	613	1170	6920	2470	3410	2190	1660	2420	1500	1140	2060	1500
28	546	838	9320	2380	3230	6650	1490	2550	1570	1130	3370	1300
29	445	660	4380	2600	---	10800	1410	1960	1640	1160	3750	1230
30	389	562	3070	4960	---	5570	1600	1820	1590	1100	2650	1120
31	362	---	3870	4560	---	4830	---	1840	---	1010	3480	---
TOTAL	22787	80363	48499	95579	78979	117210	82120	83630	43590	42750	50953	76220
MEAN	735	2679	1564	3083	2821	3781	2737	2698	1453	1379	1644	2541
MAX	2240	13500	9320	6230	4160	10800	4910	6000	1750	2150	3750	8600
MIN	357	281	403	939	636	1530	1380	1560	1270	1010	921	1050
AC-FT	45200	159400	96200	189600	156700	232500	162900	165900	86460	84790	101100	151200

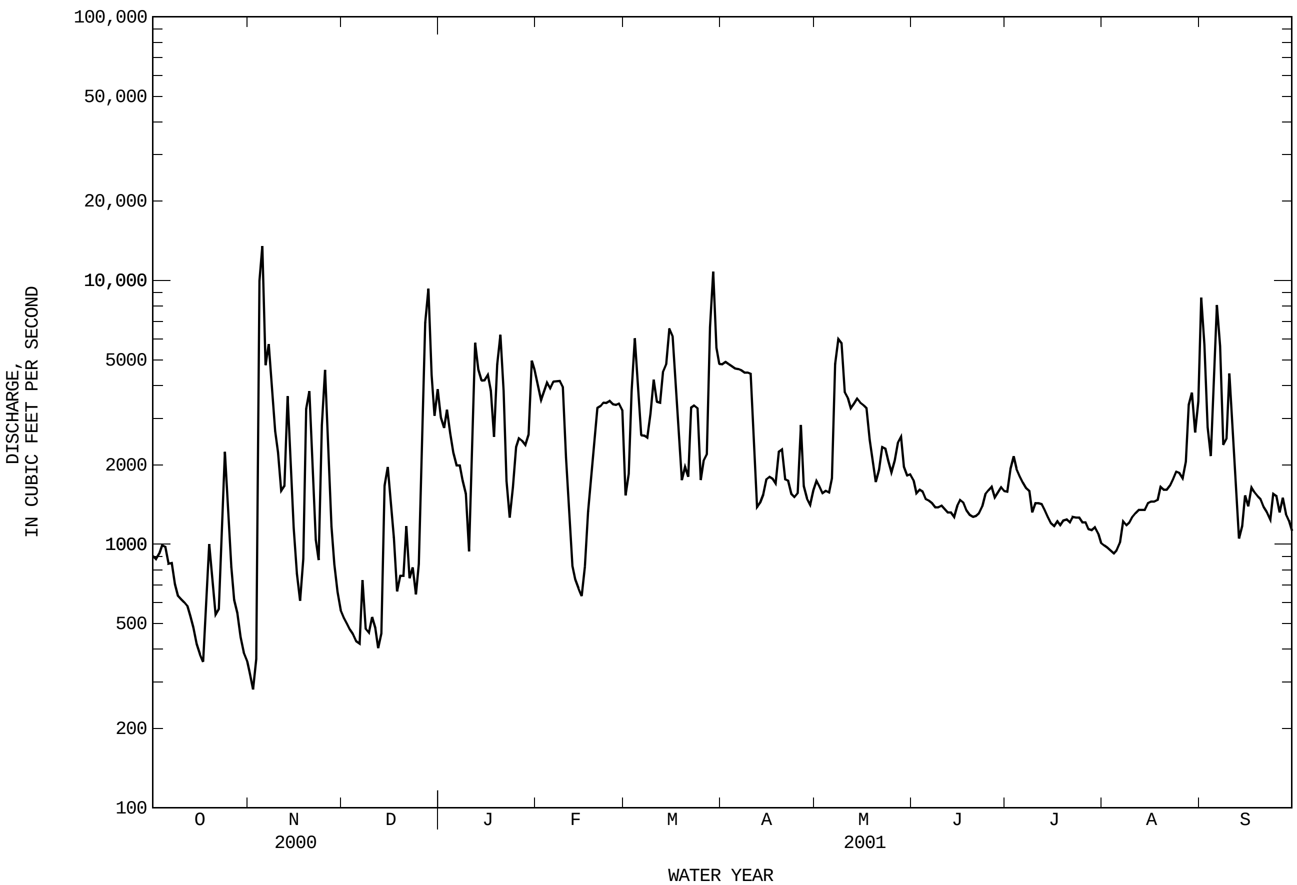
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1876	965	2199	2722	3701	3862	2838	3327	4292	2742	1664	1619
MAX	10510	4762	16350	18640	31160	18080	7333	8290	15180	12900	2096	2541
(WY)	1999	1999	1992	1992	1992	1992	1997	1992	1997	1997	1992	2001
MIN	476	244	248	247	356	380	984	1771	1453	1379	1177	939
(WY)	1997	1989	1990	1990	1990	2000	2000	2000	2001	2001	2000	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1988 - 2001	
ANNUAL TOTAL	456823		822680			
ANNUAL MEAN	1248		2254		2670	
HIGHEST ANNUAL MEAN					9913	1992
LOWEST ANNUAL MEAN					930	2000
HIGHEST DAILY MEAN	13500	Nov 5	13500	Nov 5	84000	Dec 23 1991
LOWEST DAILY MEAN	234	Feb 22	281	Nov 2	167	Dec 21 1989
ANNUAL SEVEN-DAY MINIMUM	283	Feb 18	388	Oct 28	170	Dec 16 1989
MAXIMUM PEAK FLOW			16000	Nov 5	89800	Oct 20 1998
MAXIMUM PEAK STAGE			17.46	Nov 5	45.47	Oct 20 1998
ANNUAL RUNOFF (AC-FT)	906100		1632000		1934000	
10 PERCENT EXCEEDS	1890		4480		4580	
50 PERCENT EXCEEDS	1020		1640		1470	
90 PERCENT EXCEEDS	339		654		375	

e Estimated

08160400 Colorado River above LaGrange, TX--Continued



08160800 Redgate Creek near Columbus, TX

LOCATION.--Lat 29°47'56", long 96°31'55", Colorado County, Hydrologic Unit 12090301, on left bank at downstream side of bridge on Farm Road 109, 1.9 mi upstream from Cummins Creek, and 7.0 mi north of Columbus.

DRAINAGE AREA.--17.3 mi^2.

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

REVISED RECORDS.--WSP 2122: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 210.82 ft above sea level. Prior to Oct. 1, 1975, datum 10.00 ft higher. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, about 33.4 ft in late June or early July 1940, from information by Texas Department of Transportation and local resident.

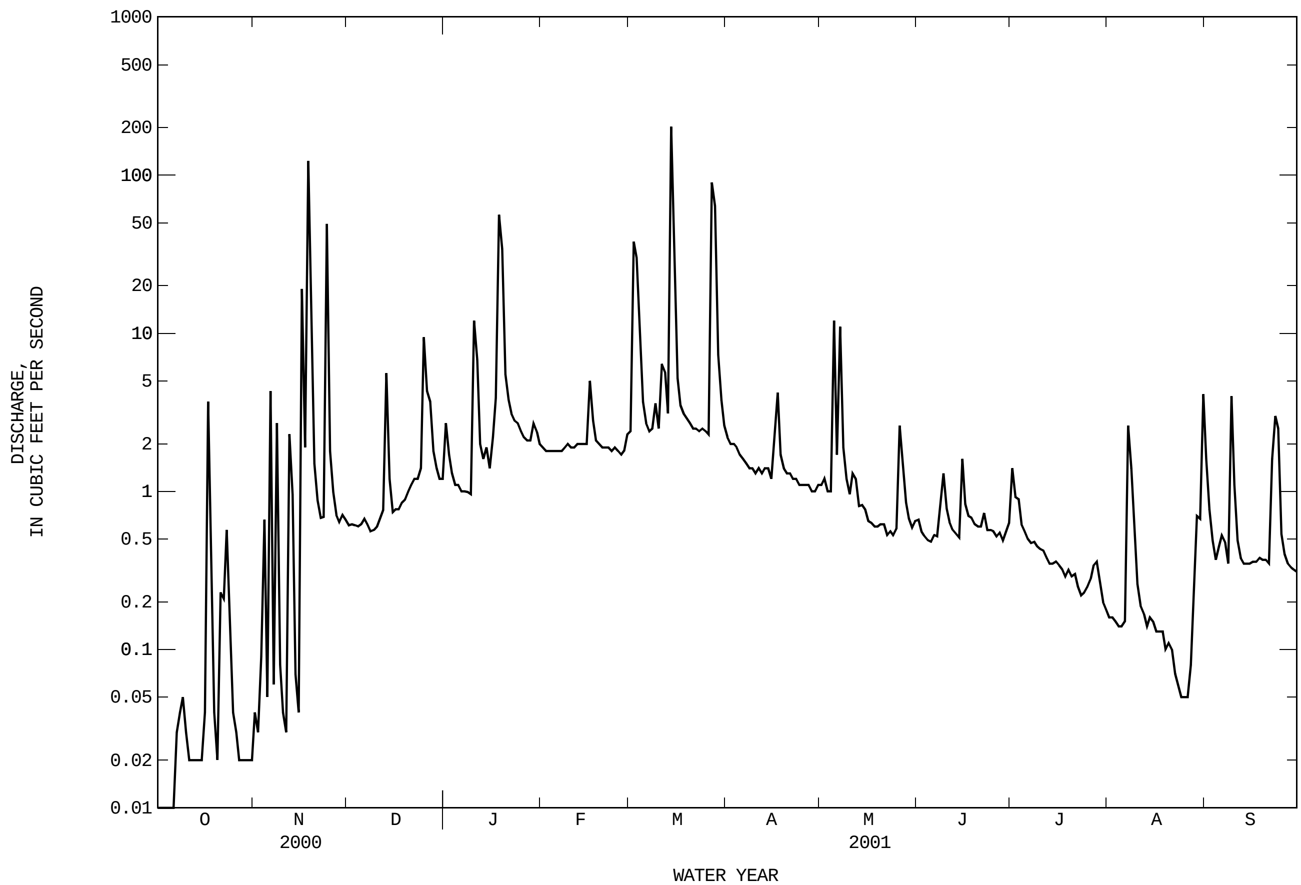
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.61	2.7	1.9	2.4	2.2	1.1	.66	1.4	.16	1.6
2	.00	.03	.62	1.7	1.8	38	2.0	1.2	.56	.92	.16	.77
3	.00	.09	.61	1.3	1.8	30	2.0	1.0	.52	.89	.15	.49
4	.00	.66	.60	1.1	1.8	8.7	1.9	1.0	.49	.62	.14	.37
5	.00	.05	.62	1.1	1.8	3.7	1.7	12	.48	.56	.14	.45
6	.00	4.3	.67	1.0	1.8	2.7	1.6	1.7	.53	.50	.15	.53
7	.03	.06	.62	1.0	1.8	2.4	1.5	11	.52	.47	2.6	.48
8	.04	2.7	.56	.99	1.9	2.5	1.4	1.9	.81	.48	1.4	.35
9	.05	.08	.57	.96	2.0	3.6	1.4	1.2	1.3	.45	.56	4.0
10	.03	.04	.60	12	1.9	2.5	1.3	.96	.78	.43	.26	1.1
11	.02	.03	.68	6.8	1.9	6.4	1.4	1.3	.64	.42	.19	.49
12	.02	2.3	.76	2.0	2.0	5.7	1.3	1.2	.57	.38	.17	.38
13	.02	.95	5.6	1.6	2.0	3.1	1.4	.81	.54	.35	.14	.35
14	.02	.07	1.2	1.9	2.0	202	1.4	.82	.51	.35	.16	.35
15	.02	.04	.74	1.4	2.0	19	1.2	.77	1.6	.36	.15	.35
16	.04	19	.77	2.2	5.0	5.2	2.1	.65	.83	.34	.13	.36
17	3.7	1.9	.77	3.9	2.8	3.5	4.2	.63	.70	.32	.13	.36
18	.85	123	.85	56	2.1	3.1	1.7	.60	.68	.29	.13	.38
19	.04	10	.89	34	2.0	2.9	1.4	.60	.62	.32	.10	.37
20	.02	1.5	1.0	5.5	1.9	2.7	1.3	.62	.60	.29	.11	.37
21	.23	.88	1.1	3.8	1.9	2.5	1.3	.62	.60	.30	.10	.35
22	.21	.68	1.2	3.1	1.9	2.5	1.2	.53	.73	.25	.07	1.6
23	.57	.69	1.2	2.8	1.8	2.4	1.2	.56	.57	.22	.06	3.0
24	.19	49	1.4	2.7	1.9	2.5	1.1	.53	.57	.23	.05	2.5
25	.04	1.8	9.4	2.4	1.8	2.4	1.1	.58	.56	.25	.05	.54
26	.03	.99	4.3	2.2	1.7	2.3	1.1	2.6	.52	.28	.05	.40
27	.02	.71	3.7	2.1	1.8	90	1.1	1.5	.55	.34	.08	.35
28	.02	.64	1.8	2.1	2.3	64	1.0	.85	.49	.36	.21	.33
29	.02	.71	1.4	2.7	---	7.3	1.0	.67	.56	.27	.70	.32
30	.02	.66	1.2	2.4	---	3.8	1.1	.59	.63	.20	.67	.31
31	.02	---	1.2	2.0	---	2.6	---	.65	---	.18	4.1	---
TOTAL	6.27	223.60	47.24	167.45	57.3	532.4	45.6	50.74	19.72	13.02	13.27	23.60
MEAN	.20	7.45	1.52	5.40	2.05	17.2	1.52	1.64	.66	.42	.43	.79
MAX	3.7	123	9.4	56	5.0	202	4.2	12	1.6	1.4	4.1	4.0
MIN	.00	.03	.56	.96	1.7	2.3	1.0	.53	.48	.18	.05	.31
AC-FT	12	444	94	332	114	1060	90	101	39	26	26	47
CFSM	.01	.43	.09	.31	.12	.99	.09	.09	.04	.02	.02	.05
IN.	.01	.48	.10	.36	.12	1.14	.10	.11	.04	.03	.03	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.38	4.99	4.71	6.58	7.69	6.51	7.13	11.5	9.33	1.04	1.19	3.21
MAX	69.3	98.4	25.4	31.9	67.5	38.1	39.9	55.5	83.4	4.44	17.4	38.5
(WY)	1999	1999	1992	1974	1992	1973	1991	1979	1993	1993	1974	1974
MIN	.000	.070	.25	.24	.21	.19	.24	.33	.065	.007	.000	.040
(WY)	1964	1967	1967	1967	1967	1967	1971	1971	1990	1971	1970	1963

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1962 - 2001	
ANNUAL TOTAL	642.75		1200.21			
ANNUAL MEAN	1.76		3.29		5.88	
HIGHEST ANNUAL MEAN					20.7	1992
LOWEST ANNUAL MEAN					.82	1964
HIGHEST DAILY MEAN	123	Nov 18	202	Mar 14	1180	Jun 13 1973
LOWEST DAILY MEAN	.00	Sep 1	.00	Oct 1	.00	Aug 7 1962
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 27	.00	Oct 1	.00	Aug 7 1962
MAXIMUM PEAK FLOW			1290	Mar 14	5360	May 22 1979
MAXIMUM PEAK STAGE			17.31	Mar 14	27.19	May 22 1979
ANNUAL RUNOFF (AC-FT)	1270		2380		4260	
ANNUAL RUNOFF (CFSM)	.10		.19		.34	
ANNUAL RUNOFF (INCHES)	1.38		2.58		4.62	
10 PERCENT EXCEEDS	1.7		3.6		5.1	
50 PERCENT EXCEEDS	.71		.81		.87	
90 PERCENT EXCEEDS	.01		.07		.10	


1000
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DISCHARGE,
IN CUBIC FEET PER SECOND
O N D J F M A M J J A S
2000
2001
WATER YEAR

08161000 Colorado River at Columbus, TX

LOCATION.--Lat 29°42'22", long 96°32'12", Colorado County, Hydrologic Unit 12090301, near right bank at downstream side of pier of bridge on U.S. Highway 90 at eastern edge of Columbus, 340 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.6 mi downstream from Cummins Creek, and at mile 135.1.

DRAINAGE AREA.--41,640 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Jan. 1903 to Dec. 1911 (gage heights only), May 1916 to current year. Discharge records for 1902-11, published in WSP 84, 99, 132, 174, 210, 288, and 308, have been found to be unreliable and should not be used. Records collected at site 23 mi downstream Oct. 1930 to May 1939, published as "near Eagle Lake". Gage-height records collected in this vicinity since 1903 are contained in reports of the National Weather Service.
Water-quality records.--Chemical data: Oct. 1967 to Sept. 1981. Biochemical data: Feb. 1968 to Sept. 1981. Sediment data: Mar. 1957 to Sept. 1973.

REVISED RECORDS.--WSP 1562: 1920-21(M), 1922. WDR TX-81-3: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 145.52 ft above sea level. Prior to May 1, 1919, various nonrecording gages at sites in the immediate vicinity at datum 7.00 ft higher. May 1, 1919, to Nov. 23, 1930, water-stage recorder at site about 300 ft downstream at datum 7.00 ft higher. Sept. 17, 1930, to June 12, 1939 (Oct. 1, 1930, to May 31, 1939, used herein), water- stage recorder at site 23 mi downstream at different datum. May 17 to Nov. 14, 1939, nonrecording gage at present site and datum 10.00 ft higher; Nov. 15, 1939, to Dec. 31, 1988, water-stage recorder at present site and at datum 10.00 ft higher. Gage-height telemeter at station. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in May 1916, at least 10% of contributing drainage area has been regulated. There are many other diversions above this station for irrigation and for municipal supply. Low-flow releases from Lake Travis, 251 mi upstream, are made for the generation of electric power to fulfill downstream water contracts.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage-discharge relation at low stages. U.S. Geological Survey maintains stage-discharge relation at medium to high stages, computes, and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1852, 51.6 ft, present datum, in July 1869 and Dec. 6, 1913, from information by local resident. River divided each time and left city of Columbus on an island.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

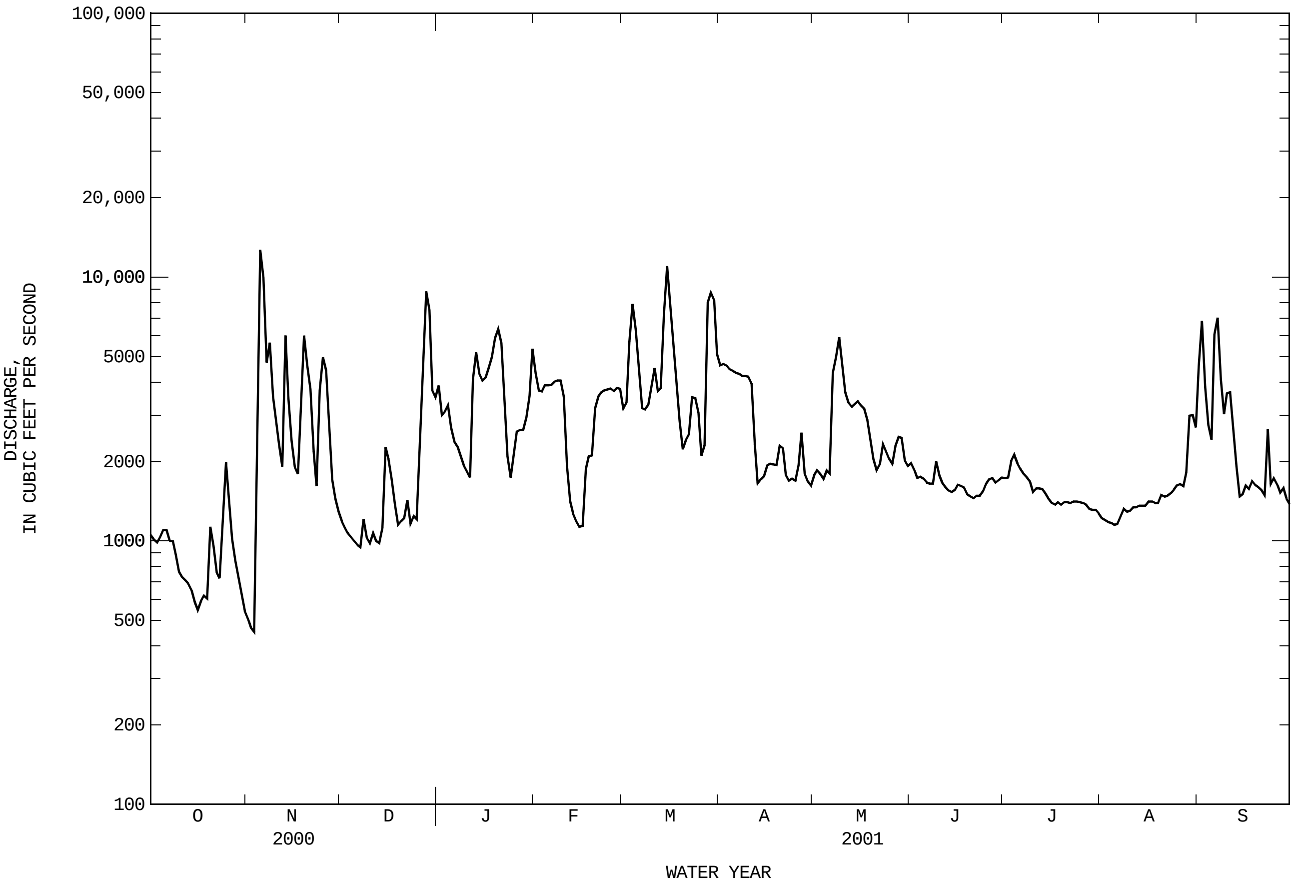
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	510	1190	3880	4320	3170	4630	1770	1970	1730	1220	4600
2	1010	469	1120	2990	3720	3330	4680	1850	1870	1740	1200	6820
3	985	452	1070	3080	3690	5690	4610	1790	1730	2010	1180	3850
4	1030	2220	1030	3260	3890	7920	4470	1720	1750	2120	1170	2750
5	1100	12700	996	2670	3890	6310	4410	1850	1720	1970	1150	2420
6	1100	9950	963	2380	3900	4440	4330	1800	1660	1870	1160	6060
7	1000	4740	945	2270	4010	3180	4300	4330	1650	1790	1240	7010
8	996	5640	1210	2110	4050	3140	4220	4970	1650	1740	1320	4110
9	885	3530	1030	1940	4050	3270	4220	5910	2000	1680	1290	3020
10	764	2900	980	1840	3530	3880	4190	4510	1770	1530	1300	3630
11	729	2310	1070	1740	1920	4520	3950	3650	1660	1580	1340	3660
12	709	1910	999	4100	1410	3700	2340	3330	1600	1580	1340	2660
13	688	5990	979	5180	1270	3790	1650	3220	1550	1570	1360	1910
14	652	3490	1120	4310	1190	7210	1710	3310	1530	1510	1360	1470
15	588	2400	2260	4060	1130	11000	1760	3380	1560	1440	1360	1500
16	546	1910	2040	4170	1140	7870	1930	3260	1630	1390	1410	1620
17	590	1790	1710	4510	1870	5600	1960	3170	1610	1370	1410	1570
18	620	3150	1380	4960	2090	4060	1950	2870	1590	1400	1390	1680
19	604	5990	1150	5860	2110	2850	1940	2420	1500	1370	1390	1630
20	1130	4620	1190	6340	3180	2220	2300	2040	1470	1400	1490	1600
21	956	3760	1220	5600	3520	2410	2250	1850	1450	1400	1470	1560
22	760	2190	1430	3390	3650	2530	1780	1950	1480	1390	1480	1490
23	720	1610	1160	2090	3720	3510	1690	2330	1480	1410	1510	2640
24	1260	3720	1240	1740	3750	3480	1720	2190	1540	1410	1560	1640
25	1980	4960	1210	2130	3780	3060	1690	2050	1640	1400	1620	1730
26	1430	4420	2120	2590	3700	2100	1940	1960	1710	1390	1640	1640
27	1020	2570	5030	2630	3800	2300	2570	2290	1730	1370	1610	1520
28	842	1710	8830	2630	3770	8000	1800	2480	1660	1320	1820	1580
29	721	1440	7500	2930	---	8740	1680	2460	1700	1310	2980	1450
30	623	1290	3730	3550	---	8210	1620	2020	1740	1310	3000	1380
31	541	---	3510	5350	---	5100	---	1920	---	1270	2690	---
TOTAL	27629	104341	61412	106280	86050	146590	84290	84650	49600	47770	47460	80200
MEAN	891	3478	1981	3428	3073	4729	2810	2731	1653	1541	1531	2673
MAX	1980	12700	8830	6340	4320	11000	4680	5910	2000	2120	3000	7010
MIN	541	452	945	1740	1130	2100	1620	1720	1450	1270	1150	1380
AC-FT	54800	207000	121800	210800	170700	290800	167200	167900	98380	94750	94140	159100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2986	2319	2109	2365	2665	2557	3499	5393	5246	3255	1924	2874
MAX	25310	13360	16450	19800	33800	20220	17350	40630	30060	25710	10030	32690
(WY)	1937	1975	1992	1992	1992	1992	1922	1922	1935	1938	1938	1936
MIN	204	197	162	182	203	275	308	1257	574	569	128	347
(WY)	1935	1918	1964	1964	1967	1952	1925	1937	1934	1933	1917	1934

08161000 Colorado River at Columbus, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1916 - 2001	
ANNUAL TOTAL	497248		926272			
ANNUAL MEAN	1359		2538		3108	
HIGHEST ANNUAL MEAN					10810	1992
LOWEST ANNUAL MEAN					653	1917
HIGHEST DAILY MEAN	12700	Nov 5	12700	Nov 5	164000	Jun 19 1935
LOWEST DAILY MEAN	291	Feb 22	452	Nov 3	93	Sep 1 1918
ANNUAL SEVEN-DAY MINIMUM	335	Mar 24	594	Oct 28	106	Aug 22 1917
MAXIMUM PEAK FLOW			15100	Mar 15	190000	Jun 18 1935
MAXIMUM PEAK STAGE			22.18	Mar 15	48.50	Jun 18 1935
ANNUAL RUNOFF (AC-FT)	986300		1837000		2252000	
10 PERCENT EXCEEDS	2230		4600		5910	
50 PERCENT EXCEEDS	1120		1850		1620	
90 PERCENT EXCEEDS	397		1060		400	



08162000 Colorado River at Wharton, TX

LOCATION.--Lat 29°18'32", long 96°06'13", Wharton County, Hydrologic Unit 12090302, near left bank at downstream side of downstream bridge on U.S. Highway 59 in Wharton, 1,100 ft downstream from Texas and New Orleans Railroad Co. bridge, 12 mi upstream from Jones Creek, and at mile 66.6.

DRAINAGE AREA.--42,003 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--July 1916 to Aug. 1918 (intermittent periods), Mar. 1919 to Sept. 1925, July and Aug. 1938 (flood discharge measurements only), Oct. 1938 to current year. June to Nov. 1901, May to Sept. 1902, daily records published in U.S. Department of Agriculture, Office of Experiment Stations, Bulletin Nos. 119 and 133. Gage-height records collected in this vicinity since 1935 are contained in reports of the National Weather Service.

Water-quality records.--Chemical data: Apr. 1944 to Sept. 1995. Biochemical data: Jan. 1968 to Sept. 1995. Radiochemical data: Dec. 1973 to Sept. 1995. Pesticide data: Oct. 1967 to June 1982. Sediment data: Oct. 1974 to Sept. 1995.

REVISED RECORDS.--WSP 878: 1938(M). WDR TX-81-3: Drainage area. WDR TX-88-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is 52.42 ft above sea level. Prior to Oct. 1, 1938, various types of recording and nonrecording gages 800 ft upstream at different datum. Oct. 1, 1938, to June 1, 1956, nonrecording gage 100 ft upstream at datum 13.00 ft higher. June 1, 1966, to Sept. 30, 1975, water-stage recorder at present site at datum 13.00 ft higher. Oct. 1, 1975, to Mar. 1, 1983, water-stage recorder at present site at datum 10.00 ft higher. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in Oct. 1938, at least 10% of contributing drainage area has been regulated. There are many diversions above station for irrigation, municipal supply, cooling water for thermal-electric power plant, and for oil field operations.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 51.9 ft Dec. 8, 1913, present datum, from information by local residents; below Wharton floodwater combined with that of the Brazos River. Flood of about July 12, 1869, reached about same height. Flood of June 20, 1935, reached a stage of 51.2 ft, present datum, furnished by National Weather Service (discharge, 159,000 ft^3/s), from rating curve defined by current-meter measurements below 145,000 ft^3/s. Flood of July 30, 1938, reached a stage of 50.4 ft, present datum, observed by U.S. Geological Survey personnel (discharge, 145,000 ft^3/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	623	601	1690	3640	5510	3970	6040	1200	1440	e940	650	6260
2	517	540	1470	3980	4680	3690	5280	1190	1370	e971	610	6960
3	516	504	1300	3240	4030	4760	5200	1200	1300	971	654	7760
4	557	569	1270	3090	3850	7730	5090	1110	1080	1160	650	4900
5	557	1310	1110	3320	4070	9060	4910	1140	1020	1470	630	3490
6	634	12600	1010	2860	4110	7200	4800	1720	913	1390	568	3450
7	778	9890	953	2550	4100	5170	4600	2190	800	1220	539	6610
8	803	5480	909	2380	4320	3770	4590	4330	784	1040	480	7400
9	783	5830	976	2300	4300	3640	4500	5530	864	900	579	4790
10	843	3990	1030	2120	4310	3620	4410	6270	1400	807	591	5110
11	702	3140	895	2410	3880	4240	4300	4820	1740	706	635	6070
12	578	2760	917	2180	2530	4970	4010	3570	1480	682	552	4470
13	459	2820	915	3990	1830	4150	2680	3210	1180	695	591	3080
14	425	7360	868	5540	1570	4260	1870	3000	890	692	640	2170
15	406	4680	905	4630	1400	9810	1710	2860	766	608	620	1530
16	465	3250	1470	4310	1290	12800	1760	2690	731	500	600	1150
17	578	2460	2090	4580	1240	9200	1650	2500	906	411	511	1180
18	750	3460	1760	5290	1640	6600	1730	2330	1000	380	528	1020
19	915	7040	1490	6520	2030	4840	1730	2170	840	441	510	975
20	635	9090	1200	7500	2310	3520	1660	1700	701	531	478	903
21	762	5950	1090	7390	2960	2820	1940	1390	617	529	430	817
22	1110	4620	1130	6270	3610	2790	2000	1150	576	574	466	895
23	931	3120	1310	4020	3760	2790	1660	1230	554	614	434	996
24	767	3210	1270	2690	3850	3720	1580	1410	568	615	445	1740
25	774	5130	1240	2170	3900	3770	1480	1430	652	648	437	1440
26	1780	6220	1290	2250	3940	3460	1390	1320	758	699	496	1260
27	1670	5190	1890	2700	3910	2490	1440	1180	827	709	565	1260
28	1280	3400	5110	2800	3960	3450	2160	1400	820	700	584	1050
29	979	2440	9060	2870	---	9300	1530	1850	698	757	701	1000
30	793	1960	7640	3120	---	10300	1320	1920	e810	737	1820	956
31	696	---	4150	3810	---	8900	---	1570	---	692	6500	---
TOTAL	24066	128614	59408	116520	92890	170790	89020	70580	28085	23789	24494	90692
MEAN	776	4287	1916	3759	3318	5509	2967	2277	936	767	790	3023
MAX	1780	12600	9060	7500	5510	12800	6040	6270	1740	1470	6500	7760
MIN	406	504	868	2120	1240	2490	1320	1110	554	380	430	817
AC-FT	47730	255100	117800	231100	184200	338800	176600	140000	55710	47190	48580	179900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2280	2414	2239	2503	2965	2806	3081	4103	4663	2479	1350	1882
MAX	14590	13870	15060	21810	35520	21550	13730	27300	30910	15010	3916	9394
(WY)	1999	1975	1992	1992	1992	1992	1977	1957	1987	1997	1945	1961
MIN	296	220	253	224	268	328	566	825	838	706	406	436
(WY)	1957	1957	1990	1964	1967	1952	1951	1962	1948	1967	1964	1954

08162000 Colorado River at Wharton, TX--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1939 - 2001	
ANNUAL TOTAL	442401		918948			
ANNUAL MEAN	1209		2518		2726	
HIGHEST ANNUAL MEAN					11120	1992
LOWEST ANNUAL MEAN					615	1964
HIGHEST DAILY MEAN	12600	Nov 6	12800	Mar 16	90600	Jul 3 1940
LOWEST DAILY MEAN	102	Aug 20	380	Jul 18	42	Aug 22 1964
ANNUAL SEVEN-DAY MINIMUM	161	Aug 18	455	Aug 20	110	Dec 11 1956
MAXIMUM PEAK FLOW			14500	Mar 16	100000	Jul 3 1940
MAXIMUM PEAK STAGE			23.06	Mar 16	48.99	Jul 3 1940
ANNUAL RUNOFF (AC-FT)	877500		1823000		1975000	
10 PERCENT EXCEEDS	2450		5490		5470	
50 PERCENT EXCEEDS	693		1570		1320	
90 PERCENT EXCEEDS	368		577		467	

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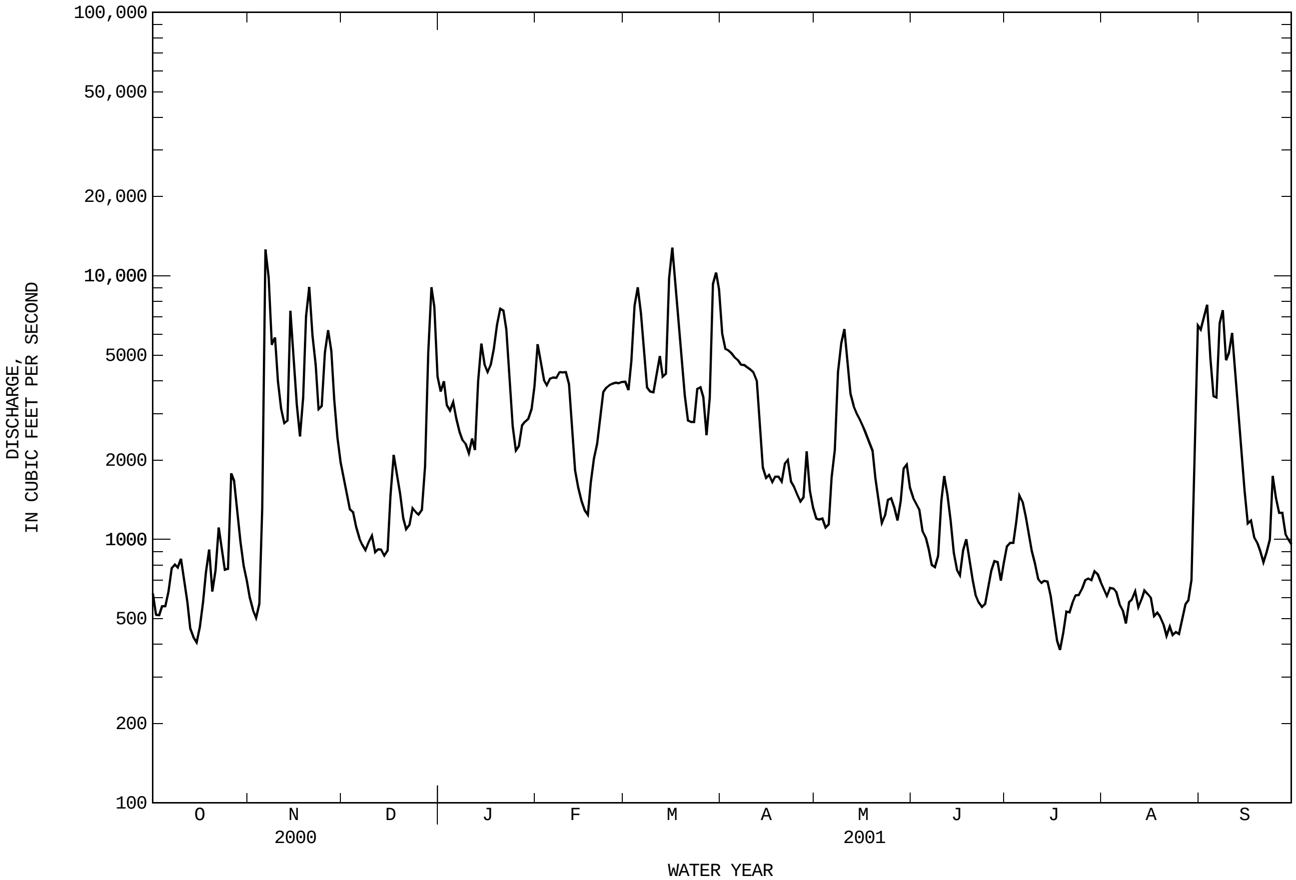


08162500 Colorado River near Bay City, TX

LOCATION.--Lat 28°58’26", long 96°00’44", Matagorda County, Hydrologic Unit 12090302, on left bank, 6,300 ft downstream from bridge on State Highway 35, 7,100 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.8 mi west of Bay City, and at mile 32.5.

DRAINAGE AREA.--42,240 mi^2, approximately, of which 11,403 mi^2 probably is noncontributing.

PERIOD OF RECORD.--July 1940 (WSP 1046), Apr. 1948 to current year. Records of elevation collected in this vicinity since 1946 are contained in reports of the National Weather Service.
Water-quality records.--Chemical data: Oct. 1974 to Sept. 1975. Biochemical data: Oct. 1974 to Sept. 1975.

REVISED RECORDS.--WDR TX-81-3: Drainage area. WDR TX-88-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is sea level. July 2-6, 1940, nonrecording gage at highway bridge, 6,300 ft upstream at datum 30.60 ft lower. On Feb. 19, 1992, gage was temporarily moved 6,200 ft upstream at same datum. Gage re-established on left bank 6,300 ft downstream on May 12, 1993. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Since installation of gage in Apr. 1948, at least 10% of contributing drainage area has been regulated. There are many other diversions above this station for irrigation and for municipal supply. No flow at times in 1951-53 and 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since 1869, 56.1 ft Dec. 10, 1913. Flood in July 1869 probably reached about same elevation. Elevation of other floods are as follows: May 8, 1922, 55.4 ft; June 1929, 55.0 ft; June 22, 1935, 54.6 ft; Oct. 5, 1936, 52.2 ft; Aug. 2, 1938, 53.4 ft; Nov. 27, 1940, 47.6 ft. All above flood data from information by Texas and New Orleans Railroad Co. and adjusted to present site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	930	1670	3290	4390	3420	6180	664	931	e210	263	22300
2	352	e860	1420	3580	4630	3380	4970	625	826	e290	266	20600
3	285	796	1260	3350	3940	3230	4550	580	747	e400	206	17200
4	326	718	1160	2810	3430	6420	4510	602	606	e620	262	9930
5	328	936	1030	3000	3570	8150	4280	619	428	e750	287	7060
6	363	8480	1000	2820	3730	7350	4190	1120	437	e940	255	5470
7	458	13200	932	2430	3640	5480	4060	2460	326	762	227	5480
8	712	6380	885	2240	3770	3730	3940	3210	328	577	207	7720
9	642	5320	889	2170	3880	3260	3840	5120	413	439	178	5900
10	709	4540	1040	2570	3860	3060	3720	5190	586	356	226	4280
11	656	e3100	950	5570	3760	3520	3660	5070	1230	275	241	5700
12	514	2860	823	3280	2820	4300	3620	3280	944	196	259	5080
13	387	e2350	870	2840	1910	3910	2860	2930	724	173	327	3250
14	326	e4870	861	5140	1580	3510	1850	2640	409	175	320	2360
15	348	5530	837	4630	1340	6560	1440	2360	294	173	359	1600
16	483	4030	975	4200	1240	13300	1350	2150	217	142	405	1070
17	805	4670	1890	4390	1160	10000	1290	1880	224	98	318	897
18	840	6000	1760	5210	1220	7100	1240	1690	392	95	326	812
19	1120	10800	1570	7200	1740	4890	1400	1520	316	104	331	693
20	1090	11400	1290	7490	2030	3440	1330	1170	203	142	291	679
21	863	6860	1020	7140	2220	2660	1410	846	128	170	256	589
22	977	4890	1040	6590	3070	2350	e1620	594	79	180	220	677
23	1070	3390	1100	4600	3270	2300	1480	503	62	188	247	981
24	966	5860	1280	2930	3430	2920	1180	575	48	219	251	1320
25	840	5990	1580	2190	3470	3280	1060	675	86	245	229	1830
26	1020	6110	1800	2010	3500	3190	e1000	612	164	281	232	1220
27	1770	5440	2700	2340	3460	2380	783	594	208	370	280	1160
28	1500	3750	3530	2580	3470	2380	1140	528	203	e362	432	1080
29	1200	2510	7420	2760	---	6480	1170	862	122	e359	701	880
30	e1080	1960	8520	2890	---	9450	755	1150	162	e353	1750	855
31	939	---	5020	3370	---	9870	---	1090	---	328	16100	---
TOTAL	23320	144530	58122	117610	83530	155270	75878	52909	11843	9972	26252	138673
MEAN	752	4818	1875	3794	2983	5009	2529	1707	395	322	847	4622
MAX	1770	13200	8520	7490	4630	13300	6180	5190	1230	940	16100	22300
MIN	285	718	823	2010	1160	2300	755	503	48	95	178	589
AC-FT	46260	286700	115300	233300	165700	308000	150500	104900	23490	19780	52070	275100

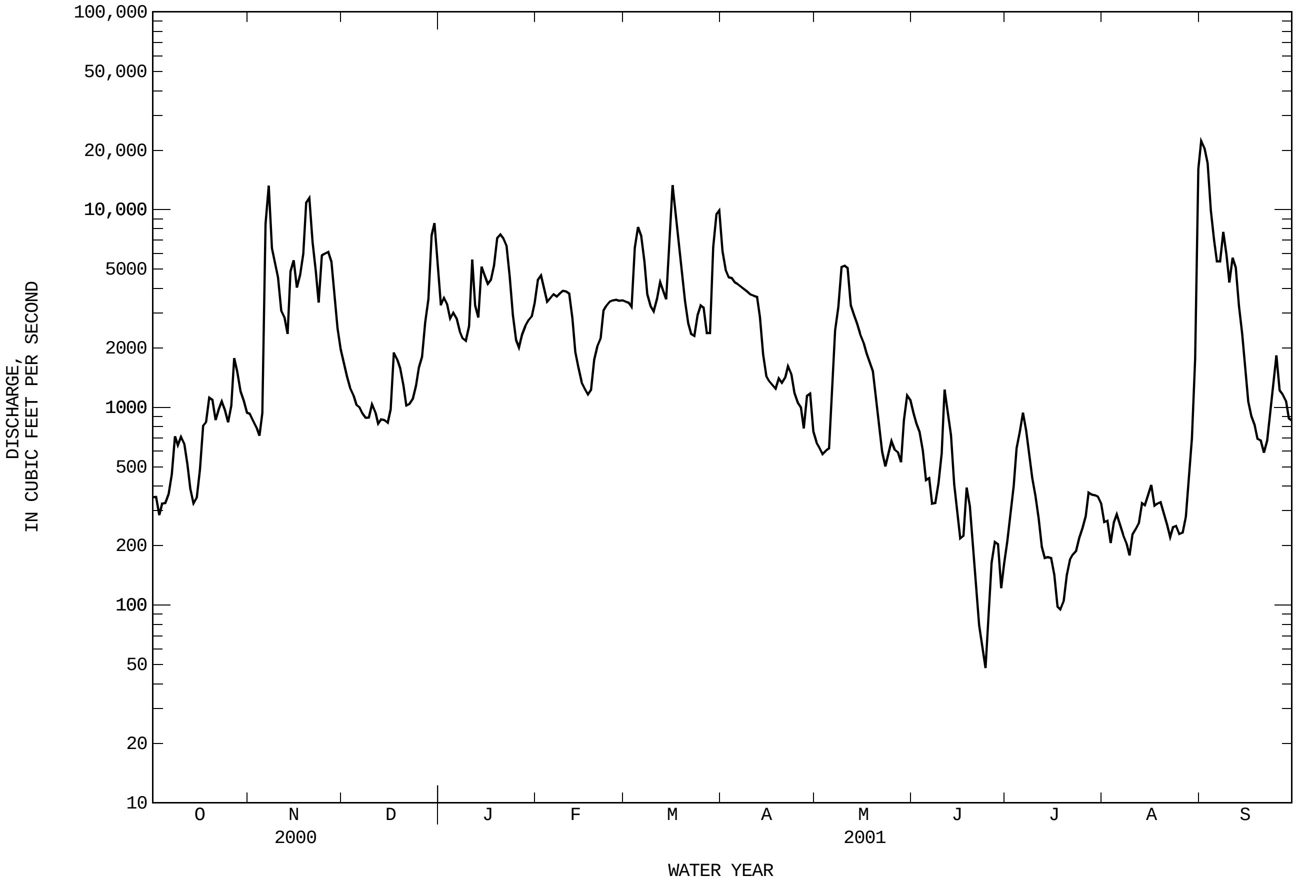
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2479	2388	2254	2590	3230	2841	2825	3871	4406	1656	825	1785
MAX	16110	13470	16200	25780	42200	25780	13410	27750	30360	14240	2876	11160
(WY)	1999	1975	1992	1992	1992	1992	1977	1957	1987	1997	1961	1961
MIN	254	226	292	249	246	257	125	227	155	1.00	114	93.9
(WY)	1990	1957	1990	1957	1967	1967	1964	1964	1971	1967	1964	1966

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1948 - 2001	
ANNUAL TOTAL	394513.5		897909			
ANNUAL MEAN	1078		2460		2603	
HIGHEST ANNUAL MEAN					14270	1992
LOWEST ANNUAL MEAN					375	1964
HIGHEST DAILY MEAN	13200	Nov 7	22300	Sep 1	79300	Oct 23 1998
LOWEST DAILY MEAN	9.5	Aug 22	48	Jun 24	.00	Jun 1 1951
ANNUAL SEVEN-DAY MINIMUM	14	Aug 17	110	Jun 20	.44	Oct 4 1969
MAXIMUM PEAK FLOW			22800	Sep 1	84100	Jun 26 1960
MAXIMUM PEAK STAGE			22.36	Sep 1	46.40	Jun 26 1960
ANNUAL RUNOFF (AC-FT)	782500		1781000		1885000	
10 PERCENT EXCEEDS	2820		5620		5700	
50 PERCENT EXCEEDS	464		1260		899	
90 PERCENT EXCEEDS	68		243		240	

e Estimated

08162500 Colorado River near Bay City, TX--Continued



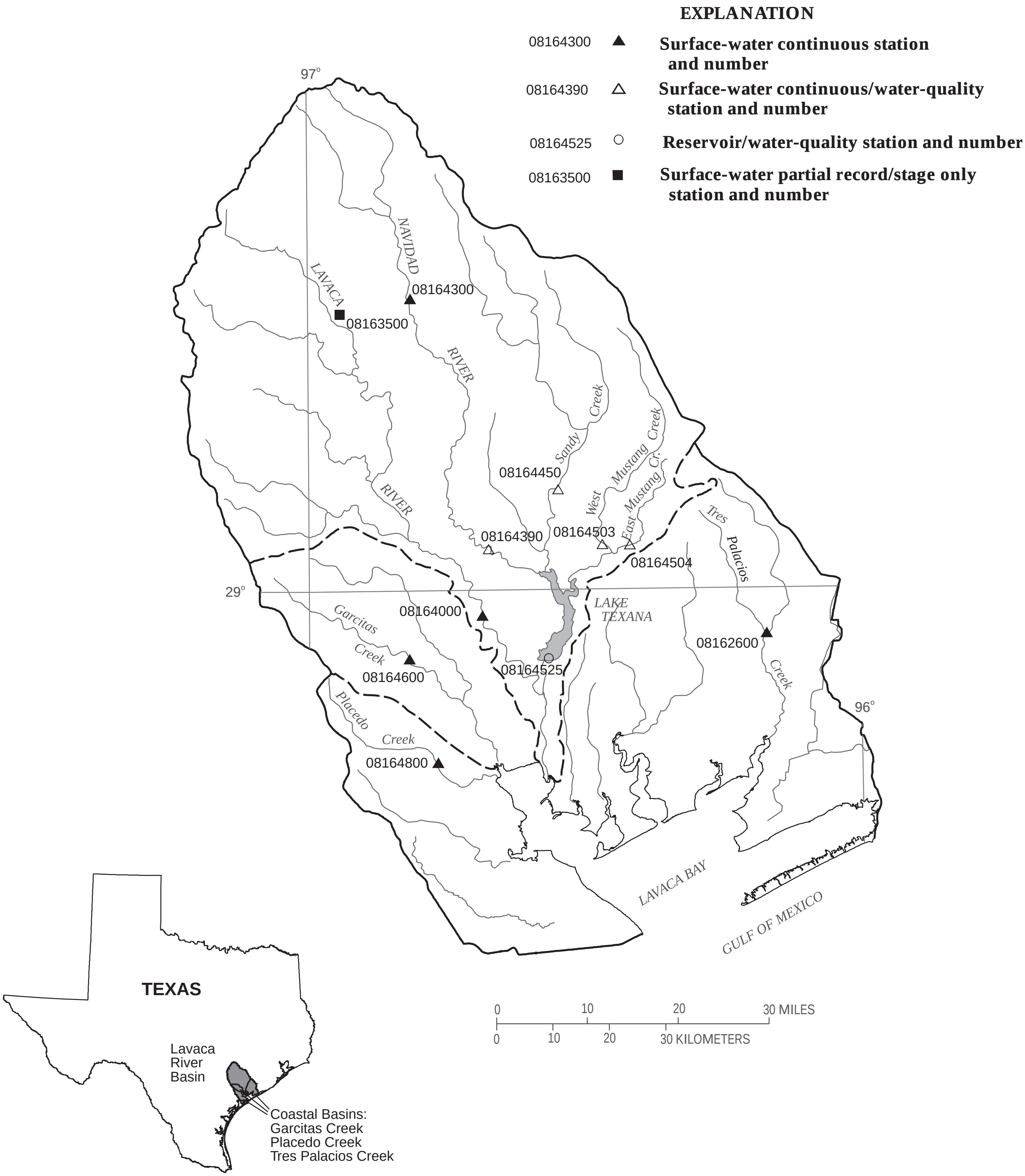


Figure 9.--Map showing location of gaging stations in the Lavaca and Coastal River Basins

08162600 Tres Palacios River near Midfield, TX

LOCATION.--Lat 28°55′40", long 96°10′15", Matagorda County, Hydrologic Unit 12100401, at left downstream end of bridge on Farm Road 456, 1.0 mi downstream from Juanita Creek, and 2.4 mi southeast of Midfield.

DRAINAGE AREA.--145 mi^2.

PERIOD OF RECORD.--June 1970 to current year. Prior to Oct. 1973, published as "Tres Palacios Creek near Midfield".
Water-quality records.--Chemical data: Oct. 1968 to Sept. 1981. Biochemical data: Oct. 1968 to Sept. 1981. Pesticide data: Oct. 1968 to Sept. 1981.

GAGE.--Water-stage recorder. Datum of gage is 5.38 ft above sea level. June 17, 1970, to Apr. 28, 1988, at same site and datum. Apr. 29, 1988, to Sept. 4, 1991, at right downstream end of bridge at same datum. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. There are ten known diversions above station, but amounts are unknown. An undetermined amount of water from irrigated rice fields enters the river at various points upstream from station. Extensive channel cleaning upstream and downstream from the gage was begun during the 1983 water year and completed during the 1984 water year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1885, 37 ft in June 1960, and 35 ft in Aug. 1945, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	4.6	38	32	29	12	11	15	62	17	17	6160
2	8.8	3.5	31	26	23	11	9.4	9.0	39	33	17	6770
3	3.9	7.3	24	28	18	19	9.6	8.7	25	228	15	5390
4	2.1	16	19	23	12	34	12	9.3	18	230	14	3650
5	1.9	18	16	23	11	27	11	15	15	152	12	1880
6	5.8	782	16	15	10	15	8.8	1070	13	80	11	1290
7	11	855	15	18	11	9.8	9.6	1510	13	47	11	723
8	23	232	14	17	9.7	11	9.9	1100	23	32	14	302
9	e29	95	13	13	9.6	19	11	317	57	24	15	163
10	e25	47	11	290	10	13	13	199	57	18	15	149
11	22	29	9.9	2820	9.5	13	8.3	122	41	14	14	93
12	14	20	8.4	1130	9.8	11	9.3	53	29	13	12	58
13	9.9	15	8.4	299	9.6	9.1	9.6	135	21	13	8.5	40
14	9.5	13	8.5	151	9.3	10	12	90	19	13	6.2	33
15	11	12	8.7	88	9.1	25	12	46	22	13	5.8	34
16	7.7	364	10	98	9.2	81	14	25	41	12	5.1	28
17	3.6	e3220	8.3	151	9.2	42	31	16	32	13	3.7	22
18	24	e2990	8.7	297	9.9	24	22	15	22	16	3.1	19
19	e52	e2150	7.3	887	11	15	23	17	18	17	3.1	18
20	e58	e1210	9.8	466	8.7	13	22	16	18	27	3.2	17
21	e51	449	11	153	7.5	14	14	13	21	42	5.8	16
22	e39	183	12	76	7.2	12	11	12	34	42	5.8	19
23	e30	100	10	54	7.1	9.1	11	9.5	24	30	4.3	89
24	23	1510	7.9	36	8.2	8.3	10	9.4	18	18	4.0	189
25	15	1570	43	25	11	8.2	11	9.9	16	15	4.7	148
26	14	473	326	19	9.4	7.7	11	11	14	14	8.2	67
27	11	191	1200	16	7.4	7.9	12	18	14	17	6.7	36
28	4.9	106	552	14	11	9.6	11	21	20	19	11	23
29	3.9	63	179	59	---	15	11	14	21	23	88	23
30	3.2	44	83	77	---	24	11	14	19	24	150	21
31	3.8	---	46	55	---	17	---	22	---	18	2200	---
TOTAL	534.0	16772.4	2754.9	7456	307.4	546.7	381.5	4941.8	786	1274	2694.2	27470
MEAN	17.2	559	88.9	241	11.0	17.6	12.7	159	26.2	41.1	86.9	916
MAX	58	3220	1200	2820	29	81	31	1510	62	230	2200	6770
MIN	1.9	3.5	7.3	13	7.1	7.7	8.3	8.7	13	12	3.1	16
AC-FT	1060	33270	5460	14790	610	1080	757	9800	1560	2530	5340	54490

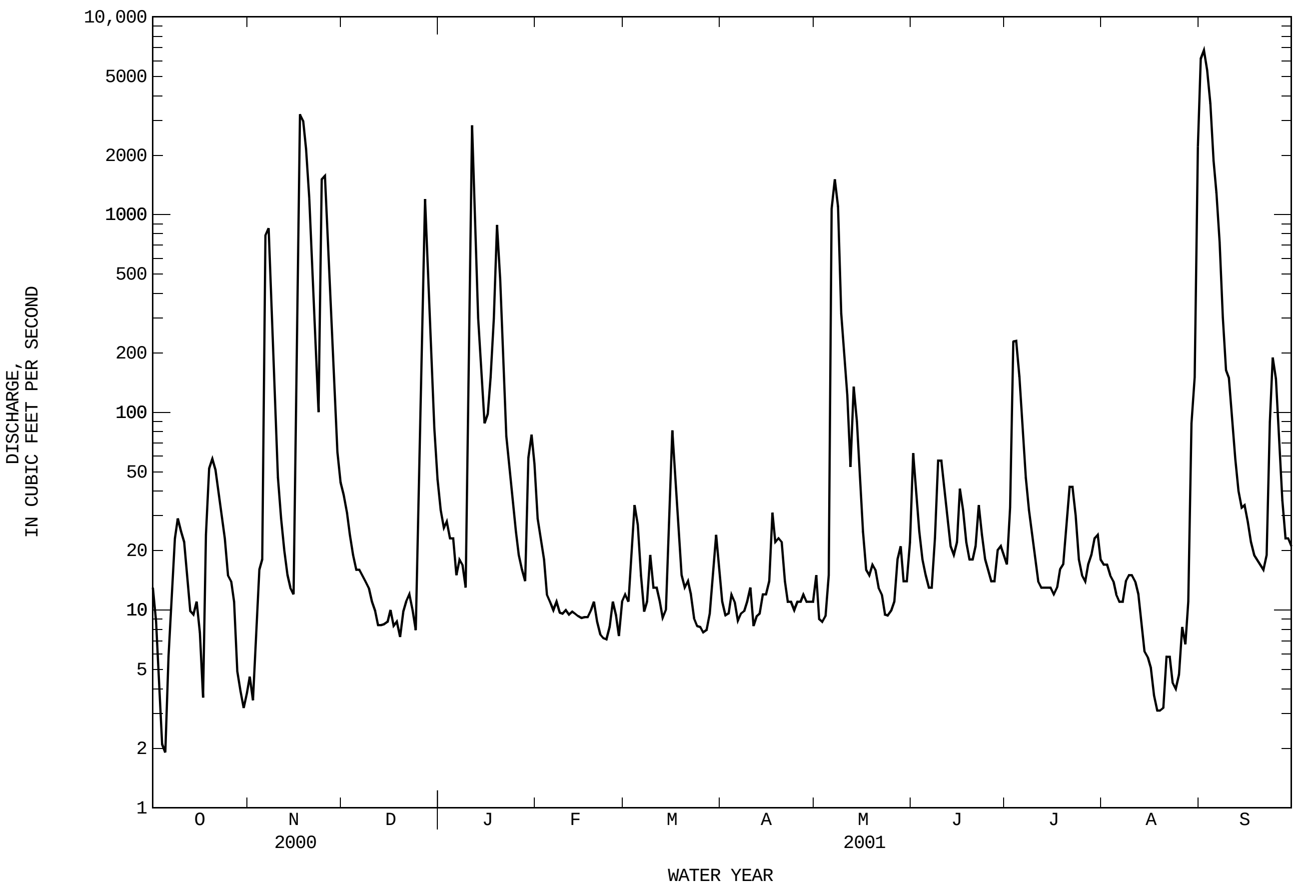
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	246	152	128	143	149	120	144	234	175	105	55.6	265
MAX	1375	582	568	542	978	1058	689	1080	699	623	166	1308
(WY)	1985	1993	1992	1991	1992	1997	1997	1982	1996	1981	1998	1979
MIN	8.43	3.66	5.29	4.83	6.66	7.79	10.4	14.4	10.4	11.1	9.95	6.45
(WY)	2000	2000	2000	1971	1976	1996	1989	1998	1990	1998	2000	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1970 - 2001	
ANNUAL TOTAL	41696.72		65918.9			
ANNUAL MEAN	114		181		160	
HIGHEST ANNUAL MEAN					325	1992
LOWEST ANNUAL MEAN					42.2	1986
HIGHEST DAILY MEAN	3220	Nov 17	6770	Sep 2	12500	Oct 19 1994
LOWEST DAILY MEAN	.22	Aug 18	1.9	Oct 5	.22	Aug 18 2000
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 17	4.1	Aug 17	1.0	Aug 17 2000
MAXIMUM PEAK FLOW			6930	Sep 2	17000	Oct 17 1984
MAXIMUM PEAK STAGE			28.65	Sep 2	32.43	Oct 17 1984
ANNUAL RUNOFF (AC-FT)	82710		130800		115900	
10 PERCENT EXCEEDS	209		229		246	
50 PERCENT EXCEEDS	12		17		23	
90 PERCENT EXCEEDS	2.2		8.2		8.2	

e Estimated

08162600 Tres Palacios River near Midfield, TX--Continued



08164000 Lavaca River near Edna, TX

LOCATION.--Lat 28°57'35", long 96°41'10", Jackson County, Hydrologic Unit 12100101, at downstream side near center of upstream bridge of two bridges on U.S. Highway 59, 660 ft upstream from Texas and New Orleans Railroad Co. bridge, and 2.8 mi southwest of Edna.

DRAINAGE AREA.--817 mi^2.

PERIOD OF RECORD.--Aug. 1938 to current year.
Water-quality records.--Chemical data: Aug. 1945 to Aug. 1993. Biochemical data: Feb. 1971 to Aug. 1993. Pesticide data: Jan. 1968 to Aug. 1981. Sediment data: Nov. 1977 to Aug. 1993. Specific conductance: Nov. 1977 to Sept. 1981. Water temperature: Nov. 1977 to Sept. 1981.

REVISED RECORDS.--WSP 1923: 1955. WRD TX-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.10 ft above sea level. Prior to June 6, 1939, nonrecording gage (property of U.S. Army Corps of Engineers); June 6, 1939 to Apr. 3, 1957, nonrecording gage at site 110 ft downstream; Apr. 4, 1957, to Mar. 21, 1961, nonrecording gage; all at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation. Small diversions above station for irrigation. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1880, 33.8 ft May 25, 1936 (discharge, 83,400 ft^3/s), from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

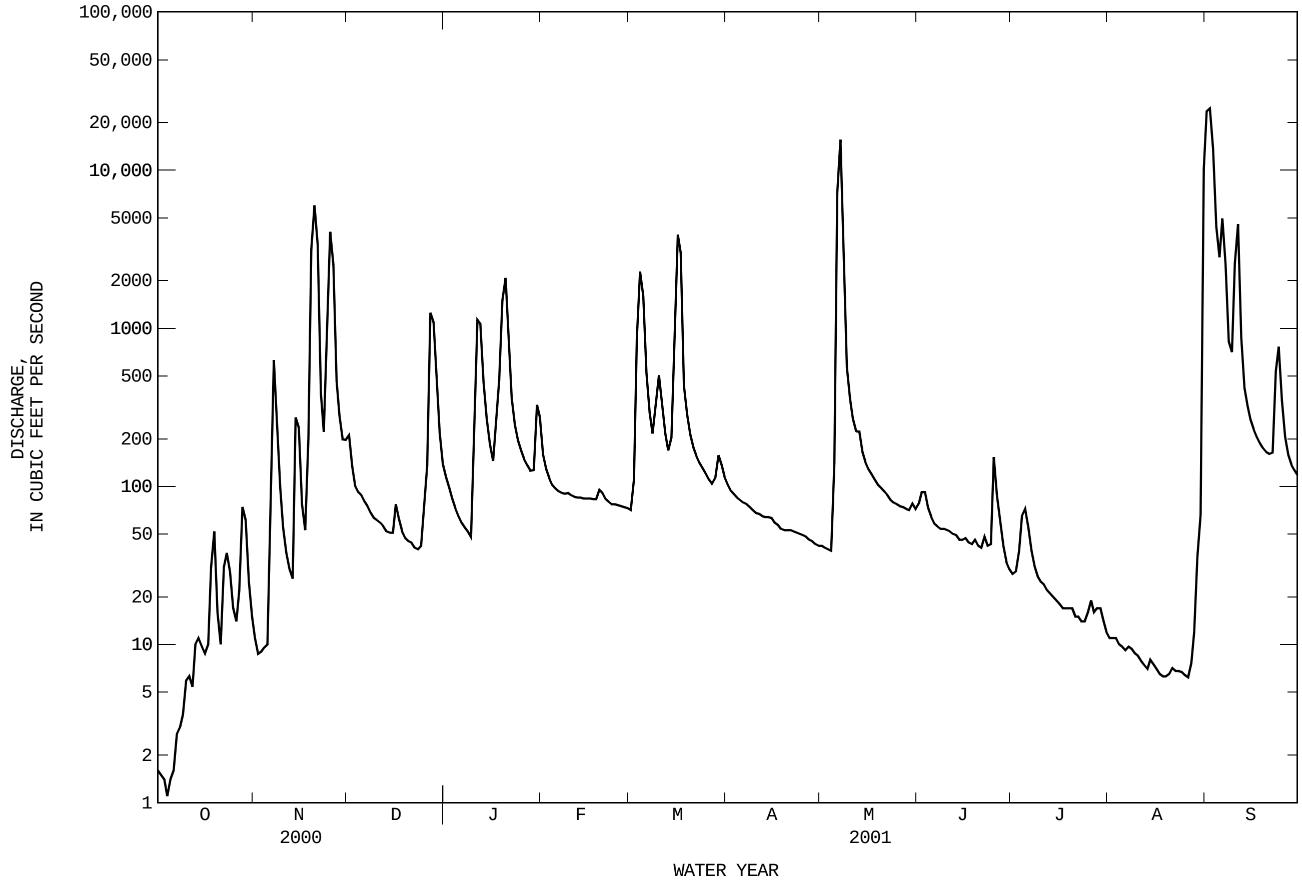
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	11	210	114	159	71	103	42	78	28	11	23600
2	1.5	8.7	133	98	128	111	94	41	92	29	11	24600
3	1.4	9.0	101	84	112	872	89	40	92	39	11	13600
4	1.1	9.6	92	73	102	2280	85	39	73	65	10	4410
5	1.4	10	88	65	97	1600	82	141	64	72	9.7	2810
6	1.6	84	80	59	93	520	79	7150	58	55	9.2	4940
7	2.7	627	75	55	91	293	77	15600	56	39	9.7	2530
8	3.0	254	68	52	90	216	74	2680	54	31	9.4	823
9	3.6	98	63	48	91	334	71	570	54	27	8.8	705
10	5.9	55	61	160	88	504	68	358	53	25	8.5	2580
11	6.3	38	59	1130	86	333	67	266	52	24	7.9	4540
12	5.4	30	56	1070	85	215	65	223	50	22	7.4	873
13	10	26	52	459	85	169	64	222	49	21	7.0	421
14	11	273	51	268	84	203	64	164	46	20	8.0	321
15	9.8	235	51	185	84	918	63	143	46	19	7.5	264
16	8.8	77	77	145	84	3900	59	128	47	18	7.0	230
17	10	53	62	264	83	3010	57	119	44	17	6.5	205
18	31	201	52	473	83	434	54	110	43	17	6.3	187
19	52	3170	47	1510	95	286	53	102	46	17	6.3	174
20	16	5980	45	2080	91	212	53	98	42	17	6.5	165
21	10	3380	44	764	83	175	53	93	41	15	7.1	160
22	31	389	41	362	80	156	52	88	48	15	6.8	163
23	38	221	40	245	77	141	51	82	42	14	6.8	537
24	29	1050	42	194	77	130	50	79	43	14	6.7	764
25	17	4070	78	167	76	120	49	77	153	16	6.4	350
26	14	2530	135	149	75	111	48	75	87	19	6.2	206
27	22	465	1250	136	74	104	46	74	61	16	7.6	158
28	74	281	1090	126	73	113	45	72	42	17	12	137
29	61	199	485	127	---	157	43	71	33	17	36	127
30	25	197	219	327	---	136	42	78	30	14	66	118
31	15	---	138	274	---	115	---	72	---	12	10200	---
TOTAL	520.1	24031.3	5085	11263	2526	17939	1900	29097	1719	771	10530.3	90698
MEAN	16.8	801	164	363	90.2	579	63.3	939	57.3	24.9	340	3023
MAX	74	5980	1250	2080	159	3900	103	15600	153	72	10200	24600
MIN	1.1	8.7	40	48	73	71	42	39	30	12	6.2	118
AC-FT	1030	47670	10090	22340	5010	35580	3770	57710	3410	1530	20890	179900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	478	339	245	286	387	279	489	671	634	204	90.9	391
MAX	7118	3875	2400	1564	5214	2696	5014	3239	5005	3999	713	3023
(WY)	1995	1999	1977	1979	1992	1997	1997	1982	1973	1940	1946	2001
MIN	.58	.003	.19	.055	13.5	6.58	4.43	8.16	.72	2.14	.16	.13
(WY)	1991	1957	1991	1957	1954	1956	1956	1956	1990	1954	1990	1989

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1938 - 2001	
ANNUAL TOTAL	61805.5		196079.7			
ANNUAL MEAN	169		537		374	
HIGHEST ANNUAL MEAN					1385	1992
LOWEST ANNUAL MEAN					6.12	1956
HIGHEST DAILY MEAN	5980	Nov 20	24600	Sep 2	122000	Oct 19 1994
LOWEST DAILY MEAN	1.1	Sep 29	1.1	Oct 4	.00	Nov 10 1954
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 29	1.6	Oct 1	.00	Jul 2 1956
MAXIMUM PEAK FLOW			29400	Sep 2	150000	Oct 19 1994
MAXIMUM PEAK STAGE			28.00	Sep 2	35.49	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	122600		388900		270900	
10 PERCENT EXCEEDS	238		658		421	
50 PERCENT EXCEEDS	32		74		53	
90 PERCENT EXCEEDS	4.0		9.5		9.4	

08164000 Lavaca River near Edna, TX--Continued



08164300 Navidad River near Hallettsville, TX

LOCATION.--Lat 29°28'00", long 96°48'45", Lavaca County, Hydrologic Unit 12100102, on right bank 28 ft downstream from bridge on U.S. Highway 90-A, 0.8 mi downstream from Mixons Creek, 1.2 mi southwest of Sublime, and 8 mi northeast of Hallettsville.

DRAINAGE AREA.--332 mi^2.

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

REVISED RECORDS.--WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 159.28 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, 40 ft in June 1940; flood in July 1936 reached a stage of 39 ft, from information by local residents and Southern Pacific Railroad Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

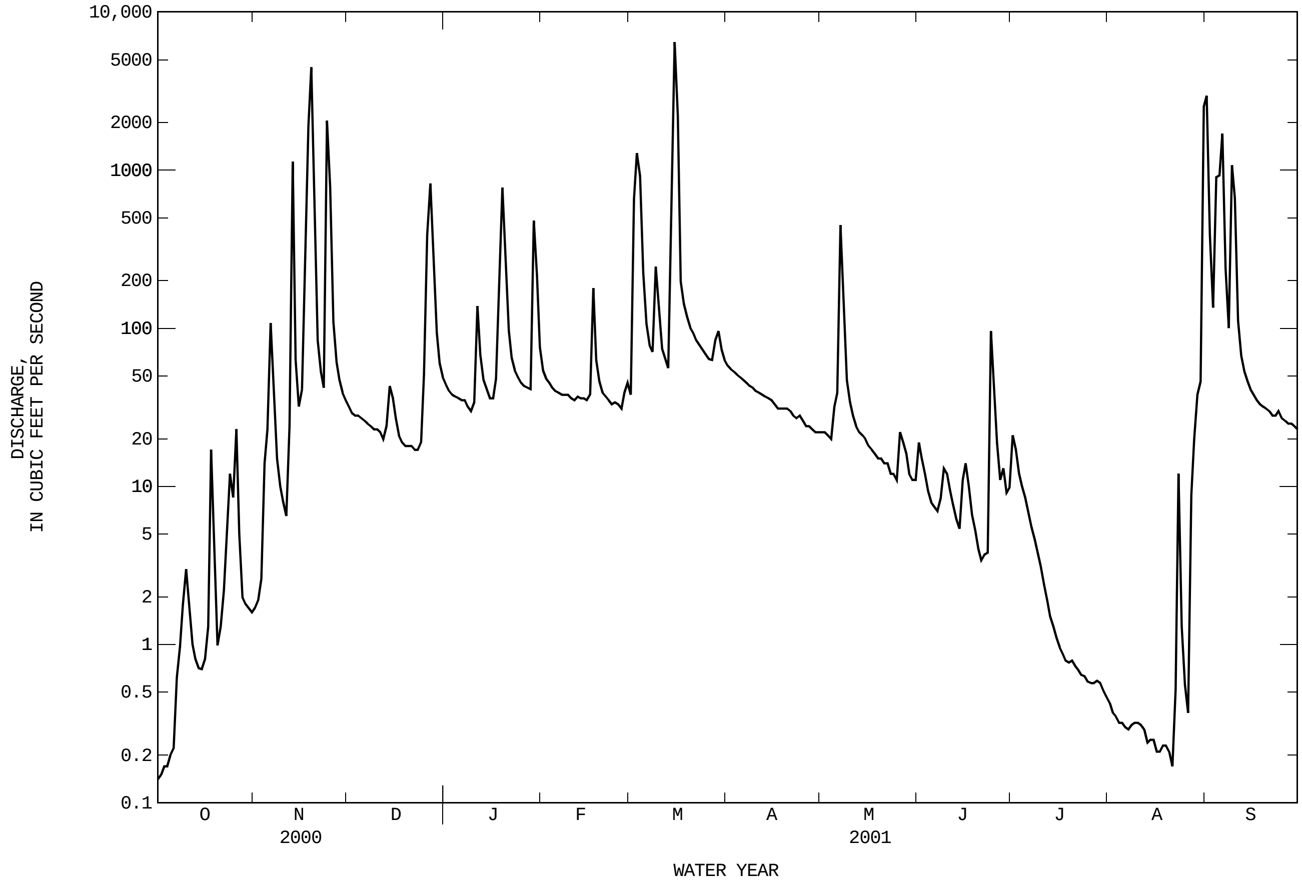
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	1.7	32	44	54	38	58	22	19	21	.43	2940
2	.15	1.9	29	40	48	655	55	22	15	17	.37	389
3	.17	2.6	28	38	45	1280	53	21	12	12	.35	135
4	.17	14	28	37	42	921	51	20	9.3	10	.32	899
5	.20	23	27	36	40	223	49	32	7.9	8.5	.32	923
6	.22	108	26	35	39	107	47	39	7.4	6.9	.30	1700
7	.62	41	25	35	38	78	45	449	7.0	5.5	.29	239
8	.98	15	24	32	38	71	43	129	8.4	4.6	.31	100
9	1.8	10	23	30	38	245	42	47	13	3.8	.32	1070
10	3.0	8.0	23	34	36	127	40	34	12	3.1	.32	665
11	1.7	6.5	22	138	35	74	39	28	9.5	2.4	.31	112
12	1.0	24	20	68	37	64	38	24	7.6	1.9	.29	67
13	.81	1130	24	47	36	56	37	22	6.2	1.5	.24	53
14	.71	63	43	41	36	269	36	21	5.4	1.3	.25	46
15	.70	32	36	36	35	6460	35	20	11	1.1	.25	41
16	.81	41	27	36	38	2190	33	18	14	.96	.21	38
17	1.3	293	21	48	179	198	31	17	10	.87	.21	35
18	17	1900	19	257	63	142	31	16	6.6	.79	.23	33
19	3.7	4470	18	773	46	118	31	15	5.3	.77	.23	32
20	.99	437	18	282	39	101	31	15	4.0	.79	.21	31
21	1.3	84	18	97	37	93	30	14	3.4	.73	.17	30
22	2.2	53	17	65	35	84	28	14	3.7	.69	.52	28
23	5.3	42	17	54	33	78	27	12	3.8	.64	12	28
24	12	2050	19	49	34	73	28	12	96	.63	1.3	30
25	8.5	772	51	45	33	68	26	11	42	.58	.56	27
26	23	110	386	43	31	64	24	22	19	.57	.37	26
27	5.0	61	821	42	39	63	24	19	11	.57	8.8	25
28	2.0	47	314	41	45	84	23	16	13	.59	20	25
29	1.8	39	94	478	---	96	22	12	9.1	.57	38	24
30	1.7	35	60	215	---	73	22	11	9.8	.51	46	23
31	1.6	---	49	76	---	63	---	11	---	.47	2510	---
TOTAL	100.57	11914.7	2359	3292	1249	14256	1079	1165	401.4	111.33	2643.48	9814
MEAN	3.24	397	76.1	106	44.6	460	36.0	37.6	13.4	3.59	85.3	327
MAX	23	4470	821	773	179	6460	58	449	96	21	2510	2940
MIN	.14	1.7	17	30	31	38	22	11	3.4	.47	.17	23
AC-FT	199	23630	4680	6530	2480	28280	2140	2310	796	221	5240	19470
CFSM	.01	1.20	.23	.32	.13	1.39	.11	.11	.04	.01	.26	.99
IN.	.01	1.34	.26	.37	.14	1.60	.12	.13	.04	.01	.30	1.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	154	141	118	132	163	125	195	311	254	23.5	27.5	155
MAX	1709	1346	943	691	1251	611	1158	1502	1792	91.6	332	1975
(WY)	1999	1999	1977	1968	1992	1992	1973	1972	1973	1973	1971	1974
MIN	.000	.035	.97	6.38	8.46	9.87	7.17	2.39	.68	.16	.014	.014
(WY)	1991	1991	1991	1990	1996	1991	1996	1996	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1962 - 2001	
ANNUAL TOTAL	20924.98		48385.48			
ANNUAL MEAN	57.2		133		149	
HIGHEST ANNUAL MEAN					508	1992
LOWEST ANNUAL MEAN					11.5	1990
HIGHEST DAILY MEAN	4470	Nov 19	6460	Mar 15	30500	Sep 14 1974
LOWEST DAILY MEAN	.06	Sep 3	.14	Oct 1	.00	Aug 5 1964
ANNUAL SEVEN-DAY MINIMUM	.07	Aug 31	.22	Aug 15	.00	Sep 2 1964
MAXIMUM PEAK FLOW			8270	Mar 15	53500	Sep 13 1974
MAXIMUM PEAK STAGE			25.59	Mar 15	36.05	Sep 13 1974
ANNUAL RUNOFF (AC-FT)	41500		95970		108200	
ANNUAL RUNOFF (CFSM)	.17		.40		.45	
ANNUAL RUNOFF (INCHES)	2.34		5.42		6.11	
10 PERCENT EXCEEDS	58		140		129	
50 PERCENT EXCEEDS	9.8		27		22	
90 PERCENT EXCEEDS	.20		.59		1.9	

08164300 Navidad River near Hallettsville, TX--Continued



08164390 Navidad River at Strane Park near Edna, TX

LOCATION.--Lat 29°03'55", long 96°40'26", Jackson County, Hydrologic Unit 12100102, on County Road 401, 6.3 mi north of Edna.

DRAINAGE AREA.--579 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 42.53 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair. Much of low flow during the irrigation season (Apr. to Sept.) is drainage from rice fields irrigated by water originally diverted from the Colorado River. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	2.5	85	86	127	33	92	14	36	18	1.8	9540
2	.01	2.0	61	70	80	129	73	13	39	19	1.8	6930
3	.02	2.5	49	54	60	1460	63	13	26	23	1.3	3100
4	.02	3.2	45	45	51	2190	58	12	25	27	1.3	655
5	.02	3.7	41	39	44	1490	53	60	20	23	1.8	1750
6	.02	15	39	36	40	422	50	4240	18	17	1.4	2270
7	.06	88	35	34	37	229	46	2530	17	14	1.1	2180
8	.02	79	32	31	36	156	41	1150	17	12	1.2	697
9	.05	30	29	29	35	213	37	431	18	11	.81	348
10	.02	15	27	52	35	394	35	182	17	9.6	.98	1890
11	.01	9.8	25	593	32	227	35	107	17	8.1	.78	1610
12	.01	7.4	23	408	30	138	33	217	18	6.4	.44	285
13	.00	7.2	22	203	29	102	31	135	16	5.6	.30	161
14	.00	942	22	135	30	108	30	80	14	4.7	.86	112
15	.00	147	22	98	30	1070	28	62	14	4.3	.91	86
16	.01	59	e21	78	30	2900	27	48	16	4.6	.97	70
17	.03	41	e21	218	29	4740	25	42	15	4.3	.78	60
18	.36	437	e21	333	132	1150	23	36	21	3.9	.34	53
19	2.7	1940	21	1130	83	281	22	34	20	4.0	.07	48
20	1.3	3080	19	1500	47	200	21	31	15	3.6	.00	44
21	3.5	2460	18	515	35	160	21	29	13	3.4	.00	41
22	20	259	17	230	30	136	21	26	15	4.0	.00	38
23	24	134	17	140	28	120	19	26	14	3.4	.00	565
24	21	683	17	101	26	107	19	24	15	2.7	.00	271
25	7.6	2030	47	80	25	91	19	24	77	2.3	.00	157
26	4.5	1630	293	67	26	81	19	24	118	2.3	.00	85
27	5.0	278	973	58	26	75	18	30	48	3.3	.01	57
28	6.5	154	1250	52	23	333	17	33	31	4.7	.65	44
29	10	103	464	58	---	428	16	28	22	3.2	3.0	36
30	4.8	106	189	640	---	212	15	26	19	2.6	21	31
31	3.1	---	110	314	---	128	---	22	---	1.8	6480	---
TOTAL	114.68	14748.3	4055	7427	1236	19503	1007	9729	771	256.8	6523.60	33214
MEAN	3.70	492	131	240	44.1	629	33.6	314	25.7	8.28	210	1107
MAX	24	3080	1250	1500	132	4740	92	4240	118	27	6480	9540
MIN	.00	2.0	17	29	23	33	15	12	13	1.8	.00	31
AC-FT	227	29250	8040	14730	2450	38680	2000	19300	1530	509	12940	65880

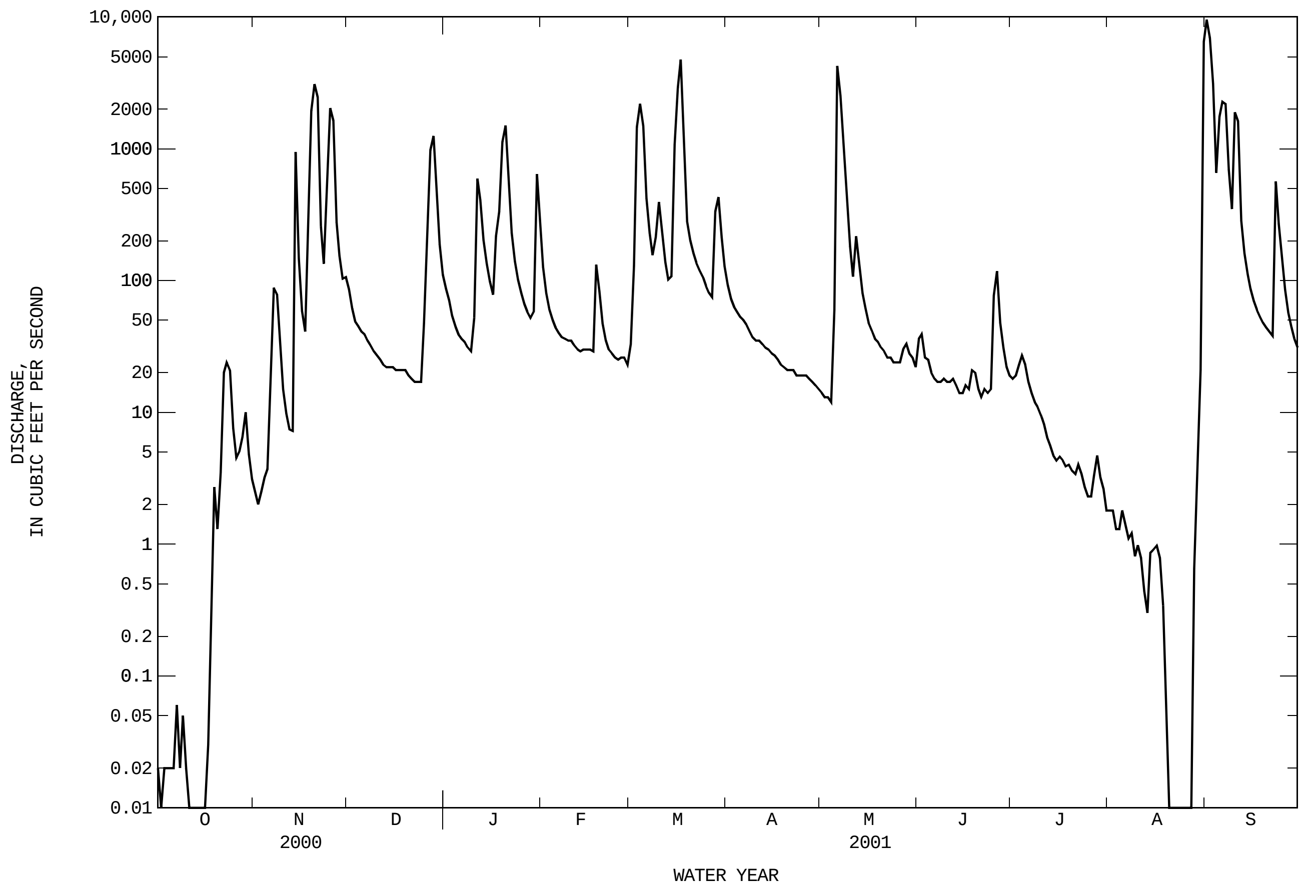
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	794	624	193	265	275	527	452	360	482	36.5	64.4	397
MAX	2636	2334	402	690	904	1540	2030	1038	1632	80.5	210	1107
(WY)	1999	1999	1999	1997	1998	1997	1997	1997	1997	1999	2001	2001
MIN	3.70	7.73	10.8	16.5	22.7	39.0	33.6	27.7	25.7	2.80	.69	.041
(WY)	2001	2000	2000	2000	2000	2000	2001	1998	2001	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1997 - 2001	
ANNUAL TOTAL	34505.77		98585.38			
ANNUAL MEAN	94.3		270		372	
HIGHEST ANNUAL MEAN					627	1997
LOWEST ANNUAL MEAN					44.8	2000
HIGHEST DAILY MEAN	3080	Nov 20	9540	Sep 1	23300	Oct 19 1998
LOWEST DAILY MEAN	.00	Sep 23	.00	Oct 13	.00	Sep 23 2000
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 10	.00	Aug 20	.00	Aug 20 2001
MAXIMUM PEAK FLOW			c10200	Sep 1	c25000	Oct 19 1998
MAXIMUM PEAK STAGE			27.06	Sep 1	a30.08	Oct 19 1998
ANNUAL RUNOFF (AC-FT)	68440		195500		269500	
10 PERCENT EXCEEDS	149		484		540	
50 PERCENT EXCEEDS	15		30		38	
90 PERCENT EXCEEDS	.02		.95		5.8	

e Estimated
c From rating curve extended above current meter discharge measurement of 9,150 ft^3/s.
a From floodmark.

08164390 Navidad River at Strane Park near Edna, TX--Continued



08164390 Navidad River at Strane Park near Edna, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: June 1998 to current year.
PESTICIDE DATA: June 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
MAY													
23...	1010	27	8.0	89.6	8.4	712	21.0	<.04	<.11	<.10	<.002	<.11	<.004
23...	1010	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	0940	1.1	5.4	66.7	8.0	803	26.5	<.04	<.11	<.10	<.002	<.20	<.004
08...	0940	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ACIFL- UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)
MAY													
23...	<.05	<.002	<.20	<.12	<.21	<.005	.028	<.010	<.04	<.09	<.07	<.002	<.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.05	<.002	<.20	<.02	<.21	<.005	E.002	<.010	<.04	<.09	<.07	<.002	<.02
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO- BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
MAY													
23...	<.041	<.29	<.020	<.13	<.005	<.42	<.018	<.07	<.003	<.006	<.005	<.04	<.05
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.041	<.29	<.020	<.13	<.005	<1.16	<.018	<.07	<.003	<.006	<.005	<.04	<.05
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)
MAY													
23...	<.05	<.005	<.14	<.021	<.06	<.25	<.002	<.009	<.005	<.07	<.06	<.003	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.05	<.005	<.09	<.021	<.06	<.25	<.002	<.009	<.005	<.07	<.06	<.003	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
MAY													
23...	<.02	<.035	<.027	<.08	<.13	<.07	<.02	<.050	<.006	E.005	<.006	.028	<.007
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.02	<.035	<.027	<.08	<.13	<.07	<.02	<.050	<.006	<.013	<.006	<.002	<.007
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164390 Navidad River at Strane Park near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
MAY													
23...	<.06	<.04	<.28	<2.97	<.003	<.007	<.002	<.010	<.006	<.011	<.09	<.015	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.10	<.04	<.28	<.02	<.003	<.007	<.002	<.010	<.006	<.011	<.09	E.003	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS-SOLVED (UG/L) (39762)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)
MAY													
23...	<.010	<.011	<.023	<.28	<.12	<.03	<.011	E.007	<.034	<.017	E.004	<.002	<.07
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.010	<.011	<.023	<.09	<.12	<.03	<.011	<.016	<.034	<.017	<.005	<.002	<.07
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)
MAY							
23...	<.009	--	--	--	--	--	--
23...	--	<.2	<.2	<.2	<.2	<.2	<.2
AUG							
08...	<.009	--	--	--	--	--	--
08...	--	<.2	<.2	<.2	<.2	<.2	<.2

08164450 Sandy Creek near Ganado, TX

LOCATION.--Lat 29°09'36", long 96°32'46", Jackson County, Hydrologic Unit 12100102, on left bank at downstream end of bridge on Farm Road 710, 0.9 mi upstream from Goldenrod Creek, and 8.0 mi north of Ganado.

DRAINAGE AREA.--289 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1977 to current year. Prior to Oct. 1997, published as "near Louise."

GAGE.--Water-stage recorder. Datum of gage is 59.72 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair. Much of the low flow during the irrigation season (Apr. to Sept.) is drainage from rice fields irrigated by water originally diverted from the Colorado River. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	9.5	73	40	139	55	184	5.5	17	32	58	9350
2	18	8.1	50	33	77	479	103	5.5	14	63	49	5360
3	29	7.9	36	20	49	2630	71	5.3	12	117	43	2960
4	28	12	30	13	39	2370	53	5.4	1.9	110	44	1710
5	23	16	24	9.0	30	1510	43	80	2.6	91	32	1870
6	27	316	22	7.3	26	785	33	1130	1.3	76	19	1270
7	48	782	17	7.2	23	346	26	1500	1.3	62	14	730
8	141	497	11	5.5	21	194	20	1160	1.6	40	4.7	388
9	299	204	8.5	4.2	20	346	14	620	2.5	37	33	405
10	308	123	6.3	35	17	539	5.6	199	39	24	31	2240
11	253	71	4.3	749	14	264	4.9	78	67	22	18	1050
12	198	45	3.8	727	10	233	4.7	86	43	25	8.4	699
13	154	359	3.8	400	10	169	17	36	23	25	1.4	298
14	141	375	4.3	193	12	187	26	16	12	23	2.7	156
15	123	141	4.2	150	20	2200	24	2.7	21	33	.55	86
16	92	83	5.3	113	23	1670	19	.68	51	31	.24	63
17	71	63	4.3	552	25	838	21	.14	81	36	6.9	49
18	102	665	3.7	879	30	287	14	.20	68	49	4.4	43
19	293	3470	3.6	1840	29	145	11	.07	49	67	1.4	37
20	377	2520	3.4	1540	27	88	6.5	.05	37	76	.39	32
21	210	1650	3.0	713	18	62	5.4	.05	26	81	.08	35
22	240	939	2.4	229	11	47	12	.02	20	84	.01	59
23	375	355	2.0	122	7.3	38	16	.03	25	58	.00	143
24	268	1470	2.5	85	5.8	33	33	.02	31	41	.00	254
25	171	1970	8.1	62	4.8	30	56	.02	31	58	.00	184
26	105	924	170	46	42	25	55	3.9	51	66	.60	130
27	57	432	831	30	330	24	21	118	45	86	6.1	102
28	32	192	703	25	131	528	7.6	261	43	89	29	87
29	22	117	279	28	---	987	5.8	144	38	97	60	76
30	12	87	120	e298	---	960	5.6	68	29	95	310	78
31	9.5	---	59	e310	---	488	---	31	---	72	5480	---
TOTAL	4243.5	17903.5	2498.5	9265.2	1190.9	18557	918.1	5556.58	884.2	1866	6257.87	29944
MEAN	137	597	80.6	299	42.5	599	30.6	179	29.5	60.2	202	998
MAX	377	3470	831	1840	330	2630	184	1500	81	117	5480	9350
MIN	9.5	7.9	2.0	4.2	4.8	24	4.7	.02	1.3	22	.00	32
AC-FT	8420	35510	4960	18380	2360	36810	1820	11020	1750	3700	12410	59390

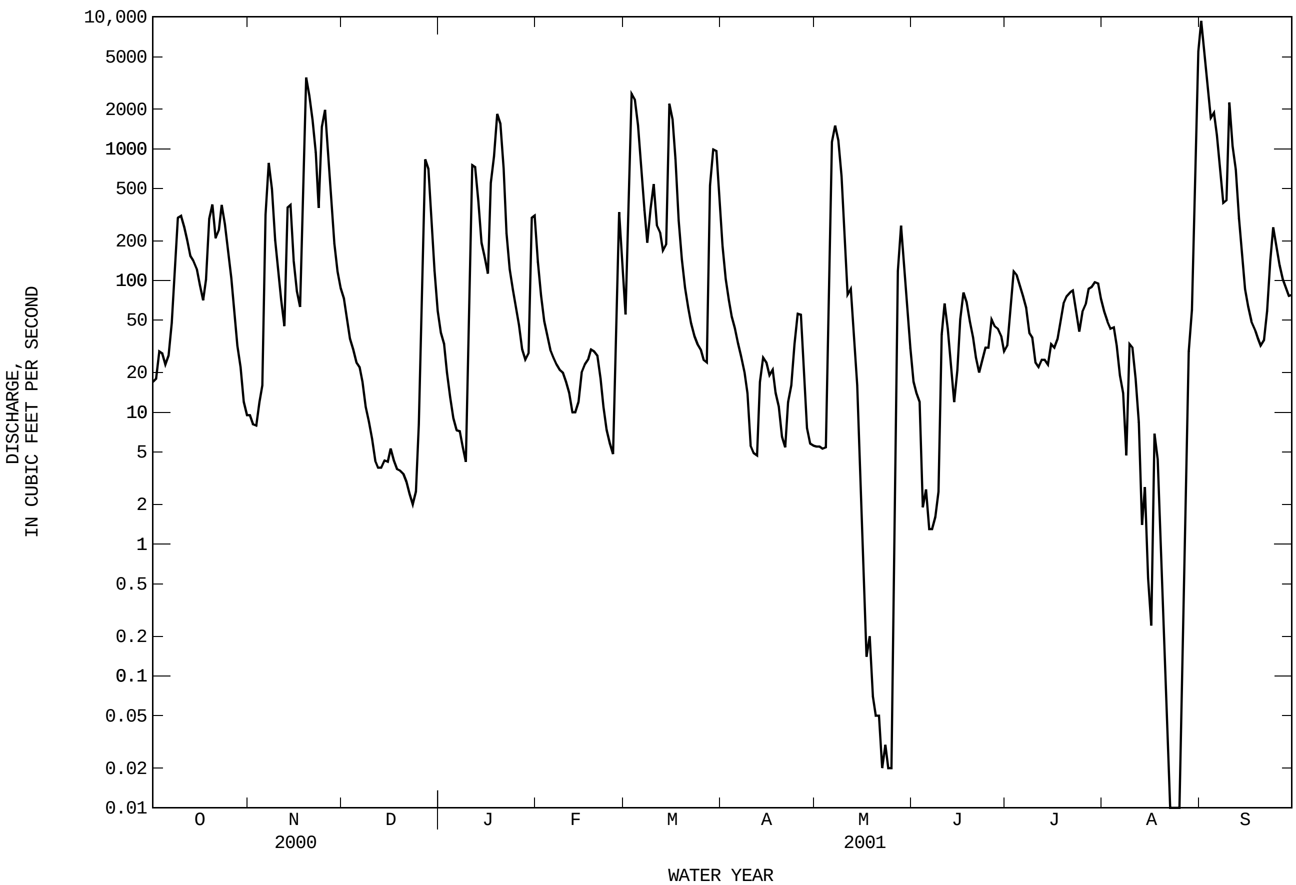
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	355	209	134	265	261	191	211	304	351	121	41.7	270
MAX	2917	1513	746	956	2331	1406	1316	1150	1866	475	202	1364
(WY)	1999	1999	1992	1992	1992	1997	1997	1993	1993	1983	2001	1978
MIN	18.6	.000	.000	.022	.28	.080	3.14	1.82	.030	7.25	3.21	11.8
(WY)	2000	2000	2000	2000	1988	1996	1980	1996	1990	1997	1991	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1978 - 2001	
ANNUAL TOTAL	50520.93		99085.35			
ANNUAL MEAN	138		271		226	
HIGHEST ANNUAL MEAN					606	1992
LOWEST ANNUAL MEAN					51.2	1990
HIGHEST DAILY MEAN	3470	Nov 19	9350	Sep 1	41100	Oct 19 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Aug 23	.00	Apr 5 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.04	May 19	.00	Mar 10 1980
MAXIMUM PEAK FLOW			10000	Sep 1	c63400	Oct 19 1998
MAXIMUM PEAK STAGE			20.84	Sep 1	a32.72	Oct 19 1998
ANNUAL RUNOFF (AC-FT)	100200		196500		163400	
10 PERCENT EXCEEDS	358		719		459	
50 PERCENT EXCEEDS	12		43		21	
90 PERCENT EXCEEDS	.00		3.8		.05	

e Estimated
c From rating curve extended above indirect measurement of 60,000 ft^3/s.
a From floodmark.

08164450 Sandy Creek near Ganado, TX--Continued



08164450 Sandy Creek near Ganado, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1977 to current year.
BIOCHEMICAL DATA: Oct. 1977 to Nov. 1992.
PESTICIDE DATA: Nov. 1977 to July 1981, Apr. 1996 to current year.
SEDIMENT DATA: Sept. 1978 to Apr. 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
MAY													
23...	1330	.03	8.8	117	7.8	336	30.5	<.04	<.11	<.10	<.002	<.11	<.004
23...	1330	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	1200	4.0	7.1	90.1	8.1	675	28.0	<.04	<.11	<.10	<.002	<.39	<.004
08...	1200	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)
MAY													
23...	<.12	<.002	<.91	<.18	<.62	<.005	.026	<.010	<.04	<.09	<.07	<.002	<.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.05	<.002	<.20	<.06	<.51	<.005	.009	<.010	<.04	<.09	<.07	<.002	<.02
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, GF 0.7U (UG/L) (49309)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
MAY													
23...	<.041	<.29	<.020	<.13	<.005	<.42	<.018	<.80	<.003	E.005	<.005	<.13	<.17
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.041	<.29	<.020	<.13	<.005	<.42	<.018	<.07	<.003	<.006	<.005	<.04	<.05
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)
MAY													
23...	<.05	<.005	<.13	<.021	.11	<.25	<.002	<.009	<.005	<.07	<.30	<.003	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.05	<.005	<.09	<.021	<.06	<.25	<.002	<.009	<.005	<.14	<.06	<.003	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
MAY													
23...	<.02	<.035	E.015	<.08	<.57	<.07	<4.90	<.050	<.006	.047	<.006	1.04	<.007
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.02	<.035	E.022	<.08	<.13	<.07	<36.4	<.050	<.006	E.008	<.006	.033	<.007
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164450 Sandy Creek near Ganado, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLURAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
MAY													
23...	<.20	<.04	<.28	<13.6	<.003	<.007	<.002	<.010	<.006	<.011	<.09	<.015	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.12	<.04	<.28	<.10	<.003	<.007	<.002	<.010	<.006	<.011	<.09	<.015	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS-SOLVED (UG/L) (39762)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)
MAY													
23...	<.010	<.011	<.023	<.09	<.12	<.19	E.010	E.014	<.034	<.017	.565	<.002	<.07
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.010	<.011	<.023	<.09	<.39	<.03	<.011	E.001	<.034	<.017	.015	<.002	<.07
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)
MAY							
23...	<.009	--	--	--	--	--	--
23...	--	<.2	<.2	<.2	<.2	<.2	<.2
AUG							
08...	<.009	--	--	--	--	--	--
08...	--	<.2	<.2	<.2	<.2	<.2	<.2

08164503 West Mustang Creek near Ganado, TX

LOCATION.--Lat 29°04'17", long 96°28'01", Jackson County, Hydrologic Unit 12100102, on right bank at downstream end of downstream bridge on U.S. Highway 59, 2.1 mi upstream from Middle Mustang Creek, and 3.6 mi east of Ganado.

DRAINAGE AREA.--178 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 40.12 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Much of low flow during the irrigation season (Apr. to Sept.) is drainage from rice fields irrigated by water originally diverted from the Colorado River. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	6.9	36	37	53	46	96	16	22	19	38	10100
2	5.5	3.9	29	36	31	87	50	12	18	24	37	7950
3	6.0	4.4	22	28	21	629	22	13	14	57	53	5740
4	5.5	96	18	20	15	774	13	18	13	76	44	3870
5	21	238	22	13	7.8	359	8.3	41	8.8	63	40	2880
6	30	972	18	9.4	4.8	130	5.7	617	9.2	50	34	1880
7	29	1940	13	8.0	3.3	57	5.3	1090	12	36	31	678
8	39	855	9.8	6.9	2.6	29	5.3	1200	11	31	25	319
9	109	244	7.5	6.2	2.1	25	3.8	402	9.3	27	21	201
10	126	107	6.2	58	2.6	93	6.3	133	21	24	21	304
11	125	56	4.9	1010	1.8	58	9.4	73	29	22	23	260
12	97	32	3.6	978	1.4	36	7.4	159	33	18	28	147
13	76	33	8.6	240	1.7	47	21	163	23	18	26	88
14	53	53	6.5	129	5.2	69	25	81	16	23	21	55
15	27	29	5.1	105	4.5	778	22	43	17	34	28	36
16	17	59	3.9	74	3.2	674	17	47	36	32	27	29
17	13	315	3.1	180	4.6	216	13	34	51	27	29	25
18	14	886	2.8	394	3.0	93	15	22	46	33	19	22
19	69	2590	2.4	1170	4.3	43	15	24	31	58	15	20
20	128	2290	2.2	1090	4.5	24	6.4	19	21	65	10	19
21	162	830	1.8	293	2.7	16	7.0	17	19	94	5.8	18
22	272	317	1.7	119	1.7	10	11	25	24	83	3.4	25
23	227	145	1.7	70	1.2	9.1	12	25	21	69	3.6	69
24	126	1060	1.9	54	1.0	6.7	20	20	19	66	3.7	151
25	88	2270	24	42	.73	6.4	27	13	28	54	3.1	98
26	58	810	225	31	6.7	4.2	20	12	21	42	6.1	68
27	33	229	739	26	242	3.2	21	21	17	71	8.8	45
28	22	117	516	20	119	4.5	15	48	15	86	20	35
29	13	74	182	24	---	242	11	63	22	88	49	31
30	7.7	51	84	90	---	264	12	44	21	89	168	22
31	6.2	---	41	82	---	175	---	28	---	63	4720	---
TOTAL	2009.5	16713.2	2042.7	6443.5	552.43	5008.1	522.9	4523	648.3	1542	5561.5	35185
MEAN	64.8	557	65.9	208	19.7	162	17.4	146	21.6	49.7	179	1173
MAX	272	2590	739	1170	242	778	96	1200	51	94	4720	10100
MIN	4.6	3.9	1.7	6.2	.73	3.2	3.8	12	8.8	18	3.1	18
AC-FT	3990	33150	4050	12780	1100	9930	1040	8970	1290	3060	11030	69790
CFSM	.36	3.13	.37	1.17	.11	.91	.10	.82	.12	.28	1.01	6.59
IN.	.42	3.49	.43	1.35	.12	1.05	.11	.95	.14	.32	1.16	7.35

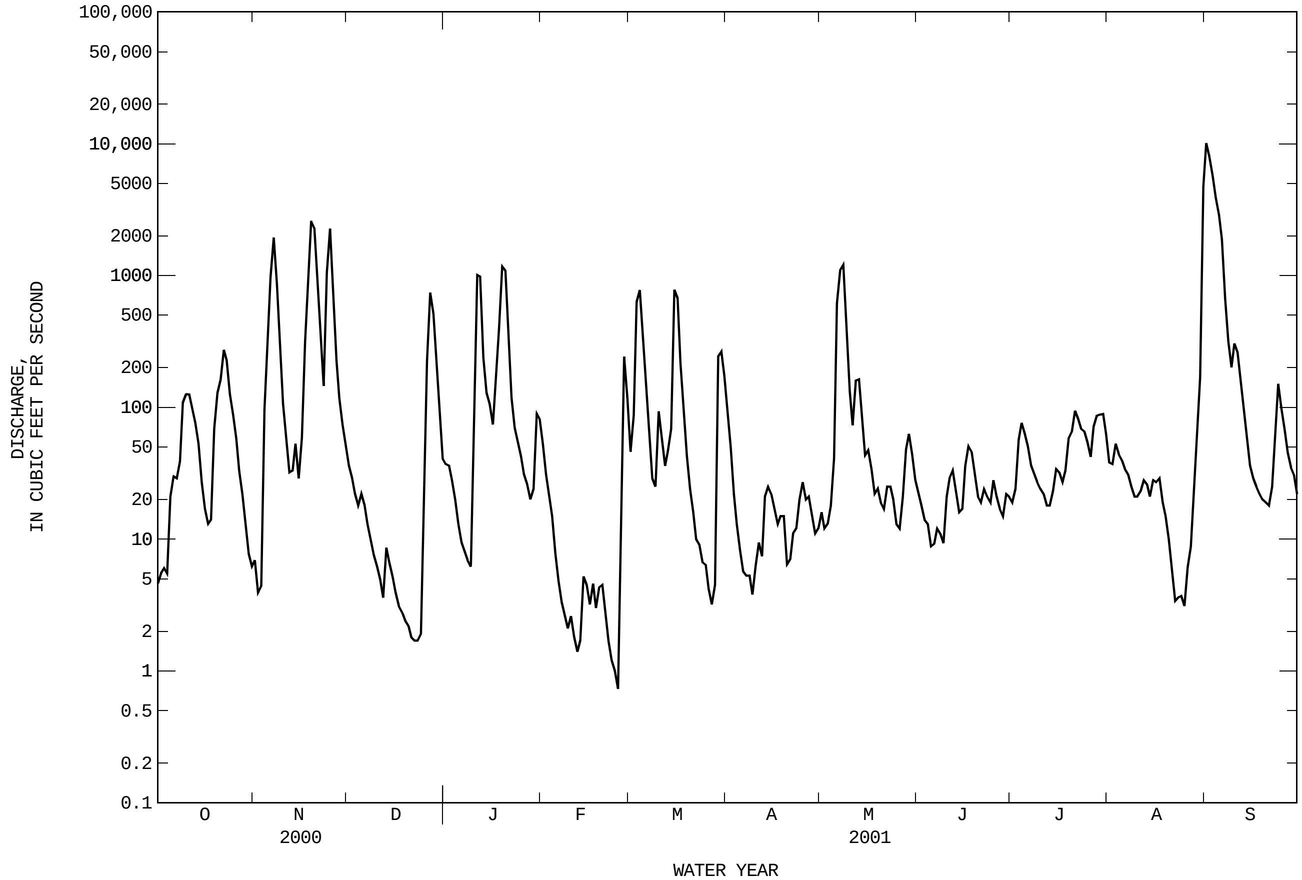
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	252	159	108	182	152	119	161	208	201	102	57.6	251
MAX	1746	813	587	881	1243	988	1107	702	958	412	179	1173
(WY)	1995	1999	1992	1980	1992	1997	1997	1993	1993	1983	2001	2001
MIN	14.2	1.32	.17	.72	.87	.81	12.3	11.2	5.56	38.1	14.0	5.33
(WY)	1988	2000	1991	1982	1986	1986	1983	1978	1990	1986	2000	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1978 - 2001	
ANNUAL TOTAL	46740.74		80752.13			
ANNUAL MEAN	128		221		162	
HIGHEST ANNUAL MEAN					325	1997
LOWEST ANNUAL MEAN					45.2	1990
HIGHEST DAILY MEAN	2590	Nov 19	10100	Sep 1	18700	Oct 19 1994
LOWEST DAILY MEAN	.00	Jan 24	.73	Feb 25	.00	Dec 19 1990
ANNUAL SEVEN-DAY MINIMUM	.01	Jan 21	2.1	Dec 18	.01	Dec 19 1990
MAXIMUM PEAK FLOW			10600	Sep 1	c20000	Oct 19 1994
MAXIMUM PEAK STAGE			22.52	Sep 1	a28.39	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	92710		160200		117600	
ANNUAL RUNOFF (CFSM)	.72		1.24		.91	
ANNUAL RUNOFF (INCHES)	9.77		16.88		12.39	
10 PERCENT EXCEEDS	266		316		299	
50 PERCENT EXCEEDS	21		28		23	
90 PERCENT EXCEEDS	.59		4.5		1.5	

c From rating curve extended above current meter discharge measurement of 19,000 ft^3/s.
a From floodmark.

08164503 West Mustang Creek near Ganado, TX--Continued



08164503 West Mustang Creek near Ganado, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Oct. 1977 to current year.
BIOCHEMICAL DATA: Oct. 1977 to Nov. 1992.
PESTICIDE DATA: Nov. 1977 to July 1981, Apr. 1996 to current year.
SEDIMENT DATA: Sept. 1978 to Apr. 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)
MAY													
23...	1120	26	6.3	72.5	7.8	641	22.5	<.04	<.11	<.10	<.002	<.29	.009
23...	1120	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	1050	25	6.3	79.3	8.0	745	27.5	<.04	<.11	<.10	<.002	<.29	<.006
08...	1050	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)
MAY													
23...	<.05	.045	<.20	<.02	<.21	<.005	.218	<.010	<.26	<.14	<.07	<.002	<.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.05	.007	<.20	<.02	<.47	<.005	.273	<.010	<.04	<.09	<.07	<.002	<.02
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
MAY													
23...	<.041	<.29	<.020	<.13	<.005	<.42	<.018	<3.80	<.003	E.025	<.005	<.14	<.05
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.041	<.29	<.020	<.13	<.005	<.42	<.018	<.07	<.003	E.016	<.005	<.04	<.05
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)
MAY													
23...	<.05	<.005	<.09	<.021	<.06	<.25	<.002	<.009	<.005	<.07	<.06	<.003	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.05	<.005	<.09	<.021	<.06	<.25	<.002	<.009	<.005	<.07	<.06	<.003	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
MAY													
23...	<.02	<.035	<.027	<.08	<.13	<.07	<.02	<.050	<.006	.566	<.006	5.80	<.007
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.21	<.035	<.027	<.08	<.13	<.07	<.02	<.050	.093	.112	<.006	.034	<.007
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164503 West Mustang Creek near Ganado, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
MAY													
23...	<.02	<.04	<.28	<8.34	<.003	<.007	<.002	<.010	<.006	<.011	<.09	<.015	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.02	<.04	<.28	<.20	<.003	<.007	<.002	<.010	<.006	<.011	<.09	<.015	<.004
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS- SOLVED (UG/L) (39762)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)
MAY													
23...	<.010	E.008	<.023	<.09	<.89	<.03	.029	E.004	<.034	<.017	.548	<.002	<.63
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.010	<.011	<.023	<.96	<.81	<.03	<.011	E.011	<.034	<.017	.029	<.002	<.07
08...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)
MAY							
23...	<.009	--	--	--	--	--	--
23...	--	<.2	<.2	<.2	<.2	<.2	<.2
AUG							
08...	<.009	--	--	--	--	--	--
08...	--	<.2	<.2	<.2	<.2	<.2	<.2

08164504 East Mustang Creek near Louise, TX

LOCATION.--Lat 29°04'14", long 96°25'01", Wharton County, Hydrologic Unit 12100102, on right bank, 50 ft downstream from right end of bridge on Farm Road 647, 2.7 mi south of Louise.

DRAINAGE AREA.--90.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1996 to current year. Prior to Oct. 2000, published as "at FM 647 near Ganado".

GAGE.--Water-stage recorder. Datum of gage is 43.02 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Much of the low flow during the irrigation season (Apr. to Sept.) is drainage from rice fields irrigated by water originally diverted from the Colorado River. No known regulation or diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

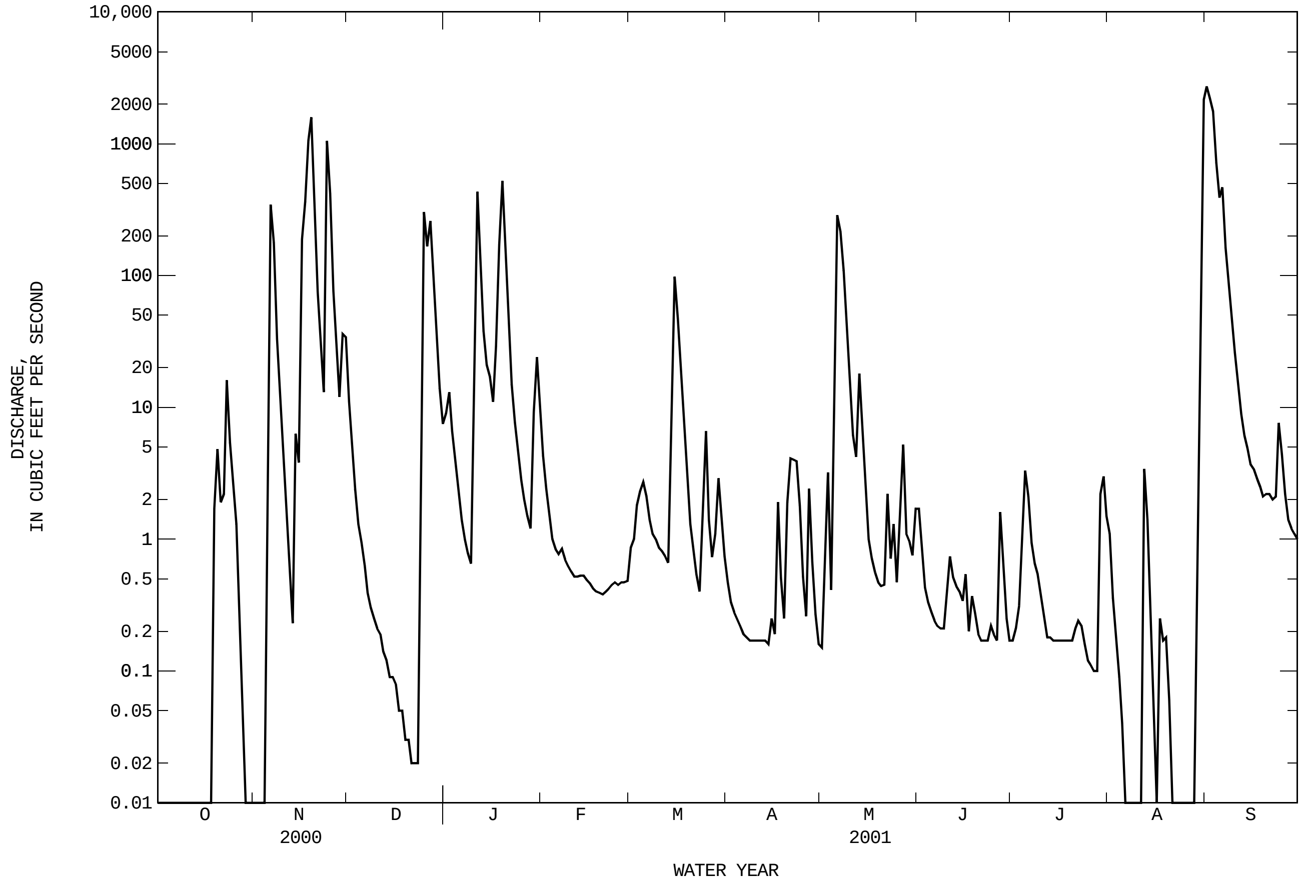
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	11	9.0	4.3	.86	.47	.15	1.7	.17	1.1	2720
2	.00	.00	4.9	13	2.4	1.0	.33	.50	.95	.21	.36	2210
3	.00	.00	2.4	6.6	1.5	1.8	.28	3.2	.43	.31	.17	1750
4	.00	.01	1.3	3.7	1.0	2.3	.25	.41	.33	.90	.09	721
5	.00	.89	.94	2.2	.84	2.7	.22	4.9	.28	3.3	.04	391
6	.00	344	.63	1.4	.77	2.1	.19	287	.24	2.1	.01	466
7	.00	177	.39	.99	.84	1.4	.18	215	.22	.94	.00	163
8	.00	33	.30	.78	.70	1.1	.17	109	.21	.65	.00	87
9	.00	12	.25	.65	.63	1.0	.17	35	.21	.54	.00	48
10	.00	4.1	.21	37	.57	.86	.17	15	.43	.36	.00	26
11	.00	1.6	.19	432	.52	.81	.17	6.2	.74	.25	.00	15
12	.00	.62	.14	109	.52	.74	.17	4.2	.51	.18	3.4	8.9
13	.00	.23	.12	38	.53	.66	.17	18	.44	.18	1.4	6.1
14	.00	6.3	.09	21	.53	17	.16	7.7	.40	.17	.24	4.8
15	.00	3.8	.09	17	.49	98	.25	2.9	.34	.17	.06	3.7
16	.00	188	.08	11	.46	47	.19	1.0	.54	.17	.01	3.4
17	.00	365	.05	29	.42	17	1.9	.71	.20	.17	.25	2.9
18	.00	1060	.05	170	.40	6.2	.51	.56	.37	.17	.17	2.5
19	1.7	1590	.03	522	.39	2.7	.25	.47	.27	.17	.18	2.1
20	4.8	356	.03	121	.38	1.3	1.9	.44	.19	.17	.06	2.2
21	1.9	75	.02	34	.40	.82	4.1	.45	.17	.21	.00	2.2
22	2.2	28	.02	15	.42	.54	4.0	2.2	.17	.24	.00	2.0
23	16	13	.02	7.7	.45	.40	3.9	.71	.17	.22	.00	2.1
24	5.4	1050	8.5	4.5	.47	1.9	1.8	1.3	.22	.16	.00	7.6
25	2.5	417	304	2.8	.45	6.6	.52	.47	.19	.12	.00	4.4
26	1.3	76	167	2.0	.47	1.4	.26	1.7	.17	.11	.00	2.2
27	.27	27	259	1.5	.47	.73	2.4	5.2	1.6	.10	.00	1.4
28	.06	12	86	1.2	.48	1.1	.67	1.1	.72	.10	.00	1.2
29	.00	36	32	9.2	---	2.9	.27	.97	.25	2.2	1.1	1.1
30	.00	34	14	24	---	1.4	.16	.75	.17	3.0	50	1.0
31	.00	---	7.5	11	---	.74	---	1.7	---	1.5	2160	---
TOTAL	36.13	5910.55	901.25	1658.22	21.80	225.06	26.18	728.89	12.83	19.24	2218.64	8658.8
MEAN	1.17	197	29.1	53.5	.78	7.26	.87	23.5	.43	.62	71.6	289
MAX	16	1590	304	522	4.3	98	4.1	287	1.7	3.3	2160	2720
MIN	.00	.00	.02	.65	.38	.40	.16	.15	.17	.10	.00	1.0
AC-FT	72	11720	1790	3290	43	446	52	1450	25	38	4400	17170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	105	98.8	24.4	49.6	25.4	84.0	79.1	51.9	14.4	3.58	32.5	150
MAX	371	235	61.6	161	63.3	310	374	131	39.7	7.10	83.5	368
(WY)	1998	1999	1997	1997	1997	1997	1997	1997	2000	1999	1998	1998
MIN	.21	.063	.073	.11	.54	7.26	.87	2.32	.43	.62	.26	.000
(WY)	2000	2000	2000	2000	1999	2001	2001	1998	2001	2001	2000	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1997 - 2001	
ANNUAL TOTAL	11606.85		20417.59			
ANNUAL MEAN	31.7		55.9		59.8	
HIGHEST ANNUAL MEAN					104	1997
LOWEST ANNUAL MEAN					13.0	2000
HIGHEST DAILY MEAN	1590	Nov 19	2720	Sep 1	3640	Sep 11 1998
LOWEST DAILY MEAN	.00	Jul 14	.00	Oct 1	.00	Jul 14 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 14	.00	Oct 1	.00	Jul 14 2000
MAXIMUM PEAK FLOW			3120	Aug 31	4100	Sep 11 1998
MAXIMUM PEAK STAGE			21.90	Aug 31	22.16	Sep 11 1998
ANNUAL RUNOFF (AC-FT)	23020		40500		43340	
10 PERCENT EXCEEDS	33		42		51	
50 PERCENT EXCEEDS	.17		.74		1.8	
90 PERCENT EXCEEDS	.00		.00		.07	

08164504 East Mustang Creek near Louise, TX--Continued



08164504 East Mustang Creek nr Louise, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Apr. 1996 to current year
PESTICIDE DATA: Apr. 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)
MAY													
23...	1210	.72	5.6	66.3	7.7	299	24.0	<.04	<.11	<.10	.003	<.76	<.004
23...	1210	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ACIFL- UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)
MAY													
23...	<.05	.483	<.89	<.23	<.21	<.005	2.33	<.010	<.04	<.09	<.07	<.002	<.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO- BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
MAY													
23...	<.041	<.28	<.020	<.13	<.005	<.42	<.018	<.07	<.003	E.247	<.005	<.04	<.44
23...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)
MAY													
23...	<.05	<.005	<.09	<.021	.24	<.25	<.002	<.009	<.005	<.20	<2.70	<.003	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
MAY													
23...	E.25	<.035	<.027	<.08	<.13	<.07	<.02	<.050	<.006	8.81	<.006	7.20	<.007
23...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
MAY													
23...	<.02	<.04	<.31	<4.72	<.003	<.007	<.002	<.010	<.006	<.011	<.09	<.015	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164504 East Mustang Creek nr Louise, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS- SOLVED (UG/L) (39762)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)
MAY													
23...	<.010	<.011	<.023	<10.2	<.12	<.18	<.011	E.010	<.034	<.017	2.11	<.002	<.31
23...	--	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39571)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)
MAY							
23...	<.009	--	--	--	--	--	--
23...	--	<.2	<.2	<.2	<.2	<.2	<.2

08164525 Lake Texana near Edna, TX

LOCATION.--Lat 28°53’30", long 96°34’39", Jackson County, Hydrologic Unit 12100102, on river outlet works structure on upstream side of Palmetto Bend Dam on the Navidad River, 4.0 mi north of Lolita, 4.9 mi upstream from confluence with Lavaca River, and 7.2 mi southeast of Edna.

DRAINAGE AREA.--1,370 mi^2.

WATER-CONTENT RECORDS

PERIOD OF RECORD.--July 1999 to current year.

REVISED RECORDS.--WSP 1923: 1953(M), Drainage area.

GAGE.--Water-stage recorder. Datum of the gage is sea level. Satellite telemeter at station.

REMARKS.--No estimated daily contents. Records good. The lake is formed by a rolled earthfill dam 1.3 mi long, a concrete spillway 464 ft wide, and 6.6 mi of earthen dikes. The dam was completed and storage began May 1980. The spillway has twelve 35 ft wide by 22.5 ft high radial gates to discharge flood flows to the river channel downstream. Dual level municipal and industrial outlet works structures are located on each side of the spillway. These concrete structures provide for access to a conduit through the dam and for connecting a water delivery system. The river outlet works, a concrete structure with multi-level intake gates, discharge into the Navidad River through an 8 ft by 10 ft downstream conduit. The dam is owned by the Lavaco-Navidad River Authority. The primary purpose of Lake Texana is to provide dependable municipal and industrial water supply of 75,000 acre-ft annually, and to provide recreational, fish and wildlife facilities for the public. The lake is not designed to store floods; therefore, flooding both downstream and upstream remains approximately the same as conditions were before construction. Conservation pool storage is 153,137 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam..	55.0
Top of gate...	45.3
Crest of spillways (tainter gates sill)..............................	23.0

COOPERATION.--Capacity table computed Apr. 1, 1992, by Bureau of Reclamation was provided by Lavaca-Navidad River Authority. Basic data for the table was obtained in the Lake Texana sediment resurvey completed in June 1991, by personnel from Bureau of Reclamation and from Lavaca-Navidad River Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 162,300 acre-ft Sept. 24, 2001, elevation, 44.66 ft; minimum contents, 105,200 acre-ft Feb. 22, 2000, elevation, 38.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 162,300 acre-ft, Sept. 24, elevation, 44.66 ft; minimum contents, 117,400 acre-ft, Oct. 8, elevation, 39.85 ft.

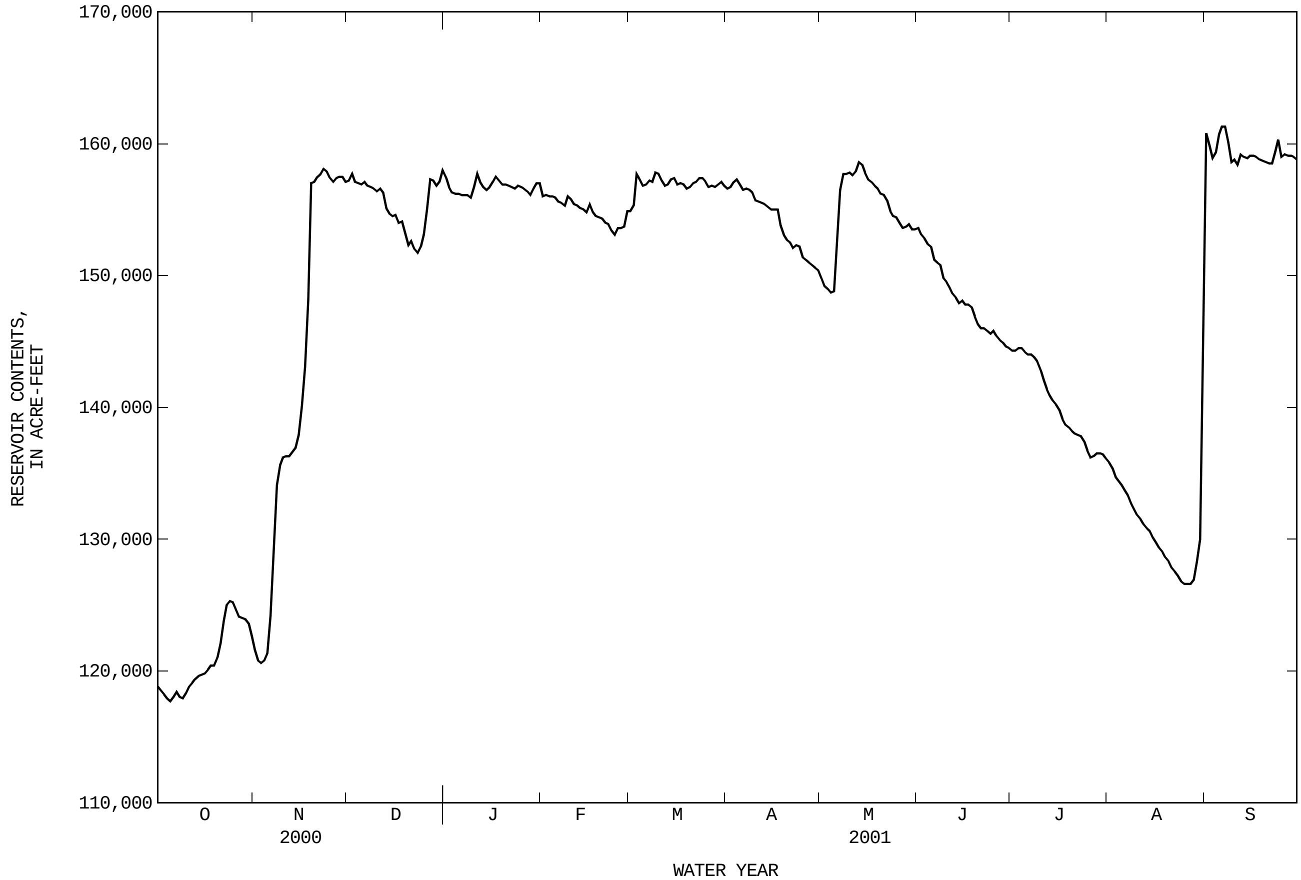
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118800	121600	157200	157500	156000	154900	156600	149800	153600	144300	135800	160800
2	118500	120800	157700	156700	156100	155300	156700	149200	153100	144300	135400	159900
3	118200	120600	157100	156300	156000	157700	157100	149000	152800	144500	134700	158900
4	117900	120800	157000	156200	156000	157300	157300	148700	152400	144500	134400	159300
5	117700	121300	156900	156200	155900	156800	156900	148800	152200	144200	134100	160700
6	118000	124200	157100	156100	155600	156900	156500	152900	151200	144000	133700	161300
7	118400	129300	156800	156100	155500	157200	156600	156500	151000	144000	133300	161300
8	118000	134100	156700	156100	155300	157100	156500	157700	150800	143800	132700	160100
9	117900	135600	156600	155900	156000	157800	156300	157700	149800	143500	132200	158600
10	118300	136200	156400	156700	155800	157700	155700	157800	149500	142900	131800	158800
11	118800	136300	156600	157700	155400	157200	155600	157600	149100	142100	131500	158400
12	119100	136300	156300	157100	155300	156800	155500	157900	148600	141400	131100	159200
13	119400	136600	155100	156700	155100	156900	155400	158600	148300	140900	130800	159000
14	119600	136900	154700	156500	155000	157300	155200	158400	147900	140500	130600	158900
15	119700	137900	154500	156700	154800	157400	155000	157800	148100	140200	130100	159100
16	119800	140100	154600	157100	155400	156900	155000	157300	147800	139800	129700	159100
17	120100	143100	154000	157500	154800	157000	155000	157100	147800	139100	129300	159000
18	120400	148200	154100	157200	154500	156900	153800	156800	147600	138700	129000	158800
19	120400	157000	153200	156900	154400	156600	153100	156600	146900	138500	128600	158700
20	121000	157100	152300	156900	154300	156700	152700	156200	146300	138200	128300	158600
21	122100	157500	152600	156800	154000	157000	152500	156100	146000	138000	127800	158500
22	123800	157700	152000	156700	153900	157100	152100	155700	146000	137900	127500	158500
23	125000	158100	151700	156600	153400	157400	152300	154900	145800	137800	127200	159400
24	125300	157900	152200	156800	153100	157400	152200	154500	145600	137400	126800	160300
25	125200	157400	153100	156700	153600	157100	151400	154400	145800	136700	126600	159000
26	124600	157100	155000	156600	153600	156700	151200	154000	145400	136200	126600	159200
27	124100	157400	157300	156400	153700	156800	151000	153600	145100	136300	126600	159100
28	124000	157500	157200	156100	154900	156700	150800	153700	144900	136500	126900	159100
29	123900	157500	156800	156600	---	156900	150600	153900	144600	136500	128300	159000
30	123600	157100	157100	157000	---	157100	150400	153500	144500	136400	130000	158800
31	122600	---	158000	157000	---	156800	---	153500	---	136100	149600	---
MEAN	120800	142300	155400	156700	154900	156900	154200	154800	148300	140200	131000	159300
MAX	125300	158100	158000	157700	156100	157800	157300	158600	153600	144500	149600	161300
MIN	117700	120600	151700	155900	153100	154900	150400	148700	144500	136100	126600	158400
(+)	40.47	44.16	44.24	44.14	43.93	44.13	43.48	43.80	42.88	41.99	43.38	44.32
(@)	+3500	+34500	+900	-1000	-2100	+1900	-6400	+3100	-9000	-8400	+13500	+9200

CAL YR 2000 MAX 158400 MIN 105800 (@) +44100
WTR YR 2001 MAX 161300 MIN 117700 (@) +39700

(+) Elevation, in feet, at end of month.
(@) Change in contents, in acre-feet.

08164525 Lake Texana near Edna, TX--Continued



08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jan. 1988 to current year.
BIOCHEMICAL DATA: Jan. 1988 to Sept. 1993.
PESTICIDE DATA: May 1994 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285331096343501 -- Lk Texana Site AC

DATE	TIME	RESERVOIR STORAGE (AC-FT) (00054)	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
JAN													
31...	0813	158000	1.00	165	7.8	12.0	.15	7.6	70	58	9	18.3	2.86
31...	0815	--	10.0	165	7.8	12.0	--	7.8	72	--	--	--	--
31...	0817	--	20.0	165	7.8	12.0	--	7.3	67	--	--	--	--
31...	0819	--	30.0	165	7.8	12.0	--	7.3	67	--	--	--	--
31...	0821	--	40.0	165	7.7	12.0	--	6.6	61	--	--	--	--
31...	0823	--	50.0	166	7.7	12.0	--	7.0	65	--	--	--	--
31...	0825	--	66.0	169	7.7	10.5	--	9.3	83	58	7	18.6	2.88
JUN													
13...	0815	148000	1.00	191	7.9	27.5	.24	6.8	86	69	7	23.3	2.72
13...	0817	--	10.0	192	7.9	27.5	--	6.8	86	--	--	--	--
13...	0819	--	20.0	192	7.9	27.5	--	6.8	86	--	--	--	--
13...	0821	--	30.0	192	7.8	27.5	--	6.7	85	--	--	--	--
13...	0823	--	40.0	192	7.7	27.0	--	6.1	77	--	--	--	--
13...	0825	--	50.0	191	7.5	26.5	--	4.9	61	--	--	--	--
13...	0827	--	60.0	190	7.3	25.0	--	3.4	41	71	7	23.6	2.77
AUG													
21...	0815	128000	1.00	217	8.1	30.0	.15	8.6	113	79	--	26.6	3.07
21...	0817	--	10.0	217	8.1	30.0	--	8.9	117	--	--	--	--
21...	0819	--	20.0	215	7.8	29.0	--	7.8	101	--	--	--	--
21...	0821	--	30.0	215	7.7	29.0	--	7.2	93	--	--	--	--
21...	0823	--	40.0	215	7.6	28.5	--	6.7	86	--	--	--	--
21...	0825	--	50.0	210	7.2	27.5	--	1.9	24	--	--	--	--
21...	0827	--	60.0	215	7.1	25.5	--	.1	1	--	--	--	--
21...	0829	--	64.0	220	7.1	25.5	--	.3	4	81	--	27.4	3.13

285331096343501 -- Lk Texana Site AC

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (MG/L) (00556)
JAN													
31...	9.7	.6	25	3.67	.0	60	49	6.1	13.2	E.1	11.1	94	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	9.8	.6	25	3.69	--	62	51	6.1	12.9	E.1	11.3	96	--
JUN													
13...	10.6	.6	24	3.72	.0	76	63	6.8	14.0	.2	9.8	109	3
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	10.3	.5	23	3.58	.0	78	64	6.8	13.5	.2	11.0	110	--
AUG													
21...	11.6	.6	23	3.62	--	--	--	7.7	15.0	.2	11.2	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	10.2	.5	20	3.54	--	--	--	5.3	13.6	.2	15.5	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285331096343501 -- Lk Texana Site AC

DATE	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTIMONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)
JAN													
31...	1	.10	2.1	67.2	<.06	<.04	<.8	.08	2.7	20	.08	E2.4	1.5
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	<1	.10	E1.6	67.0	<.06	E.02	<.8	.11	2.7	20	E.07	E2.5	11.7
JUN													
13...	1	.11	E1.7	82.9	<.06	<.04	<.8	.07	2.2	M	<.08	<4.0	.2
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	<1	.09	E1.5	85.2	<.06	<.04	<.8	.06	2.8	10	<.08	E2.1	2.2
AUG													
21...	2	.12	2.3	88.6	<.06	<.04	<.8	.06	2.1	<10	<.08	E2.5	.9
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	<1	.09	13.8	112	<.06	<.04	<.8	1.82	1.7	1130	<.08	<4.0	1540

285331096343501 -- Lk Texana Site AC

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
JAN									
31...	<.23	.5	.83	<2.4	<1.0	69.3	<8.0	2	.16
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
31...	<.23	.5	.85	<2.4	<1.0	69.8	<8.0	3	.15
JUN									
13...	<.01	.6	.79	<2.0	<1.0	80.8	<8.0	1	.21
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	<.01	.6	.92	<2.0	<1.0	81.3	<8.0	4	.14
AUG									
21...	<.01	.7	.64	<2.0	<1.0	89.7	E4.5	1	.13
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	<.01	.6	1.63	<2.0	<1.0	91.2	<8.0	11	.07

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285326096342101 -- Lk Texana Site AL

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
JAN							
31...	0907	1.00	165	7.8	12.5	8.5	79
31...	0909	10.0	165	7.8	12.5	8.5	79
31...	0911	20.0	165	7.9	12.5	8.6	80
31...	0913	30.0	165	7.8	12.5	8.7	81
31...	0915	36.0	165	7.8	12.5	8.5	79
JUN							
13...	0900	1.00	191	7.9	27.5	6.9	88
13...	0902	10.0	192	7.9	27.5	6.8	86
13...	0904	20.0	192	7.9	27.0	6.8	86
13...	0906	30.0	192	7.8	27.0	6.7	84
13...	0908	35.0	192	7.8	27.0	6.5	82
AUG							
21...	0850	1.00	217	8.0	29.5	8.8	115
21...	0852	10.0	217	8.0	29.5	8.7	114
21...	0854	20.0	217	8.0	29.5	8.7	114
21...	0856	34.0	217	7.8	29.0	8.1	105

285534096322301 -- Lk Texana Site BC

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
JAN							
31...	0934	1.00	153	7.7	12.5	8.7	81
31...	0936	10.0	153	7.7	12.5	8.8	82
31...	0938	20.0	153	7.7	12.5	8.9	83
31...	0940	30.0	153	7.7	12.5	8.9	83
31...	0942	40.0	154	7.7	12.5	9.1	85
JUN							
13...	0922	1.00	194	7.9	28.5	6.9	89
13...	0924	10.0	194	7.9	28.5	6.8	88
13...	0925	20.0	196	7.7	28.0	6.2	80
13...	0927	30.0	196	7.7	28.0	5.9	76
13...	0929	37.0	196	7.7	28.0	6.0	77
AUG							
21...	0911	1.00	225	8.0	30.0	8.3	109
21...	0913	10.0	225	8.0	30.0	8.2	108
21...	0915	20.0	224	8.0	30.0	8.2	108
21...	0917	30.0	224	7.8	30.0	7.6	100
21...	0919	36.0	223	7.8	29.5	7.5	98

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285816096320201 -- Lk Texana Site CC

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	2,4,5-T DISSOLVED (UG/L) (39742)	2,4-D, DISSOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	SILVEX, DISSOLVED (UG/L) (39762)
JAN													
31...	1020	1.00	130	7.4	13.0	.15	8.6	81	--	--	--	--	--
JAN													
31-31	1020	--	--	--	--	--	--	--	<.04	<.11	<.12	<.002	<.03
31...	1022	10.0	130	7.4	13.0	--	8.7	82	--	--	--	--	--
31...	1024	20.0	131	7.4	13.0	--	8.9	84	--	--	--	--	--
31...	1026	30.0	131	7.4	13.0	--	9.1	85	--	--	--	--	--
31...	1028	37.0	133	7.4	13.0	--	10.0	94	--	--	--	--	--
JUN													
13...	0950	1.00	198	7.8	28.5	.21	6.8	88	--	--	--	--	--
JUN													
13-13	0950	--	--	--	--	--	--	--	<.04	<.11	<.10	<.002	<.04
13...	0952	10.0	198	7.8	28.5	--	6.6	85	--	--	--	--	--
13...	0954	20.0	199	7.8	28.5	--	6.3	82	--	--	--	--	--
13...	0956	30.0	203	7.4	28.0	--	4.9	63	--	--	--	--	--
13...	0958	35.0	203	7.4	28.0	--	5.0	64	--	--	--	--	--
13...	0958	35.0	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	0929	1.00	265	8.1	30.0	.30	8.4	111	--	--	--	--	--
AUG													
21-21	0929	--	--	--	--	--	--	--	<.04	<.11	<.10	<.002	<.03
21...	0931	10.0	263	8.1	30.0	--	8.2	108	--	--	--	--	--
21...	0933	20.0	263	8.0	30.0	--	8.0	105	--	--	--	--	--
21...	0935	30.0	263	8.0	30.0	--	8.1	107	--	--	--	--	--
21...	0937	35.0	263	8.0	30.0	--	7.9	104	--	--	--	--	--

285816096320201 -- Lk Texana Site CC

DATE	3HYDRXY CARBOFURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFLUORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDICARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDICARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICARB SULFOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALPHA BHC DISSOLVED (UG/L) (34253)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.39	<.25	<.004	<.05	<.002	<.22	<.20	<.28	<.005	.291	<.050	<.010	<.04
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.11	<.25	.077	<.23	.270	<.21	<.20	<.02	<.005	.733	<.050	<.010	.04
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.11	<.25	.020	<.05	.068	<.21	<.20	<.02	<.005	.515	<.050	<.010	<.04
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285816096320201 -- Lk Texana Site CC

DATE	BROMACIL, WATER, DISS, REC (UG/L) (04029)	BROMOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CARBARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)	CHLOROTHALONIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYRALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.09	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42	<.018
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.17	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42	<.018
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	<.4	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.16	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42	<.018
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

285816096320201 -- Lk Texana Site CC

DATE	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIAZINON, DISSOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOBENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DIELDRIN DISSOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.07	<.003	E.010	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	<.06	<.002
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.07	<.003	E.043	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	.09	<.002
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	<.4	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.07	<.003	E.036	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	E.01	<.002
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285816096320201 -- Lk Texana Site CC

DATE	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.009	--	<.005	<.18	<.18	<.003	<.004	<.02	<.035	--	<.027	<.08	<.13
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.009	--	<.005	<.10	.12	<.003	<.004	<.02	<.035	--	<.027	<.08	<.13
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	<.4	--	--	--	--	--	--	--	<.4	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.009	--	<.005	<.07	.08	<.003	<.004	<.02	<.035	--	<.027	<.08	<.13
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

285816096320201 -- Lk Texana Site CC

DATE	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	PARA-THION, DIS-SOLVED (UG/L) (39542)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.07	<1.68	.041	<.006	<.002	<.007	<.02	<.04	<.49	<.02	<.003	--	<.007
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.07	<.02	.543	<.006	.167	<.007	<.12	<.04	<.28	<19.5	<.003	--	<.007
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	<.4	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.07	<2.63	.222	<.006	.002	<.007	<.26	<.04	<.28	<14.5	<.003	--	<.007
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285816096320201 -- Lk Texana Site CC

DATE	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<.11	<.12	<.004
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<3.20	<.12	<.004
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	<.4	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<2.76	<.12	<.004
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

285816096320201 -- Lk Texana Site CC

DATE	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
JAN								
31...	--	--	--	--	--	--	--	--
JAN								
31-31	<.011	<.016	<.034	<.017	<.005	<.002	<.07	<.009
31...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
JUN								
13...	--	--	--	--	--	--	--	--
JUN								
13-13	.045	.017	<.034	<.017	.086	<.002	<.07	<.009
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
AUG								
21...	--	--	--	--	--	--	--	--
AUG								
21-21	.045	E.015	<.034	<.017	<.005	<.002	<.07	<.009
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

290042096331401 -- Lk Texana Site DC

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L) (00556)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JAN													
31...	1104	1.00	194	7.6	14.5	.18	8.3	81	--	--	--	--	--
JAN													
31-31	1104	--	--	--	--	--	--	--	--	<.04	<.11	<.12	<.002
31...	1106	10.0	188	7.6	14.5	--	8.4	82	--	--	--	--	--
31...	1108	22.0	205	7.6	14.0	--	8.4	81	--	--	--	--	--
JUN													
13...	1110	1.00	234	7.7	30.0	--	6.4	85	<1	--	--	--	--
JUN													
13-13	1110	--	--	--	--	--	--	--	--	<.04	<.11	<.10	<.002
13...	1112	10.0	235	7.7	29.5	--	6.3	83	--	--	--	--	--
13...	1114	18.0	235	7.6	29.5	--	6.0	79	--	--	--	--	--
13...	1114	18.0	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	1011	1.00	369	8.0	30.0	.37	7.5	99	--	--	--	--	--
AUG													
21-21	1011	--	--	--	--	--	--	--	--	<.04	<.11	<.10	<.002
21...	1013	10.0	354	7.9	30.0	--	6.7	88	--	--	--	--	--
21...	1015	18.0	356	7.8	30.0	--	6.2	82	--	--	--	--	--

290042096331401 -- Lk Texana Site DC

DATE	SILVEX, DIS- SOLVED (UG/L) (39762)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL- UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.03	<.28	<.25	<.004	<.05	<.002	<.21	<.20	<.02	<.005	.072	<.050	<.010
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.03	<.11	<.25	.030	<.05	.117	<.21	<.20	<.02	<.005	.415	<.050	<.010
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.03	<.11	<.25	<.004	<.05	.028	<.21	<.20	<.02	<.005	.365	<.050	<.010
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

290042096331401 -- Lk Texana Site DC

DATE	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR- BARYL WATER 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER 0.7 U GF, REC (UG/L) (82674)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.04	<.09	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	.05	<.24	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	<.2	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.04	<.09	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.50
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

290042096331401 -- Lk Texana Site DC

DATE	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIAZINON, DISSOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOBENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLORPROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DIELDRIN DISSOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.018	<.07	<.003	<.006	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	<.06
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.018	<.07	<.003	E.024	--	<.005	<.04	<.05	<.05	<.005	<.12	<.021	.15
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	<.2	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.018	<.40	<.003	E.033	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	E.01
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

290042096331401 -- Lk Texana Site DC

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FENURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUOMETURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	MALATHION, DISSOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.002	<.009	--	<.005	<.11	<.06	<.003	<.004	<.02	<.035	--	<.027	<.08
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.002	<.009	--	<.005	<.07	.14	<.003	<.004	<.02	<.035	--	<.027	<.08
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	<.2	--	--	--	--	--	--	--	<.2	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.002	<.009	--	<.005	<.07	E.04	<.003	<.004	<.02	<.035	--	<.027	<.08
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

290042096331401 -- Lk Texana Site DC

DATE	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIOCARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METHOMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEBURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLURAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORYZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.13	<.07	<1.50	<.013	<.006	<.002	<.007	<.02	<.04	<.55	<.02	<.003	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.22	<.07	<.02	.283	<.006	.686	<.007	<.02	<.04	<.28	<.02	<.003	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	<.2
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.13	<.07	<.27	.135	<.006	<.002	<.007	<.02	<.04	<.28	<.07	<.003	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

290042096331401 -- Lk Texana Site DC

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.007	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<.09	<.12
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.007	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<1.80	<.12
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	<.2	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.007	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<1.13	<.12
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

290042096331401 -- Lk Texana Site DC

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
JAN									
31...	--	--	--	--	--	--	--	--	--
JAN									
31-31	<.004	<.011	<.016	<.034	<.017	<.005	<.002	<.07	<.009
31...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
JUN									
13...	--	--	--	--	--	--	--	--	--
JUN									
13-13	<.004	.050	E.013	<.034	<.017	.055	<.002	<.07	<.009
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
AUG									
21...	--	--	--	--	--	--	--	--	--
AUG									
21-21	<.004	.034	E.019	<.034	<.017	<.005	<.002	<.07	<.009
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285940096312101 -- Lk Texana Site EC

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	2,4,5-T DISSOLVED (UG/L) (39742)	2,4-D, DISSOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	SILVEX, DISSOLVED (UG/L) (39762)
JAN													
31...	1044	1.00	110	7.2	13.5	.15	8.3	79	--	--	--	--	--
JAN													
31-31	1044	--	--	--	--	--	--	--	<.04	<.11	<.10	<.002	<.03
31...	1046	10.0	110	7.2	13.5	--	8.3	79	--	--	--	--	--
31...	1048	20.0	109	7.1	13.5	--	8.1	77	--	--	--	--	--
31...	1050	28.0	103	7.0	13.0	--	8.4	79	--	--	--	--	--
JUN													
13...	1030	1.00	199	7.7	30.0	.21	6.5	86	--	--	--	--	--
JUN													
13-13	1030	--	--	--	--	--	--	--	<.04	<.11	<.10	<.002	<.03
13...	1032	10.0	200	7.4	29.5	--	5.5	72	--	--	--	--	--
13...	1034	20.0	199	7.1	28.0	--	3.6	46	--	--	--	--	--
13...	1036	26.0	200	7.1	28.0	--	3.3	42	--	--	--	--	--
13...	1036	26.0	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	0950	1.00	362	7.8	30.5	.37	7.3	97	--	--	--	--	--
AUG													
21-21	0950	--	--	--	--	--	--	--	<.04	.74	<.10	M	<.03
21...	0952	10.0	399	7.6	30.0	--	6.0	79	--	--	--	--	--
21...	0954	23.0	411	7.5	30.0	--	5.1	67	--	--	--	--	--

285940096312101 -- Lk Texana Site EC

DATE	3HYDRXY CARBOFURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFLUORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDICARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDICARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICARB SULFOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALPHA BHC DISSOLVED (UG/L) (34253)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.34	<.25	<.004	<.05	<.002	<.21	<.20	<.02	<.005	.190	<.050	<.010	<.04
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.11	<.25	.112	<.07	.444	<.21	<.20	<.04	<.005	1.03	<.050	<.010	.09
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.11	<.25	.011	<.05	.032	<.21	<.20	<.02	<.005	.401	<.050	<.010	<.04
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285940096312101 -- Lk Texana Site EC

DATE	BROMACIL, WATER, DISS, REC (UG/L) (04029)	BROMOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CARBARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)	CHLOROTHALONIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYRALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.09	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42	<.018
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.18	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42	<.018
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	<.4	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.14	<.07	<.002	<.02	<.041	<.29	<.020	--	<.13	<.005	<.006	<.42	<.018
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

285940096312101 -- Lk Texana Site EC

DATE	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIAZINON, DISSOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOBENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLORPROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DIELDRIN DISSOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.07	<.003	E.014	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	<.05	<.002
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.07	<.003	E.100	--	<.005	<.04	<.08	<.05	<.005	<.13	<.021	.08	<.002
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	<.4	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.38	<.003	E.038	--	<.005	<.04	<.05	<.05	<.005	<.09	<.021	M	<.002
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285940096312101 -- Lk Texana Site EC

DATE	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39399)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39531)	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.009	--	<.005	<.32	<.06	<.003	<.004	<.02	<.035	--	<.027	<.08	<.13
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.009	--	<.005	<.07	.34	<.003	<.004	<.02	<.035	--	<.027	<.08	<.13
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	<.4	--	--	--	--	--	--	--	<.4	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.009	--	<.005	<.07	.07	<.003	<.004	<.02	<.035	--	<.027	<.08	<.13
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

285940096312101 -- Lk Texana Site EC

DATE	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	PARA- THION, DIS- SOLVED (UG/L) (39542)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	<.07	<.36	.093	<.006	<.002	<.007	<.02	<.04	<.53	<.17	<.003	--	<.007
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	<.07	<1.43	1.15	<.006	.424	<.007	<.03	<.04	<.33	<.10	<.003	--	<.007
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	<.4	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	<.07	<.50	.172	<.006	.006	<.007	<.02	<.04	<.28	<1.79	<.003	--	<.007
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

08164525 Lake Texana near Edna, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

285940096312101 -- Lk Texana Site EC

DATE	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
JAN													
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31-31	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<.66	<.12	<.004
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
13-13	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	<3.90	<.12	<.004
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	<.4	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
21-21	--	<.006	<.002	<.010	<.011	<.09	<.015	<.010	<.011	<.023	E1.71	<.12	<.004
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--

285940096312101 -- Lk Texana Site EC

DATE	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
JAN								
31...	--	--	--	--	--	--	--	--
JAN								
31-31	<.011	<.016	<.034	<.017	<.005	<.002	<.16	<.009
31...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
JUN								
13...	--	--	--	--	--	--	--	--
JUN								
13-13	.047	.017	<.034	<.017	.122	<.002	<.07	<.009
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
AUG								
21...	--	--	--	--	--	--	--	--
AUG								
21-21	.045	E.018	<.034	<.017	<.005	<.002	.24	<.009
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--

08164600 Garcitas Creek near Inez, TX

LOCATION.--Lat 28°53'28", long 96°49'08", Victoria County, Hydrologic Unit 12100402, at right downstream end of bridge on U.S. Highway 59 access road, 0.3 mi upstream from Southern Pacific Railroad bridge, 2.0 mi southwest of Inez, and 3.6 mi upstream from Casa Blanca Creek.

DRAINAGE AREA.--91.7 mi^2.

PERIOD OF RECORD.--June 1970 to current year.
Water-quality records.--Chemical data: Apr. 1965 to Aug. 1988. Biochemical data: Apr. 1965 to Aug. 1988. Pesticide data: July 1970 to July 1981.

REVISED RECORDS.--WDR TX-94-3: 1992-93.

GAGE.--Water-stage recorder. Datum of gage is 29.16 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. An undetermined amount of return water from irrigation enters the stream above this station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage during period 1903-70, 24.5 ft Oct. 26, 1960. In 1929, a flood nearly as high as the 1960 flood occurred, and a flood in Sept. 1967 reached a stage of 23.4 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

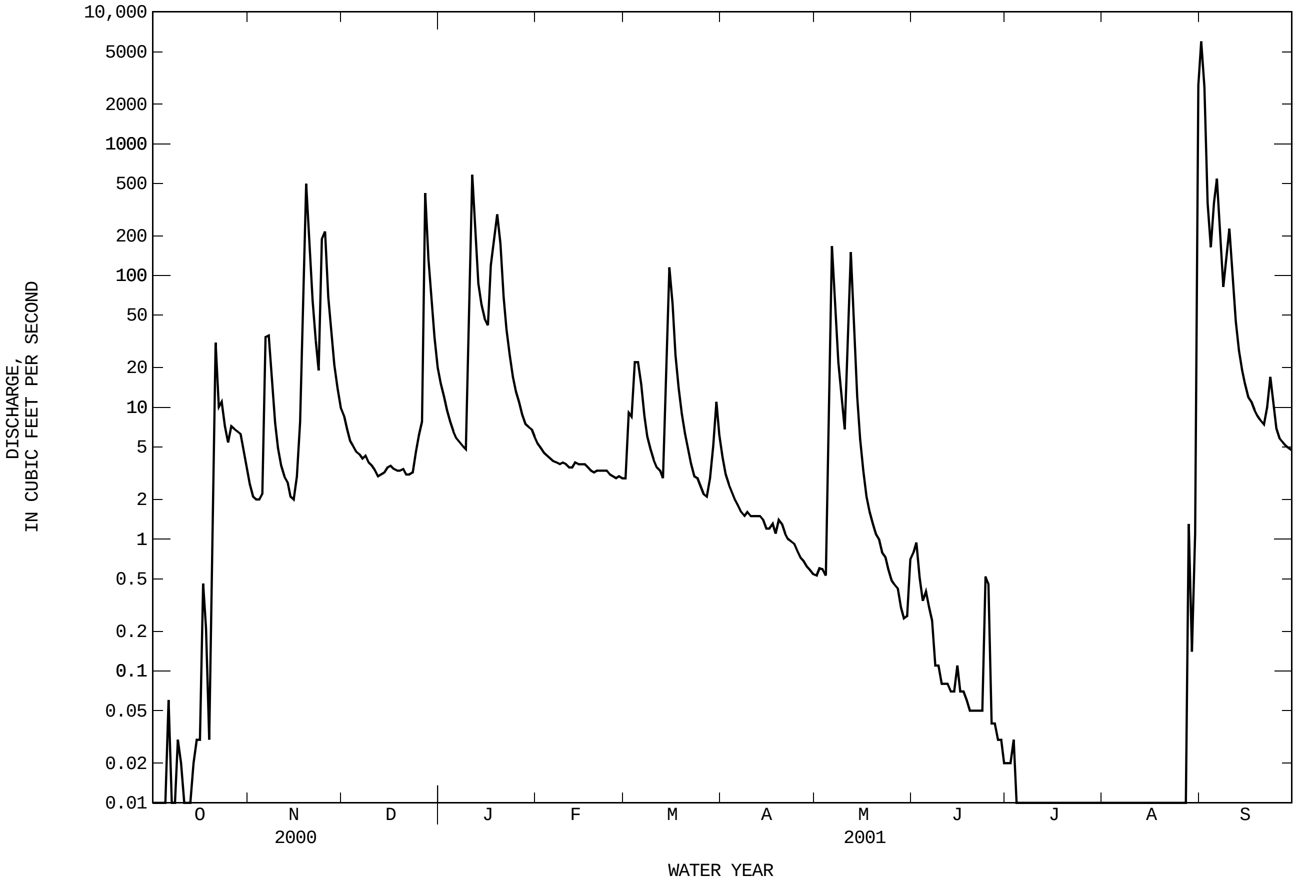
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.6	8.7	15	5.3	2.9	4.2	.53	.79	.02	.00	5960
2	.00	2.1	6.8	12	4.9	9.1	3.1	.60	.94	.02	.00	2680
3	.00	2.0	5.6	9.5	4.5	8.5	2.6	.59	.51	.03	.00	355
4	.00	2.0	5.1	7.8	4.3	22	2.3	.53	.34	.01	.00	164
5	.00	2.2	4.6	6.6	4.1	22	2.0	9.7	.40	.01	.00	359
6	.06	34	4.4	5.8	3.9	15	1.8	167	.30	.01	.00	542
7	.00	35	4.1	5.4	3.8	8.6	1.6	55	.24	.00	.00	222
8	.00	15	4.3	5.1	3.7	6.0	1.5	22	.11	.00	.00	82
9	.03	7.6	3.8	4.8	3.8	4.8	1.6	12	.11	.00	.00	136
10	.02	4.9	3.6	27	3.7	4.0	1.5	6.8	.08	.00	.00	227
11	.01	3.6	3.3	581	3.5	3.5	1.5	31	.08	.00	.00	97
12	.01	3.0	3.0	261	3.5	3.3	1.5	150	.08	.00	.00	45
13	.01	2.7	3.1	87	3.8	2.9	1.5	40	.07	.00	.00	27
14	.02	2.1	3.2	60	3.7	18	1.4	12	.07	.00	.00	19
15	.03	2.0	3.5	47	3.7	115	1.2	5.8	.11	.00	.00	15
16	.03	3.0	3.6	42	3.7	61	1.2	3.3	.07	.00	.00	12
17	.46	7.7	3.4	120	3.5	25	1.3	2.1	.07	.00	.00	11
18	.21	48	3.3	188	3.3	14	1.1	1.6	.06	.00	.00	9.5
19	.03	496	3.3	292	3.2	8.9	1.4	1.3	.05	.00	.00	8.6
20	.24	190	3.4	175	3.3	6.3	1.3	1.1	.05	.00	.00	7.9
21	31	65	3.1	69	3.3	4.7	1.1	1.0	.05	.00	.00	7.4
22	10	32	3.1	39	3.3	3.7	1.0	.79	.05	.00	.00	10
23	11	19	3.2	25	3.3	3.0	.96	.73	.05	.00	.00	17
24	7.2	188	4.6	17	3.1	2.9	.92	.59	.52	.00	.00	11
25	5.4	215	6.1	13	3.0	2.5	.81	.49	.46	.00	.00	6.9
26	7.2	69	7.8	11	2.9	2.2	.72	.45	.04	.00	.00	5.8
27	6.9	35	421	8.8	3.0	2.1	.68	.42	.04	.00	.00	5.4
28	6.6	21	134	7.5	2.9	2.9	.62	.30	.03	.00	1.3	5.1
29	6.3	14	61	7.1	---	5.1	.58	.25	.03	.00	.14	4.9
30	4.6	10	34	6.8	---	11	.54	.26	.02	.00	1.1	4.7
31	3.4	---	20	6.0	---	6.2	---	.70	---	.00	2780	---
TOTAL	100.76	1533.5	782.0	2162.2	102.0	407.1	43.53	528.93	5.82	0.10	2782.54	11057.2
MEAN	3.25	51.1	25.2	69.7	3.64	13.1	1.45	17.1	.19	.003	89.8	369
MAX	31	496	421	581	5.3	115	4.2	167	.94	.03	2780	5960
MIN	.00	2.0	3.0	4.8	2.9	2.1	.54	.25	.02	.00	.00	4.7
AC-FT	200	3040	1550	4290	202	807	86	1050	12	.2	5520	21930
CFSM	.04	.56	.28	.76	.04	.14	.02	.19	.00	.00	.98	4.02
IN.	.04	.62	.32	.88	.04	.17	.02	.21	.00	.00	1.13	4.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.2	44.3	36.1	41.1	49.5	43.2	79.8	108	113	19.7	9.16	84.0
MAX	695	541	263	220	558	578	658	503	745	218	89.8	789
(WY)	1995	1999	1977	1992	1992	1997	1991	1979	1981	1983	2001	1978
MIN	.000	.000	.006	.022	.14	.48	.25	.045	.000	.003	.056	.000
(WY)	1990	1990	1990	1990	1990	1996	1996	1996	1990	2001	1988	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1970 - 2001	
ANNUAL TOTAL	7780.25		19505.68			
ANNUAL MEAN	21.3		53.4		58.1	
HIGHEST ANNUAL MEAN					144	1992
LOWEST ANNUAL MEAN					2.65	1989
HIGHEST DAILY MEAN	815	Jun 11	5960	Sep 1	13100	Oct 19 1994
LOWEST DAILY MEAN	.00	Sep 4	.00	Oct 1	.00	May 22 1971
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 4	.00	Jul 7	.00	May 26 1971
MAXIMUM PEAK FLOW			7370	Sep 1	19700	Jun 12 1981
MAXIMUM PEAK STAGE			24.92	Sep 1	33.43	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	15430		38690		42090	
ANNUAL RUNOFF (CFSM)	.23		.58		.63	
ANNUAL RUNOFF (INCHES)	3.16		7.91		8.61	
10 PERCENT EXCEEDS	34		47		54	
50 PERCENT EXCEEDS	1.1		3.1		3.1	
90 PERCENT EXCEEDS	.01		.00		.19	

08164600 Garcitas Creek near Inez, TX--Continued



08164800 Placedo Creek near Placedo, TX

LOCATION.--Lat 28°43'30", long 96°46'07", Victoria County, Hydrologic Unit 12100402, on right bank at downstream end of bridge on Farm Road 616, 0.1 mi downstream from confluence of Lone Tree Creek and Arroyo Palo Alto, 1.2 mi upstream from Ninemile Creek, and 4.4 mi northeast of Placedo.

DRAINAGE AREA.--68.3 mi^2.

PERIOD OF RECORD.--June 1970 to current year.
Water-quality records.--Chemical data: Oct. 1968 to Sept. 1979. Biochemical data: Oct. 1968 to Sept. 1979. Pesticide data: Oct. 1968 to Sept. 1979.

GAGE.--Water-stage recorder. Datum of gage is 5.58 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1930, 31.9 ft in Sept. 1967 and 30.4 ft in 1960 (probably Oct.), from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

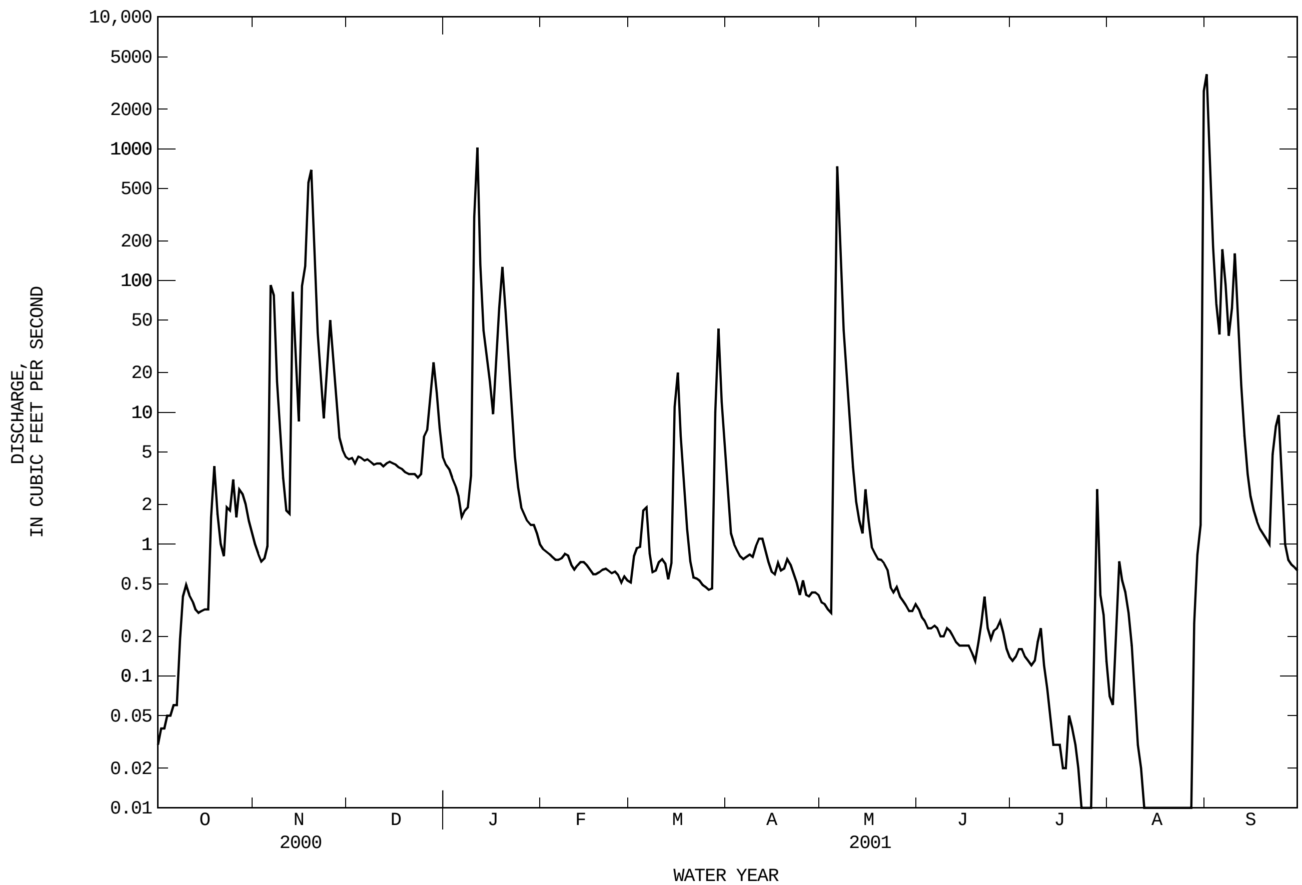
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	1.0	4.4	4.0	.92	.51	2.4	.36	.32	.13	.07	3680
2	.04	.85	4.5	3.7	.88	.81	1.2	.35	.28	.14	.06	830
3	.04	.74	4.1	3.2	.84	.93	1.0	.32	.26	.16	.20	180
4	.05	.78	4.6	2.8	.80	.95	.90	.30	.23	.16	.74	67
5	.05	.96	4.5	2.3	.76	1.8	.81	3.9	.23	.14	.53	39
6	.06	92	4.3	1.6	.76	1.9	.77	733	.24	.13	.43	172
7	.06	77	4.4	1.8	.78	.85	.80	167	.23	.12	.30	93
8	.19	17	4.2	1.9	.84	.61	.83	42	.20	.13	.17	38
9	.40	6.6	4.0	3.3	.82	.63	.80	17	.20	.18	.07	62
10	.49	3.2	4.1	303	.70	.73	.96	8.0	.23	.23	.03	160
11	.41	1.8	4.1	1020	.64	.77	1.1	3.9	.22	.12	.02	55
12	.37	1.7	3.9	132	.69	.71	1.1	2.1	.20	.08	.01	16
13	.32	82	4.1	42	.73	.54	.91	1.5	.18	.05	.01	6.7
14	.30	27	4.2	26	.73	.72	.73	1.2	.17	.03	.01	3.4
15	.31	8.5	4.1	17	.69	11	.62	2.6	.17	.03	.01	2.3
16	.32	91	4.0	9.7	.64	20	.59	1.5	.17	.03	.00	1.8
17	.32	129	3.8	22	.59	6.6	.72	.95	.17	.02	.00	1.5
18	1.6	553	3.7	62	.59	2.8	.63	.85	.15	.02	.00	1.3
19	3.9	689	3.5	127	.61	1.3	.65	.77	.13	.05	.00	1.2
20	1.7	134	3.4	58	.64	.74	.77	.76	.18	.04	.00	1.1
21	1.0	40	3.4	20	.65	.56	.70	.71	.25	.03	.00	1.0
22	.81	18	3.4	9.4	.63	.55	.60	.64	.40	.02	.00	4.8
23	1.9	9.0	3.2	4.6	.60	.53	.51	.47	.23	.01	.00	7.8
24	1.8	23	3.4	2.7	.62	.49	.41	.43	.19	.01	.00	9.5
25	3.1	50	6.5	1.9	.58	.47	.53	.47	.22	.01	.00	2.9
26	1.6	22	7.3	1.7	.51	.45	.41	.40	.23	.01	.00	1.0
27	2.6	11	13	1.5	.57	.46	.40	.37	.26	.31	.01	.76
28	2.4	6.4	24	1.4	.53	10	.43	.34	.21	2.6	.25	.70
29	2.0	5.2	14	1.4	---	43	.43	.31	.16	.41	.83	.67
30	1.5	4.6	7.6	1.2	---	12	.41	.31	.14	.29	1.4	.63
31	1.2	---	4.6	1.0	---	5.8	---	.35	---	.13	2740	---
TOTAL	30.87	2106.33	172.3	1890.1	19.34	129.21	23.12	993.16	6.45	5.82	2745.15	5441.06
MEAN	1.00	70.2	5.56	61.0	.69	4.17	.77	32.0	.21	.19	88.6	181
MAX	3.9	689	24	1020	.92	43	2.4	733	.40	2.6	2740	3680
MIN	.03	.74	3.2	1.0	.51	.45	.40	.30	.13	.01	.00	.63
AC-FT	61	4180	342	3750	38	256	46	1970	13	12	5450	10790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.8	70.1	41.2	41.7	52.5	45.0	59.6	90.8	85.3	56.0	14.3	112
MAX	291	593	389	262	455	516	541	354	510	559	107	913
(WY)	1998	1999	1992	1991	1992	1997	1991	1972	1973	1990	1972	1978
MIN	.004	.021	.015	.052	.002	.086	.019	.17	.000	.031	.012	.013
(WY)	1990	1989	1990	1990	1994	1989	1989	1996	1989	1989	1988	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1970 - 2001	
ANNUAL TOTAL	5082.13		13562.91			
ANNUAL MEAN	13.9		37.2		61.4	
HIGHEST ANNUAL MEAN					154	1992
LOWEST ANNUAL MEAN					1.20	1989
HIGHEST DAILY MEAN	689	Nov 19	3680	Sep 1	11400	Nov 1 1981
LOWEST DAILY MEAN	.01	Aug 20	.00	Aug 16	.00	Aug 12 1981
ANNUAL SEVEN-DAY MINIMUM	.01	Aug 29	.00	Aug 16	.00	Jul 27 1982
MAXIMUM PEAK FLOW			7930	Aug 31	18300	Oct 31 1981
MAXIMUM PEAK STAGE			27.51	Aug 31	31.62	Nov 13 1998
ANNUAL RUNOFF (AC-FT)	10080		26900		44460	
10 PERCENT EXCEEDS	22		23		45	
50 PERCENT EXCEEDS	.71		.78		1.5	
90 PERCENT EXCEEDS	.03		.05		.13	

08164800 Placedo Creek near Placedo, TX--Continued



Miscellaneous water quality - Barton Springs Hydrophobics

MULTIPLE STATION ANALYSES

STATION NUMBER	LOCAL IDENT-I-FIER	DATE	TIME	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
08155395	Upper Barton Springs at Au	05-08-01	1000	<.002	<.004	<.002	<.005	3.19	<.010	<.002
		05-10-01	1510	<.002	<.004	<.002	<.005	.541	<.010	<.002
		05-13-01	1935	<.002	<.004	<.002	<.005	.029	<.010	<.002
08155400	Barton Ck abv Barton Spgs	05-03-01	2315	<.002	<.004	<.002	<.005	.015	<.010	<.002
		05-06-01	2245	<.002	<.004	<.002	<.005	.583	<.010	<.002
		05-07-01	1700	<.002	<.004	<.002	<.005	.173	<.010	<.002
		05-07-01	1702	<.002	<.004	<.002	<.005	<.007	<.010	<.002
		05-08-01	1940	<.002	<.004	<.002	<.005	.068	<.010	<.002
		05-10-01	1505	<.002	<.004	<.002	<.005	.058	<.010	<.002
08155500	Barton Spgs at Austin, TX	05-03-01	2320	<.002	<.004	<.002	<.005	.017	<.010	<.002
		05-08-01	1950	<.002	<.004	<.002	<.005	.207	<.010	<.002
		05-10-01	1440	<.002	<.004	<.002	<.005	.104	<.010	<.002
		05-10-01	1442	<.002	<.004	<.002	<.005	.091	<.010	<.002
		05-13-01	1955	<.002	<.004	<.002	<.005	.028	<.010	<.002
301546097460201	Old Mill Spring at Austin,	05-03-01	2240	<.002	<.004	<.002	<.005	E.007	<.010	<.002
		05-07-01	1715	<.002	<.004	<.002	<.005	.017	<.010	<.002
		05-08-01	2005	<.002	<.004	<.002	<.005	.063	<.010	<.002
		05-13-01	2010	<.002	<.004	<.005	<.005	.023	<.010	<.002
301548097461602	Eliza Spg at Austin, TX	05-04-01	0005	<.002	<.004	<.002	<.005	.008	<.010	<.002
		05-07-01	1720	<.002	<.004	<.002	<.005	.028	<.010	<.002
		05-08-01	1930	<.002	<.004	<.002	<.005	.112	<.010	<.002
		05-08-01	1935	<.002	<.004	<.002	<.005	.110	<.010	<.002
		05-10-01	1450	<.002	<.004	<.002	<.005	.064	<.010	<.002
		05-13-01	1900	<.002	<.004	<.002	<.005	.026	<.010	<.002

STATION NUMBER	DATE	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
08155395	05-08-01	E.010	<.020	<.005	<.018	<.003	E.154	.143	<.005	<.021	<.002	<.009
	05-10-01	<.041	<.020	<.005	<.018	<.003	E.077	E.005	<.005	<.021	<.008	<.009
	05-13-01	<.041	<.020	<.005	<.018	<.003	E.010	<.005	<.005	<.021	<.005	<.009
08155400	05-03-01	<.041	<.020	<.005	<.018	<.003	E.005	<.005	<.005	<.021	<.002	<.009
	05-06-01	E.062	<.020	E.003	<.018	<.003	E.015	.104	<.005	<.021	<.002	<.009
	05-07-01	<.041	<.020	<.005	<.018	<.003	E.015	.055	<.005	<.021	<.002	<.009
	05-07-01	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.021	<.002	<.009
	05-08-01	<.041	<.020	<.005	<.018	<.003	E.010	.013	<.005	<.021	<.002	<.009
	05-10-01	<.041	<.020	<.005	<.018	<.003	E.012	E.002	<.005	<.021	<.002	<.009
08155500	05-03-01	<.041	<.020	<.005	<.018	<.003	E.011	<.005	<.005	<.021	<.002	<.009
	05-08-01	<.041	<.020	<.005	<.018	<.003	E.022	E.005	<.005	<.021	<.002	<.009
	05-10-01	<.041	<.020	<.005	<.018	<.003	E.018	<.005	<.005	<.021	<.002	<.009
	05-10-01	<.041	<.020	<.005	<.018	<.003	E.019	<.005	<.005	<.021	<.002	<.009
	05-13-01	<.041	<.020	<.005	<.018	<.003	E.011	<.005	<.005	<.021	<.005	<.009
301546097460201	05-03-01	<.041	<.020	<.005	<.018	<.003	E.004	<.005	<.005	<.021	<.002	<.009
	05-07-01	<.041	<.020	<.005	<.018	<.003	E.006	<.005	<.005	<.021	<.002	<.009
	05-08-01	<.041	<.020	<.005	<.018	<.003	E.011	<.005	<.005	<.021	<.002	<.009
	05-13-01	<.041	<.020	<.005	<.018	<.003	E.010	<.005	<.005	<.021	<.002	<.009
301548097461602	05-04-01	<.041	<.020	<.005	<.018	<.003	E.005	<.005	<.005	<.021	<.002	<.009
	05-07-01	<.041	<.020	<.005	<.018	<.003	E.007	<.005	<.005	<.021	<.002	<.009
	05-08-01	<.041	<.020	<.005	<.018	<.003	E.012	<.005	<.005	<.021	<.002	<.009
	05-08-01	<.041	<.020	<.005	<.018	<.003	E.015	<.005	<.005	<.021	<.002	<.009
	05-10-01	<.041	<.020	<.005	<.018	<.003	E.012	<.005	<.005	<.021	<.002	<.009
	05-13-01	<.041	<.020	<.005	<.018	<.003	E.010	E.002	<.005	<.021	<.013	<.009

Miscellaneous water quality - Barton Springs Hydrophobics--Continued

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, DISSOLVED (UG/L) (39532)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
08155395	05-08-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.004	<.006	<.002	<.007
	05-10-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-13-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
08155400	05-03-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-06-01	<.005	<.003	<.004	<.035	E.003	<.050	<.006	E.004	<.006	<.002	<.007
	05-07-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.003	<.006	<.002	<.007
	05-07-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-08-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-10-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
08155500	05-03-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-08-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-10-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-10-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-13-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
301546097460201	05-03-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-07-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-08-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-13-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
301548097461602	05-04-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-07-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-08-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-08-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-10-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007
	05-13-01	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007

STATION NUMBER	DATE	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PROMETON, WATER, DISS, REC (UG/L) (04037)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPACHLOR, WATER, DISS, REC (UG/L) (04024)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
08155395	05-08-01	<.003	<.007	<.002	<.010	<.006	<.011	E.004	<.004	<.010	<.011	<.023
	05-10-01	<.003	<.007	<.002	<.010	<.006	<.011	E.006	<.004	<.010	<.011	<.023
	05-13-01	<.010	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
08155400	05-03-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-06-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-07-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-07-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-08-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-10-01	<.003	<.007	<.002	<.010	<.006	<.011	E.002	<.004	<.010	<.011	<.023
08155500	05-03-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-08-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-10-01	<.004	<.007	<.002	<.010	<.006	<.011	E.002	<.004	<.010	<.011	<.023
	05-10-01	<.003	<.007	<.002	<.010	<.006	<.011	E.002	<.004	<.010	<.011	<.023
	05-13-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
301546097460201	05-03-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-07-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-08-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-13-01	<.007	<.007	<.002	<.010	<.006	<.011	E.002	<.004	<.010	<.011	<.023
301548097461602	05-04-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-07-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-08-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-08-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-10-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
	05-13-01	<.003	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023

Miscellaneous water quality - Barton Springs Hydrophobics--Continued

MULTIPLE STATION ANALYSES

STATION NUMBER	DATE	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
08155395	05-08-01	.027	<.016	<.034	<.017	<.005	<.002	<.009
	05-10-01	.014	<.016	<.034	<.017	<.005	<.002	<.009
	05-13-01	.016	<.016	<.034	<.017	<.005	<.002	<.009
08155400	05-03-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009
	05-06-01	E.009	<.016	<.034	<.017	<.005	<.002	<.009
	05-07-01	.268	<.016	<.034	<.017	<.005	<.002	<.009
	05-07-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009
	05-08-01	.043	<.016	<.034	<.017	<.005	<.002	<.009
	05-10-01	.030	<.016	<.034	<.017	<.005	<.002	<.009
08155500	05-03-01	E.011	<.016	<.034	<.017	<.005	<.002	<.009
	05-08-01	E.005	<.016	<.034	<.017	<.005	<.002	<.009
	05-10-01	E.008	<.016	<.034	<.017	<.005	<.002	<.009
	05-10-01	E.007	<.016	<.034	<.017	<.005	<.002	<.009
	05-13-01	E.004	<.016	<.034	<.017	<.005	<.002	<.009
301546097460201	05-03-01	E.005	<.016	<.034	<.017	<.005	<.002	<.009
	05-07-01	E.004	<.016	<.034	<.017	<.005	<.002	<.009
	05-08-01	E.006	<.016	<.034	<.017	<.005	<.002	<.009
	05-13-01	E.008	<.016	<.034	<.017	<.005	<.002	<.009
301548097461602	05-04-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009
	05-07-01	E.003	<.016	<.034	<.017	<.005	<.002	<.009
	05-08-01	E.005	<.016	<.034	<.017	<.005	<.002	<.009
	05-08-01	E.004	<.016	<.034	<.017	<.005	<.002	<.009
	05-10-01	E.007	<.016	<.034	<.017	<.005	<.002	<.009
	05-13-01	E.004	<.016	<.034	<.017	<.005	<.002	<.009

The U.S. Geological Survey collects limited streamflow data at sites other than continuous stream-gaging stations 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. 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 2001

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements: Date	Measurements: Discharge (ft^3/s)
		Colorado River Basin				
08129500	Dove Creek Spring near Knickerbocker, TX	Lat 31º11'06", long 100º43'51", Irion County, at headquarters ranch house, 500 ft upstream from Dove Creek, 1.8 mi upstream from Stilson Dam on Dove Creek and 8.5 mi southwest of Knickerbocker.	--	1944-58✞, 1959-2001	10-20-00 12-01-00 02-15-01 04-02-01 05-29-01 07-18-01 09-18-01	6.12 5.28 4.84 5.62 4.87 3.96 7.66
08143900	Springs at Fort McKavett, TX	Lat 30º50'03", long 100º05'37", Menard County, 0.9 mi northwest of Fort McKavett at low-water crossing on Ranch Road 864.	--	1902, 1905, 1922, 1942, 1948-49, 1951-52, 1955-56, 1958-2001	10-04-00 12-05-00 01-10-01 03-23-01 05-03-01 06-21-01	8.99 19.4 20.6 19.0 19.3 17.9
08146500	San Saba Springs at San Saba, TX	Lat 31º11'44", long 98º42'42", San Saba County, 150 ft upstream from bridge on U.S. Highway 190 at San Saba and 0.8 mi east of courthouse.	--	1939, 1952, 1957, 1959-2001	10-02-00 12-07-00 01-12-01 03-13-01 05-01-01 06-19-01 08-06-01	8.28 12.3 8.96 10.2 11.2 9.37 10.7
08149400	South Llano River near Telegraph, TX	Lat 30º15'43", long 99º56'01", Edwards County, 3.7 mi upstream from Paint Creek, 5.7 mi south of Telegraph, and 18.7 mi southwest of Junction.	508	1939, 1952, 1956, 1959-2001	10-04-00 12-04-00 01-10-01 03-23-01 05-03-01 06-20-01 08-07-01	24.6 61.6 47.6 40.6 35.7 29.1 30.0
08149500	Seven Hundred Springs near Telegraph, TX	Lat 30º16'12", long 99º55'22", Edwards County, about 3 mi upstream from Paint Creek, about 5 mi south of Telegraph, and about 18 mi southwest of Junction.	--	1939, 1952, 1955-56, 1959-2001	10-04-00 12-04-01 01-10-01 03-23-01 05-03-01 06-20-01 08-07-01	24.1 32.7 22.4 31.5 26.4 28.1 24.6

✞ Operated as a continuous-record station.

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 relation has been, or will be, defined by discharge measurements obtained by current meter or by indirect procedures. Water-stage recorders are located at these flood-hydrograph stations to facilitate complete hydrograph definition. At stations where only the maximum stage is given (discharge column is dashed), 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 occurring between inspection 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 2001

Station name and number	Location	Period of record	Water Year 2001 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
	Lavaca River Basin							
Lavaca River at Hallettsville, TX 08163500	Lat 29º26'35", long 96º56'41", Lavaca County, at downstream side of bridge on U.S. Highway 77 in Hallettsville. Drainage area is 108 mi^2.	1939-92✞ 1993-2001	03-15-01	16.45	--	08-31-81	a/ 41.1	i/ 99,500

✞ Operated as a continuous-record station.

a/ From floodmark.

i/ From indirect measurement of peak flow.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table:

Discharge measurements made at miscellaneous sites during water year 2001

Station number	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
Colorado River Basin						
Clear Creek near Menard, TX 08143950	San Saba River	Lat 30º54’13”, long 99º55’27”, Menard County, at bridge on U.S. Highway 190, about 9 mi west of Menard.	106	1984-2001	10-03-00	10.4
					01-10-01	16.5
					05-03-01	13.3
					08-08-01	10.9
Tanner Springs near Telegraph, TX 08149405	South Llano River	Lat 30º15’45”, long 99º56’03”, Edwards County, about 5.6 mi south of Telegraph, Kimble County, and 18.6 mi southwest of Junction at mouth.	--	1939, 1962, 1987-2001	10-04-00	11.5
					12-04-00	15.9
					01-10-01	16.3
					03-23-01	14.0
					05-03-01	9.26
					06-20-01	14.6
					08-07-01	12.6

✞ Operated as a continuous-record station.

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INDEX