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Water Resources Data
Texas
Water Year 2000

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

By S.C. Gandara, W.J. Gibbons, and D.L. Barbie

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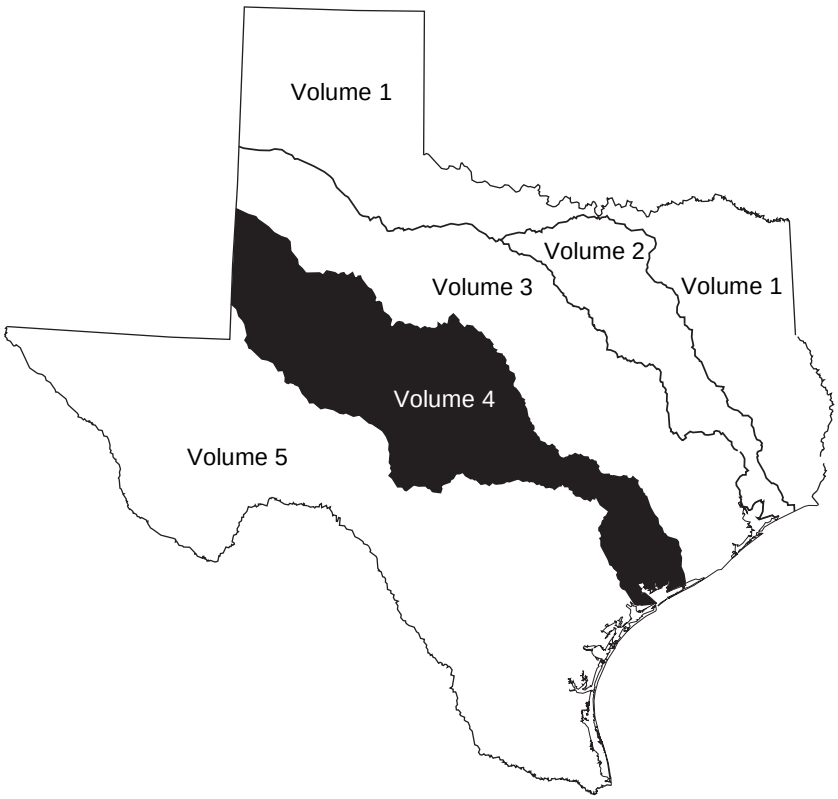

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PREFACE

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 2000 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 58 gaging stations; stage only at 2 gaging stations; stage and contents at 14 lakes and reservoirs; water quality at 30 gaging stations; and data for 13 partial-record stations comprised of 5 flood-hydrograph, 5 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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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.]

	Station number	Page
WESTERN GULF OF MEXICO BASINS		
COLORADO RIVER BASIN		
Colorado River near Gail (d)	08117995	28
Lake J.B. Thomas near Vincent (e)	08118000	30
Colorado River near Cuthbert (d)	08120700	32
Colorado River at Colorado City (d) (c) (t)	08121000	34
Morgan Creek:		
Lake Colorado City near Colorado City (e)	08123000	38
Champion Creek Reservoir near Colorado City (e)	08123600	40
Beals Creek:		
Moss Creek:		
Moss Creek Lake near Coahoma (e)	08123755	42
Beals Creek near Westbrook (d) (c) (t)	08123800	46
Colorado River above Silver (d) (c) (t)	08123850	54
E.V. Spence Reservoir near Robert Lee (e)	08123950	62
Colorado River at Robert Lee (d)	08124000	64
Oak Creek Reservoir near Blackwell (e)	08125500	66
Colorado River near Ballinger (d) (c) (t)	08126380	68
Elm Creek at Ballinger (d)	08127000	72
South Concho River (head of Concho River):		
South Concho River at Christoval (d)	08128000	74
Middle Concho River above Tankersley (d)	08128400	76
Spring Creek above Tankersley (d)	08129300	78
Dove Creek at Knickerbocker (d)	08130500	80
South Concho River above Gardner Dam near San Angelo (e)	08131190	82
Twin Buttes Reservoir near San Angelo (e)	08131200	84
Lake Nasworthy near San Angelo (e)	08132000	86
North Concho River at Sterling City (d)	08133500	88
North Concho River near Carlsbad (d)	08134000	90
North Concho River near Grape Creek (d)	08134250	92
O.C. Fisher Lake at San Angelo (e)	08134500	94
Concho River at San Angelo (d)	08136000	96
Concho River near Veribest (e)	08136150	98
Concho River at Paint Rock (d) (c) (t)	08136500	100
O.H. Ivie Reservoir near Voss (e)	08136600	106
Colorado River near Stacy (d)	08136700	108
Colorado River at Winchell (d)	08138000	110
Pecan Bayou:		
Jim Ned Creek:		
Lake Coleman near Novice (e)	08140770	112
Hords Creek:		
Hords Creek Lake near Valera (e)	08141000	116
Lake Brownwood near Brownwood (e)	08143000	118
Pecan Bayou near Mullin (d)	08143600	122
San Saba River at Menard (d)	08144500	124
San Saba River near Brady (d)	08144600	126
Brady Creek Reservoir near Brady (e)	08144900	128
San Saba River at San Saba (d)	08146000	130
Colorado River near San Saba (d)	08147000	136
Llano River near Junction (d)	08150000	138
Llano River near Mason (d)	08150700	140
Beaver Creek near Mason (d)	08150800	142
Llano River at Llano (d)	08151500	144
Sandy Creek near Kingsland (d)	08152000	146
Pedernales River near Fredericksburg (d)	08152900	148
Pedernales River near Johnson City (d)	08153500	150
Bull Creek at Loop 360 near Austin (d) (c) (t) (b)	08154700	152

	Station number	Page
WESTERN GULF OF MEXICO BASINS--Continued		
COLORADO RIVER BASIN--Continued		
Colorado River (Town Lake):		
Barton Creek at State Highway 71 near Oak Hill (d) (c) (t) (b) (s)	08155200	156
Barton Creek at Lost Creek Boulevard, Austin (d) (c) (t) (b)	08155240	160
Barton Creek at Loop 360, Austin (d) (c) (t) (b) (s)	08155300	164
Barton Creek above Barton Springs, Austin (c) (t) (b) (s)	08155400	168
Barton Springs at Austin (d) (c) (t) (b)	08155500	174
Shoal Creek at 12th Street, Austin (d) (c) (t) (b) (s)	08156800	180
East Bouldin Creek at South 1st Street, Austin (c) (t) (b)	08157600	184
Blunn Creek near Little Stacy Park, Austin (d) (c) (t) (b) (s)	08157700	188
Town Lake at Austin (c) (t) (b)	08157900	192
Colorado River at Austin (d)	08158000	202
Boggy Creek at U.S. Highway 183, Austin (d) (c) (t) (b) (s)	08158050	204
Walnut Creek at Webberville Road, Austin (d) (c) (t) (b) (s)	08158600	208
Onion Creek near Driftwood (d) (c) (t) (b)	08158700	212
Bear Creek below Farm to Market Road 1826 near Driftwood (d)	08158810	216
Slaughter Creek at Farm to Market Road 1826 near Austin (d) (c) (t) (b)	08158840	218
Williamson Creek at Brush Country Blvd., Oak Hill (d) (c) (t) (b) (s)	08158922	222
Williamson Creek at Manchaca Road, Austin (d)	08158930	226
Onion Creek at U.S. Highway 183, Austin (d)	08159000	228
Colorado River at Bastrop (d)	08159200	232
Colorado River at Smithville (d)	08159500	234
Colorado River above LaGrange (d)	08160400	236
Cummins Creek:		
Redgate Creek near Columbus (d)	08160800	238
Colorado River at Columbus (d)	08161000	240
Colorado River at Wharton (d)	08162000	242
Colorado River near Bay City (d)	08162500	244
TRES PALACIOS RIVER BASIN		
Tres Palacios River near Midfield (d)	08162600	248
LAVACA RIVER BASIN		
Lavaca River near Edna (d)	08164000	250
Navidad River near Hallettsville (d)	08164300	252
Navidad River near Speaks (d)	08164350	254
Navidad River at Morales (d)	08164370	256
Navidad River at Strane Park near Edna (d) (c) (t)	08164390	258
Sandy Creek near Ganado (d) (c) (t)	08164450	262
Mustang Creek:		
West Mustang Creek near Ganado (d) (c) (t)	08164503	266
East Mustang Creek at Farm to Market Road 647 near Ganado (d) (c) (t)	08164504	270
Lake Texana near Edna (e) (c) (t)	08164525	274
GARCITAS CREEK BASIN		
Garcitas Creek near Inez (d)	08164600	296
PLACEDO CREEK BASIN		
Placedo Creek near Placedo (d)	08164800	298

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 Cheyenne 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	1943-93
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
Pat Mayse Lake near Chicota (d)	07335390	175	1968-96
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
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
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
Newton Creek at Interstate Highway 635, Dallas (e)	08057135	5.91	1974-78
Trinity River below Dallas (d)	08057410	6,278	1956-58
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 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
Brays Bayou at Scott Street, Houston (e)	08075100	106	1971-81

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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
Millers Creek Reservoir near Bomartin (d)	08082800	240	1975-94
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
Cat Claw Creek at Abilene (d)	08083420*	13	1971-79
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Aquilla Creek at Farm Road 933 near Ross (e)	08093580	397	1976-85
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Navasota River near College Station (d)	08111010	1,809	1977-85
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
Deep Creek near Dunn (d)	08120500	198	1953-86
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
South Concho River at Christoval (d)	08128000*	412.6	1931-95
Middle Concho River above Tankersley (d)	08128400*	2,084	1962-95
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Spring Creek near Tankersley (d)	08131000	699	1930-60
South Concho River above Pecan Creek near San Angelo (e)	08131300	470	1963-84
Pecan Creek near San Angelo (d)	08131400	81.10	1961-86
Tom Green Co. WCID No. 1 Canal near San Angelo (d)	08131600	N/A	1963-81
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
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 at Brady (d)	08145000	588	1939-86
Brady Creek Tributary near Brady (e)	08145100	4.05	1967-73
Lake Buchanan near Burnet (e)	08148000	31,910	1937-90
North Llano River near Junction (d)	08148500	914	1915-77
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 Fredricksburg (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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
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 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
Guadalupe River at New Braunfels (d)	08169500*	1,652	1915-27
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
Plum Creek near Luling (d)	08173000	309	1930-93
San Marcos River at Ottine (d)	08173500	1,249	1915-43
Peach Creek below Dilworth (d)	08174600	460	1959-79
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Olmos Creek at Dresden Drive, San Antonio (d)	08177700*	21.2	1968-81
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
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 Lake near San Antonio (e)	08179500	634	1913-94
Medina Canal near Riomedina (e)	08180000	N/A	1922-34, 1957-93
Medina River near Riomedina (d)	08180500	650	1922-34, 1953-73
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
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
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
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
Sanderson Canyon at Sanderson (d)	08376300	195	1968-80
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,

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
			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
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 above Fort Davis (d)	08431700	52.40	1966-86
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

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
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
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,

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
			SC, T	1967-89,
Red River at Denison Dam near Denison	07331600	39,720	SC	1944-89,
			T	1945-89
Little Pine Creek near Kanawha	07336750	75.40	T	1980
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
Elm Fork Trinity River near Muenster	08050300	46	SC	1967-68,

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
			T	1957-58,
				1966-68,
			S	1957-68
Clear Creek near Sanger	08051500	295	SC, T, S	1968-77
Little Elm Creek near Celina	08052650	46.70	SC	1967-75,
			T, S	1966-75
Little Elm Creek near Aubrey	08052700	75.50	SC	1967-75,
			T, S	1966-75
Elm Fork Trinity River near Lewisville	08053000	1,673	SC	1982-86,
			T	1976-86
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
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
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
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
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

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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
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
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

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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 S	1959-81, 1976-81
Brazos River near Richmond	08114000	45,007	S SC T	1966-86, 1942-95, 1951-95
Brazos River near Rosharon	08116650	45,399	SC, T	1969-80
Brazos River at Harris Reservoir near Angleton	08116700	44,000	SC T	1962-77, 1967-77
Brazos River at Brazoria Reservoir near Brazoria	08117200	44,000	SC T	1962-77, 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 Cl	1950-52, 1959-70, 1975-82, 1951-52
Deep Creek near Dunn	08120500	198	SC, T	1953-54
Colorado River near Cuthbert	08120700	3,912	SC T	1965-99 1965-80, 1983-99
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 S	1948-51, 1949-51
Oak Creek near Blackwell	08126000	209	SC, T	1950
Colorado River at Ballinger	08126500	16,413	SC, T S	1961-79, 1978-79
Elm Creek at Ballinger	08127000	450	SC, T	1968-91
Concho River at Paint Rock	08136500	6,574	SC, T S	1946-50, 1967-90, 1978-81
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 T	1962-69, 1963-70
Colorado River near San Saba	08147000	37,217	SC, T S	1947-92, 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
Colorado River at Austin	08158000	39,009	SC, T	1948-91

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
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 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
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
San Antonio River at San Antonio	08178000	41.8	SC, T	1991-92,
				1996-97
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
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
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 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,

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
				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 Mission Pumping Plant	08468000	171,800	SC	1945-50
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, 2000

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 58 gaging stations; stage only at 2 gaging stations; stage and contents at 14 lakes and reservoirs; and water quality at 30 gaging stations. Also included are data for 13 partial-record stations comprised of 5 flood-hydrograph, 5 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-00-4." 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 2000 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 normal during water year 2000.

Conservation storage in 77 selected reservoirs throughout the State, with a combined conservation capacity of 34,481,000 acre-feet, decreased from 76 percent at the end of September 1999 to 73 percent at the end of September 2000. Records from these reservoirs indicate that storage decreased in 70, increased in 5, and remained the same in 2.

The area for which water resources data are presented in volume 2 includes the Trinity River Basin and Intervening Costal Basins. The area described in volume 2 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 2, streamflow averaged normal during water year 2000. Streamflow for water year 2000 and for the period of record at two selected stations (fig. 1) for which data are included in volume 2 is presented in table 1.

At the four long-term hydrologic index stations in the State, monthly mean streamflow during water year 2000 averaged below 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 Neches River near Rockland was below normal during November through April and normal for the remaining 6 months. The station North Bosque River near Clifton had above normal streamflow during June, normal streamflow during November, and December and below normal streamflow for the remaining 9 months. The station North Concho River near Carlsbad had above normal streamflow for March, below normal streamflow for May and normal streamflow for the remaining 10 months. Streamflow for the station Guadalupe River near Spring Branch was below normal for each month of water year 2000.

Conservation storage in 12 selected reservoirs in this area of the State, with a total combined conservation capacity of 3,962,000 acre-feet, decreased from 60 percent of capacity at

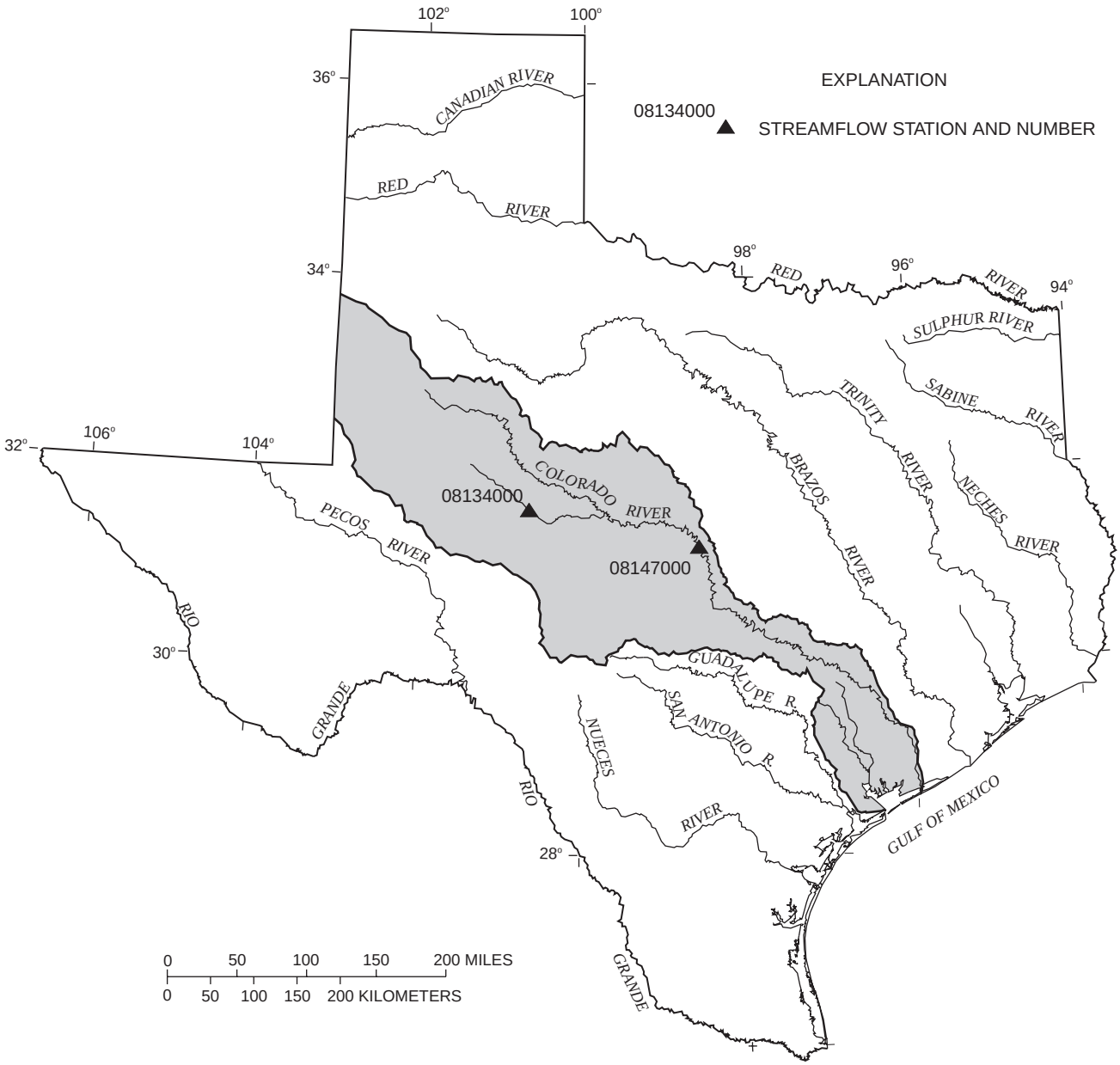
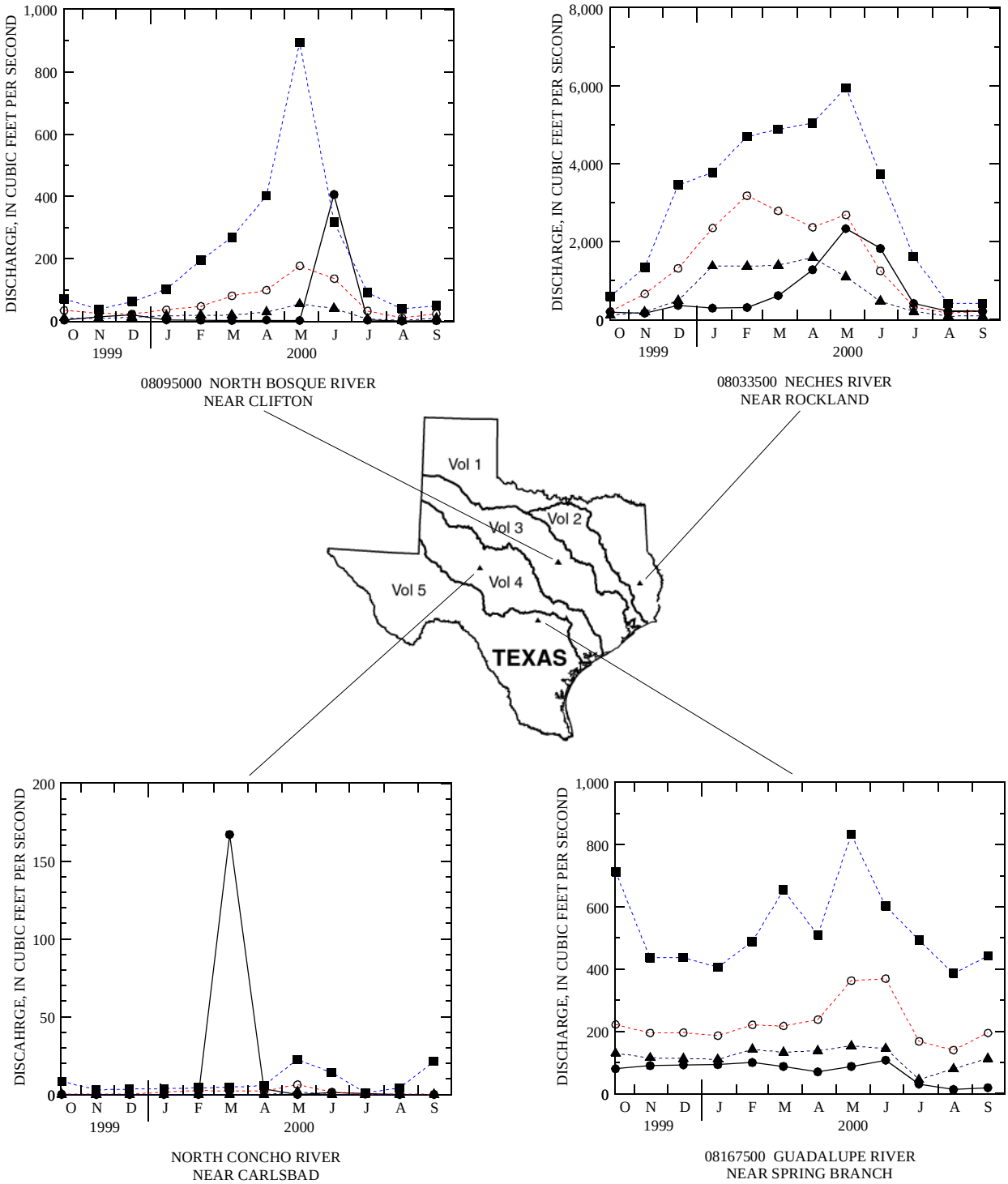


Figure 1. Area of Texas covered by volume 4 (shaded) and location of selected streamflow and water-quality stations in volume 4.



EXPLANATION

MONTHLY MEAN DISCHARGE FOR 2000 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 2000 water year and median of the monthly mean discharges for 1961–90 water years.

the end of September 1999 to 55 percent of capacity at the end of September 2000. Records from these reservoirs indicate that storage decreased in 10 and increased in 2.

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 2000 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/	10,700	0	14.5	94,600	0	28.7 (1924-2000)
08147000	Colorado River near San Saba, TX	8,230	3.4	140	224,000	0	1,028 (1931-2000)

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 hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 40 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of the constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and remobilization 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 is available through the world wide web at:

http://water.usgs.gov/nasqan/

The National Atmospheric Deposition Program/National Trends Network (NAPD/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of over 200 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO_2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO_2 and NOx scheduled to begin in 2000.

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

http://nadp.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.

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

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

http://water.usgs.gov/nawqa/nawqa_home.html
http://tx.usgs.gov/trin
http://tx.usgs.gov/sctx

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 2000 water year that began October 1, 1999, and ended September 30, 2000. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

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

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 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 contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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

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

Station Manuscript

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

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

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

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

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

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

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

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

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

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

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

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. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Texas Office of the Central Region Office.

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

Additional information about the NASQAN program is available through the world wide web at:

http://water.usgs.gov/public/nasqan/

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 (2000) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remarks Codes

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

PRINTED OUTPUT	REMARK
e or E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (Organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
V	Analyte was detected in both the environmental sample and the associated blanks.
M	Presence of material verified but not qualtified.

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (mg/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 mg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network Procedures

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

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:

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.

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.

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:

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.

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

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

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 the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 325,851 gallons or 1,233 cubic meters.

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

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. 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-sha-ped bacteria which ferment lactose with gas formation within 48 hours at 35 ºC. 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 ºC ± 1.0 ºC on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria 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 ºC ± 1.0 ºC on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Benthic organisms (invertebrates) are the group of animals inhabiting the bottom of an aquatic invironment. 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 the mass per unit area or volume of habitat.

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

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

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

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

Bottom material: See "Bed material".

Cells/volume refers to the number of plankton cells or natural units counted using a microscope and grid or counting cell. Results are generally reported as cells or units per milliliter.

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.

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

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

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

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

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

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

Cubic foot per second per day [$(ft^3/s)/d$] is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

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

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

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

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

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

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change.

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

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

Extractable organic halides (EOX) are organic compounds which contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried stream bottom 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 th stream bottom sediments.

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

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

Supplementary gage is a gage used to obtain additional data. A supplementary gage may be used in place of the principal gage if the latter is isolated or cut

off from the channel, or registers only above (or below) a certain gage height. One or more supplementary gages may be used on bypass channels or overflow channels, or on streams that flow in several channels, each of which is rated independently.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide.

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

Low tide is the minimum height reached by each falling tide.

Mean high tide is the average of all high tides over a specified period.

Mean low tide is the average of all low tides over a specified period.

Mean water level is the average of all tides over a specified period.

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.

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

Microsiemens per centimeter (µS/cm, US/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 solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

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.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

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

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

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

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

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

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

The partial size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

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

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

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

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

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL of sample).

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

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

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

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

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

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

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

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

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

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

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To

achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

Sea level was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports and refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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

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

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

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The entire sample is used for the analysis.

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

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

Suspended-sediment load is a general term that refers to material in suspension. 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 discharge or concentration.

Suspended total residue at 105 ^oC concentration is the concentration of suspended sediment in the sampled zone expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). A small aliquot of the sample is used for the analysis.

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

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. 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 total-sediment discharge.

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

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 ^oC. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 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.

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

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

Substrate is the physical surface upon which an organism lives.

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

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates

are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hard-board) for benthic organism collection, and plexiglass strips for periphyton collection.

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

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

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

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

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

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

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

Synoptic Studies Short-term investigations of specific water-quality conditions during selected seasonal or hydrologic peri ods 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.

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

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

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

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

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

Tons per day (T/DAY) is the rate representing a mass of 1 ton of a constituent in streamflow passing a cross section in 1 day. It is equivalent to 2,000 poinds per day, or 0.9072 metric tons per day.

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

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

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

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

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 man-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 toxid and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

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

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

PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

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.

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-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. 49 pages.

9-A7. ***National Field Manual for the Collection of Water-Quality Data: Five-Day Biochemical Oxygen Demand,*** by G.C. Delzer and S.W. McKenzie: USGS-TWRI Book 9, Chapter A7.2. 1999. 28 pages.

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.

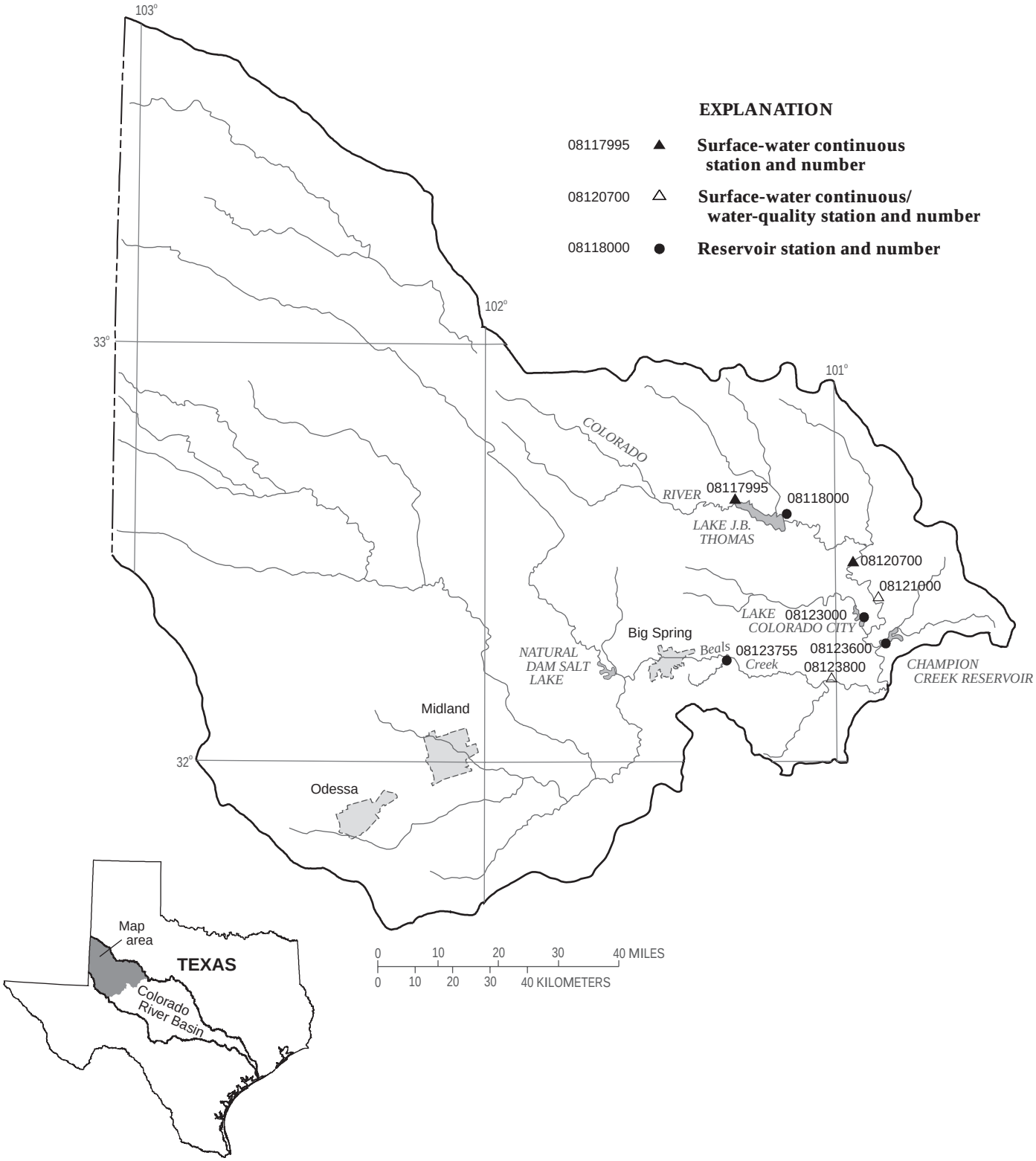


Figure 3.--Map showing location of gaging stations in the first section of the Colorado River Basin

08117995 Colorado River near Gail, TX 28
08118000 Lake J.B. Thomas near Vincent, TX 30
08120700 Colorado River near Cuthbert, TX 32
08121000 Colorado River at Colorado City, Tx 34
08123000 Lake Colorado City near Colorado City, TX 38
08123600 Champion Creek Reservoir near Colorado City, TX 40
08123755 Moss Creek Lake near Coahoma, TX 42
08123800 Beals Creek near Westbrook, TX 46

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 good except those for estimated daily discharges, which are poor. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 24	0100	1,760	a14.89	Jun 10	2300	687	9.99
Jun 3	1000	1,250	13.07	Jun 30	0530	1,060	12.17

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	.00	.00	.00	.00	.00	.00	4.9	.00	1.7	55	.00	.00
2	.00	.00	.00	.00	.00	.00	4.9	.00	723	e25	.00	.00
3	.00	.00	.00	.00	.00	.00	.89	.00	1080	e20	.00	.00
4	.00	.00	.00	.00	.00	.00	.20	.00	505	e15	.00	.00
5	.00	.00	.00	.00	.00	.00	.06	.00	64	e10	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	13	e9.0	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	8.4	e8.0	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	5.9	e6.0	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	4.7	e5.0	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	234	e4.0	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	236	e4.0	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	34	e3.5	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	15	e3.0	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	8.9	e2.5	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	6.2	e1.0	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	4.8	e.25	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	3.7	e.01	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	2.7	e.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	1.5	e.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	129	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	8.8	.00	.00	.00
22	.00	.00	.00	.00	.00	4.0	.00	.00	2.2	.00	.00	.00
23	.00	.00	.00	.00	.00	861	.00	.00	.47	.00	.00	.00
24	.00	.00	.00	.00	.00	654	.00	.00	145	.00	.00	.00
25	.00	.00	.00	.00	.00	32	.00	.00	40	.00	.00	.00
26	.00	.00	.00	.00	.00	13	.00	26	2.0	1.2	.00	.00
27	.00	.00	.00	.00	.00	7.7	.00	30	.38	.09	.00	.00
28	.00	.00	.00	.00	.00	5.7	.00	19	.10	.00	.00	.00
29	.00	.00	.00	.00	.00	4.3	.00	2.9	230	.00	.00	.00
30	.00	.00	.00	.00	---	3.0	.00	.02	660	.00	.00	.00
31	.00	---	.00	.00	---	1.3	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	1586.00	10.95	77.92	4170.45	172.55	0.00	0.00
MEAN	.000	.000	.000	.000	.000	51.2	.36	2.51	139	5.57	.000	.000
MAX	.00	.00	.00	.00	.00	861	4.9	30	1080	55	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	3150	22	155	8270	342	.00	.00

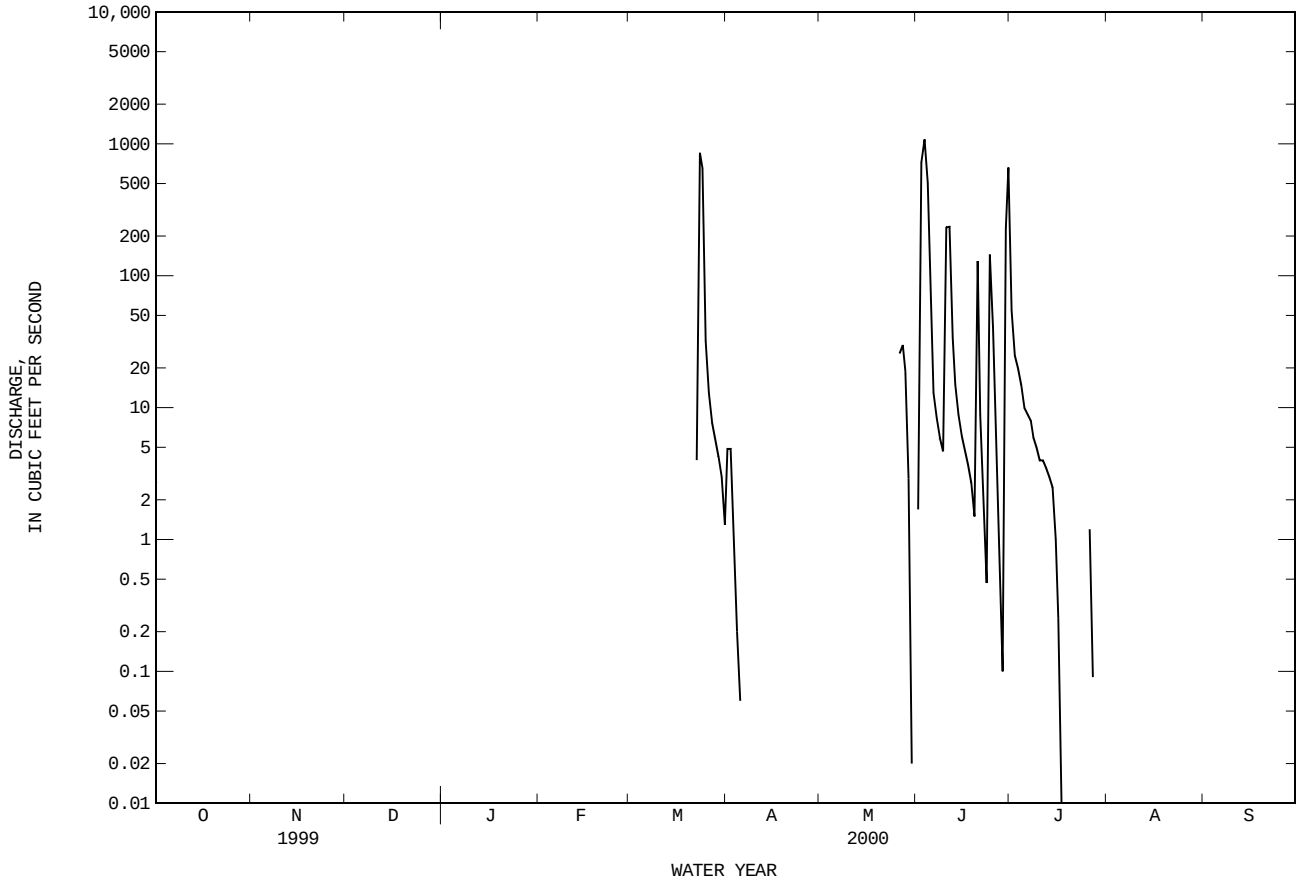
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2000, BY WATER YEAR (WY)

MEAN	1.35	1.12	1.68	1.41	3.42	5.79	5.41	33.6	52.0	12.1	4.80	14.8
MAX	10.6	4.71	15.6	8.42	23.8	51.2	51.5	263	166	107	22.6	49.1
(WY)	1992	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

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1988 - 2000	
ANNUAL TOTAL	6197.60		6017.87			
ANNUAL MEAN	17.0		16.4		11.2	
HIGHEST ANNUAL MEAN					46.2	1992
LOWEST ANNUAL MEAN					.48	1998
HIGHEST DAILY MEAN	991	Jun 13	1080	Jun 3	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
INSTANTANEOUS PEAK FLOW			1760	Mar 24	4010	Jul 3 1988
INSTANTANEOUS PEAK STAGE			a14.89	Mar 24	m16.43	May 26 1992
ANNUAL RUNOFF (AC-FT)	12290		11940		8110	
10 PERCENT EXCEEDS	2.3		5.2		7.0	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
a From floodmark.
m Result of earthen dam.

08117995 COLORADO RIVER NEAR GAIL, TX--Continued



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 Sep 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 Sep 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.--Records fair except those for estimated daily contents, which are poor. The lake is formed by a rolled earthfill dam, 14,500 ft long. Storage began in Jul 1952 and the dam was completed in Sep 1952. There was no appreciable storage prior to Jul 1953. There are two uncontrolled emergency spillways, both cut through natural ground and located as follows: the first is a 500-foot 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-foot 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 Jul 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.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,290 acre-ft, Jul 2, elevation, 2,224.30 ft; minimum contents, 25,690 acre-ft, Jun 1, elevation, 2,219.57 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

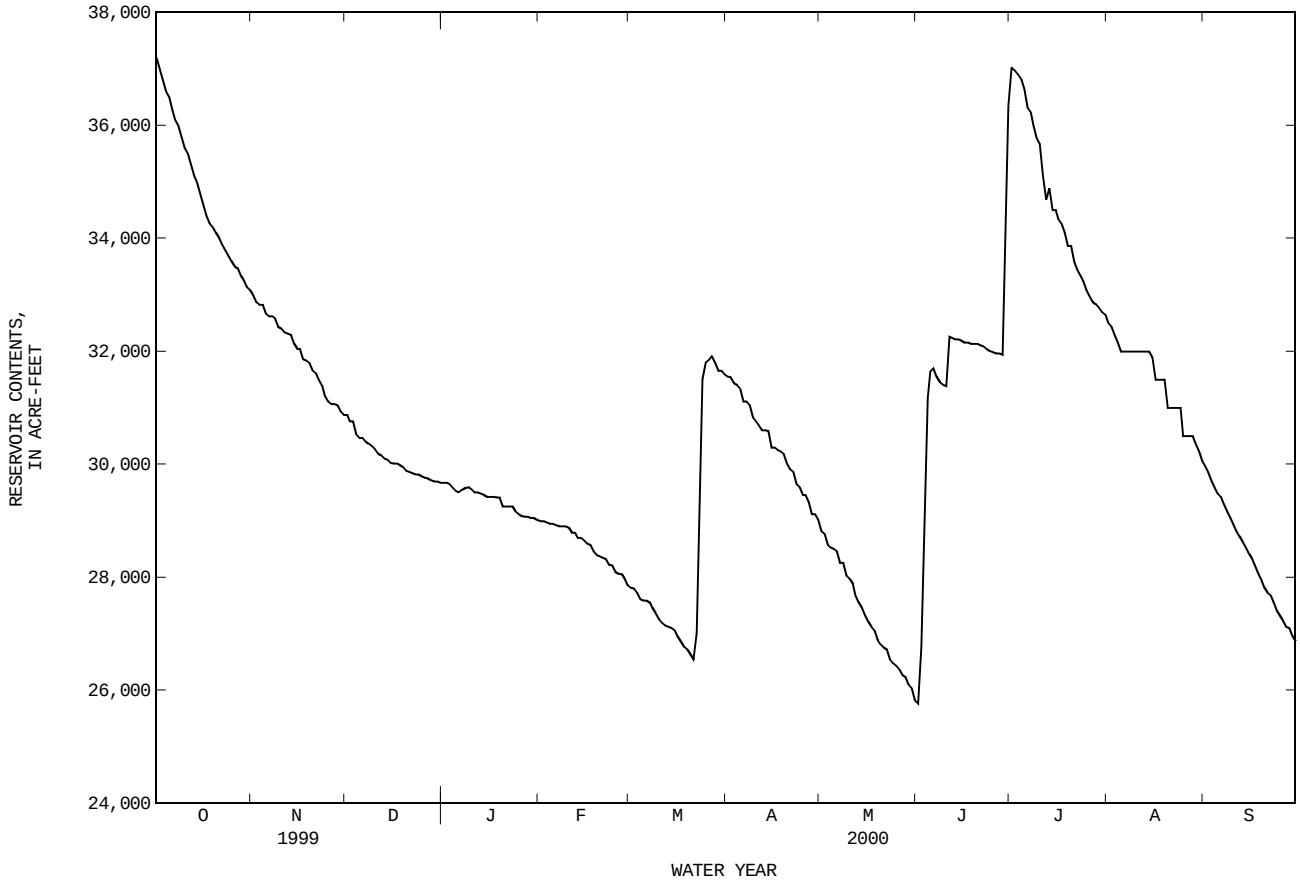
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e37200	32990	30880	29670	29000	27820	31560	28810	25770	37020	32510	29960
2	e37000	32870	30760	29670	29000	27800	31540	28770	26760	36970	32440	29870
3	e36800	32820	30760	29650	28970	27730	31440	28580	29380	36910	32290	29720
4	e36600	32820	30540	29580	28950	27610	31410	28530	31170	36830	32160	29600
5	e36500	32670	30470	29530	28950	27590	31340	28510	31640	36640	e32000	29480
6	e36300	32620	30470	29500	28930	27590	31120	28460	31690	36320	e32000	29430
7	e36100	32620	30400	29550	28900	27560	31120	28260	31540	36240	e32000	29290
8	e36000	32590	30370	29580	28900	27450	31050	28260	31460	36010	e32000	29170
9	e35800	32440	30320	29600	28900	27360	30830	28030	31410	35780	e32000	29050
10	e35600	32410	30280	29550	28880	27260	30780	27980	31390	35670	e32000	28930
11	e35500	32340	30200	29500	28790	27190	30690	27890	32260	35100	e32000	28830
12	e35300	32310	30160	29500	28790	27150	30610	27680	32240	34680	e32000	28720
13	e35100	32290	30110	29480	28700	27130	30610	27560	32210	34890	e32000	28630
14	e35000	32140	30080	29460	28700	27100	30590	27470	32210	34500	e32000	28530
15	e34800	32040	30030	29430	28650	27060	30300	27330	32190	34500	31900	28420
16	e34600	32040	30010	29430	28600	26960	30300	27220	32160	34340	e31500	28330
17	e34400	31860	30010	29430	28580	26870	30250	27130	32160	34260	e31500	28190
18	34260	31840	29990	29410	28460	26780	30230	27060	32140	34110	e31500	28050
19	e34200	31790	29960	29410	28400	26730	30180	26890	32140	33870	e31500	27960
20	e34100	31660	29890	29260	28370	26640	30010	26820	32140	33870	e31000	27820
21	e34000	31610	29870	29260	28350	26550	29910	26760	32110	33590	e31000	27730
22	e33900	31490	29840	29260	28330	27010	29870	26730	32090	33440	e31000	27680
23	e33800	31390	29820	29260	28230	29170	29650	26550	32040	33340	e31000	27540
24	e33700	31220	29820	29170	28210	31510	29600	26480	32010	33240	e31000	27400
25	e33600	31120	29790	29120	28100	31790	29460	26440	31990	33090	e30500	27310
26	e33500	31070	29770	29090	28070	31840	29460	26370	31960	32970	e30500	27220
27	33470	31070	29750	29070	28050	31910	29340	26260	31960	32870	e30500	27130
28	33340	31050	29720	29070	27960	31790	29120	26240	31940	32840	e30500	27100
29	33240	30930	29700	29050	27860	31660	29120	26110	34730	32770	30350	26960
30	33140	30880	29700	29050	---	31660	29020	26040	36350	32690	30230	26870
31	33090	---	29670	29020	---	31590	---	25820	---	32640	30060	---
MAX	37200	32990	30880	29670	29000	31910	31560	28810	36350	37020	32510	29960
MIN	33090	30880	29670	29020	27860	26550	29020	25820	25770	32640	30060	26870
(+)	2222.69	2221.80	2221.30	2221.03	2220.53	2222.09	2221.03	2219.63	2223.95	2222.51	2221.46	2220.10
(@)	-4210	-2210	-1210	-650	-1160	+3730	-2570	-3200	+10530	-3710	-2580	-3190

WTR YR 2000 MAX 37200 MIN 25770 (@) -10430

e Estimated

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

08118000 LAKE J.B. THOMAS NEAR VINCENT, 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.

PERIOD OF RECORD.--Mar 1965 to current year.
Water-quality records.--Chemical data: Mar 1965 to Sep 1999. Specific conductance: Mar 1965 to Sep 1999. Water temperature: Mar 1965 to May 1980, Apr 1983 to Sep 1999.

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 by Lake J.B. Thomas (station 08118000, conservation pool storage 199,931 acre-ft), 27 mi upstream. There are numerous diversions from Lake J.B. Thomas for municipal use and for oil field operations. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.17	1.0	2.9	1.9	2.5	20	4.4	3.5	313	.03	.00
2	.27	.12	1.1	3.0	2.5	3.5	19	4.1	66	74	.01	.00
3	.22	.12	.97	3.3	2.3	11	17	3.8	155	21	.00	.00
4	.15	.11	1.1	3.7	2.3	8.3	12	4.2	45	11	.00	.00
5	.13	.18	1.7	3.6	1.7	5.2	15	4.1	17	7.4	.00	.00
6	.11	.25	1.5	3.7	1.7	4.1	15	4.0	8.5	5.7	.00	.00
7	.09	.27	1.6	3.7	1.5	3.3	13	3.1	3.5	4.5	.00	.00
8	.11	.27	1.7	6.1	1.4	2.7	11	2.3	2.5	3.7	.00	.00
9	.11	.27	1.4	8.0	2.0	2.3	9.4	1.7	61	2.9	.00	.00
10	.13	.27	1.1	6.0	2.7	2.0	9.1	1.3	213	2.6	.00	.00
11	.26	.25	1.0	4.5	2.5	1.8	8.5	1.1	109	2.2	.00	.00
12	.24	.24	1.4	4.2	2.6	1.8	8.1	.88	13	1.7	.00	.00
13	.20	.28	1.3	4.1	2.2	1.8	8.4	.65	6.3	1.1	.00	.00
14	.15	.70	2.2	3.5	1.7	2.0	8.8	.56	4.1	.94	.00	.00
15	.13	.79	1.6	2.7	1.4	1.9	9.4	.57	3.3	.76	.00	.00
16	.12	.72	1.4	2.3	1.7	1.7	8.5	.53	2.8	.60	.00	.00
17	.13	.86	1.9	1.8	2.0	1.8	7.7	.45	2.5	.45	.00	.00
18	.12	.88	1.8	1.6	1.9	3.0	8.4	.39	2.7	.37	.00	.00
19	.12	.69	1.6	1.6	1.6	2.8	7.7	.50	6.8	.30	.00	.00
20	.11	.58	1.7	2.6	1.5	2.3	6.8	.70	6.3	.29	.00	.00
21	.12	.57	1.8	2.3	1.5	2.0	5.8	.66	4.8	.23	.00	.00
22	.11	.51	2.0	2.3	1.7	317	5.7	.57	4.0	.15	.00	.00
23	.17	.51	1.9	1.8	1.6	8670	5.8	.49	2.9	1.7	.00	.00
24	.17	.49	2.2	2.1	1.5	3010	5.7	.35	2.6	1.1	.00	.00
25	.14	.89	2.3	2.9	4.7	680	5.2	.33	1.7	.41	.00	.00
26	.12	1.3	2.8	2.6	7.7	107	4.8	.49	1.2	.25	.00	.00
27	.11	1.3	3.5	2.3	7.3	55	5.2	.53	1.1	.16	.00	.00
28	.12	1.2	3.2	2.1	5.2	37	5.9	1.2	1.2	.09	.00	.00
29	.11	.99	3.5	2.5	3.5	28	5.6	.68	173	.08	.00	.00
30	.13	.84	2.8	2.3	---	22	5.3	.37	166	.15	.00	.00
31	.18	---	2.4	2.1	---	20	---	.21	---	.08	.00	---
TOTAL	4.65	16.62	57.47	98.2	73.8	13013.8	277.8	45.21	1090.3	458.91	0.04	0.00
MEAN	.15	.55	1.85	3.17	2.54	420	9.26	1.46	36.3	14.8	.001	.000
MAX	.27	1.3	3.5	8.0	7.7	8670	20	4.4	213	313	.03	.00
MIN	.09	.11	.97	1.6	1.4	1.7	4.8	.21	1.1	.08	.00	.00
AC-FT	9.2	33	114	195	146	25810	551	90	2160	910	.08	.00

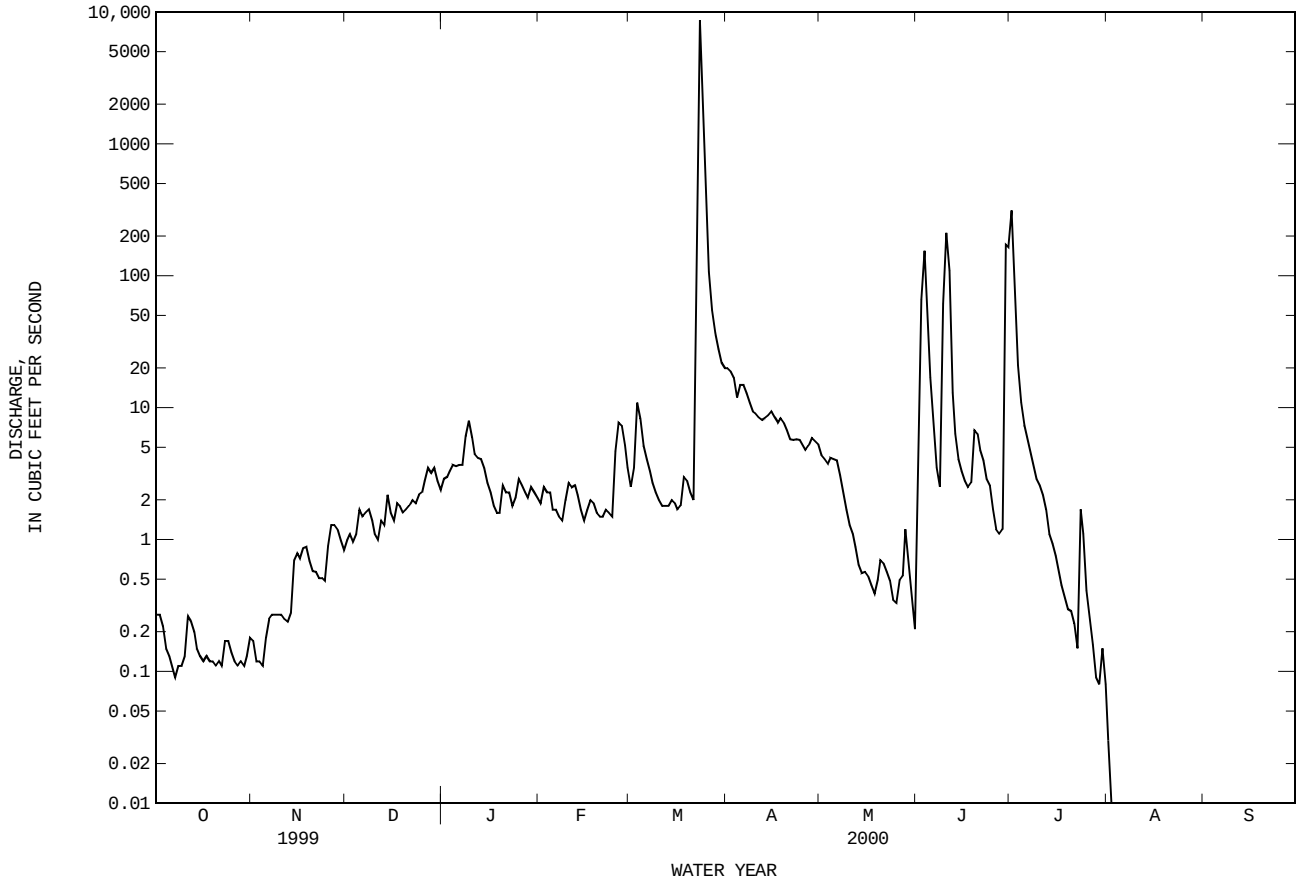
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2000, BY WATER YEAR (WY)

MEAN	27.4	7.93	7.86	7.15	11.0	21.6	27.7	71.0	83.0	17.8	54.1	48.1
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1965 - 2000	
ANNUAL TOTAL	11546.86		15136.80			
ANNUAL MEAN	31.6		41.4		31.6	
HIGHEST ANNUAL MEAN					104	1980
LOWEST ANNUAL MEAN					2.59	1998
HIGHEST DAILY MEAN	5690	Jun 13	8670	Mar 23	8770	Sep 29 1980
LOWEST DAILY MEAN	.00	Sep 3	.00	Aug 3	.00	Apr 13 1965
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 2	.00	Aug 3	.00	Apr 13 1965
INSTANTANEOUS PEAK FLOW			c15100	Mar 23	c15100	Mar 23 2000
INSTANTANEOUS PEAK STAGE			p29.55	Mar 23	p29.55	Mar 23 2000
ANNUAL RUNOFF (AC-FT)	22900		30020		22860	
10 PERCENT EXCEEDS	9.2		8.9		24	
50 PERCENT EXCEEDS	1.5		1.6		4.0	
90 PERCENT EXCEEDS	.12		.00		.00	

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

08120700 COLORADO RIVER NEAR CUTHBERT, TX--Continued



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 Jul 1952 at least 10% of contributing drainage area has been regulated by Lake J.B. Thomas (station 08118000, conservation pool storage 19,931 acre-ft) 31 mi upstream. 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. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--6 years (water years 1947-52) prior to completion of Lake J.B. Thomas, 85.4 ft^3/s (61,870 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS 1947-52).--Maximum discharge, 24,900 ft^3/s Jul 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 Jun 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.15	.27	.16	.12	.07	17	.47	2.2	160	.36	.02
2	.12	.15	.25	.15	.15	.08	16	.50	77	208	.34	.02
3	.09	.15	.24	.20	.15	.08	12	.51	189	29	.35	.02
4	.09	.15	.32	.12	.15	4.8	7.4	.51	135	3.1	.28	.02
5	.09	.15	.25	.14	.14	6.7	5.5	.58	31	.78	.23	.02
6	.11	.15	.24	.16	.15	4.8	3.5	.48	20	.62	.21	.02
7	.13	.15	.24	.24	.15	3.8	2.0	.44	9.7	.50	.20	.02
8	.23	.15	.24	.44	.17	3.6	1.3	.38	1.7	.41	.21	.02
9	.15	.15	.33	.22	.24	3.3	1.2	.36	20	.33	.20	.01
10	.15	.15	.24	.16	.27	3.3	1.2	.53	256	.29	.20	.01
11	.15	.15	.74	.15	.24	2.9	1.2	.63	213	.32	.15	.01
12	.15	.15	3.0	.19	.26	2.7	1.2	.62	35	.45	.16	.02
13	.12	.16	2.7	.22	.29	2.6	3.0	.64	15	1.5	.15	.03
14	.09	.16	2.8	.24	.24	2.8	1.6	.75	10	.63	.09	.03
15	.11	.15	.49	.24	.24	2.7	1.2	.87	7.2	.43	.04	.03
16	.12	.15	.23	.24	.26	2.8	1.0	.93	5.7	.41	.05	.03
17	.14	.15	.24	.24	.24	.50	1.0	.99	6.1	.38	.09	.02
18	.18	.15	.24	.24	.24	.22	1.3	.92	5.9	.38	.10	.02
19	.21	.15	.24	.24	.17	.16	4.2	2.2	5.1	.30	.10	.02
20	.15	.23	.44	.22	.18	.16	.92	2.0	2.4	.26	.09	.02
21	.15	.24	.36	.22	.21	.15	.63	1.3	.96	.24	.08	.02
22	.15	.24	.21	.24	.16	60	.64	1.3	1.2	.24	.06	.02
23	.15	.24	.20	.24	.09	7270	.72	1.2	1.1	.38	.06	2.1
24	.15	.24	.24	.24	.11	9220	.62	1.0	.56	.41	.06	.76
25	.14	.24	1.0	.20	.29	1440	.62	.95	.41	.41	.07	.08
26	.14	.24	2.6	.10	.14	245	.63	.75	.47	.34	.06	.05
27	.15	.24	.81	.10	.08	76	.60	.65	.46	.37	.04	.04
28	.15	.24	1.1	.09	.08	35	.52	.73	.41	.34	.04	.03
29	.16	.24	3.1	.09	.07	27	.53	.72	.34	.33	.04	.02
30	.32	.24	.93	.09	---	19	.49	.62	184	.35	.03	.02
31	.22	---	.24	.09	---	17	---	.56	---	.25	.02	---
TOTAL	4.61	5.50	24.53	5.91	5.28	18457.22	89.72	25.09	1236.91	411.75	4.16	3.55
MEAN	.15	.18	.79	.19	.18	595	2.99	.81	41.2	13.3	.13	.12
MAX	.32	.24	3.1	.44	.29	9220	17	2.2	256	208	.36	2.1
MIN	.09	.15	.20	.09	.07	.07	.49	.36	.34	.24	.02	.01
AC-FT	9.1	11	49	12	10	36610	178	50	2450	817	8.3	7.0

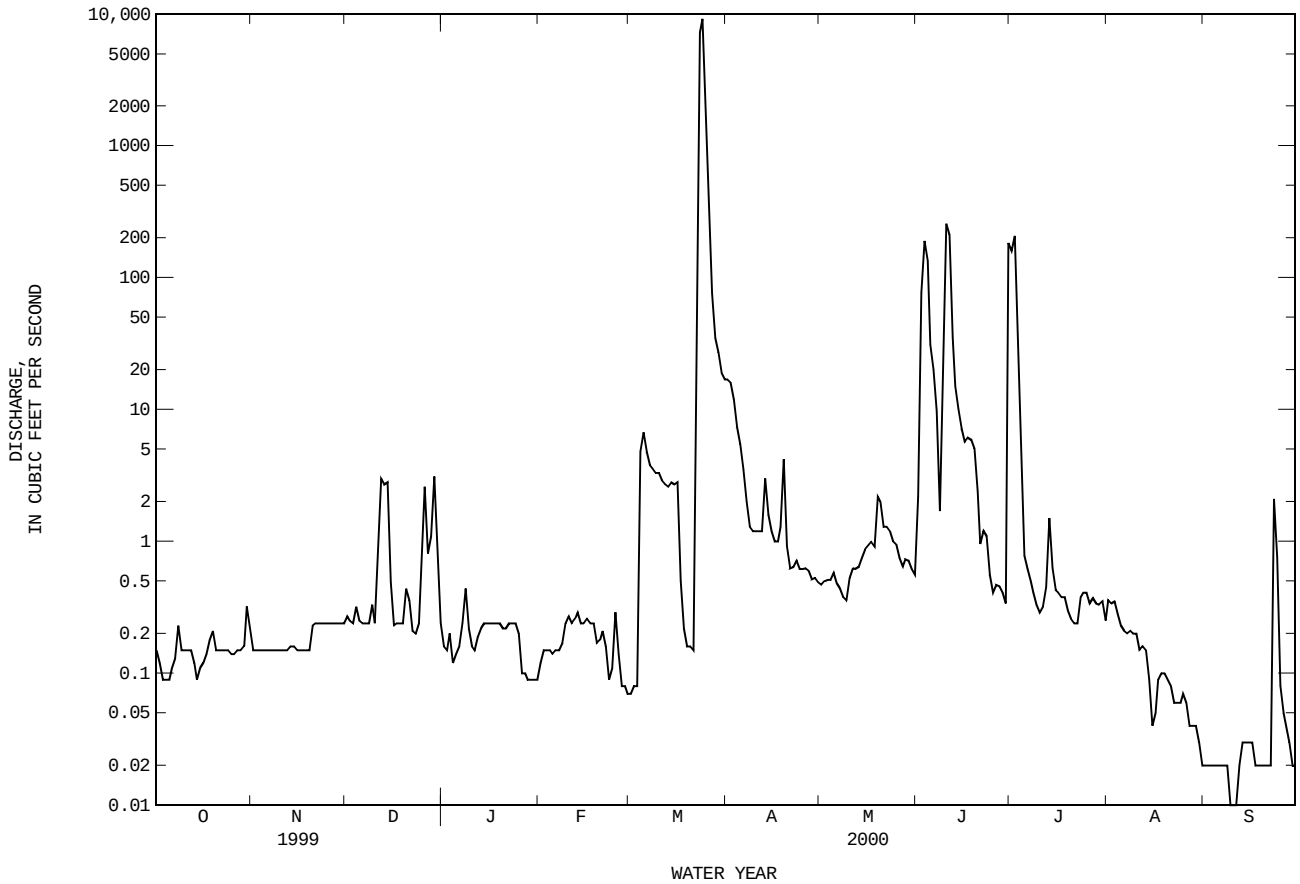
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2000z, BY WATER YEAR (WY)

MEAN	36.2	7.38	5.57	4.32	9.96	19.8	35.9	95.9	82.2	20.9	39.5	56.0
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1953 - 2000z	
ANNUAL TOTAL	9687.14		20274.23			
ANNUAL MEAN	26.5		55.4		34.5	
HIGHEST ANNUAL MEAN					143	1957
LOWEST ANNUAL MEAN					.34	1998
HIGHEST DAILY MEAN	4010	Jun 13	9220	Mar 24	9560	May 25 1957
LOWEST DAILY MEAN	.03	Apr 22	.01	Sep 9	.00	Oct 4 1952
ANNUAL SEVEN-DAY MINIMUM	.09	Jan 18	.02	Sep 5	.00	Oct 4 1952
INSTANTANEOUS PEAK FLOW			c17700	Mar 24	c17700	Mar 24 2000
INSTANTANEOUS PEAK STAGE			28.58	Mar 24	28.58	Mar 24 2000
ANNUAL RUNOFF (AC-FT)	19210		40210		25020	
10 PERCENT EXCEEDS	2.8		5.2		24	
50 PERCENT EXCEEDS	.22		.24		.50	
90 PERCENT EXCEEDS	.11		.06		.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 Sep 1954, Nov 1956 to current year.

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

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. New regression equations were developed based on data from water years 1991 to 2000. The standard error of estimate for dissolved solids is 6%, chloride is 75%, sulfate is 29% 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, Sep 21, 1998; minimum daily, 240 microsiemens, Sep 29, 1980.
WATER TEMPERATURE: Maximum daily, 39.0°C, Jul 21, 1995; minimum daily, 0.0°C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 38,200 microsiemens, Nov 19; minimum daily, 310 microsiemens, Mar 24.
WATER TEMPERATURE: Maximum daily, 37.0°C, Jul 17, 19, Aug 11; minimum daily, 4.0°C, Nov 24, Dec 23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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									
02...	1100	.16	34200	11.0	2600	2400	600	255	7690
DEC									
07...	1540	.23	32500	12.5	2400	2300	560	246	7160
JAN									
25...	1415	.27	19200	11.5	1700	1500	380	178	3950
MAR									
23...	0855	3220	275	--	88	--	26	5.8	52
APR									
06...	1250	3.4	11900	20.5	1400	1200	320	143	1970
JUN									
06...	1245	21	3230	26.0	430	310	110	39	469

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
NOV								
02...	66	22	130	2700	12000	.67	.54	23300
DEC								
07...	63	18	110	2700	11000	.69	1.8	21400
JAN								
25...	42	12	170	1800	6200	.73	.95	12600
MAR								
23...	2	4.0	--	32	29	.31	4.0	--
APR								
06...	23	12	220	1200	3200	.53	1.9	7010
JUN								
06...	10	5.7	120	300	780	.37	6.8	1790

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1999 TO SEPTEMBER 2000

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.	1999	4.61	33650	22780	284	11200	139	2900	36.3	2800
NOV.	1999	5.5	36120	24680	367	12200	181	3100	45.8	3000
DEC.	1999	24.53	18550	11880	787	5700	378	1700	115	1600
JAN.	2000	5.91	16150	10170	162	4800	77.4	1600	24.7	1400
FEB.	2000	5.28	27350	18040	257	8800	125	2500	35.1	2300
MAR.	2000	18457.22	488	292	14550	140	6770	50	2490	44
APR.	2000	89.72	10530	6480	1570	3100	740	1000	252	940
MAY	2000	25.09	13610	8470	574	4000	272	1300	89.9	1200
JUNE	2000	1236.91	3010	1790	5990	830	2780	310	1030	270
JULY	2000	411.75	1420	835	929	390	429	150	164	130
AUG.	2000	4.16	6850	4130	46.4	1900	21.7	690	7.8	620
SEPT	2000	3.55	4740	2840	27.2	1300	12.7	480	4.6	430
TOTAL		20274.23	**	**	25550	**	11930	**	4300	**
WTD.AVG.		55	774	467	**	220	**	78	**	70

08121000 COLORADO RIVER AT COLORADO CITY, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY EQUIVALENT MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35000	36400	34800	13400	23200	28400	6990	11300	10000	1900	6280	8130
2	31500	36400	34800	13600	24100	29700	8340	11400	8000	847	6310	8140
3	30300	35800	34800	13900	23800	29800	10600	11600	2000	1460	6560	8140
4	30300	35400	34800	13600	24200	25000	11200	11800	1920	2480	6520	8140
5	31200	38000	34800	13900	24200	15000	11700	12000	3070	3280	6550	8130
6	35000	37900	e34000	13900	26200	12000	10600	12000	3320	4070	6550	8120
7	32300	35900	33900	14000	26100	13400	11700	12200	3000	4950	6660	8000
8	32200	37900	33700	14000	26300	14400	12000	12200	2000	4940	6790	8140
9	37600	35900	33800	14300	26700	14800	12000	12200	4000	5520	6800	8000
10	e36000	37900	25000	14400	27000	14100	11900	12300	1500	5470	7080	8120
11	e35000	37500	17100	14300	26700	14000	12000	12400	5000	5490	7070	7840
12	34900	37900	18800	14400	27800	14000	11800	12800	2000	5540	7100	8120
13	34100	37800	20200	14400	27700	13900	14500	12700	2300	2000	7110	7820
14	34000	37800	16400	14800	28600	14000	11200	12900	2840	3630	7280	7660
15	29400	37500	16400	14800	27900	13800	14800	13000	4440	4150	7340	7820
16	29500	35100	17200	16600	28900	13800	14900	12400	4440	3610	6830	7830
17	37500	36800	18800	15800	28700	13400	14300	13600	5430	4170	7300	7880
18	28900	36800	20600	15800	29200	13300	13800	13600	5480	4660	7370	6500
19	29100	38200	18800	16500	29000	13300	16800	13500	5920	4640	7270	6500
20	29100	35300	20900	17000	29200	15000	14800	14100	6330	4910	7320	7660
21	35500	35100	20600	18600	29100	25000	14700	13500	6540	5480	7470	7820
22	35400	35300	20900	18600	27800	20000	13000	14400	6550	5480	7270	8080
23	34700	35500	21000	16500	30900	325	12800	14100	7000	4620	7310	4000
24	35100	34900	15100	19200	30900	310	12500	15500	7130	5650	7470	4850
25	34000	34900	13500	19300	25900	590	12200	15400	7170	5600	e7500	4850
26	34700	35300	15800	e21000	28600	603	11900	15500	7050	5870	7360	4920
27	34100	34900	15800	22000	27300	1000	11600	15500	7100	5890	7910	4840
28	32400	35300	15900	22100	27500	5000	11400	14400	7130	6080	7360	5100
29	34900	35300	13600	21700	27900	9150	11300	15200	6930	6270	7830	6070
30	36500	35000	13600	22200	---	9770	11300	15200	2070	6080	7840	5780
31	36600	---	13400	22700	---	10200	---	15500	---	6290	7630	---
MEAN	33400	36300	22500	16700	27300	13500	12300	13400	4920	4550	7130	7100
MAX	37600	38200	34800	22700	30900	29800	16800	15500	10000	6290	7910	8140
MIN	28900	34900	13400	13400	23200	310	6990	11300	1500	847	6280	4000

e Estimated

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	20.0	10.0	12.0	7.0	19.0	13.0	28.0	35.0	26.0	33.0	36.0
2	26.0	24.0	10.0	10.0	13.0	20.0	19.0	28.0	28.0	32.0	35.0	35.0
3	22.0	23.0	8.0	8.0	17.0	8.0	16.0	32.0	26.0	32.0	33.0	34.0
4	21.0	23.0	6.0	9.0	10.0	15.0	21.0	33.0	26.0	32.0	34.0	34.0
5	28.0	24.0	8.0	11.0	13.0	20.0	23.0	34.0	29.0	34.0	34.0	34.0
6	28.0	20.0	11.0	10.0	14.0	23.0	22.0	30.0	28.0	36.0	32.0	34.0
7	28.0	22.0	12.0	8.0	15.0	22.0	25.0	33.0	30.0	32.0	32.0	33.0
8	28.0	23.0	15.0	11.0	16.0	20.0	21.0	32.0	29.0	34.0	35.0	33.0
9	28.0	24.0	10.0	11.0	18.0	18.0	24.0	32.0	27.0	32.0	35.0	34.0
10	---	24.0	6.0	12.0	20.0	20.0	25.0	34.0	26.0	33.0	35.0	33.0
11	35.0	24.0	8.0	14.0	15.0	20.0	20.0	35.0	28.0	35.0	37.0	34.0
12	30.0	24.0	8.0	12.0	17.0	19.0	20.0	30.0	27.0	31.0	33.0	33.0
13	28.0	23.0	8.0	12.0	18.0	20.0	23.0	28.0	29.0	31.0	34.0	30.0
14	26.0	20.0	8.0	12.0	20.0	20.0	25.0	29.0	25.0	35.0	34.0	32.0
15	30.0	22.0	9.0	15.0	22.0	21.0	28.0	35.0	33.0	35.0	35.0	33.0
16	26.0	20.0	9.0	16.0	19.0	18.0	27.0	34.0	34.0	34.0	33.0	32.0
17	24.0	20.0	10.0	18.0	23.0	19.0	27.0	34.0	28.0	37.0	34.0	32.0
18	18.0	18.0	9.0	18.0	21.0	20.0	30.0	30.0	25.0	36.0	33.0	33.0
19	18.0	18.0	10.0	16.0	20.0	6.0	33.0	29.0	28.0	37.0	30.0	32.0
20	26.0	18.0	9.0	12.0	20.0	22.0	28.0	32.0	30.0	35.0	33.0	31.0
21	23.0	16.0	7.0	11.0	21.0	21.0	28.0	32.0	32.0	32.0	34.0	30.0
22	22.0	18.0	9.0	18.0	20.0	20.0	25.0	24.0	32.0	33.0	35.0	32.0
23	26.0	14.0	4.0	15.0	19.0	14.0	25.0	34.0	34.0	30.0	35.0	31.0
24	26.0	4.0	5.0	13.0	21.0	22.0	27.0	35.0	33.0	35.0	34.0	28.0
25	24.0	5.0	9.0	14.0	18.0	21.0	30.0	35.0	33.0	34.0	34.0	26.0
26	26.0	5.0	11.0	14.0	19.0	21.0	25.0	29.0	35.0	35.0	34.0	26.0
27	23.0	6.0	12.0	5.0	20.0	23.0	29.0	36.0	32.0	34.0	35.0	25.0
28	25.0	5.0	11.0	5.0	19.0	26.0	30.0	33.0	30.0	34.0	35.0	26.0
29	24.0	6.0	11.0	8.0	19.0	22.0	27.0	35.0	31.0	29.0	36.0	26.0
30	22.0	6.0	12.0	8.0	---	21.0	29.0	36.0	28.0	28.0	35.0	26.0
31	20.0	---	12.0	9.0	---	15.0	---	35.0	---	28.0	35.0	---
MEAN	---	17.3	9.3	11.8	17.7	19.2	24.8	32.1	29.7	32.9	34.1	31.3
MAX	---	24.0	15.0	18.0	23.0	26.0	33.0	36.0	35.0	37.0	37.0	36.0
MIN	---	4.0	4.0	5.0	7.0	6.0	13.0	24.0	25.0	26.0	30.0	25.0

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.--No estimated daily contents. Records good. The lake is formed by a rolled earthfill dam 4,800 ft long. Storage began in Apr 1949, and the dam was completed in Sep 1949. The dam and lake are owned by the Texas Utilities Electric 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-feet), into Lake Colorado City can be obtained from the Texas Utilities Electrical 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, Sep 7, 1962, elevation, 2,075.10 ft; minimum contents after initial filling, 9,740 acre-ft, Aug 30, 31, and Sep 1, 1953, elevation, 2,051.30 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,350 acre-ft, Mar 26, elevation, 2,068.63 ft; minimum contents, 13,500 acre-ft, Mar 13, elevation, 2,055.66 ft.

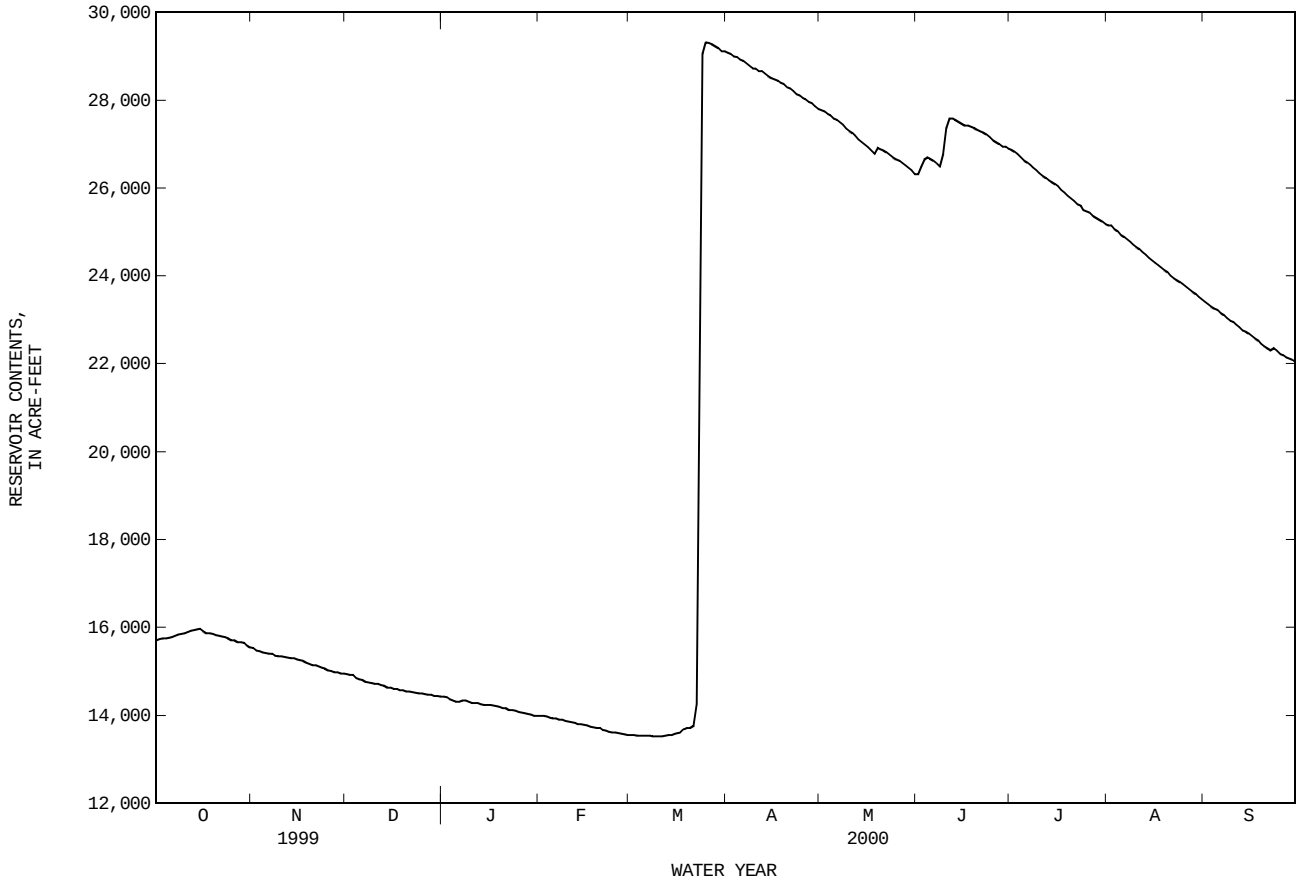
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15710	15540	14940	14430	13990	13550	29090	27770	26320	26870	25150	23410
2	15740	15480	14930	14420	13990	13550	29060	27740	26500	26830	25150	23360
3	15750	15460	14930	14370	13980	13540	29000	27690	26650	26770	25060	23310
4	15750	15440	14860	14340	13950	13540	28990	27660	26700	26700	25020	23260
5	15770	15420	14820	14320	13930	13540	28930	27590	26670	26630	24930	23230
6	15790	15410	14810	14310	13930	13540	28900	27560	26630	26580	24890	23160
7	15820	15400	14770	14350	13910	13540	28840	27500	26560	26520	24840	23110
8	15840	15370	14750	14340	13900	13530	28780	27440	26500	26460	24770	23040
9	15860	15350	14730	14310	13880	13530	28720	27360	26770	26400	24720	22990
10	15880	15350	14720	14290	13860	13520	28720	27300	27370	26330	24660	22950
11	15900	15340	14720	14290	13850	13530	28670	27250	27590	26280	24610	22890
12	15930	15320	14690	14280	13830	13540	28660	27190	27590	26230	24540	22830
13	15950	15310	14680	14250	13810	13550	28600	27110	27560	26180	24480	22770
14	15960	15300	14640	14240	13800	13560	28550	27050	27520	26130	24410	22740
15	15970	15280	14630	14240	13790	13580	28510	26990	27470	26090	24350	22690
16	15920	15260	14600	14240	13770	13600	28480	26930	27430	26040	24300	22640
17	15880	15240	14600	14230	13750	13620	28450	26860	27420	25950	24250	22580
18	15880	15200	14580	14210	13730	13690	28400	26790	27400	25890	24190	22530
19	15860	15170	14580	14200	13710	13710	28370	26920	27370	25820	24140	22460
20	15830	15150	14550	14170	13710	13720	28300	26890	27330	25770	24090	22400
21	15810	15140	14540	14170	13670	13760	28270	26860	27300	25710	24010	22350
22	15800	15110	14530	14130	13660	14260	28210	26820	27270	25640	23940	22310
23	15780	15090	14520	14130	13630	23960	28140	26750	27220	25600	23900	22350
24	15750	15070	14510	14110	13620	29060	28110	26700	27170	25510	23860	22300
25	15720	15030	14510	14080	13610	29320	28050	26650	27090	25470	23810	22220
26	15710	15010	14490	14070	13600	29310	28030	26620	27050	25440	23760	22190
27	15670	14990	14480	14050	13580	29280	27970	26560	27000	25370	23700	22150
28	15670	14980	14470	14040	13570	29230	27930	26520	26940	25330	23640	22120
29	15650	14950	14450	14020	13550	29190	27860	26460	26940	25280	23590	22090
30	15600	14950	14440	14000	---	29110	27810	26400	26900	25240	23520	22040
31	15550	---	14430	13990	---	29110	---	26320	---	25190	23470	---
MAX	15970	15540	14940	14430	13990	29320	29090	27770	27590	26870	25150	23410
MIN	15550	14950	14430	13990	13550	13520	27810	26320	26320	25190	23470	22040
(+)	2057.74	2057.15	2056.62	2056.17	2055.71	2068.47	2067.60	2066.57	2066.98	2065.77	2064.49	2063.39
(@)	-200	-600	-520	-440	-440	+15560	-1300	-1490	+580	-1710	-1720	-1430

CAL YR 1999 MAX 16230 MIN 14060 (@) -690
WTR YR 2000 MAX 29320 MIN 13520 (@) +6290

(+) 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 Sep 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 Sep 29, 1959, 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 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 Utilities Electric 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-feet) 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, Jun 29, 1982, elevation, 2,085.79 ft; minimum contents after initial filling, 1,720 acre-ft, Apr 11-15, 1971, elevation, 2,026.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 6,020 acre-ft, Oct 1, elevation, 2,042.49 ft; minimum contents, 4,360 acre-ft, Sep 30, elevation, 2,037.82 ft.

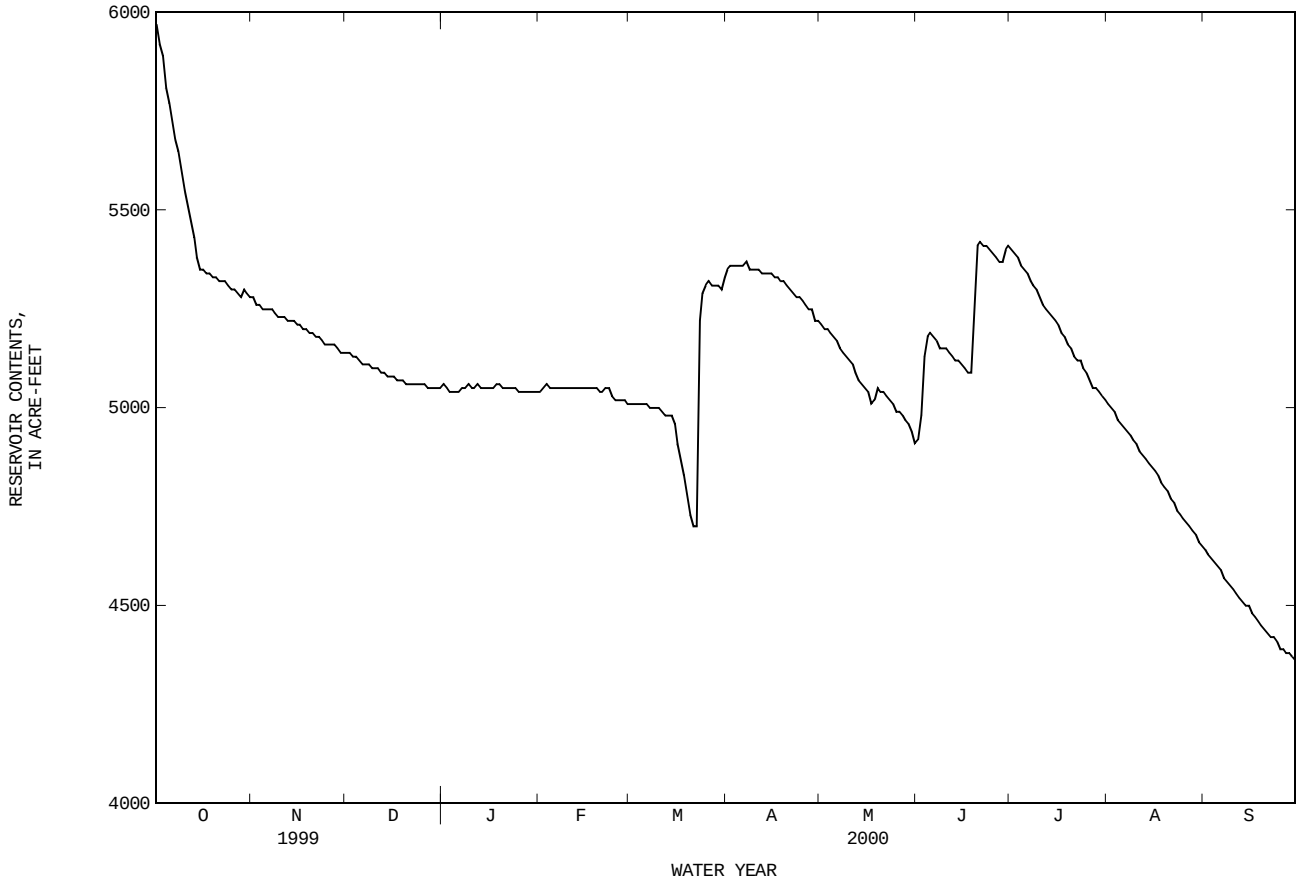
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5970	5280	5140	5060	5040	5010	5350	5210	4920	5400	5010	4640
2	5920	5260	5140	5050	5050	5010	5360	5200	4980	5390	5000	4630
3	5890	5260	5130	5040	5060	5010	5360	5200	5130	5380	4990	4620
4	5810	5250	5130	5040	5050	5010	5360	5190	5180	5360	4970	4610
5	5770	5250	5120	5040	5050	5010	5360	5180	5190	5350	4960	4600
6	5730	5250	5110	5040	5050	5010	5360	5170	5180	5340	4950	4590
7	5680	5250	5110	5050	5050	5000	5370	5150	5170	5320	4940	4570
8	5650	5240	5110	5050	5050	5000	5350	5140	5150	5310	4930	4560
9	5600	5230	5100	5060	5050	5000	5350	5130	5150	5300	4920	4550
10	5550	5230	5100	5050	5050	5000	5350	5120	5150	5280	4910	4540
11	5510	5230	5100	5050	5050	4990	5350	5110	5140	5260	4890	4530
12	5470	5220	5090	5060	5050	4980	5340	5090	5130	5250	4880	4520
13	5430	5220	5090	5050	5050	4980	5340	5070	5120	5240	4870	4510
14	5380	5220	5080	5050	5050	4980	5340	5060	5120	5230	4860	4500
15	5350	5210	5080	5050	5050	4960	5340	5050	5110	5220	4850	4500
16	5350	5210	5080	5050	5050	4910	5330	5040	5100	5210	4840	4480
17	5340	5200	5070	5050	5050	4870	5330	5010	5090	5190	4830	4470
18	5340	5200	5070	5060	5050	4830	5320	5020	5090	5180	4810	4460
19	5330	5190	5070	5060	5050	4780	5320	5050	5270	5160	4800	4450
20	5330	5190	5060	5050	5040	4730	5310	5040	5410	5150	4790	4440
21	5320	5180	5060	5050	5040	4700	5300	5040	5420	5130	4770	4430
22	5320	5180	5060	5050	5050	4700	5290	5030	5410	5120	4760	4420
23	5320	5170	5060	5050	5050	5220	5280	5020	5410	5120	4740	4420
24	5310	5160	5060	5050	5030	5290	5280	5010	5400	5100	4730	4410
25	5300	5160	5060	5040	5020	5310	5270	4990	5390	5090	4720	4390
26	5300	5160	5060	5040	5020	5320	5260	4990	5380	5070	4710	4390
27	5290	5160	5050	5040	5020	5310	5250	4980	5370	5050	4700	4380
28	5280	5150	5050	5040	5020	5310	5250	4970	5370	5050	4690	4380
29	5300	5140	5050	5040	5010	5310	5220	4960	5400	5040	4680	4370
30	5290	5140	5050	5040	---	5300	5220	4940	5410	5030	4660	4360
31	5280	---	5050	5040	---	5330	---	4910	---	5020	4650	---
MAX	5970	5280	5140	5060	5060	5330	5370	5210	5420	5400	5010	4640
MIN	5280	5140	5050	5040	5010	4700	5220	4910	4920	5020	4650	4360
(+)	2040.56	2040.18	2039.92	2039.88	2039.80	2040.70	2040.39	2039.50	2040.91	2039.82	2038.73	2037.82
(@)	-740	-140	-90	-10	-30	+320	-110	-310	+500	-390	-370	-290

CAL YR 1999 MAX 11250 MIN 5050 (@) -5420
WTR YR 2000 MAX 5970 MIN 4360 (@) -1660

(+) 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 and for Aug 24 to Sep 14, which are poor. 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, 1,100 acre-ft, Nov 29, 1999, elevation, 2,318.67 ft.

EXTREMES FOR WATER YEAR 1999.--Maximum contents, 3,030 acre-ft, May 29, elevation, 2,334.37 ft; minimum contents, 1,900 acre-ft, Mar 4, elevation, 2,326.08 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,030 acre-ft, May 29, elevation, 2,334.37 ft; minimum contents, 1,900 acre-ft, Mar 4, elevation, 2,326.08 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,090 acre-ft, Mar 23, elevation, 2,340.86 ft; minimum contents, 1,100 acre-ft, Nov 29, elevation, 2,318.67 ft.

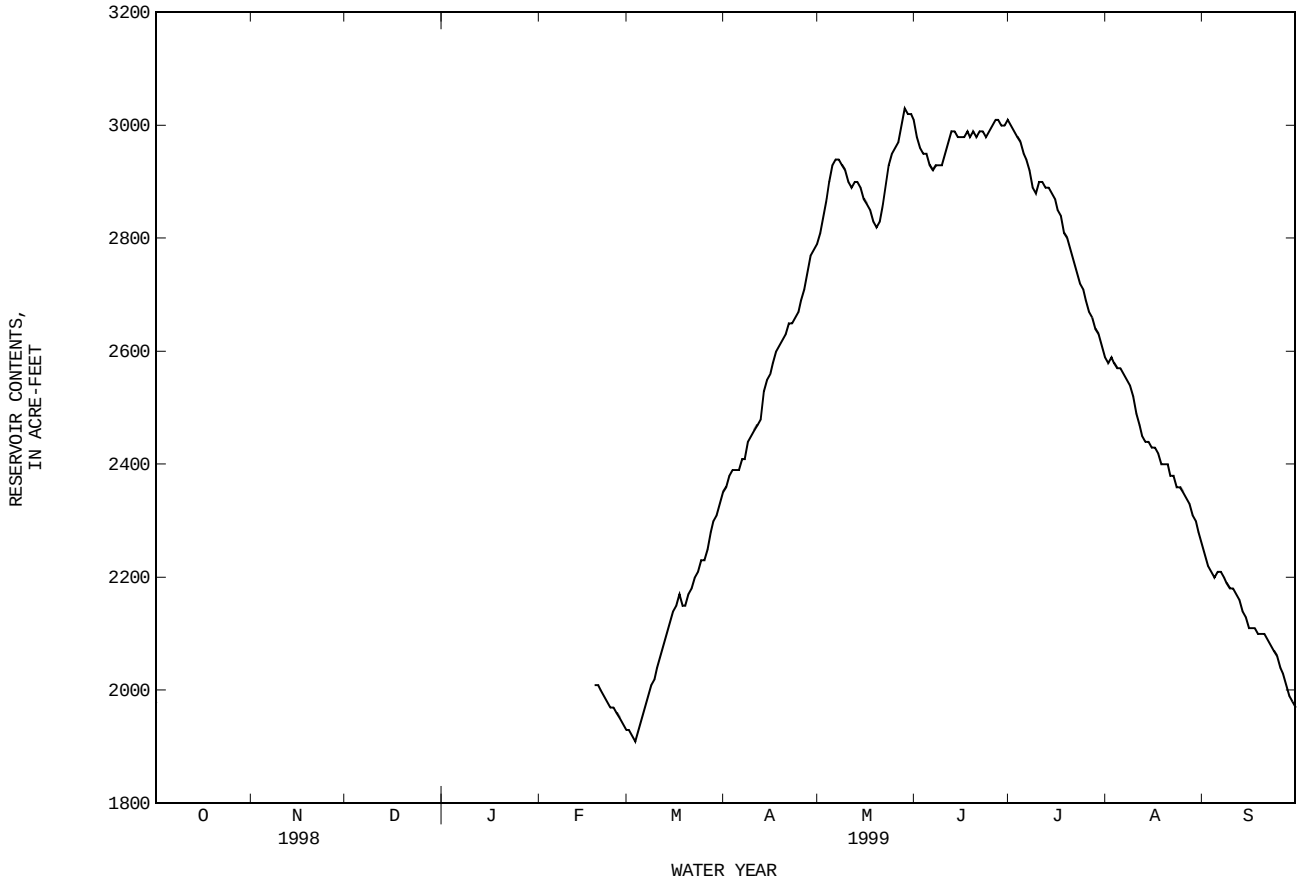
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	1930	2360	2810	2980	3000	2580	2240
2	---	---	---	---	---	1920	2380	2840	2960	2990	2590	2220
3	---	---	---	---	---	1910	2390	2870	2950	2980	2580	2210
4	---	---	---	---	---	1930	2390	2900	2950	2970	2570	2200
5	---	---	---	---	---	1950	2390	2930	2930	2950	2570	2210
6	---	---	---	---	---	1970	2410	2940	2920	2940	2560	2210
7	---	---	---	---	---	1990	2410	2940	2930	2920	2550	2200
8	---	---	---	---	---	2010	2440	2930	2930	2890	2540	2190
9	---	---	---	---	---	2020	2450	2920	2930	2880	2520	2180
10	---	---	---	---	---	2040	2460	2900	2950	2900	2490	2180
11	---	---	---	---	---	2060	2470	2890	2970	2900	2470	2170
12	---	---	---	---	---	2080	2480	2900	2990	2890	2450	2160
13	---	---	---	---	---	2100	2530	2900	2990	2890	2440	2140
14	---	---	---	---	---	2120	2550	2890	2980	2880	2440	2130
15	---	---	---	---	---	2140	2560	2870	2980	2870	2430	2110
16	---	---	---	---	---	2150	2580	2860	2980	2850	2430	2110
17	---	---	---	---	---	2170	2600	2850	2990	2840	2420	2110
18	---	---	---	---	2010	2150	2610	2830	2980	2810	2400	2100
19	---	---	---	---	2010	2150	2620	2820	2990	2800	2400	2100
20	---	---	---	---	2000	2170	2630	2830	2980	2780	2400	2100
21	---	---	---	---	1990	2180	2650	2860	2990	2760	2380	2090
22	---	---	---	---	1980	2200	2650	2890	2990	2740	2380	2080
23	---	---	---	---	1970	2210	2660	2930	2980	2720	2360	2070
24	---	---	---	---	1970	2230	2670	2950	2990	2710	2360	2060
25	---	---	---	---	1960	2230	2690	2960	3000	2690	2350	2040
26	---	---	---	---	1950	2250	2710	2970	3010	2670	2340	2030
27	---	---	---	---	1940	2280	2740	3000	3010	2660	2330	2010
28	---	---	---	---	1930	2300	2770	3030	3000	2640	2310	1990
29	---	---	---	---	---	2310	2780	3020	3000	2630	2300	1980
30	---	---	---	---	---	2330	2790	3020	3010	2610	2280	1970
31	---	---	---	---	---	2350	---	3010	---	2590	2260	---
MAX	---	---	---	---	---	2350	2790	3030	3010	3000	2590	2240
MIN	---	---	---	---	---	1910	2360	2810	2920	2590	2260	1970
(+)						2329.55	2332.74	2334.21	2334.24	2331.30	2328.85	2326.58
(@)						+420	+440	+220	0	-420	-330	-290

WTR YR 1999 MAX 3030 MIN 1910

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

08123755 MOSS CREEK LAKE NEAR COAHOMA, TX--Continued



08123755 MOSS CREEK LAKE NEAR COAHOMA, TX--Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

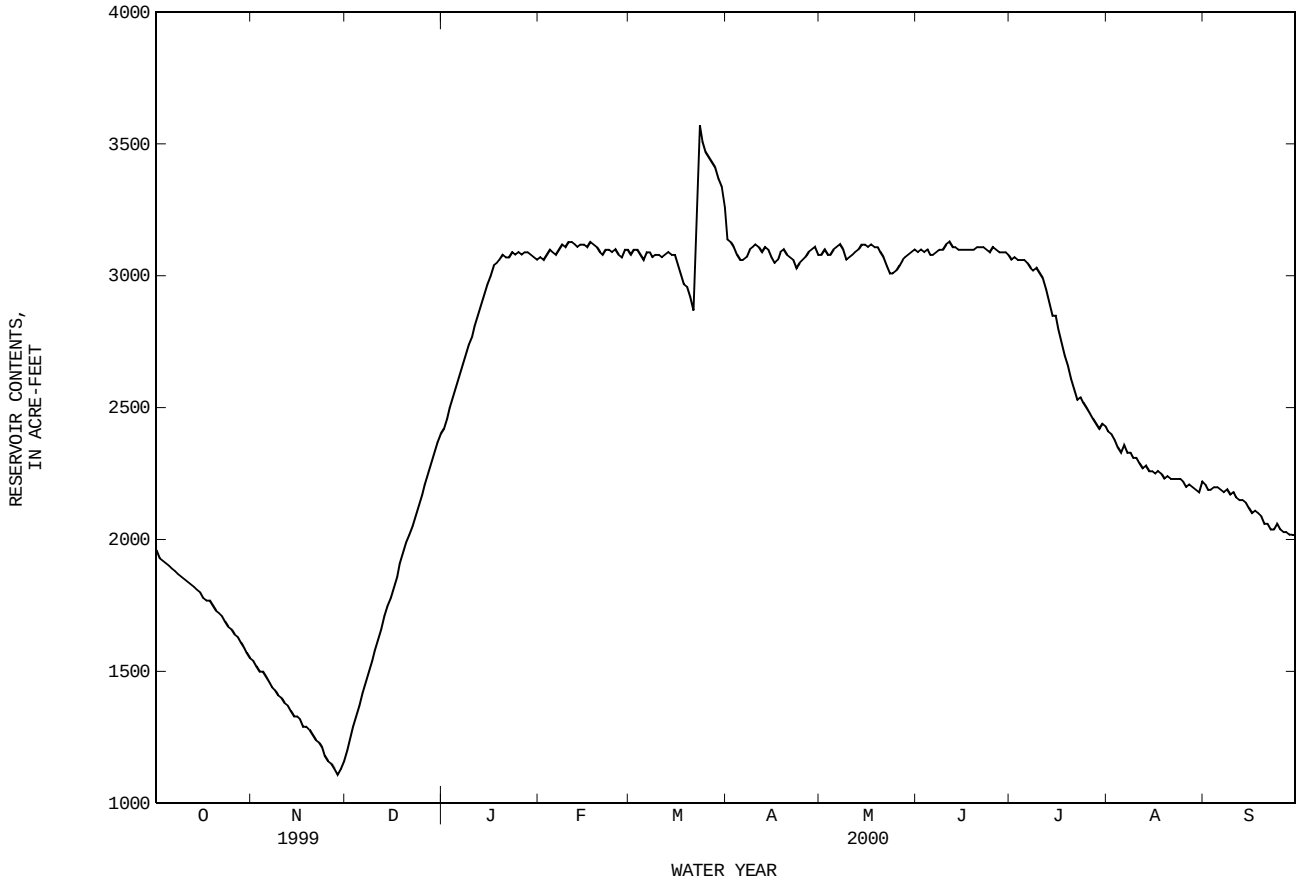
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	1540	1200	2420	3070	3080	3140	3080	3090	3060	2410	2210
2	1930	1520	1240	2460	3060	3100	3130	3100	3100	3070	2400	2190
3	1920	1500	1290	2500	3080	3100	3110	3080	3090	3060	2380	2190
4	1910	1500	1330	2540	3100	3080	3080	3080	3100	3060	2350	2200
5	1900	1480	1370	2580	3090	3060	3060	3100	3080	3060	2330	2200
6	1890	1460	1420	2620	3080	3090	3060	3110	3080	3050	2360	2190
7	1880	1440	1460	2660	3100	3090	3070	3120	3090	3030	2330	2180
8	1870	1430	1500	2700	3120	3070	3100	3100	3100	3020	2330	2190
9	1860	1410	1540	2740	3110	3080	3110	3060	3100	3030	2310	2170
10	1850	1400	1580	2770	3130	3080	3120	3070	3120	3010	2310	2180
11	1840	1380	1620	2810	3130	3070	3110	3080	3130	2990	2290	2160
12	1830	1370	1660	2850	3120	3080	3090	3090	3110	e2950	2270	2150
13	1820	1350	1710	2890	3110	3090	3110	3100	3110	e2900	2280	2150
14	1810	1330	1750	2930	3120	3080	3100	3120	3100	e2850	2260	2140
15	1800	1330	1780	2970	3120	3080	3070	3120	3100	e2850	2260	2120
16	1780	1320	1820	3000	3110	3050	3050	3110	3100	e2800	2250	2100
17	1770	1290	1860	3040	3130	3010	3060	3120	3100	e2750	2260	2110
18	1770	1290	1910	3050	3120	2970	3090	3110	3100	e2700	2250	2100
19	1750	1280	1950	3060	3110	2960	3100	3110	3100	2660	2230	2090
20	1730	1260	1990	3080	3090	2920	3080	3090	3110	2610	2240	2060
21	1720	1240	2020	3070	3080	2870	3070	3070	3110	2570	2230	2060
22	1710	1230	2050	3070	3100	3170	3060	3040	3110	2530	2230	2040
23	1690	1210	2090	3090	3100	3570	3030	3010	3100	2540	2230	2040
24	1670	1180	2130	3080	3090	3510	3050	3010	3090	2520	2230	2060
25	1660	1160	2170	3090	3100	3470	3060	3020	3110	2500	2220	2040
26	1640	1150	2210	3080	3080	3450	3070	3040	3100	2480	2200	2030
27	1630	1130	2250	3090	3070	3430	3090	3060	3090	2460	2210	2030
28	1610	1110	2290	3090	3100	3410	3100	3070	3090	2440	2200	2020
29	1590	1130	2330	3080	3100	3370	3110	3080	3090	2420	2190	2020
30	1570	1160	2370	3070	---	3340	3080	3090	3080	2440	2180	2020
31	1550	---	2400	3060	---	3260	---	3100	---	2430	2220	---
MAX	1960	1540	2400	3090	3130	3570	3140	3120	3130	3070	2410	2210
MIN	1550	1110	1200	2420	3060	2870	3030	3010	3080	2420	2180	2020
(+)	2323.07	2319.30	2329.93	2334.59	2334.79	2335.85	2334.66	2334.80	2334.67	2330.12	2328.58	2327.00
(@)	-420	-390	+1240	+660	+40	+160	-180	+20	-20	-650	-210	-200

WTR YR 2000 MAX 3570 MIN 1110 (@) +50

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 except those above 6,000 ft^3/s, which are fair. No known regulation. Low flow is affected by diversion upstream from station. No flow at times most years. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 23	1300	c13,000	a23.70	Jun 10	2000	1,990	13.97
Mar 29	0015	1,270	10.95				

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	.00	.00	.00	.00	.00	.00	488	.17	.01	.13	.00	.00
2	.00	.00	.00	.00	.00	.00	418	.11	4.5	.14	.00	.00
3	.00	.00	.00	.00	.00	.00	196	.08	33	.12	.00	.00
4	.00	.00	.00	.00	.00	.00	139	.07	89	.07	.00	.00
5	.00	.00	.00	.00	.00	.00	105	.07	25	.05	.00	.00
6	.00	.00	.00	.00	.00	.00	80	.06	14	.04	.00	.00
7	.00	.00	.00	.00	.00	.00	61	.04	8.1	.04	.00	.00
8	.00	.00	.00	.00	.00	.00	45	.04	4.1	.04	.00	.00
9	.00	.00	.00	.00	.00	.00	30	.04	2.1	.02	.00	.00
10	.00	.00	.00	.00	.00	.00	26	.06	1040	.01	.00	.00
11	.00	.00	.00	.00	.00	.00	22	.05	265	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	18	.05	38	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	15	.03	11	3.1	.00	.00
14	.00	.00	.00	.00	.00	.00	13	.03	5.3	4.1	.00	.00
15	.00	.00	.00	.00	.00	.00	11	.05	3.6	29	.00	.00
16	.00	.00	.00	.00	.00	.00	8.9	.05	2.3	30	.00	.00
17	.00	.00	.00	.00	.00	.00	8.0	.03	1.5	29	.00	.00
18	.00	.00	.00	.00	.00	.00	7.1	.03	1.3	28	.00	.00
19	.00	.00	.00	.00	.00	.00	6.1	53	1.3	28	.00	.00
20	.00	.00	.00	.00	.00	.00	5.1	231	2.2	27	.00	.00
21	.00	.00	.00	.00	.00	.00	4.5	47	2.8	16	.00	.00
22	.00	.00	.00	.00	.00	79	3.8	8.7	1.5	2.3	.00	.00
23	.00	.00	.00	.00	.00	7340	3.0	2.2	1.1	.43	.00	.00
24	.00	.00	.00	.00	.00	3820	3.8	.69	.75	.13	.00	.00
25	.00	.00	.00	.00	.00	660	3.2	.29	.40	.04	.00	.00
26	.00	.00	.00	.00	.00	485	2.2	.11	.23	31	.00	.00
27	.00	.00	.00	.00	.00	1030	1.5	.09	.15	2.8	.00	.00
28	.00	.00	.00	.00	.00	1140	.95	.18	.14	.30	.00	.00
29	.00	.00	.00	.00	.00	1140	.62	.07	.12	.06	.00	.00
30	.00	.00	.00	.00	---	649	.38	.03	.12	.02	.00	.00
31	.00	---	.00	.00	---	526	---	.01	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	16869.00	1726.15	344.43	1558.62	231.94	0.00	0.00
MEAN	.000	.000	.000	.000	.000	544	57.5	11.1	52.0	7.48	.000	.000
MAX	.00	.00	.00	.00	.00	7340	488	231	1040	31	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.38	.01	.01	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	33460	3420	683	3090	460	.00	.00

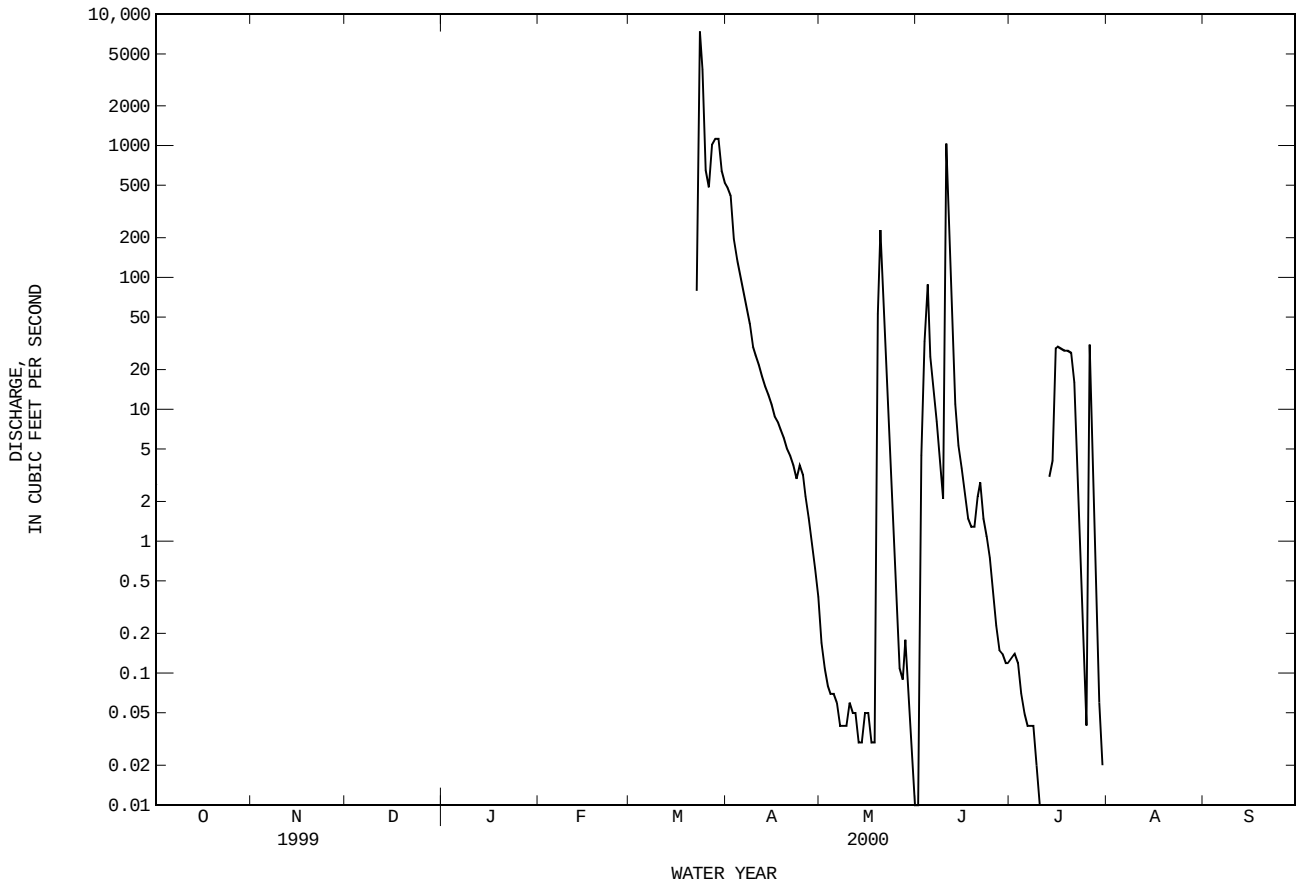
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2000, BY WATER YEAR (WY)

MEAN	38.8	6.08	5.20	4.93	8.44	19.7	20.2	57.4	41.9	24.8	18.1	61.3
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	.046	.012	.14	.009	.000	.000	.000
(WY)	1964	2000	1999	1999	1999	1996	1998	1962	1998	1964	2000	1998

08123800 BEALS CREEK NEAR WESTBROOK, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1959 - 2000	
ANNUAL TOTAL	1338.35		20730.14			
ANNUAL MEAN	3.67		56.6		25.6	
HIGHEST ANNUAL MEAN					107	1987
LOWEST ANNUAL MEAN					3.92	1998
HIGHEST DAILY MEAN	256	May 29	7340	Mar 23	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
INSTANTANEOUS PEAK FLOW			c13000	Mar 23	c13000	Mar 23 2000
INSTANTANEOUS PEAK STAGE			a23.70	Mar 23	a23.70	Mar 23 2000
ANNUAL RUNOFF (AC-FT)	2650		41120		18560	
10 PERCENT EXCEEDS	2.4		23		24	
50 PERCENT EXCEEDS	.00		.00		2.1	
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

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.--Records good except those for estimated mean specific conductance and water temperature values and interruptions in the maximum and minimum specific conductance and water temperature values, which are poor due to malfunction of the instrument. 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. New regression equations were developed based on data from water years 1991 to 2000. The standard error of estimate for dissolved solids is 4%, chloride is 40%, sulfate is 35% and for hardness is 9%. 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, Aug 9, 1989; minimum, 59 microsiemens, Nov 1, 1998.
WATER TEMPERATURE: Maximum daily, 37.0°C, Jun 28, 1960, and Jul 3, 1976; minimum, 0.0°C, on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 9,580 microsiemens, Jul 16; minimum, 107 microsiemens, Mar 22.
WATER TEMPERATURE: Maximum, 34.0°C, Jun 24; minimum, 5.2°C, Mar 22.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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)
MAR									
23...	1110	9160	174	12.4	65	9	22	2.7	9.7
25...	1400	146	1930	18.2	--	--	E90	E45	E220
26...	1615	572	8130	20.7	1700	1700	220	288	1150
29...	1215	1190	3130	20.5	640	550	95	98	395
JUN									
05...	1040	28	3400	25.1	650	560	120	89	421
28...	1035	.15	4140	26.9	760	580	160	90	438

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
MAR								
23...	.5	3.9	56	6.7	11	.19	4.0	94
25...	--	16	79	260	390	.36	7.3	--
26...	12	66	85	1600	1900	.61	9.4	5250
29...	7	30	92	540	640	.44	11	1860
JUN								
05...	7	22	98	560	700	.54	8.8	1980
28...	7	10	180	480	970	.70	9.4	2260

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1999 TO SEPTEMBER 2000

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.	1999	0	--	--	--	--	--	--	--	--
NOV.	1999	0	--	--	--	--	--	--	--	--
DEC.	1999	0	--	--	--	--	--	--	--	--
JAN.	2000	0	--	--	--	--	--	--	--	--
FEB.	2000	0	--	--	--	--	--	--	--	--
MAR.	2000	16869	1680	991	45150	410	18780	200	9270	340
APR.	2000	1726.15	3410	2020	9430	840	3920	420	1950	700
MAY	2000	344.43	2350	1380	1290	580	536	280	263	480
JUNE	2000	1558.62	2310	1350	5670	560	2370	270	1140	470
JULY	2000	231.94	3470	2060	1290	860	536	420	266	710
AUG.	2000	0	--	--	--	--	--	--	--	--
SEPT	2000	0	--	--	--	--	--	--	--	--
TOTAL		20730.14	**	**	62830	**	26140	**	12890	**
WTD.AVG.		57	1900	1120	**	470	**	230	**	390

08123800 BEALS CREEK NEAR WESTBROOK, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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	---	---	---	---	---	---	2620	2300	2440	7940	7800	7870
2	---	---	---	---	---	---	2730	2620	2680	7980	7870	7910
3	---	---	---	---	---	---	3480	2730	3180	8050	7760	7850
4	---	---	---	---	---	---	3570	3480	3550	7960	7840	7890
5	---	---	---	---	---	---	3980	3550	3740	8030	7790	7870
6	---	---	---	---	---	---	4390	3980	4200	8030	7800	7880
7	---	---	---	---	---	---	4790	4390	4620	8110	7790	7910
8	---	---	---	---	---	---	5240	4790	5020	8010	7830	7920
9	---	---	---	---	---	---	5390	5240	5330	8040	7900	7960
10	---	---	---	---	---	---	5770	5320	5520	8070	7880	7990
11	---	---	---	---	---	---	6170	5770	6010	8250	7990	8060
12	---	---	---	---	---	---	6400	6150	6260	8210	8020	8100
13	---	---	---	---	---	---	6560	6400	6470	8270	8130	8210
14	---	---	---	---	---	---	6690	6540	6600	8340	8170	8280
15	---	---	---	---	---	---	6760	6630	6700	8370	8110	8260
16	---	---	---	---	---	---	6850	6700	6780	8320	8110	8210
17	---	---	---	---	---	---	6880	6740	6820	8280	8160	8220
18	---	---	---	---	---	---	6850	6780	6820	8360	8110	8240
19	---	---	---	---	---	---	6980	6830	6900	8350	376	5580
20	---	---	---	---	---	---	7050	6940	7010	5250	675	1540
21	---	---	---	---	---	---	7090	6960	7040	3780	1340	2230
22	---	---	---	634	107	200	7170	7060	7110	4000	3320	3600
23	---	---	---	---	---	250	7210	7120	7170	3320	3200	3270
24	---	---	---	---	---	e1200	7260	7110	7190	3290	3210	3260
25	---	---	---	---	---	e2500	7580	7210	7380	3340	3240	3300
26	---	---	---	---	---	7100	7720	7580	7650	3390	3300	3350
27	---	---	---	6730	4360	5290	7760	7550	7670	3520	3390	3460
28	---	---	---	4360	3560	3760	7750	7640	7700	3500	3420	3460
29	---	---	---	3580	3040	3290	7790	7680	7740	3560	3470	3520
30	---	---	---	3040	2810	2870	7870	7750	7790	3680	3560	3630
31	---	---	---	2840	2340	2640	---	---	---	3790	3680	3730
MONTH	---	---	---	---	---	---	7870	2300	6040	8370	376	6080

08123800 BEALS CREEK NEAR WESTBROOK, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3880	3780	3850	4470	4320	4410	---	---	---	---	---	---
2	3950	1790	3000	4560	4330	4470	---	---	---	---	---	---
3	3920	1010	1910	4720	4500	4640	---	---	---	---	---	---
4	4310	1330	2660	4940	4710	4840	---	---	---	---	---	---
5	3150	2500	2780	5150	4930	5040	---	---	---	---	---	---
6	3770	3150	3490	5290	5130	5200	---	---	---	---	---	---
7	3920	3770	3870	5460	5290	5350	---	---	---	---	---	---
8	4120	3900	4000	5550	5410	5480	---	---	---	---	---	---
9	4370	4120	4270	5650	5460	5580	---	---	---	---	---	---
10	6410	463	1950	5800	5600	5700	---	---	---	---	---	---
11	8260	473	3350	---	---	---	---	---	---	---	---	---
12	3850	2180	2750	---	---	---	---	---	---	---	---	---
13	2180	2070	2110	5940	4870	5300	---	---	---	---	---	---
14	2210	2110	2150	4870	737	1280	---	---	---	---	---	---
15	2310	2210	2250	7290	1570	4160	---	---	---	---	---	---
16	2480	2310	2400	9580	3350	5090	---	---	---	---	---	---
17	2640	2480	2560	3720	3340	3390	---	---	---	---	---	---
18	2750	2640	2710	4060	3200	3650	---	---	---	---	---	---
19	2870	2750	2800	3440	3170	3310	---	---	---	---	---	---
20	3030	2870	2930	3400	3120	3280	---	---	---	---	---	---
21	3010	2910	2960	3330	3140	3270	---	---	---	---	---	---
22	2960	2880	2920	3410	3320	3370	---	---	---	---	---	---
23	3070	2960	3020	3560	3410	3470	---	---	---	---	---	---
24	3290	3070	3160	3770	3550	3640	---	---	---	---	---	---
25	3520	3290	3400	3950	3760	3890	---	---	---	---	---	---
26	3770	3520	3610	3980	949	1910	---	---	---	---	---	---
27	3890	3750	3830	1280	1190	1250	---	---	---	---	---	---
28	4190	3890	4020	1310	1230	1260	---	---	---	---	---	---
29	4290	4190	4240	1500	1310	1430	---	---	---	---	---	---
30	4340	4150	4260	1720	1500	1640	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8260	463	3110	---	---	---	---	---	---	---	---	---

e Estimated

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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	---	---	---	---	---	---	---	---	---	---	---	---

08123800 BEALS CREEK NEAR WESTBROOK, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	15.2	12.8	14.1	26.2	19.7	22.4
2	---	---	---	---	---	---	13.9	12.1	12.9	24.9	19.0	21.4
3	---	---	---	---	---	---	15.5	12.0	13.5	26.1	19.0	22.1
4	---	---	---	---	---	---	17.0	11.8	14.3	27.5	20.9	23.7
5	---	---	---	---	---	---	18.5	13.5	16.0	30.9	22.7	25.8
6	---	---	---	---	---	---	20.7	15.3	18.0	29.7	23.2	25.9
7	---	---	---	---	---	---	21.9	17.7	19.5	29.9	23.0	25.5
8	---	---	---	---	---	---	20.0	15.4	17.5	28.6	22.7	24.9
9	---	---	---	---	---	---	19.8	15.0	17.4	26.9	22.0	24.0
10	---	---	---	---	---	---	20.5	16.0	18.3	30.2	22.3	25.3
11	---	---	---	---	---	---	19.7	17.0	18.5	30.5	23.5	26.4
12	---	---	---	---	---	---	17.6	15.4	16.4	28.3	23.9	25.5
13	---	---	---	---	---	---	23.1	14.4	18.2	25.2	20.9	22.9
14	---	---	---	---	---	---	25.5	17.5	20.9	26.8	19.4	22.8
15	---	---	---	---	---	---	26.1	18.5	21.7	30.0	21.7	24.9
16	---	---	---	---	---	---	25.1	17.2	21.0	28.6	23.2	25.5
17	---	---	---	---	---	---	27.3	19.1	22.8	27.4	22.5	24.3
18	---	---	---	---	---	---	27.7	21.7	24.4	28.0	22.5	24.4
19	---	---	---	---	---	---	25.6	21.5	23.5	23.1	14.8	18.2
20	---	---	---	---	---	---	25.7	18.4	21.7	18.2	14.7	16.1
21	---	---	---	---	---	---	26.3	18.6	22.0	24.8	18.0	20.9
22	---	---	---	12.1	5.2	9.0	23.3	19.3	21.3	29.1	21.9	25.1
23	---	---	---	---	---	10.5	24.1	17.9	20.7	31.2	22.8	26.6
24	---	---	---	---	---	e14.5	27.2	18.5	22.4	32.2	23.1	27.3
25	---	---	---	---	---	e18.0	27.1	19.8	23.2	33.5	25.2	28.4
26	---	---	---	---	---	19.5	28.7	20.5	24.0	31.3	26.2	28.4
27	---	---	---	21.0	18.2	19.5	29.4	21.5	24.2	30.9	26.0	28.1
28	---	---	---	21.4	18.4	19.8	27.9	21.0	23.7	31.2	25.6	28.2
29	---	---	---	20.8	18.3	19.7	28.8	20.9	24.2	32.2	26.0	28.7
30	---	---	---	19.5	16.8	18.3	27.4	22.4	24.3	31.5	26.6	28.8
31	---	---	---	17.2	15.2	16.6	---	---	---	29.9	25.6	27.6
MONTH	---	---	---	---	---	---	29.4	11.8	20.0	33.5	14.7	24.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.1	25.1	26.8	29.9	25.3	27.1	---	---	---	---	---	---
2	25.8	22.2	24.8	32.6	25.4	28.5	---	---	---	---	---	---
3	27.5	23.5	25.3	31.4	26.4	28.7	---	---	---	---	---	---
4	28.0	24.6	26.3	31.6	26.2	28.4	---	---	---	---	---	---
5	29.5	25.0	27.0	30.4	25.9	27.9	---	---	---	---	---	---
6	30.4	24.6	27.4	31.3	25.5	28.1	---	---	---	---	---	---
7	30.4	24.7	27.5	30.1	26.0	27.8	---	---	---	---	---	---
8	30.0	24.5	27.1	30.8	25.9	28.0	---	---	---	---	---	---
9	29.0	24.9	26.7	31.0	25.8	28.1	---	---	---	---	---	---
10	26.2	22.0	23.5	31.5	26.0	28.4	---	---	---	---	---	---
11	28.4	23.4	25.7	---	---	---	---	---	---	---	---	---
12	28.1	25.3	26.7	---	---	---	---	---	---	---	---	---
13	30.5	25.0	27.3	30.3	28.5	30.0	---	---	---	---	---	---
14	27.2	24.6	25.7	32.0	25.8	28.5	---	---	---	---	---	---
15	32.0	23.5	27.1	32.9	27.5	30.0	---	---	---	---	---	---
16	32.1	25.4	28.5	32.0	27.7	29.9	---	---	---	---	---	---
17	29.7	24.6	27.0	32.0	27.1	29.5	---	---	---	---	---	---
18	25.8	23.2	24.0	31.8	26.4	29.1	---	---	---	---	---	---
19	27.5	23.1	24.6	31.7	26.5	29.1	---	---	---	---	---	---
20	30.6	23.4	26.7	31.5	26.2	28.8	---	---	---	---	---	---
21	30.1	25.8	27.6	31.7	26.0	28.7	---	---	---	---	---	---
22	32.2	26.0	28.6	32.9	25.9	29.1	---	---	---	---	---	---
23	31.8	26.1	28.4	30.6	25.8	28.0	---	---	---	---	---	---
24	34.0	26.0	29.0	33.0	25.2	28.4	---	---	---	---	---	---
25	33.8	26.2	29.4	31.5	26.0	28.3	---	---	---	---	---	---
26	33.2	26.5	29.0	29.2	24.4	27.0	---	---	---	---	---	---
27	31.7	26.0	28.0	31.6	26.0	28.3	---	---	---	---	---	---
28	30.3	25.9	27.7	33.6	25.9	29.0	---	---	---	---	---	---
29	28.8	25.1	26.8	29.0	26.1	27.2	---	---	---	---	---	---
30	29.9	25.3	27.1	31.1	25.0	27.6	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	34.0	22.0	26.9	---	---	---	---	---	---	---	---	---

e Estimated

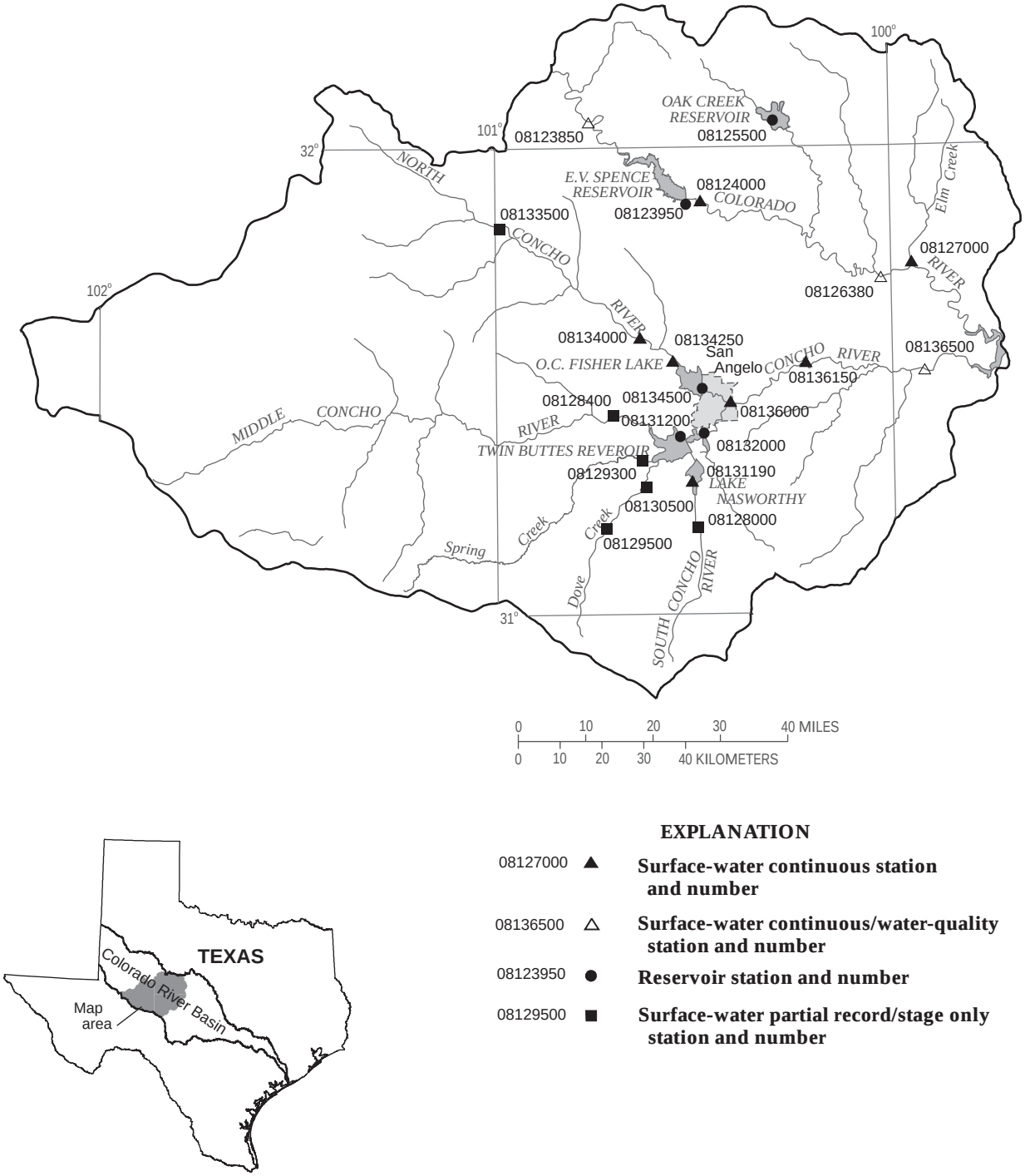


Figure 4.--Map showing location of gaging stations in the second section of the Colorado River Basin

08123850 Colorado River above Silver, TX 54
08123950 E.V. Spence Reservoir near Robert Lee, TX 62
08124000 Colorado River at Robert Lee, TX 64
08125500 Oak Creek Reservoir near Blackwell, TX 66
08126380 Colorado River near Ballinger, TX 68
08127000 Elm Creek at Ballinger, TX 72
08128000 South Concho River at Christoval, TX 74
08128400 Middle Concho River above Tankersley, TX 76
08129300 Spring Creek above Tankersley, TX 78
08129500 Dove Creek Spring near Knickerbocker, TX 307
08130500 Dove Creek at Knickerbocker, TX 80
08131190 South Concho River above Garner Dam, TX 82
08131200 Twin Buttes Reservoir near San Angelo, TX 84
08132000 Lake Nasworthy near San Angelo, TX 86
08133500 North Concho River at Sterling City, TX 88
08134000 North Concho River near Carlsbad, TX 90
08134250 North Concho River near Grape Creek, TX 92
08134500 O.C. Fisher Lake at San Angelo, TX 94
08136000 Concho River at San Angelo, TX 96
08136150 Concho River near Veribest, TX 98
08136500 Concho River at Paint Rock, TX 100

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 good. Since installation of gage in Aug 1967, at least 10% of contributing drainage area has been regulated by Lake J.B. Thomas (station 08118000, conservation pool storage 199,931 acre-ft). Additional regulation by Lake Colorado City (station 08123000), and by Champion Creek Reservoir (station 08123600), combined conservation pool storage 72,400 acre-ft. 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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	.13	.37	.22	1.6	1.4	1.5	597	9.1	4.0	8.4	2.3	.09
2	.10	.14	.22	1.7	1.8	7.5	519	9.2	37	103	1.6	.08
3	.09	.12	.17	1.5	2.0	3.5	375	9.6	126	169	1.3	.07
4	.07	.12	.10	2.0	1.7	3.7	241	9.5	172	100	.97	.07
5	.10	.14	.08	1.5	1.9	3.2	185	9.5	228	49	.72	.07
6	.10	.13	.11	.88	1.8	2.4	138	8.4	94	29	.55	.07
7	.08	.12	.15	.92	1.6	1.9	104	8.1	58	18	.44	.07
8	.16	.14	.23	1.6	1.6	1.5	77	7.8	42	13	.38	.07
9	.11	.13	.10	1.3	2.3	4.1	62	7.3	31	9.8	.32	.08
10	.13	.14	.13	1.3	1.9	6.5	47	7.6	36	8.3	.24	.08
11	.12	.14	.21	1.2	1.4	5.3	40	7.2	973	6.7	.18	.08
12	.11	.14	.21	1.8	1.7	5.0	36	6.7	277	5.8	.16	.07
13	.10	.15	.25	2.3	1.6	4.6	32	6.2	139	4.9	.15	.07
14	.09	.14	.24	1.8	1.3	4.9	28	6.3	59	38	.11	.07
15	.10	.13	.22	2.0	1.7	4.5	25	6.4	40	11	.11	.06
16	.07	.14	.24	1.5	1.6	2.9	22	6.3	32	8.9	.12	.06
17	.12	.16	.27	1.4	2.0	2.8	19	6.0	29	33	.12	.06
18	.25	.17	.26	1.3	1.6	2.4	18	5.6	22	32	.11	.05
19	.33	.11	.29	1.2	1.1	2.8	16	10	66	32	.10	.06
20	.31	.10	.30	1.1	1.2	3.0	14	199	71	32	.11	.06
21	.22	.12	.90	1.2	1.1	2.6	14	135	19	32	.12	.05
22	.16	.12	.80	1.1	1.0	2.5	16	62	15	26	.11	.07
23	.12	.10	.69	.89	.91	779	13	27	12	12	.10	.07
24	.12	.10	.66	1.1	1.3	10400	12	14	8.8	7.4	.09	.06
25	.11	.11	.68	.94	2.4	10500	12	8.9	6.6	4.9	.08	.05
26	.10	.14	.68	1.0	1.4	3960	12	7.2	5.1	3.4	.09	.05
27	.09	.14	.63	1.1	1.5	1530	11	6.1	4.5	28	.09	.06
28	.09	.12	.65	1.0	2.8	1110	11	5.4	4.2	15	.09	.06
29	.11	.11	.80	1.2	1.7	1140	11	5.0	4.0	7.5	.08	.06
30	.39	.15	.80	1.4	---	899	11	4.7	5.6	5.0	.09	.06
31	.40	---	.79	1.5	---	577	---	4.3	---	3.3	.08	---
TOTAL	4.58	4.14	12.08	42.33	47.31	30974.1	2718	625.4	2620.8	856.3	11.11	1.98
MEAN	.15	.14	.39	1.37	1.63	999	90.6	20.2	87.4	27.6	.36	.066
MAX	.40	.37	.90	2.3	2.8	10500	597	199	973	169	2.3	.09
MIN	.07	.10	.08	.88	.91	1.5	11	4.3	4.0	3.3	.08	.05
AC-FT	9.1	8.2	24	84	94	61440	5390	1240	5200	1700	22	3.9

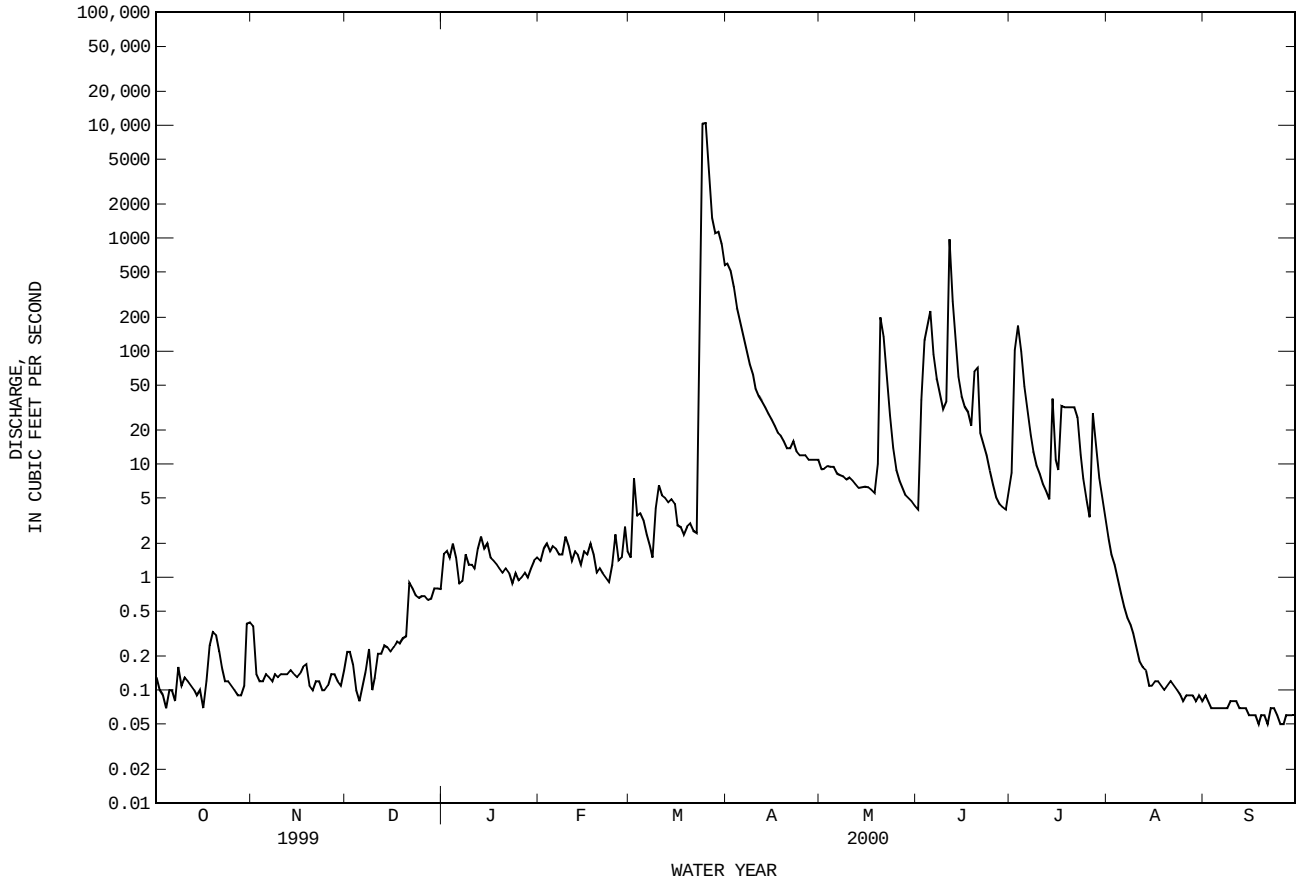
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2000, BY WATER YEAR (WY)

MEAN	118	19.1	18.1	17.1	29.7	57.2	51.9	149	165	51.2	82.0	146
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	.17	.000	.010	.000
(WY)	1969	1971	1971	1971	1971	1971	1998	1984	1998	1970	1984	1968

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1967 - 2000	
ANNUAL TOTAL	11889.10		37918.13			
ANNUAL MEAN	32.6		104		75.7	
HIGHEST ANNUAL MEAN					298	1987
LOWEST ANNUAL MEAN					4.69	1998
HIGHEST DAILY MEAN	3540	Jun 15	10500	Mar 25	15900	Sep 30 1980
LOWEST DAILY MEAN	.00	Aug 20	.05	Sep 18	.00	Aug 2 1968
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 20	.06	Sep 15	.00	Aug 2 1968
INSTANTANEOUS PEAK FLOW			12800	Mar 24	c18900	Sep 9 1980
INSTANTANEOUS PEAK STAGE			p22.42	Mar 24	22.73	Sep 9 1980
ANNUAL RUNOFF (AC-FT)	23580		75210		54850	
10 PERCENT EXCEEDS	20		48		94	
50 PERCENT EXCEEDS	1.6		1.5		8.5	
90 PERCENT EXCEEDS	.09		.09		.14	

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

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 Aug 1994.
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 Jun 1981 to current year.

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

REMARKS.--Records good except those for estimated specific conductance and interruptions in the maximum and minimum specific conductance and water temperature values, which are poor due to malfunction of the instrument. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and a regression relation between each chemical constituent and specific conductance. New regression equations were developed based on data from water years 1991 to 2000. The standard error of estimate for dissolved solids is 7%, chloride is 31%, sulfate is 49% and for hardness is 29%. 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, Sep 10, 1988; minimum, 154 microsiemens, Sep 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 estimated, 13,500 microsiemens, Mar 23; minimum estimated, 200 microsiemens, Mar 24.
WATER TEMPERATURE: Maximum, 34.7°C, Jul 15; minimum, 2.1°C, Jan 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
NOV											
03...	1250	.25	5500	--	18.4	--	--	1900	1800	510	143
JAN											
12...	1230	5.6	9040	--	10.6	--	--	2600	2500	680	215
FEB											
24...	1410	1.0	11100	--	17.0	--	--	2200	2100	560	195
MAR											
24...	1810	12800	554	6.5	14.5	7.1	75	120	64	34	7.9
JUN											
06...	1130	94	2940	7.5	26.2	5.1	67	500	410	120	52

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
NOV										
03...	551	6	8.4	61	1500	1100	.46	8.3	3820	--
JAN										
12...	1190	10	12	89	2300	2100	.42	8.5	6530	--
FEB										
24...	1710	16	12	97	2100	2800	.48	1.7	7370	--
MAR										
24...	55	2	4.9	54	65	87	.27	4.8	294	.496
JUN										
06...	410	8	8.9	90	380	660	.32	6.3	1680	.422

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, 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)
NOV										
03...	<.010	<.050	<.020	--	.29	<.050	<.010	--	--	--
JAN										
12...	<.010	<.050	.030	.59	.62	<.050	<.010	--	--	--
FEB										
24...	<.010	<.050	<.020	--	.32	<.050	<.010	--	--	--
MAR										
24...	.021	.517	.023	.36	.39	<.050	.031	.10	1.9	<1.0
JUN										
06...	.057	.479	.230	.46	.69	<.050	.013	.04	--	--

08123850 COLORADO RIVER ABOVE SILVER, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	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)	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)
NOV										
03...	<2	110	--	<.14	4.1	--	<1.3	<30	<1.0	--
JAN										
12...	3	68	--	<.14	2.7	--	E.73	E6.8	<1.0	--
FEB										
24...	<2	53	--	<.28	<1.6	--	<1.6	<90	<2.0	--
MAR										
24...	3	81	<1.0	<1.0	<1.0	<1.0	1.7	E6.7	<1.0	7
JUN										
06...	3	162	--	<.14	<.80	--	E1.1	<30	<1.0	--

DATE	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV										
03...	18	<.2	--	--	<2	<1.0	--	--	<60	--
JAN										
12...	15	<.2	--	--	5	<1.0	--	--	<20	--
FEB										
24...	E17	<.2	--	--	E2	<2.0	--	--	<180	--
MAR										
24...	5.1	<.2	2.9	<1.0	E1	<1.0	359	E6	3.6	1.1
JUN										
06...	2.3	<.2	--	--	<2	<1.0	--	--	<60	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1999 TO SEPTEMBER 2000

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.	1999	4.58	5120	3370	41.7	1100	13.7	1100	13.0	1300
NOV.	1999	4.14	5930	3940	44.1	1300	14.5	1200	13.7	1500
DEC.	1999	12.08	6460	4330	141	1400	46.9	1300	44.0	1600
JAN.	2000	42.33	9350	6530	747	2200	256	2000	233	2300
FEB.	2000	47.31	11830	8490	1080	3000	379	2700	339	2800
MAR.	2000	30974.1	1260	806	67400	260	21540	250	20950	310
APR.	2000	2718	4490	2950	21630	960	7050	920	6730	1100
MAY	2000	625.4	5650	3800	6410	1300	2140	1200	2000	1400
JUNE	2000	2620.8	2370	1510	10680	480	3400	470	3320	590
JULY	2000	856.3	3380	2180	5050	700	1630	680	1570	840
AUG.	2000	11.11	4900	3220	96.6	1100	31.5	1000	30.1	1200
SEPT	2000	1.98	6900	4650	24.9	1600	8.3	1400	7.7	1700
TOTAL		37918.13	**	**	113300	**	36500	**	35240	**
WTD.AVG.		104	1710	1110	**	360	**	340	**	430

08123850 COLORADO RIVER ABOVE SILVER, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3740	3590	3650	5520	5460	5500	6450	6400	6430	5950	5890	5920
2	3840	3740	3790	5620	5510	5580	6480	6410	6450	6130	5940	6040
3	3990	3770	3870	5670	5620	5640	6500	6440	6480	6260	6130	6210
4	4020	3910	3960	5710	5650	5680	6580	6490	6520	6400	6250	6290
5	4140	4020	4060	5720	5670	5700	6640	6570	6610	6700	6400	6540
6	4240	4080	4180	5740	5700	5720	6680	6610	6650	7020	6700	6870
7	4340	4160	4280	5770	5730	5750	6720	6670	6690	7160	7020	7100
8	4420	4280	4340	5790	5730	5770	6710	6630	6670	7720	7150	7420
9	4530	4400	4460	5820	5770	5800	6780	6660	6720	8660	7720	8170
10	4640	4510	4570	5870	5750	5810	6830	6650	6730	9400	8660	9050
11	4750	4620	4680	5920	5750	5820	6710	6650	6680	9770	9400	9600
12	4880	4730	4810	5930	5800	5830	6740	6660	6700	10100	9730	9870
13	4960	4860	4910	5940	5770	5830	6780	6690	6740	10700	10100	10400
14	5120	4940	5010	5860	5820	5840	6830	6740	6770	10900	10700	10800
15	5120	5030	5070	5880	5800	5850	6870	6750	6810	11000	10900	10900
16	5240	5120	5170	5920	5860	5880	6860	6750	6820	10900	10800	10900
17	5350	5220	5280	5920	5870	5900	6850	6740	6820	10900	10800	10900
18	5400	5340	5370	5970	5900	5930	6840	6760	6810	11000	10900	10900
19	5450	5380	5420	6040	5970	6000	6830	6760	6800	11000	10900	11000
20	5510	5410	5450	6080	5990	6060	6850	6800	6820	11100	11000	11000
21	5490	5400	5460	6120	6050	6090	6840	6490	6700	11100	11000	11100
22	5560	5430	5500	6140	6070	6110	6520	6190	6350	11000	10800	10900
23	5660	5560	5600	6220	6140	6180	6420	6270	6330	10900	10700	10800
24	5680	5610	5650	6300	6220	6250	6450	6370	6420	10700	10600	10600
25	5710	5650	5690	6350	6260	6320	6590	6450	6530	10600	10500	10600
26	5750	5660	5710	6380	6270	6350	6600	6510	6560	10600	10500	10600
27	5750	5700	5730	6420	6340	6380	6530	6370	6430	10600	10500	10600
28	5770	5700	5750	6420	6360	6400	6390	6230	6300	10600	10500	10500
29	5770	5660	5750	6450	6390	6430	6250	6080	6160	10500	10400	10500
30	5660	5550	5590	6450	6390	6430	6110	6030	6070	10500	10300	10400
31	5590	5460	5520	---	---	---	6060	5930	5990	10500	10400	10400
MONTH	5770	3590	4980	6450	5460	5960	6870	5930	6570	11100	5890	9450

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10400	10300	10300	12800	12700	12700	3700	3050	3450	8310	8170	8240
2	10300	10200	10300	12700	12000	12200	3470	3070	3290	8570	8280	8400
3	10500	10300	10300	12100	11700	11800	4080	3470	3820	8630	8530	8570
4	10900	10400	10600	12100	11900	12000	4800	4080	4360	8650	8090	8460
5	11500	10900	11200	12000	11700	11800	5020	4800	4970	8220	8120	8170
6	12000	11500	11700	11700	11300	11500	5080	5010	5050	8280	8190	8240
7	12500	12000	12200	11300	11100	11200	5490	5080	5270	8330	8230	8270
8	12800	12500	12600	11200	10900	11100	5770	5490	5650	8370	8290	8330
9	13100	12800	13000	11100	10600	10800	6040	5770	5930	8430	8350	8390
10	13200	13100	13100	10700	9990	10300	6210	6040	6110	8490	8340	8420
11	13200	13100	13200	10000	9380	9670	6470	6210	6350	8510	8400	8460
12	13200	12800	13000	9980	9390	9610	6730	6470	6600	8560	8440	8510
13	12900	12700	12800	10200	9980	10100	6830	6720	6780	8660	8540	8620
14	12800	12500	12700	10000	9690	9830	6990	6820	6900	8980	8660	8820
15	12600	12200	12400	9700	9240	9470	7110	6990	7030	8860	8550	8760
16	12300	12000	12100	9250	8870	9010	7280	7110	7200	8780	8640	8710
17	12000	11800	11900	9060	8860	8930	7370	7250	7310	8850	8770	8810
18	11800	11600	11700	9400	9050	9270	7390	7290	7350	8900	8740	8830
19	11700	11500	11600	9490	9260	9370	7640	7390	7490	9060	8400	8810
20	11500	11400	11400	9310	9120	9210	7750	7640	7690	9180	2140	7390
21	11400	11200	11300	9190	8940	9090	7820	7710	7770	5190	1820	3330
22	11200	10900	11000	9390	9040	9200	7840	7740	7800	2440	1690	2010
23	10900	10600	10800	e13500	---	6000	7900	7800	7850	2440	2150	2280
24	10800	10600	10700	---	e200	500	7880	7750	7830	2470	2190	2310
25	11300	10600	10900	---	---	e500	7880	7770	7830	2800	2470	2640
26	11900	11300	11600	1390	---	600	7920	7800	7860	3220	2800	3010
27	12400	11900	12100	4820	1390	3660	7980	7860	7930	3630	3220	3430
28	12700	12400	12500	4820	4130	4510	8070	7960	8010	3950	3630	3790
29	12800	12700	12700	4130	3850	3940	8140	8000	8080	4180	3950	4050
30	---	---	---	3850	3730	3760	8230	8040	8120	4370	4180	4270
31	---	---	---	3750	3640	3700	---	---	---	4540	4370	4460
MONTH	13200	10200	11800	---	---	8240	8230	3050	6590	9180	1690	6610

08123850 COLORADO RIVER ABOVE SILVER, TX--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4650	4540	4610	4810	4720	4770	---	---	e4400	6760	6670	6720
2	4700	2460	4310	6850	4810	5450	---	---	e4500	6800	6730	6770
3	4050	2080	3340	7990	1480	3520	---	---	e4500	6940	6650	6790
4	3480	2150	2820	3070	1840	2480	---	---	e4600	6890	6620	6810
5	6200	2990	4510	1840	1360	1510	---	---	e4700	7040	6700	6850
6	4080	2780	3360	1440	1360	1390	---	---	e4800	6950	6710	6870
7	4050	2720	3270	1620	1440	1530	---	---	e4900	7010	6870	6930
8	2720	2610	2660	1810	1620	1720	---	---	e5000	7080	6930	7000
9	2910	2700	2820	2020	1810	1920	---	---	e5100	7110	6970	7060
10	2970	2880	2910	2210	2020	2120	---	---	e5200	7220	6990	7090
11	4880	719	1600	2400	2210	2290	---	---	e5300	7120	7020	7100
12	3320	1380	1810	2550	2400	2460	---	---	e5400	7170	7000	7090
13	3700	2120	2600	2700	2550	2630	---	---	e5500	7150	6980	7080
14	2470	2270	2410	2760	2520	2590	---	---	5600	7080	6930	7030
15	2410	2300	2350	2670	2580	2630	5820	5690	5750	6980	6830	6920
16	2380	2310	2340	2770	2620	2680	5920	5810	5870	6960	6600	6800
17	2470	2320	2410	3470	2550	2860	6000	5910	5950	6810	6660	6770
18	2610	2450	2510	3500	2290	2840	6090	6000	6050	6860	6630	6770
19	2900	1480	2670	3980	2290	2880	6200	6090	6140	6780	6720	6750
20	1480	337	515	5000	3780	4440	6270	6190	6230	6780	6670	6720
21	1210	720	1010	6720	3800	5260	6380	6270	6320	6900	6540	6710
22	1620	1210	1400	6720	4340	5170	6470	6380	6410	6770	6670	6710
23	2420	1620	1980	4340	4180	4250	6520	6260	6410	6790	6720	6760
24	3310	2420	2860	4250	4200	4230	6460	6340	6380	6880	6760	6830
25	3810	3310	3580	4310	4070	4220	6530	6370	6420	6980	6860	6920
26	4090	3810	3960	---	---	e4300	6680	6320	6440	7130	6870	6980
27	4280	3950	4170	---	---	e3000	6510	6440	6470	7380	6920	7070
28	4440	4280	4370	---	---	e4000	6570	6500	6530	7100	6940	7030
29	4600	4440	4540	---	---	e4300	6620	6540	6590	7160	6980	7050
30	4720	4600	4650	---	---	e4300	6670	6590	6630	7100	6960	7050
31	---	---	---	---	---	e4400	6710	6660	6690	---	---	---
MONTH	6200	337	2940	---	---	3290	---	---	5700	7380	6540	6900

e Estimated

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.6	18.2	21.0	18.8	14.5	16.4	15.5	12.5	13.9	12.7	8.5	10.6
2	23.8	19.6	21.5	16.5	13.5	14.7	16.1	13.2	14.5	15.1	11.6	13.0
3	25.5	19.8	22.1	15.8	11.8	13.7	15.5	12.4	13.9	13.2	6.7	9.4
4	23.2	19.3	20.5	16.9	12.4	14.6	14.0	10.2	12.6	7.5	4.0	5.8
5	25.0	18.1	20.4	18.6	14.1	16.4	10.2	7.8	8.9	7.5	4.0	6.0
6	24.4	19.8	22.1	19.3	16.1	17.7	9.3	6.4	8.0	7.9	5.5	6.8
7	23.2	19.7	21.5	18.7	16.2	17.6	9.9	6.4	8.2	7.2	6.3	6.7
8	24.3	20.1	21.8	19.6	16.5	17.9	13.3	9.0	11.0	11.6	6.9	8.5
9	23.8	19.5	21.4	19.5	16.3	17.9	12.5	9.0	10.5	10.2	7.3	9.0
10	23.0	19.5	21.2	20.2	16.8	18.2	9.9	6.9	8.6	10.6	6.6	8.8
11	23.7	19.8	21.6	19.6	16.1	17.7	11.0	7.8	9.4	12.0	7.3	9.3
12	24.3	20.1	21.9	19.6	15.7	17.4	10.8	8.0	9.4	12.8	8.7	10.6
13	24.6	20.1	22.0	20.3	16.1	17.9	9.6	5.9	7.8	11.8	8.9	10.5
14	25.3	20.1	22.2	18.7	16.1	17.4	8.5	6.3	7.5	10.6	7.3	9.4
15	26.1	20.8	23.2	19.2	15.4	17.0	8.6	4.9	6.6	14.2	9.4	11.5
16	25.0	21.7	23.0	18.2	14.8	16.3	7.4	4.2	5.9	17.5	13.1	15.0
17	21.9	14.2	17.6	17.9	14.6	16.2	9.3	5.4	7.3	18.3	14.4	16.4
18	14.2	12.3	13.0	18.6	15.0	16.6	9.9	6.4	7.9	17.9	14.9	16.4
19	16.2	10.8	13.1	17.1	14.8	15.9	10.1	7.0	8.6	16.3	13.5	15.0
20	17.2	12.4	14.6	15.2	12.8	14.2	9.0	7.0	7.8	14.8	12.0	13.4
21	19.4	13.5	16.1	18.0	13.2	14.9	8.3	5.3	6.7	12.0	8.5	10.6
22	19.2	14.4	16.6	18.1	14.5	15.9	7.8	5.5	6.5	14.9	11.1	12.8
23	19.1	14.4	16.4	15.7	13.1	14.2	8.4	4.8	6.8	14.5	12.2	13.4
24	19.1	14.5	16.7	13.2	10.1	11.4	8.6	5.2	7.1	12.6	10.2	11.6
25	19.6	15.2	17.3	11.9	8.2	9.7	8.7	7.7	8.2	12.1	10.1	11.0
26	20.5	15.8	17.8	12.6	8.3	10.2	10.9	8.6	9.5	10.6	8.1	9.4
27	19.6	16.1	17.9	14.6	9.6	11.6	10.9	7.9	9.5	9.0	5.8	7.3
28	19.2	17.1	18.2	14.4	10.7	12.4	10.4	7.1	8.9	5.8	3.6	4.6
29	20.6	16.8	18.5	13.8	10.7	12.2	11.8	7.6	9.7	5.2	2.1	3.8
30	18.8	15.6	16.8	14.8	11.7	13.1	11.2	9.1	10.3	7.1	3.0	5.0
31	16.4	13.9	15.3	---	---	---	11.2	7.5	9.4	7.2	4.2	5.8
MONTH	26.1	10.8	19.1	20.3	8.2	15.2	16.1	4.2	9.1	18.3	2.1	9.9

08123850 COLORADO RIVER ABOVE SILVER, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.7	7.1	7.4	16.2	13.1	14.8	17.3	14.5	16.3	24.9	19.5	22.4
2	11.3	7.0	8.8	19.5	15.5	17.0	15.5	13.6	14.6	23.3	18.7	21.0
3	13.1	8.0	10.4	16.8	12.6	14.7	16.1	13.7	14.9	24.4	17.8	20.8
4	11.6	8.8	10.3	17.2	12.7	14.8	17.3	13.1	15.2	28.8	19.9	23.5
5	10.7	7.5	9.2	17.5	12.4	15.0	19.4	15.6	17.3	29.1	23.4	25.9
6	12.4	7.7	10.0	20.6	16.2	18.1	21.5	16.7	18.9	28.7	23.7	26.0
7	13.9	9.4	11.5	20.1	16.9	18.7	22.4	18.7	20.2	28.6	23.5	25.9
8	14.5	9.2	11.8	19.0	14.0	16.2	20.5	16.7	18.5	28.1	23.0	25.5
9	15.1	11.7	13.3	18.4	13.0	16.0	20.3	15.8	18.0	26.9	22.6	24.5
10	16.5	12.5	14.3	19.6	15.4	17.2	20.8	16.8	18.7	28.6	22.2	25.1
11	16.0	12.3	14.0	17.0	12.3	14.7	20.3	18.2	19.1	30.6	23.7	26.6
12	14.3	10.5	12.6	17.0	12.1	14.8	18.4	16.7	17.4	27.6	23.8	25.5
13	15.3	12.6	13.9	17.7	13.0	15.6	22.4	15.5	18.5	25.1	21.1	23.2
14	16.4	11.5	13.5	19.2	15.9	17.4	24.8	18.3	21.2	24.1	18.1	21.3
15	18.3	12.6	14.9	22.3	15.8	18.7	25.1	19.2	21.8	27.6	20.4	23.5
16	17.8	14.0	15.8	19.9	11.4	15.3	25.3	18.7	21.7	27.1	23.0	25.2
17	19.8	15.2	17.3	15.9	8.8	12.0	26.5	19.4	22.8	26.4	22.1	24.2
18	18.4	16.0	17.1	16.8	11.9	14.4	27.4	22.4	24.6	27.9	23.0	25.2
19	16.0	12.8	14.3	17.3	11.4	14.4	26.0	22.6	24.2	24.9	17.8	20.4
20	15.8	12.3	14.0	17.1	12.6	15.1	24.9	19.6	22.2	19.9	17.3	18.4
21	17.4	13.1	15.0	21.3	15.2	18.0	25.3	19.1	22.2	23.8	17.5	20.2
22	18.7	15.6	16.9	20.7	18.4	19.5	24.0	19.3	21.6	27.6	21.8	24.3
23	18.0	13.2	15.4	20.2	11.0	15.8	23.5	18.4	21.0	29.2	22.3	25.4
24	19.2	14.2	16.6	14.5	12.5	13.6	26.8	19.0	22.4	30.6	22.8	26.5
25	20.0	16.3	18.0	15.5	13.6	14.5	25.8	20.2	23.2	30.9	24.5	27.5
26	17.8	13.0	15.1	18.1	15.4	16.7	27.0	20.6	23.9	32.4	25.8	28.4
27	15.8	11.6	13.9	20.7	18.0	19.4	27.4	21.8	24.5	30.9	26.2	28.1
28	15.3	11.5	13.8	21.8	20.2	20.9	26.8	21.9	24.3	31.4	25.3	27.8
29	17.0	13.2	15.0	21.7	20.4	21.1	27.5	21.3	24.2	32.2	25.9	28.8
30	---	---	---	21.0	19.2	20.2	27.9	22.7	25.1	30.3	26.1	28.2
31	---	---	---	19.2	17.0	18.1	---	---	---	28.5	24.8	26.8
MONTH	20.0	7.0	13.6	22.3	8.8	16.5	27.9	13.1	20.6	32.4	17.3	24.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.1	24.3	25.7	31.0	25.9	28.2	31.9	25.4	28.3	29.7	26.1	27.7
2	26.1	23.4	24.6	31.4	27.4	29.1	33.1	25.2	28.9	30.3	25.7	27.9
3	27.0	23.4	24.9	30.7	28.0	29.2	31.7	26.4	29.1	31.3	26.4	28.6
4	27.8	24.9	26.2	31.0	27.1	28.9	31.7	26.6	29.0	31.5	26.7	28.9
5	28.5	25.8	27.0	30.2	25.8	27.9	29.5	26.5	28.0	32.4	26.3	28.6
6	29.2	25.1	27.0	31.5	25.7	28.6	29.8	26.0	27.7	31.0	26.5	28.3
7	29.4	24.5	26.8	30.6	26.2	28.6	30.7	25.9	28.1	28.1	25.7	26.8
8	28.1	23.8	25.9	30.6	26.2	28.4	31.0	26.5	28.4	29.5	25.0	26.6
9	27.2	24.1	25.4	31.5	25.8	28.6	30.1	26.4	28.2	30.3	24.7	27.0
10	29.1	23.7	26.0	31.9	25.6	28.6	---	26.2	28.0	31.2	25.5	27.9
11	27.2	23.1	24.7	32.5	26.2	29.2	---	---	---	30.5	26.2	28.0
12	26.2	24.5	25.3	33.4	27.1	30.1	---	---	---	31.0	25.8	27.2
13	27.7	24.8	25.9	33.4	27.8	30.0	---	---	---	27.8	24.9	26.0
14	26.0	24.2	25.0	31.8	27.3	29.4	30.8	---	28.0	27.3	24.5	25.6
15	29.1	23.6	26.2	34.7	27.0	30.7	30.5	25.9	28.0	28.4	24.5	26.1
16	30.1	24.6	27.2	32.7	28.1	30.5	29.4	25.9	27.6	29.9	24.5	26.2
17	28.6	24.6	26.8	32.4	27.0	29.6	30.7	25.8	28.0	27.8	23.7	25.4
18	26.6	23.9	24.6	32.7	26.7	29.6	30.5	25.8	28.1	27.0	22.6	24.6
19	26.8	23.1	24.5	32.4	27.4	29.9	28.7	25.7	27.3	24.6	22.2	23.6
20	27.6	22.0	24.6	32.6	27.1	29.8	29.1	24.8	26.9	24.7	21.6	23.1
21	28.6	24.6	26.3	32.4	26.9	29.6	28.0	24.4	26.2	26.7	21.1	23.3
22	30.0	24.9	27.5	32.8	26.8	29.7	28.2	24.4	26.2	27.6	22.7	24.9
23	29.3	25.3	27.3	30.2	25.9	28.3	31.0	24.4	27.1	25.9	24.2	24.9
24	32.2	25.5	28.6	32.6	25.6	29.0	28.6	26.0	27.3	24.7	20.8	22.9
25	31.4	26.0	28.6	31.9	25.8	28.7	30.7	26.4	27.7	20.8	17.4	18.8
26	31.4	25.8	28.6	30.3	26.2	28.4	32.1	26.7	28.8	21.4	16.1	17.8
27	31.5	26.3	28.8	31.2	25.6	28.6	30.6	26.9	28.7	23.1	16.6	18.8
28	29.0	26.4	27.8	31.8	25.4	28.6	30.2	26.3	28.1	23.5	17.9	19.8
29	29.8	25.7	27.7	29.3	26.4	27.4	30.6	26.1	28.1	23.1	18.4	20.5
30	31.4	25.7	28.3	30.9	25.3	27.9	30.1	26.1	27.9	22.6	18.7	20.5
31	---	---	---	29.2	25.7	27.6	28.3	26.1	27.2	---	---	---
MONTH	32.2	22.0	26.5	34.7	25.3	29.0	---	---	---	32.4	16.1	24.9

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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 Jun 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 Jun 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-foot-diameter concrete conduit. The uncontrolled spillway is a 3,200-foot-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.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 355,300 acre-ft, Jun 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, 103,100 acre-ft, Apr 7, elevation, 1,854.59 ft; minimum contents, 53,950 acre-ft, Mar 23, elevation, 1,841.81 ft.

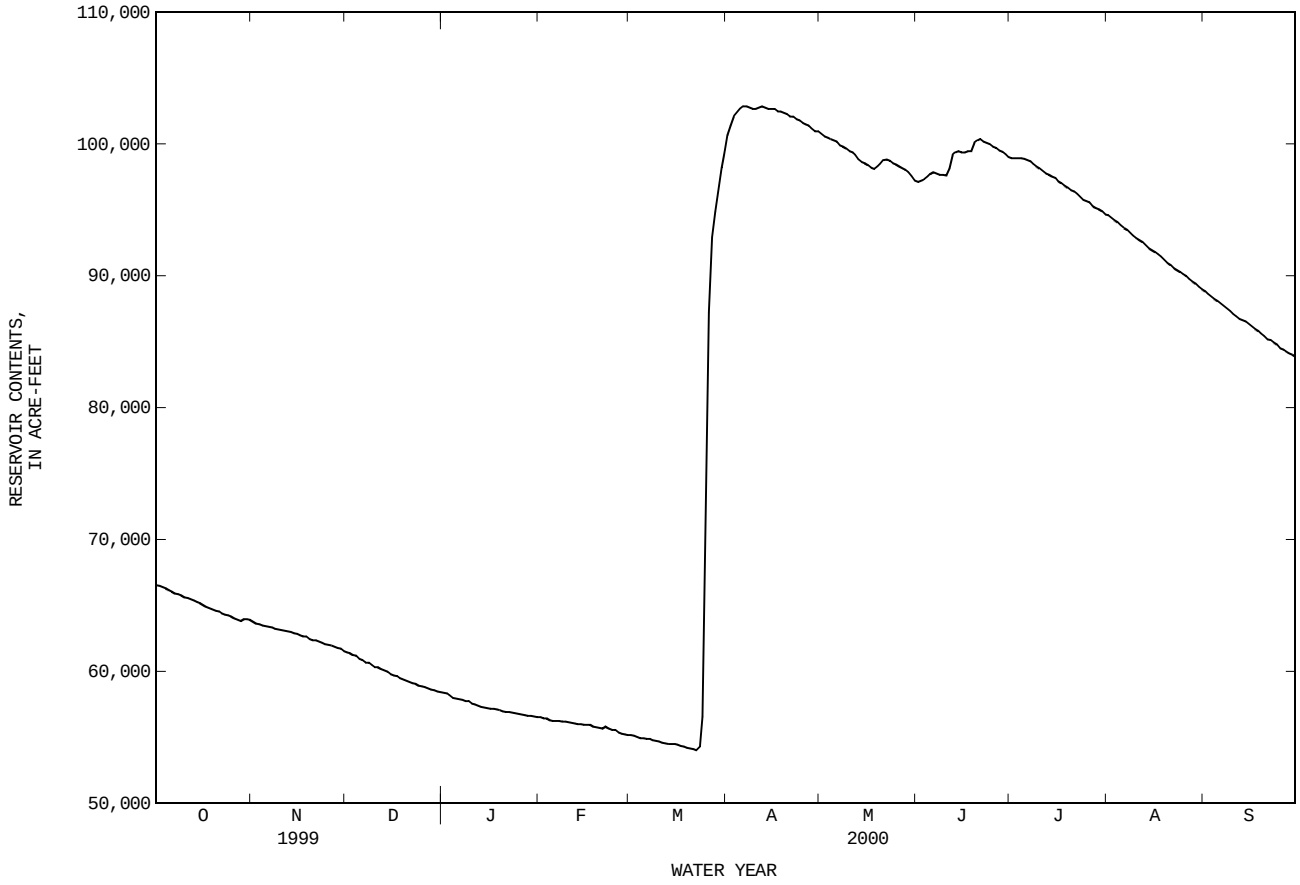
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66570	63800	61460	58390	56550	55170	100700	100800	97160	98960	94640	88840
2	66500	63630	61390	58360	56460	55140	101400	100600	97250	98960	94420	88660
3	66390	63600	61280	58180	56430	55020	102100	100500	97340	98960	94240	88470
4	66290	63490	61210	58020	56310	54960	102400	100400	97520	98960	94100	88250
5	66150	63420	60970	57960	56280	54930	102700	100300	97750	98920	93830	88120
6	66050	63380	60870	57900	56250	54900	102900	100200	97880	98780	93650	87930
7	65940	63350	60660	57840	56250	54900	102900	99910	97790	98690	93520	87710
8	65870	63240	60660	57780	56220	54810	102800	99820	97660	98510	93250	87530
9	65770	63180	60480	57750	56220	54740	102700	99680	97660	98330	93070	87350
10	65630	63140	60340	57590	56180	54680	102700	99500	97610	98150	92880	87080
11	65590	63110	60340	57530	56090	54620	102800	99370	98150	97970	92750	86950
12	65490	63040	60170	57440	56060	54560	102900	99190	99190	97790	92570	86740
13	65380	63000	60100	57320	56030	54530	102800	98870	99370	97660	92350	86660
14	65280	62930	59990	57290	56000	54530	102700	98650	99460	97520	92120	86540
15	65170	62860	59810	57230	55970	54500	102700	98560	99370	97430	91940	86380
16	65060	62750	59710	57200	55970	54440	102700	98420	99360	97210	91810	86180
17	64890	62690	59640	57170	55970	54350	102500	98240	99460	97030	91670	85980
18	64820	62650	59500	57130	55820	54320	102500	98110	99500	96850	91450	85820
19	64720	62470	59430	57100	55790	54220	102400	98290	100100	96710	91220	85660
20	64610	62400	59330	56980	55720	54160	102300	98510	100300	96530	91000	85460
21	64540	62400	59220	56950	55690	54100	102100	98780	100400	96400	90820	85220
22	64400	62270	59120	56950	55820	54040	102100	98830	100200	96220	90590	85140
23	64330	62160	59050	56890	55690	54250	101900	98740	100100	95990	90460	84980
24	64260	62090	58950	56860	55600	56550	101800	98560	100000	95810	90320	84820
25	64190	62020	58890	56800	55570	72420	101600	98470	99820	95680	90140	84540
26	64020	61980	58850	56740	55390	87260	101500	98290	99730	95590	90000	84420
27	63950	61910	58730	56710	55300	92930	101400	98150	99550	95320	89780	84260
28	63840	61810	58640	56640	55230	94870	101200	98060	99410	95180	89550	84140
29	63980	61740	58610	56640	55170	96580	101000	97880	99230	95050	89420	84020
30	63980	61530	58480	56580	---	98240	101000	97570	99050	94910	89200	83900
31	63910	---	58420	56550	---	99550	---	97250	---	94690	89010	---
MAX	66570	63800	61460	58390	56550	99550	102900	100800	100400	98960	94640	88840
MIN	63840	61530	58420	56550	55170	54040	100700	97250	97160	94690	89010	83900
(+)	1844.86	1844.18	1843.27	1842.66	1842.21	1853.81	1854.13	1853.30	1853.70	1852.73	1851.47	1850.25
(@)	-2840	-2380	-3110	-1870	-1380	+44380	+1450	-3750	+1800	-4360	-5680	-5110

CAL YR 1999 MAX 77060 MIN 58420 (@) -15470
WTR YR 2000 MAX 102900 MIN 54040 (@) +17150

(+) 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 Sep 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 Sep 26, 1939, nonrecording gage, and Sep 27, 1939 to May 9, 1956, water-stage recorder at site 200 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Beginning Apr 1949, flow was affected by Lake Colorado City (station 08123000, conservation pool storage 30,800 acre-ft) and since Jul 1952, at least 10% of contributing drainage area has been regulated by Lake J.B. Thomas (station 08118000, conservation pool storage 199,931 acre-ft). Since Dec 1968, flow completely regulated by E.V. Spence Reservoir (station 08123950, conservation pool storage 517,272 acre-ft) 3.6 mi upstream. There are many diversions above station for municipal, mining, agricultural, and industrial uses. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--16 years (water years 1925-27, 1940-52) prior to completion of Lake J.B. Thomas, 220 ft^3/s (159,100 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION (WATER YEARS, 1925-27, 1940-52).--Maximum discharge, 32,500 ft^3/s Sep 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	15	16	18	1.9	1.3	9.8	7.9	10	9.6	11	11
2	19	15	16	17	1.9	1.4	9.8	7.7	11	11	12	12
3	18	14	17	17	1.8	1.3	10	7.6	11	11	12	12
4	18	15	17	18	1.7	1.2	9.8	7.5	32	10	15	13
5	18	15	17	19	1.8	1.2	10	7.4	13	10	19	14
6	18	15	18	19	2.0	1.3	9.9	7.2	12	10	19	14
7	18	15	17	19	1.9	1.3	10	7.0	14	10	19	13
8	19	15	16	19	1.8	1.2	10	7.8	13	9.2	20	13
9	19	15	5.4	19	1.7	1.1	11	11	11	9.1	20	13
10	19	15	3.8	18	1.6	1.4	10	11	13	9.3	20	13
11	19	15	13	18	1.6	.89	10	10	12	9.4	19	13
12	19	15	16	18	1.7	.97	11	9.6	13	10	13	13
13	19	15	16	17	1.7	1.1	10	9.5	12	11	12	13
14	19	16	17	5.8	1.6	1.2	9.6	9.5	12	10	11	13
15	20	16	18	2.7	1.5	1.1	9.2	10	12	10	10	13
16	20	16	19	2.5	1.5	1.1	8.9	10	11	11	10	13
17	21	15	19	2.3	1.4	1.0	9.1	10	13	10	11	13
18	21	16	19	2.3	1.5	.92	8.7	11	13	10	11	12
19	21	17	19	2.3	1.4	.87	8.2	12	16	9.9	11	12
20	21	17	19	2.2	1.4	.79	8.4	12	14	11	12	12
21	21	17	19	1.9	1.3	.83	8.8	12	13	11	12	12
22	21	17	19	1.9	1.4	1.3	8.8	11	12	10	11	12
23	21	17	19	1.8	1.4	2.1	9.0	10	11	9.0	12	11
24	21	17	19	1.9	1.4	1.4	9.2	10	11	8.7	12	11
25	21	17	19	2.0	1.4	1.7	9.5	10	11	9.3	12	11
26	19	17	19	1.9	1.5	5.1	9.0	10	9.5	9.9	12	11
27	18	17	19	1.9	1.3	8.4	8.4	10	10	9.6	12	11
28	18	16	19	1.9	1.4	8.7	8.1	10	10	9.8	12	11
29	17	17	18	1.8	1.4	8.9	8.1	10	11	11	12	13
30	16	17	18	2.0	---	9.0	8.0	10	10	11	12	14
31	14	---	18	1.9	---	9.5	---	10	---	11	11	---
TOTAL	592	476	524.2	277.0	45.9	79.57	280.3	298.7	376.5	311.8	417	372
MEAN	19.1	15.9	16.9	8.94	1.58	2.57	9.34	9.64	12.6	10.1	13.5	12.4
MAX	21	17	19	19	2.0	9.5	11	12	32	11	20	14
MIN	14	14	3.8	1.8	1.3	.79	8.0	7.0	9.5	8.7	10	11
AC-FT	1170	944	1040	549	91	158	556	592	747	618	827	738

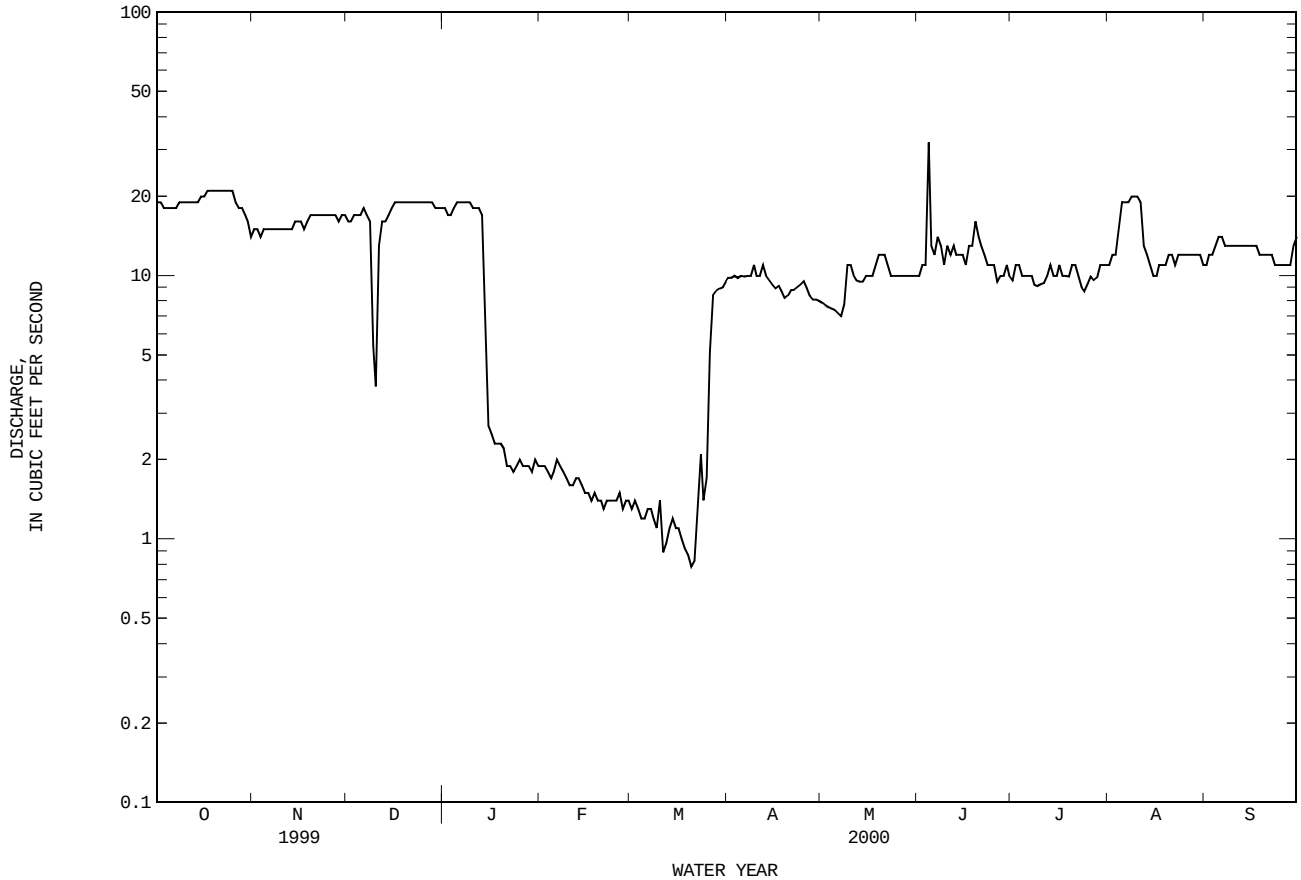
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2000hz, BY WATER YEAR (WY)

MEAN	38.3	10.4	2.87	2.08	4.69	9.46	29.0	94.0	39.8	42.6	52.9	34.1
MAX	578	219	16.9	11.8	102	250	714	1540	473	495	578	438
(WY)	1987	1987	2000	1997	1998	1998	1954	1954	1989	1988	1953	1986
MIN	.000	.000	.000	.000	.000	.000	.000	.011	.000	.000	.000	.000
(WY)	1955	1955	1955	1953	1953	1956	1956	1971	1980	1970	1954	1954

08124000 COLORADO RIVER AT ROBERT LEE, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1953 - 2000hz	
ANNUAL TOTAL	4697.12		4050.97			
ANNUAL MEAN	12.9		11.1		29.8	
HIGHEST ANNUAL MEAN					237	1954
LOWEST ANNUAL MEAN					1.04	1969
HIGHEST DAILY MEAN	21	Mar 14	32	Jun 4	13400	May 12 1954
LOWEST DAILY MEAN	.04	Feb 8	.79	Mar 20	.00	Oct 4 1952
ANNUAL SEVEN-DAY MINIMUM	.05	Feb 5	.94	Mar 15	.00	Oct 4 1952
INSTANTANEOUS PEAK FLOW			140	Jun 4	c24500	Sep 9 1980
INSTANTANEOUS PEAK STAGE			3.64	Jun 4	20.63	Sep 9 1980
ANNUAL RUNOFF (AC-FT)	9320		8040		21610	
10 PERCENT EXCEEDS	19		19		15	
50 PERCENT EXCEEDS	13		11		.76	
90 PERCENT EXCEEDS	.25		1.5		.00	

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 mi north of Bronte, and 20 mi upstream from mouth.

DRAINAGE AREA.--238 mi^2.

PERIOD OF RECORD.--May 1953 to Sep 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 Sep 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 observed, 6,050 acre-ft, Sep 6-8, 1980, elevation, 1,974.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,750 acre-ft, Oct 1, elevation, 1,986.28 ft; minimum contents, 7,110 acre-ft, Sep 30, elevation, 1,976.27 ft.

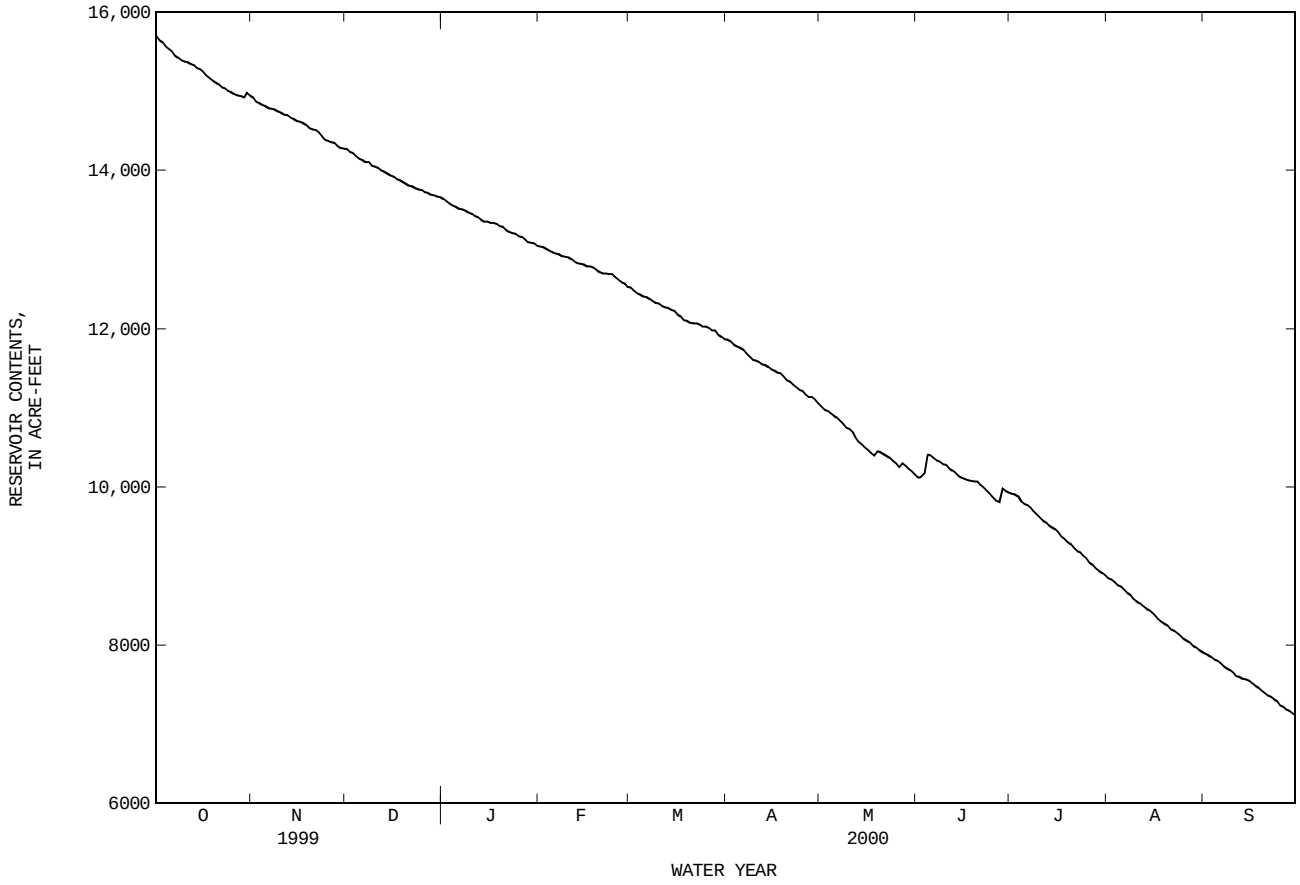
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15700	14930	14270	13640	13040	12520	11870	11020	10120	9920	8850	7890
2	15650	14870	14240	13610	13030	12480	11840	10980	10130	9910	8830	7880
3	15620	14850	14220	13580	13010	12450	11800	10960	10170	9880	8800	7850
4	15570	14830	14180	13560	12980	12430	11780	10940	10410	9820	8760	7820
5	15530	14810	14150	13540	12970	12410	11760	10900	10400	9790	8740	7800
6	15510	14790	14130	13520	12950	12400	11740	10880	10370	9770	8700	7770
7	15450	14780	14110	13510	12940	12380	11690	10840	10340	9740	8660	7730
8	15430	14770	14110	13490	12920	12350	11650	10800	10320	9700	8640	7710
9	15400	14750	14060	13470	12910	12330	11610	10750	10290	9660	8590	7680
10	15380	14730	14050	13450	12900	12320	11600	10730	10280	9620	8560	7650
11	15370	14710	14040	13430	12880	12290	11580	10690	10230	9580	8530	7610
12	15350	14700	14000	13410	12850	12270	11550	10630	10210	9550	8500	7600
13	15330	14670	13990	13380	12830	12260	11540	10570	10180	9510	8470	7580
14	15300	14650	13960	13360	12820	12240	11520	10540	10140	9490	8440	7570
15	15280	14630	13940	13360	12810	12220	11490	10500	10120	9460	8410	7550
16	15250	14620	13920	13340	12790	12180	11470	10470	10100	9430	8370	7520
17	15200	14600	13890	13340	12790	12160	11450	10430	10090	9370	8330	7490
18	15170	14580	13880	13320	12770	12110	11440	10390	10080	9340	8300	7460
19	15140	14540	13860	13300	12740	12100	11400	10450	10070	9300	8270	7430
20	15110	14520	13830	13290	12720	12080	11350	10440	10070	9280	8250	7400
21	15090	14510	13810	13250	12700	12070	11330	10420	10030	9230	8200	7370
22	15060	14480	13800	13230	12700	12070	11290	10390	10000	9190	8180	7350
23	15040	14430	13780	13210	12690	12050	11260	10370	9960	9170	8150	7320
24	15010	14390	13760	13200	12690	12030	11230	10330	9920	9130	8120	7290
25	14990	14380	13750	13170	12650	12030	11210	10300	9870	9100	8090	7240
26	14970	14360	13730	13160	12620	12010	11170	10250	9830	9040	8060	7220
27	14950	14350	13720	13130	12590	11980	11140	10300	9810	9020	8040	7190
28	14940	14310	13700	13100	12570	11980	11140	10270	9980	8970	8000	7170
29	14930	14290	13690	13090	12530	11920	11110	10230	9950	8940	7970	7140
30	14980	14280	13670	13080	---	11900	11060	10200	9930	8910	7940	7110
31	14950	---	13660	13050	---	11870	---	10160	---	8880	7920	---
MAX	15700	14930	14270	13640	13040	12520	11870	11020	10410	9920	8850	7890
MIN	14930	14280	13660	13050	12530	11870	11060	10160	9810	8880	7920	7110
(+)	1985.54	1984.90	1984.28	1983.65	1983.11	1982.38	1981.47	1980.41	1980.14	1978.80	1977.48	1976.27
(@)	-800	-670	-620	-610	-520	-660	-810	-900	-230	-1050	-960	-810

WTR YR 2000 MAX 15700 MIN 7110 (@) -8640

(+) 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 left 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.--Jun 1907 to Sep 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 Sep 30, 1979, water-stage recorder at site 5.4 mi downstream, both at datum 12.77 ft lower. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since water year 1968 at least 10% of contributing drainage area has been regulated by E.V. Spence Reservoir (station 08123950, conservation pool storage 517,272 acre-ft). 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Sep 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	8.9	8.2	3.1	.74	.81	.60	.51	29	3.8	.78
2	16	18	9.0	7.9	3.2	.82	.84	.59	1.1	16	3.0	.80
3	16	14	9.0	7.8	3.1	.67	.75	.60	2980	11	3.2	.77
4	15	12	9.1	6.7	2.7	.34	.63	.61	5890	7.5	2.2	.75
5	16	11	8.5	7.2	2.2	.36	.62	.61	1130	6.2	2.0	.74
6	16	11	8.6	7.0	1.4	.39	.63	.61	128	5.0	3.2	.74
7	16	12	8.5	7.8	2.6	.42	.60	.58	58	3.8	2.3	.78
8	16	12	8.8	8.5	1.3	.35	1.0	.60	33	3.9	.78	.77
9	17	11	9.4	8.3	.92	.31	2.8	.62	26	4.8	.76	.82
10	17	11	9.5	8.2	.90	.35	2.6	.62	23	4.1	.72	.82
11	17	11	9.2	8.2	.85	.48	3.5	.65	24	3.5	.74	.80
12	16	11	9.2	8.2	.85	.73	3.2	.60	21	3.8	.76	.83
13	16	11	7.4	8.0	.92	.77	2.0	.51	19	3.1	.67	.88
14	17	11	6.0	7.2	1.6	.73	2.4	.58	10	1.5	.70	.90
15	18	11	5.1	7.3	.91	.74	2.1	.62	9.8	1.3	.66	.81
16	18	10	5.7	7.7	.87	.74	2.5	.62	9.3	3.3	.72	.79
17	18	9.6	7.7	7.9	.90	.67	3.3	.60	9.9	5.1	.73	.77
18	18	9.4	9.1	6.6	.87	.74	1.7	.71	14	4.1	.75	.77
19	19	9.9	8.8	5.5	.83	.75	2.7	1.0	28	2.2	.75	.79
20	20	9.8	8.4	4.7	.81	.79	1.8	1.0	95	1.8	.74	.79
21	20	9.5	8.1	4.1	.90	.79	.93	8.7	29	.92	.73	.77
22	19	9.2	8.6	3.8	1.1	.81	.74	9.2	18	.87	.74	.83
23	18	9.6	8.1	3.3	.92	1.2	.71	8.9	14	.87	.76	4.2
24	18	9.2	7.9	2.2	.90	.79	.54	4.6	12	.79	.76	53
25	18	8.7	8.6	3.1	.90	.80	.56	3.1	10	.76	.75	12
26	18	8.6	8.3	2.9	.83	.77	.58	2.5	10	1.0	.75	5.8
27	18	8.7	8.8	3.0	.79	.72	.60	.73	11	.83	.76	5.1
28	18	8.9	6.9	3.0	.77	.76	.56	.53	10	2.7	.76	5.0
29	18	9.1	8.7	3.0	.79	.73	.56	4.4	10	2.6	.77	4.9
30	23	8.9	8.6	3.0	---	.69	.64	1.5	69	2.4	.78	5.2
31	24	---	8.3	2.9	---	.70	---	.52	---	2.6	.78	---
TOTAL	550	330.1	256.8	183.2	38.73	20.65	42.90	57.61	10702.61	137.34	37.52	112.70
MEAN	17.7	11.0	8.28	5.91	1.34	.67	1.43	1.86	357	4.43	1.21	3.76
MAX	24	24	9.5	8.5	3.2	1.2	3.5	9.2	5890	29	3.8	53
MIN	15	8.6	5.1	2.2	.77	.31	.54	.51	.51	.76	.66	.74
AC-FT	1090	655	509	363	77	41	85	114	21230	272	74	224

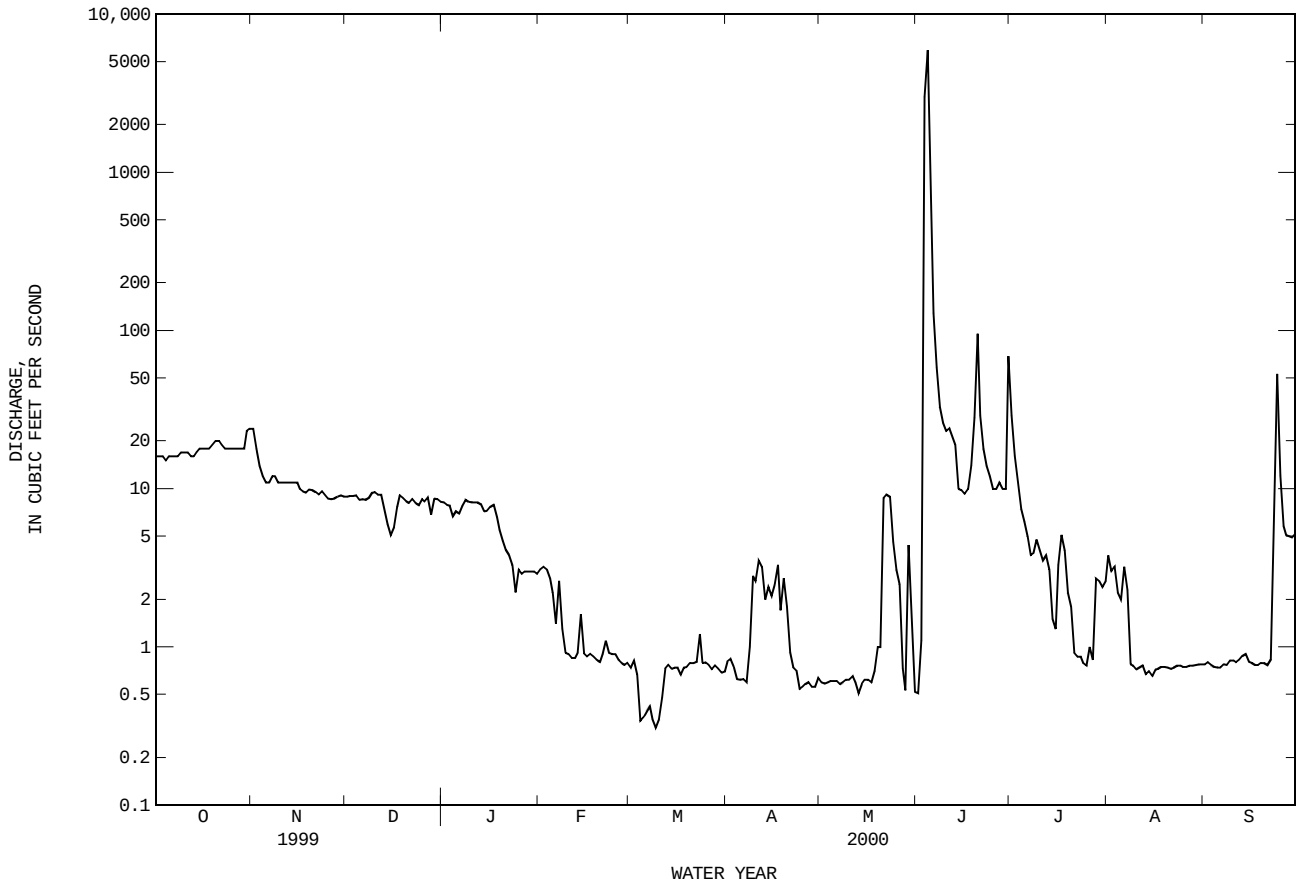
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2000z, BY WATER YEAR (WY)

MEAN	96.8	39.9	32.4	27.6	55.4	47.2	40.3	89.1	136	49.8	94.0	123
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1969 - 2000z	
ANNUAL TOTAL	5345.8		12470.16			
ANNUAL MEAN	14.6		34.1		69.3	
HIGHEST ANNUAL MEAN					405	1987
LOWEST ANNUAL MEAN					7.18	1984
HIGHEST DAILY MEAN	296	Apr 26	5890	Jun 4	9220	Aug 28 1986
LOWEST DAILY MEAN	2.4	Mar 3	.31	Mar 9	.00	Mar 20 1971
ANNUAL SEVEN-DAY MINIMUM	3.7	Feb 28	.36	Mar 4	.00	Mar 20 1971
INSTANTANEOUS PEAK FLOW			9540	Jun 4	g16600	Aug 3 1978
INSTANTANEOUS PEAK STAGE			24.30	Jun 4	27.50	Sep 21 1990
ANNUAL RUNOFF (AC-FT)	10600		24730		50170	
10 PERCENT EXCEEDS	20		18		116	
50 PERCENT EXCEEDS	11		3.0		13	
90 PERCENT EXCEEDS	5.1		.63		1.0	

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: Sep 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Oct 1961 to Sep 1997 (local observer).
WATER TEMPERATURE: Oct 1961 to Sep 1997 (local observer).
SUSPENDED SEDIMENT DISCHARGE: Jan 1978 to Sep 1981 (local observer).

REMARKS.--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. 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, May 3, 1963; minimum daily, 244 microsiemens, Sep 9, 1980.
WATER TEMPERATURE: Maximum daily, 39.0°C, Jul 3, 1977; minimum daily, 0.0°C, Jan 9-11, 1973.
SEDIMENT CONCENTRATION: Maximum daily mean, 3,740 mg/L, Sep 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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)
OCT									
21...	1250	19	5600	16.2	1200	1100	250	146	767
NOV									
18...	0855	11	4760	15.9	1100	990	240	125	622
FEB									
22...	1150	.82	4520	16.8	2000	1800	520	161	358
JUN									
05...	1005	1040	425	23.3	110	51	30	8.3	36
07...	1000	64	830	25.0	200	130	51	18	72
30...	0910	117	1960	27.5	410	290	91	44	208

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
OCT								
21...	10	22	84	1000	1300	.78	5.6	3550
NOV								
18...	8	18	120	940	1000	.67	5.2	3050
FEB								
22...	4	11	180	1700	570	.58	4.0	3420
JUN								
05...	2	4.7	57	50	61	.12	4.9	229
07...	2	5.6	74	120	130	.16	6.3	447
30...	4	8.9	120	280	370	.31	8.6	1080

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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.

PERIOD OF RECORD.--Apr 1932 to current year.
Water-quality records.--Chemical data: Sep 1958, Mar 1964 to Aug 1991. Specific conductance: Oct 1967 to Sep 1991. Water temperature: Oct 1967 to Sep 1991.

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 by New Lake Winters (conservation pool storage, 8,370 acre-ft). The city of Winters diverts water from New Lake Winters for municipal use. Prior to Jun 1982, capacity of Old Lake Winters (just upstream from new dam) was 3,060 acre-ft. No flow at times many years. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 1999 TO SEPTEMBER 2000
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	2790	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	385	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	67	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	29	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	6.9	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	2.9	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.83	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.65	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.53	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.62	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.32	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.01	.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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.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	0.00	0.00	3302.16	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	110	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	2790	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	6550	.00	.00	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00

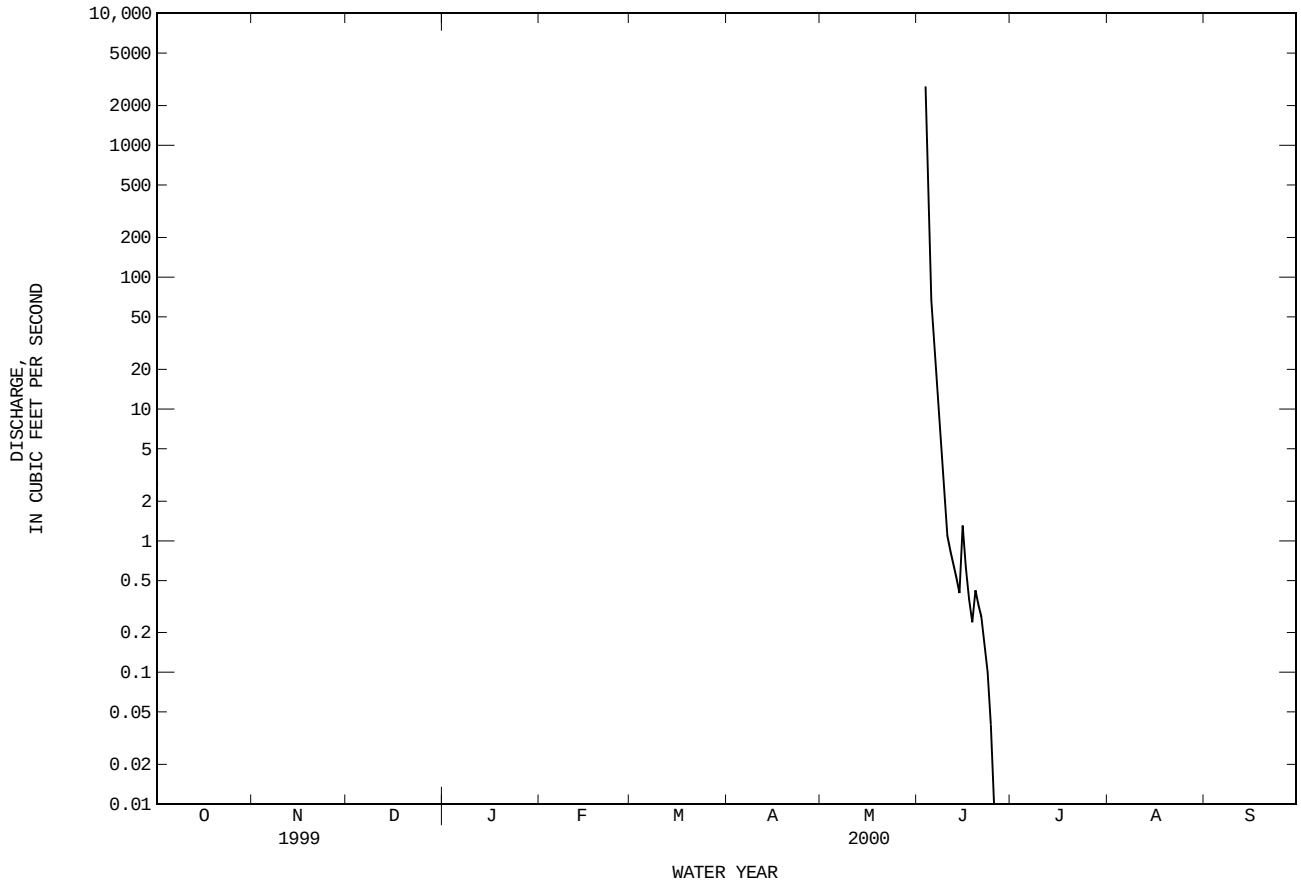
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2000z, BY WATER YEAR (WY)

MEAN	23.9	13.6	43.4	19.5	69.3	36.0	20.0	74.5	118	7.25	11.5	59.9
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	1.07	.000	.000	.000
(WY)	1984	1989	1999	2000	2000	2000	2000	1984	1984	1984	1983	1983

08127000 ELM CREEK AT BALLINGER, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1983 - 2000z	
ANNUAL TOTAL	900.50		3302.16			
ANNUAL MEAN	2.47		9.02		41.0	
HIGHEST ANNUAL MEAN					188	1992
LOWEST ANNUAL MEAN					.96	1984
HIGHEST DAILY MEAN	194	Apr 26	2790	Jun 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
INSTANTANEOUS PEAK FLOW			7350	Jun 3	16700	Jun 23 1997
INSTANTANEOUS PEAK STAGE			a7.33	Jun 3	9.06	Jun 23 1997
ANNUAL RUNOFF (AC-FT)	1790		6550		29730	
ANNUAL RUNOFF (CFSM)	.005		.020		.091	
ANNUAL RUNOFF (INCHES)	.07		.27		1.24	
10 PERCENT EXCEEDS	4.8		.00		58	
50 PERCENT EXCEEDS	.00		.00		2.1	
90 PERCENT EXCEEDS	.00		.00		.00	

z Period of regulated streamflow.
a From floodmark.



08128000 SOUTH CONCHO RIVER AT CHRISTOVAL, TX
(Flood-hydrograph partial-record station)

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 Sep 1995 (daily mean discharge), Oct 1995 to current year (peak discharges greater than base discharge).

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 Jul 17, 1930, nonrecording gage at same site and datum. Water-stage recorder at same site and datum from Jul 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.--Records good. No known regulation. Low flow is affected by diversions to the South Concho Irrigation Company canal 800 ft upstream from station.

AVERAGE DISCHARGE.--65 years (water years 1931-95), 31.4 ft^3/s (22,770 acre-ft/year).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft^3/s Jul 23, 1938 (gage height, 21.95 ft, from floodmark), from rating curve extended above 15,100 ft^3/s on basis of slope-area measurement of 80,100 ft^3/s; prior to Oct 1, 1995, 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 as noted above, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 19	0315	380	3.42	No other peak greater than base discharge.			

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08128400 MIDDLE CONCHO RIVER ABOVE TANKERSLEY, TX
(Flood-hydrograph partial-record station)

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 Sep 1995 (daily mean discharge), Oct 1995 to current year (peak discharges greater than base discharge).
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.--Records good. No known regulation or diversions. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

AVERAGE DISCHARGE.--34 years (water years 1962-95), 16.7 ft^3/s (12,060 acre-ft/year).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s Sep 21, 1974 (gage height, 24.98 ft); prior to Oct 1, 1995, no flow at times most years.

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

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)
Jun 11	0700	5,580	a16.82	No other peak greater than base discharge.			

a From floodmark.

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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 Sep 1995 (daily mean discharge), Oct 1995 to current year (peak discharges greater than base discharge).
Water-quality records.--Chemical data: Sep 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 fair. No known regulation. There are many small diversions above station for irrigation. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

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 mi downstream, the flood of Oct 3, 1959, had a discharge of 82,100 ft^3/s and was found to be about 3 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)
No peak greater than base discharge.							

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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 Sep 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 for Sep 5-13, which is 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 mi upstream. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

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)
No peak greater than base discharge.							

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08131190 SOUTH CONCHO RIVER ABOVE GARDNER DAM NEAR SAN ANGELO, TX

LOCATION.--Lat 31°16′58", long 100°30′27", Tom Green County, Hydrologic Unit 12090102, on left bank 0.2 mi above Gardner Dam, 2.5 mi above Twin Buttes Dam, 6.0 mi south of Mathis Airport, and 10 mi south of San Angelo.

DRAINAGE AREA.--434 mi^2.

PERIOD OF RECORD.--Oct 1965 to Dec 1971 (periodic discharge measurements), Apr 1971 to Jan 1974, Oct 1999 to Sep 2000 (gage heights only, discontinued).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,926.70 ft above sea level. From Apr 1971 to Jan 1974 recording gage at site on left bank 0.2 mi downstream at datum 1.50 ft lower. Satellite telemeter at station.

REMARKS.--Records good. Interruptions in the maximum and minimum gage heights were due to malfunction of the instrument. There are diversions above station for agricultural use.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 3.20 ft Jun 19, 2000; minimum gage height, 0.73 ft Sep 10, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 3.20 ft, Jun 19; minimum elevation, 0.73 ft, Sep 10.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.04	1.02	1.15	1.13	1.23	1.19	1.28	1.24	1.25	1.23	1.37	1.34
2	1.04	1.02	1.16	1.13	1.21	1.18	1.29	1.24	1.27	1.25	1.36	1.29
3	1.03	.99	1.16	1.12	1.21	1.19	1.32	1.27	1.27	1.24	1.37	1.33
4	1.00	.97	1.16	1.13	1.23	1.18	1.30	1.26	1.26	1.23	1.37	1.34
5	1.03	.98	1.16	1.13	1.20	1.18	1.29	1.23	1.26	1.23	1.36	1.32
6	1.06	1.03	1.15	1.12	1.21	1.17	1.31	1.23	1.26	1.21	1.42	1.34
7	1.03	.99	---	---	1.18	1.15	1.30	1.28	1.23	1.21	1.42	1.34
8	1.03	.99	---	---	1.18	1.15	1.32	1.29	1.24	1.21	1.34	1.27
9	1.06	1.02	1.14	1.11	1.18	1.14	1.31	1.28	1.22	1.15	1.33	1.26
10	1.06	1.03	1.15	1.13	1.17	1.14	1.31	1.28	1.44	1.20	1.36	1.32
11	1.03	.97	1.16	1.14	1.19	1.17	1.28	1.25	1.44	1.41	1.36	1.33
12	1.08	.98	1.17	1.16	1.19	1.17	1.30	1.26	1.43	1.40	1.36	1.29
13	1.11	1.07	1.18	1.16	1.23	1.17	1.30	1.27	1.47	1.41	1.30	1.28
14	1.08	1.02	1.17	1.14	1.20	1.17	1.32	1.27	1.41	1.37	1.32	1.27
15	1.06	1.03	1.16	1.14	1.19	1.17	1.32	1.28	1.40	1.38	1.33	1.26
16	1.07	1.05	1.18	1.15	1.21	1.17	1.32	1.29	1.38	1.33	1.33	1.26
17	1.05	1.02	1.18	1.14	1.20	1.17	1.31	1.16	1.34	1.30	1.34	1.30
18	1.02	1.00	1.16	1.13	1.20	1.17	1.24	1.16	1.35	1.31	1.37	1.31
19	1.09	1.02	1.13	1.11	1.27	1.17	1.23	1.21	1.31	1.25	1.31	1.19
20	1.11	1.07	1.14	1.11	1.30	1.26	1.24	1.20	1.33	1.26	1.22	1.17
21	1.14	1.10	1.14	1.11	1.33	1.29	1.23	1.19	1.35	1.30	1.34	1.20
22	1.14	1.10	1.16	1.13	1.32	1.29	1.19	1.15	1.38	1.33	1.39	1.33
23	1.15	1.13	1.16	1.13	1.34	1.32	1.21	1.18	1.40	1.37	1.44	1.36
24	1.13	1.08	1.18	1.16	1.34	1.32	1.22	1.18	1.39	1.36	1.43	1.39
25	1.10	1.06	1.19	1.17	1.34	1.32	1.24	1.21	1.39	1.33	1.41	1.39
26	1.12	1.07	1.21	1.18	1.35	1.27	1.24	1.21	1.36	1.32	1.40	1.34
27	1.12	1.09	1.19	1.15	1.29	1.25	1.25	1.21	1.33	1.31	1.40	1.36
28	1.12	1.09	1.18	1.15	1.27	1.24	1.24	1.23	1.34	1.30	1.36	1.28
29	1.12	1.04	1.19	1.16	1.26	1.24	1.24	1.15	1.35	1.31	1.28	1.20
30	1.19	1.01	1.22	1.19	1.29	1.26	1.26	1.16	---	---	1.28	1.20
31	1.19	1.14	---	---	1.27	1.25	1.26	1.23	---	---	1.28	1.24
MONTH	1.19	.97	---	---	1.35	1.14	1.32	1.15	1.47	1.15	1.44	1.17

08131190 SOUTH CONCHO RIVER ABOVE GARDNER DAM NEAR SAN ANGELO, TX--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.35	1.24	1.05	.99	1.05	.94	---	---	.90	.85	.86	.82
2	1.39	1.35	1.06	1.02	1.07	.96	---	---	.88	.81	.85	.81
3	1.41	1.38	1.04	.99	1.14	1.03	---	---	.83	.79	.83	.80
4	1.39	1.36	1.02	.99	1.31	1.08	---	---	.84	.79	.81	.78
5	1.37	1.34	1.02	.95	---	---	---	---	.85	.79	.82	.78
6	1.35	1.32	1.03	.95	1.15	1.10	---	---	.90	.85	.85	.81
7	1.33	1.17	.97	.88	1.12	1.07	1.03	.98	.90	.85	.82	.78
8	1.24	1.18	.99	.88	1.09	1.04	1.00	.96	.89	.85	.80	.75
9	1.20	1.14	.97	.89	1.08	1.01	1.00	.95	.90	.85	.77	.74
10	1.21	1.13	.99	.92	1.07	.99	1.05	.97	.89	.85	.76	.73
11	1.40	1.21	.98	.91	1.09	1.00	1.09	1.04	.88	.84	.80	.75
12	1.87	1.40	.94	.89	1.41	1.06	1.10	1.04	.87	.84	.83	.79
13	1.45	1.32	.93	.88	1.42	1.21	1.04	.95	.86	.83	.87	.81
14	1.34	1.29	.91	.86	1.25	1.14	1.00	.91	.90	.81	.92	.87
15	1.31	1.27	.89	.85	---	---	.95	.89	.84	.79	.94	.91
16	1.29	1.18	.91	.84	1.18	1.11	.92	.86	.82	.79	.94	.90
17	1.21	1.17	.87	.78	1.18	1.09	.91	.86	.85	.80	.92	.88
18	1.19	1.15	.82	.78	1.98	1.11	.90	.86	.89	.82	.90	.86
19	1.16	1.10	1.90	.78	3.20	1.48	.94	.90	.85	.81	.90	.86
20	1.12	1.07	1.90	1.19	2.37	1.75	.96	.90	.85	.82	.90	.83
21	1.07	1.03	1.19	1.02	1.75	1.45	.94	.90	.87	.82	.85	.83
22	1.08	1.02	1.09	1.00	1.46	1.39	.97	.91	.85	.82	.89	.84
23	1.05	1.00	1.03	.97	1.44	1.38	.94	.89	.86	.83	.87	.84
24	1.11	1.03	.99	.95	---	---	.93	.87	.86	.83	.91	.85
25	1.12	1.06	1.01	.94	---	---	.91	.87	.86	.83	.87	.85
26	1.17	1.07	.97	.93	---	---	.92	.87	.87	.83	.88	.85
27	1.07	.97	.97	.93	---	---	.90	.87	.88	.84	.88	.86
28	1.06	.97	1.06	.95	---	---	.93	.90	.88	.84	.88	.86
29	1.03	1.00	1.10	.97	---	---	.95	.89	.88	.84	.87	.84
30	1.04	.98	.98	.92	---	---	.95	.89	.87	.83	.86	.83
31	---	---	.97	.92	---	---	.94	.88	.87	.82	---	---
MONTH	1.87	.97	1.90	.78	---	---	---	---	.90	.79	.94	.73

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 Jul 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.--Records good except those for Aug 23 to Sep 30, which are fair. The South Concho and Middle Concho-Spring Creek pools were not equalized. Recording equipment became isolated Aug 23, 2000 (at an elevation of 1888.30 ft) due to silt in well. 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. At an elevation of 1,926.5 ft, the two pools join to form one lake. Below elevation 1,926.5 ft, daily contents are 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 Jun 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 contents, 17,920 acre-ft, Oct 1; minimum combined daily contents, 7,650 acre-ft, Sep 30.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17920	16340	15780	15110	15120	14860	14140	13470	11260	16430	12410	8670
2	17750	16330	15750	15100	15160	14820	14130	13430	11220	16390	12310	8640
3	17570	16330	15740	15040	15160	14770	14100	13370	11210	16350	12170	8610
4	17510	16300	15680	15040	15170	14750	14080	13350	11170	16310	12060	8580
5	17520	16270	15650	15020	15200	14710	14050	13320	11110	16230	11920	8530
6	17510	16250	15630	14990	15210	14700	14010	13270	11000	16130	11800	8490
7	17470	16210	15580	15000	15230	14690	13930	13200	10930	16000	11670	8450
8	17430	16190	15560	14980	15250	14650	13940	13130	10890	15840	11520	8400
9	17400	16160	15520	14980	15290	14610	13920	13070	10830	15690	11340	8340
10	17360	16160	15510	14960	15290	14540	13870	13020	10780	15530	11190	8300
11	17330	16200	15480	14950	15290	14530	13870	12940	15580	15350	11050	8230
12	17300	16190	15480	14930	15310	14490	14060	12810	16220	15160	10900	8200
13	17260	16170	15460	14930	15300	14460	14070	12700	16310	14930	10760	8190
14	17230	16170	15420	14940	15270	14460	14080	12590	16270	14780	10620	8120
15	17170	16160	15410	15000	15250	14440	14070	12530	16200	14640	10490	8090
16	17080	16140	15380	15000	15230	14390	14060	12390	16140	14490	10340	8050
17	16980	16120	15320	15010	15230	14370	14060	12260	16050	14340	10180	8010
18	16940	16090	15310	15040	15200	14310	14060	12200	16250	14200	10040	7990
19	16850	16070	15270	15040	15160	14300	14020	12280	16310	14050	9910	7980
20	16780	16050	15250	15040	15150	14280	13970	12190	16330	13930	9770	7940
21	16690	16020	15260	15070	15130	14270	13940	12120	16610	13790	9630	7860
22	16620	15990	15240	15070	15130	14320	13910	12060	16670	13670	9540	7830
23	16540	15980	15220	15070	15100	14310	13840	11980	16720	13530	9470	7820
24	16480	15950	15190	15080	15080	14300	13800	11900	16710	13400	9270	7800
25	16430	15940	15190	15070	15040	14290	13740	11820	16680	13290	9140	7780
26	16420	15890	15190	15090	14990	14270	13720	11740	16630	13150	e9100	7760
27	16400	15870	15190	15090	14960	14260	13660	11640	16600	13020	e9000	7760
28	16380	15840	15170	15080	14960	14230	13630	11580	16550	12890	e8900	7720
29	16390	15820	15160	15090	14890	14190	13600	11510	16510	12770	8820	7680
30	16410	15810	15150	15110	---	14160	13510	11420	16480	12640	8770	7650
31	16400	---	15130	15120	---	14150	---	11350	---	12520	8720	---

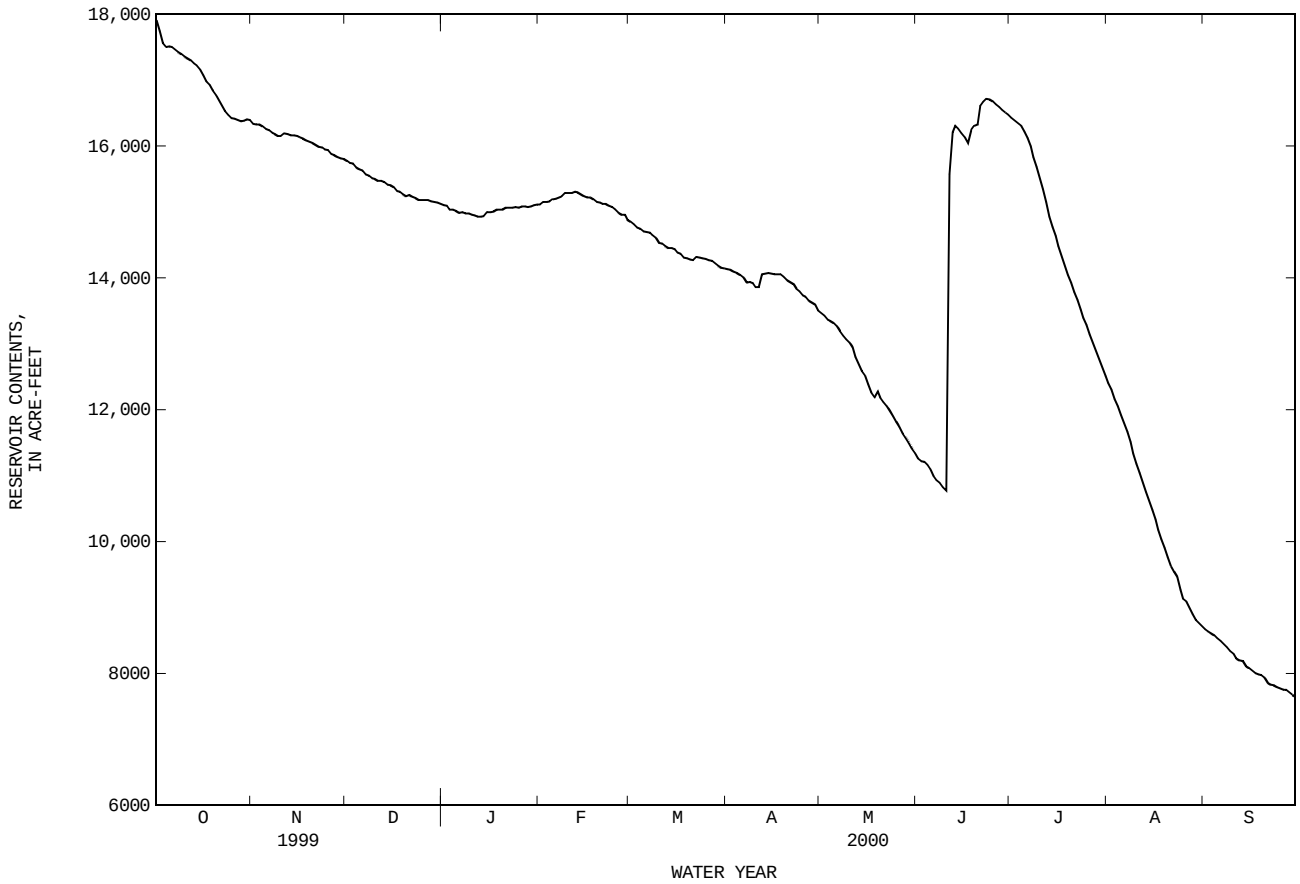
08131200 TWIN BUTTES RESERVOIR NEAR SAN ANGELO, TX--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MAX	17920	16340	15780	15120	15310	14860	14140	13470	16720	16430	12410	8670
MIN	16380	15810	15130	14930	14890	14150	13510	11350	10780	12520	8720	7650
(+)	1894.75	1893.92	1892.95	1892.88	1892.68	1891.95	1891.28	1889.06	1894.32	1890.64	1886.54	1885.49
(@)	-1680	-590	-680	-10	-230	-740	-640	-2160	+5130	-3960	-3800	-1070

CAL YR 1999 MAX 28470 MIN 15130 (@) -8320
WTR YR 2000 MAX 17920 MIN 7650 (@) -10430

e Estimated

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



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 current year. 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.--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 Jul 1966, West Texas Utilities Co. has operated a steam generating powerplant on the lake. Since Sep 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. 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 Sep 1993 and has been used since Oct 1995. The city of San Angelo began dredging Lake Nasworthy Jul 11, 2000. 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, Sep 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, 9,180 acre-ft, Jun 20, elevation, 1,871.58 ft; minimum contents, 7,260 acre-ft, Sep 30, elevation, 1,869.99 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

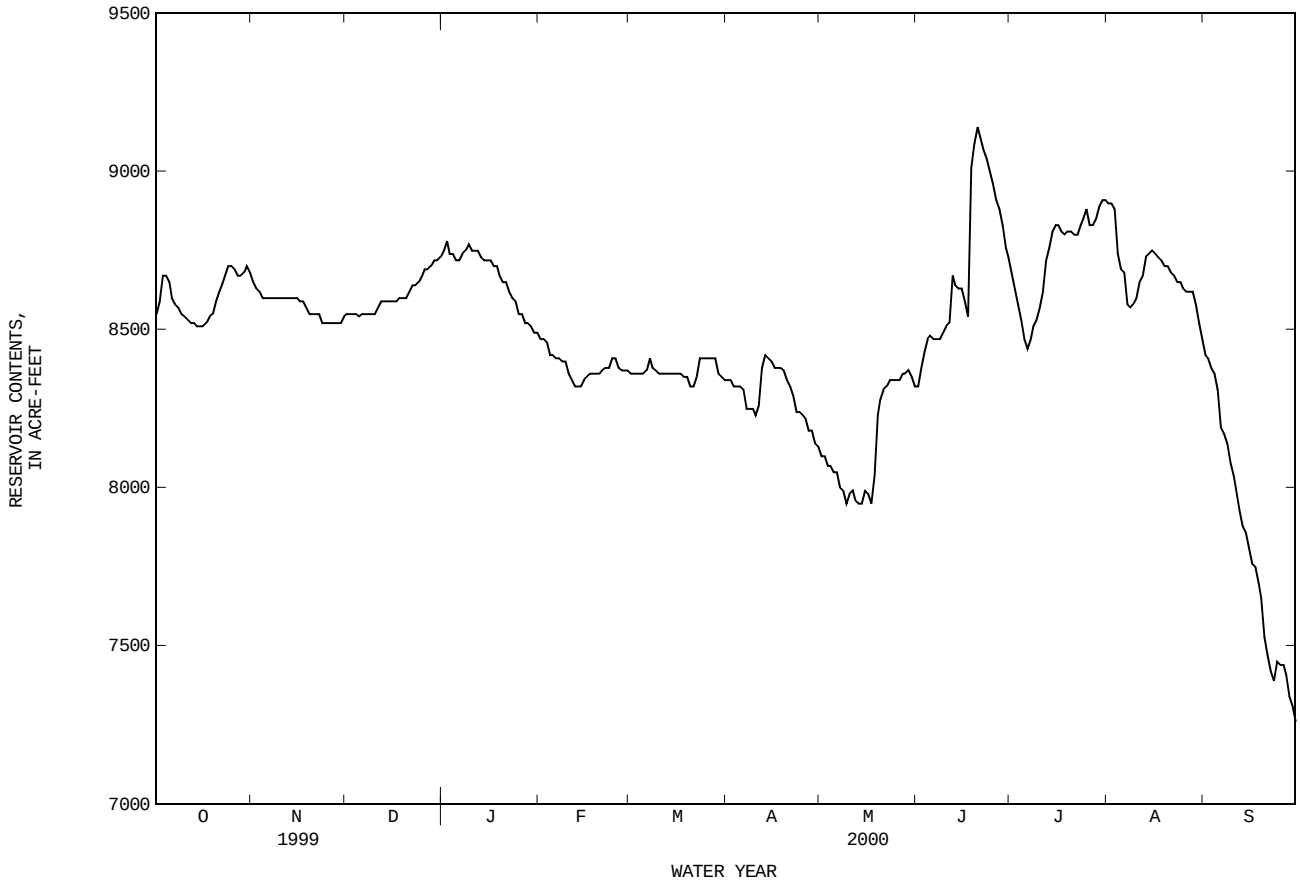
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8550	8650	8550	8750	8470	8360	8340	8100	8320	8680	8900	8420
2	8590	8630	8550	8780	8470	8360	8340	8100	8380	8630	8900	8410
3	8670	8620	8550	8740	8460	8360	8320	8070	8430	8580	8880	8380
4	8670	8600	8550	8740	8420	8360	8320	8070	8470	8530	8740	8360
5	8650	8600	8540	8720	8420	8360	8320	8050	8480	8470	8690	8310
6	8600	8600	8550	8720	8410	8370	8310	8050	8470	8440	8680	8190
7	8580	8600	8550	8740	8410	8410	8250	8000	8470	8470	8580	8170
8	8570	8600	8550	8750	8400	8380	8250	7990	8470	8510	8570	8140
9	8550	8600	8550	8770	8400	8370	8250	7950	8490	8530	8580	8080
10	8540	8600	8550	8750	8360	8360	8230	7980	8510	8570	8600	8040
11	8530	8600	8570	8750	8340	8360	8260	7990	8520	8620	8650	7990
12	8520	8600	8590	8750	8320	8360	8380	7960	8670	8720	8670	7930
13	8520	8600	8590	8730	8320	8360	8420	7950	8640	8760	8730	7880
14	8510	8600	8590	8720	8320	8360	8410	7950	8630	8810	8740	7860
15	8510	8600	8590	8720	8340	8360	8400	7990	8630	8830	8750	7810
16	8510	8590	8590	8720	8350	8360	8380	7980	8590	8830	8740	7760
17	8520	8590	8590	8700	8360	8360	8380	7950	8540	8810	8730	7750
18	8540	8570	8600	8700	8360	8350	8380	8040	9010	8800	8720	7700
19	8550	8550	8600	8670	8360	8350	8370	8230	9090	8810	8700	7650
20	8590	8550	8600	8650	8360	8320	8340	8280	9140	8810	8700	7530
21	8620	8550	8620	8650	8370	8320	8320	8310	9110	8800	8680	7470
22	8640	8550	8640	8620	8380	8350	8290	8320	9070	8800	8670	7420
23	8670	8520	8640	8600	8380	8410	8240	8340	9040	8830	8650	7390
24	8700	8520	8650	8590	8410	8410	8240	8340	9000	8850	8650	7450
25	8700	8520	8670	8550	8410	8410	8230	8340	8960	8880	8630	7440
26	8690	8520	8690	8550	8380	8410	8220	8340	8910	8830	8620	7440
27	8670	8520	8690	8520	8370	8410	8180	8360	8880	8830	8620	7410
28	8670	8520	8700	8520	8370	8410	8180	8360	8830	8850	8620	7340
29	8680	8520	8720	8510	8370	8360	8140	8370	8760	8890	8580	7310
30	8700	8540	8720	8490	---	8350	8130	8350	8730	8910	8520	7260
31	8680	---	8730	8490	---	8340	---	8320	---	8910	8470	---

08132000 LAKE NASWORTHY NEAR SAN ANGELO, TX--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MAX	8700	8650	8730	8780	8470	8410	8420	8370	9140	8910	8900	8420
MIN	8510	8520	8540	8490	8320	8320	8130	7950	8320	8440	8470	7260
(+)	1871.18	1871.07	1871.22	1871.03	1870.93	1870.90	1870.73	1870.89	1871.22	1871.37	1871.01	1869.99
(@)	+140	-140	+190	-240	-120	-30	-210	+190	+410	+180	-440	-1210

CAL YR 1999 MAX 9470 MIN 8510 (@) -40
WTR YR 2000 MAX 9140 MIN 7260 (@) -1280

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



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.--Sep 1939 to Sep 1985 (daily mean discharge). Oct 1985 to Sep 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 Jul 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 Jul 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)
Mar 23	1945	16,200	23.48	No other 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 Jul 1982. Biochemical data: Apr 1980 to Jul 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 Sep 27, 1936, to Feb 7, 1937, nonrecording gage; Feb 4, 1925, to Sep 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 24	1515	10,700	19.31	No other peak greater than base discharge.			

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

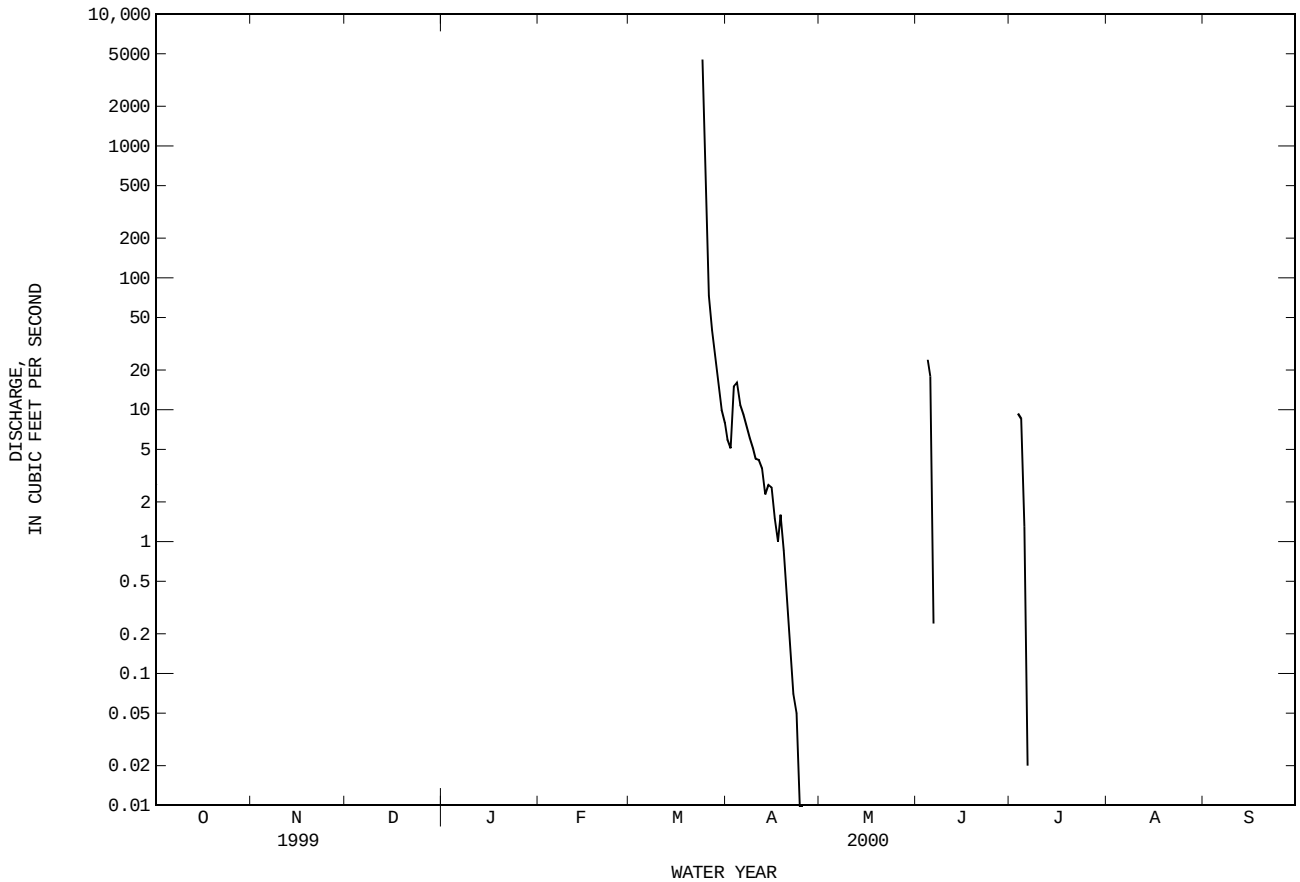
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	6.0	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	5.1	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	15	.00	.00	9.4	.00	.00
4	.00	.00	.00	.00	.00	.00	16	.00	24	8.6	.00	.00
5	.00	.00	.00	.00	.00	.00	11	.00	18	1.3	.00	.00
6	.00	.00	.00	.00	.00	.00	9.3	.00	.24	.02	.00	.00
7	.00	.00	.00	.00	.00	.00	7.6	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	6.1	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	5.1	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	4.3	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	4.2	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	3.6	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	2.3	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	2.7	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	2.6	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	1.6	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.86	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	4540	.01	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	426	.01	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	73	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	40	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	25	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	16	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	10	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	8.0	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	5138.00	106.45	0.00	42.24	19.32	0.00	0.00
MEAN	.000	.000	.000	.000	.000	166	3.55	.000	1.41	.62	.000	.000
MAX	.00	.00	.00	.00	.00	4540	16	.00	24	9.4	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	10190	211	.00	84	38	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2000, BY WATER YEAR (WY)

MEAN	35.5	3.96	4.09	3.91	6.66	12.3	34.8	77.6	26.5	39.1	16.2	81.3
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

08134000 NORTH CONCHO RIVER NEAR CARLSBAD, TX--Continued
(Hydrologic index station)

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1924 - 2000	
ANNUAL TOTAL	385.80		5306.01			
ANNUAL MEAN	1.06		14.5		28.7	
HIGHEST ANNUAL MEAN					336	1936
LOWEST ANNUAL MEAN					.000	1970
HIGHEST DAILY MEAN	26	Jun 22	4540	Mar 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
INSTANTANEOUS PEAK FLOW			10700	Mar 24	94600	Sep 26 1936
INSTANTANEOUS PEAK STAGE			19.31	Mar 24	29.10	Sep 26 1936
ANNUAL RUNOFF (AC-FT)	765		10520		20780	
10 PERCENT EXCEEDS	3.3		.06		12	
50 PERCENT EXCEEDS	.00		.00		1.5	
90 PERCENT EXCEEDS	.00		.00		.00	



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 Sep 2000.

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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 24	1800	10,400	24.50	No other peak greater than base discharge.			

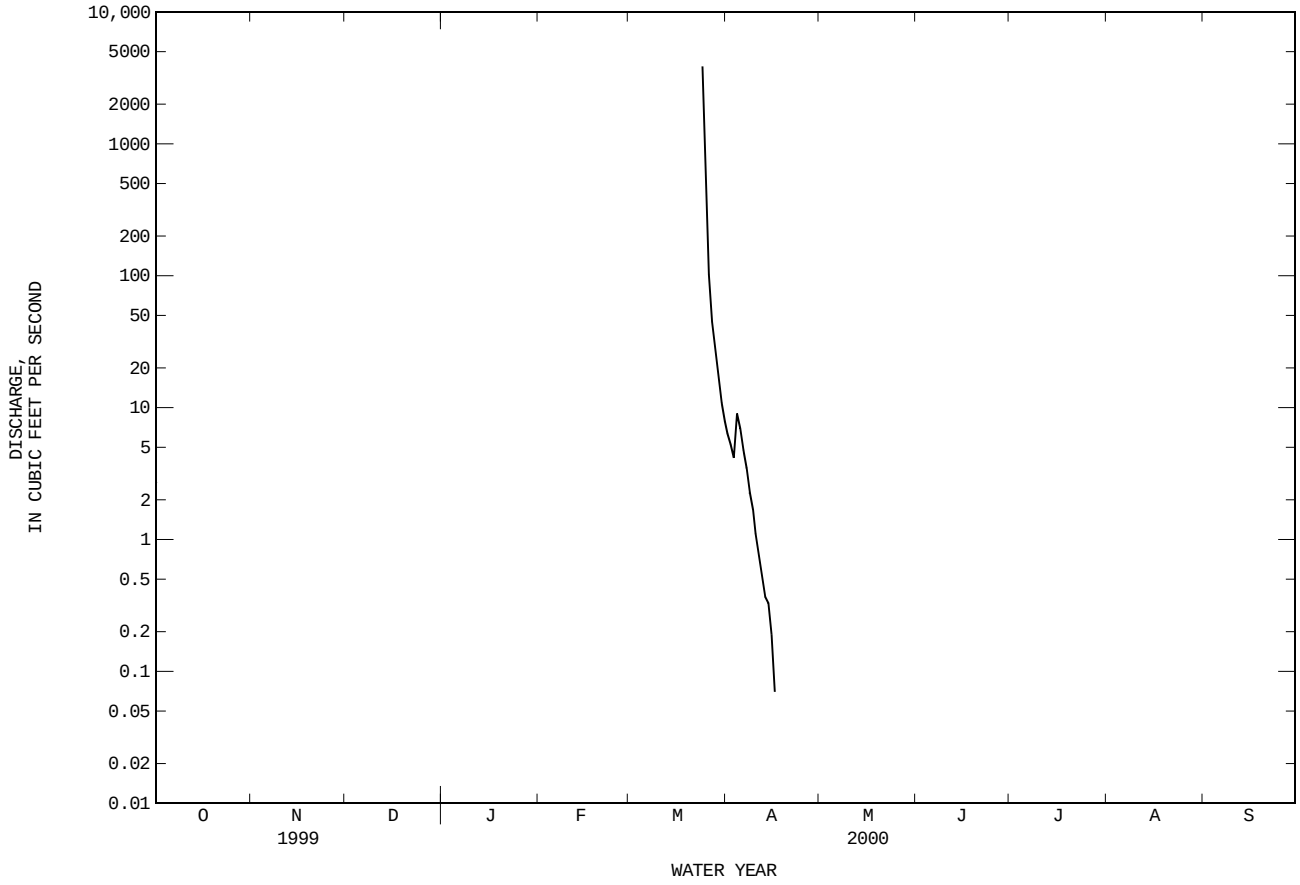
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.00	6.4	.00	.00	.00	.00	.00
2	---	---	---	---	---	.00	5.3	.00	.00	.00	.00	.00
3	---	---	---	---	---	.00	4.2	.00	.00	.00	.00	.00
4	---	---	---	---	---	.00	9.1	.00	.00	.00	.00	.00
5	---	---	---	---	---	.00	7.0	.00	.00	.00	.00	.00
6	---	---	---	---	---	.00	4.8	.00	.00	.00	.00	.00
7	---	---	---	---	---	.00	3.5	.00	.00	.00	.00	.00
8	---	---	---	---	---	.00	2.3	.00	.00	.00	.00	.00
9	---	---	---	---	---	.00	1.7	.00	.00	.00	.00	.00
10	---	---	---	---	---	.00	1.1	.00	.00	.00	.00	.00
11	---	---	---	---	---	.00	.79	.00	.00	.00	.00	.00
12	---	---	---	---	---	.00	.55	.00	.00	.00	.00	.00
13	---	---	---	---	---	.00	.37	.00	.00	.00	.00	.00
14	---	---	---	---	.00	.00	.33	.00	.00	.00	.00	.00
15	---	---	---	---	.00	.00	.19	.00	.00	.00	.00	.00
16	---	---	---	---	.00	.00	.07	.00	.00	.00	.00	.00
17	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
18	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
19	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
20	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
21	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
22	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
23	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.00
24	---	---	---	---	.00	3890	.00	.00	.00	.00	.00	.00
25	---	---	---	---	.00	670	.00	.00	.00	.00	.00	.00
26	---	---	---	---	.00	103	.00	.00	.00	.00	.00	.00
27	---	---	---	---	.00	45	.00	.00	.00	.00	.00	.00
28	---	---	---	---	.00	27	.00	.00	.00	.00	.00	.00
29	---	---	---	---	.00	17	.00	.00	.00	.00	.00	.00
30	---	---	---	---	---	11	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	7.9	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	4770.90	47.70	0.00	0.00	0.00	0.00	0.00
MEAN	---	---	---	---	---	154	1.59	.000	.000	.000	.000	.000
MAX	---	---	---	---	---	3890	9.1	.00	.00	.00	.00	.00
MIN	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	9460	95	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2000, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	154	1.59	.000	.000	.000	.000	.000
MAX	---	---	---	---	---	154	1.59	.000	.000	.000	.000	.000
(WY)	---	---	---	---	---	2000	2000	2000	2000	2000	2000	2000
MIN	---	---	---	---	---	154	1.59	.000	.000	.000	.000	.000
(WY)	---	---	---	---	---	2000	2000	2000	2000	2000	2000	2000

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, in 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 current year. Published as "San Angelo Reservoir" prior to Oct 1970, and as "San Angelo Lake", Oct 1970 to Sep 1974.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to May 12, 1953, non-recording gage at same site and datum. Satellite telemeter at station.

REMARKS.--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 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 119,200 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	1,908.7
Lowest gated outlet (invert)	1,840.0

COOPERATION.--Record of contents furnished by the U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,720 acre-ft, Mar 28, 29, elevation, 1,874.13 ft; minimum contents, 6,830 acre-ft, Sep 30, elevation, 1,865.58 ft.

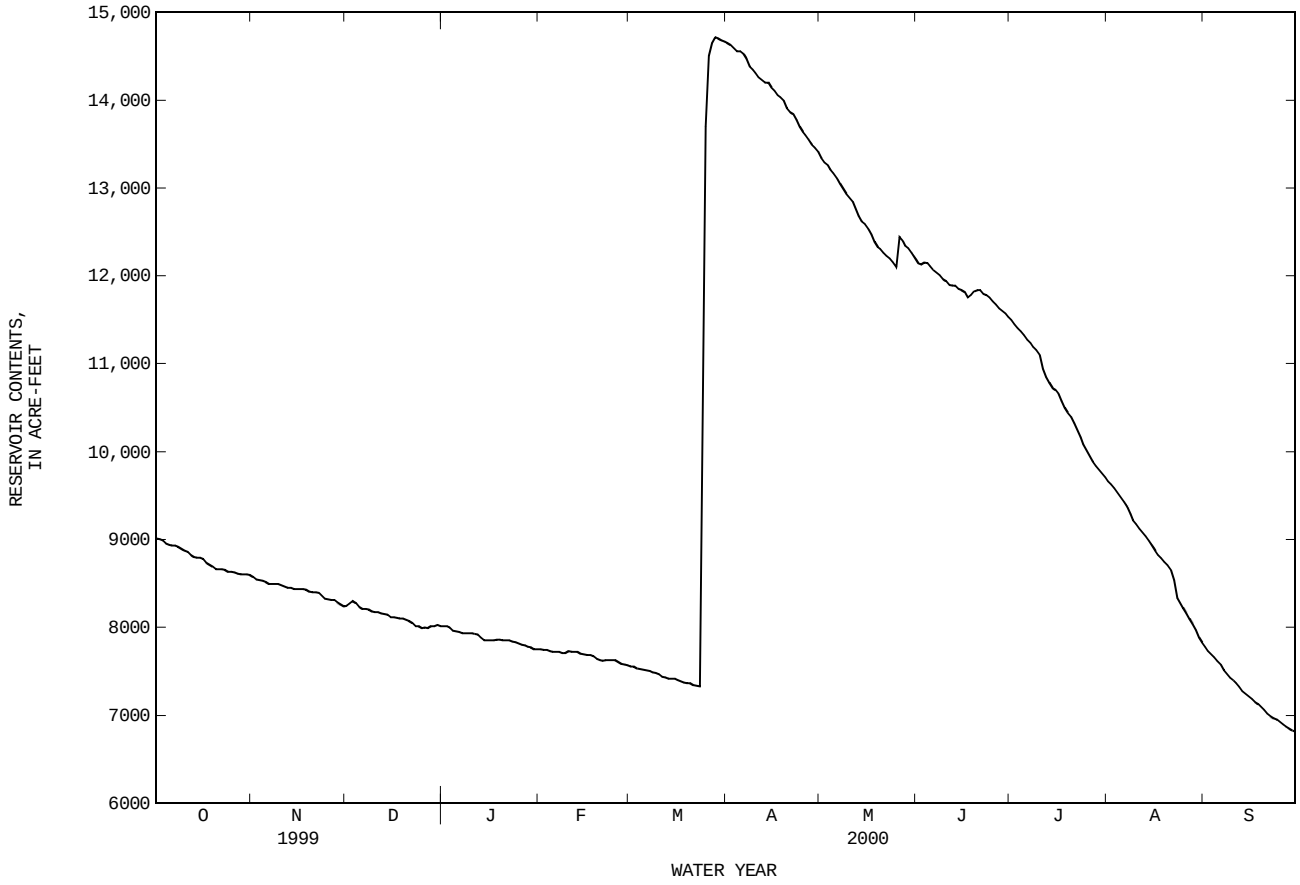
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9020	8580	8250	8020	7760	7560	14660	13340	12140	11500	9660	7780
2	9010	8550	8270	8020	7750	7560	14630	13290	12130	11450	9630	7730
3	8990	8540	8300	8000	7750	7540	14590	13260	12150	11410	9590	7690
4	8960	8530	8280	7970	7740	7530	14560	13210	12140	11360	9530	7660
5	8940	8520	8240	7960	7720	7520	14560	13170	12110	11320	9480	7610
6	8930	8500	8220	7950	7720	7510	14530	13120	12070	11270	9430	7580
7	8930	8500	8220	7940	7720	7510	14470	13050	12040	11230	9370	7510
8	8920	8500	8210	7940	7710	7490	14380	12990	12010	11190	9290	7470
9	8900	8500	8180	7940	7710	7480	14350	12940	11960	11150	9220	7430
10	8880	8480	8180	7940	7740	7470	14310	12890	11940	11100	9170	7400
11	8860	8470	8180	7930	7720	7440	14260	12840	11900	10950	9120	7360
12	8830	8450	8160	7920	7720	7440	14230	12780	11890	10850	9080	7320
13	8800	8450	8160	7890	7720	7420	14200	12690	11890	10780	9040	7270
14	8800	8440	8150	7860	7710	7420	14200	12620	11860	10720	8980	7240
15	8800	8440	8120	7860	7690	7420	14140	12590	11840	10710	8920	7220
16	8780	8440	8120	7860	7690	7410	14110	12540	11820	10670	8870	7190
17	8740	8440	8110	7860	7690	7390	14060	12480	11760	10580	8830	7150
18	8720	8430	8100	7870	7670	7380	14030	12390	11790	10500	8790	7120
19	8690	8410	8100	7870	7640	7360	14000	12330	11830	10450	8750	7100
20	8670	8400	8090	7860	7630	7360	13910	12300	11840	10400	8710	7060
21	8670	8400	8070	7860	7620	7350	13860	12260	11840	10330	8660	7020
22	8670	8390	8050	7860	7630	7340	13840	12230	11800	10250	8540	6990
23	8660	8360	8020	7840	7630	7330	13780	12200	11790	10170	8340	6960
24	8640	8330	8010	7840	7630	9030	13700	12150	11760	10090	8270	6950
25	8640	8320	8000	7820	7630	13700	13640	12100	11710	10020	8220	6920
26	8630	8320	8000	7810	7610	14510	13600	12440	11670	9960	8160	6900
27	8610	8320	8000	7800	7580	14660	13550	12400	11630	9890	8100	6870
28	8600	8280	8010	7790	7580	14720	13500	12350	11600	9840	8040	6850
29	8600	8260	8020	7780	7570	14700	13460	12320	11570	9790	7980	6830
30	8600	8250	8030	7760	---	14680	13410	12260	11540	9750	7890	6820
31	8600	---	8020	7760	---	14670	---	12210	---	9710	7830	---
MAX	9020	8580	8300	8020	7760	14720	14660	13340	12150	11500	9660	7780
MIN	8600	8250	8000	7760	7570	7330	13410	12100	11540	9710	7830	6820
(+)	1868.04	1867.59	1867.28	1866.93	1866.67	1874.09	1873.05	1871.98	1871.34	1869.38	1867.03	1865.57
(@)	-420	-350	-230	-260	-190	+7100	-1260	-1200	-670	-1830	-1880	-1010

CAL YR 1999 MAX 13020 MIN 8000 (@) -11980
WTR YR 2000 MAX 14720 MIN 6820 (@) -2200

(+) 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.--Sep 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.--No estimated daily discharges. Records good except those above 500 ft^3/s, which are fair. Since water year 1931 at least 10% of contributing drainage area has been regulated by Lake Nasworthy (station 08132000, conservation pool storage 9,615 acre-ft). There are many diversions upstream from station for irrigation, industrial, and municipal supply. Since Dec 1962, flow regulated by Twin Buttes Reservoir (station 08131200, conservation pool storage 177,800 acre-ft) on the South Concho River and since Feb 1952 by O.C. Fisher Lake (station 08134500, conservation pool storage 119,200 acre-ft) on the North Concho River. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jun 1853, Aug 1882, and Apr 1900.

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	.03	.07	.05	2.1	.04	.22	.04	.03	.00	.04	.03	.02
2	.04	.04	.10	1.5	.03	.18	.05	.03	11	.03	.02	.02
3	.04	.04	.05	5.6	.03	.03	.04	.03	16	.03	.02	.02
4	.03	.03	.21	.25	.04	.02	.04	.03	6.9	.03	.02	.02
5	.03	.05	.07	.94	.05	.02	.04	.03	2.4	.03	.03	.02
6	.03	.09	.05	1.3	.04	.03	.04	.02	.02	.03	.03	.03
7	.04	.04	.05	1.6	.04	.03	.05	.04	.01	.03	.03	.02
8	.07	.04	.05	2.1	.03	.04	.04	.08	.01	.03	.03	.02
9	.05	.05	2.1	2.7	.03	.07	.04	.13	.01	.03	.06	.02
10	.04	.04	.07	1.0	.03	.03	.05	.05	1.1	.02	.04	.05
11	.04	.04	.06	.26	.03	.03	.05	.03	.78	.04	.03	.04
12	.03	.05	.48	1.4	.04	.04	.06	.04	23	2.4	.02	.04
13	.03	.04	1.1	.94	.05	.04	.05	.04	18	.05	.02	.05
14	.03	.03	3.4	.82	.02	.03	.05	.05	3.3	.04	.02	.06
15	.03	.03	.08	.07	.02	.03	.04	.04	1.6	.03	.02	.05
16	.06	.03	.65	.07	.02	.03	.04	.04	.02	.03	.03	.05
17	.13	.03	1.4	.06	.03	.03	.04	.03	.01	.02	.03	.04
18	.07	.06	1.1	.11	.04	.03	.04	.04	148	.03	.03	.03
19	.06	.13	1.3	.07	.02	.03	.06	16	30	.03	.04	.04
20	.06	.13	.99	.12	.02	.03	.04	21	56	.02	.03	.05
21	.06	.05	1.2	.05	.03	.04	.04	4.5	17	.02	.03	.05
22	.04	.04	1.4	.05	.04	.05	.03	2.0	4.9	.03	.02	.06
23	.05	.03	1.1	.04	.05	.31	.06	.02	2.7	.03	27	.10
24	.03	.03	1.5	.06	.03	.05	.04	.01	.22	.03	.11	60
25	.05	.03	1.6	.04	.03	.05	.03	.01	.08	.02	.04	15
26	.07	.03	1.3	.04	.03	.04	.03	.00	.06	.04	.03	7.1
27	.06	.03	2.1	.04	.02	.04	.03	.01	.08	.03	.02	.55
28	.06	.04	1.5	.03	.02	.04	.03	.00	.06	.03	.02	2.3
29	.03	.03	1.0	.03	.09	.04	.03	.00	.04	.03	.02	2.9
30	.15	.03	1.8	.04	---	.03	.03	.00	.04	.03	.02	.12
31	.04	---	1.2	.04	---	.03	---	.00	---	.03	.02	---
TOTAL	1.58	1.40	29.06	23.47	0.99	1.71	1.25	44.33	343.34	3.31	27.91	88.87
MEAN	.051	.047	.94	.76	.034	.055	.042	1.43	11.4	.11	.90	2.96
MAX	.15	.13	3.4	5.6	.09	.31	.06	21	148	2.4	27	60
MIN	.03	.03	.05	.03	.02	.02	.03	.00	.00	.02	.02	.02
AC-FT	3.1	2.8	58	47	2.0	3.4	2.5	88	681	6.6	55	176

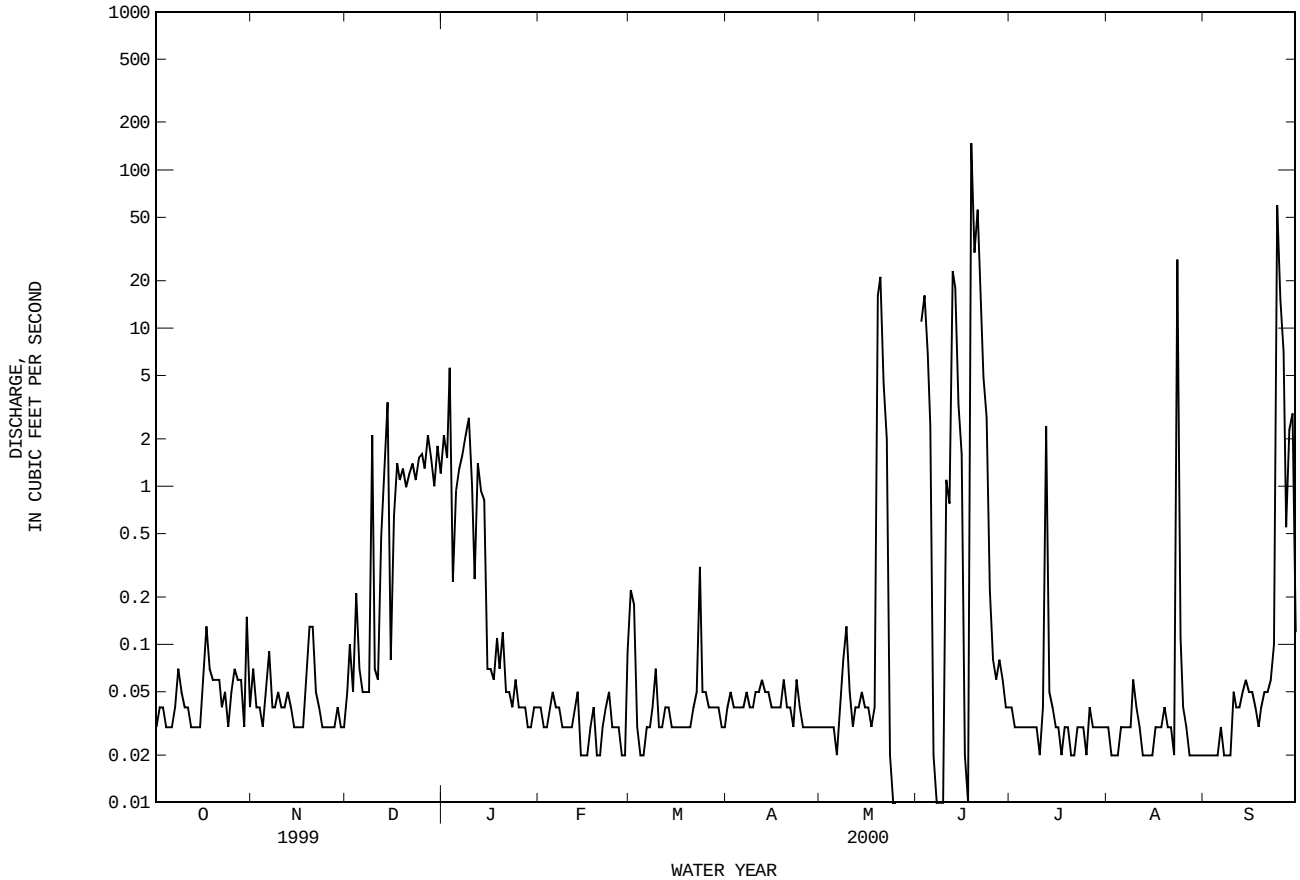
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2000z, BY WATER YEAR (WY)

MEAN	120	32.7	33.6	30.0	35.4	28.6	93.7	188	85.3	104	40.0	255
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1931 - 2000z	
ANNUAL TOTAL	2348.11		567.22			
ANNUAL MEAN	6.43		1.55		87.3	
HIGHEST ANNUAL MEAN					1132	1936
LOWEST ANNUAL MEAN					1.55	2000
HIGHEST DAILY MEAN	785	Jun 7	148	Jun 18	128000	Sep 17 1936
LOWEST DAILY MEAN	.02	Aug 10	.00	May 26	.00	Sep 14 1952
ANNUAL SEVEN-DAY MINIMUM	.03	Aug 18	.00	May 26	.00	Sep 16 1952
INSTANTANEOUS PEAK FLOW			299	Jun 18	c230000	Sep 17 1936
INSTANTANEOUS PEAK STAGE			2.97	Jun 18	a46.60	Sep 17 1936
ANNUAL RUNOFF (AC-FT)	4660		1130		63210	
10 PERCENT EXCEEDS	5.6		1.5		68	
50 PERCENT EXCEEDS	.07		.04		7.0	
90 PERCENT EXCEEDS	.03		.02		.10	

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.



08136150 CONCHO RIVER NEAR VERIBEST, TX

LOCATION.--Lat 31°32’15", long 100°13’09", Tom Green County, Hydrologic Unit 12090105, at upper end of county park, about 0.1 mi above low-water crossing on FM 2334, also known as Mullins Crossing, 2.8 mi downstream from Crownest Creek, 4.5 mi northeast of Veribest, and 17.3 mi downstream from Concho River at San Angelo (station 08136000).

DRAINAGE AREA.--5,610 mi^2, of which 1,131 mi^2 probably is noncontributing.

PERIOD OF RECORD.--Apr 1970 to Apr 1974 (periodic discharge measurements). Jul 1998 to Sep 2000 (gage heights only, discontinued).
Water-quality records.--Chemical data: Feb 1969 to Sep 1981. Biochemical data: Feb 1969 to Sep 1981.

REVISED RECORDS.--Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,694.66 ft above sea level. From Jul 28, 1970, to Sep 30, 1981, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records good. Interruptions in the maximum and minimum gage heights were the result of no flow. Since Feb 1969, at least 10% of contributing drainage area has been regulated by Lake Nasworthy (station 08132000,) and Twin Buttes Reservoir (station 08131200), combined conservation pool storage 187,415 acre-ft, on the South Concho River and by O.C. Fisher Lake (station 08134500, conservation pool storage 119,200 acre-ft) on the North Concho River. There are many diversions upstream from station for irrigation, industrial, and municipal supply.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood on May 9, 1957, reached a stage of 29.76 ft, from U.S. Army Corps of Engineers, Fort Worth.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 5.87 ft Jun 7, 1999; minimum gage height, 0.16 ft at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 1.49 ft Jun 19; minimum gage height, 0.16 ft Jul 14-16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
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	---	---	---	---	---	---	---	---	---	---	---	---

08136150 CONCHO RIVER NEAR VERIBEST, TX--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	.34	.32	---	---	---	---
2	---	---	---	---	---	---	.34	.31	---	---	---	---
3	---	---	---	---	---	---	.33	.30	---	---	---	---
4	---	---	---	---	---	---	.32	.29	---	---	---	---
5	---	---	---	---	---	---	.31	.28	---	---	---	---
6	---	---	---	---	---	---	.29	.27	---	---	---	---
7	---	---	---	---	---	---	.28	.25	---	---	---	---
8	---	---	---	---	---	---	.27	.25	---	---	---	---
9	---	---	---	---	---	---	.27	.23	---	---	---	---
10	---	---	---	---	---	---	.25	.22	---	---	---	---
11	---	---	---	---	---	---	.24	.21	---	---	---	---
12	---	---	---	---	---	---	.23	.19	---	---	---	---
13	---	---	---	---	---	---	.21	.18	---	---	---	---
14	---	---	---	---	---	---	.19	.16	---	---	---	---
15	---	---	---	---	---	---	.19	.16	---	---	---	---
16	---	---	---	---	---	---	.17	.16	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	1.49	.41	---	---	---	---	---	---
20	---	---	---	---	1.12	.93	---	---	---	---	---	---
21	---	---	---	---	1.09	.91	---	---	---	---	---	---
22	---	---	---	---	1.03	.87	---	---	---	---	---	---
23	---	---	---	---	.87	.74	---	---	---	---	---	---
24	---	---	---	---	.74	.59	---	---	---	---	---	---
25	---	---	---	---	.59	.49	---	---	---	---	---	---
26	---	---	---	---	.49	.42	---	---	---	---	---	---
27	---	---	---	---	.43	.39	---	---	---	---	---	---
28	---	---	---	---	.39	.36	---	---	---	---	---	---
29	---	---	---	---	.37	.35	---	---	---	---	---	---
30	---	---	---	---	.37	.33	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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.--Sep 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 by Lake Nasworthy (station 08132000, conservation pool storage 9,615 acre-ft). There are many diversions above station for irrigation and municipal supply. Flow affected at times by discharge from the flood-detention pools of two floodwater-retarding structures with a combined detention capacity of 2,690 acre-ft. These structures control runoff from 16.5 mi^2 in the Willow Creek drainage basin. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Sep 17, 1936.

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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.16	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	547	.07	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	186	.05	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	33	.05	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	13	.05	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	7.1	.05	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	6.0	.05	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	7.2	.04	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	5.9	.04	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	5.9	.03	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	5.4	.03	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	4.7	.04	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	168	.34	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	36	.06	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	11	.02	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	845	.01	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	593	.01	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	103	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	66	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	35	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	8.9	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	3.8	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.62	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2766.52	1.47	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	92.2	.047	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	845	.34	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	5490	2.9	.00	.00

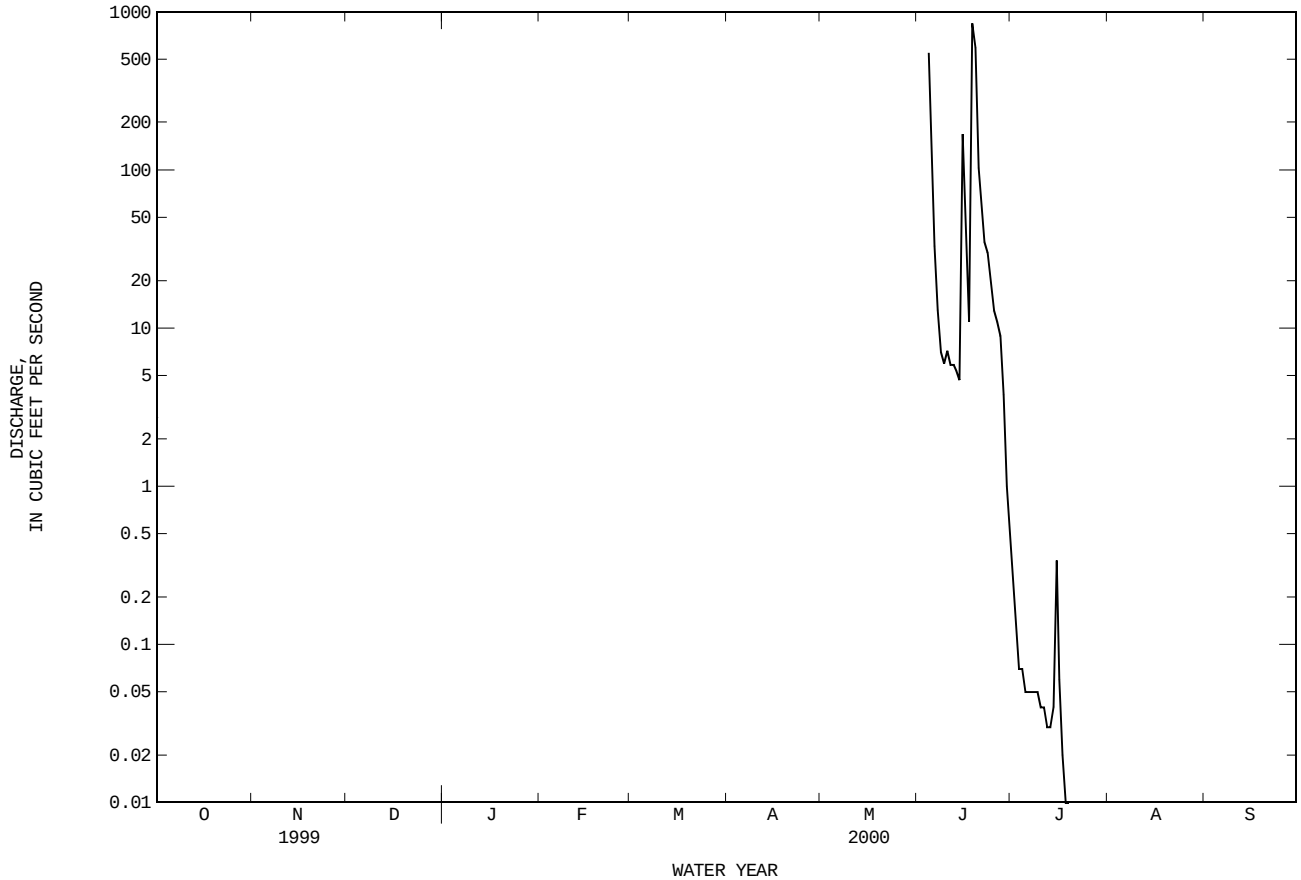
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2000z, BY WATER YEAR (WY)

MEAN	198	57.0	56.9	53.0	66.2	52.8	136	296	136	150	57.8	372
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1931 - 2000z	
ANNUAL TOTAL	2738.49		2767.99			
ANNUAL MEAN	7.50		7.56		136	
HIGHEST ANNUAL MEAN					1470	1936
LOWEST ANNUAL MEAN					7.56	2000
HIGHEST DAILY MEAN	862	Jun 7	845	Jun 18	134000	Sep 17 1936
LOWEST DAILY MEAN	.00	Apr 15	.00	Oct 1	.00	Sep 28 1931
ANNUAL SEVEN-DAY MINIMUM	.00	May 18	.00	Oct 1	.00	Sep 28 1931
INSTANTANEOUS PEAK FLOW			2410	Jun 18	c301000	Sep 17 1936
INSTANTANEOUS PEAK STAGE			15.00	Jun 18	a43.40	Sep 17 1936
ANNUAL RUNOFF (AC-FT)	5430		5490		98610	
10 PERCENT EXCEEDS	9.0		.05		127	
50 PERCENT EXCEEDS	.04		.00		25	
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 and Mar 1964 to current year.
BIOCHEMICAL DATA: Mar 1964 to current year.
PESTICIDE DATA: Apr 1968 to Oct 1981.
SEDIMENT DATA: Feb 1978 to Sep 1981.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Apr 1946 to Oct 1949 and Oct 1967 to Sep 1990 (local observer).
WATER TEMPERATURE: Apr 1946 to Oct 1949 and Oct 1967 to Sep 1990 (local observer).
SUSPENDED SEDIMENT DISCHARGE: Feb 1978 to Sep 1981 (local observer).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,690 microsiemens, Jun 28, Aug 12, 1984; minimum daily, 268 microsiemens, Sep 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, Sep 9, 1980; minimum daily mean, 3 mg/L, Feb 2, 1979.
SEDIMENT LOADS: Maximum daily, 269,000 tons Sep 9, 1980; minimum daily, 0.0 tons on several days during Sep 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
JUN											
04...	1350	450	489	7.7	22.8	7.3	91	3.2	120	76	35
06...	1500	29	353	7.7	26.2	6.2	80	3.4	110	44	34
13...	0945	5.0	526	7.7	24.7	4.6	58	2.9	170	61	47
JUL											
18...	1330	.02	1290	7.8	30.2	6.0	85	5.2	400	290	100

DATE	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)	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)
JUN											
04...	8.9	33	1	5.0	49	47	72	<.10	7.0	242	.864
06...	6.8	20	.8	4.9	70	31	38	.33	10	190	.572
13...	12	32	1	5.2	110	45	68	.34	14	290	.202
JUL											
18...	35	86	2	7.5	110	210	220	.29	20	746	--

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, 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)
JUN										
04...	.054	.918	.127	.42	.54	<.050	.013	.04	16	<1.0
06...	.053	.625	.194	.40	.59	E.045	.039	.12	14	<1.0
13...	.048	.250	.225	.42	.65	<.050	<.010	--	--	--
JUL										
18...	<.010	<.050	<.020	--	.53	<.050	<.010	--	--	--

DATE	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)	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)
JUN										
04...	3	49	<1.0	<1.0	<.80	<1.0	1.2	E9.5	<1.0	6
06...	17	67	<1.0	<1.0	<.80	<1.0	1.9	<10	<1.0	6
13...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--

08136500 CONCHO RIVER AT PAINT ROCK, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
JUN										
04...	<1.0	<.2	1.1	1.6	E2	<1.0	388	12	3.2	<1.0
06...	3.0	E.2	1.5	3.0	3	<1.0	479	25	2.7	<1.0
13...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--

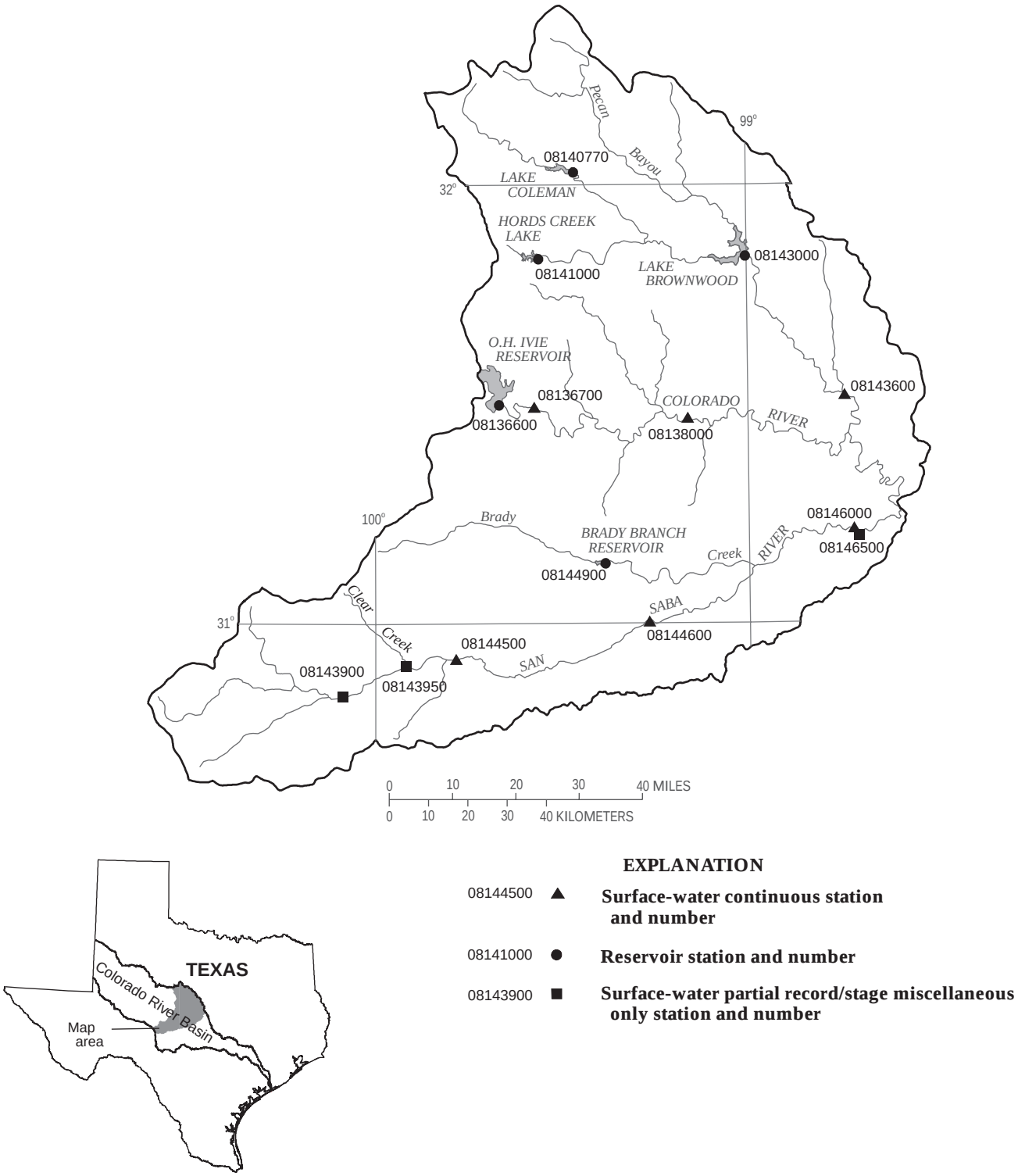


Figure 5.--Map showing location of gaging stations in the third section of the Colorado River Basin

08136600 O.H. Ivie Reservoir near Voss, TX 106
08136700 Colorado River near Stacy, TX 108
08138000 Colorado River at Winchell, TX 110
08140770 Lake Coleman near Novice, TX 112
08141000 Hords Creek Lake near Valera, TX 116
08143000 Lake Brownwood near Brownwood, TX 118
08143600 Pecan Bayou near Mullin, TX 122
08143900 Springs at Fort McKavett, TX 307
08143950 Clear Creek near Menard, TX 309
08144500 San Saba River at Menard, TX 124
08144600 San Saba River near Brady, TX 126
08144900 Brady Creek Reservoir near Brady, TX 128
08146000 San Saba River at San Saba, TX 130
08146500 San Saba Springs at San Saba, TX 307

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 mi northeast of Millersview, 10 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.--Sep 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 Sep 21, 1990 (at an elevation of 1,502.05 ft). 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 Sep 15, 1990, was furnished by the Colorado River Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 574,700 acre-ft, Jun 26, 1997, elevation, 1,552.55 ft; minimum contents after initial filling, 279,700 acre-ft, Jun 2, 2000, elevation, 1,533.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 349,000 acre-ft, Oct 1, elevation, 1,539.11 ft; minimum contents, 279,700 acre-ft, Jun 2, elevation, 1,533.79 ft.

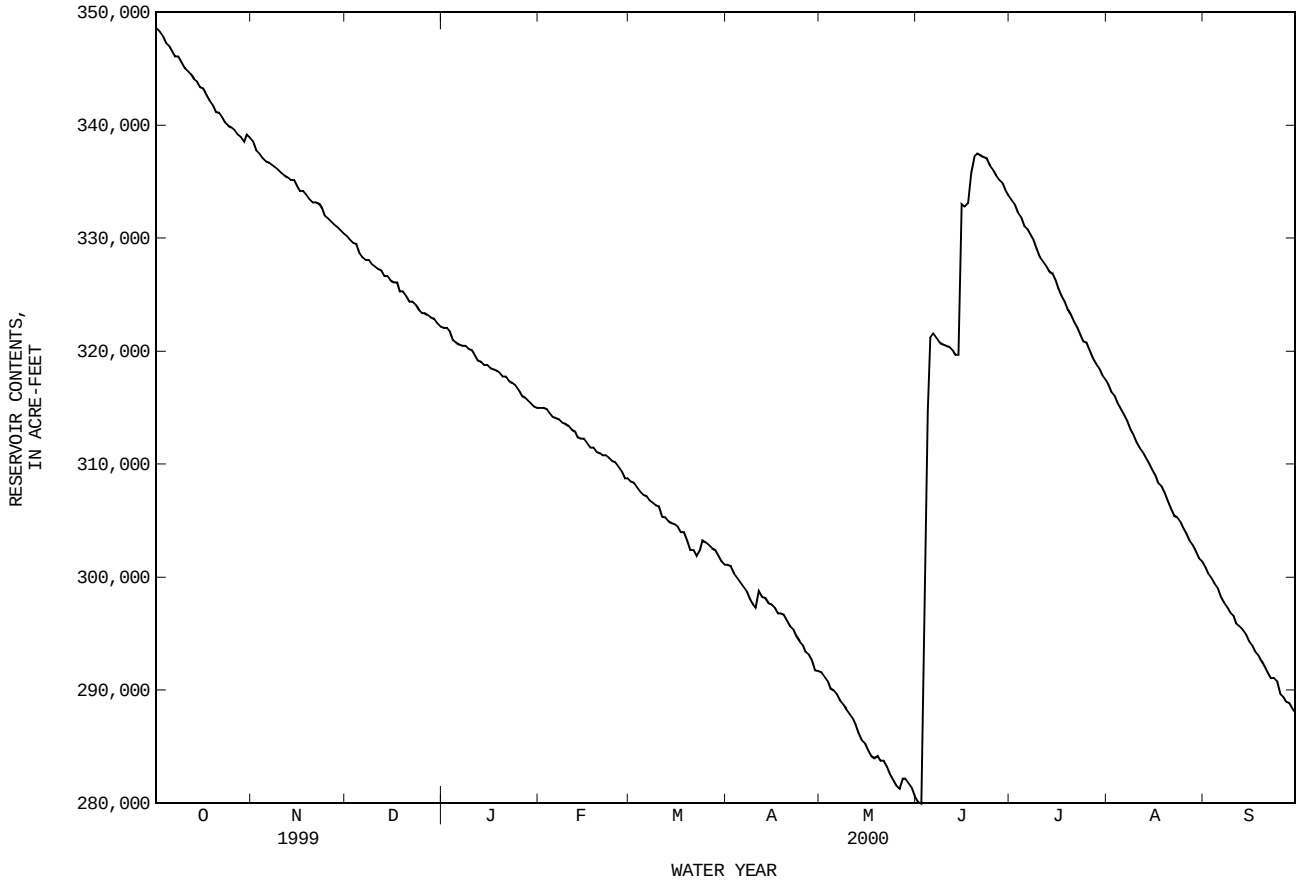
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348600	338600	330200	322100	315000	308500	301100	291600	280100	333400	317100	300900
2	348300	337800	329900	322100	315000	308400	301000	291200	280000	333000	316400	300400
3	347900	337500	329600	321800	314900	308000	300400	290800	294300	332300	316100	300000
4	347300	337100	329500	321000	314500	307600	300000	290200	314600	331900	315400	299500
5	347000	336800	328700	320800	314200	307300	299600	290000	321200	331100	314900	299100
6	346600	336700	328300	320600	314100	307200	299200	289700	321600	330800	314400	298300
7	346100	336500	328100	320500	314000	306800	298800	289100	321200	330300	313800	297800
8	346100	336300	328100	320500	313700	306600	298100	288800	320800	329900	313100	297400
9	345600	336100	327700	320200	313600	306400	297600	288300	320600	329100	312700	296900
10	345100	335800	327500	320100	313400	306300	297300	287900	320500	328400	312000	296600
11	344800	335600	327300	319700	313100	305400	298800	287500	320400	328000	311500	295900
12	344500	335400	327200	319200	312900	305300	298300	287000	320100	327600	311100	295700
13	344100	335200	326700	319100	312400	305000	298200	286200	319700	327100	310600	295400
14	343900	335200	326700	318800	312300	304800	297700	285600	319700	326900	310100	295000
15	343400	334600	326300	318800	312300	304700	297600	285300	333000	326300	309500	294400
16	343300	334200	326100	318500	311900	304500	297300	284700	332800	325600	309000	294000
17	342700	334200	326100	318400	311500	304000	296800	284200	333100	324900	308400	293400
18	342200	333900	325300	318300	311500	304000	296800	284000	335800	324400	308100	293100
19	341800	333500	325300	318100	311100	303300	296700	284200	337200	323700	307500	292600
20	341200	333200	324900	317800	311000	302400	296200	283800	337500	323200	306800	292200
21	341100	333200	324400	317800	310800	302400	295700	283800	337400	322600	306100	291600
22	340800	333100	324400	317400	310800	301900	295400	283300	337200	322100	305500	291100
23	340300	332600	324100	317200	310600	302400	294800	282600	337100	321400	305300	291100
24	340000	332000	323700	317000	310300	303300	294300	282100	336500	320900	304900	290800
25	339800	331800	323400	316600	310200	303100	294000	281600	336100	320800	304400	289700
26	339600	331500	323400	316100	309800	302900	293400	281300	335600	320100	303900	289400
27	339200	331200	323200	315900	309400	302600	293200	282200	335200	319400	303300	289000
28	339000	331000	323000	315700	308800	302400	292700	282200	334900	318900	302900	288900
29	338600	330700	322900	315400	308800	301900	291800	281800	334200	318500	302300	288400
30	339200	330400	322500	315100	---	301400	291700	281400	333800	317900	301700	288000
31	338900	---	322200	315000	---	301100	---	280600	---	317500	301400	---
MAX	348600	338600	330200	322100	315000	308500	301100	291600	337500	333400	317100	300900
MIN	338600	330400	322200	315000	308800	301100	291700	280600	280000	317500	301400	288000
(+)	1538.38	1537.76	1537.15	1536.60	1536.12	1535.52	1534.77	1533.86	1538.01	1536.79	1535.54	1534.47
(@)	-10000	-8500	-8200	-7200	-6200	-7700	-9400	-11100	+53200	-16300	-16100	-13400

CAL YR 1999 MAX 428000 MIN 322200 (@) -105800
WTR YR 2000 MAX 348600 MIN 280000 (@) -60900

(+) 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 Jul 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 Sep 1994. Water temperature: Apr 1968 to Sep 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1882, 356,000 ft^3/s Sep 18, 1936 (gage height, 64.59 ft), by slope-area measurement of peak flow. The flood of Sep 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	9.6	9.3	5.6	4.4	2.6	1.9	12	8.3	12	12	11
2	22	8.3	9.3	5.7	5.1	3.1	7.3	11	9.4	12	12	11
3	11	8.3	9.2	5.2	5.1	2.8	11	21	22	11	11	10
4	6.1	8.3	8.5	4.7	6.6	2.8	11	27	66	12	11	11
5	5.3	8.6	7.5	5.3	5.5	2.9	11	14	230	11	11	11
6	6.8	9.2	8.2	5.2	4.4	3.1	9.8	9.2	42	12	11	11
7	7.3	9.4	8.5	5.7	3.9	3.3	9.3	8.4	20	12	11	11
8	7.5	9.0	9.0	7.0	3.7	3.2	9.4	8.1	13	12	11	11
9	7.6	9.1	9.0	6.5	3.7	2.6	12	7.8	12	12	11	12
10	7.6	9.3	8.7	5.8	3.6	2.7	10	8.4	15	12	12	12
11	7.6	9.5	7.0	5.5	3.2	2.4	31	8.4	13	11	12	12
12	7.6	9.8	7.3	5.4	3.1	2.2	46	8.1	11	11	12	12
13	7.6	9.6	8.9	4.9	3.1	2.4	14	7.1	11	15	11	11
14	7.5	9.5	7.4	4.3	3.0	3.7	10	7.1	10	19	11	12
15	7.7	9.5	6.3	4.0	3.3	5.9	10	8.1	1480	14	11	12
16	8.5	9.0	6.3	4.3	3.2	4.3	10	8.3	131	12	11	12
17	8.3	8.7	6.1	4.4	3.6	2.8	11	7.7	53	11	11	11
18	8.7	8.1	5.8	4.3	3.9	2.5	10	7.9	255	11	11	11
19	9.4	7.9	6.1	4.1	3.3	2.0	11	18	331	11	11	11
20	9.0	7.7	5.7	3.7	3.0	1.9	12	83	59	11	11	18
21	9.0	7.9	5.5	3.5	3.1	2.3	11	41	30	11	11	14
22	9.0	8.5	5.6	3.7	3.7	2.4	10	18	19	11	11	12
23	9.0	8.1	5.6	3.9	4.4	3.4	9.1	10	15	11	11	12
24	8.9	8.2	5.7	4.0	4.2	3.3	9.0	7.5	14	12	11	11
25	9.0	8.3	5.7	4.0	4.2	3.3	9.8	7.2	13	11	12	11
26	9.0	8.7	5.8	3.9	3.1	2.8	9.4	7.7	12	11	11	11
27	9.0	8.5	5.8	4.1	2.7	2.3	9.3	27	12	11	10	12
28	9.1	8.6	5.5	3.8	2.9	2.1	8.7	35	13	11	10	13
29	9.6	8.6	5.5	4.0	2.8	1.8	8.5	26	12	12	10	13
30	13	9.1	5.4	4.1	---	1.6	9.3	17	12	12	11	13
31	12	---	5.4	4.1	---	1.6	---	10	---	12	11	---
TOTAL	293.7	262.9	215.6	144.7	109.8	86.1	351.8	497.0	2943.7	369	344	355
MEAN	9.47	8.76	6.95	4.67	3.79	2.78	11.7	16.0	98.1	11.9	11.1	11.8
MAX	24	9.8	9.3	7.0	6.6	5.9	46	83	1480	19	12	18
MIN	5.3	7.7	5.4	3.5	2.7	1.6	1.9	7.1	8.3	11	10	10
AC-FT	583	521	428	287	218	171	698	986	5840	732	682	704

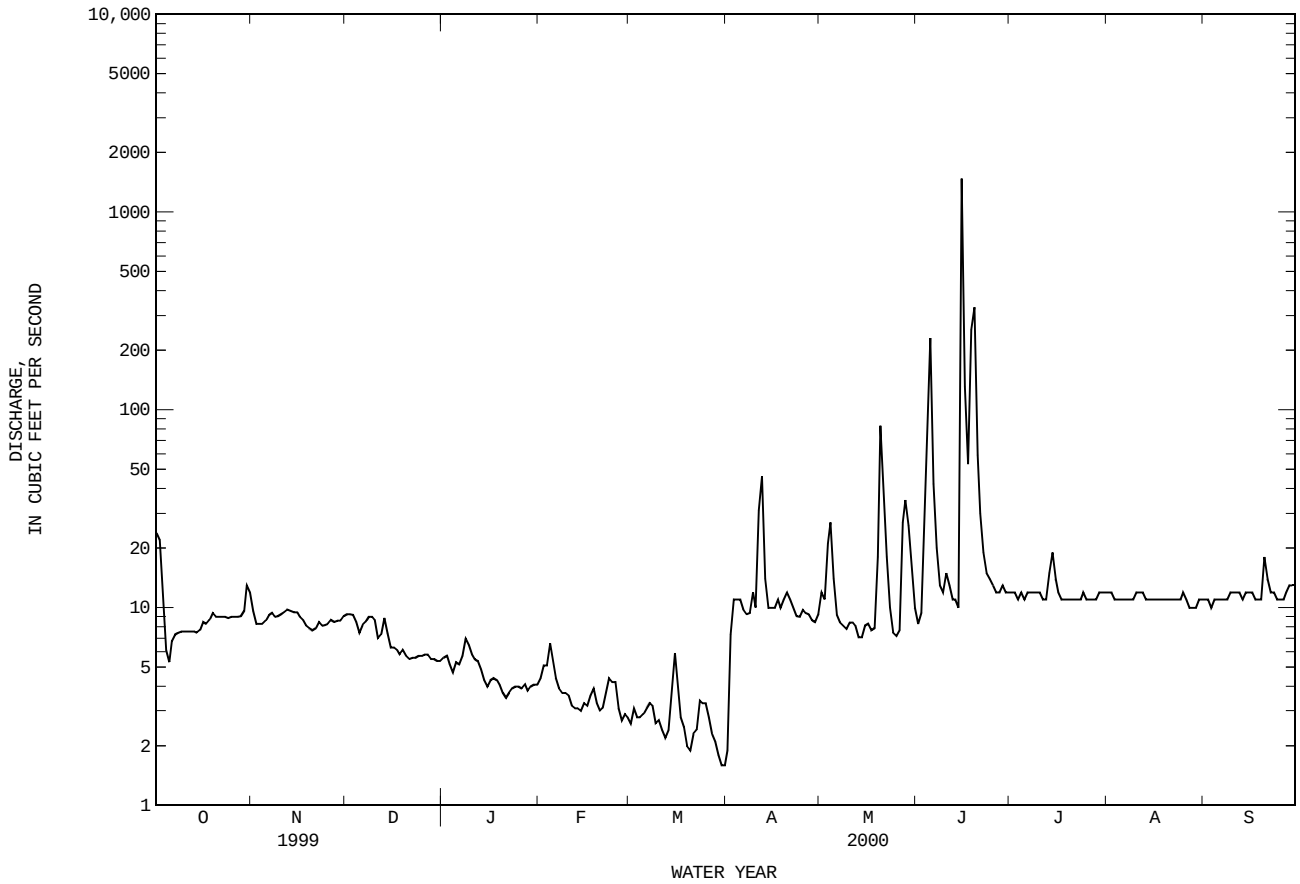
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

MEAN	228	116	99.8	101	103	142	139	323	368	114	167	264
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	4957.3		5973.3			
ANNUAL MEAN	13.6		16.3		179	
HIGHEST ANNUAL MEAN					719	1987
LOWEST ANNUAL MEAN					12.4	1999
HIGHEST DAILY MEAN	228	Jul 10	1480	Jun 15	31300	Sep 10 1980
LOWEST DAILY MEAN	1.3	Feb 13	1.6	Mar 30	.00	Jun 22 1974
ANNUAL SEVEN-DAY MINIMUM	1.6	Jan 18	2.0	Mar 26	.00	Jun 22 1974
INSTANTANEOUS PEAK FLOW			8100	Jun 15	c45000	Sep 10 1980
INSTANTANEOUS PEAK STAGE			12.20	Jun 15	28.00	Sep 10 1980
ANNUAL RUNOFF (AC-FT)	9830		11850		129500	
10 PERCENT EXCEEDS	28		14		369	
50 PERCENT EXCEEDS	9.6		9.1		45	
90 PERCENT EXCEEDS	2.0		3.3		6.5	

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 Sep 1934 published as "near Milburn", Jun 1939 to Sep 1993, and Oct 1997 to current year.
Water-quality records.--Chemical data: Nov 1967 to Sep 1985, Dec 1990 to Sep 1993. Biochemical data: Dec 1990 to Aug 1993. Specific conductance: Feb 1991 to Sep 1993. Water temperature: Feb 1991 to Sep 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 Sep 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. There are many diversions above station for irrigation, municipal supply, and for oil field operation. Since water year 1931, at least 10% of contributing drainage area has been regulated by Lake Nasworthy (station 08132000, conservation pool storage 9,615 acre-ft). Since Mar 15, 1990, 95 percent of the drainage area above this station has been regulated by O.H. Ivie Reservoir (station 08136600), 54.4 miles upstream, and by eight other upstream reservoirs, with a total combined (9 reservoirs) capacity of 1,676,000 acre-ft at conservation level. At times, flow may also be affected by discharge from the flood-detention pools of 89 floodwater-retarding structures with a combined detention capacity of 105,100 acre-ft. These flood-detention structures control runoff from 512 mi^2 above this station. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jun 15, 1930 (gage height, 38.3 ft, at site 4.2 mi downstream at datum 10.14 ft lower); no flow Aug 8-10, Sep 1-5, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest stages since 1882 were 62.2 ft Sep 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.5	4.2	5.1	3.5	3.6	.00	.06	12	8.8	.00	.00
2	11	7.2	4.3	5.3	4.1	3.4	.00	.04	8.5	7.0	.00	.00
3	10	6.6	4.2	4.9	3.8	3.1	.00	.00	766	5.9	.00	.00
4	11	7.9	4.2	5.1	4.1	2.9	.00	.00	3180	4.8	.00	.00
5	13	7.4	4.6	4.7	4.1	2.5	.00	.00	1630	4.2	.00	.00
6	13	6.7	4.6	4.6	4.1	2.1	.00	.00	967	4.0	.00	.00
7	12	6.0	4.6	4.9	4.1	1.8	.00	.04	708	3.7	.00	.00
8	11	5.4	4.6	5.0	4.1	1.7	.00	.49	554	3.6	.00	.00
9	9.3	5.1	4.9	4.7	4.1	1.4	.00	3.8	381	3.2	.00	.00
10	8.5	5.2	5.2	4.7	4.1	1.2	.00	3.4	264	2.8	.00	.00
11	7.7	5.3	5.5	4.5	4.1	.93	.00	2.7	142	2.4	.00	.00
12	7.0	5.6	7.7	4.4	4.1	.66	88	1.9	78	2.0	.00	.00
13	6.1	5.8	7.6	4.6	4.1	.40	58	.91	46	1.9	.00	.00
14	4.8	5.8	7.7	5.2	4.1	e.10	39	.25	31	1.9	.00	.00
15	2.9	5.8	7.3	5.6	4.1	.01	22	.06	2870	1.7	.00	.00
16	1.6	5.8	6.6	5.7	4.0	.00	13	.00	2500	2.6	.00	.00
17	e30	5.8	6.6	5.3	3.6	.00	8.4	.00	833	3.8	.00	.00
18	25	5.8	6.0	5.0	3.6	.00	5.2	.00	2980	3.2	.00	.00
19	11	5.8	5.6	4.9	3.4	.00	4.1	.00	1750	3.0	.00	.00
20	6.4	5.7	5.8	4.4	3.1	.00	3.9	.00	791	3.6	.00	.00
21	5.4	5.8	5.5	4.1	3.1	.00	3.6	.24	317	3.2	.00	.00
22	4.9	5.8	5.2	4.1	2.8	.00	3.3	28	156	2.8	.00	.00
23	4.6	5.7	4.9	4.0	3.1	.00	3.3	29	89	2.5	.00	.00
24	5.2	5.1	4.9	4.0	3.4	.00	3.5	20	54	2.0	.00	.00
25	5.2	4.7	5.0	3.7	3.6	.00	3.1	12	35	1.5	.00	.00
26	5.2	4.6	5.1	3.6	3.5	.00	3.1	6.6	25	1.1	.00	.00
27	5.2	4.6	5.3	3.6	3.6	.00	2.7	4.3	21	.69	.00	.00
28	5.2	4.6	5.1	3.6	3.6	.00	1.9	4.0	17	.40	.00	.00
29	4.8	5.0	5.2	3.6	3.6	.00	.80	3.7	14	.22	.00	.00
30	7.2	4.3	5.4	3.5	---	.00	.19	13	11	.09	.00	.00
31	8.6	---	5.2	3.1	---	.00	---	20	---	.01	.00	---
TOTAL	273.8	174.4	168.6	139.5	108.6	25.80	267.09	154.49	21230.5	88.61	0.00	0.00
MEAN	8.83	5.81	5.44	4.50	3.74	.83	8.90	4.98	708	2.86	.000	.000
MAX	30	9.5	7.7	5.7	4.1	3.6	88	29	3180	8.8	.00	.00
MIN	1.6	4.3	4.2	3.1	2.8	.00	.00	.00	8.5	.01	.00	.00
AC-FT	543	346	334	277	215	51	530	306	42110	176	.00	.00

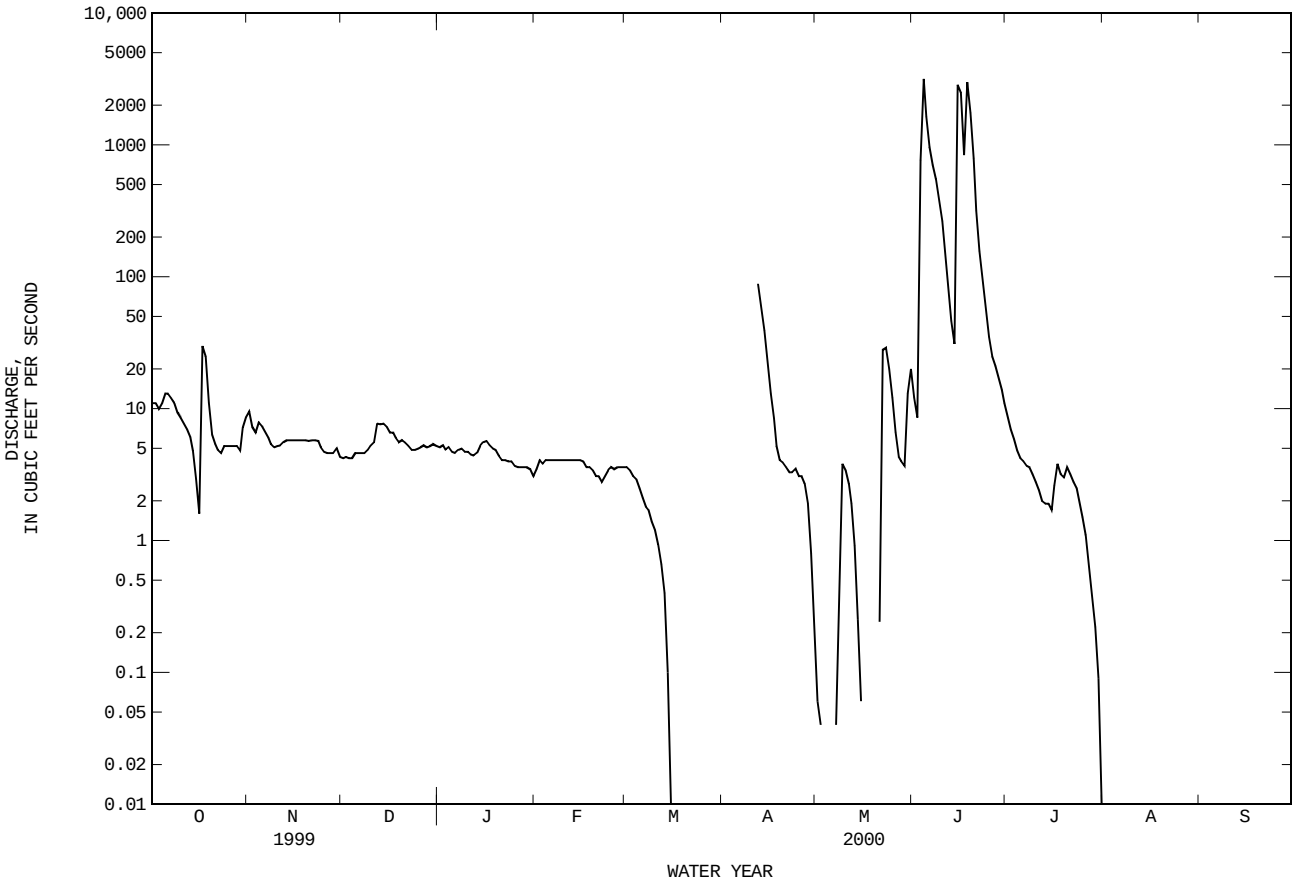
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2000hz, BY WATER YEAR (WY)

MEAN	709	147	158	149	173	195	483	1289	761	417	266	550
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1931 - 2000hz	
ANNUAL TOTAL	7126.10		22631.39			
ANNUAL MEAN	19.5		61.8		439	
HIGHEST ANNUAL MEAN					2070	1957
LOWEST ANNUAL MEAN					19.6	1999
HIGHEST DAILY MEAN	560	Jun 10	3180	Jun 4	67000	Oct 14 1930
LOWEST DAILY MEAN	.00	Mar 3	.00	Mar 16	.00	Aug 15 1934
ANNUAL SEVEN-DAY MINIMUM	.00	Mar 3	.00	Mar 16	.00	Aug 15 1934
INSTANTANEOUS PEAK FLOW			7830	Jun 15	c76100	Oct 15 1930
INSTANTANEOUS PEAK STAGE			14.70	Jun 15	a51.80	Oct 15 1930
ANNUAL RUNOFF (AC-FT)	14130		44890		318100	
10 PERCENT EXCEEDS	27		15		660	
50 PERCENT EXCEEDS	6.7		3.8		59	
90 PERCENT EXCEEDS	1.1		.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 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, 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. 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, 17,540 acre-ft, Sep 30, 2000, elevation, 1,703.42 ft.

EXTREMES FOR WATER YEAR 1999.--Maximum contents, 29,670 acre-ft, Feb 27, elevation, 1,712.25 ft; minimum contents, 24,140 acre-ft, Sep 30, elevation, 1,708.67 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 24,140 acre-ft, Oct 1, elevation, 1,708.67 ft; minimum contents, 17,540 acre-ft, Sep 30, elevation, 1,703.42 ft.

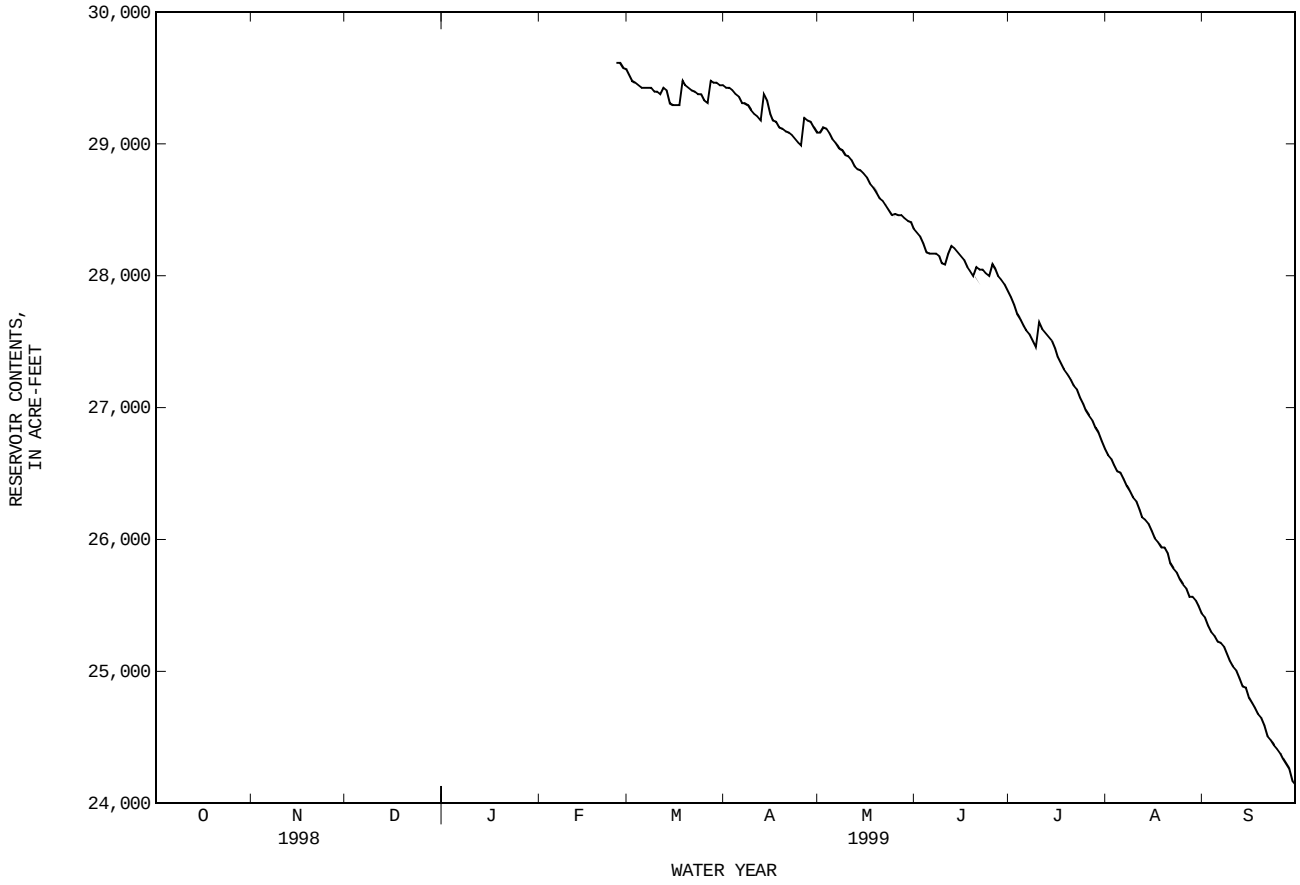
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	29530	29430	29090	28330	27840	26640	25410
2	---	---	---	---	---	29480	29430	29130	28300	27780	26610	25350
3	---	---	---	---	---	29470	29410	29120	28250	27710	26570	25300
4	---	---	---	---	---	29450	29380	29090	28180	27670	26520	25270
5	---	---	---	---	---	29430	29360	29040	28170	27620	26510	25230
6	---	---	---	---	---	29430	29310	29010	28170	27590	26460	25220
7	---	---	---	---	---	29430	29310	28970	28170	27560	26410	25190
8	---	---	---	---	---	29430	29300	28960	28150	27510	26370	25140
9	---	---	---	---	---	29400	29260	28920	28100	27460	26320	25080
10	---	---	---	---	---	29400	29230	28910	28090	27650	26290	25040
11	---	---	---	---	---	29380	29210	28880	28170	27600	26230	25010
12	---	---	---	---	---	29430	29180	28830	28230	27570	26170	24950
13	---	---	---	---	---	29410	29380	28810	28210	27540	26150	24890
14	---	---	---	---	---	29310	29330	28800	28180	27510	26120	24880
15	---	---	---	---	---	29300	29230	28780	28150	27450	26070	24800
16	---	---	---	---	---	29300	29180	28750	28120	27390	26010	24760
17	---	---	---	---	---	29300	29170	28700	28070	27340	25980	24730
18	---	---	---	---	---	29480	29130	28670	28040	27290	25940	24680
19	---	---	---	---	---	29450	29120	28630	28000	27260	25940	24650
20	---	---	---	---	---	29430	29100	28590	28070	27220	25900	24590
21	---	---	---	---	---	29410	29090	28570	28050	27170	25820	24510
22	---	---	---	---	---	29400	29070	28540	28050	27140	25780	24480
23	---	---	---	---	---	29380	29040	28500	28020	27080	25750	24440
24	---	---	---	---	---	29380	29010	28460	28000	27030	25700	24410
25	---	---	---	---	29620	29330	28990	28470	28090	26980	25660	24380
26	---	---	---	---	29620	29310	29200	28460	28050	26940	25630	24340
27	---	---	---	---	29580	29480	29180	28460	28000	26910	25570	24300
28	---	---	---	---	29570	29470	29170	28440	27970	26850	25570	24260
29	---	---	---	---	---	29470	29130	28420	27940	26810	25540	24170
30	---	---	---	---	---	29450	29090	28410	27890	26750	25500	24140
31	---	---	---	---	---	29450	---	28360	---	26690	25440	---
MAX	---	---	---	---	---	29530	29430	29130	28330	27840	26640	25410
MIN	---	---	---	---	---	29300	28990	28360	27890	26690	25440	24140
(+)					1712.19	1712.12	1711.90	1711.45	1711.16	1710.39	1709.56	1708.67
(@)						-120	-360	-730	-470	-1200	-1250	-1300

WTR YR 1999 MAX 29620 MIN 24140

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

08140770 LAKE COLEMAN NEAR NOVICE, TX--Continued



08140770 LAKE COLEMAN NEAR NOVICE, TX--Continued

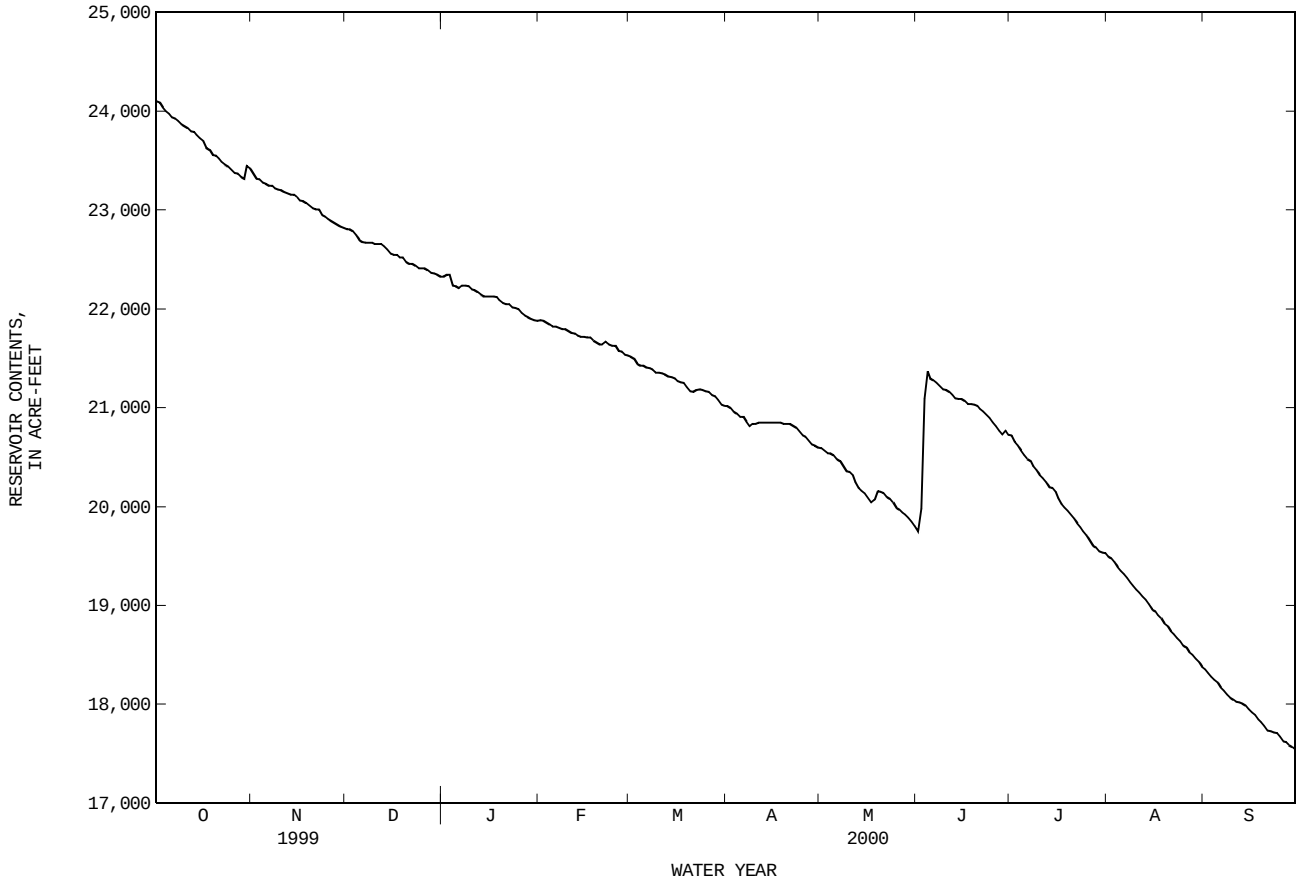
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24100	23370	22810	22330	21890	21520	21020	20590	19750	20720	19500	18350
2	24090	23320	22810	22350	21880	21500	21000	20570	19980	20660	19480	18320
3	24040	23310	22790	22350	21860	21450	20960	20540	21090	20620	19440	18280
4	24000	23280	22750	22240	21840	21430	20940	20540	21370	20570	19390	18250
5	23970	23270	22700	22230	21820	21430	20910	20520	21300	20520	19350	18220
6	23940	23250	22680	22210	21820	21410	20910	20480	21280	20480	19320	18170
7	23930	23250	22670	22240	21810	21400	20860	20460	21250	20460	19280	18140
8	23900	23220	22670	22240	21800	21390	20810	20410	21220	20410	19230	18100
9	23870	23210	22670	22230	21800	21360	20840	20360	21190	20370	19200	18070
10	23850	23200	22660	22200	21780	21360	20840	20350	21180	20320	19160	18050
11	23830	23180	22660	22190	21760	21350	20850	20320	21160	20290	19130	18030
12	23800	23170	22660	22170	21750	21340	20850	20250	21130	20250	19090	18020
13	23790	23160	22630	22150	21730	21320	20850	20190	21100	20200	19060	18010
14	23760	23160	22600	22130	21720	21310	20850	20160	21090	20190	19010	17990
15	23730	23130	22560	22130	21720	21300	20850	20130	21090	20150	18960	17950
16	23700	23100	22550	22130	21710	21270	20850	20090	21070	20090	18940	17920
17	23630	23090	22550	22130	21710	21260	20850	20040	21040	20030	18900	17890
18	23610	23070	22520	22120	21680	21250	20850	20070	21040	19990	18870	17850
19	23560	23050	22520	22090	21660	21210	20840	20160	21030	19960	18820	17820
20	23550	23020	22480	22060	21640	21170	20840	20150	21020	19920	18790	17780
21	23520	23010	22460	22050	21640	21160	20840	20140	20990	19880	18740	17740
22	23490	23010	22460	22050	21670	21180	20820	20100	20960	19830	18710	17730
23	23460	22950	22440	22020	21640	21190	20800	20080	20930	19790	18670	17720
24	23440	22940	22410	22010	21630	21180	20760	20040	20900	19750	18640	17710
25	23410	22910	22410	22000	21630	21170	20720	19990	20850	19710	18600	17670
26	23380	22890	22410	21960	21580	21160	20710	19970	20810	19660	18580	17630
27	23370	22870	22390	21930	21570	21130	20670	19940	20770	19610	18530	17620
28	23340	22850	22370	21920	21540	21120	20630	19920	20730	19590	18500	17590
29	23320	22830	22360	21900	21530	21080	20620	19890	20770	19550	18460	17570
30	23450	22820	22350	21890	---	21030	20600	19850	20730	19540	18430	17540
31	23420	---	22330	21880	---	21020	---	19800	---	19530	18380	---
MAX	24100	23370	22810	22350	21890	21520	21020	20590	21370	20720	19500	18350
MIN	23320	22820	22330	21880	21530	21020	20600	19800	19750	19530	18380	17540
(+)	1708.16	1707.72	1707.36	1707.02	1706.75	1706.35	1706.03	1705.37	1706.13	1705.15	1704.17	1703.42
(@)	-720	-600	-490	-450	-350	-510	-420	-800	+930	-1200	-1150	-840

WTR YR 2000 MAX 24100 MIN 17540 (@) -6600

(+) 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 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.--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 Jun 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 lake is operated for flood control and municipal water supply for the city of Coleman. The capacity table of Aug 1974 is based on a sedimentation survey 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 8,600 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)	1,901.0
Lowest gated outlet (invert)	1,856.0

COOPERATION.--Record of contents furnished by U.S. Army Corps of Engineers and reviewed by the U.S. Geological Survey.

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 Jun 1951, 1,550 acre-ft, Sep 2, 1984, elevation, 1878.01 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,580 acre-ft, Jun 4, elevation, 1,891.36 ft; minimum contents, 2,600 acre-ft, Jun 1, 2, elevation, 1,883.82 ft.

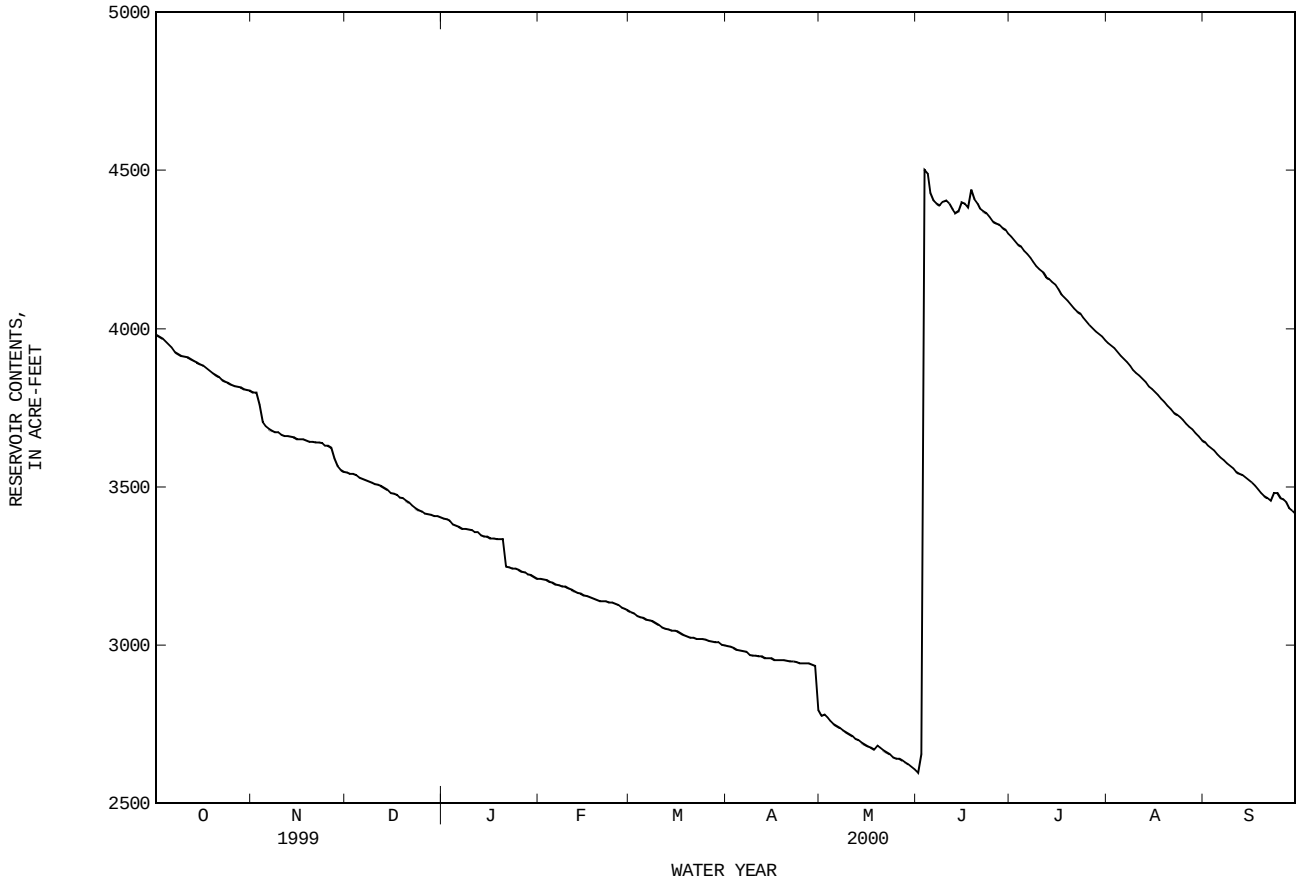
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3980	3800	3540	3400	3210	3100	3000	2780	2600	4290	3960	3640
2	3980	3800	3540	3400	3210	3100	3000	2780	2660	4280	3950	3630
3	3970	3760	3540	3390	3200	3090	2990	2770	4500	4270	3940	3620
4	3960	3700	3540	3380	3200	3090	2990	2760	4490	4260	3930	3610
5	3950	3690	3530	3380	3200	3090	2980	2750	4430	4240	3920	3600
6	3940	3680	3530	3370	3190	3080	2980	2740	4400	4240	3900	3590
7	3930	3680	3520	3370	3190	3080	2980	2740	4400	4220	3890	3580
8	3920	3670	3520	3370	3180	3080	2970	2730	4390	4210	3880	3570
9	3920	3670	3510	3370	3180	3070	2970	2720	4400	4200	3870	3570
10	3910	3660	3510	3360	3180	3060	2970	2720	4400	4190	3860	3560
11	3910	3660	3510	3360	3180	3060	2960	2710	4400	4180	3850	3550
12	3900	3660	3500	3360	3170	3050	2960	2700	4380	4160	3840	3540
13	3900	3660	3500	3350	3170	3050	2960	2700	4360	4160	3830	3540
14	3890	3660	3490	3340	3160	3050	2960	2690	4370	4150	3820	3530
15	3890	3650	3480	3340	3160	3050	2960	2680	4400	4140	3810	3520
16	3880	3650	3480	3340	3160	3040	2950	2680	4400	4130	3800	3510
17	3880	3650	3470	3340	3150	3040	2950	2680	4380	4110	3790	3500
18	3870	3650	3470	3340	3150	3030	2950	2670	4440	4100	3780	3490
19	3860	3640	3460	3340	3140	3030	2950	2680	4410	4090	3770	3480
20	3850	3640	3460	3340	3140	3020	2950	2680	4400	4080	3760	3470
21	3850	3640	3450	3250	3140	3020	2950	2670	4380	4060	3750	3460
22	3840	3640	3440	3250	3140	3020	2950	2660	4370	4050	3740	3460
23	3830	3640	3430	3240	3140	3020	2950	2660	4360	4050	3730	3480
24	3830	3630	3430	3240	3140	3020	2940	2650	4350	4040	3720	3480
25	3820	3630	3420	3240	3130	3020	2940	2640	4340	4020	3710	3460
26	3820	3620	3420	3230	3130	3010	2940	2640	4330	4010	3700	3460
27	3820	3590	3410	3230	3120	3010	2940	2640	4330	4000	3690	3450
28	3820	3570	3410	3220	3110	3010	2940	2630	4320	3990	3680	3430
29	3810	3550	3410	3220	3110	3010	2940	2620	4310	3980	3670	3420
30	3810	3550	3410	3220	---	3000	2800	2610	4300	3980	3660	3410
31	3800	---	3400	3210	---	3000	---	2610	---	3960	3650	---
MAX	3980	3800	3540	3400	3210	3100	3000	2780	4500	4290	3960	3640
MIN	3800	3550	3400	3210	3110	3000	2800	2610	2600	3960	3650	3410
(+)	1888.75	1887.83	1887.25	1886.50	1886.09	1885.63	1884.75	1883.89	1890.47	1889.32	1888.20	1887.29
(@)	-190	-250	-150	-190	-100	-110	-200	-190	+1690	-340	-310	-240

CAL YR 1999 MAX 5130 MIN 3400 (@) -1730
WTR YR 2000 MAX 4500 MIN 2600 (@) -580

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

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, over service outlet 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.--Jul 1933 to May 1941, Nov 1944 to Sep 1986, and Feb 1999 to current year. Fragmentary records Jul 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. Prior to Nov 1944, nonrecording gages or water-stage recorder at various sites at dam at datum 0.50 ft higher. Prior to Feb 1999, nonrecording gages at same site at datum 0.50 ft higher. 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, 1,580 ft long. The dam was completed in 1933 and deliberate impoundment began in Jul 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. 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 supplied by 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, Jul 15, 1934, elevation, 1,389.0 ft.

EXTREMES FOR WATER YEAR 1999.--Maximum contents, 112,600 acre-ft, Jun 27, elevation, 1,421.49 ft; minimum contents, 92,420 acre-ft, Sep 30, elevation, 1,417.97 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 112,600 acre-ft, Jun 27, elevation, 1,421.49 ft; minimum contents, 92,420 acre-ft, Sep 30, elevation, 1,417.97 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 105,100 acre-ft, Jun 22, elevation, 1,420.24 ft; minimum contents, 73,100 acre-ft, Jun 3, elevation, 1,414.04 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

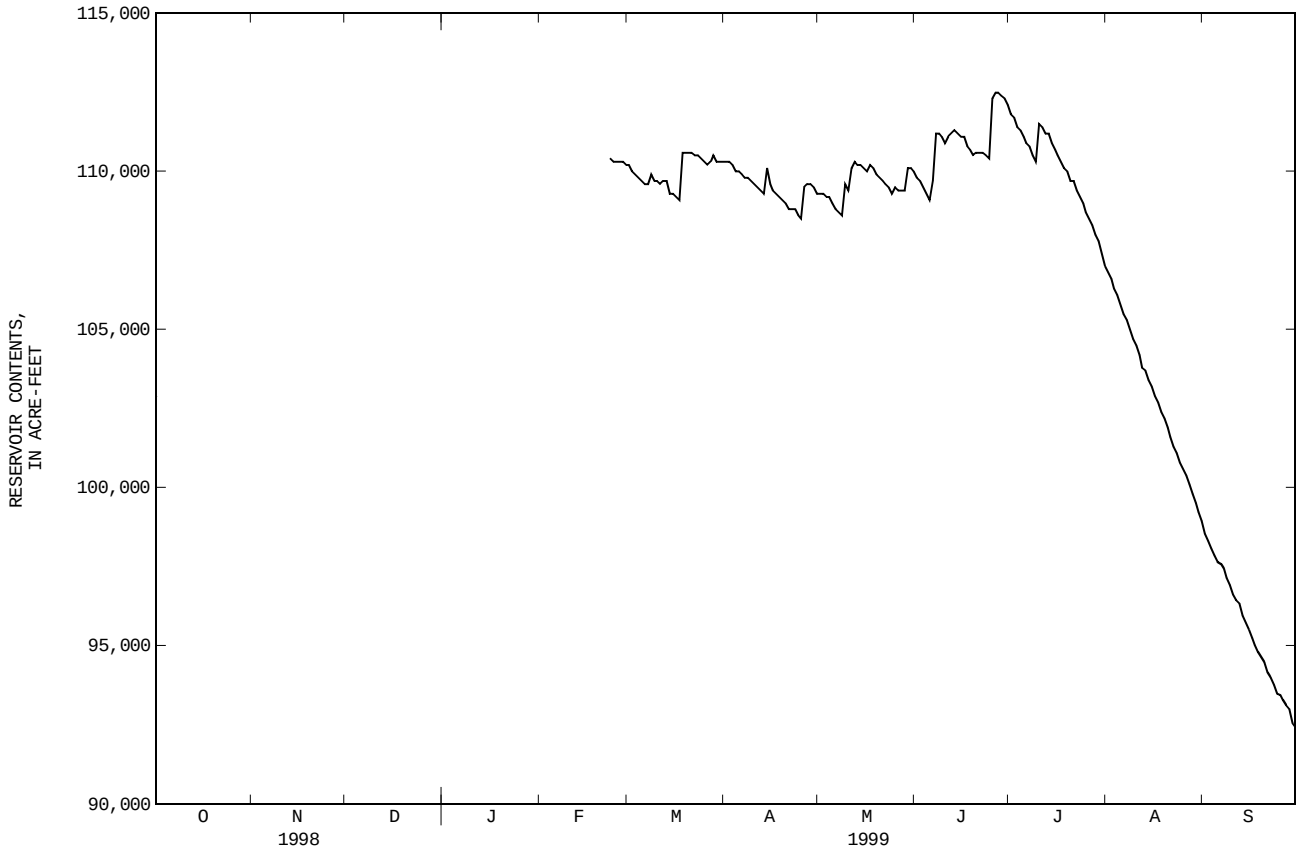
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	110200	110300	109300	109800	111800	106800	98550
2	---	---	---	---	---	110000	110300	109300	109700	111700	106600	98320
3	---	---	---	---	---	109900	110200	109200	109500	111400	106300	98090
4	---	---	---	---	---	109800	110000	109200	109300	111300	106100	97870
5	---	---	---	---	---	109700	110000	109000	109100	111100	105800	97660
6	---	---	---	---	---	109600	109900	108800	109700	110900	105500	97600
7	---	---	---	---	---	109600	109800	108700	111200	110800	105300	97440
8	---	---	---	---	---	109900	109800	108600	111200	110500	105000	97160
9	---	---	---	---	---	109700	109700	109600	111100	110300	104700	96940
10	---	---	---	---	---	109700	109600	109400	110900	111500	104500	96620
11	---	---	---	---	---	109600	109500	110100	111100	111400	104200	96450
12	---	---	---	---	---	109700	109400	110300	111200	111200	103800	96340
13	---	---	---	---	---	109700	109300	110200	111300	111200	103700	95960
14	---	---	---	---	---	109300	110100	110200	111200	110900	103400	95740
15	---	---	---	---	---	109300	109600	110100	111100	110700	103200	95520
16	---	---	---	---	---	109200	109400	110000	111100	110500	102900	95250
17	---	---	---	---	---	109100	109300	110200	110800	110300	102700	95030
18	---	---	---	---	---	110600	109200	110100	110700	110100	102400	94810
19	---	---	---	---	---	110600	109100	109900	110500	110000	102200	94650
20	---	---	---	---	---	110600	109000	109800	110600	109700	101900	94480
21	---	---	---	---	---	110600	108800	109700	110600	109700	101600	94160
22	---	---	---	---	---	110500	108800	109600	110600	109400	101300	93990
23	---	---	---	---	110400	110500	108800	109500	110500	109200	101100	93770
24	---	---	---	---	110300	110400	108600	109300	110400	109000	100800	93500
25	---	---	---	---	110300	110300	108500	109500	112300	108700	100600	93450
26	---	---	---	---	110300	110200	109500	109400	112500	108500	100400	93280
27	---	---	---	---	110300	110300	109600	109400	112500	108300	100100	93120
28	---	---	---	---	110200	110500	109600	109400	112400	108000	99800	93010
29	---	---	---	---	---	110300	109500	110100	112300	107800	99520	92570
30	---	---	---	---	---	110300	109300	110100	112100	107400	99230	92420
31	---	---	---	---	---	110300	---	110000	---	107000	98950	---

08143000 LAKE BROWNWOOD NEAR BROWNWOOD, TX--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MAX	---	---	---	---	---	110600	110300	110300	112500	111800	106800	98550
MIN	---	---	---	---	---	109100	108500	108600	109100	107000	98950	92420
(+)					1421.10	1421.11	1420.95	1421.06	1421.42	1420.56	1419.16	1417.97
(@)						+100	-1000	+700	+2100	-5100	-8050	-6530

WTR YR 1999 MAX 112500 MIN 92420

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



08143000 LAKE BROWNWOOD NEAR BROWNWOOD, TX--Continued

WATER YEAR
RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

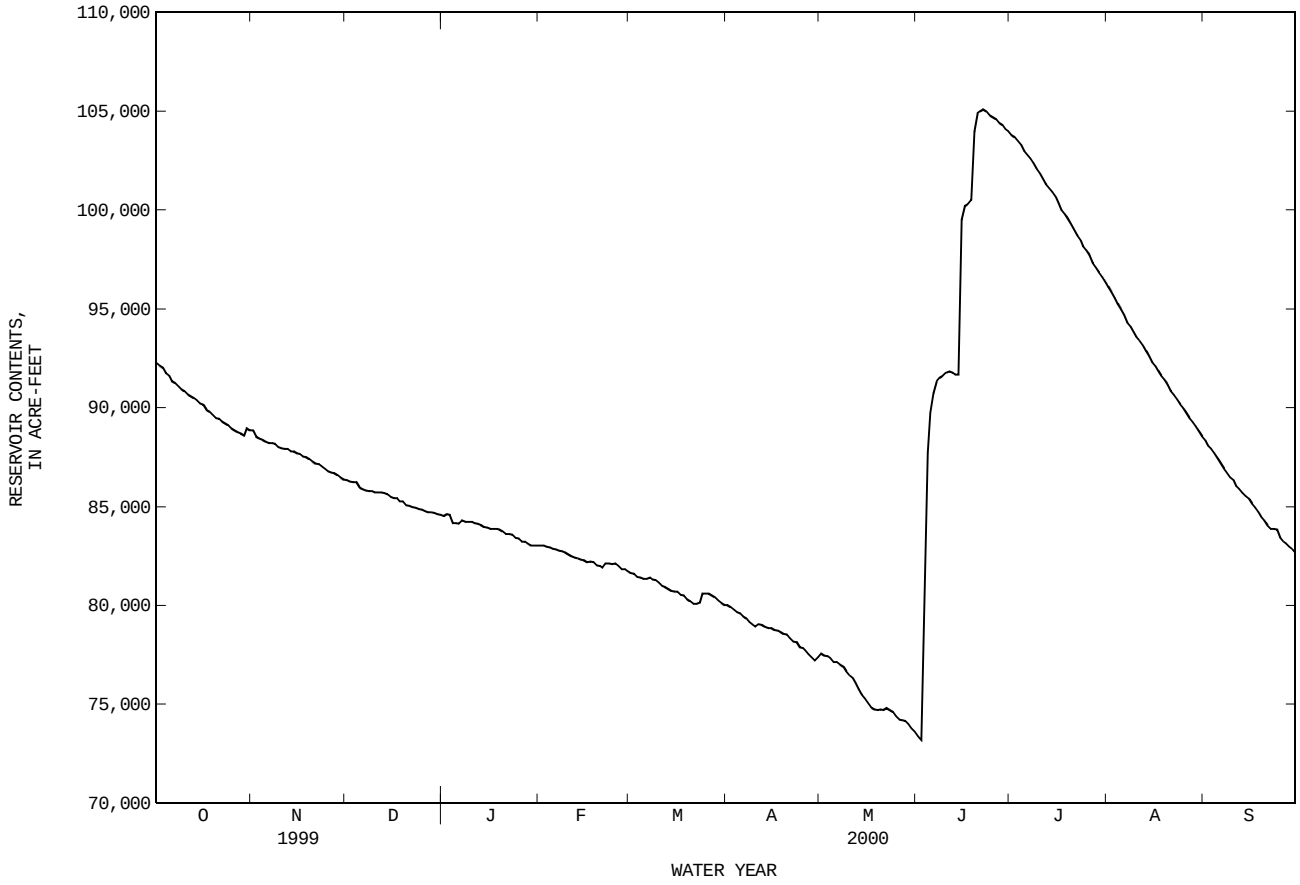
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92260	88860	86340	84540	83040	81660	80030	77580	73380	103800	96130	88340
2	92150	88550	86290	84640	83040	81610	79930	77480	73190	103700	95850	88080
3	92050	88440	86240	84590	82990	81470	79790	77440	80650	103500	95580	87920
4	91740	88390	86240	84190	e82940	81420	79690	77340	87710	103300	95250	87710
5	91630	88290	85990	84190	e82890	81370	79600	77160	89750	103000	94980	87450
6	91370	88230	85890	84140	82840	81370	79450	77160	90740	102800	94700	87190
7	91260	88230	85840	84290	82770	81420	79350	77020	91320	102600	94320	86940
8	91110	88180	85790	84240	82740	81330	79160	76930	91530	102400	94100	86690
9	90950	88020	85790	84240	82690	81280	79020	76650	91630	102100	93880	86490
10	90850	87970	85740	84240	82590	81180	78920	76470	91790	101900	93610	86340
11	90690	87920	85740	84190	82490	80990	79070	76330	91840	101600	93390	86040
12	90590	87920	85740	84140	82440	80940	79020	76100	91790	101300	93170	85890
13	90480	87810	85690	84090	82390	80840	78920	75780	91680	101100	92900	85690
14	90380	87810	85640	83990	82340	80750	78870	75500	91680	100900	92630	85540
15	90220	87710	85490	83940	82290	80700	78870	75310	99520	100700	92310	85390
16	90170	87660	85440	83890	82190	80700	78780	75080	100200	100400	92100	85140
17	89910	87550	85440	83890	82240	80560	78730	74850	100300	100000	91890	84940
18	89800	87500	85290	83880	82190	80510	78680	74760	100500	99800	91630	84740
19	89640	87400	85290	83840	82050	80320	78590	74710	104000	99570	91420	84490
20	89490	87290	85090	83740	82000	80220	78540	74760	104900	99290	91160	84290
21	89440	87190	85040	83640	81900	80080	78350	74710	105000	99010	90850	84040
22	89330	87140	84990	83640	82140	80080	78200	74810	105100	98720	90640	83890
23	89230	87040	84940	83590	82140	80170	78150	74710	105000	98490	90430	83890
24	89120	86940	84890	83440	82090	80600	77910	74620	104800	98150	90170	83840
25	88960	86790	84840	83390	82140	80600	77860	74390	104700	97980	90010	83440
26	88860	86740	84790	83240	82000	80600	77720	74250	104600	97710	89750	83240
27	88760	86690	84740	83240	81850	80510	77530	74210	104400	97330	89490	83140
28	88700	86590	84740	83140	81850	80410	77390	74160	104300	97110	89280	82990
29	88600	86490	84690	83040	81760	80270	77210	74020	104100	96840	89070	82840
30	88960	86390	84640	83040	---	80120	77390	73790	104000	96620	88810	82640
31	88860	---	84590	83040	---	80030	---	73610	---	96340	88550	---
MAX	92260	88860	86340	84640	83040	81660	80030	77580	105100	103800	96130	88340
MIN	88600	86390	84590	83040	81760	80030	77210	73610	73190	96340	88550	82640
(+)	1417.29	1416.81	1416.45	1416.64	1415.88	1415.52	1414.97	1414.15	1420.05	1418.69	1417.23	1416.06
(@)	-3560	-2470	-1800	-1550	-1280	-1730	-2640	-3780	+30390	-7660	-7790	-5910

WTR YR 2000 MAX 105100 MIN 73190 (@) -9780

e Estimated

(+) 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 Sep 1991. Water temperature: Oct 1967 to Sep 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 by Lake Brownwood (station 08143000, conservation pool storage 131,428 acre-ft) 45 miles upstream. In addition, flow from 152 mi^2 (from an intervening drainage area of 641 mi^2) above this station and below Lake Brownwood was partly controlled by 41 floodwater-retarding structures, with a combined detention capacity of 43,420 acre-ft below the flood-spillway crests. No flow at times many years. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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	4.0	23	7.0	3.7	8.3	4.1	3.9	4.9	2.8	3.8	1.3	.00
2	3.4	12	7.6	3.2	11	4.1	3.6	11	2.7	3.3	1.0	.00
3	2.7	8.1	7.7	3.8	8.3	3.4	3.1	28	4.1	2.9	.88	.00
4	2.4	6.7	7.3	5.3	10	2.9	2.6	16	10	2.4	.73	.00
5	2.8	5.8	5.2	5.3	10	5.9	3.1	12	54	2.1	.62	.00
6	3.6	5.7	4.2	5.1	7.3	7.9	4.8	8.3	72	1.8	.47	.00
7	4.0	5.7	4.4	5.9	6.2	5.8	4.3	5.8	34	1.5	.37	.00
8	3.6	5.1	5.8	8.4	5.5	6.7	3.0	4.5	20	1.1	.30	.00
9	2.7	5.5	7.4	11	7.8	6.7	2.6	3.5	14	.94	.31	.00
10	2.2	4.9	7.2	16	4.4	8.0	2.2	3.5	28	.72	.59	.00
11	1.9	4.2	10	10	4.4	8.4	2.9	4.1	21	.92	.72	.00
12	1.8	3.4	46	7.6	3.6	7.0	131	4.0	33	1.4	.68	.00
13	1.5	3.2	13	6.0	3.4	4.1	101	2.8	22	1.6	.68	.00
14	1.4	3.0	7.8	5.6	2.8	4.0	33	2.5	18	1.5	.47	.00
15	1.6	2.6	6.9	4.9	3.1	4.5	18	2.3	2190	1.3	.45	.00
16	1.8	2.7	6.8	3.9	4.4	4.6	12	2.2	2080	1.1	.37	.00
17	2.3	4.8	6.2	4.0	4.7	4.3	8.8	2.0	361	.90	.27	.00
18	3.4	4.7	5.7	6.0	5.1	4.0	7.1	2.4	241	.65	.22	.00
19	4.1	4.6	4.7	6.7	3.9	3.0	6.6	6.8	93	.61	.14	.00
20	3.0	4.6	3.6	5.5	3.3	2.8	5.1	78	45	.88	.09	.00
21	2.1	4.1	3.3	4.1	3.0	3.5	4.4	54	28	1.1	.05	.00
22	1.8	3.4	3.5	3.4	6.6	3.8	3.9	29	20	1.4	.02	.00
23	2.2	4.8	5.2	3.0	10	4.7	3.8	17	16	1.3	.01	.00
24	3.7	5.5	6.0	3.3	9.0	6.1	4.6	16	12	1.1	.00	.00
25	3.2	4.6	7.0	4.8	17	6.8	4.9	12	9.1	1.2	.00	.00
26	2.7	3.9	7.1	5.7	10	12	4.4	7.6	7.6	1.9	.00	.00
27	2.9	4.3	6.7	5.3	6.8	16	5.0	4.5	6.5	2.1	.00	.00
28	2.9	4.3	6.5	6.1	5.0	12	7.2	4.0	5.5	2.0	.00	.00
29	3.3	4.5	5.9	5.6	4.2	8.4	5.7	3.3	4.8	1.8	.00	.00
30	6.3	6.4	5.3	9.0	---	6.1	4.2	2.7	4.4	1.6	.00	.00
31	15	---	4.6	8.4	---	4.5	---	3.8	---	1.5	.00	---
TOTAL	100.3	166.1	235.6	186.6	189.1	186.1	406.8	358.5	5459.5	48.42	10.74	0.00
MEAN	3.24	5.54	7.60	6.02	6.52	6.00	13.6	11.6	182	1.56	.35	.000
MAX	15	23	46	16	17	16	131	78	2190	3.8	1.3	.00
MIN	1.4	2.6	3.3	3.0	2.8	2.8	2.2	2.0	2.7	.61	.00	.00
AC-FT	199	329	467	370	375	369	807	711	10830	96	21	.00

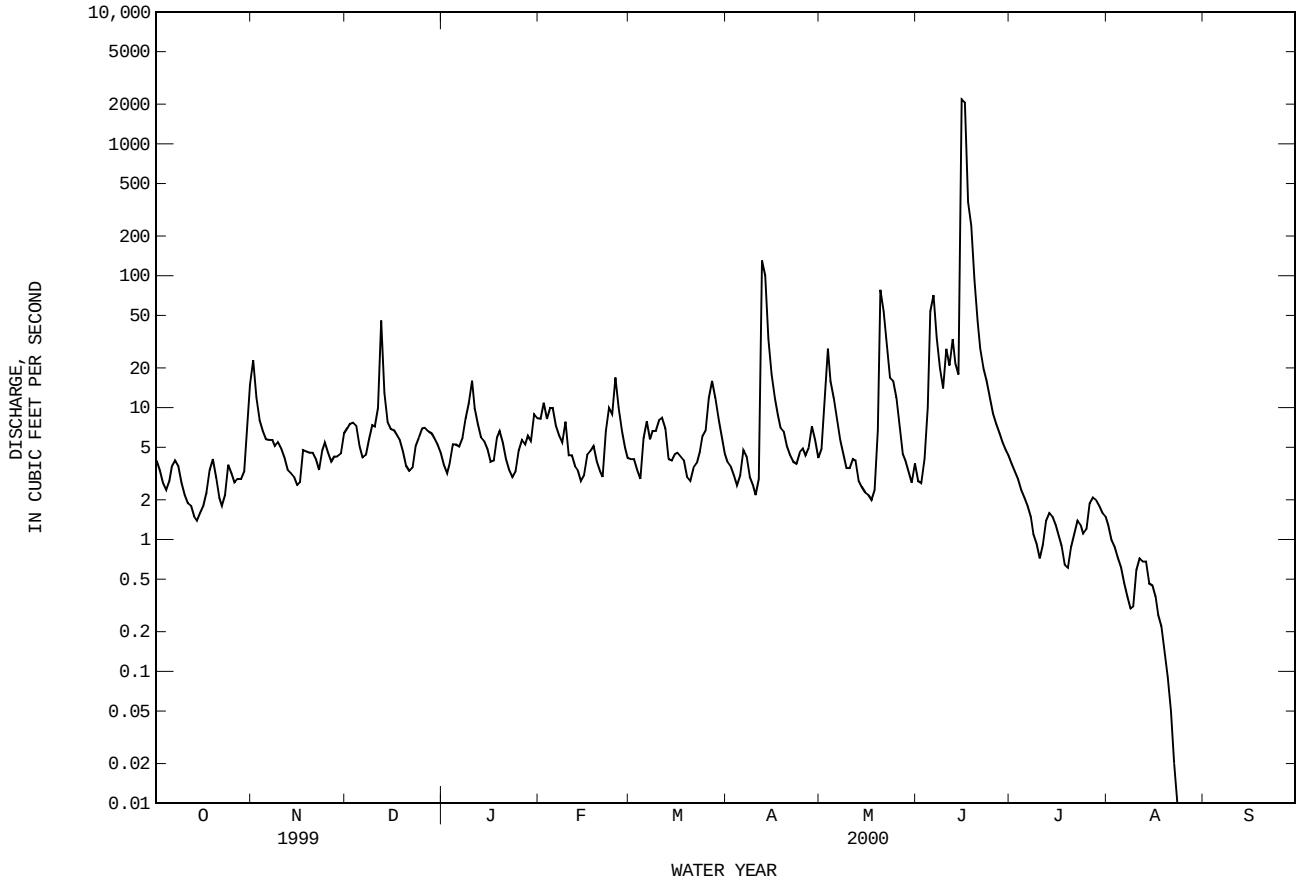
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

MEAN	147	80.2	188	141	234	240	224	285	351	53.9	25.8	78.3
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	8471.1		7347.76			
ANNUAL MEAN	23.2		20.1		170	
HIGHEST ANNUAL MEAN					1245	1992
LOWEST ANNUAL MEAN					9.01	1984
HIGHEST DAILY MEAN	1080	May 10	2190	Jun 15	37000	Apr 27 1990
LOWEST DAILY MEAN	1.0	Sep 21	.00	Aug 24	.00	Jun 29 1974
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 17	.00	Aug 24	.00	Jun 29 1974
INSTANTANEOUS PEAK FLOW			6580	Jun 15	38300	Apr 27 1990
INSTANTANEOUS PEAK STAGE			a15.95	Jun 15	42.15	Apr 27 1990
ANNUAL RUNOFF (AC-FT)	16800		14570		123300	
10 PERCENT EXCEEDS	30		13		261	
50 PERCENT EXCEEDS	10		4.1		14	
90 PERCENT EXCEEDS	2.7		.00		2.7	

a From floodmark.

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.--Sep 1915 to Sep 1993, Oct 1997 to current year.
Water-quality records.--Chemical data: Nov 1964 to Jul 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. Sep 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 Sep 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 except those below 10 ft^3/s prior to Aug 24, which are poor. 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, computes, and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1880, 23.3 ft Jun 6, 1899, present site and datum, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 670 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	21	24	16	14	15	14	21	7.8	7.9	14	1.2
2	9.1	19	24	16	19	16	16	21	7.7	7.5	10	1.9
3	9.7	17	24	17	20	14	16	20	10	6.8	5.5	1.5
4	10	17	24	15	17	11	15	20	22	6.5	4.1	1.1
5	11	17	23	14	18	8.1	15	19	21	5.9	3.5	1.3
6	11	20	22	12	16	6.9	14	19	19	5.2	3.3	1.2
7	10	20	23	13	14	9.3	14	18	16	4.4	3.0	1.2
8	10	20	23	18	13	10	14	16	14	3.4	2.8	1.3
9	10	20	25	23	14	7.9	14	15	14	3.3	2.6	1.9
10	11	20	25	21	13	5.9	13	15	22	3.1	2.5	2.7
11	11	20	24	16	14	6.1	15	16	20	3.2	1.5	2.7
12	12	21	26	12	12	6.1	21	16	18	3.4	.91	2.9
13	11	20	26	14	13	7.3	23	14	16	3.7	.56	3.4
14	13	20	26	18	12	13	25	13	15	3.9	.79	3.9
15	14	20	25	17	11	14	23	13	15	4.0	1.0	4.0
16	15	20	24	16	12	13	21	13	15	4.3	1.3	3.9
17	18	20	24	16	13	12	20	13	15	4.4	1.4	3.8
18	19	20	24	15	14	12	19	14	19	4.3	.84	3.7
19	20	21	22	14	12	12	18	15	21	4.7	1.3	3.7
20	19	21	20	13	12	11	18	19	20	4.3	1.7	3.1
21	19	22	19	13	11	11	17	20	20	3.7	1.7	3.1
22	18	23	18	13	12	11	17	21	18	3.0	1.7	3.2
23	18	24	18	13	15	11	15	20	17	3.0	1.1	2.5
24	18	24	17	13	19	12	15	19	15	3.5	.80	2.9
25	18	23	17	13	16	12	16	16	14	4.6	1.0	9.7
26	17	23	18	13	13	12	15	14	12	4.2	1.5	7.0
27	15	23	18	13	11	13	16	12	11	4.0	2.0	9.4
28	14	23	17	12	14	12	22	13	10	3.9	2.3	8.1
29	14	24	17	12	13	12	37	13	9.6	3.1	2.2	6.5
30	20	24	16	13	---	12	23	12	8.9	3.1	1.9	6.1
31	23	---	16	13	---	12	---	10	---	4.3	1.5	---
TOTAL	446.1	627	669	457	407	340.6	541	500	463.0	134.6	80.30	108.9
MEAN	14.4	20.9	21.6	14.7	14.0	11.0	18.0	16.1	15.4	4.34	2.59	3.63
MAX	23	24	26	23	20	16	37	21	22	7.9	14	9.7
MIN	8.3	17	16	12	11	5.9	13	10	7.7	3.0	.56	1.1
AC-FT	885	1240	1330	906	807	676	1070	992	918	267	159	216

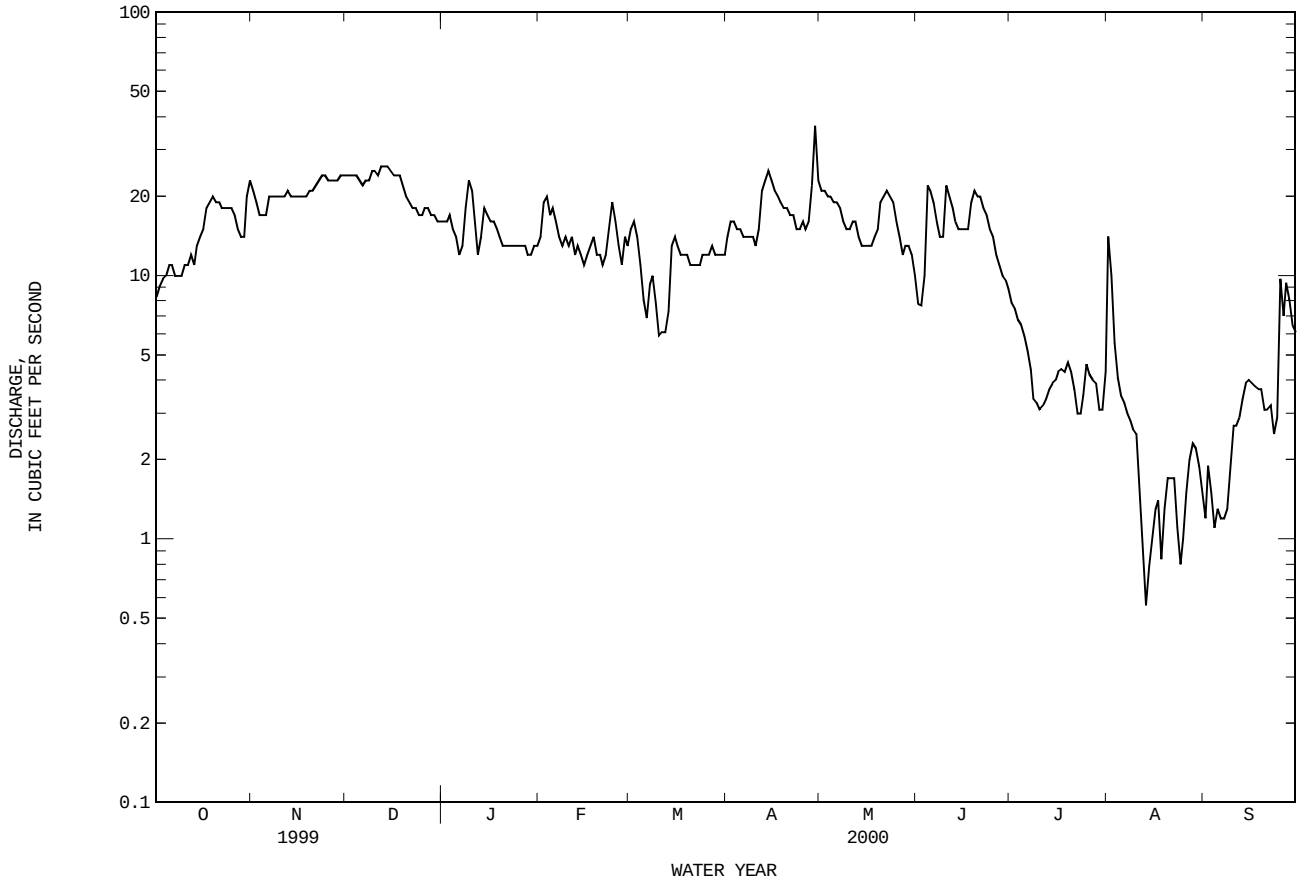
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2000h, BY WATER YEAR (WY)

MEAN	88.0	36.4	31.6	31.8	38.1	32.9	68.3	77.0	57.3	103	42.6	134
MAX	914	383	152	80.4	261	251	1206	1631	667	5140	869	2870
(WY)	1942	1924	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1916 - 2000h	
ANNUAL TOTAL	6270.3		4774.50			
ANNUAL MEAN	17.2		13.0		61.8	
HIGHEST ANNUAL MEAN					485	1938
LOWEST ANNUAL MEAN					6.12	1952
HIGHEST DAILY MEAN	188	Mar 12	37	Apr 29	53300	Jul 23 1938
LOWEST DAILY MEAN	5.9	Aug 17	.56	Aug 13	.00	Jul 12 1918
ANNUAL SEVEN-DAY MINIMUM	6.2	Aug 16	.97	Aug 12	.00	Jul 19 1918
INSTANTANEOUS PEAK FLOW			48	Apr 29	c130000	Jul 23 1938
INSTANTANEOUS PEAK STAGE			3.85	Apr 29	a22.20	Jul 23 1938
ANNUAL RUNOFF (AC-FT)	12440		9470		44740	
10 PERCENT EXCEEDS	24		22		59	
50 PERCENT EXCEEDS	15		14		22	
90 PERCENT EXCEEDS	7.9		2.9		2.1	

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.--Jul 1979 to Sep 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. No known regulation. Noyes Canal at Menard (station 08144000) diverts water from right bank of San Saba River 4.6 mi upstream from Menard for irrigation near Menard. First diversion was about 1890. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jun 1899, 33.8 ft Jul 23, 1938, from floodmark on left bank 150 ft upstream from present site.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 10	1745	1,030	4.57	No other peak greater than base discharge.			

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	.00	19	20	27	22	24	18	4.4	1.4	5.7	.33	.04
2	.00	14	19	26	24	27	16	15	.96	4.4	.21	.03
3	.02	17	21	26	30	26	19	19	.78	3.7	.18	.02
4	.09	17	21	25	34	28	21	14	206	3.1	.16	.03
5	.10	15	21	24	31	25	20	11	74	2.7	.14	.03
6	.10	14	21	25	28	23	23	9.3	17	2.2	.14	.11
7	.10	15	19	26	26	23	20	7.1	8.1	1.9	.13	.10
8	.11	15	20	27	26	22	15	5.5	5.1	1.6	.12	.06
9	.12	15	20	27	25	19	14	4.2	117	1.3	.12	.05
10	.12	17	20	28	24	20	13	3.4	468	.84	.14	.05
11	.09	17	23	35	21	17	13	2.7	172	.62	.13	.06
12	.08	16	43	31	19	15	25	1.8	78	.49	.13	.22
13	.12	15	28	25	19	13	25	1.0	44	.42	.14	.38
14	.12	14	29	25	23	11	30	.60	35	.38	.13	.17
15	.11	13	28	23	20	11	26	.48	28	.34	.13	.14
16	.12	13	26	28	19	13	28	.39	23	.30	.17	.11
17	.31	14	25	29	20	18	28	.34	20	.26	.13	.10
18	.28	14	26	24	24	16	25	.31	25	.23	.12	.08
19	.20	16	26	21	23	17	22	1.2	28	.22	.11	.08
20	.17	16	26	19	19	15	19	1.6	38	.19	.11	.08
21	.15	17	27	18	19	12	17	43	27	.16	.11	.08
22	.15	17	27	17	20	15	17	16	23	.15	.09	.08
23	8.2	17	27	17	22	18	14	8.1	18	.16	.11	.06
24	11	18	26	17	26	17	12	5.0	14	.16	.13	.09
25	9.2	19	27	17	25	16	11	3.2	12	.15	.13	.17
26	8.3	20	26	18	27	16	9.1	2.0	11	.18	.13	.13
27	8.4	20	25	23	24	17	8.8	2.5	10	.19	.12	.10
28	9.2	20	26	25	20	15	7.3	4.6	8.9	.18	.10	.11
29	11	20	26	24	17	16	5.8	4.6	7.4	.19	.08	.11
30	17	21	26	24	---	19	4.3	3.7	6.8	.21	.06	.10
31	19	---	27	24	---	22	---	2.4	---	.37	.05	---
TOTAL	103.96	495	772	745	677	566	526.3	198.42	1527.44	32.99	4.08	2.97
MEAN	3.35	16.5	24.9	24.0	23.3	18.3	17.5	6.40	50.9	1.06	.13	.099
MAX	19	21	43	35	34	28	30	43	468	5.7	.33	.38
MIN	.00	13	19	17	17	11	4.3	.31	.78	.15	.05	.02
AC-FT	206	982	1530	1480	1340	1120	1040	394	3030	65	8.1	5.9

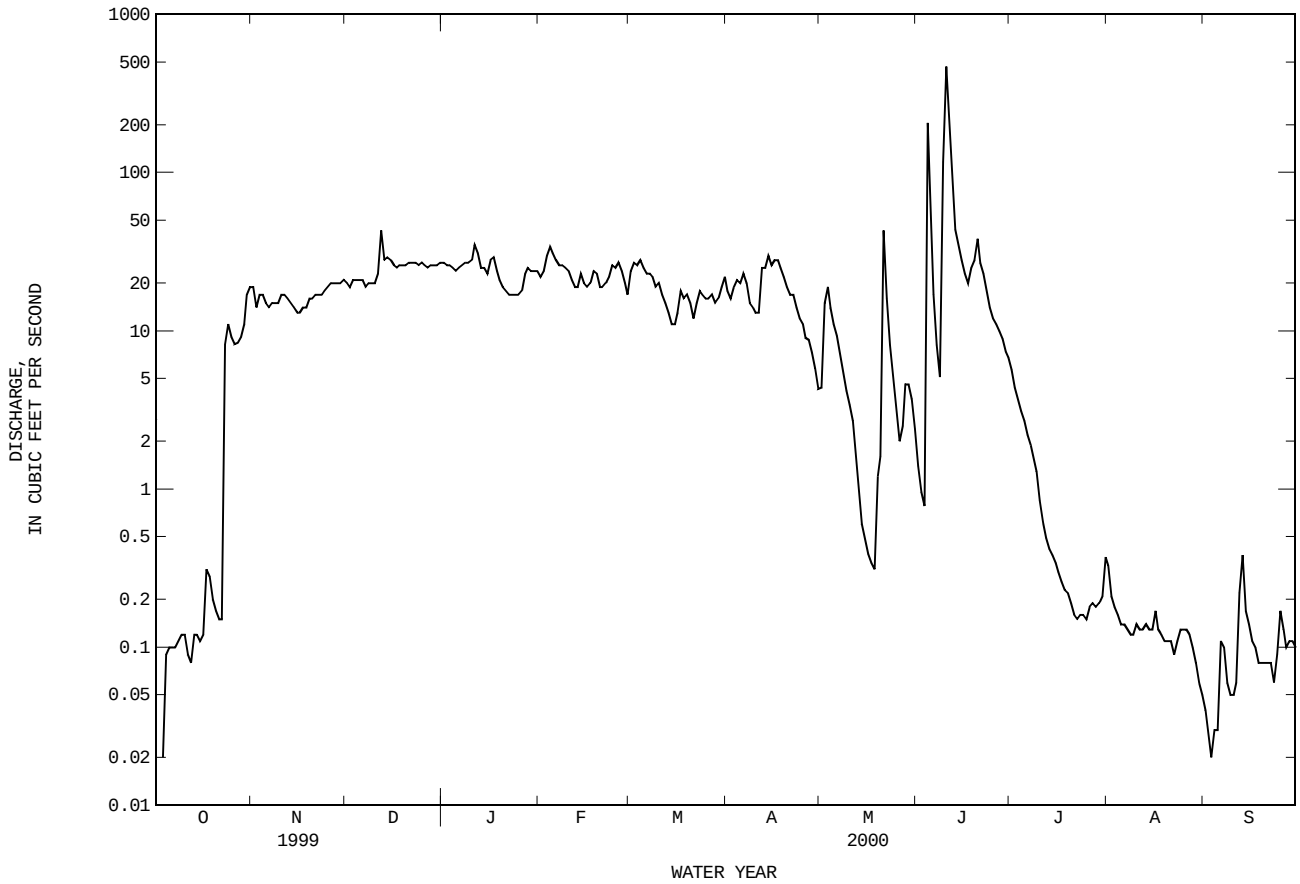
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000h, BY WATER YEAR (WY)

MEAN	46.2	42.9	83.6	65.4	72.2	61.8	49.5	59.5	95.0	77.4	52.6	184
MAX	118	91.3	516	282	400	160	144	167	511	901	543	1631
(WY)	1991	1991	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

08144600 SAN SABA RIVER NEAR BRADY, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1979 - 2000h	
ANNUAL TOTAL	8649.62		5651.16			
ANNUAL MEAN	23.7		15.4		74.7	
HIGHEST ANNUAL MEAN					256	1990
LOWEST ANNUAL MEAN					15.4	2000
HIGHEST DAILY MEAN	489	Mar 12	468	Jun 10	23900	Sep 8 1980
LOWEST DAILY MEAN	.00	Sep 26	.00	Oct 1	.00	Sep 26 1999
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 26	.04	Aug 30	.00	Sep 26 1999
INSTANTANEOUS PEAK FLOW			1030	Jun 10	66000	Sep 8 1980
INSTANTANEOUS PEAK STAGE			4.57	Jun 10	25.50	Sep 8 1980
ANNUAL RUNOFF (AC-FT)	17160		11210		54100	
10 PERCENT EXCEEDS	43		27		89	
50 PERCENT EXCEEDS	20		14		38	
90 PERCENT EXCEEDS	.12		.11		4.7	

h See PERIOD OF RECORD paragraph.



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 Sep 1983, Jan 1999 to current year.
Water-quality records.--Chemical data: Sep 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. 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 Jul 1962 and control runoff from 263 mi^2 in the Brady Creek watershed above this station. Conservation pool storage is 29,110 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 borrow. Records of diversions may be obtained from the city of Brady.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 40,880 acre-ft, Sep 24, 1971, elevation, 1,747.70 ft; minimum since first appreciable storage, 1,030 acre-ft, Sep 18, 1964, elevation, 1,710.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,280 acre-ft, Jun 10, elevation, 1,731.24 ft; minimum contents, 7,460 acre-ft, Jun 2, elevation, 1,726.04 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY OBSERVATION AT 2400 HOURS

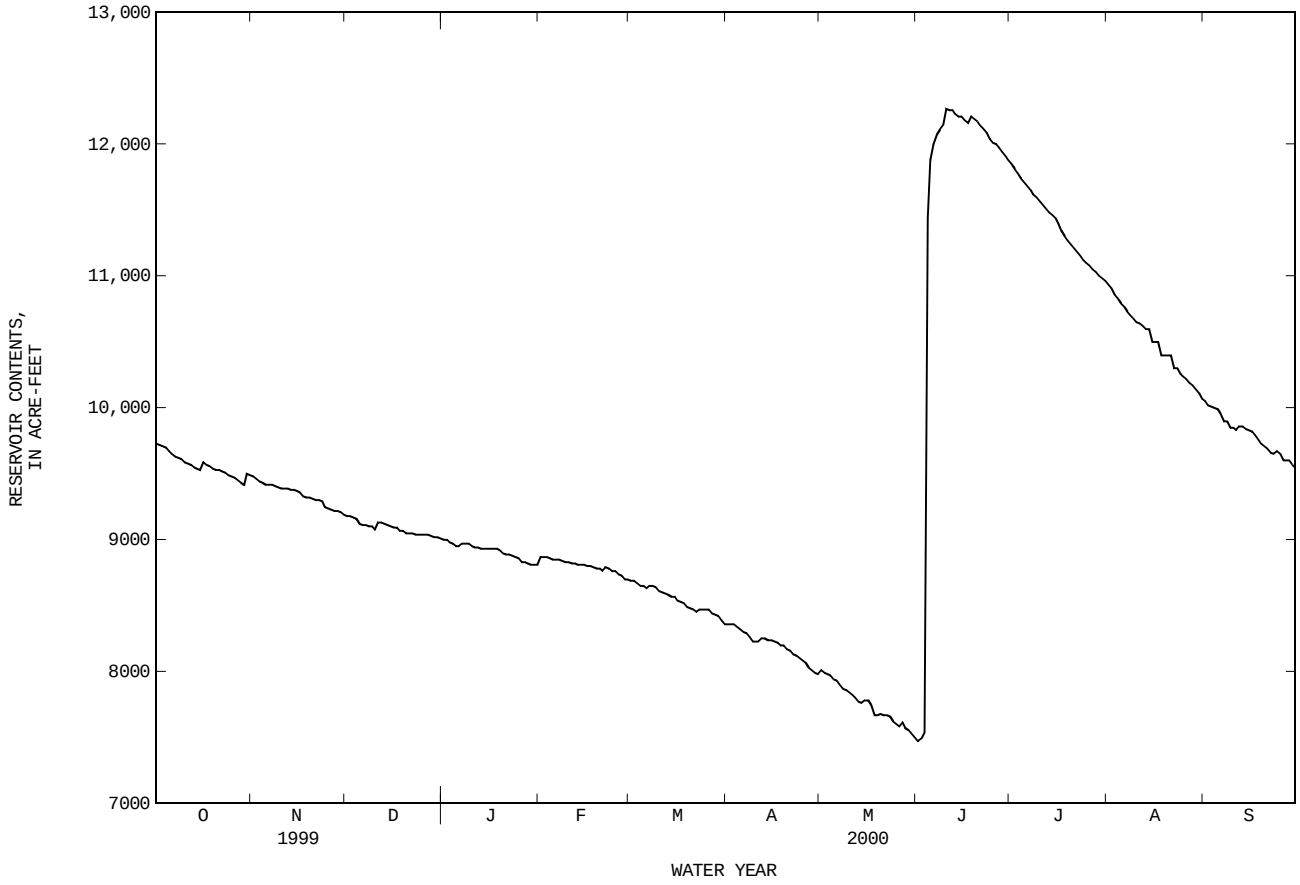
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9730	9480	9180	9000	8870	8690	8360	8010	7470	11850	10940	10050
2	9720	9460	9180	9000	8870	8690	8360	7990	7490	11810	10910	10020
3	9710	9440	9170	8980	8870	8670	8360	7980	7540	11780	10860	10010
4	9700	9430	9160	8970	8860	8650	8340	7970	11440	11740	10830	10000
5	9670	9420	9120	8950	8850	8650	8320	7940	11880	11710	10790	9990
6	9650	9420	9110	8950	8850	8630	8300	7930	12000	11680	10770	e9950
7	9630	9420	9110	8970	8850	8650	8290	7900	12070	11650	10730	e9900
8	9620	9410	9100	8970	8840	8650	8260	7870	12110	11620	10700	e9900
9	9610	9400	9100	8970	8830	8640	8230	7860	12140	11600	10680	e9850
10	9590	9390	9080	8950	8830	8610	8230	7840	12270	11570	10650	e9850
11	9580	9390	9130	8940	8820	8600	8230	7820	12260	11540	10640	9830
12	9570	9390	9130	8940	8820	8590	8250	7800	12260	11510	10620	9860
13	9550	9380	9120	8930	8810	8580	8250	7770	12230	11480	10600	9860
14	9540	9380	9110	8930	8810	8570	8240	7760	12210	11460	e10600	9840
15	9530	9370	9100	8930	8810	8570	8240	7780	12210	11440	e10500	9830
16	9590	9360	9090	8930	8800	8540	8230	7780	12180	11400	e10500	9820
17	9570	9330	9090	8930	8800	8530	8220	7740	12160	11340	e10500	9790
18	9560	9320	9070	8930	8790	8520	8200	7670	12210	11300	e10400	9760
19	9540	9320	9070	8920	8780	8490	8200	7670	12190	11270	e10400	9730
20	9530	9310	9050	8900	8780	8480	8170	7680	12170	11240	e10400	9710
21	9530	9300	9050	8890	8760	8470	8160	7670	12140	11210	e10400	9690
22	9520	9300	9050	8890	8790	8450	8130	7670	12120	11180	e10300	9660
23	9510	9290	9040	8880	8780	8470	8120	7660	12090	11150	e10300	9650
24	9490	9250	9040	8870	8760	8470	8100	7620	12040	11120	10260	9670
25	9480	9240	9040	8860	8760	8470	8080	7600	12010	11100	10240	9650
26	9470	9230	9040	8830	8740	8470	8070	7580	12000	11080	10220	e9600
27	9450	9220	9040	8830	8730	8440	8030	7610	11970	11050	10190	e9600
28	9430	9220	9030	8820	8700	8430	8010	7570	11940	11030	10170	e9600
29	9420	9210	9020	8810	8700	8420	7990	7560	11910	11000	10140	9570
30	9500	9190	9020	8810	---	8390	7980	7530	11880	10980	10110	9540
31	9490	---	9010	8810	---	8360	---	7500	---	10960	10070	---
MAX	9730	9480	9180	9000	8870	8690	8360	8010	12270	11850	10940	10050
MIN	9420	9190	9010	8810	8700	8360	7980	7500	7470	10960	10070	9540
(+)	1728.46	1728.13	1727.93	1727.69	1727.56	1727.17	1726.70	1726.09	1730.88	1730.00	1729.09	1728.52
(@)	-260	-300	-180	-200	-110	-340	-380	-480	+4380	-920	-890	-530

WTR YR 2000 MAX 12270 MIN 7470 (@) -210

e Estimated

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

08144900 BRADY CREEK RESERVOIR NEAR BRADY, TX--Continued



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), Sep 1915 to Sep 1993, and Oct 1997 to current year. Published as "near San Saba" Dec 1904 to Dec 1906 and Sep 1915 to Aug 1930.
Water-quality records.--Chemical data: Sep 1947 to Feb 1949, Nov 1958 to Sep 1969. Water temperature: Sep 1962 to Sep 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.

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 Jul 8, 1953. From Oct 1956 to Sep 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 good except those for estimated daily discharges, which are poor. Since water year 1963, at least 10% of contributing drainage area has been regulated by Brady Creek Reservoir (station 08144900, conservation pool storage 29,110 acre-ft). 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 Jul 23, 1938 (gage height, 39.30 ft, from floodmarks, at site then in use, adjusted to present datum), from rating curve extended above 41,000 ft^3/s on basis of slope-area measurement of 203,000 ft^3/s; no flow at times in 1918, 1930, 1954-56.

REVISIONS.--The maximum discharge for calendar and water year 1992 has been revised to 34,900 ft^3/s, Dec 20, 1991, gage height, 28.88 ft, from floodmark; revised daily discharges, in cubic feet per second, for period in Dec 1991 are given below. These figures supersede those published in the report for 1992.

Dec 20....11,200
21.... 8,060

	TOTAL	MEAN	MAX	MIN	ANNUAL RUNOFF (AC-FT)
DEC 1991	28,980	935	11,200	60	57,480
CAL YR 1991	59,609	163	11,200	34	118,200
WTR YR 1992	168,113	459	11,200	44	333,500

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jun 6, 1899, reached a stage of 36.7 ft, present site and datum, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	44	37	51	50	43	33	27	19	28	e10	8.7
2	28	32	43	52	65	41	35	28	19	26	8.0	9.5
3	26	30	46	49	68	38	39	29	24	25	7.0	11
4	27	30	47	48	59	35	41	30	278	24	6.2	13
5	29	31	44	47	49	38	37	26	340	22	7.1	14
6	28	30	39	45	49	44	33	25	310	21	6.8	11
7	28	30	43	50	56	47	32	22	138	21	11	11
8	27	29	44	59	54	49	32	19	73	22	9.9	11
9	26	31	46	61	50	57	29	19	49	22	10	13
10	25	32	42	59	47	57	29	19	42	21	11	13
11	26	32	37	55	47	45	30	20	227	21	9.5	12
12	25	31	69	52	46	40	81	21	411	20	13	11
13	24	27	91	52	45	38	279	20	195	20	13	16
14	26	27	97	57	44	39	100	19	131	20	15	25
15	28	28	79	56	42	39	60	19	92	20	15	24
16	25	29	61	52	41	37	49	19	68	20	13	22
17	26	33	59	48	42	35	47	19	57	20	12	21
18	33	35	57	48	44	32	46	19	568	20	12	19
19	34	34	56	44	41	31	44	77	603	20	12	18
20	34	32	55	46	39	31	42	497	300	e20	13	16
21	31	33	56	45	40	32	39	180	193	e20	13	17
22	31	32	56	44	44	34	36	75	112	e15	14	16
23	30	31	55	43	47	36	33	42	80	e15	14	18
24	27	32	55	41	48	36	27	30	62	e15	9.5	19
25	23	35	55	39	68	34	24	25	50	e15	9.2	20
26	22	38	55	36	54	32	24	22	42	e15	11	19
27	22	37	54	37	47	34	21	22	38	e10	12	20
28	21	40	53	37	44	34	21	26	33	e10	14	19
29	22	41	53	37	44	33	22	27	30	e10	9.4	18
30	40	36	51	39	---	31	24	25	29	e10	9.2	17
31	48	---	51	44	---	30	---	22	---	e10	6.8	---

08146000 SAN SABA RIVER AT SAN SABA, TX--Continued

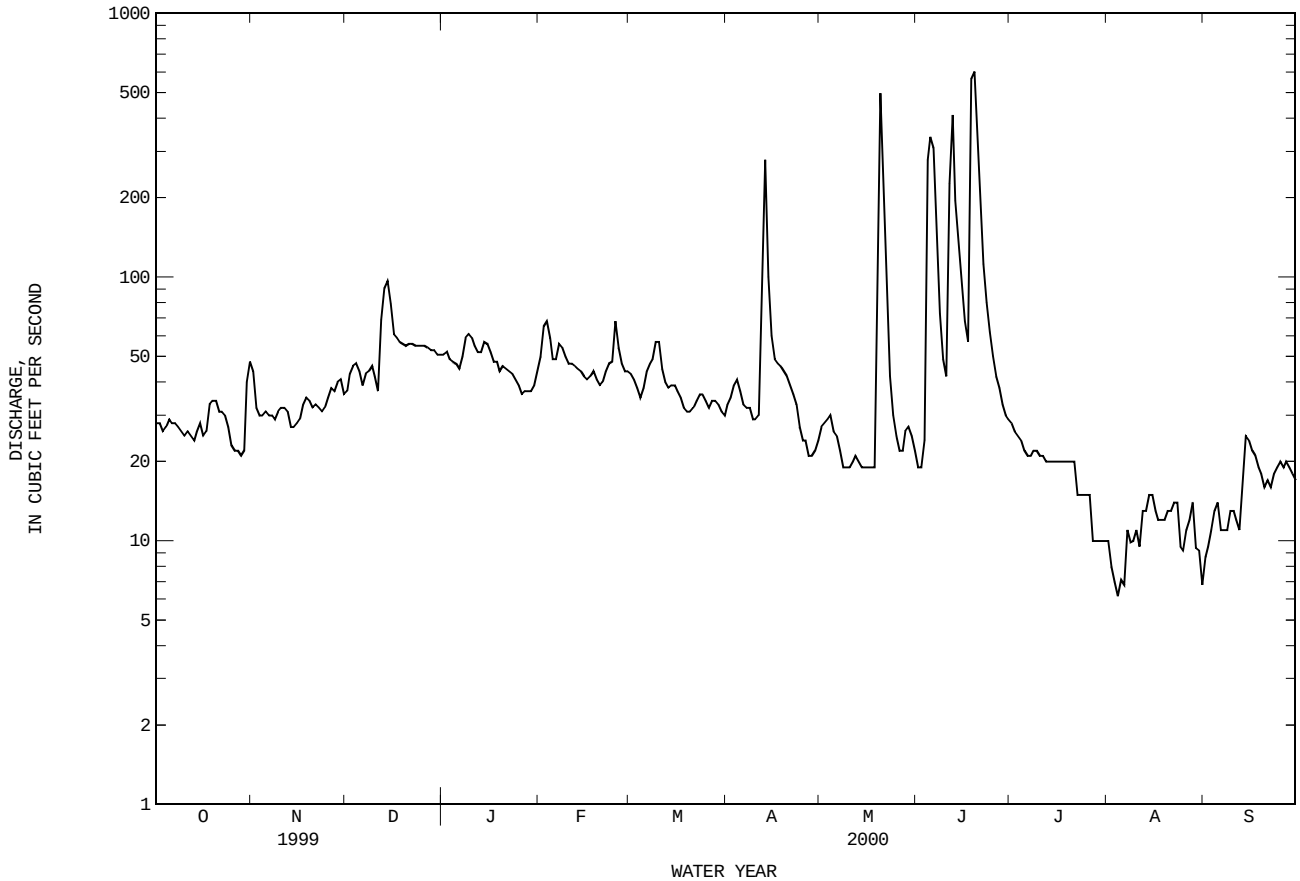
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL	870	982	1686	1473	1414	1182	1389	1470	4613	578	336.6	482.2
MEAN	28.1	32.7	54.4	47.5	48.8	38.1	46.3	47.4	154	18.6	10.9	16.1
MAX	48	44	97	61	68	57	279	497	603	28	15	25
MIN	21	27	37	36	39	30	21	19	19	10	6.2	8.7
AC-FT	1730	1950	3340	2920	2800	2340	2760	2920	9150	1150	668	956

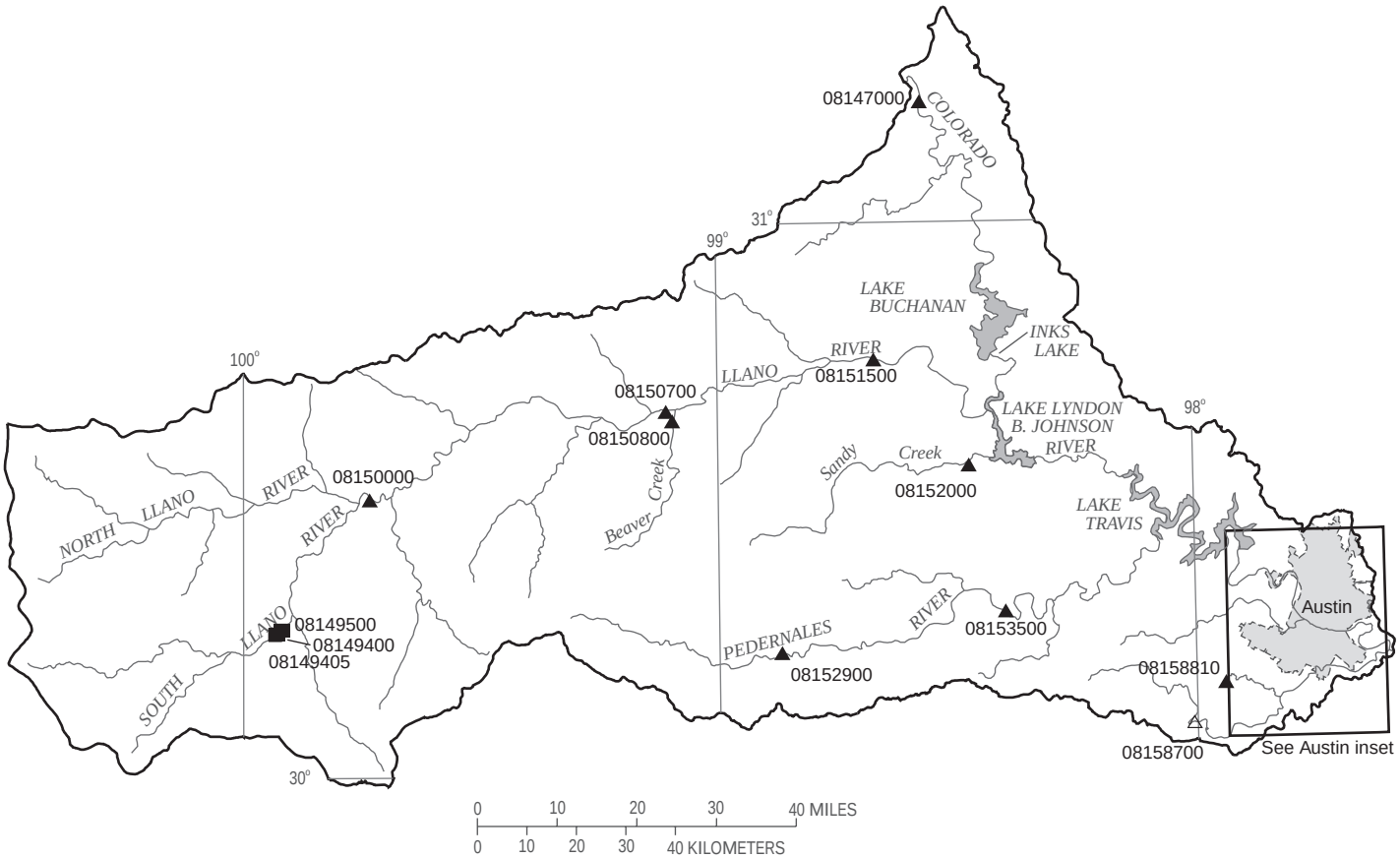
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2000hz, BY WATER YEAR (WY)

MEAN	215	122	151	160	178	165	157	201	166	148	169	309
MAX	1716	418	893	896	1542	635	777	1195	695	1201	1768	2144
(WY)	1974	1972	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

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1963 - 2000hz	
ANNUAL TOTAL	25917		16475.8			
ANNUAL MEAN	71.0		45.0		178	
HIGHEST ANNUAL MEAN					493	1974
LOWEST ANNUAL MEAN					29.2	1984
HIGHEST DAILY MEAN	498	Apr 3	603	Jun 19	31000	Sep 9 1980
LOWEST DAILY MEAN	20	Sep 19	6.2	Aug 4	.00	Jul 17 1963
ANNUAL SEVEN-DAY MINIMUM	21	Sep 16	7.9	Jul 31	.00	Jul 25 1963
INSTANTANEOUS PEAK FLOW			1600	Jun 18	41300	Sep 18 1990
INSTANTANEOUS PEAK STAGE			8.03	Jun 18	29.94	Sep 18 1990
ANNUAL RUNOFF (AC-FT)	51410		32680		129100	
10 PERCENT EXCEEDS	108		59		270	
50 PERCENT EXCEEDS	69		32		88	
90 PERCENT EXCEEDS	23		13		26	

e Estimated
h See PERIOD OF RECORD paragraph.
z Period of regulated streamflow.

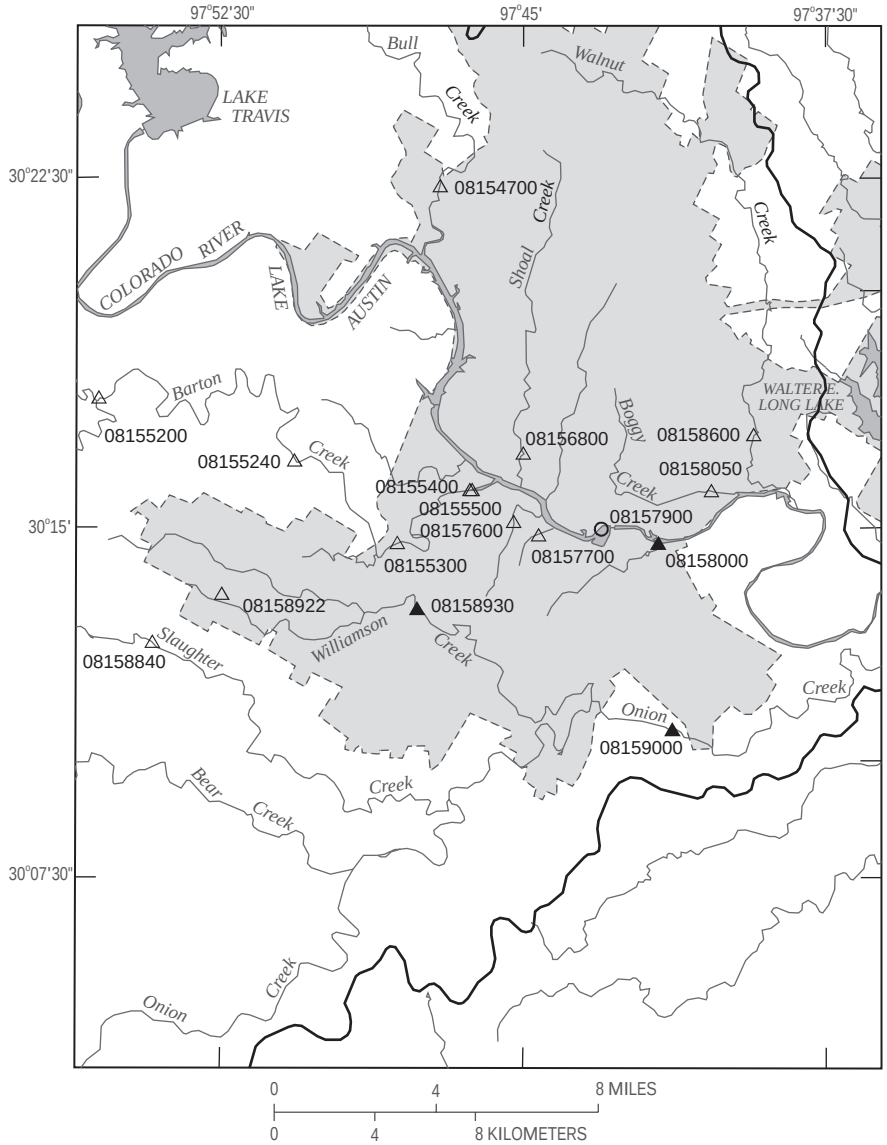




EXPLANATION

08152000	▲	**Surface-water continuous station and number**
08158700	△	**Surface-water continuous/water-quality station and number**
08149400	■	**Surface-water partial record/stage only/miscellaneous station and number**

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**
08157900	○	**Reservoir/water-quality station and number**

Figure 7.--Map showing location of gaging stations in the Austin inset of the Colorado River Basin

08147000 Colorado River near San Saba, TX 136
08149400 South Llano River near Telegraph, TX 307
08149405 Tanner Springs near Telegraph, TX 309
08149500 Seven Hundred Springs near Telegraph, TX 307
08150000 Llano River near Junction, TX 138
08150700 Llano River near Mason, TX 140
08150800 Beaver Creek near Mason, TX 142
08151500 Llano River at Llano, TX 144
08152000 Sandy Creek near Kingsland, TX 146
08152900 Pedernales River near Fredericksburg, TX 148
08153500 Pedernales River near Johnson City, TX 150
08154700 Bull Creek at Loop 360 near Austin, TX 152
08155200 Barton Creek at State Highway 71 near Oak Hill, TX 156
08155240 Barton Creek at Lost Creek Boulevard, Austin, TX 160
08155300 Barton Creek at Loop 360, Austin, TX 164
08155400 Barton Creek above Barton Springs, Austin, TX 168
08155500 Barton Springs at Austin, TX 174
08156800 Shoal Creek at 12th Street, Austin, TX 180
08157600 East Bouldin Creek at South 1st Street, Austin, TX 184
08157700 Blunn Creek at Little Stacy Park, Austin, TX 188
08157900 Town Lake at Austin, TX 192
08158000 Colorado River at Austin, TX 202
08158050 Boggy Creek at U.S. Highway 183, Austin, TX 204
08158600 Walnut Creek at Webberville Road, Austin, TX 208
08158700 Onion Creek near Driftwood, TX 212
08158810 Bear Creek below Farm Road 1826 near Driftwood, TX 216
08158840 Slaughter Creek at Farm Road 1826 near Austin, TX 218
08158922 Williamson Creek at Brushy Country Blvd., Oak Hill, TX 222
08158930 Williamson Creek at Manchaca Road, Austin, TX 226
08159000 Onion Creek at U.S. Highway 183, Austin, TX 228

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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", Sep 1930 to current year. Monthly discharge only for some periods, published in WSP 1312.

Water-quality records.--Chemical data: Aug 1941, Sep 1947 to Sep 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 Sep 1962. Specific conductance: Sep 1947 to Sep 1992. Water temperature: Sep 1947 to Sep 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 Apr 25 to May 1 and estimated daily discharges, which are poor. Since water year 1931 at least 10% of contributing drainage area has been regulated by Lake Nasworthy (station 08132000, conservation pool storage 9,615 acre-ft). Since Mar 15, 1990, 66% of the drainage area above this station has been controlled by O.H. Ivie Reservoir (station 08136600), 140.8 miles upstream, and by an additional twelve reservoirs (8 above and 4 below O.H. Ivie Reservoir), for a total combined capacity (13 reservoirs) of 1,897,000 acre-ft at conservation level. Flow is also affected at times by discharge from the flood-detention pools of 187 floodwater-retarding structures with a combined capacity of 205,700 acre-ft. 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jul 22, 1938, 58.4 ft Sep 25, 1900 (discharge, 184,000 ft^3/s, present site), from floodmarks at former site.

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	23	49	58	77	82	79	44	44	32	70	3.4	5.9
2	29	48	56	78	94	78	52	43	27	66	3.6	5.0
3	33	41	61	81	96	75	54	47	29	63	6.8	4.5
4	31	40	67	77	98	70	51	45	108	60	7.9	4.8
5	30	41	64	76	91	67	55	44	2800	53	6.5	5.6
6	31	41	62	76	85	69	53	43	1920	45	5.1	7.3
7	32	41	60	77	81	77	47	39	1290	39	4.4	9.2
8	30	41	63	87	84	85	42	35	884	35	4.7	8.4
9	30	41	70	87	83	81	46	30	728	34	6.0	7.7
10	30	42	70	88	81	84	46	26	559	33	7.1	7.8
11	27	43	71	87	78	82	45	24	498	32	6.6	8.6
12	27	43	92	87	77	76	65	24	682	30	6.8	9.6
13	28	44	117	84	76	72	148	25	412	28	6.6	12
14	28	43	167	85	76	71	214	26	270	25	6.9	14
15	29	45	133	92	76	72	165	26	205	23	8.4	19
16	30	46	107	93	74	72	129	25	4880	21	11	31
17	32	46	91	88	73	68	138	25	3660	23	11	29
18	29	47	85	83	73	68	122	22	2270	24	10	26
19	34	49	83	82	72	64	102	44	6170	24	8.6	24
20	37	50	81	79	70	62	91	388	2340	21	7.5	22
21	38	49	85	79	69	62	84	286	1350	16	6.9	20
22	35	48	82	78	88	62	79	135	732	14	6.8	19
23	35	47	81	77	142	64	76	83	440	13	8.1	20
24	35	47	79	75	104	63	73	62	293	11	9.3	24
25	35	48	78	74	123	63	69	58	213	9.3	9.3	27
26	33	50	78	72	e110	62	65	49	162	7.8	7.0	26
27	30	54	77	72	e100	58	62	41	129	7.6	4.7	25
28	31	56	75	73	85	57	54	41	104	8.6	4.2	26
29	31	57	74	71	82	60	49	40	88	7.4	5.8	25
30	37	61	74	71	---	49	44	39	77	5.5	7.8	25
31	45	---	73	72	---	42	---	36	---	4.2	7.4	---
TOTAL	985	1398	2514	2478	2523	2114	2364	1895	33352	853.4	216.2	498.4
MEAN	31.8	46.6	81.1	79.9	87.0	68.2	78.8	61.1	1112	27.5	6.97	16.6
MAX	45	61	167	93	142	85	214	388	6170	70	11	31
MIN	23	40	56	71	69	42	42	22	27	4.2	3.4	4.5
AC-FT	1950	2770	4990	4920	5000	4190	4690	3760	66150	1690	429	989

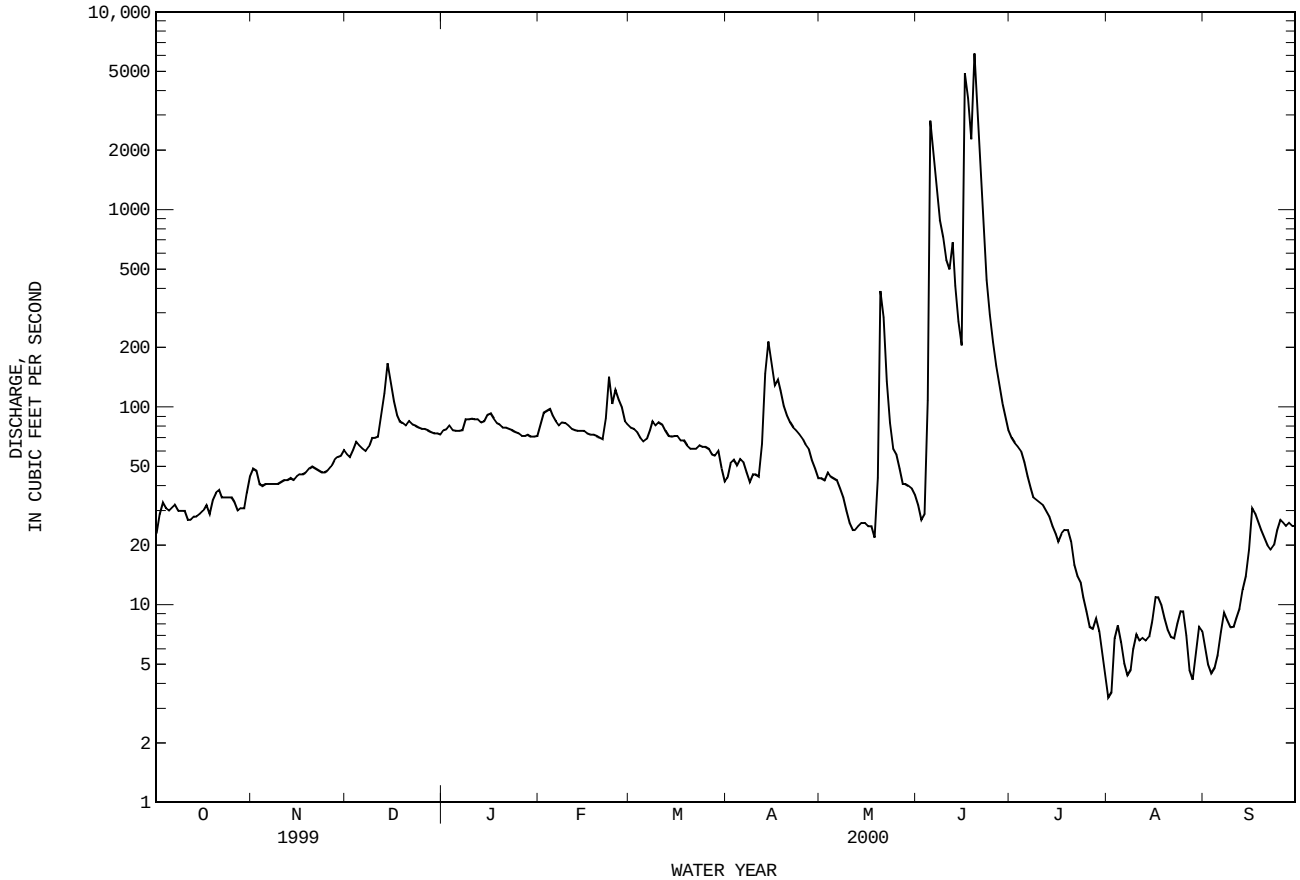
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2000z, BY WATER YEAR (WY)

MEAN	1347	407	469	512	652	615	987	2363	1721	1259	476	1518
MAX	15300	3444	9242	5105	10760	5002	6907	23620	10940	32210	3915	29380
(WY)	1931	1975	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1931 - 2000z	
ANNUAL TOTAL	44817		51191.0			
ANNUAL MEAN	123		140		1028	
HIGHEST ANNUAL MEAN					3880	1938
LOWEST ANNUAL MEAN					84.1	1984
HIGHEST DAILY MEAN	1610	Apr 3	6170	Jun 19	191000	Jul 23 1938
LOWEST DAILY MEAN	11	Aug 14	3.4	Aug 1	.00	Aug 27 1954
ANNUAL SEVEN-DAY MINIMUM	13	Aug 13	5.4	Jul 31	.00	Aug 3 1963
INSTANTANEOUS PEAK FLOW			8230	Jun 16	224000	Jul 23 1938
INSTANTANEOUS PEAK STAGE			10.29	Jun 16	aa62.24	Jul 23 1938
ANNUAL RUNOFF (AC-FT)	88890		101500		745100	
10 PERCENT EXCEEDS	212		118		1600	
50 PERCENT EXCEEDS	83		52		221	
90 PERCENT EXCEEDS	24		8.0		52	

e Estimated
z Period of regulated streamflow.
aa From floodmarks at site then in use adjusted to present datum.



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.--Sep 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 Jun 13, 1990, at datum 2.0 ft higher. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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 Jun 14, 1935. A major flood in 1889 was the highest known prior to Jun 14, 1935.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	105	122	122	113	104	95	90	80	81	83	72
2	102	103	123	122	120	104	98	92	81	81	82	72
3	103	103	124	120	118	102	98	88	82	79	81	71
4	103	104	124	118	114	101	96	85	81	79	81	71
5	103	105	e120	118	112	102	94	83	82	78	81	70
6	103	108	119	119	112	102	93	81	82	78	81	70
7	102	109	124	121	112	103	92	80	79	78	81	69
8	102	108	124	122	111	102	90	79	79	79	78	70
9	101	109	123	121	111	100	88	79	79	77	77	71
10	101	110	122	120	110	100	89	78	262	76	76	72
11	101	110	123	118	109	99	90	79	112	76	75	72
12	100	110	133	117	108	99	117	78	91	75	75	73
13	100	110	129	116	109	99	105	77	86	75	75	75
14	100	109	124	115	108	100	97	76	83	76	73	74
15	101	110	122	115	107	99	93	77	81	76	74	74
16	102	112	122	116	107	98	93	77	80	77	75	73
17	118	113	123	116	107	98	93	75	80	75	74	72
18	116	114	123	115	107	98	91	77	91	75	73	72
19	106	114	123	114	106	97	90	78	151	76	72	73
20	102	115	123	113	104	97	89	87	110	75	72	72
21	100	116	123	113	104	97	87	108	97	73	72	72
22	99	117	123	114	107	97	86	92	93	73	72	72
23	99	118	123	113	118	97	86	85	91	74	72	71
24	99	118	123	111	110	96	85	82	91	76	74	100
25	99	119	123	111	108	97	85	81	90	77	75	143
26	99	119	123	111	107	97	85	82	88	77	79	252
27	101	121	123	112	105	95	85	86	85	74	75	153
28	102	121	123	112	104	95	84	94	84	74	73	122
29	102	121	122	112	104	95	83	88	83	76	72	110
30	119	121	121	112	---	94	83	84	82	80	73	104
31	112	---	121	112	---	94	---	81	---	84	72	---
TOTAL	3198	3372	3818	3591	3172	3058	2740	2579	2836	2380	2348	2637
MEAN	103	112	123	116	109	98.6	91.3	83.2	94.5	76.8	75.7	87.9
MAX	119	121	133	122	120	104	117	108	262	84	83	252
MIN	99	103	119	111	104	94	83	75	79	73	72	69
AC-FT	6340	6690	7570	7120	6290	6070	5430	5120	5630	4720	4660	5230
CFSM	.06	.06	.07	.06	.06	.05	.05	.04	.05	.04	.04	.05
IN.	.06	.07	.08	.07	.06	.06	.06	.05	.06	.05	.05	.05

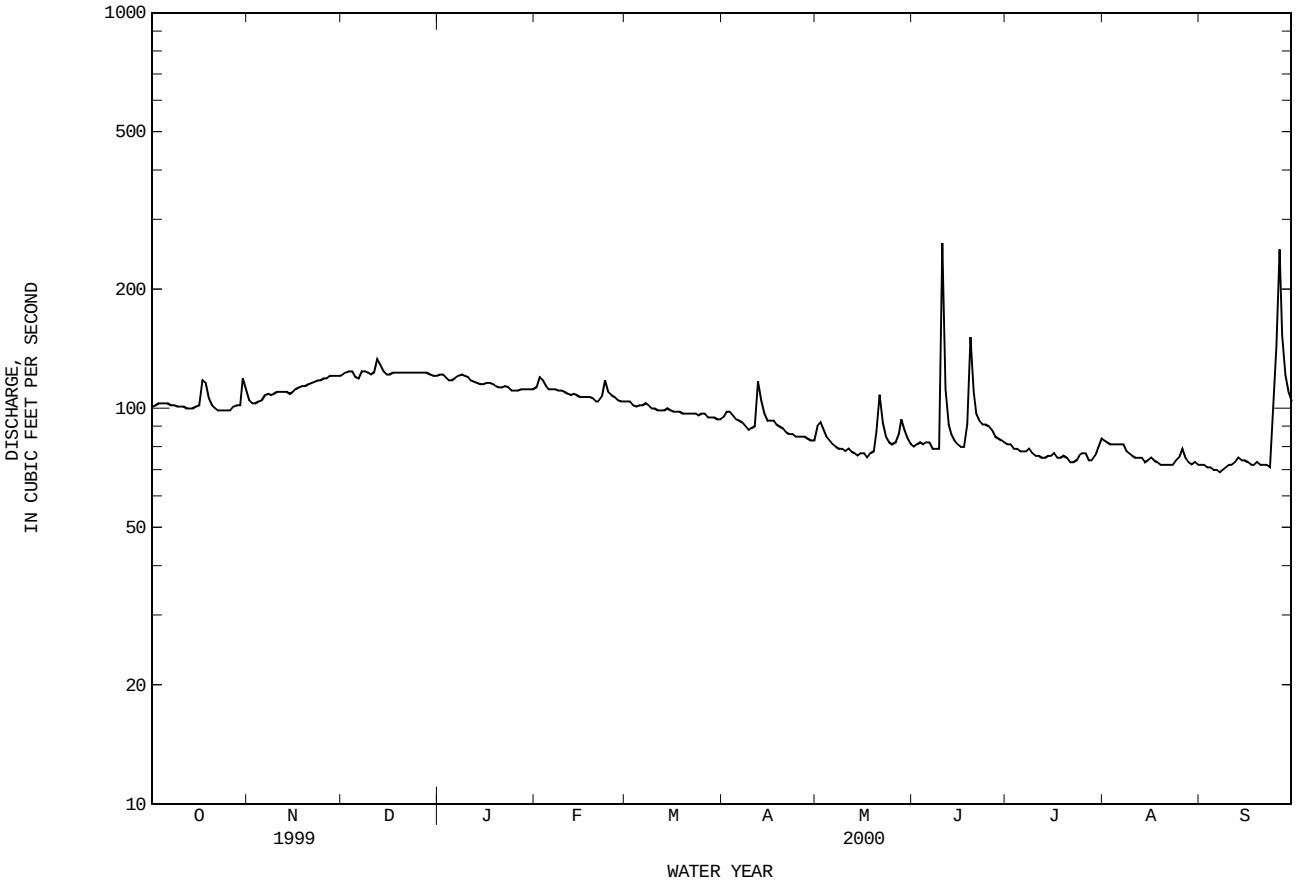
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2000h, BY WATER YEAR (WY)

MEAN	259	141	140	124	132	116	170	240	290	205	184	335
MAX	2708	1572	1229	641	816	428	1222	2395	5797	4236	2299	4298
(WY)	1924	1924	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1916 - 2000h	
ANNUAL TOTAL	48316		35729			
ANNUAL MEAN	132		97.6		195	
HIGHEST ANNUAL MEAN					708	1935
LOWEST ANNUAL MEAN					29.8	1953
HIGHEST DAILY MEAN	307	Jun 21	262	Jun 10	124000	Jun 14 1935
LOWEST DAILY MEAN	99	Oct 22	69	Sep 7	3.7	Aug 17 1956
ANNUAL SEVEN-DAY MINIMUM	99	Oct 21	70	Sep 3	4.2	Aug 11 1956
INSTANTANEOUS PEAK FLOW			615	Jun 10	c319000	Jun 14 1935
INSTANTANEOUS PEAK STAGE			2.20	Jun 10	a43.30	Jun 14 1935
ANNUAL RUNOFF (AC-FT)	95830		70870		141000	
ANNUAL RUNOFF (CFSM)	.072		.053		.11	
ANNUAL RUNOFF (INCHES)	.97		.72		1.43	
10 PERCENT EXCEEDS	154		121		219	
50 PERCENT EXCEEDS	133		98		99	
90 PERCENT EXCEEDS	106		74		42	

e Estimated
h See PERIOD OF RECORD paragraph.
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, computes and publishes streamflow record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, about 46 ft Jun 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	139	118	125	130	123	110	112	89	90	75	64
2	90	127	117	126	144	123	112	201	91	87	74	63
3	90	113	116	126	145	122	122	182	92	85	76	64
4	92	110	118	120	140	119	120	140	409	83	74	63
5	93	109	115	119	134	119	119	123	154	82	71	64
6	93	111	114	119	130	121	116	110	106	82	70	66
7	93	111	115	127	130	125	112	100	93	82	67	63
8	93	111	117	136	128	146	105	e95	86	81	69	62
9	92	111	122	132	127	136	e100	e95	86	80	69	63
10	91	111	119	127	127	125	e100	e90	150	79	69	65
11	93	111	122	126	123	121	100	90	687	79	68	65
12	95	112	157	125	123	116	147	91	716	79	68	66
13	93	114	161	123	124	117	146	97	183	77	68	78
14	90	113	146	122	123	118	143	89	138	76	66	76
15	93	111	140	123	122	120	133	88	119	76	64	71
16	98	111	133	124	124	120	123	88	106	73	64	72
17	125	111	128	126	123	115	117	87	102	72	63	73
18	133	112	128	127	124	114	114	88	107	73	62	73
19	134	112	127	121	119	112	111	93	155	72	61	71
20	130	111	128	119	118	108	105	92	152	68	61	69
21	121	113	129	119	118	112	e100	91	158	65	61	67
22	115	116	129	119	123	113	e100	94	133	65	59	67
23	110	115	130	119	155	117	e95	104	116	66	61	69
24	107	113	129	118	149	118	e95	101	108	66	63	115
25	107	111	128	121	148	116	e90	94	102	67	63	1090
26	105	114	129	117	152	114	e90	90	99	71	64	241
27	105	116	129	123	137	112	e90	90	98	68	65	163
28	104	116	128	126	127	111	e90	99	94	65	65	174
29	105	117	126	125	128	119	e90	99	92	65	67	140
30	122	117	125	125	---	116	e100	103	91	71	67	120
31	135	---	124	128	---	110	---	98	---	83	65	---
TOTAL	3237	3419	3947	3833	3795	3678	3295	3214	4912	2328	2059	3597
MEAN	104	114	127	124	131	119	110	104	164	75.1	66.4	120
MAX	135	139	161	136	155	146	147	201	716	90	76	1090
MIN	90	109	114	117	118	108	90	87	86	65	59	62
AC-FT	6420	6780	7830	7600	7530	7300	6540	6370	9740	4620	4080	7130

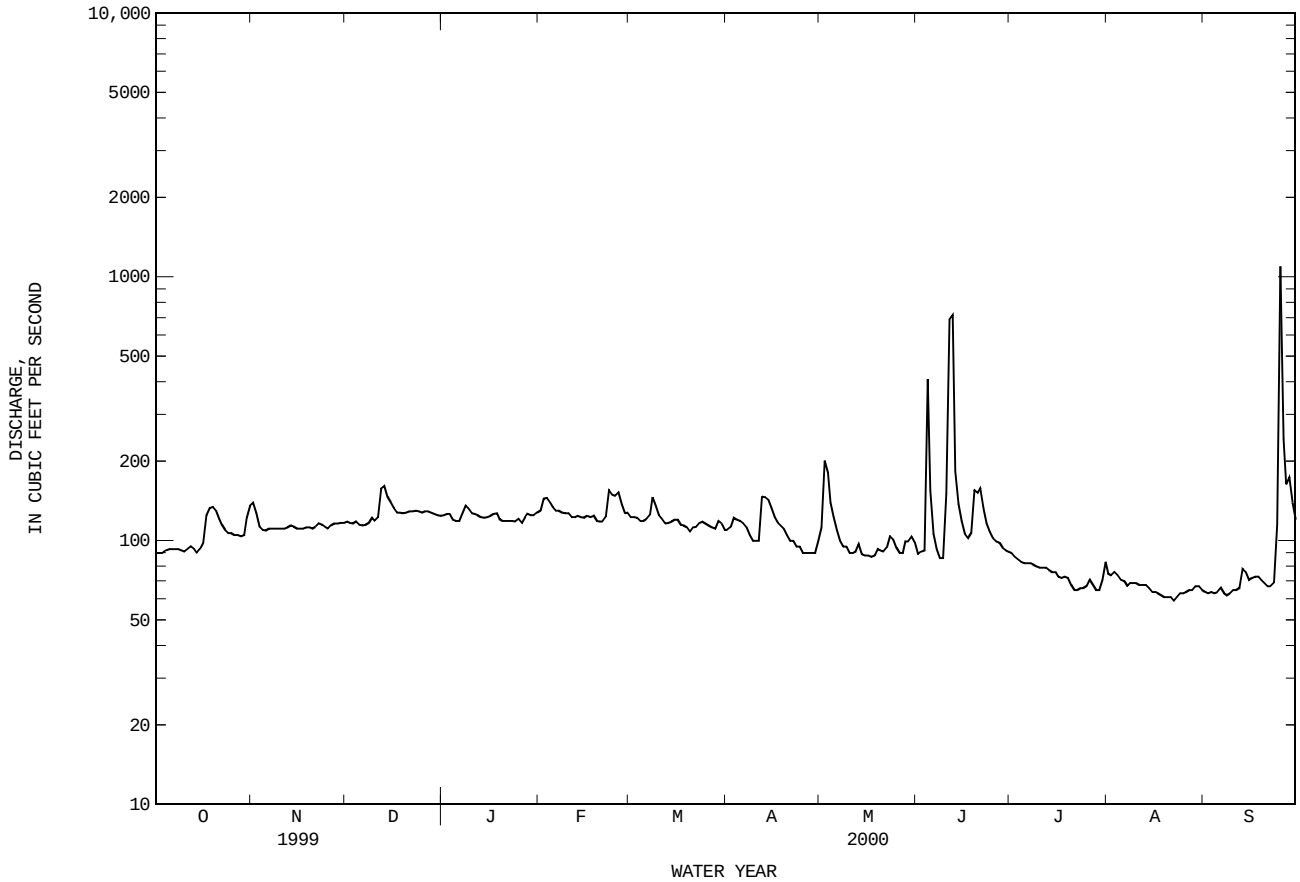
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000h, BY WATER YEAR (WY)

MEAN	503	233	296	236	257	232	289	362	345	237	401	403
MAX	3222	675	1929	1053	1530	875	2097	1559	1791	1439	3331	3426
(WY)	1974	1975	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000h	
ANNUAL TOTAL	52635		41314			
ANNUAL MEAN	144		113		318	
HIGHEST ANNUAL MEAN					835	1974
LOWEST ANNUAL MEAN					77.7	1984
HIGHEST DAILY MEAN	435	Jun 22	1090	Sep 25	69200	Sep 8 1980
LOWEST DAILY MEAN	88	Aug 14	59	Aug 22	10	Jul 17 1984
ANNUAL SEVEN-DAY MINIMUM	88	Aug 14	61	Aug 17	18	Jul 12 1984
INSTANTANEOUS PEAK FLOW			1820	Sep 25	c260000	Sep 8 1980
INSTANTANEOUS PEAK STAGE			4.07	Sep 25	a37.00	Sep 8 1980
ANNUAL RUNOFF (AC-FT)	104400		81950		230500	
10 PERCENT EXCEEDS	196		136		411	
50 PERCENT EXCEEDS	140		111		175	
90 PERCENT EXCEEDS	90		67		88	

e Estimated
h See PERIOD OF RECORD paragraph.
c From rating curve extended above 151,000 ft^3/s on basis of slope-area measurement and discharge measurement of 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.--Jul 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 May 2-3, which are fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 2	0245	1,440	4.31	No other peak greater than base discharge.			

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

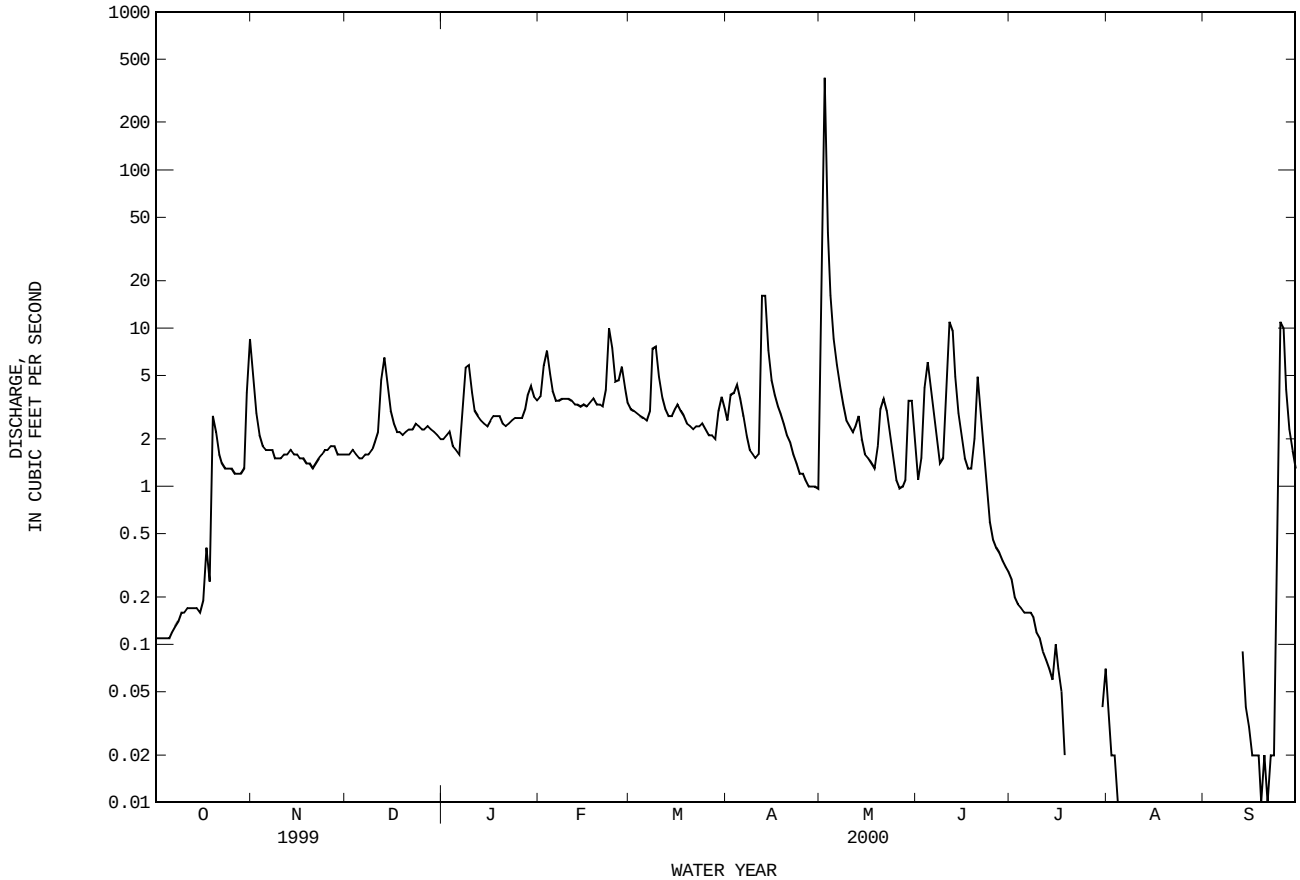
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	4.8	1.6	2.0	3.7	3.1	2.6	14	1.1	.26	.04	.00
2	.11	2.9	1.6	2.1	5.8	3.0	3.8	382	1.5	.20	.02	.00
3	.11	2.1	1.7	2.2	7.2	2.9	3.9	40	4.2	.18	.02	.00
4	.11	1.8	1.6	1.8	5.1	2.8	4.4	16	6.1	.17	.01	.00
5	.11	1.7	1.5	1.7	4.0	2.7	3.6	8.5	4.4	.16	.00	.00
6	.12	1.7	1.5	1.6	3.5	2.6	2.8	5.9	2.9	.16	.00	.00
7	.13	1.7	1.6	2.8	3.5	3.0	2.1	4.3	2.0	.16	.00	.00
8	.14	1.5	1.6	5.6	3.6	7.4	1.7	3.3	1.4	.15	.00	.00
9	.16	1.5	1.7	5.8	3.6	7.6	1.6	2.6	1.5	.12	.00	.00
10	.16	1.5	1.9	3.9	3.6	4.9	1.5	2.4	3.8	.11	.00	.00
11	.17	1.6	2.2	3.0	3.5	3.7	1.6	2.2	11	.09	.00	.00
12	.17	1.6	4.7	2.8	3.3	3.1	16	2.4	9.6	.08	.00	.00
13	.17	1.7	6.5	2.6	3.3	2.8	16	2.8	4.9	.07	.00	.09
14	.17	1.6	4.5	2.5	3.2	2.8	7.2	2.0	2.9	.06	.00	.04
15	.16	1.6	3.0	2.4	3.3	3.1	4.7	1.6	2.1	.10	.00	.03
16	.19	1.5	2.5	2.6	3.2	3.3	3.8	1.5	1.5	.07	.00	.02
17	.41	1.5	2.2	2.8	3.4	3.0	3.2	1.4	1.3	.05	.00	.02
18	.25	1.4	2.2	2.8	3.6	2.8	2.9	1.3	1.3	.02	.00	.02
19	2.8	1.4	2.1	2.8	3.3	2.5	2.5	1.8	2.0	.00	.00	.01
20	2.2	1.3	2.2	2.5	3.3	2.4	2.1	3.1	4.9	.00	.00	.02
21	1.6	1.4	2.3	2.4	3.2	2.3	1.9	3.6	3.2	.00	.00	.01
22	1.4	1.5	2.3	2.5	4.1	2.4	1.6	3.0	1.7	.00	.00	.02
23	1.3	1.6	2.5	2.6	10	2.4	1.4	2.1	.99	.00	.00	.02
24	1.3	1.7	2.4	2.7	7.5	2.5	1.2	1.5	.60	.00	.00	.61
25	1.3	1.7	2.3	2.7	4.6	2.3	1.2	1.1	.46	.00	.00	11
26	1.2	1.8	2.3	2.7	4.7	2.1	1.1	.97	.41	.00	.00	10
27	1.2	1.8	2.4	3.1	5.7	2.1	1.0	1.0	.38	.00	.00	4.1
28	1.2	1.6	2.3	3.8	4.2	2.0	1.0	1.1	.34	.00	.00	2.3
29	1.3	1.6	2.2	4.3	3.4	3.0	1.0	3.5	.31	.00	.00	1.7
30	3.9	1.6	2.1	3.7	---	3.7	.97	3.5	.29	.04	.00	1.3
31	8.5	---	2.0	3.5	---	3.1	---	1.9	---	.07	.00	---
TOTAL	32.15	52.7	73.5	90.3	124.4	97.4	100.37	522.37	79.08	2.32	0.09	31.31
MEAN	1.04	1.76	2.37	2.91	4.29	3.14	3.35	16.9	2.64	.075	.003	1.04
MAX	8.5	4.8	6.5	5.8	10	7.6	16	382	11	.26	.04	11
MIN	.11	1.3	1.5	1.6	3.2	2.0	.97	.97	.29	.00	.00	.00
AC-FT	64	105	146	179	247	193	199	1040	157	4.6	.2	62
CFSM	.00	.01	.01	.01	.02	.01	.02	.08	.01	.00	.00	.00
IN.	.01	.01	.01	.02	.02	.02	.02	.09	.01	.00	.00	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2000, BY WATER YEAR (WY)

MEAN	29.9	7.98	14.2	13.0	22.7	22.2	19.0	28.8	27.6	3.76	19.4	10.6
MAX	329	32.2	220	183	285	164	132	197	327	24.3	443	167
(WY)	1997	1970	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

08150800 BEAVER CREEK NEAR MASON, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1963 - 2000	
ANNUAL TOTAL	3951.43		1205.99			
ANNUAL MEAN	10.8		3.30		18.3	
HIGHEST ANNUAL MEAN					91.5	1997
LOWEST ANNUAL MEAN					1.97	1967
HIGHEST DAILY MEAN	1730	Mar 18	382	May 2	12800	Aug 3 1978
LOWEST DAILY MEAN	.02	Sep 8	.00	Jul 19	.00	Aug 3 1963
ANNUAL SEVEN-DAY MINIMUM	.04	Sep 5	.00	Jul 19	.00	Aug 3 1963
INSTANTANEOUS PEAK FLOW			1440	May 2	66900	Aug 3 1978
INSTANTANEOUS PEAK STAGE			4.31	May 2	24.00	Aug 3 1978
ANNUAL RUNOFF (AC-FT)	7840		2390		13260	
ANNUAL RUNOFF (CFSM)	.050		.015		.085	
ANNUAL RUNOFF (INCHES)	.68		.21		1.16	
10 PERCENT EXCEEDS	13		4.4		22	
50 PERCENT EXCEEDS	3.8		1.7		3.1	
90 PERCENT EXCEEDS	.09		.00		.18	



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.--Sep 1939 to current year.
Water-quality records.--Chemical data: Apr 1948 to Oct 1967, Apr 1979 to Sep 1986. Biochemical data: Apr 1979 to Sep 1986. Sediment data: Sep 1964, Apr 1979 to Sep 1986. Specific conductance: Apr 1979 to Sep 1980. Water temperature: Apr 1979 to Sep 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1879, 41.5 ft Jun 14, 1935 (discharge, 380,000 ft^3/s), from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	104	133	145	148	113	101	123	78	76	40	29
2	98	125	133	146	161	113	107	878	72	72	51	37
3	94	107	137	147	160	108	104	572	78	67	50	30
4	90	107	133	147	159	107	101	275	80	62	44	25
5	87	102	134	145	153	105	106	173	262	58	46	17
6	82	100	157	143	146	104	103	129	191	56	44	14
7	82	100	99	145	138	108	100	e111	110	51	42	18
8	84	100	122	150	133	121	93	e102	86	49	40	25
9	83	101	137	153	131	125	89	85	86	49	36	29
10	84	101	144	155	129	134	87	79	79	47	38	31
11	91	102	159	155	126	118	87	73	103	42	39	31
12	83	104	160	150	124	107	139	72	717	32	39	32
13	81	106	175	152	119	104	139	66	506	29	38	50
14	82	106	195	94	117	104	153	67	231	31	36	50
15	81	107	143	114	118	104	134	72	161	34	36	52
16	82	109	150	146	117	105	128	66	128	42	37	56
17	92	110	149	148	119	103	115	67	116	41	35	48
18	93	109	141	150	116	102	105	59	112	40	33	47
19	125	133	139	151	114	97	100	83	114	35	31	48
20	107	111	141	146	112	95	96	89	134	36	30	50
21	104	113	128	141	110	95	90	79	180	35	29	50
22	104	114	145	142	125	94	86	72	170	36	27	50
23	103	116	119	142	145	97	81	68	155	35	28	49
24	100	118	142	139	139	95	78	68	129	31	28	93
25	97	121	139	138	147	99	75	78	111	33	27	484
26	95	120	138	136	142	104	72	74	101	34	27	888
27	94	120	139	146	137	105	71	71	95	34	25	357
28	94	122	140	144	129	98	72	79	90	36	25	211
29	94	125	141	144	118	104	69	78	87	39	25	230
30	113	129	142	142	---	101	69	75	81	39	27	184
31	116	---	144	141	---	101	---	76	---	38	26	---
TOTAL	2907	3342	4398	4437	3832	3270	2950	4059	4643	1339	1079	3315
MEAN	93.8	111	142	143	132	105	98.3	131	155	43.2	34.8	110
MAX	125	133	195	155	161	134	153	878	717	76	51	888
MIN	81	100	99	94	110	94	69	59	72	29	25	14
AC-FT	5770	6630	8720	8800	7600	6490	5850	8050	9210	2660	2140	6580

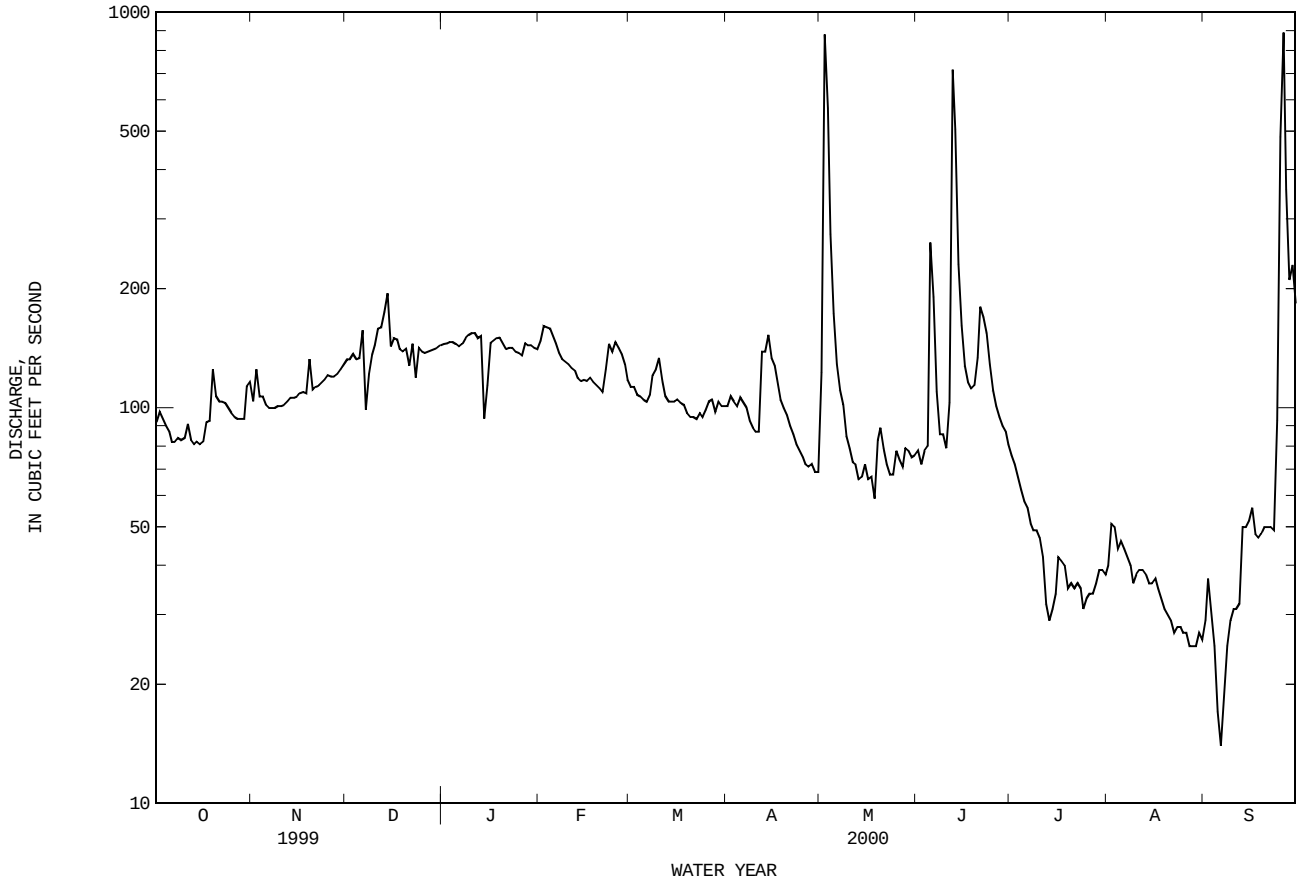
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2000, BY WATER YEAR (WY)

MEAN	522	232	292	282	382	326	374	514	567	226	317	444
MAX	3700	1005	3179	2483	3754	2798	3115	3350	4620	1796	3605	3891
(WY)	1974	1975	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1940 - 2000	
ANNUAL TOTAL	75513		39571			
ANNUAL MEAN	207		108		373	
HIGHEST ANNUAL MEAN					1308	1997
LOWEST ANNUAL MEAN					50.0	1954
HIGHEST DAILY MEAN	8260	Mar 18	888	Sep 26	78100	Jun 23 1997
LOWEST DAILY MEAN	60	Aug 31	14	Sep 6	.00	Aug 5 1952
ANNUAL SEVEN-DAY MINIMUM	69	Aug 17	23	Sep 3	.00	Aug 27 1952
INSTANTANEOUS PEAK FLOW			2020	May 2	260000	Jun 23 1997
INSTANTANEOUS PEAK STAGE			4.21	May 2	38.86	Jun 23 1997
ANNUAL RUNOFF (AC-FT)	149800		78490		269900	
10 PERCENT EXCEEDS	249		150		530	
50 PERCENT EXCEEDS	157		102		155	
90 PERCENT EXCEEDS	79		35		41	

e Estimated



08152000 SANDY CREEK NEAR KINGSLAND, TX

LOCATION.--Lat 30°33′27", long 98°28′18", 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 Sep 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Sep 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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	.00	.14	5.4	4.3	5.9	2.5	2.2	6.4	5.3	2.1	.00	.00
2	.00	.09	5.7	4.8	11	1.4	2.8	586	5.0	1.7	.00	.00
3	.00	.09	5.7	4.6	6.5	.75	3.7	147	9.4	1.5	.00	.00
4	.00	.08	6.5	3.1	5.0	.46	2.9	32	14	.88	.00	.00
5	.00	.08	5.4	3.3	4.4	.38	1.8	18	14	.51	.00	.00
6	.00	.08	4.1	3.7	4.0	.35	1.1	13	13	.24	.00	.00
7	.00	.08	5.0	11	3.5	.49	.61	10	12	.13	.00	.00
8	.00	1.1	6.8	18	2.8	5.7	.13	8.8	12	.08	.00	.00
9	.00	1.8	11	11	2.5	4.7	.09	7.7	22	.05	.00	.00
10	.00	2.4	6.1	8.8	2.5	3.4	.10	7.3	56	.03	.00	.00
11	.00	2.6	5.3	8.4	2.5	2.4	.13	6.4	42	.01	.00	.00
12	.00	2.9	21	7.4	2.4	1.7	92	7.5	39	.00	.00	.00
13	.00	2.9	14	6.3	2.4	1.4	37	16	30	.00	.00	.00
14	.00	3.3	9.2	4.9	2.2	1.4	18	12	24	.00	.00	.00
15	.00	3.7	8.5	4.8	2.2	1.2	7.2	11	21	.00	.00	.00
16	.00	3.7	7.8	5.4	2.2	1.0	3.8	9.0	18	.00	.00	.00
17	.00	3.6	6.6	5.4	2.3	.99	2.6	7.5	16	.00	.00	.00
18	.01	3.9	5.7	5.3	2.2	.93	1.8	6.8	17	.00	.00	.00
19	.04	3.9	5.5	5.4	1.7	.76	1.6	7.7	26	.00	.00	.00
20	.01	4.0	5.3	4.7	1.8	.68	1.1	8.0	20	.00	.00	.00
21	.00	4.4	7.4	4.7	2.0	.79	.84	6.7	15	.00	.00	.00
22	.00	4.6	5.6	5.4	3.1	.81	.78	6.2	12	.00	.00	.00
23	.00	4.9	5.3	5.4	12	.62	.60	5.6	10	.00	.00	.00
24	.00	4.1	5.1	4.7	11	.54	.46	5.0	8.7	.00	.00	.00
25	.00	5.1	5.0	4.6	14	.53	.33	4.7	7.2	.00	.00	.00
26	.00	5.1	5.0	4.6	333	1.1	.25	4.5	5.5	.00	.00	.00
27	.01	5.4	5.2	9.2	32	16	.20	5.6	4.3	.00	.00	.00
28	.01	5.3	4.9	8.0	11	4.5	.15	15	3.5	.00	.00	.00
29	.01	5.2	4.5	5.5	5.0	16	.12	10	2.9	.00	.00	.00
30	1.6	5.4	4.7	4.5	---	8.4	.12	8.6	2.5	.00	.00	.00
31	.21	---	4.5	4.9	---	3.4	---	6.6	---	.00	.00	---
TOTAL	1.90	89.94	207.8	192.1	493.1	85.28	184.51	1006.6	487.3	7.23	0.00	0.00
MEAN	.061	3.00	6.70	6.20	17.0	2.75	6.15	32.5	16.2	.23	.000	.000
MAX	1.6	5.4	21	18	333	16	92	586	56	2.1	.00	.00
MIN	.00	.08	4.1	3.1	1.7	.35	.09	4.5	2.5	.00	.00	.00
AC-FT	3.8	178	412	381	978	169	366	2000	967	14	.00	.00
CFSM	.00	.01	.02	.02	.05	.01	.02	.09	.05	.00	.00	.00
IN.	.00	.01	.02	.02	.05	.01	.02	.11	.05	.00	.00	.00

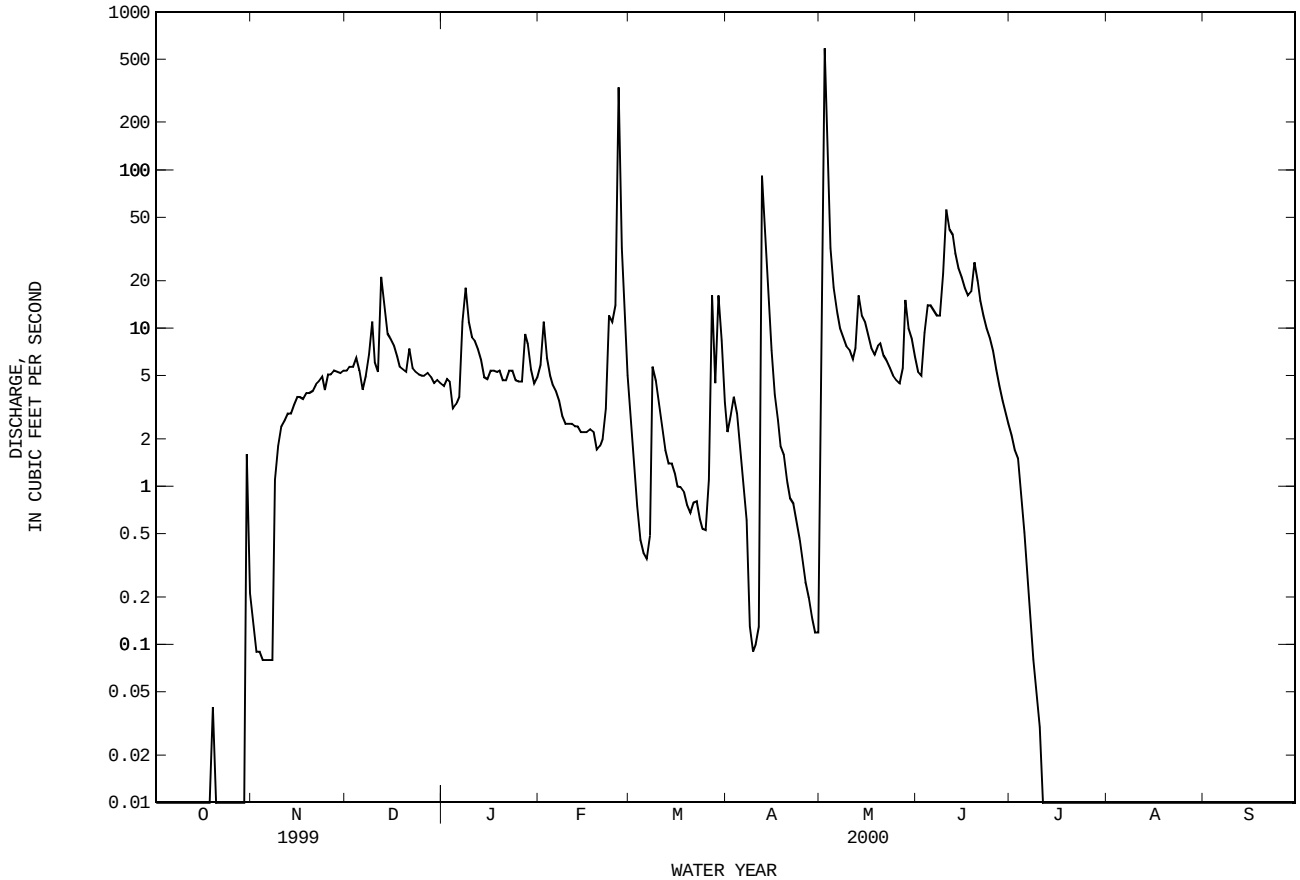
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2000h, BY WATER YEAR (WY)

MEAN	65.1	34.3	78.1	57.1	89.6	80.6	58.7	125	117	23.2	22.9	27.6
MAX	306	195	1074	511	936	425	528	510	862	258	358	188
(WY)	1972	1975	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1967 - 2000h	
ANNUAL TOTAL	19572.10		2755.76			
ANNUAL MEAN	53.6		7.53		65.4	
HIGHEST ANNUAL MEAN					279	1992
LOWEST ANNUAL MEAN					3.62	1984
HIGHEST DAILY MEAN	2500	Mar 18	586	May 2	14200	Dec 21 1991
LOWEST DAILY MEAN	.00	Aug 21	.00	Oct 1	.00	Jul 16 1967
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 21	.00	Oct 1	.00	Jul 16 1967
INSTANTANEOUS PEAK FLOW			1280	May 2	39500	Dec 20 1991
INSTANTANEOUS PEAK STAGE			7.59	May 2	17.63	Jun 16 1987
ANNUAL RUNOFF (AC-FT)	38820		5470		47350	
ANNUAL RUNOFF (CFSM)	.15		.022		.19	
ANNUAL RUNOFF (INCHES)	2.10		.30		2.57	
10 PERCENT EXCEEDS	90		12		95	
50 PERCENT EXCEEDS	11		2.4		11	
90 PERCENT EXCEEDS	.00		.00		.10	

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 Fredricksburg, and 88.7 mi upstream from mouth.

DRAINAGE AREA.--369 mi^2.

PERIOD OF RECORD.--Jul 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.--No estimated daily discharges. Records fair, except those for daily discharges below 1 ft^3/s, which are poor. No known regulation or diversion above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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.

AVERAGE DISCHARGE.--14 years, 61.8 ft^3/s (44,770 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft^3/s May 3, 1990 (gage height, 25.68 ft); no flow Jul 13-18, 1984.

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 Jun 1, 1979 (gage height, 34.4 ft, from floodmark), from rating curve extended above a discharge measurement of 42,300 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	6.0	6.5	9.6	10	15	9.3	5.8	3.9	2.0	1.6	.19
2	2.2	5.8	6.9	9.9	14	14	11	215	4.0	2.2	1.7	.00
3	2.2	5.4	6.9	9.6	13	13	13	115	6.2	2.0	1.6	.00
4	2.1	5.0	7.8	8.9	13	13	12	41	5.4	2.2	1.2	.00
5	2.1	4.5	7.2	8.3	12	12	11	22	5.7	1.6	1.1	.00
6	2.1	4.6	7.1	8.2	11	12	9.9	14	4.7	1.5	.80	.00
7	2.0	4.9	7.1	9.8	10	12	8.8	12	4.0	1.2	1.2	.00
8	2.1	4.9	6.9	13	12	62	8.3	9.4	4.5	1.1	1.1	.00
9	2.0	5.1	7.3	13	10	58	7.8	8.4	5.3	.98	.40	.00
10	2.2	5.4	7.5	13	9.7	29	6.9	8.1	9.7	.84	.40	.00
11	2.2	5.3	7.9	12	9.5	20	7.0	7.1	129	.35	.45	.00
12	2.2	5.5	10	10	9.1	17	14	6.7	54	.22	.47	.30
13	2.4	5.6	11	9.9	9.0	16	18	7.8	29	.28	.40	4.2
14	2.4	5.5	11	10	9.0	15	18	5.5	17	.41	.46	4.5
15	2.4	5.0	9.5	10	8.6	15	16	5.2	14	.41	.71	2.5
16	2.2	5.2	8.7	10	8.5	15	14	5.2	10	.32	.77	2.0
17	4.2	5.5	8.1	10	8.9	14	12	4.7	8.7	.19	.82	1.4
18	3.6	5.7	8.1	10	8.8	14	10	4.2	12	.57	.65	1.2
19	3.5	5.5	9.0	10	8.4	13	10	5.3	21	.61	.48	1.0
20	4.1	5.6	9.0	9.9	8.0	13	9.0	6.2	30	.39	.37	1.1
21	5.1	5.7	9.0	9.6	8.2	12	7.6	5.8	20	.13	.59	1.0
22	4.7	6.3	9.1	9.6	10	12	7.5	5.5	14	.11	1.0	1.0
23	4.4	6.5	9.2	9.6	71	12	7.2	5.1	9.6	.11	.98	1.1
24	4.1	6.7	9.6	8.4	44	12	6.3	4.1	7.3	.35	.82	1.6
25	4.2	6.5	9.2	8.2	24	12	5.9	3.7	5.9	.39	.52	4.0
26	4.2	6.6	9.6	7.9	97	12	6.0	3.8	5.0	.57	.56	2.2
27	4.1	6.6	9.1	9.6	33	12	5.6	4.1	4.3	.52	.71	1.9
28	4.1	6.6	8.7	10	20	10	5.3	7.6	3.0	.22	1.3	1.6
29	4.2	6.7	8.6	11	16	10	5.3	5.7	3.1	.22	1.4	1.3
30	5.2	6.9	9.0	11	---	9.5	4.8	4.9	2.9	.39	1.1	1.2
31	6.1	---	8.9	10	---	9.0	---	4.3	---	1.7	.63	---
TOTAL	100.7	171.1	263.5	310.0	525.7	514.5	287.5	563.2	453.2	24.08	26.29	35.29
MEAN	3.25	5.70	8.50	10.0	18.1	16.6	9.58	18.2	15.1	.78	.85	1.18
MAX	6.1	6.9	11	13	97	62	18	215	129	2.2	1.7	4.5
MIN	2.0	4.5	6.5	7.9	8.0	9.0	4.8	3.7	2.9	.11	.37	.00
AC-FT	200	339	523	615	1040	1020	570	1120	899	48	52	70

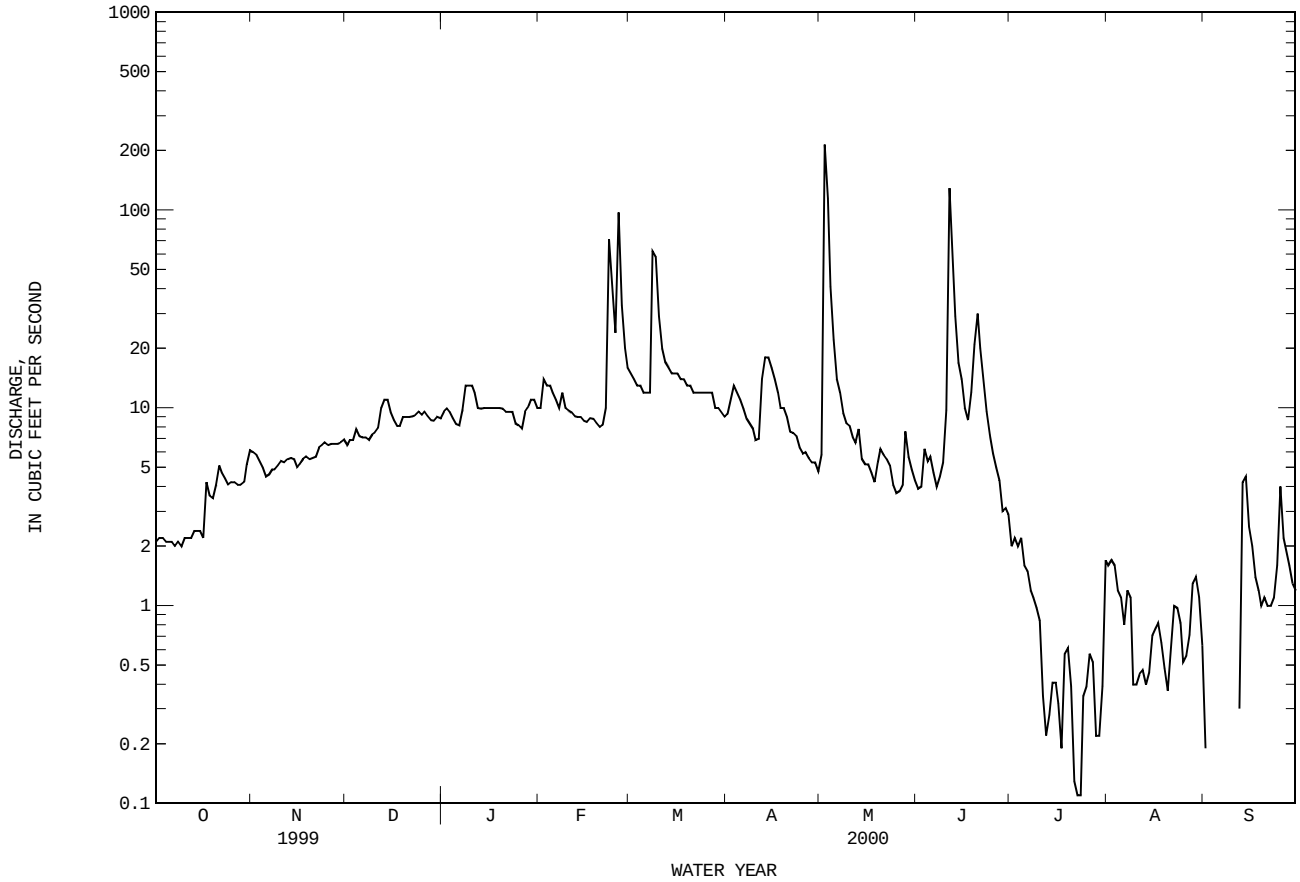
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2000h, BY WATER YEAR (WY)

MEAN	64.1	28.8	101	40.5	72.9	62.7	47.0	86.8	108	37.1	13.8	15.9
MAX	408	87.8	993	173	631	370	224	261	635	191	48.2	48.8
(WY)	1986	1999	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

08152900 PEDERNALES RIVER NEAR FREDERICKSBURG, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1980 - 2000h	
ANNUAL TOTAL	11702.0		3275.06			
ANNUAL MEAN	32.1		8.95		58.2	
HIGHEST ANNUAL MEAN					244	1992
LOWEST ANNUAL MEAN					5.31	1984
HIGHEST DAILY MEAN	1480	Mar 18	215	May 2	14800	Dec 20 1991
LOWEST DAILY MEAN	2.0	Sep 30	.00	Sep 2	.00	Jul 13 1984
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 3	.00	Sep 2	.00	Sep 2 2000
INSTANTANEOUS PEAK FLOW			353	May 2	49900	Dec 20 1991
INSTANTANEOUS PEAK STAGE			5.13	May 2	32.09	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	23210		6500		42190	
10 PERCENT EXCEEDS	52		14		83	
50 PERCENT EXCEEDS	21		6.2		21	
90 PERCENT EXCEEDS	2.4		.51		3.1	

h See PERIOD OF RECORD paragraph.



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 Sep 1950, Oct 1971 to Sep 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 Sep 13, 1939, nonrecording gage, and Sep 14, 1939, to Sep 10, 1952, water-stage recorder at upstream side of bridge at same datum. Sep 11, 1952, to Jun 29, 1953, nonrecording gage, and Jun 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 with a combined detention capacity of 4,580 acre-ft. 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 Jul 1869, reached a stage of 33 ft from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,100 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

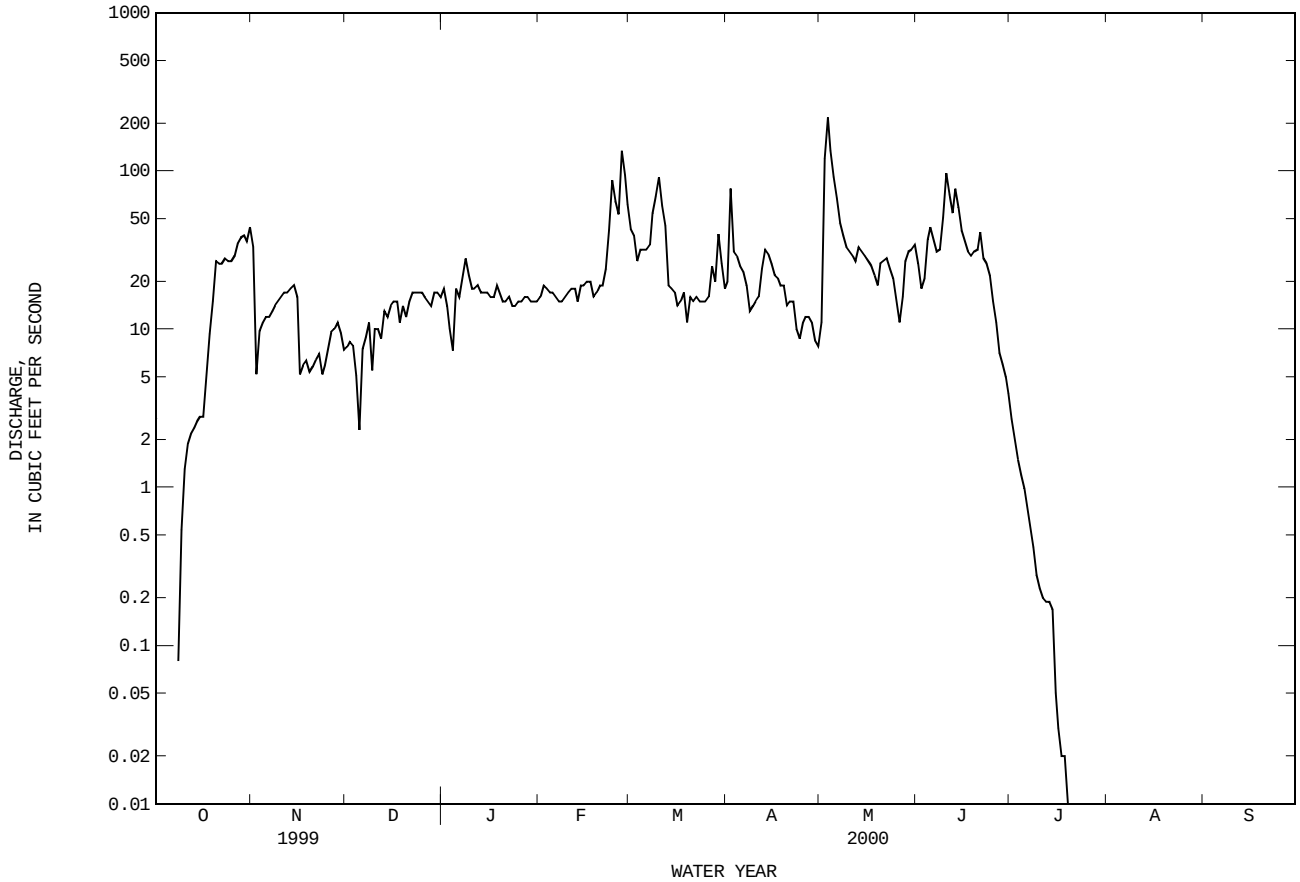
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	33	7.7	18	16	43	20	11	26	2.7	.00	.00
2	.00	5.2	8.3	14	19	39	77	120	18	2.0	.00	.00
3	.00	9.8	7.9	10	18	27	31	218	21	1.5	.00	.00
4	.00	11	5.1	7.3	17	32	29	134	37	1.2	.00	.00
5	.00	12	2.3	18	17	32	25	91	44	.99	.00	.00
6	.00	12	7.5	16	16	32	23	67	37	.72	.00	.00
7	.00	13	8.9	21	15	34	19	47	31	.54	.00	.00
8	.08	14	11	28	15	54	13	39	32	.42	.00	.00
9	.54	15	5.5	22	16	69	14	33	51	.28	.00	.00
10	1.3	16	10	18	17	91	15	31	97	.23	.00	.00
11	1.9	17	10	18	18	60	16	29	71	.20	.00	.00
12	2.2	17	8.7	19	18	45	24	27	54	.19	.00	.00
13	2.4	18	13	17	15	19	32	33	77	.19	.00	.00
14	2.6	19	12	17	19	18	30	31	59	.17	.00	.00
15	2.8	16	14	17	19	17	26	29	42	.05	.00	.00
16	2.8	5.2	15	16	20	14	22	27	36	.03	.00	.00
17	5.2	5.9	15	16	20	15	21	25	31	.02	.00	.00
18	9.3	6.3	11	19	16	17	19	22	29	.02	.00	.00
19	15	5.4	14	17	17	11	19	19	31	.01	.00	.00
20	27	5.8	12	15	19	16	14	26	32	.00	.00	.00
21	26	6.4	15	15	19	15	15	27	41	.00	.00	.00
22	26	7.0	17	16	24	16	15	28	28	.00	.00	.00
23	28	5.2	17	14	42	15	10	24	26	.00	.00	.00
24	27	5.9	17	14	87	15	8.7	21	22	.00	.00	.00
25	27	7.6	17	15	65	15	11	15	15	.00	.00	.00
26	29	9.6	16	15	53	16	12	11	11	.00	.00	.00
27	35	10	15	16	134	25	12	16	7.1	.00	.00	.00
28	38	11	14	16	94	20	11	27	6.0	.00	.00	.00
29	39	9.5	17	15	61	40	8.5	31	5.0	.00	.00	.00
30	36	7.4	17	15	---	26	7.8	32	3.9	.00	.00	.00
31	44	---	16	15	---	18	---	34	---	.00	.00	---
TOTAL	428.12	336.2	376.9	509.3	926	906	600.0	1325	1021.0	11.46	0.00	0.00
MEAN	13.8	11.2	12.2	16.4	31.9	29.2	20.0	42.7	34.0	.37	.000	.000
MAX	44	33	17	28	134	91	77	218	97	2.7	.00	.00
MIN	.00	5.2	2.3	7.3	15	11	7.8	11	3.9	.00	.00	.00
AC-FT	849	667	748	1010	1840	1800	1190	2630	2030	23	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2000, BY WATER YEAR (WY)

MEAN	226	92.3	178	126	208	178	239	332	327	99.0	114	193
MAX	2041	600	3161	1177	2794	1289	2368	1673	2905	872	1953	6332
(WY)	1960	1975	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1939 - 2000	
ANNUAL TOTAL	28432.07		6439.98			
ANNUAL MEAN	77.9		17.6		193	
HIGHEST ANNUAL MEAN					840	1992
LOWEST ANNUAL MEAN					4.12	1956
HIGHEST DAILY MEAN	1830	Mar 19	218	May 3	129000	Sep 11 1952
LOWEST DAILY MEAN	.00	Aug 20	.00	Oct 1	.00	Aug 8 1951
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 20	.00	Oct 1	.00	Aug 8 1951
INSTANTANEOUS PEAK FLOW			356	May 2	441000	Sep 11 1952
INSTANTANEOUS PEAK STAGE			10.77	May 2	42.50	Sep 11 1952
ANNUAL RUNOFF (AC-FT)	56400		12770		140000	
10 PERCENT EXCEEDS	159		37		280	
50 PERCENT EXCEEDS	35		15		50	
90 PERCENT EXCEEDS	.00		.00		4.6	



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 Jul 1978 (gage heights and discharge measurements), Jul 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.21	.03	.84	2.5	4.2	1.4	27	.22	.48	.05	.00
2	.08	.14	.03	.86	3.0	4.5	2.5	54	.20	.37	.04	.00
3	.04	.14	.03	.78	2.4	4.4	8.1	15	.17	.30	.04	.00
4	.03	.11	.06	.71	2.2	3.4	3.0	5.7	12	.23	.03	.00
5	.04	.09	.17	.83	2.3	3.5	2.3	4.1	4.0	.23	.01	.00
6	.01	.07	.14	.81	2.6	3.2	2.1	3.5	1.8	.20	.00	.00
7	.00	.06	.17	18	2.5	3.2	1.7	3.3	1.1	.16	.00	.00
8	.00	.07	.18	29	2.2	3.7	1.5	2.9	1.0	.15	.00	.00
9	.00	.05	.14	5.9	1.9	3.0	1.3	2.9	12	.14	.00	.00
10	.00	.05	.13	3.8	1.9	2.8	1.4	3.2	22	.12	.00	.00
11	.00	.04	.24	3.1	1.9	2.5	1.5	2.4	13	.10	.00	.00
12	.00	.03	5.2	2.8	1.9	1.9	16	2.1	7.3	.08	.00	.00
13	.00	.04	1.7	2.6	1.7	1.7	3.9	8.2	5.4	.11	.00	.00
14	.00	.05	1.3	2.4	1.5	1.9	3.3	4.6	4.1	.07	.00	.20
15	.00	.03	.81	2.3	1.4	1.8	2.9	2.1	3.7	.06	.00	.00
16	.00	.04	.58	2.3	1.4	2.0	2.2	2.0	2.8	.04	.00	.02
17	.02	.07	.49	2.2	1.5	3.9	1.8	2.2	2.4	.03	.00	.04
18	.08	.05	.44	2.1	1.5	3.0	1.6	1.8	11	.03	.01	.04
19	.06	.04	.38	2.1	1.3	2.4	1.7	1.2	13	.03	.02	.04
20	.12	.06	.60	2.2	1.3	2.6	1.4	1.7	13	.02	.00	.03
21	.11	.08	1.1	2.0	1.5	2.7	1.2	1.6	23	.02	.00	.03
22	.16	.02	.88	1.9	2.9	2.7	1.3	e2.0	3.0	.02	.00	.01
23	.23	.02	.79	1.8	20	2.3	.98	e1.7	2.8	.58	.00	.01
24	.18	.03	.77	1.7	1.8	2.3	.78	1.0	3.6	.11	.00	.76
25	.09	.04	.58	1.7	1.3	1.9	.56	.63	4.9	.06	.00	.91
26	.12	.03	.64	1.5	15	1.9	.38	.43	1.6	.05	.00	.48
27	.12	.03	.65	9.1	2.6	1.4	.25	.56	2.0	.03	.00	.26
28	.06	.04	.59	5.7	4.8	1.2	.22	.56	.85	.02	.00	.72
29	.07	.04	.76	3.0	4.3	1.8	.19	.38	.73	.02	.00	.72
30	2.8	.05	.72	2.5	---	2.0	.23	.34	.60	.18	.00	.36
31	.84	---	.71	2.4	---	1.4	---	.27	---	.05	.00	---
TOTAL	5.36	1.82	21.01	118.93	93.1	81.2	67.69	159.37	173.27	4.09	0.20	4.63
MEAN	.17	.061	.68	3.84	3.21	2.62	2.26	5.14	5.78	.13	.006	.15
MAX	2.8	.21	5.2	29	20	4.5	16	54	23	.58	.05	.91
MIN	.00	.02	.03	.71	1.3	1.2	.19	.27	.17	.02	.00	.00
AC-FT	11	3.6	42	236	185	161	134	316	344	8.1	.4	9.2
CFSM	.01	.00	.03	.17	.14	.12	.10	.23	.26	.01	.00	.01
IN.	.01	.00	.04	.20	.16	.14	.11	.27	.29	.01	.00	.01

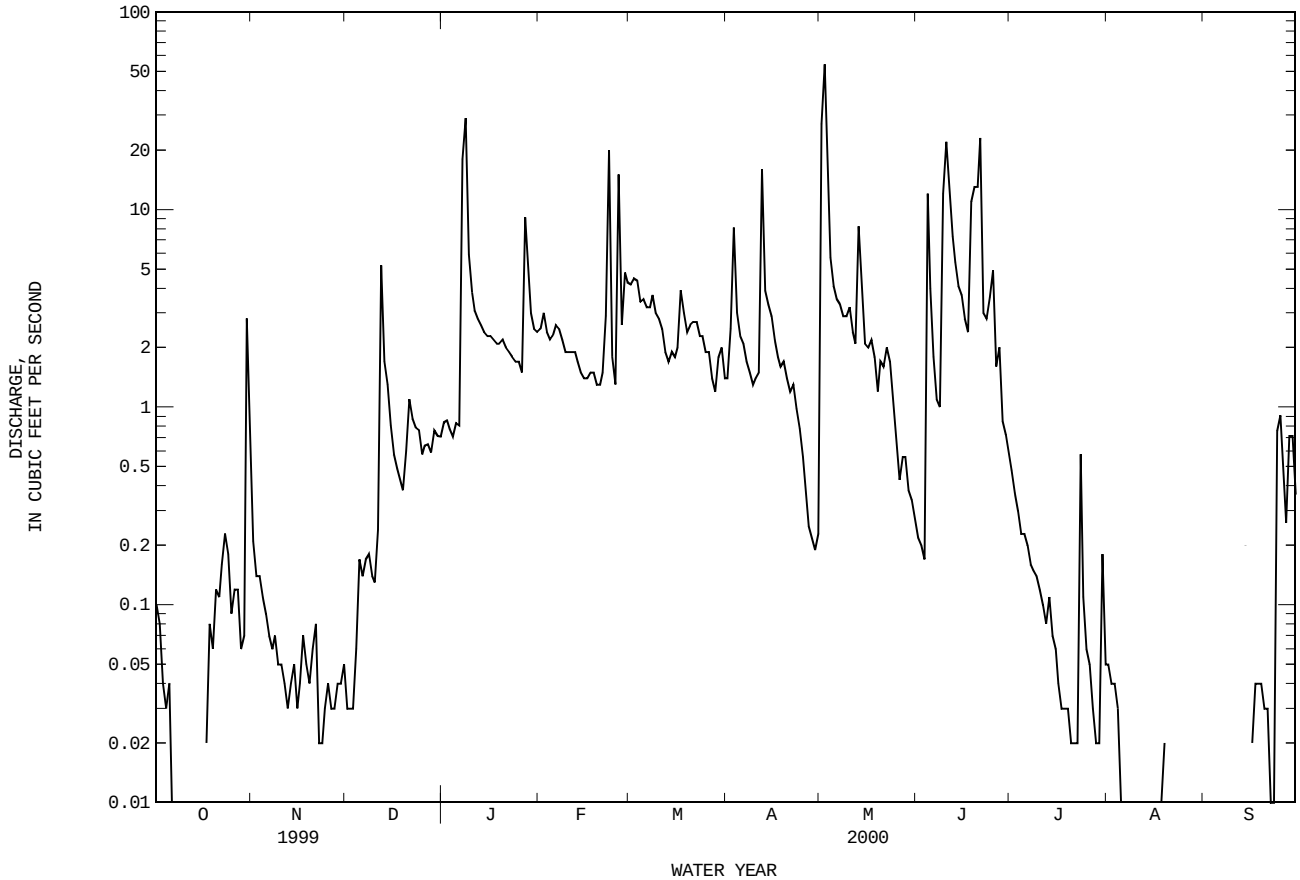
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

MEAN	16.6	10.4	16.2	12.7	17.0	15.2	11.5	24.5	26.4	4.10	3.74	3.69
MAX	120	46.1	130	55.9	114	64.7	69.4	58.9	141	22.6	26.3	15.3
(WY)	1999	1999	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

08154700 BULL CREEK AT LOOP 360 NEAR AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1978 - 2000	
ANNUAL TOTAL	1421.81		730.67			
ANNUAL MEAN	3.90		2.00		13.5	
HIGHEST ANNUAL MEAN					40.6	1992
LOWEST ANNUAL MEAN					1.86	1984
HIGHEST DAILY MEAN	29	May 29	54	May 2	1180	Oct 17 1998
LOWEST DAILY MEAN	.00	Aug 28	.00	Oct 7	.00	Jul 4 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 28	.00	Oct 7	.00	Jul 4 1984
INSTANTANEOUS PEAK FLOW			273	May 2	13700	May 13 1982
INSTANTANEOUS PEAK STAGE			4.19	May 2	12.31	Oct 7 1994
ANNUAL RUNOFF (AC-FT)	2820		1450		9790	
ANNUAL RUNOFF (CFSM)	.17		.090		.61	
ANNUAL RUNOFF (INCHES)	2.37		1.22		8.23	
10 PERCENT EXCEEDS	10		3.9		25	
50 PERCENT EXCEEDS	2.0		.64		4.0	
90 PERCENT EXCEEDS	.00		.00		.25	

e Estimated



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: Jun 1978 to Sep 1986, Jan 1993 to Jun 1995.

INSTRUMENTATION.--Stage-activated automatic sampler since Jul 18, 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
MAY												
01-01	0415	33	--	402	7.5	--	50	52	--	--	38	25000
10...	1130	--	2.8	648	7.8	24.9	5	.40	6.5	80	<10	200
JUN												
04-04	1335	42	--	344	7.7	--	220	83	--	--	40	K130000
JUL												
19...	1025	--	.03	711	7.8	29.6	13	.60	6.3	84	12	200

DATE	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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
MAY												
01-01	116	--	117	15	102	.356	.010	.366	.143	1.8	1.2	1.4
10...	--	200	<10	<10	--	--	<.010	<.050	<.020	--	--	.18
JUN												
04-04	103	--	178	26	152	--	<.010	.290	.051	1.4	1.1	1.1
JUL												
19...	200	--	<10	<10	--	--	<.010	<.050	<.020	--	--	.25

DATE	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)	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)
MAY											
01-01	.165	<.050	.010	.03	15	--	--	M	5	3	E21
10...	<.050	<.050	<.010	--	4.2	.350	<.100	<1	<1	<1	<31
JUN											
04-04	.183	<.050	.013	.04	19	--	--	<1	4	5	33
JUL											
19...	<.050	<.050	<.010	--	2.9	.670	<.100	<1	<1	<1	<31

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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 (discharge measurements and annual maximum stage), Feb 1978 to Sep 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.--No estimated daily discharges. Records fair except discharges below 15.0 ft^3/s, which are poor. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.35	.00	2.9	.01	.00
2	.00	.00	.00	.00	.00	.00	.00	4.7	.00	3.0	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.66	.00	2.8	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.57	.07	2.7	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.52	.11	2.6	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.46	.09	2.5	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.42	.05	2.1	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.40	.07	1.7	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.36	111	1.4	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.33	70	1.2	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.32	46	.90	.00	.00
12	.00	.00	.00	.00	.00	.00	.01	.32	29	.72	.00	.00
13	.00	.00	.00	.00	.00	.00	.01	.44	23	.62	.00	.00
14	.00	.00	.00	.00	.00	.00	.05	.35	18	.49	.00	.00
15	.00	.00	.00	.00	.00	.00	.06	.31	16	.39	.00	.00
16	.00	.00	.00	.00	.00	.00	.09	.30	15	.32	.00	.00
17	.00	.00	.00	.00	.00	.00	.11	.27	15	.26	.00	.00
18	.00	.00	.00	.00	.00	.00	.10	.25	18	.22	.00	.00
19	.00	.00	.00	.00	.00	.00	.10	.28	41	.19	.00	.00
20	.00	.00	.00	.00	.00	.00	.09	.32	33	.17	.00	.00
21	.00	.00	.00	.00	.00	.00	.06	.29	27	.13	.00	.00
22	.00	.00	.00	.00	.00	.00	.06	.24	22	.11	.00	.00
23	.00	.00	.00	.00	.00	.00	.07	.21	17	.11	.00	.00
24	.00	.00	.00	.00	.00	.00	.08	.18	14	.12	.00	.00
25	.00	.00	.00	.00	.00	.00	.09	.16	11	.10	.00	.00
26	.00	.00	.00	.00	.00	.00	.08	.16	9.8	.07	.00	.00
27	.00	.00	.00	.00	.00	.00	.06	.17	8.5	.04	.00	.00
28	.00	.00	.00	.00	.00	.00	.04	.16	6.9	.02	.00	.00
29	.00	.00	.00	.00	.00	.00	.02	.15	4.9	.01	.00	.00
30	.00	.00	.00	.00	---	.00	.02	.11	3.6	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.05	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	1.20	13.81	560.09	27.89	0.01	0.00
MEAN	.000	.000	.000	.000	.000	.000	.040	.45	18.7	.90	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.11	4.7	111	3.0	.01	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	2.4	27	1110	55	.02	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.21	.01	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.01	.23	.01	.00	.00

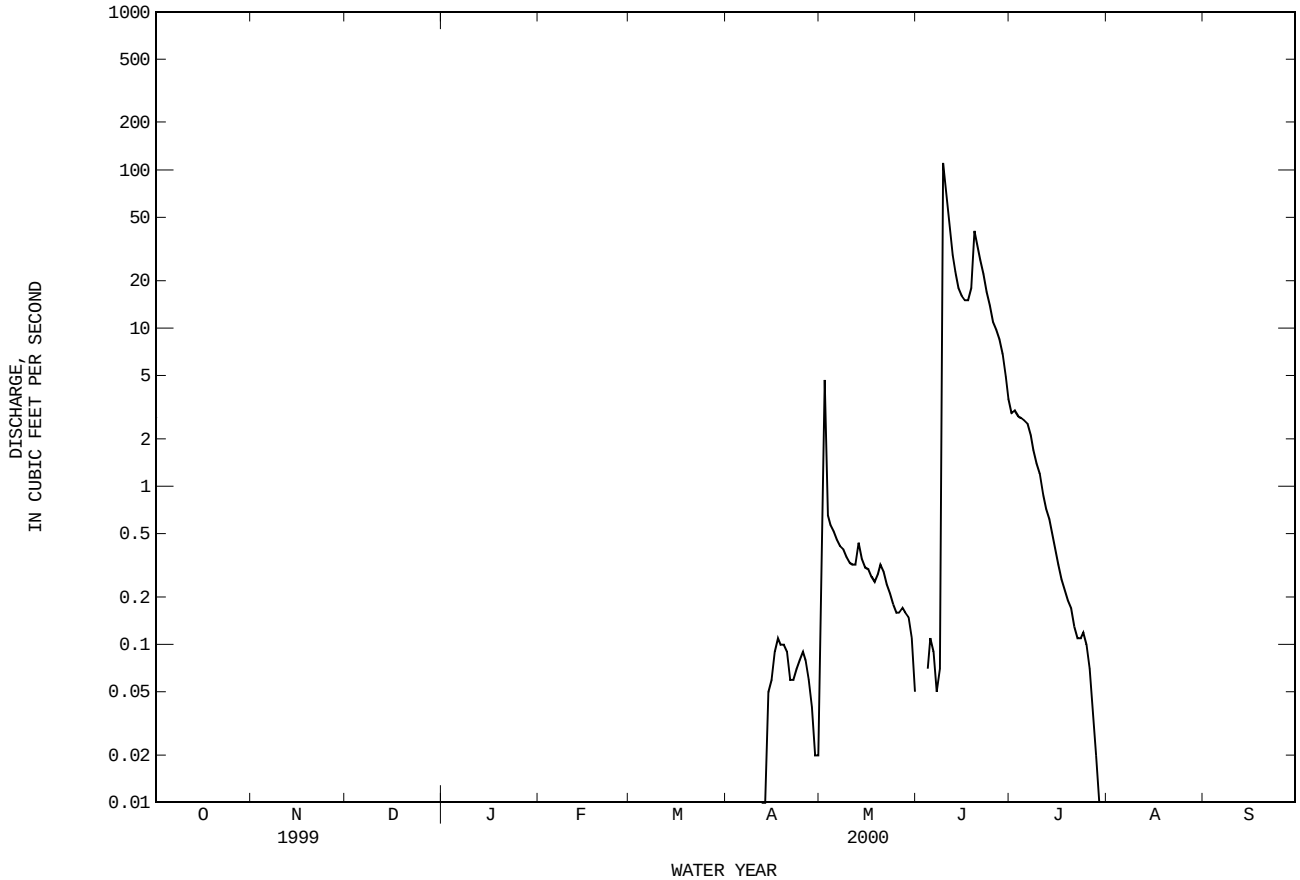
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000h, BY WATER YEAR (WY)

MEAN	23.1	17.0	49.8	44.7	61.9	61.0	45.1	66.7	100	12.4	2.78	2.13
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

08155200 BARTON CREEK AT STATE HIGHWAY 71 NEAR OAK HILL, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1978 - 2000h	
ANNUAL TOTAL	3017.84		603.00			
ANNUAL MEAN	8.27		1.65		43.2	
HIGHEST ANNUAL MEAN					182	1992
LOWEST ANNUAL MEAN					.17	1996
HIGHEST DAILY MEAN	92	Jun 21	111	Jun 9	4960	Dec 21 1991
LOWEST DAILY MEAN	.00	Aug 31	.00	Oct 1	.00	Feb 7 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 31	.00	Oct 1	.00	Feb 7 1978
INSTANTANEOUS PEAK FLOW			363	Jun 9	14900	Dec 20 1991
INSTANTANEOUS PEAK STAGE			4.60	Jun 9	18.10	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	5990		1200		31280	
ANNUAL RUNOFF (CFSM)	.092		.018		.48	
ANNUAL RUNOFF (INCHES)	1.25		.25		6.54	
10 PERCENT EXCEEDS	24		.63		88	
50 PERCENT EXCEEDS	3.4		.00		3.3	
90 PERCENT EXCEEDS	.00		.00		.00	

h See PERIOD OF RECORD paragraph.



08155200 BARTON CREEK AT STATE HIGHWAY 71 NEAR OAK HILL, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Apr 1978 to Sep 1982, Feb 1989 to current year.
BIOCHEMICAL DATA: Apr 1978 to Sep 1982, Feb 1989 to current year.
RADIOCHEMICAL DATA: Oct 1979 to Sep 1980.
PESTICIDE DATA: Apr 1978 to Sep 1982, Jan 1998 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler since Mar 3, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
MAY												
02-02	0005	7.2	--	515	7.7	--	20	25	--	--	13	25000
10...	0950	--	.36	597	7.6	23.5	10	.3	4.3	52	<10	60
JUN												
09-10	0930	127	--	289	7.8	--	500	230	--	--	37	14000
27...	0940	--	8.8	531	7.8	27.9	13	1.5	6.1	79	<10	57
JUL												
18...	1038	--	.25	542	7.7	27.8	8	1.4	4.4	57	<10	130

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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
MAY											
02-02	25000	184	--	35	2	33	<.010	.150	<.020	.44	.29
10...	88	--	220	<10	<10	--	<.010	<.050	<.020	--	.19
JUN											
09-10	21000	103	--	338	32	306	<.010	.185	<.020	1.6	1.4
27...	36	208	--	<10	<10	--	<.010	<.050	<.020	--	.18
JUL											
18...	100	207	--	<10	<10	--	<.010	<.050	<.020	--	.13

DATE	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)	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)
MAY											
02-02	<.050	<.050	<.010	--	5.4	--	--	<.1	E1	E1	<31
10...	<.050	<.050	<.010	--	1.9	.3	<.1	<.1	<1	<1	<31
JUN											
09-10	.203	<.050	.013	.040	16	--	--	.1	3	5	<31
27...	<.050	<.050	<.010	--	2.2	.4	<.1	<.1	<1	<1	<31
JUL											
18...	<.050	<.050	<.010	--	1.5	.2	<.1	<.1	<1	<1	<31

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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 Sep 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.--No estimated daily discharges. Records good except those below 15.0 ft^3/s, which are poor. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 9	1725	1,120	4.79	No other peak greater than base discharge.			

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

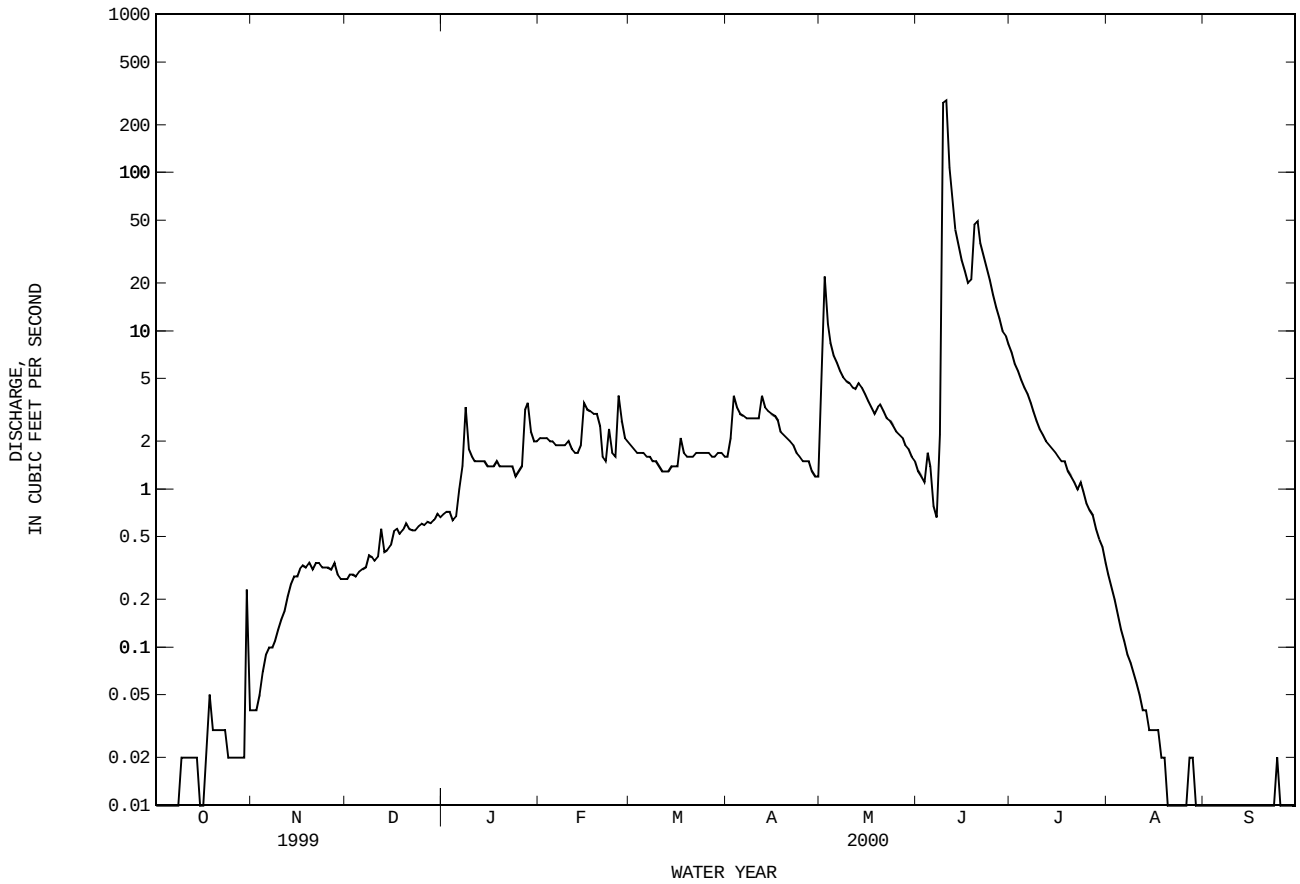
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.04	.27	.69	2.1	1.9	1.6	5.3	1.3	7.3	.29	.00
2	.01	.04	.29	.72	2.1	1.8	2.1	22	1.2	6.2	.24	.00
3	.01	.05	.29	.72	2.1	1.7	3.9	11	1.1	5.6	.20	.00
4	.00	.07	.28	.63	2.0	1.7	3.3	8.4	1.7	4.9	.16	.00
5	.00	.09	.30	.67	2.0	1.7	3.0	7.0	1.4	4.4	.13	.00
6	.00	.10	.31	1.0	1.9	1.6	2.9	6.3	.78	4.0	.11	.00
7	.00	.10	.32	1.4	1.9	1.6	2.8	5.6	.66	3.5	.09	.00
8	.00	.11	.38	3.3	1.9	1.5	2.8	5.1	2.2	3.1	.08	.00
9	.02	.13	.37	1.8	1.9	1.5	2.8	4.8	276	2.7	.07	.00
10	.02	.15	.35	1.6	2.0	1.4	2.8	4.7	284	2.4	.06	.00
11	.02	.17	.37	1.5	1.8	1.3	2.8	4.4	107	2.2	.05	.00
12	.02	.21	.56	1.5	1.7	1.3	3.9	4.3	63	2.0	.04	.00
13	.02	.25	.40	1.5	1.7	1.3	3.3	4.7	44	1.9	.04	.00
14	.02	.28	.41	1.5	1.9	1.4	3.1	4.4	35	1.8	.03	.00
15	.01	.28	.44	1.4	3.5	1.4	3.0	4.0	28	1.7	.03	.00
16	.01	.31	.54	1.4	3.2	1.4	2.9	3.6	24	1.6	.03	.00
17	.02	.33	.56	1.4	3.1	2.1	2.7	3.3	20	1.5	.03	.00
18	.05	.32	.52	1.5	3.0	1.7	2.3	3.0	21	1.5	.02	.00
19	.03	.34	.55	1.4	3.0	1.6	2.2	3.3	47	1.3	.02	.00
20	.03	.31	.61	1.4	2.5	1.6	2.1	3.4	49	1.2	.01	.00
21	.03	.34	.56	1.4	1.6	1.6	2.0	3.1	36	1.1	.01	.00
22	.03	.34	.55	1.4	1.5	1.7	1.9	2.8	30	1.0	.01	.00
23	.03	.32	.55	1.4	2.4	1.7	1.7	2.7	25	1.1	.01	.00
24	.02	.32	.58	1.2	1.7	1.7	1.6	2.5	21	.97	.01	.02
25	.02	.32	.60	1.3	1.6	1.7	1.5	2.3	17	.81	.01	.00
26	.02	.31	.59	1.4	3.9	1.7	1.5	2.2	14	.73	.01	.00
27	.02	.34	.62	3.2	2.7	1.6	1.5	2.1	12	.68	.02	.00
28	.02	.29	.61	3.5	2.1	1.6	1.3	1.9	10	.56	.02	.00
29	.02	.27	.64	2.3	2.0	1.7	1.2	1.8	9.3	.48	.01	.00
30	.23	.27	.70	2.0	---	1.7	1.2	1.6	8.3	.43	.00	.00
31	.04	---	.66	2.0	---	1.6	---	1.5	---	.34	.00	---
TOTAL	0.78	6.80	14.78	48.13	64.8	49.8	71.7	143.1	1190.94	69.00	1.84	0.02
MEAN	.025	.23	.48	1.55	2.23	1.61	2.39	4.62	39.7	2.23	.059	.001
MAX	.23	.34	.70	3.5	3.9	2.1	3.9	22	284	7.3	.29	.02
MIN	.00	.04	.27	.63	1.5	1.3	1.2	1.5	.66	.34	.00	.00
MED	.02	.28	.54	1.4	2.0	1.6	2.5	3.6	20	1.6	.03	.00
AC-FT	1.5	13	29	95	129	99	142	284	2360	137	3.6	.04
CFSM	.00	.00	.00	.01	.02	.02	.02	.04	.37	.02	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	30.9	23.0	76.4	63.3	92.6	73.1	57.7	89.5	113	13.1	3.48	2.99
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

08155240 BARTON CREEK AT LOST CREEK BOULEVARD, AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	3709.30		1661.69			
ANNUAL MEAN	10.2		4.54		54.6	
HIGHEST ANNUAL MEAN					212	1992
LOWEST ANNUAL MEAN					1.14	1996
HIGHEST DAILY MEAN	106	May 27	284	Jun 10	7000	Dec 21 1991
LOWEST DAILY MEAN	.00	Oct 4	.00	Oct 4	.00	Aug 24 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 2	.00	Aug 30	.00	Aug 24 1993
INSTANTANEOUS PEAK FLOW			1120	Jun 9	16400	Dec 21 1991
INSTANTANEOUS PEAK STAGE			4.79	Jun 9	12.90	Dec 21 1991
ANNUAL RUNOFF (AC-FT)	7360		3300		39590	
ANNUAL RUNOFF (CFSM)	.095		.042		.51	
10 PERCENT EXCEEDS	28		4.7		121	
50 PERCENT EXCEEDS	5.3		1.3		4.9	
90 PERCENT EXCEEDS	.03		.01		.19	



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 since Feb 13, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
APR												
11...	0910	--	2.7	773	7.6	19.0	10	.35	6.4	70	<10	88
MAY												
10...	1035	--	4.8	743	7.6	24.5	8	.30	5.3	65	<10	60
JUN												
09-09	1155	511	--	396	7.8	--	200	88	--	--	33	4000
27...	1040	--	13	590	7.7	28.4	9	.70	6.2	81	<10	680
JUL												
18...	1130	--	1.6	692	7.7	28.5	11	.90	5.6	73	<10	45

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
APR											
11...	--	190	3	1	2	<.010	.092	.025	--	--	E.06
MAY											
10...	--	210	<10	<10	--	<.010	.063	.030	.33	.24	.27
JUN											
09-09	125	--	204	31	173	<.010	.442	.022	1.6	1.2	1.2
27...	200	--	<10	<10	--	<.010	.102	<.020	.29	--	.19
JUL											
18...	212	--	<10	<10	--	<.010	<.050	.045	--	.19	.24

DATE	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)	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)
APR											
11...	<.050	<.050	<.010	--	2.2	<.100	<.100	<1	<1	<1	E22
MAY											
10...	<.050	<.050	<.010	--	2.8	.580	<.100	<1	<1	<1	<31
JUN											
09-09	.183	E.031	.015	.05	14	--	--	<1	3	3	<31
27...	<.050	<.050	<.010	--	2.6	.160	<.100	<1	<1	<1	<31
JUL											
18...	<.050	<.050	<.010	--	2.9	.600	<.100	<1	<1	<1	<31

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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.--Jun 1975 to Jan 1977 (periodic gage heights and discharge measurements), 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.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 9	1900	1,030	6.11	No other peak greater than base discharge.			

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

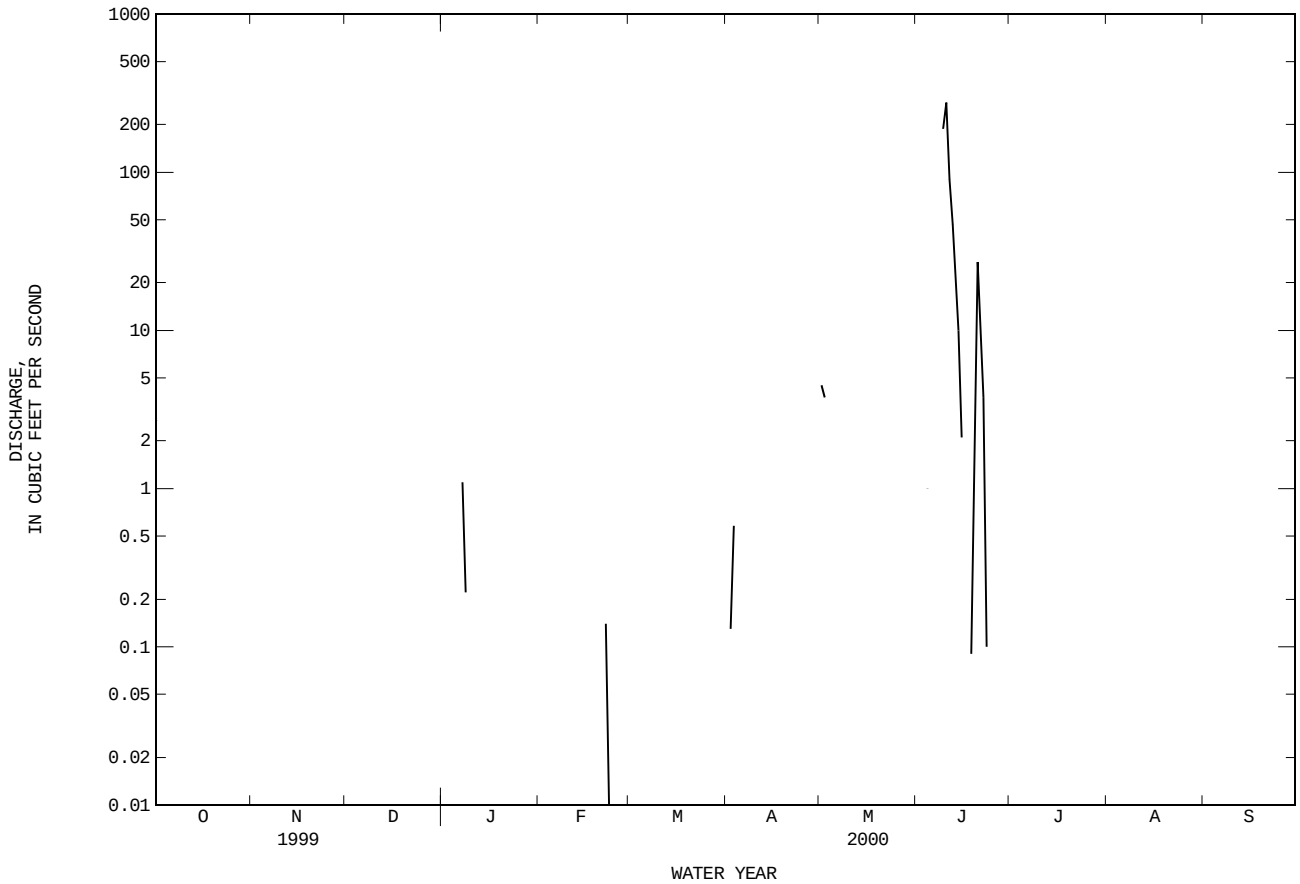
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	4.5	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.13	3.8	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.58	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.22	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	187	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	275	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	90	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	47	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	21	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.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	.09	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.01	4.0	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	27	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	.00
22	.00	.00	.00	.00	.14	.00	.00	.00	3.8	.00	.00	.00
23	.00	.00	.00	.00	.01	.00	.00	.00	.10	.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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.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	1.32	0.15	0.00	0.71	8.31	680.09	0.00	0.00	0.00
MEAN	.000	.000	.000	.043	.005	.000	.024	.27	22.7	.000	.000	.000
MAX	.00	.00	.00	1.1	.14	.00	.58	4.5	275	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	2.6	.3	.00	1.4	16	1350	.00	.00	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2000, BY WATER YEAR (WY)

MEAN	27.4	16.3	70.0	39.2	61.6	52.5	47.2	76.7	151	7.94	.72	.49
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

08155300 BARTON CREEK AT LOOP 360, AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1977 - 2000	
ANNUAL TOTAL	648.41		690.58			
ANNUAL MEAN	1.78		1.89		45.3	
HIGHEST ANNUAL MEAN					229	1992
LOWEST ANNUAL MEAN					.000	1978
HIGHEST DAILY MEAN	63	Jun 23	275	Jun 10	10800	Dec 21 1991
LOWEST DAILY MEAN	.00	Feb 2	.00	Oct 1	.00	Apr 11 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 2	.00	Oct 1	.00	Jun 10 1977
INSTANTANEOUS PEAK FLOW			1030	Jun 9	18100	May 25 1981
INSTANTANEOUS PEAK STAGE			6.11	Jun 9	15.03	May 25 1981
ANNUAL RUNOFF (AC-FT)	1290		1370		32850	
ANNUAL RUNOFF (CFSM)	.015		.016		.39	
ANNUAL RUNOFF (INCHES)	.21		.22		5.31	
10 PERCENT EXCEEDS	2.2		.00		95	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	



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 Sep 1986.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
JUN									
09-10	1525	432	295	7.6	120	68	30	11000	100

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
JUN									
09-10	104	12	92	<.010	.363	<.020	1.2	.85	.107

DATE	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)
JUN								
09-10	<.050	.017	.05	12	<1	3	2	E20

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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 approimately 200 ft above Barton Springs Pool.

DRAINAGE AREA.--125 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Sep 1981 to Oct 1984 (discharge measurements), Sep 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 430.5 ft above sea level. Satellite telemeter at station.

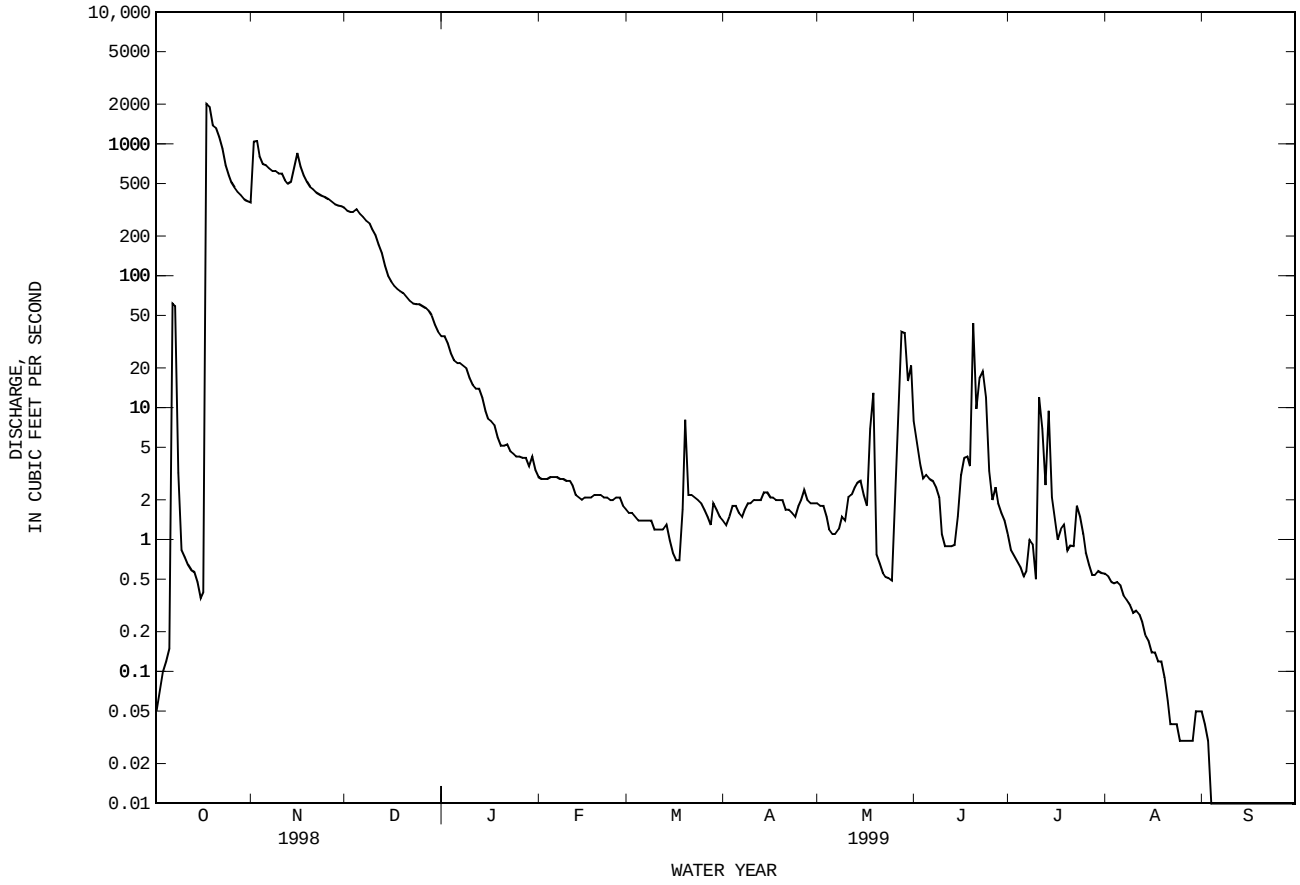
REMARKS.--Records fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR WATER YEAR 1999.--Maximum discharge, 7,300 ft^3/s, Oct 17, gage height, 14.71 ft; minimum discharge, no flow on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	1050	314	35	2.9	1.6	1.3	1.8	5.4	.84	.53	.04
2	.07	1060	306	31	2.9	1.6	1.5	1.8	3.8	.76	.48	.03
3	.10	814	305	26	2.9	1.5	1.8	1.5	2.9	.68	.47	.01
4	.12	708	321	23	3.0	1.4	1.8	1.2	3.1	.62	.48	.00
5	.15	697	297	22	3.0	1.4	1.6	1.1	2.9	.53	.45	.01
6	62	653	280	22	3.0	1.4	1.5	1.1	2.8	.58	.38	.00
7	59	624	263	21	2.9	1.4	1.7	1.2	2.5	1.0	.35	.00
8	3.2	625	e250	20	2.9	1.4	1.9	1.5	2.1	.92	.32	.00
9	.84	603	e227	17	2.8	1.2	1.9	1.4	1.1	.50	.28	.00
10	.74	598	e205	15	2.8	1.2	2.0	2.1	.89	12	.29	.00
11	.65	530	e173	14	2.6	1.2	2.0	2.2	.89	6.9	.27	.00
12	.59	499	150	14	2.2	1.2	2.0	2.5	.89	2.6	.24	.00
13	.57	519	120	12	2.1	1.3	2.3	2.7	.91	9.5	.19	.00
14	.48	666	100	9.5	2.0	.99	2.3	2.8	1.5	2.1	.17	.00
15	.36	856	91	8.3	2.1	.79	2.1	2.2	3.1	1.4	.14	.00
16	.40	676	84	7.9	2.1	.70	2.1	1.8	4.2	1.0	.14	.00
17	2040	583	79	7.4	2.1	.70	2.0	6.9	4.3	1.2	.12	.00
18	1910	519	77	6.0	2.2	1.7	2.0	13	3.6	1.3	.12	.00
19	1380	473	74	5.2	2.2	8.1	2.0	.77	44	.83	.09	.00
20	1330	456	69	5.2	2.2	2.2	1.7	.66	9.8	.90	.06	.00
21	1140	436	65	5.3	2.1	2.2	1.7	.56	17	e.89	.04	.00
22	929	420	62	4.7	2.1	2.1	1.6	.52	19	e1.8	.04	.00
23	691	407	61	4.5	2.0	2.0	1.5	.51	12	1.5	.04	.00
24	580	395	61	4.3	2.0	1.9	1.8	.49	3.3	1.1	.03	.00
25	515	383	59	4.3	2.1	1.7	2.0	2.1	2.0	.80	.03	.00
26	471	365	57	4.2	2.1	1.5	2.4	8.7	2.5	.65	.03	.00
27	435	351	55	4.2	1.8	1.3	2.0	38	1.9	.54	.03	.00
28	410	344	50	3.6	1.7	1.9	1.9	37	1.6	.54	.03	.00
29	384	338	43	4.3	---	1.7	1.9	16	1.4	.58	.05	.00
30	370	331	38	3.4	---	1.5	1.9	21	1.1	.56	.05	.00
31	362	---	35	3.0	---	1.4	---	7.9	---	.55	.05	---
TOTAL	13076.32	16979	4371	367.3	66.8	52.18	56.2	183.01	162.48	55.67	5.99	0.09
MEAN	422	566	141	11.8	2.39	1.68	1.87	5.90	5.42	1.80	.19	.003
MAX	2040	1060	321	35	3.0	8.1	2.4	38	44	12	.53	.04
MIN	.05	331	35	3.0	1.7	.70	1.3	.49	.89	.50	.03	.00
AC-FT	25940	33680	8670	729	132	103	111	363	322	110	12	.2

08155400 BARTON CREEK ABOVE BARTON SPRINGS, AUSTIN, TX--Continued



08155400 BARTON CREEK ABOVE BARTON SPRINGS, AUSTIN, TX--Continued

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

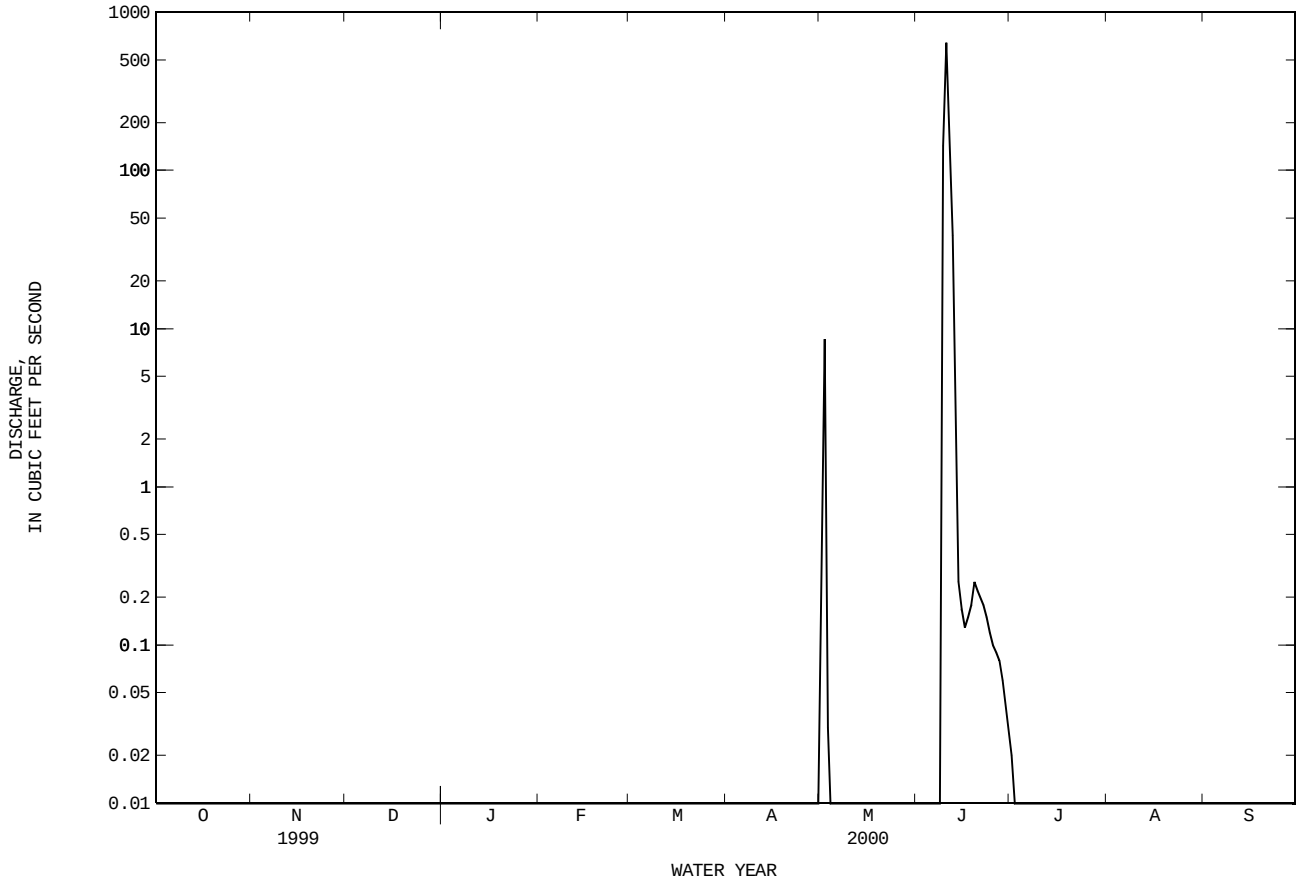
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.02	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	8.6	.00	.01	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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	143	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	644	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	141	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	39	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	4.2	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.03	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.63	973.60	0.03	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.31	32.5	.001	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	8.6	644	.02	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	19	1930	.06	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2000, BY WATER YEAR (WY)

MEAN	211	283	70.5	5.92	1.17	.84	.94	3.11	18.9	.90	.097	.002
MAX	422	566	141	11.8	2.39	1.68	1.87	5.90	32.5	1.80	.19	.003
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	2000	1999	1999	1999
MIN	.000	.000	.000	.000	.000	.000	.000	.31	5.42	.001	.000	.000
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	1999	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1998 - 2000	
ANNUAL TOTAL	949.72		983.26			
ANNUAL MEAN	2.60		2.69		49.7	
HIGHEST ANNUAL MEAN					96.9	1999
LOWEST ANNUAL MEAN					2.69	2000
HIGHEST DAILY MEAN	44	Jun 19	644	Jun 10	2040	Oct 17 1998
LOWEST DAILY MEAN	.00	Sep 4	.00	Oct 1	.00	Sep 4 1999
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 6	.00	Oct 1	.00	Sep 6 1999
INSTANTANEOUS PEAK FLOW			1220	Jun 9	1220	Jun 9 2000
INSTANTANEOUS PEAK STAGE			9.54	Jun 9	9.54	Jun 9 2000
ANNUAL RUNOFF (AC-FT)	1880		1950		36030	
10 PERCENT EXCEEDS	5.3		.00		59	
50 PERCENT EXCEEDS	.91		.00		.02	
90 PERCENT EXCEEDS	.00		.00		.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 Sep 1999.

INSTRUMENTATION.--Stage-activated automatic sampler since Mar 11, 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
MAY												
02-02	0135	36	--	159	7.3	--	65	20	--	--	24	23000
JUN												
09-10	2050	854	--	359	7.8	--	80	27	--	--	22	21000
26...	1015	--	.09	612	7.3	24.8	11	.50	5.6	68	<10	K300

DATE	E. COLI WATER WHOLE TOTAL UREASE (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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
MAY												
02-02	36000	58	25	3	22	.784	.029	.813	.132	2.0	1.0	1.2
JUN												
09-10	11000	116	33	<10	--	--	<.010	.390	<.020	.99	--	.60
26...	240	265	<10	<10	--	1.14	.014	1.15	<.020	1.3	--	.14

DATE	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)	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)
MAY											
02-02	.177	.088	.074	.23	10	--	--	M	3	4	E21
JUN											
09-10	.056	<.050	<.010	--	8.3	--	--	M	1	1	E19
26...	<.050	<.050	<.010	--	1.4	.370	<.100	<1	<1	<1	<31

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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 Sep 1918 (published as "Barton Creek at Austin, TX"), Mar 1978 to 1994 (daily mean discharge), Oct 1994 to Sep 1999 (discharge at 1200 hours), Oct 1999 to Sep 2000.

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 Sep 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 Sep 30, 1999, daily flow has been determined using the recorded level at 1200 hrs. Beginning Oct 1, 1999, flow is determined from daily mean. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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	37	33	29	28	28	28	25	27	20	48	32	22
2	36	32	29	28	29	28	26	39	20	48	32	24
3	36	33	30	28	29	28	30	39	21	47	31	23
4	36	33	30	28	28	28	31	35	23	46	29	23
5	36	31	29	28	28	28	29	33	26	45	29	22
6	35	31	30	27	27	27	28	31	25	44	28	22
7	34	31	30	29	27	27	27	30	24	43	28	21
8	34	30	30	34	27	28	26	28	21	43	28	19
9	34	30	30	33	27	28	26	27	37	43	29	20
10	34	31	29	31	27	27	26	26	63	42	29	20
11	34	31	29	30	26	27	26	25	65	42	28	21
12	33	30	30	30	26	26	28	24	e64	41	28	20
13	33	30	30	29	26	26	28	24	e63	34	28	22
14	33	30	30	29	26	26	27	24	e62	36	26	20
15	33	30	30	29	25	26	27	24	e61	35	24	19
16	33	31	30	29	25	26	26	24	e61	36	24	19
17	33	31	29	28	25	28	26	24	60	36	23	25
18	33	31	28	28	25	29	26	23	59	36	24	25
19	33	31	28	28	25	28	25	23	59	35	25	24
20	33	31	28	28	25	28	24	25	63	34	25	24
21	33	31	29	29	25	28	24	24	64	34	24	21
22	32	30	29	29	25	28	24	23	63	33	24	18
23	32	30	28	29	29	27	24	22	61	33	26	19
24	32	31	28	28	29	26	24	22	57	33	25	19
25	32	31	28	28	27	26	23	21	56	33	25	19
26	32	31	28	27	29	26	23	22	55	32	25	20
27	32	31	28	28	29	26	22	22	54	32	25	21
28	31	30	28	30	28	26	22	22	53	32	25	20
29	31	29	29	29	28	26	21	22	51	33	24	19
30	31	29	29	29	---	26	18	21	49	33	24	21
31	34	---	28	28	---	26	---	21	---	33	24	---
TOTAL	1035	924	900	896	780	838	762	797	1460	1175	821	632
MEAN	33.4	30.8	29.0	28.9	26.9	27.0	25.4	25.7	48.7	37.9	26.5	21.1
MAX	37	33	30	34	29	29	31	39	65	48	32	25
MIN	31	29	28	27	25	26	18	21	20	32	23	18
AC-FT	2050	1830	1790	1780	1550	1660	1510	1580	2900	2330	1630	1250

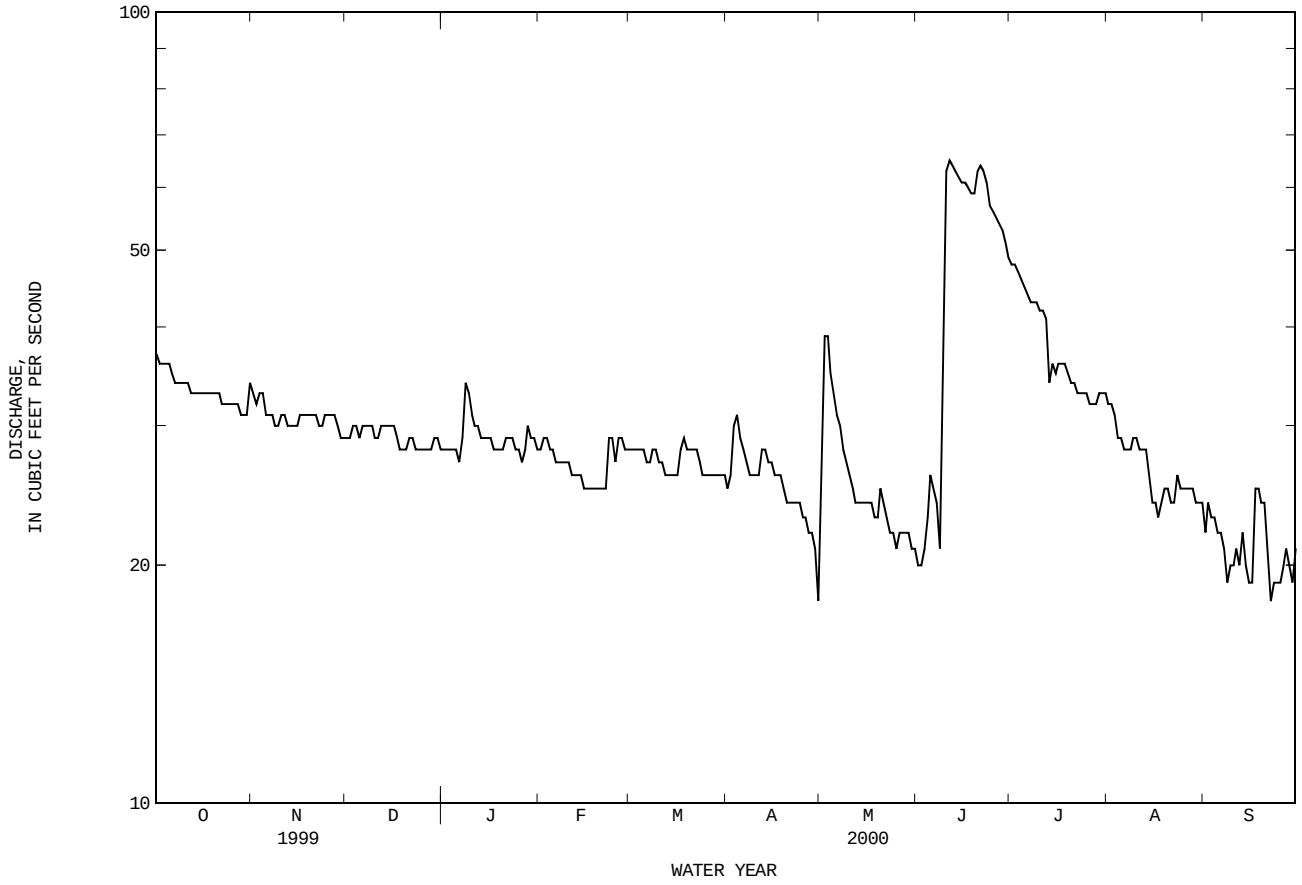
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

MEAN	53.7	52.2	53.2	56.8	60.3	60.9	61.8	66.0	69.8	64.5	58.9	53.3
MAX	116	103	97.9	96.9	120	106	108	108	106	103	126	123
(WY)	1993	1993	1993	1993	1992	1993	1993	1993	1987	1987	1992	1992
MIN	18.5	20.6	18.2	15.8	16.8	21.6	25.4	25.7	27.5	21.3	22.4	21.1
(WY)	1990	1990	1990	1990	1990	1990	2000	2000	1984	1978	1978	2000

SUMMARY STATISTICS	FOR 2000 WATER YEAR		WATER YEARS 1978 - 2000	
ANNUAL TOTAL	11020			
ANNUAL MEAN	30.1		60.4	
HIGHEST ANNUAL MEAN			99.3	1993
LOWEST ANNUAL MEAN			26.8	1990
HIGHEST DAILY MEAN	65	Jun 11	130	Dec 24 1991
LOWEST DAILY MEAN	18	Apr 30	14	Dec 30 1989
ANNUAL SEVEN-DAY MINIMUM	19	Sep 22	15	Jan 9 1990
INSTANTANEOUS PEAK FLOW	84	Jun 9	130	Dec 24 1991
INSTANTANEOUS PEAK STAGE	24.31	Jun 9	24.31	Jun 9 2000
ANNUAL RUNOFF (AC-FT)	21860		43780	
10 PERCENT EXCEEDS	37		100	
50 PERCENT EXCEEDS	28		56	
90 PERCENT EXCEEDS	22		25	

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, Jun 1941 to Feb 1959, Dec 1978 to current year.
BIOCHEMICAL DATA: Dec 1978 to current year.
RADIOCHEMICAL DATA: Jan to Sep 1980.
PESTICIDE DATA: Dec 1978 to Nov 1994, Aug 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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 WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)
APR												
11...	1025	25	705	7.1	21.5	5	.55	4.6	53	<10	K16	K17
MAY												
01...	1055	28	--	--	--	--	--	--	--	--	--	--
01...	1200	29	--	--	--	--	--	--	--	--	--	--
01...	1820	31	--	--	--	--	--	--	--	--	--	--
01...	2305	32	--	--	--	--	--	--	--	--	--	--
02...	0200	34	--	--	--	--	--	--	--	--	--	--
02...	1145	40	--	--	--	--	--	--	--	--	--	--
02...	1420	41	--	--	--	--	--	--	--	--	--	--
02...	1812	41	--	--	--	--	--	--	--	--	--	--
03...	1240	38	--	--	--	--	--	--	--	--	--	--
04...	1015	31	--	--	--	--	--	--	--	--	--	--
08...	1300	28	--	--	--	--	--	--	--	--	--	--
JUN												
09...	1940	45	--	--	--	--	--	--	--	--	--	--
09...	2035	48	--	--	--	--	--	--	--	--	--	--
10...	0845	62	625	7.4	--	50	22	--	--	<10	--	--
10...	1020	62	--	--	--	--	--	--	--	--	--	--
10...	1030	62	--	--	--	--	--	--	--	--	--	--
JUL												
05...	0930	46	--	--	--	--	--	--	--	--	--	--
18...	1240	35	667	7.1	21.6	3	.90	5.0	57	<10	58	34
SEP												
25...	1400	17	716	--	23.2	--	--	--	--	--	--	--

DATE	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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	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)
APR												
11...	--	240	2	<1	<.010	1.52	<.020	1.8	.24	E.034	<.050	.010
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	275	--	19	<10	<.010	1.63	<.020	--	E.08	E.032	<.050	.014
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--
18...	253	--	<10	<10	<.010	1.51	<.020	--	E.06	<.050	<.050	.010
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	P,P' DDE DISSOLV (UG/L) (34653)
APR												
11...	.03	1.7	<.100	<.100	<1	<1	--	<1	<31	--	--	--
MAY												
01...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
01...	--	--	--	--	--	--	42000	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
01...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
02...	--	--	--	--	--	--	36000	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	<.0100	<.0040	<.0060
02...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
02...	--	--	--	--	--	--	--	--	--	.0069	<.0040	<.0060
03...	--	--	--	--	--	--	--	--	--	<.0100	<.0040	<.0060
04...	--	--	--	--	--	--	--	--	--	.0110	<.0040	<.0060
08...	--	--	--	--	--	--	--	--	--	.0132	<.0040	<.0060
JUN												
09...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
09...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
10...	.04	1.6	--	--	<1	1	--	E1	<31	--	--	--
10...	--	--	--	--	--	--	31000	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	.0085	<.0040	<.0060
JUL												
05...	--	--	--	--	--	--	--	--	--	<.0050	<.0040	<.0060
18...	.03	1.1	<.100	<.100	<1	<1	--	<1	<31	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	PARA-THION, DIS-SOLVED (UG/L) (39542)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	FONOFOS WATER DISS REC (UG/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
APR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
01...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
01...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
02...	<.001	<.004	<.002	<.0030	<.0020	<.0900	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
02...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
03...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
04...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
08...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	E.0034	<.0030	<.0040	<.002
JUN												
09...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
09...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
JUL												
05...	<.001	<.004	<.002	<.0030	<.0020	<.0060	<.0100	<.0020	<.0180	<.0030	<.0040	<.002
18...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	MALA-THION, DIS-SOLVED (UG/L) (39532)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
APR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
01...	<.002	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0079	<.0020	<.004	<.005	.007
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	<.002	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0093	<.0020	<.004	<.005	.008
01...	.009	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0128	<.0020	<.004	<.005	.107
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	.021	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0247	<.0020	<.004	<.005	.268
02...	.023	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0228	<.0020	<.004	<.005	.398
02...	.028	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0333	<.0020	<.004	<.005	.452
03...	.019	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0247	<.0020	<.004	<.005	.542
04...	.007	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0244	<.0020	<.004	<.005	.555
08...	<.002	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0176	<.0020	<.004	<.005	.248
JUN												
09...	<.002	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0162	<.0020	<.004	<.005	.023
09...	<.002	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0151	<.0020	<.004	<.005	.027
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	.009	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0350	<.0020	<.004	<.005	.089
JUL												
05...	<.002	<.0020	<.0020	<.0070	<.0020	<.0040	<.0030	E.0122	<.0020	<.004	<.005	.015
18...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
01...	--	--	--	--	--	--	--	--	--	--	--
01...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
01...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
02...	--	--	--	--	--	--	--	--	--	--	--
02...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
02...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
02...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
03...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
04...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
08...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
JUN											
09...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
09...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	<.004	<.0040	<.0020	<.0100	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
JUL											
05...	<.004	<.0040	<.0020	<.0040	<.0030	<.0130	<.0070	<.0020	<.0030	<.0010	<.0040
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

08155500 BARTON SPRINGS AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	SET NUMBER SCHED-ULE 2010 (NO.) (99819)	SAMPLE VOLUME SCHED-ULE 2010 (ML) (99857)
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	<.0030	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	95.5	87.7	133.04	854
01...	--	--	--	--	--	--	--	--	--	--	--
01...	<.0030	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	88.8	90.0	133.04	862
01...	E.0065	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	92.2	87.3	133.04	862
02...	--	--	--	--	--	--	--	--	--	--	--
02...	E.0106	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	97.5	96.0	133.04	892
02...	E.0090	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	118	86.8	136.08	909
02...	E.0124	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	94.2	93.5	133.04	900
03...	E.0126	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	98.4	90.7	133.04	840
04...	E.0066	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	95.0	92.8	133.04	833
08...	<.0030	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	89.6	84.5	200.01	909
JUN											
09...	<.0030	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	67.3	79.4	179.02	806
09...	<.0030	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	110	81.5	174.04	869
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	E.0374	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	100	93.7	179.02	909
JUL											
05...	<.0030	<.0020	<.0020	<.0040	<.0030	<.0010	<.0050	92.9	85.1	200.01	909
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

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 Sep 1984 (periodic discharge measurements and annual maximum stage), 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 good. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 1	0535	1,460	7.20	Jun 4	1535	1,070	6.02
May 2	0045	1,930	8.56	Sep 13	1845	1,080	6.06

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	.00	.00	.00	.00	.03	.00	.00	149	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	14	178	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	87	2.1	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	1.1	.02	56	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	115	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	52	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	1.1	.00	.00	.00	.00	67	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	54	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	7.8	.00	.00	.00
12	.00	.00	28	.00	.00	.00	35	.01	.00	.00	.00	.00
13	.00	.00	.26	.00	.00	.00	.67	8.8	.00	.00	.00	49
14	.00	.00	.00	.00	.00	.00	.00	.00	3.2	.00	.00	35
15	.00	.00	.00	.00	.00	.00	.00	.00	.54	.00	.00	3.3
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	31	.00	.00	.00	.00	.00	.00
18	2.7	.00	.00	.00	.00	.28	.00	.00	24	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.02	59	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.23	1.1	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.8
22	.00	.00	.00	.00	2.2	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	46	.00	.00	.00	.00	22	.00	.00
24	.00	.00	.00	.00	.13	.00	.00	.00	.00	.36	.00	3.2
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.4
26	.00	.00	.00	.00	37	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	72	1.1	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	3.8	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.07	.00	8.0	.00	.00	.00	.00	.00	.00
30	41	.00	.00	.00	---	.09	.00	.00	.00	.00	.00	.00
31	.59	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	44.29	0.00	28.26	243.97	86.46	39.37	137.77	338.18	275.04	22.36	0.00	99.70
MEAN	1.43	.000	.91	7.87	2.98	1.27	4.59	10.9	9.17	.72	.000	3.32
MAX	41	.00	28	115	46	31	87	178	67	22	.00	49
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	88	.00	56	484	171	78	273	671	546	44	.00	198
CFSM	.12	.00	.07	.64	.24	.10	.37	.89	.75	.06	.00	.27
IN.	.13	.00	.09	.74	.26	.12	.42	1.02	.83	.07	.00	.30

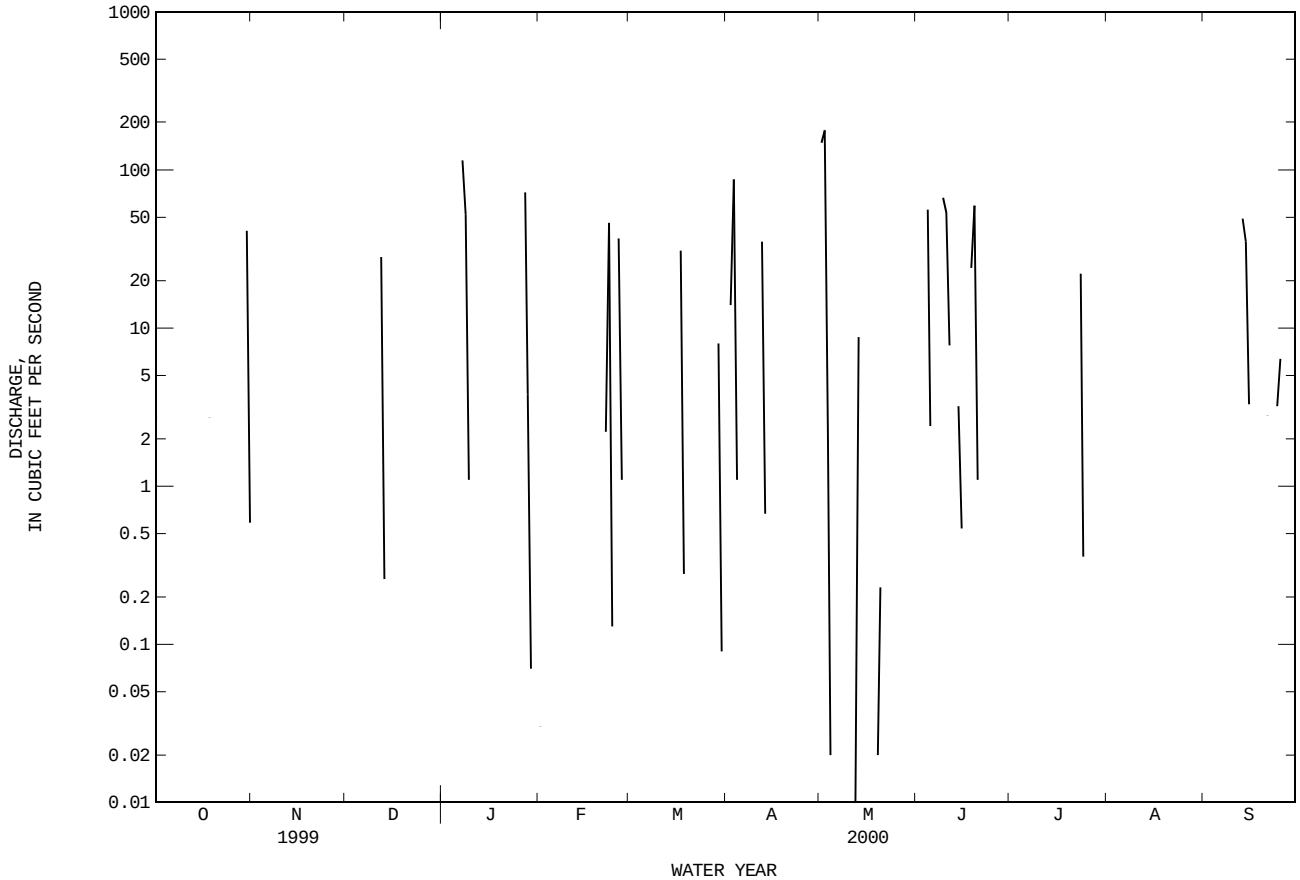
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2000h, BY WATER YEAR (WY)

MEAN	13.6	5.75	9.80	5.24	5.70	5.04	5.38	16.3	11.0	2.38	5.71	5.21
MAX	67.6	14.9	70.8	22.6	29.2	15.5	18.2	38.7	46.1	11.9	38.9	12.5
(WY)	1999	1986	1992	1991	1992	1995	1997	1995	1987	1987	1996	1986
MIN	.22	.000	.065	.000	.000	.012	.41	.11	.82	.000	.000	.000
(WY)	1997	2000	1996	1996	1999	1996	1998	1998	1998	1989	1993	1999

08156800 SHOAL CREEK AT 12TH STREET, AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1985 - 2000h	
ANNUAL TOTAL	1035.05		1315.40			
ANNUAL MEAN	2.84		3.59		7.62	
HIGHEST ANNUAL MEAN					15.7	1992
LOWEST ANNUAL MEAN					3.26	1988
HIGHEST DAILY MEAN	149	May 17	178	May 2	1030	Oct 17 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	May 6 1985
INSTANTANEOUS PEAK FLOW			1930	May 2	h16000	May 24 1981
INSTANTANEOUS PEAK STAGE			8.56	May 2	h23.11	May 24 1981
ANNUAL RUNOFF (AC-FT)	2050		2610		5520	
ANNUAL RUNOFF (CFSM)	.23		.29		.62	
ANNUAL RUNOFF (INCHES)	3.13		3.98		8.41	
10 PERCENT EXCEEDS	1.1		1.1		12	
50 PERCENT EXCEEDS	.00		.00		.01	
90 PERCENT EXCEEDS	.00		.00		.00	

h See PERIOD OF RECORD paragraph.



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 Sep 1985, Jan 1993 to May 1996, Dec 1997 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler since May 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
OCT											
18-18	1515	14	--	308	6.9	--	60	6.7	--	--	63
18...	1520	40	--	--	--	--	--	--	--	--	--
18...	1620	42	--	--	--	--	--	--	--	--	--
OCT											
30-30	1131	81	--	294	7.7	19.0	200	450	--	--	76
30...	1215	41	--	--	--	--	--	--	--	--	--
30...	1335	439	--	--	--	--	--	--	--	--	--
30...	1410	430	--	--	--	--	--	--	--	--	--
30...	1510	152	--	--	--	--	--	--	--	--	--
DEC											
12-12	0553	38	--	342	7.5	--	240	63	--	--	73
SEP											
15...	0845	--	.38	293	7.5	25.5	40	5.5	6.4	79	17

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	E. COLI WATER WHOLE TOTAL UREASE (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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
OCT											
18-18	K790000	160000	--	--	57	38	12	26	.845	.032	.877
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
OCT											
30-30	52000	70000	--	--	54	1000	45	960	.760	.038	.798
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
12-12	94000	--	100000	--	66	254	32	222	.604	.019	.623
SEP											
15...	50000	--	74000	86	--	14	<10	--	.619	.024	.643

DATE	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)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)
OCT										
18-18	.080	3.0	2.0	2.1	.434	.193	.162	.50	21	--
18...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
OCT										
30-30	.067	3.6	2.7	2.8	.849	.081	.062	.19	18	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
DEC										
12-12	.026	2.5	1.8	1.8	.427	.076	.070	.21	22	--
SEP										
15...	<.020	1.1	--	.48	.089	.052	.038	.12	7.5	.450

08156800 SHOAL CREEK AT 12TH STREET, AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	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)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
OCT										
18-18	--	--	--	--	--	M	--	--	--	10
18...	--	14	<1.0	22	<1.0	--	<1.0	.90	<1.0	--
18...	--	11	<1.0	30	<1.0	--	<1.0	.90	<1.0	--
OCT										
30-30	--	--	--	--	--	M	--	--	--	17
30...	--	84	<1.0	55	<1.0	--	<1.0	2.2	<1.0	--
30...	--	29	<1.0	35	<1.0	--	<1.0	.96	<1.0	--
30...	--	38	<1.0	27	<1.0	--	<1.0	1.0	<1.0	--
30...	--	37	<1.0	26	<1.0	--	<1.0	.98	<1.0	--
DEC										
12-12	--	--	--	--	--	M	--	--	--	10
SEP										
15...	<.100	--	--	--	--	<1	--	--	--	3

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
OCT										
18-18	--	11	--	--	--	--	--	46	--	--
18...	8.3	--	2.8	33	<1.0	3.9	<1.0	--	41	<1.0
18...	5.7	--	1.2	26	<1.0	2.9	<1.0	--	24	<1.0
OCT										
30-30	--	26	--	--	--	--	--	120	--	--
30...	2.8	--	<1.0	36	13	7.3	<1.0	--	29	<1.0
30...	2.5	--	<1.0	9.0	6.9	5.5	<1.0	--	7.1	<1.0
30...	3.0	--	<1.0	4.7	4.5	6.0	<1.0	--	8.5	<1.0
30...	2.6	--	<1.0	3.1	7.4	4.1	<1.0	--	5.6	<1.0
DEC										
12-12	--	15	--	--	--	--	--	53	--	--
SEP										
15...	--	1	--	--	--	--	--	<31	--	--

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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Apr 1997 to current year.

GAGE.--Water-stage recorder. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversion. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.21	.75	1.2	.69	.22	.28	29	.00	.00	.03	.00
2	.04	.19	.71	1.2	.89	.17	3.1	16	.00	.00	.03	.00
3	.00	.21	.76	1.2	.27	.18	5.4	.36	.00	.00	.02	.00
4	.01	.23	1.4	1.2	.23	.19	.22	.24	15	.00	.02	.00
5	.01	.22	.55	1.4	.23	.18	.21	.20	.30	.00	.02	e.00
6	.01	.22	.65	1.5	.24	.17	.22	.17	.10	.00	.02	e.00
7	.01	.21	.70	22	.23	.19	.22	.16	.02	.00	.01	e.00
8	.01	.26	.81	2.7	.23	.74	.21	.14	.07	.00	.01	e.00
9	.00	.20	.61	.30	.24	.17	.21	.13	17	.00	.00	e.00
10	.00	.25	.57	.29	.21	.17	.20	.13	4.9	.00	.01	e.00
11	.01	.23	.92	.33	.22	.20	.67	.13	.50	.01	.02	e.00
12	.02	.24	10	.28	.21	.20	11	.51	2.7	.01	.00	e.00
13	.02	.22	.62	.26	.20	.21	.19	1.1	.53	.00	.00	e.00
14	.01	.20	.55	.26	.20	.19	.18	.02	.18	.00	.00	.01
15	.01	.20	.61	.26	.20	.17	.18	.00	.15	.01	.01	.00
16	.01	.20	.65	.26	.21	.25	.17	.00	.08	.01	.00	.00
17	1.5	.22	.68	.26	.19	7.7	.17	.00	.07	.00	.00	.00
18	4.3	.27	.73	.25	.22	.25	.15	.00	8.5	.00	.00	.00
19	.31	.34	.81	.19	.20	.20	.16	2.3	8.9	.00	.00	.00
20	.19	.48	2.9	.22	.21	.17	.36	.16	.27	.00	.00	.00
21	.14	.34	1.2	.23	.21	.21	.11	.00	.17	.00	.00	1.2
22	.14	.32	.79	.20	8.8	.54	.11	.00	.14	.00	1.6	.16
23	.14	.40	.76	.20	2.6	.17	.11	.00	.10	3.7	.19	.09
24	.15	.89	.79	.22	.32	.15	.11	.00	.07	.03	.12	.48
25	.15	1.0	.86	.25	.20	.14	.11	.00	.04	.00	.08	1.1
26	.15	.69	.91	.24	4.7	.13	.10	.00	.03	.00	.05	.10
27	.19	.68	.94	9.6	.24	.13	.06	.02	.04	.00	.05	.08
28	.20	.68	.99	.34	.22	.13	.07	.03	.01	.00	.02	.07
29	.21	.69	1.2	.27	.19	1.7	.07	.00	.00	.00	.00	.06
30	8.7	.71	1.1	.26	---	.20	.08	.00	.00	2.4	.00	.06
31	.31	---	1.2	.24	---	.19	---	.00	---	.03	.00	---
TOTAL	17.02	11.20	36.72	47.61	23.00	15.61	24.43	50.80	59.87	6.20	2.31	3.41
MEAN	.55	.37	1.18	1.54	.79	.50	.81	1.64	2.00	.20	.075	.11
MAX	8.7	1.0	10	22	8.8	7.7	11	29	17	3.7	1.6	1.2
MIN	.00	.19	.55	.19	.19	.13	.06	.00	.00	.00	.00	.00
AC-FT	34	22	73	94	46	31	48	101	119	12	4.6	6.8

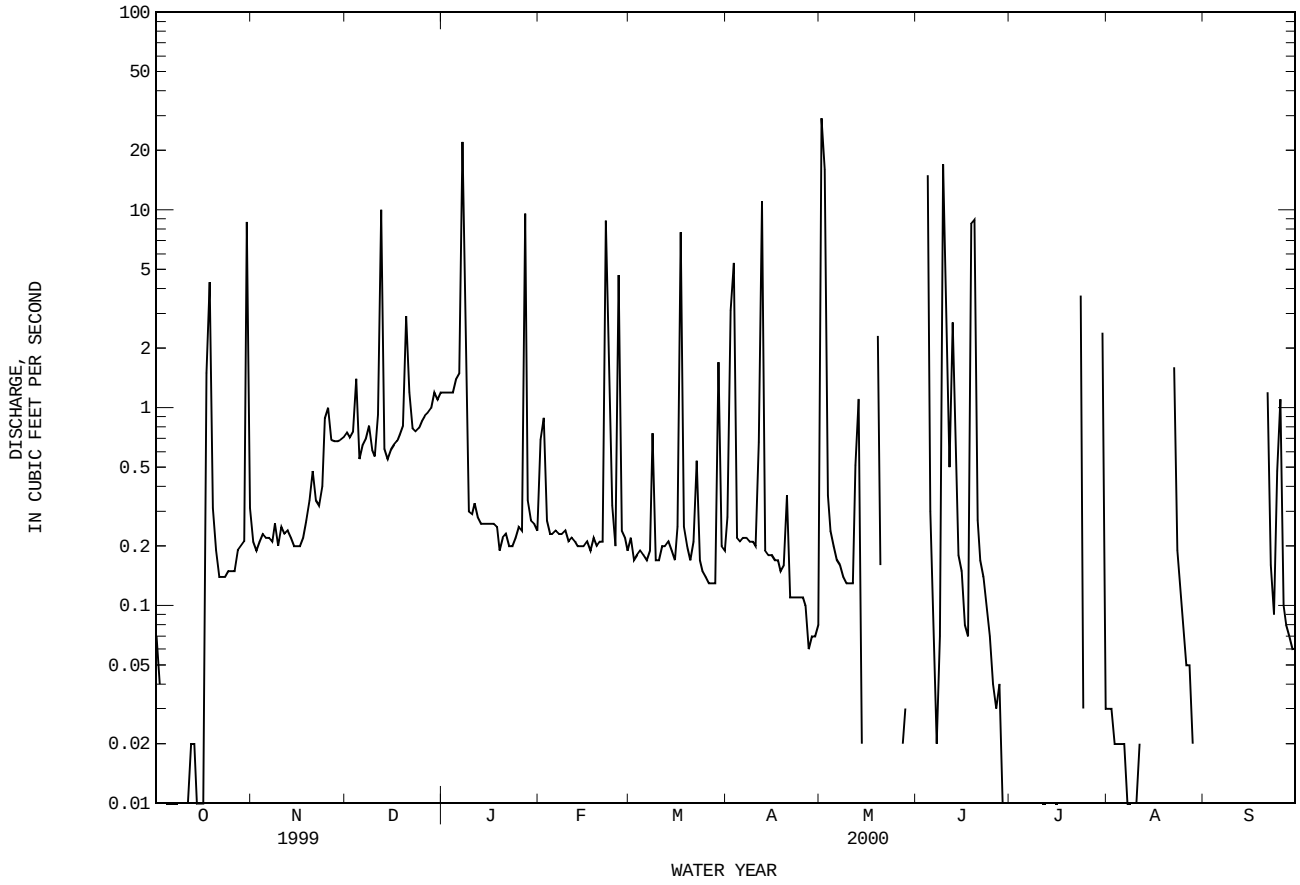
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2000, BY WATER YEAR (WY)

MEAN	2.75	.88	1.00	.92	.72	1.35	1.07	1.89	2.68	.65	.51	.52
MAX	6.17	1.30	1.18	1.54	1.07	2.03	2.58	4.07	6.12	1.80	.81	1.52
(WY)	1999	1999	2000	2000	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1997 - 2000	
ANNUAL TOTAL	357.62		298.18			
ANNUAL MEAN	.98		.81		1.05	
HIGHEST ANNUAL MEAN					1.50	1999
LOWEST ANNUAL MEAN					.81	2000
HIGHEST DAILY MEAN	21	Mar 24	29	May 1	110	Oct 17 1998
LOWEST DAILY MEAN	.00	Sep 5	.00	Oct 3	.00	Sep 14 1997
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 3	.00	Jun 29	.00	Sep 14 1997
INSTANTANEOUS PEAK FLOW			485	May 1	943	Oct 17 1998
INSTANTANEOUS PEAK STAGE			4.44	May 1	7.01	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	709		591		764	
10 PERCENT EXCEEDS	1.1		1.2		1.7	
50 PERCENT EXCEEDS	.33		.19		.23	
90 PERCENT EXCEEDS	.04		.00		.01	

e Estimated

08157600 EAST BOULDIN CREEK AT SOUTH 1ST STREET, AUSTIN, TX--Continued



08157600 EAST BOULDIN CREEK AT SOUTH 1ST STREET, AUSTIN, TX

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jun 1997 to current year.
BIOCHEMICAL DATA: Jun 1997 to current year.

INSTRUMENTATION.--Stage-activated automatic sampler since Jun 1997.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
OCT 18-18	0605	.21	--	359	6.7	--	180	44	--	--	250	K1600000
OCT 30-30	1030	42	--	156	7.0	18.5	60	28	--	--	81	K140000
FEB 22-23	2250	54	--	138	7.6	--	300	35	--	--	110	K2000
JUN 27...	1140	--	.03	666	8.1	26.6	18	.80	10.8	136	<10	2700

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
OCT 18-18	50000	--	86	223	53	170	--	.029	<.050	.092	--	5.6
OCT 30-30	420000	--	42	111	8	103	.416	.030	.446	.221	2.5	1.8
FEB 22-23	--	--	16	306	26	280	.679	.025	.704	.060	4.8	4.0
JUN 27...	--	210	--	<10	<10	--	--	<.010	.054	<.020	.33	--

DATE	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)	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 18-18	5.7	1.04	.112	.060	.18	39	--	--	1	27	33	200
OCT 30-30	2.0	.480	.199	.155	.48	29	--	--	M	19	31	150
FEB 22-23	4.1	.984	.128	.021	.06	55	--	--	1	27	68	210
JUN 27...	.28	.064	.050	.040	.12	3.4	.810	<.100	<1	2	<1	<31

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08157700 BLUNN CREEK NEAR LITTLE STACY PARK, AUSTIN, TX

LOCATION.--Lat 31°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 current year.

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. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

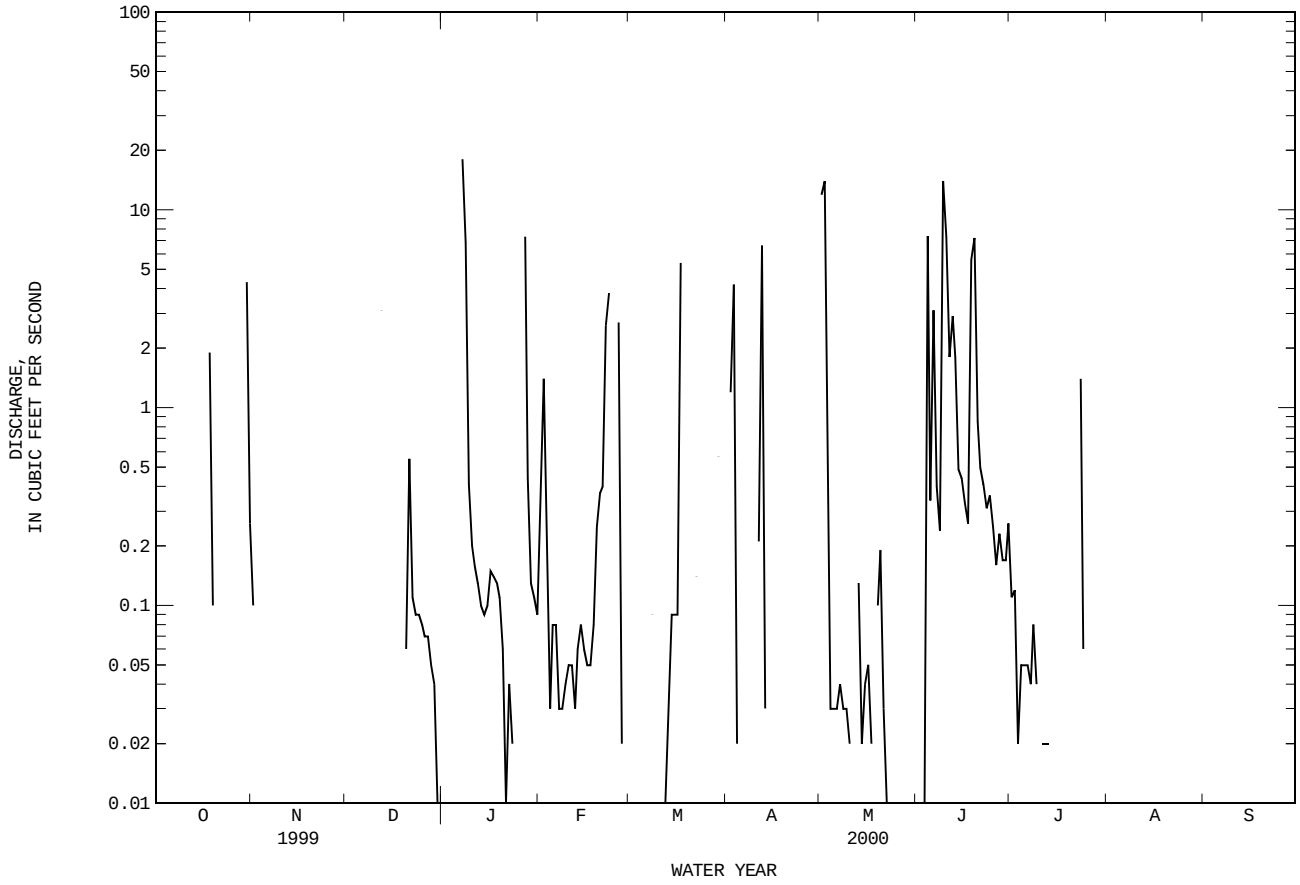
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.00	.00	.39	.00	.00	12	.00	.11	.00	.00
2	.00	.00	.00	.00	1.4	.00	1.2	14	.00	.12	.00	.00
3	.00	.00	.00	.00	.12	.00	4.2	.21	.01	.02	.00	.00
4	.00	.00	.00	.00	.03	.00	.02	.03	7.4	.05	.00	.00
5	.00	.00	.00	.00	.08	.00	.00	.03	.34	.05	.00	.00
6	.00	.00	.00	.00	.08	.00	.00	.03	3.1	.05	.00	.00
7	.00	.00	.00	18	.03	.00	.00	.04	.40	.04	.00	.00
8	.00	.00	.00	6.8	.03	.09	.00	.03	.24	.08	.00	.00
9	.00	.00	.00	.41	.04	.00	.00	.03	14	.04	.00	.00
10	.00	.00	.00	.20	.05	.00	.00	.02	7.3	.00	.00	.00
11	.00	.00	.00	.16	.05	.00	.21	.00	1.8	.02	.00	.00
12	.00	.00	3.1	.13	.03	.01	6.6	.00	2.9	.02	.00	.00
13	.00	.00	.00	.10	.06	.03	.03	.13	1.8	.02	.00	.00
14	.00	.00	.00	.09	.08	.09	.00	.02	.49	.00	.00	.00
15	.00	.00	.00	.10	.06	.09	.01	.04	.44	.01	.00	.00
16	.00	.00	.00	.15	.05	.09	.00	.05	.33	.00	.00	.00
17	.00	.00	.00	.14	.05	5.4	.00	.02	.26	.00	.00	.00
18	1.9	.00	.00	.13	.08	.00	.00	.00	5.6	.00	.00	.00
19	.10	.00	.00	.11	.25	.00	.00	.10	7.2	.00	.00	.00
20	.00	.00	.06	.06	.37	.00	.00	.19	.85	.00	.00	.00
21	.00	.00	.55	.01	.40	.00	.00	.03	.50	.00	.00	.00
22	.00	.00	.11	.04	2.6	.14	.01	.01	.41	.00	.00	.00
23	.00	.00	.09	.02	3.8	.00	.00	.00	.31	1.4	.00	.00
24	.00	.00	.09	.00	.00	.00	.00	.00	.36	.06	.00	.00
25	.00	.00	.08	.00	.00	.00	.00	.00	.25	.00	.00	.00
26	.00	.00	.07	.00	2.7	.00	.00	.00	.16	.00	.00	.00
27	.00	.00	.07	7.3	.02	.00	.00	.00	.23	.00	.00	.00
28	.00	.00	.05	.44	.00	.00	.00	.01	.17	.00	.00	.00
29	.00	.00	.04	.13	.00	.57	.00	.00	.17	.00	.00	.00
30	4.3	.00	.01	.11	---	.00	.00	.00	.26	.00	.00	.00
31	.26	---	.00	.09	---	.00	---	.00	---	.00	.00	---
TOTAL	6.56	0.10	4.32	34.72	12.85	6.51	12.28	27.02	57.28	2.09	0.00	0.00
MEAN	.21	.003	.14	1.12	.44	.21	.41	.87	1.91	.067	.000	.000
MAX	4.3	.10	3.1	18	3.8	5.4	6.6	14	14	1.4	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	13	.2	8.6	69	25	13	24	54	114	4.1	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2000, BY WATER YEAR (WY)

MEAN	2.35	1.22	.64	.57	.39	1.65	.33	.78	1.39	.53	.20	.42
MAX	6.32	1.84	1.00	1.12	.44	3.71	.41	1.50	2.57	1.79	.51	1.51
(WY)	1999	1998	1998	2000	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1997 - 2000	
ANNUAL TOTAL	338.49		163.73			
ANNUAL MEAN	.93		.45		.91	
HIGHEST ANNUAL MEAN					1.65	1999
LOWEST ANNUAL MEAN					.45	2000
HIGHEST DAILY MEAN	16	Jun 20	18	Jan 7	96	Oct 17 1998
LOWEST DAILY MEAN	.00	Apr 21	.00	Oct 1	.00	Apr 19 1998
ANNUAL SEVEN-DAY MINIMUM	.00	Apr 28	.00	Oct 1	.00	May 3 1998
INSTANTANEOUS PEAK FLOW			144	May 1	827	Oct 17 1998
INSTANTANEOUS PEAK STAGE			3.48	May 1	6.65	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	671		325		660	
10 PERCENT EXCEEDS	2.4		.40		1.8	
50 PERCENT EXCEEDS	.17		.00		.12	
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 Jun 1999.
BIOCHEMICAL DATA: Mar 1999 to Jun 1999.

INSTRUMENTATION.--Stage-activated automatic sampler since Mar 16, 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
OCT										
18-18	1540	5.2	--	256	7.2	--	60	52	--	--
OCT										
30-30	1141	16	--	155	7.1	18.5	120	65	--	--
DEC										
12-12	0259	6.0	--	314	6.8	--	80	28	--	--
JUN										
27...	1203	--	.87	448	8.8	27.0	10	2.6	7.4	94

DATE	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	FECAL STREP, KF STRP MF, WATER (COL/ 100 ML) (31673)	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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)
OCT										
18-18	90	8.1	80000	92000	--	--	53	176	24	152
OCT										
30-30	78	--	68000	200000	--	--	46	242	20	222
DEC										
12-12	130	--	K180000	220000	220000	--	65	290	40	250
JUN										
27...	<10	--	<2	<2	--	85	--	<10	<10	--

DATE	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)
OCT									
18-18	.558	.025	.583	.167	3.3	2.6	2.7	.675	.176
OCT									
30-30	.455	.027	.482	.149	2.3	1.7	1.8	.503	.162
DEC									
12-12	.596	.024	.620	.058	3.2	2.5	2.6	.719	.142
JUN									
27...	--	<.010	.102	<.020	.21	--	.11	.256	.250

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)
OCT									
18-18	.173	.530	24	--	--	.3	11	19	75
OCT									
30-30	.133	.408	26	--	--	.3	12	19	91
DEC									
12-12	.122	.374	33	--	--	.4	16	35	101
JUN									
27...	.058	.178	2.7	<.1	<.1	<.1	<1	<1	<31

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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 1999 TO SEPTEMBER 2000

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)
JAN							
28...	1030	1.00	503	8.0	14.5	7.6	74
28...	1032	10.0	503	8.0	14.5	7.6	74
28...	1034	20.0	504	8.0	14.0	7.6	74
28...	1036	27.0	504	8.0	14.0	7.6	74
SEP							
14...	0830	1.00	499	7.7	28.3	5.3	69
14...	0832	10.0	498	7.5	27.5	4.1	52
14...	0834	20.0	499	7.6	27.3	4.6	59
14...	0836	26.0	501	7.5	27.4	4.1	52

301500097424801 - Twn Lk AC

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)	TURBIDITY (NTU) (00076)	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 WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)
OCT												
13...	0910	--	--	--	--	--	--	--	--	--	--	--
JAN												
28...	1039	1.00	503	8.0	14.5	1.10	4.3	7.2	70	<10	76	K30
28...	1042	10.0	503	8.0	13.5	--	--	7.3	70	--	--	--
28...	1044	20.0	503	8.0	14.5	--	--	7.2	70	--	--	--
28...	1046	27.0	503	8.0	14.5	--	4.6	6.9	68	--	--	--
JUL												
05...	0915	25.0	--	--	--	--	--	--	--	--	--	--
SEP												
14...	0810	1.00	499	7.7	28.3	1.70	.65	5.5	71	<10	K2900	1100
14...	0812	10.0	498	7.6	27.7	--	--	4.6	59	--	--	--
14...	0814	20.0	499	7.5	27.3	--	--	4.2	54	--	--	--
14...	0816	28.0	499	7.4	27.3	--	1.0	3.7	47	--	--	--

301500097424801 - Twn Lk AC

DATE	ALKALINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	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, 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)
OCT												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
28...	160	--	304	10	<.010	.223	.064	.52	.23	.30	<.050	<.050
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	150	--	295	1	<.010	.222	.065	.53	.24	.31	<.050	<.050
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
14...	--	154	283	<10	<.010	<.050	<.020	--	--	.27	<.050	<.050
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	152	282	15	<.010	<.050	.062	--	.31	.38	<.050	<.050

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301500097424801 - Twn Lk AC

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)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)
OCT												
13...	--	--	--	--	4	M	7	--	<1	3100	--	40
JAN												
28...	<.010	2.9	1.60	<.100	--	--	--	3.2	--	--	<1.0	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.010	3.0	--	--	--	--	--	2.9	--	--	<1.0	--
JUL												
05...	--	--	--	--	3	M	10	--	31	10000	--	60
SEP												
14...	<.010	3.3	2.80	.240	--	--	--	4.7	--	--	<1.0	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.010	4.1	--	--	--	--	--	5.4	--	--	<1.0	--

301500097424801 - Twn Lk AC

DATE	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)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	P,P'-DDD, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39363)	P,P'-DDE, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39368)	P,P'-DDT, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN I TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)
OCT												
13...	3	.05	60	17.0	<.200	21.0	12.0	28.0	1.50	.720	<.200	<.410
JAN												
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	590	.06	90	22.0	<.420	18.0	E10.0	E27.0	E2.00	E.810	<.200	<.380
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

301500097424801 - Twn Lk AC

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39758)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT											
13...	<.200	<.200	<.200	<2.50	<.200	<50.0	100	100	100	99	91
JAN											
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	<.200	<.200	<.200	<2.50	<.200	<170	99	99	99	97	90
SEP											
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
JAN							
28...	1110	1.00	505	8.0	16.0	7.3	74
28...	1112	10.0	502	8.0	14.5	7.4	72
28...	1114	18.0	500	8.0	14.0	7.4	72
SEP							
14...	0840	1.00	499	7.6	29.8	4.6	61
14...	0842	10.0	500	7.6	27.5	5.0	64
14...	0844	17.0	502	7.6	27.4	4.9	63

301500097440801 - Twn Lk BR

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							
28...	1120	1.00	504	8.1	12.5	8.0	75
28...	1122	10.0	503	8.1	12.5	7.9	74
28...	1124	20.0	499	8.0	12.0	7.9	73
28...	1126	26.0	495	8.0	12.0	7.8	72
SEP							
14...	0910	1.00	498	7.7	28.1	5.4	70
14...	0912	10.0	488	7.7	27.5	5.0	64
14...	0914	20.0	477	7.6	27.3	4.5	57
14...	0916	26.0	474	7.6	27.3	4.5	57

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)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)
OCT												
13...	0940	--	--	--	--	--	--	3	M	4	13	3400
JAN												
28...	1130	1.00	503	8.1	12.5	8.1	76	--	--	--	--	--
28...	1132	10.0	498	8.0	12.0	8.1	75	--	--	--	--	--
28...	1134	20.0	485	8.0	12.0	8.1	75	--	--	--	--	--
28...	1136	30.0	483	8.0	12.0	8.0	74	--	--	--	--	--
JUL												
05...	0850	--	--	--	--	--	--	3	1	10	37	11000
SEP												
14...	0900	1.00	498	7.8	28.2	5.5	71	--	--	--	--	--
14...	0902	10.0	496	7.7	27.7	5.4	69	--	--	--	--	--
14...	0904	20.0	478	7.6	27.3	4.8	61	--	--	--	--	--
14...	0906	29.0	475	7.6	27.3	4.5	57	--	--	--	--	--

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301504097440901 - Twn Lk BC

DATE	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	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)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	P,P'-DDD, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39363)	P,P'-DDE, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39368)	P,P'-DDT, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN I TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39389)
OCT												
13...	40	310	.05	60	30.0	.210	36.0	78.0	124	28.0	2.10	<.200
JAN												
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	70	670	.07	130	18.0	<.420	18.0	E4.40	E30.0	E3.20	<.200	<.200
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

301504097440901 - Twn Lk BC

DATE	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39758)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT												
13...	<.510	<.200	.220	<.200	<2.50	<.200	<50.0	97	96	95	93	90
JAN												
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	<.200	<.200	<.200	<.200	<4.60	<.200	<210	95	93	91	89	86
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

301544097445201 - Twn Lk CR

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							
28...	1143	1.00	495	7.9	11.5	8.2	75
28...	1145	10.0	482	7.9	11.0	8.1	73
28...	1147	18.0	331	7.9	10.0	8.5	75
SEP							
14...	0950	1.00	487	7.7	27.3	5.2	66
14...	0952	10.0	490	7.7	27.2	5.1	65
14...	0954	17.0	492	7.7	27.1	4.8	61

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301546097445101 - Twn Lk CC

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)	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 WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)
OCT												
13...	1005	--	--	--	--	--	--	--	--	--	--	--
JAN												
28...	1151	1.00	483	7.9	11.5	.50	8.9	8.2	75	<10	1400	1100
28...	1153	10.0	469	7.9	11.0	--	--	8.2	74	--	--	--
28...	1155	17.0	334	8.0	10.0	--	61	8.3	73	--	--	--
JUL												
05...	0935	--	--	--	--	--	--	--	--	--	--	--
SEP												
14...	0930	1.00	475	7.7	27.3	.58	.75	5.2	66	13	K8500	2700
14...	0932	10.0	479	7.7	27.1	--	--	5.3	67	--	--	--
14...	0934	17.0	481	7.7	27.1	--	1.0	5.0	64	--	--	--

301546097445101 - Twn Lk CC

DATE	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	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, 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)
OCT												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
28...	150	--	286	16	<.010	.405	.062	.71	.24	.30	<.050	<.050
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	92	--	199	49	<.010	.196	.046	.76	.51	.56	.108	<.050
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
14...	--	146	270	<10	<.010	.057	.026	.37	.28	.31	<.050	<.050
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	146	270	23	<.010	.057	.025	.39	.31	.33	<.050	<.050

301546097445101 - Twn Lk CC

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)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT												
13...	--	--	--	--	--	4	M	8	--	17	8000	--
JAN												
28...	.018	.06	2.9	.430	<.100	--	--	--	E1.2	--	--	4.3
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	.014	.04	2.8	--	--	--	--	--	E1.2	--	--	<1.0
JUL												
05...	--	--	--	--	--	4	1	10	--	27	10000	--
SEP												
14...	<.010	--	3.8	.920	<.100	--	--	--	3.2	--	--	<1.0
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.010	--	4.0	--	--	--	--	--	3.1	--	--	<1.0

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301546097445101 - Twn Lk CC

DATE	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	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)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	P,P'-DDD, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39363)	P,P'-DDE, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39368)	P,P'-DDT, RECOVER IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN I TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39389)
OCT												
13...	--	250	.04	80	34.0	1.10	74.0	20.0	44.0	12.0	5.60	<.200
JAN												
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	70	390	.06	120	26.0	<.420	41.0	E5.60	E37.0	E4.80	E3.60	<.200
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

301546097445101 - Twn Lk CC

DATE	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39758)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT												
13...	<.290	<.200	<.200	<.200	<2.50	<.200	<50.0	81	78	70	46	37
JAN												
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	<.380	<.200	<.200	<.200	<2.50	<.200	<290	92	90	84	69	48
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

301556097452301 - Twn Lk DR

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							
28...	1211	1.00	522	7.9	12.5	7.9	74
28...	1213	13.0	533	7.9	12.0	7.7	71

301558097452201 - Twn Lk 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)	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)
OCT											
13...	1100	--	--	--	--	--	--	--	--	--	--
JAN											
28...	1231	1.00	497	8.0	12.0	1.80	2.9	8.0	74	<10	330
28...	1233	10.0	497	8.0	12.0	--	--	8.2	76	--	--
28...	1235	20.0	493	8.0	12.0	--	2.1	8.0	74	--	--
JUL											
05...	0955	--	--	--	--	--	--	--	--	--	--
SEP											
14...	1005	1.00	495	7.0	27.3	2.44	<.50	5.7	73	<10	K140
14...	1007	10.0	503	7.7	26.9	--	--	5.6	71	--	--
14...	1009	19.0	562	7.4	26.2	--	<.50	5.1	64	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301558097452201 - Twn Lk DC

DATE	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	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)
OCT										
13...	--	--	--	--	--	--	--	--	--	--
JAN										
28...	200	150	--	291	6	--	<.010	.293	.049	.55
28...	--	--	--	--	--	--	--	--	--	--
28...	--	150	--	288	1	.329	.015	.344	.134	.59
JUL										
05...	--	--	--	--	--	--	--	--	--	--
SEP										
14...	200	--	153	279	<10	--	<.010	<.050	.025	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	180	318	11	--	<.010	.375	.065	.69

301558097452201 - Twn Lk DC

DATE	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)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)
OCT										
13...	--	--	--	--	--	--	--	--	--	3
JAN										
28...	.20	.25	<.050	<.050	<.010	--	2.7	.250	<.100	--
28...	--	--	--	--	--	--	--	--	--	--
28...	.11	.24	<.050	E.036	.027	.08	2.8	--	--	--
JUL										
05...	--	--	--	--	--	--	--	--	--	2
SEP										
14...	.25	.27	<.050	<.050	<.010	--	3.0	1.20	<.100	--
14...	--	--	--	--	--	--	--	--	--	--
14...	.25	.32	<.050	<.050	<.010	--	3.2	--	--	--

301558097452201 - Twn Lk DC

DATE	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	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										
13...	M	6	--	12	6400	--	30	360	.02	30
JAN										
28...	--	--	E.99	--	--	<1.0	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	E.93	--	--	<1.0	--	--	--	--
JUL										
05...	M	6	--	14	7500	--	70	320	.03	50
SEP										
14...	--	--	2.6	--	--	<1.0	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	3.3	--	--	<1.0	--	--	--	--

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301558097452201 - Twn Lk DC

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	P,P'-DDD, RECOVER IN BOTTOM MATERIAL (UG/KG) (39363)	P,P'-DDE, RECOVER IN BOTTOM MATERIAL (UG/KG) (39368)	P,P'-DDT, RECOVER IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN I TOTAL IN BOTTOM MATERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)
OCT										
13...	14.0	<.200	4.40	2.10	7.80	.520	.320	<.200	<.200	<.200
JAN										
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	14.0	<.420	7.20	E4.30	E20.0	E1.40	E.500	<.200	<.200	<.200
SEP										
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--

301558097452201 - Twn Lk DC

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG) (39758)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT										
13...	<.200	<.200	<2.50	<.200	<50.0	68	66	63	59	54
JAN										
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	<.200	<.200	<2.50	<.200	<50.0	82	70	55	43	36
SEP										
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--

301712097470701 - Twn Lk 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)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)
JAN										
28...	1258	1.00	483	8.0	12.5	2.80	1.6	8.6	80	<10
28...	1300	10.0	480	8.2	12.0	--	--	8.6	80	--
28...	1302	17.0	489	8.0	12.0	--	1.8	8.2	76	--
SEP										
14...	1035	1.00	494	7.7	23.4	2.10	<.50	5.4	64	<10
14...	1037	10.0	496	7.6	26.5	--	--	4.9	62	--
14...	1039	18.0	612	7.0	27.2	--	<.50	5.5	70	--

301712097470701 - Twn Lk EC

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ALKALINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	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)
JAN										
28...	K20	<10	140	--	278	4	<.010	.099	<.020	.31
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	150	--	284	4	<.010	.141	.026	.38
SEP										
14...	K22	97	--	153	278	<10	<.010	<.050	.022	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	230	354	<10	<.010	1.07	<.020	1.2

08157900 TOWN LAKE AT AUSTIN, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

301712097470701 - Twn Lk EC

DATE	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)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JAN										
28...	--	.21	<.050	<.050	<.010	2.6	.480	<.100	1.5	E.55
28...	--	--	--	--	--	--	--	--	--	--
28...	.21	.24	<.050	<.050	<.010	2.9	--	--	E.94	<1.0
SEP										
14...	.25	.27	<.050	<.050	<.010	3.3	2.00	.100	3.0	<1.0
14...	--	--	--	--	--	--	--	--	--	--
14...	--	.14	<.050	<.050	<.010	1.7	--	--	5.8	<1.0

301601097454001 - Twn Lk FC

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							
28...	1247	3.00	666	7.6	17.0	7.1	73
SEP							
14...	1020	2.00	662	7.3	24.5	6.7	81

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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 Sep 1993. Specific conductance: Oct 1947 to Sep 1991. Water temperature: Oct 1947 to Sep 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 Jun 19, 1939, all records collected at or near Congress Avenue bridge 3.9 mi upstream at datum 19.6 ft higher; prior to Jun 18, 1915, nonrecording gages, recording gages thereafter; Jun 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.--No estimated daily discharges. Records fair. Since installation of gage in Feb 1898, at least 10% of contributing drainage area has been regulated by Lake Travis (station 08154500), Lake Austin (station 08154900), Town Lake (station 08157900), and many other reservoirs (combined conservation pool storage of greater than 4,000,000 acre-ft). 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jul 7, 1869, present site and datum (adjusted to present site on basis of record for flood of Jun 15, 1935), determined from information concerning stage at former site furnished by Dean T.U. Taylor.

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	468	98	133	165	179	539	1080	1670	1940	1830	1170	1450
2	496	146	102	175	222	159	1110	1370	1680	1840	1210	1640
3	449	110	176	163	270	260	612	385	1810	1790	1060	1710
4	796	162	79	236	268	200	234	612	2210	1810	1130	1700
5	812	93	74	196	269	100	207	930	1900	1760	525	1690
6	780	116	62	69	274	171	418	1120	2000	1670	1050	1450
7	697	133	168	556	269	134	757	1150	1910	1590	624	1790
8	709	129	69	456	193	250	799	1100	1850	1980	898	1710
9	720	122	57	215	229	267	869	1370	1420	1880	927	2020
10	720	64	54	188	203	223	774	1440	1190	1620	963	2010
11	699	152	183	83	195	367	1000	1350	935	1910	942	2040
12	272	70	390	78	195	352	434	1740	1240	2140	913	2020
13	181	131	259	95	202	357	145	1740	1270	1750	928	2070
14	206	114	265	155	234	405	144	1720	1390	1610	896	1810
15	202	159	255	171	200	308	508	1740	1540	2070	1050	1480
16	364	102	217	170	94	173	603	1750	1760	2120	1110	1400
17	582	90	144	171	128	206	701	1590	1740	2160	1160	1260
18	272	93	83	181	97	130	970	1610	2200	2220	1250	1250
19	148	94	143	201	167	129	981	1590	2220	1850	1300	1080
20	280	96	84	173	120	126	910	1720	1820	1870	1300	1210
21	175	101	183	229	60	222	894	1690	1320	2810	1780	1430
22	141	100	147	188	189	111	1400	1700	1830	4030	2070	1310
23	87	180	146	187	313	258	1490	1300	1700	3740	1730	1500
24	154	110	143	186	202	143	1400	1450	1720	2920	2000	1150
25	128	165	143	270	125	309	1390	1730	1740	2070	2290	1700
26	80	80	158	132	298	280	1390	1500	1740	1630	2280	1370
27	68	157	156	263	212	251	1500	2020	1710	1450	2280	1090
28	74	87	144	208	230	398	1720	1830	1350	1460	2020	1000
29	94	156	204	175	354	898	1590	1890	2050	1450	1140	893
30	287	186	160	177	---	1500	1910	2020	1920	1240	2120	1120
31	75	---	165	179	---	987	---	1980	---	1220	1650	---
TOTAL	11216	3596	4746	6091	5991	10213	27940	46807	51105	61490	41766	45353
MEAN	362	120	153	196	207	329	931	1510	1704	1984	1347	1512
MAX	812	186	390	556	354	1500	1910	2020	2220	4030	2290	2070
MIN	68	64	54	69	60	100	144	385	935	1220	525	893
AC-FT	22250	7130	9410	12080	11880	20260	55420	92840	101400	122000	82840	89960

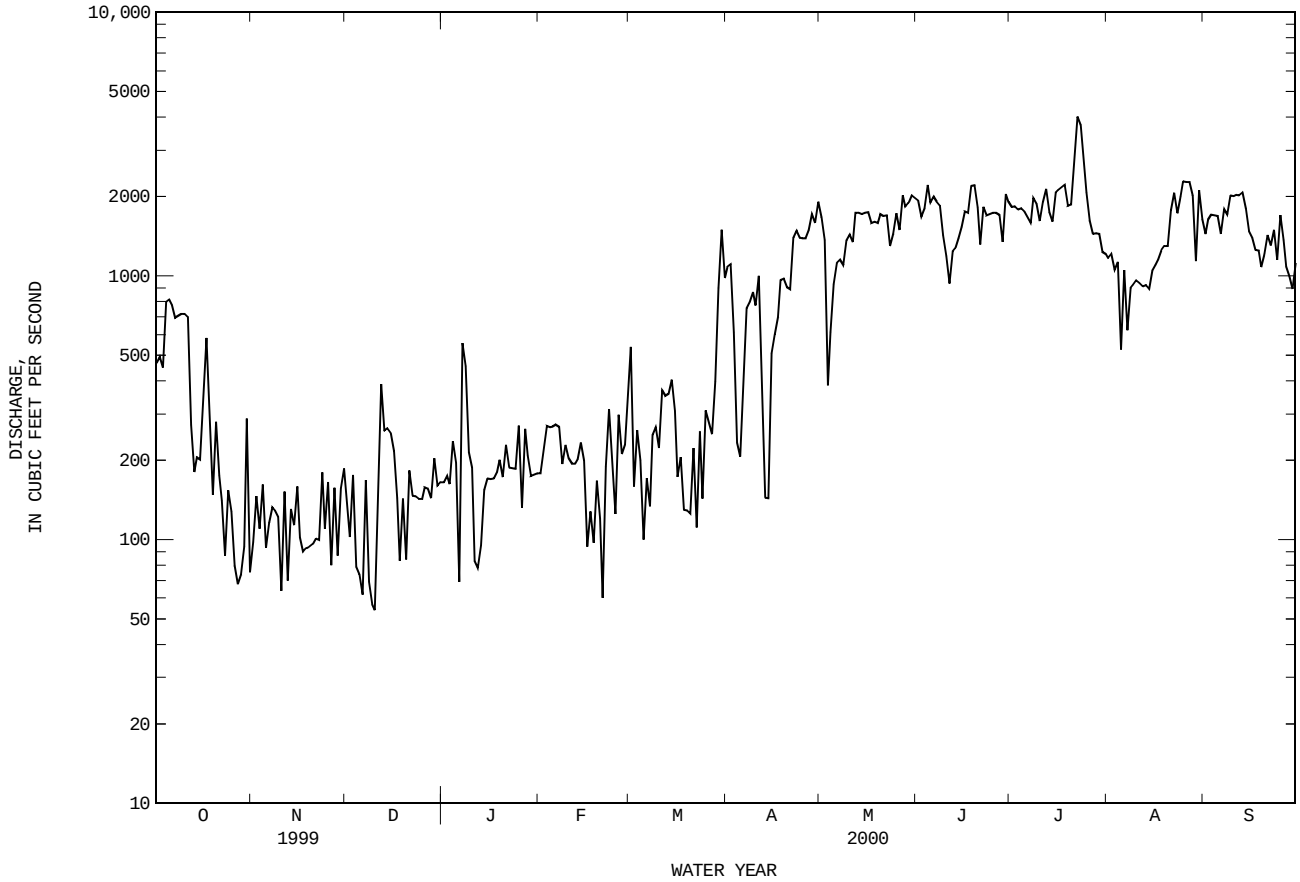
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2000, BY WATER YEAR (WY)

MEAN	1981	1466	1437	1216	1465	1529	2669	4148	3816	2738	1788	2561
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1898 - 2000	
ANNUAL TOTAL	308725		316314			
ANNUAL MEAN	846		864		2240	
HIGHEST ANNUAL MEAN					7535	1914
LOWEST ANNUAL MEAN					590	1917
HIGHEST DAILY MEAN	3740	Mar 19	4030	Jul 22	323000	Jun 15 1935
LOWEST DAILY MEAN	54	Dec 10	54	Dec 10	.00	Sep 29 1914
ANNUAL SEVEN-DAY MINIMUM	80	Dec 4	80	Dec 4	18	Oct 25 1990
INSTANTANEOUS PEAK FLOW			6290	Jul 23	481000	Jun 15 1935
INSTANTANEOUS PEAK STAGE			8.58	Jul 23	a50.00	Jun 15 1935
ANNUAL RUNOFF (AC-FT)	612400		627400		1623000	
10 PERCENT EXCEEDS	1690		1900		3880	
50 PERCENT EXCEEDS	812		612		1130	
90 PERCENT EXCEEDS	129		108		174	

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 Jul 1975 (periodic discharge measurements only), Aug 1975 to Jun 1977 (operated as a flood-hydrograph partial-record station only), Jun 1977 to Sep 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge 4,370 ft^3/s May 17, 1989, gage height, 14.79 ft, from floodmark.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 7	1730	1,020	6.40	May 1	0540	1,570	7.57
Feb 23	0030	930	6.21	May 2	0100	1,890	8.22

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	.00	1.3	e.45	.00	.48	.57	.42	141	.01	.00	e.15	.00
2	.00	1.2	.40	.00	2.9	.43	8.0	177	.00	.00	e.05	.00
3	.00	1.4	.28	.00	.65	.11	72	5.2	.00	.00	e.00	.00
4	.00	1.3	.03	.00	.37	.00	1.9	2.7	27	.00	e.00	.00
5	.00	1.3	.00	.00	.05	.00	.81	1.8	5.8	.00	e.00	.00
6	.00	1.2	.00	.00	.00	.00	.65	1.3	2.3	.00	e.00	.00
7	.00	1.1	.00	107	.00	.00	.48	.33	1.2	.00	e.00	.00
8	.00	1.1	.00	34	.00	.00	1.7	.00	.81	.00	.00	.00
9	.00	1.1	.00	.14	.00	.00	.66	.00	66	.00	.00	.00
10	.00	1.1	.00	.05	.00	.00	.40	.00	78	.00	.00	.00
11	.00	1.4	.00	.08	.00	.00	.07	.00	18	.00	.00	.00
12	.00	1.4	143	.12	.00	.00	56	.00	14	.00	.00	.00
13	.00	1.2	4.9	.08	.00	.00	3.1	8.7	7.2	.00	.00	.00
14	.00	1.2	.48	.02	.00	.00	1.3	2.5	2.5	.00	.00	.00
15	.00	1.1	.30	.00	.00	.00	1.1	2.3	2.5	.00	.00	.00
16	.00	1.0	.07	.00	.00	.00	.81	1.0	2.1	.00	.00	.00
17	.00	1.0	.00	.00	.00	e16	.77	.33	1.7	.00	.00	.00
18	16	1.0	.00	.00	.00	e2.0	.64	.00	14	.00	.00	.00
19	2.4	1.0	.00	.00	.00	1.0	.16	5.0	34	.00	.00	.00
20	.25	1.1	.33	.00	.00	.54	.00	13	6.2	.00	.00	.00
21	.00	1.1	3.7	.00	.00	.13	.00	2.7	2.9	.00	.00	.00
22	.00	1.1	.54	.00	.00	1.3	.00	1.4	1.7	e.00	.00	.00
23	.00	1.1	.48	.00	56	1.1	.00	.38	.81	e8.5	.00	.00
24	.00	1.2	.30	.00	.78	.80	.00	.00	.48	e2.5	.00	.00
25	.00	1.5	.19	.00	.49	.38	.00	.00	.06	e1.3	.00	.00
26	.00	1.4	.01	.00	35	.03	.00	.00	.00	e.10	.00	.00
27	.00	1.0	.00	48	1.5	.00	.00	.00	.00	e.00	.00	.00
28	.00	.94	.00	2.6	.75	.00	.00	6.8	.00	e.00	.00	.00
29	.00	.95	.00	.65	.64	22	.00	2.6	.00	e.00	.00	.00
30	53	1.0	.00	.75	---	1.4	.00	1.0	.00	e.00	.00	.00
31	2.4	---	.00	.55	---	.60	---	.43	---	e.28	.00	---
TOTAL	74.05	34.79	155.46	194.04	99.61	48.39	150.97	377.47	289.27	12.68	0.20	0.00
MEAN	2.39	1.16	5.01	6.26	3.43	1.56	5.03	12.2	9.64	.41	.006	.000
MAX	53	1.5	143	107	56	22	72	177	78	8.5	.15	.00
MIN	.00	.94	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	147	69	308	385	198	96	299	749	574	25	.4	.00
CFSM	.18	.09	.38	.48	.26	.12	.38	.93	.74	.03	.00	.00
IN.	.21	.10	.44	.55	.28	.14	.43	1.07	.82	.04	.00	.00

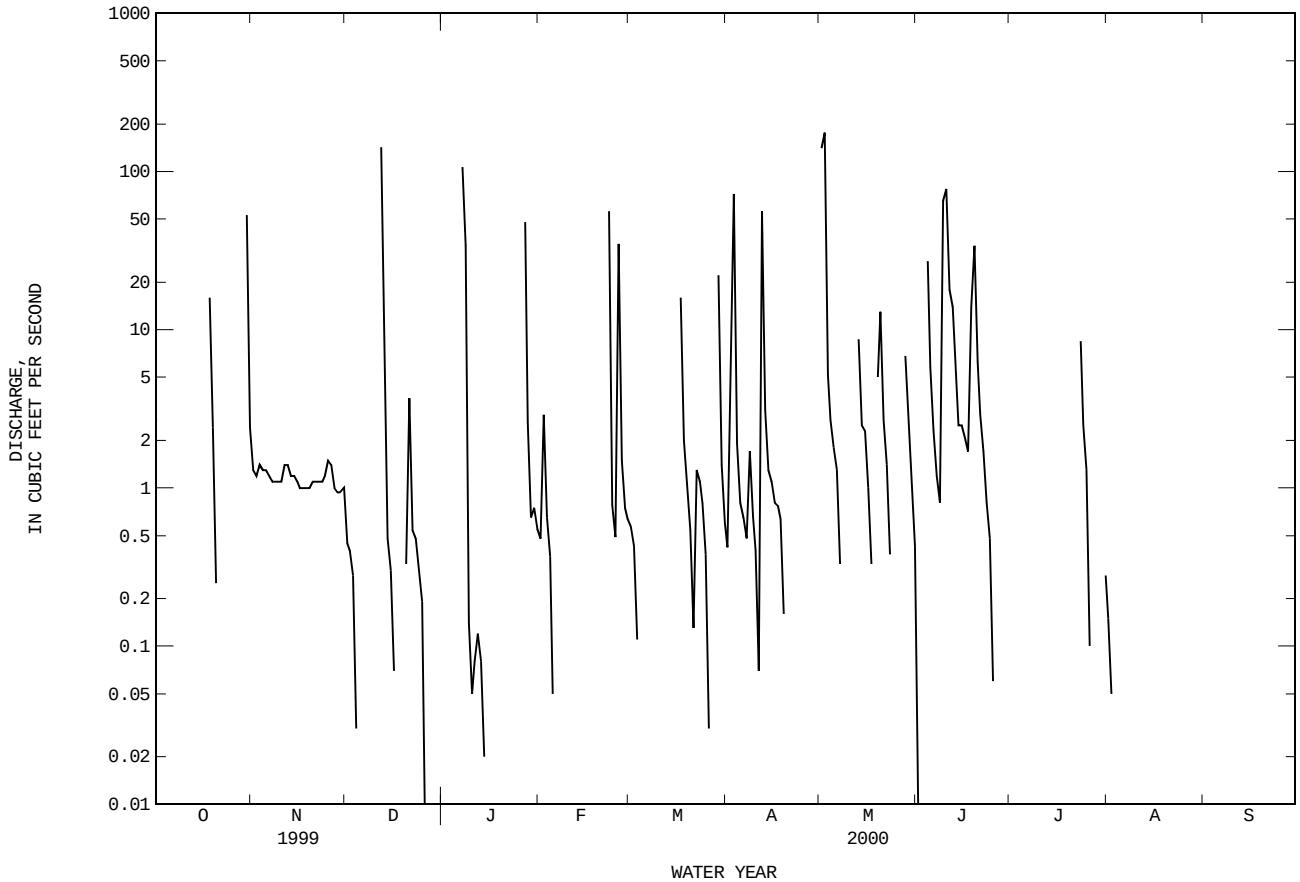
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2000h, BY WATER YEAR (WY)

MEAN	11.5	5.89	4.94	2.71	103	5.97	4.52	15.8	11.6	5.25	5.85	6.28
MAX	60.4	16.8	14.9	7.48	1580	18.5	18.5	48.7	55.2	54.5	51.0	20.2
(WY)	1999	1986	1997	1998	1977	1983	1997	1979	1981	1979	1996	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

08158050 BOGGY CREEK AT U.S. HIGHWAY 183, AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1977 - 2000h	
ANNUAL TOTAL	1776.58		1436.93			
ANNUAL MEAN	4.87		3.93		7.18	
HIGHEST ANNUAL MEAN					15.1	1979
LOWEST ANNUAL MEAN					1.29	1984
HIGHEST DAILY MEAN	168	May 18	177	May 2	1660	Feb 11 1977
LOWEST DAILY MEAN	.00	Mar 4	.00	Oct 1	.00	Jul 13 1978
ANNUAL SEVEN-DAY MINIMUM	.00	May 1	.00	Oct 1	.00	Jul 13 1978
INSTANTANEOUS PEAK FLOW			1890	May 2	6100	May 23 1975
INSTANTANEOUS PEAK STAGE			8.22	May 2	17.24	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	3520		2850		5200	
ANNUAL RUNOFF (CFSM)	.37		.30		.55	
ANNUAL RUNOFF (INCHES)	5.04		4.08		7.45	
10 PERCENT EXCEEDS	3.8		2.8		8.8	
50 PERCENT EXCEEDS	.35		.00		.28	
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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jan 1975 to Sep 1986, Apr 1994 to current year.
BIOCHEMICAL DATA: Jan 1975 to Sep 1986, Apr 1994 to current year.
RADIOCHEMICAL DATA: Jan 1980.
PESTICIDE DATA: Jan 1975 to Dec 1984.

INSTRUMENTATION.--Stage-activated automatic sampler since May 12, 1991.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)
OCT												
30-30	1231	160	198	7.4	19.5	200	200	73	K9000	K7600	--	52
JAN												
07-07	1300	225	190	7.4	--	800	320	55	K12000	--	25000	56
FEB												
23-23	0005	199	214	7.5	--	2000	310	75	68000	--	45000	24

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
OCT												
30-30	623	20	603	.510	.035	.545	.066	2.5	1.9	2.0	.758	.181
JAN												
07-07	523	40	483	.292	.018	.310	.069	2.3	1.9	2.0	.670	.098
FEB												
23-23	875	50	825	.608	.019	.627	.058	4.3	3.6	3.7	1.18	E.049

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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	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)
OCT											
30-30	.130	.40	28	61	<1.0	22	<1.0	M	<1.0	.94	<1.0
JAN											
07-07	.081	.25	18	--	--	--	--	M	--	--	--
FEB											
23-23	<.010	--	37	--	--	--	--	1	--	--	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
OCT											
30-30	13	3.7	20	<1.0	5.4	4.9	3.8	<1.0	68	19	<1.0
JAN											
07-07	12	--	24	--	--	--	--	--	81	--	--
FEB											
23-23	19	--	49	--	--	--	--	--	140	--	--

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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.

REVISIONS.--Mean daily discharge on Feb 11, 1999 was changed from 0.90 to 5.9 ft^3/s.

GAGE.--Water-stage recorder. Datum of gage is 425.96 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair except those above 150 ft^3/s, which are poor. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jun 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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 2	0135	2,040	12.97	No other peak greater than base discharge.			

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

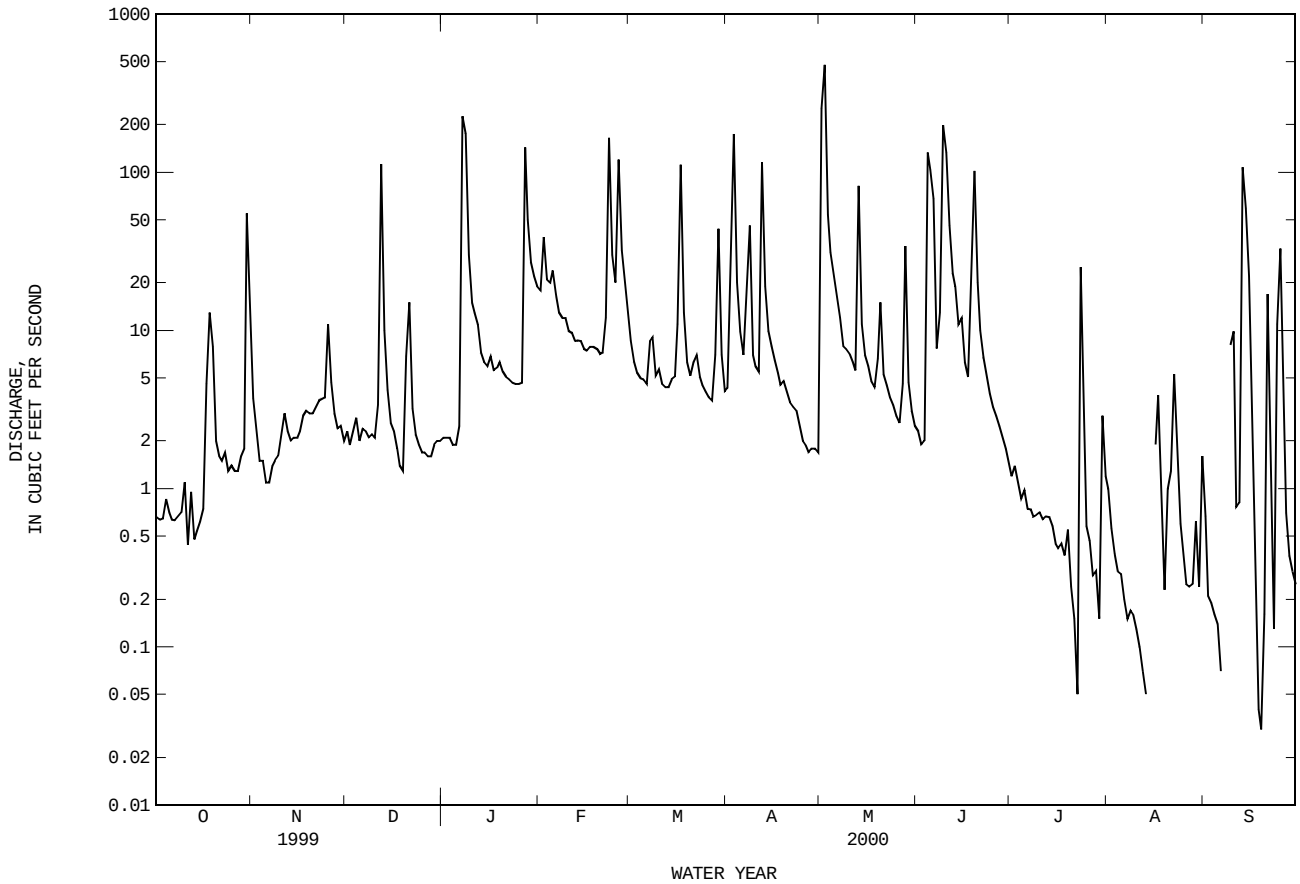
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	3.7	2.3	2.1	18	8.6	4.3	252	2.3	1.2	1.0	.67
2	.64	2.4	1.9	2.1	39	6.4	37	475	1.9	1.4	.56	.21
3	.65	1.5	2.3	2.1	21	5.4	174	54	2.0	1.1	.39	.19
4	.86	1.5	2.8	1.9	20	5.0	20	31	133	.87	.30	.16
5	.71	1.1	2.0	1.9	24	4.9	9.8	23	103	.98	.29	.14
6	.64	1.1	2.4	2.5	17	4.6	7.0	17	68	.75	.20	.07
7	.63	1.4	2.3	226	13	8.5	18	12	7.7	.74	.15	.00
8	.67	1.5	2.1	176	12	9.0	46	8.0	13	.67	.17	.00
9	.71	1.6	2.2	30	12	5.2	7.0	7.6	198	.68	.16	8.1
10	1.1	2.2	2.1	15	10	5.7	5.9	7.1	133	.71	.13	9.9
11	.44	3.0	3.4	13	9.7	4.6	5.5	6.3	46	.64	.10	.76
12	.95	2.3	112	11	8.6	4.4	116	5.6	23	.67	.07	.81
13	.48	2.0	10	7.3	8.7	4.4	19	82	19	.66	.05	107
14	.54	2.1	4.2	6.3	8.6	4.9	10	11	11	.58	.00	59
15	.62	2.1	2.6	6.0	7.7	5.1	8.0	7.0	12	.45	.00	22
16	.75	2.3	2.3	6.9	7.5	11	6.5	6.0	6.3	.42	1.9	.96
17	4.6	2.9	1.8	5.6	7.9	111	5.4	4.8	5.1	.45	3.9	.20
18	13	3.1	1.4	5.8	7.9	13	4.5	4.4	23	.38	.77	.04
19	7.9	3.0	1.3	6.3	7.7	6.3	4.8	6.6	102	.55	.23	.03
20	2.0	3.0	6.9	5.5	7.1	5.2	4.1	15	20	.24	1.0	.16
21	1.6	3.3	15	5.1	7.3	6.3	3.5	5.3	10	.15	1.3	17
22	1.5	3.6	3.2	4.9	12	7.0	3.3	4.5	6.8	.05	5.3	.85
23	1.7	3.7	2.2	4.7	165	5.1	3.1	3.8	5.2	25	1.7	.13
24	1.3	3.8	1.9	4.6	30	4.5	2.5	3.4	4.0	2.7	.60	11
25	1.4	11	1.7	4.6	20	4.1	2.0	2.9	3.3	.58	.40	33
26	1.3	4.7	1.7	4.7	120	3.8	1.9	2.6	2.9	.47	.25	2.8
27	1.3	3.0	1.6	144	32	3.6	1.7	4.6	2.5	.28	.24	.70
28	1.6	2.4	1.6	50	19	7.0	1.8	34	2.1	.30	.25	.38
29	1.8	2.5	1.9	27	13	44	1.8	4.7	1.8	.15	.62	.30
30	55	2.0	2.0	22	---	7.0	1.7	3.1	1.5	2.9	.24	.25
31	15	---	2.0	19	---	4.1	---	2.5	---	1.2	1.6	---
TOTAL	122.05	83.8	203.1	823.9	685.7	329.7	536.1	1106.8	969.4	47.92	23.87	276.81
MEAN	3.94	2.79	6.55	26.6	23.6	10.6	17.9	35.7	32.3	1.55	.77	9.23
MAX	55	11	112	226	165	111	174	475	198	25	5.3	107
MIN	.44	1.1	1.3	1.9	7.1	3.6	1.7	2.5	1.5	.05	.00	.00
AC-FT	242	166	403	1630	1360	654	1060	2200	1920	95	47	549
CFSM	.08	.05	.13	.52	.46	.21	.35	.70	.63	.03	.02	.18
IN.	.09	.06	.15	.60	.50	.24	.39	.80	.70	.03	.02	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2000, BY WATER YEAR (WY)

MEAN	33.0	21.9	33.5	29.3	31.5	26.7	24.5	58.3	42.7	11.3	11.0	13.1
MAX	215	161	367	237	203	121	90.0	170	435	55.7	77.6	51.7
(WY)	1999	1975	1992	1968	1992	1992	1977	1981	1981	1987	1996	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

08158600 WALNUT CREEK AT WEBBERVILLE ROAD, AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1966 - 2000	
ANNUAL TOTAL	5371.54		5209.15			
ANNUAL MEAN	14.7		14.2		28.2	
HIGHEST ANNUAL MEAN					94.6	1992
LOWEST ANNUAL MEAN					1.91	1967
HIGHEST DAILY MEAN	1190	May 18	475	May 2	4330	Dec 21 1991
LOWEST DAILY MEAN	.00	Aug 16	.00	Aug 14	.00	Jun 17 1967
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 27	.07	Aug 9	.00	Jun 17 1967
INSTANTANEOUS PEAK FLOW			2040	May 2	14300	May 25 1981
INSTANTANEOUS PEAK STAGE			12.97	May 2	27.24	May 25 1981
ANNUAL RUNOFF (AC-FT)	10650		10330		20420	
ANNUAL RUNOFF (CFSM)	.29		.28		.55	
ANNUAL RUNOFF (INCHES)	3.90		3.78		7.47	
10 PERCENT EXCEEDS	20		24		43	
50 PERCENT EXCEEDS	5.1		3.3		7.3	
90 PERCENT EXCEEDS	.03		.30		1.0	



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 Sep 1986.
SEDIMENT DATA: Dec 1977 to Jul 1982.

INSTRUMENTATION.--Stage-activated automatic sampler since Feb 22, 1989

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
JAN												
07-07	1005	344	--	270	7.8	--	800	320	--	--	80	12000
FEB												
22-23	2350	187	--	266	7.6	--	400	75	--	--	51	27000
APR												
11...	1200	--	5.4	512	8.0	19.5	10	.60	8.2	91	<10	100
JUL												
19...	1225	--	.57	565	7.8	30.6	13	1.3	5.6	75	<10	170

DATE	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)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
JAN												
07-07	--	67	967	53	914	.327	.016	.343	.083	3.4	3.0	3.1
FEB												
22-23	--	30	530	30	500	.486	.013	.499	.025	2.8	2.3	2.3
APR												
11...	--	150	3	1	2	--	<.010	.153	<.020	--	--	<.10
JUL												
19...	118	--	<10	<10	--	--	<.010	<.050	<.020	--	--	.25

DATE	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)	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)
JAN											
07-07	1.23	<.050	.023	.07	39	--	--	1	16	29	110
FEB											
22-23	.752	<.050	<.010	--	27	--	--	M	11	14	62
APR											
11...	<.050	<.050	<.010	--	3.5	E.950	<.100	<1	E1	<1	<31
JUL											
19...	<.050	<.050	<.010	--	3.4	.370	<.100	<1	E1	<1	<31

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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 Jun 1979 (periodic discharge measurements only), Jul 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 878.13 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

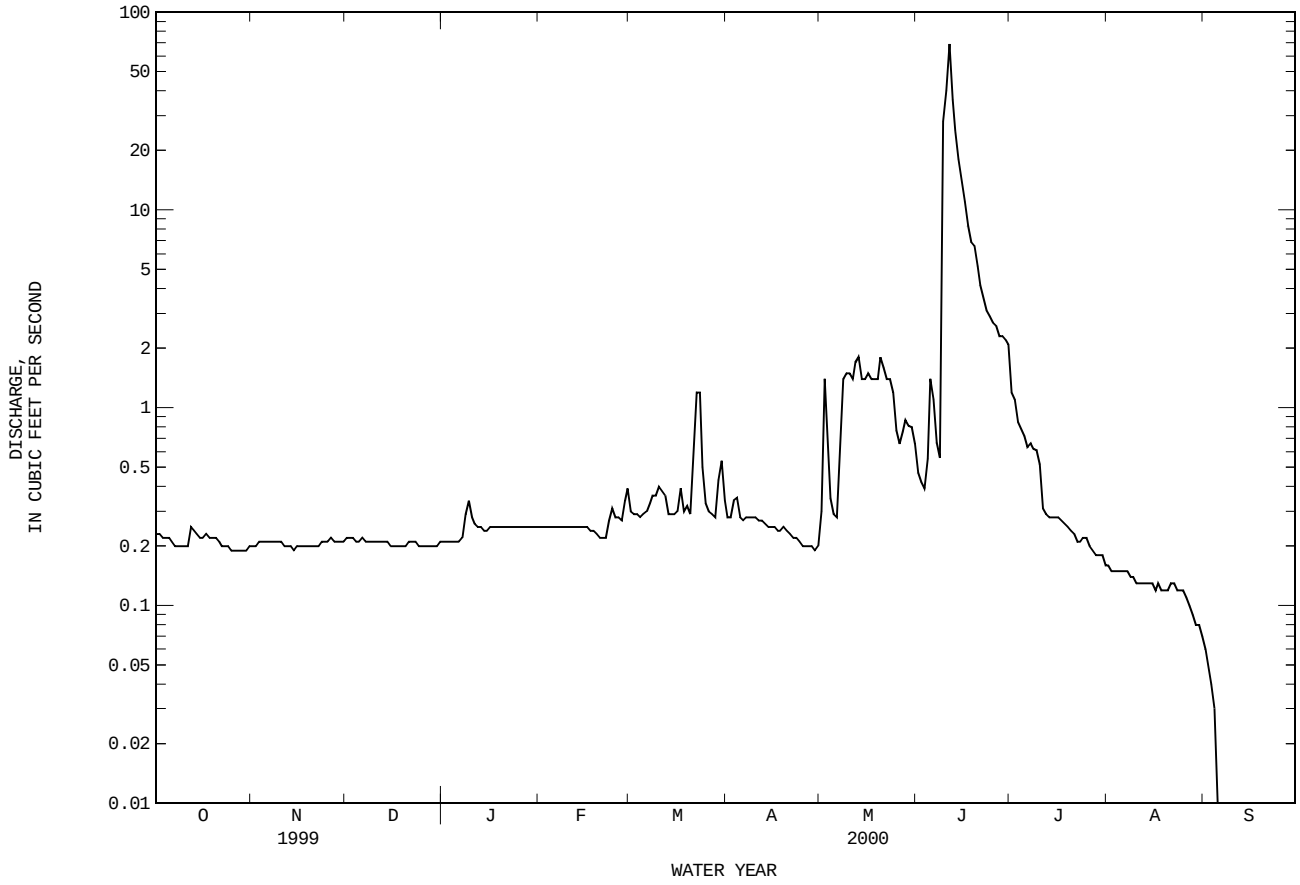
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.20	.22	.21	.25	.30	.28	.30	.47	1.2	.16	.06
2	.23	.20	.22	.21	.25	.29	.28	1.4	.42	1.1	.15	.05
3	.22	.21	.22	.21	.25	.29	.34	.66	.39	.85	.15	.04
4	.22	.21	.21	.21	.25	.28	.35	.35	.55	.78	.15	.03
5	.22	.21	.21	.21	.25	.29	.28	.29	1.4	.72	.15	.01
6	.21	.21	.22	.21	.25	.30	.27	.28	1.1	.63	.15	.00
7	.20	.21	.21	.22	.25	.33	.28	.58	.67	.66	.15	.00
8	.20	.21	.21	.29	.25	.36	.28	1.4	.56	.62	.14	.00
9	.20	.21	.21	.34	.25	.36	.28	1.5	28	.61	.14	.00
10	.20	.21	.21	.28	.25	.40	.28	1.5	40	.52	.13	.00
11	.20	.20	.21	.26	.25	.38	.27	1.4	69	.31	.13	.00
12	.25	.20	.21	.25	.25	.36	.27	1.7	36	.29	.13	.00
13	.24	.20	.21	.25	.25	.29	.26	1.8	25	.28	.13	.00
14	.23	.19	.21	.24	.25	.29	.25	1.4	18	.28	.13	.00
15	.22	.20	.20	.24	.25	.29	.25	1.4	14	.28	.13	.00
16	.22	.20	.20	.25	.25	.30	.25	1.5	11	.28	.12	.00
17	.23	.20	.20	.25	.24	.39	.24	1.4	8.4	.27	.13	.00
18	.22	.20	.20	.25	.24	.30	.24	1.4	6.9	.26	.12	.00
19	.22	.20	.20	.25	.23	.32	.25	1.4	6.6	.25	.12	.00
20	.22	.20	.20	.25	.22	.29	.24	1.8	5.2	.24	.12	.00
21	.21	.20	.21	.25	.22	.57	.23	1.6	4.2	.23	.13	.00
22	.20	.20	.21	.25	.22	1.2	.22	1.4	3.6	.21	.13	.00
23	.20	.21	.21	.25	.27	1.2	.22	1.4	3.1	.21	.12	.00
24	.20	.21	.20	.25	.31	.50	.21	1.2	2.9	.22	.12	.00
25	.19	.21	.20	.25	.28	.33	.20	.77	2.7	.22	.12	.00
26	.19	.22	.20	.25	.28	.30	.20	.66	2.6	.20	.11	.00
27	.19	.21	.20	.25	.27	.29	.20	.76	2.3	.19	.10	.00
28	.19	.21	.20	.25	.34	.28	.20	.87	2.3	.18	.09	.00
29	.19	.21	.20	.25	.39	.43	.19	.81	2.2	.18	.08	.00
30	.19	.21	.20	.25	---	.54	.20	.80	2.1	.18	.08	.00
31	.20	---	.21	.25	---	.34	---	.66	---	.16	.07	---
TOTAL	6.53	6.16	6.42	7.63	7.51	12.39	7.51	34.39	301.66	12.61	3.88	0.19
MEAN	.21	.21	.21	.25	.26	.40	.25	1.11	10.1	.41	.13	.006
MAX	.25	.22	.22	.34	.39	1.2	.35	1.8	69	1.2	.16	.06
MIN	.19	.19	.20	.21	.22	.28	.19	.28	.39	.16	.07	.00
AC-FT	13	12	13	15	15	25	15	68	598	25	7.7	.4
CFSM	.00	.00	.00	.00	.00	.00	.00	.01	.08	.00	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.01	.09	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

MEAN	35.3	30.5	67.5	53.5	68.4	69.8	50.3	69.8	145	25.5	5.44	7.21
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	.21	.10	.10	.25	.26	.40	.25	.27	.089	.13	.055	.006
(WY)	2000	1989	1989	2000	2000	2000	2000	1996	1996	1996	1996	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1979 - 2000	
ANNUAL TOTAL	3901.67		406.88			
ANNUAL MEAN	10.7		1.11		52.2	
HIGHEST ANNUAL MEAN					196	1992
LOWEST ANNUAL MEAN					1.11	2000
HIGHEST DAILY MEAN	71	Jul 12	69	Jun 11	5060	Dec 21 1991
LOWEST DAILY MEAN	.19	Oct 25	.00	Sep 6	.00	Aug 21 1984
ANNUAL SEVEN-DAY MINIMUM	.19	Oct 24	.00	Sep 6	.00	Sep 14 1984
INSTANTANEOUS PEAK FLOW			187	Jun 10	15800	Oct 17 1998
INSTANTANEOUS PEAK STAGE			3.08	Jun 10	25.10	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	7740		807		37830	
ANNUAL RUNOFF (CFSM)	.086		.009		.42	
ANNUAL RUNOFF (INCHES)	1.17		.12		5.72	
10 PERCENT EXCEEDS	28		1.4		121	
50 PERCENT EXCEEDS	5.1		.23		8.6	
90 PERCENT EXCEEDS	.20		.12		.28	

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 Sep 1986.

INSTRUMENTATION.--Stage-activated automatic sampler since Jan 26, 2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
JUN										
27...	0848	2.5	531	7.8	27.9	12	.80	6.5	85	<10
JUL										
19...	0910	.26	521	7.7	28.2	8	.80	5.6	73	<10

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	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,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUN									
27...	43	208	<10	<10	<.010	<.050	<.020	.19	<.050
JUL									
19...	K17	187	<10	<10	<.010	<.050	<.020	.16	<.050

DATE	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)	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)
JUN									
27...	<.050	<.010	3.1	.600	<.100	<1	<1	<1	<31
JUL									
19...	<.050	<.010	3.5	--	--	<1	<1	<1	<31

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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 Jul 1979 (periodic discharge measurements only), Oct 1978 to Jun 1979 (peak discharges above base only), Jul 1979 to current year.

Water-quality records.--Chemical data: Mar 1978 to Jun 1997. Biochemical data: Mar 1978 to Jun 1997. Radiochemical data: Jan 1980. Pesticide data: Jun 1978 to Sep 1986.

GAGE.--Water-stage recorder. Elevation of gage is 860 ft above sea level from topographic map. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jun 9, 1939 (corrected), 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 ft higher than the 1939 flood, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.03	.07	.12	.11	.04	1.6	e.15	.02
2	.00	.00	.00	.00	.03	.07	.14	4.6	.04	1.5	e.14	.01
3	.00	.00	.00	.00	.03	.06	.21	.82	.04	1.4	e.14	.00
4	.00	.00	.00	.00	.03	.05	.12	.63	.05	1.3	e.14	.00
5	.00	.00	.00	.00	.03	.04	.11	.45	.04	1.1	e.14	.00
6	.00	.00	.00	.00	.03	.06	.12	.36	.04	1.0	e.14	.00
7	.00	.00	.00	.00	.03	.07	.11	.29	.04	.93	.13	.00
8	.00	.00	.00	.02	.03	.07	.07	.23	.04	.81	.12	.00
9	.00	.00	.00	.02	.03	.07	.06	.19	57	.73	.10	.00
10	.00	.00	.00	.02	.04	.07	.04	.19	15	.66	.10	.00
11	.00	.00	.00	.01	.04	.07	.06	.15	12	.61	.09	.00
12	.00	.00	.00	.01	.04	.06	.12	.13	8.1	.57	.08	.00
13	.00	.00	.00	.01	.04	.05	.06	.14	6.5	.53	.06	.00
14	.00	.00	.00	.01	.04	.07	.05	.10	5.5	.49	.04	.00
15	.00	.00	.00	.01	.04	.06	.06	.09	4.7	.44	.04	.00
16	.00	.00	.00	.01	.04	.04	.04	.07	4.1	.42	.04	.00
17	.00	.00	.00	.01	.07	.10	.04	.07	3.8	.42	.03	.00
18	.00	.00	.00	.01	.09	.07	.04	.07	3.6	.42	.03	.00
19	.00	.00	.00	.01	.09	.08	.05	.07	9.9	.39	.03	.00
20	.00	.00	.00	.00	.04	.08	.04	.07	5.4	.34	.03	.00
21	.00	.00	.00	.00	.07	.10	.04	.07	4.6	.30	.03	.00
22	.00	.00	.00	.00	.10	.11	.04	.07	4.0	e.29	.03	.00
23	.00	.00	.00	.00	.15	.11	.04	.06	3.4	e.25	.03	.00
24	.00	.00	.00	.00	.07	.11	.04	.05	3.1	e.22	.03	.00
25	.00	.00	.00	.00	.06	.11	.03	.04	2.7	e.20	.03	.00
26	.00	.00	.00	.00	.10	.12	.03	.04	2.4	e.18	.03	.00
27	.00	.00	.00	.01	.07	.13	.03	.04	2.2	e.17	.02	.00
28	.00	.00	.00	.02	.07	.12	.03	.04	2.1	e.16	.02	.00
29	.00	.00	.00	.02	.07	.16	.03	.04	1.9	e.15	.02	.00
30	.00	.00	.00	.02	---	.13	.02	.04	1.7	e.15	.02	.00
31	.00	---	.00	.02	---	.11	---	.04	---	e.15	.02	---
TOTAL	0.00	0.00	0.00	0.24	1.60	2.62	1.99	9.36	164.03	17.88	2.05	0.03
MEAN	.000	.000	.000	.008	.055	.085	.066	.30	5.47	.58	.066	.001
MAX	.00	.00	.00	.02	.15	.16	.21	4.6	57	1.6	.15	.02
MIN	.00	.00	.00	.00	.03	.04	.02	.04	.04	.15	.02	.00
AC-FT	.00	.00	.00	.5	3.2	5.2	3.9	19	325	35	4.1	.06
CFSM	.00	.00	.00	.00	.00	.01	.01	.02	.45	.05	.01	.00
IN.	.00	.00	.00	.00	.00	.01	.01	.03	.50	.05	.01	.00

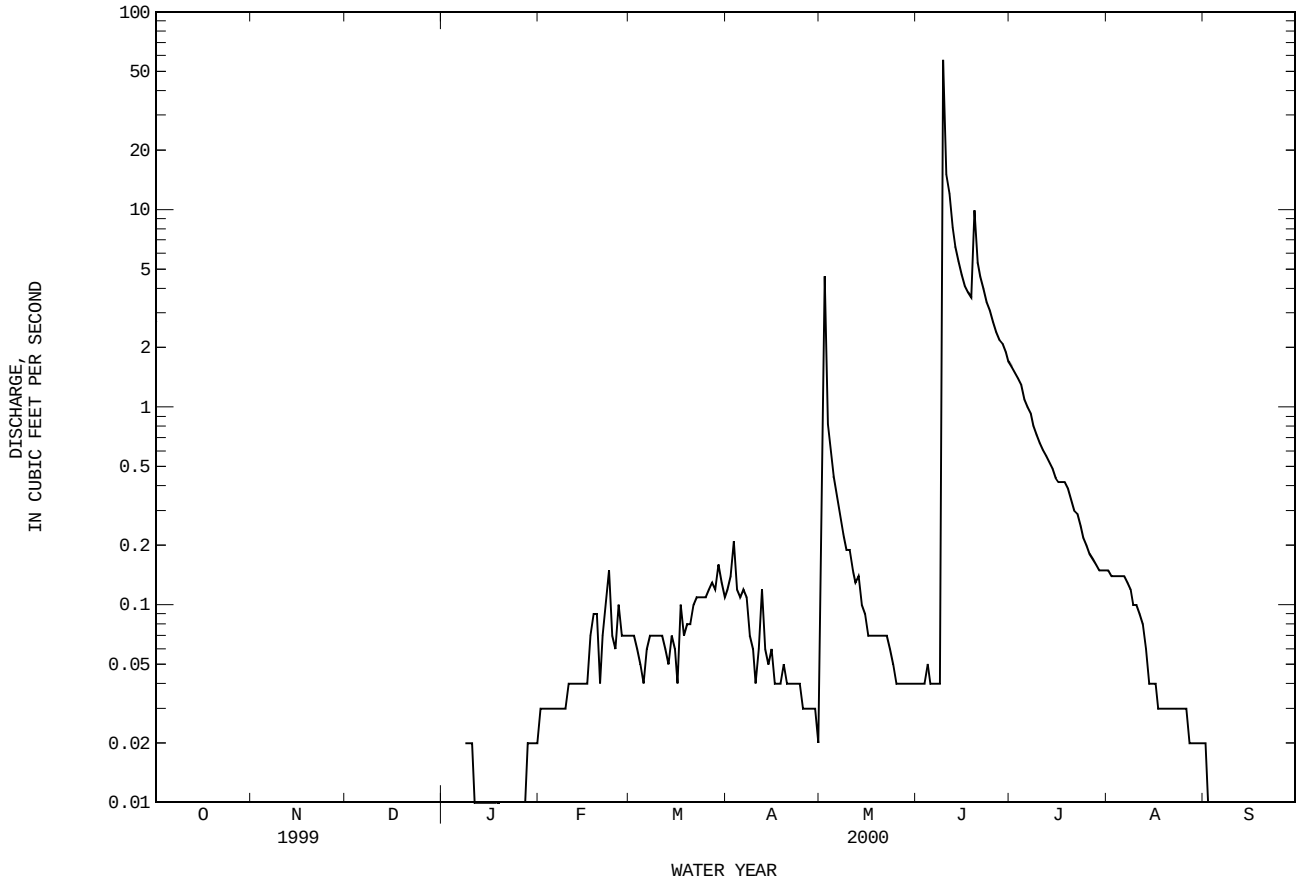
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

MEAN	4.44	3.18	8.94	6.14	8.09	7.43	5.84	8.02	18.0	2.25	.68	.52
MAX	46.3	30.3	91.8	33.3	49.4	32.3	26.2	23.7	144	8.22	3.59	2.71
(WY)	1999	1999	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

08158810 BEAR CREEK BELOW FARM ROAD 1826 NEAR DRIFTWOOD, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1979 - 2000	
ANNUAL TOTAL	413.52		199.80			
ANNUAL MEAN	1.13		.55		6.09	
HIGHEST ANNUAL MEAN					22.3	1992
LOWEST ANNUAL MEAN					.10	1996
HIGHEST DAILY MEAN	11	Jul 12	57	Jun 9	1000	Dec 20 1991
LOWEST DAILY MEAN	.00	Sep 24	.00	Oct 1	.00	Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 24	.00	Oct 1	.00	Aug 28 1980
INSTANTANEOUS PEAK FLOW			400	Jun 9	10200	Dec 20 1991
INSTANTANEOUS PEAK STAGE			4.94	Jun 9	14.23	Dec 20 1991
ANNUAL RUNOFF (AC-FT)	820		396		4410	
ANNUAL RUNOFF (CFSM)	.093		.045		.50	
ANNUAL RUNOFF (INCHES)	1.26		.61		6.79	
10 PERCENT EXCEEDS	2.6		.58		13	
50 PERCENT EXCEEDS	.98		.04		1.1	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated



08158840 SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TX

LOCATION.--Lat 30°12′32", long 97°54′11", Travis County, Hydrologic Unit 12090205, 1.7 mi south of the intersection on U.S. Highway 290 and Farm Road 1826, and 11.9 mi southwest of the State Capitol Building in Austin.

DRAINAGE AREA.--8.24 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Jan 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 876.14 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 9	1400	1,770	7.96	No other peak greater than base discharge.			

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	.00	.00	.00	.00	.00	.00	.00	.09	.00	1.9	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.19	.00	1.7	.00	.00
3	.00	.00	.00	.00	.00	.00	.09	.00	.00	1.6	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.11	1.5	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	151	.90	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	49	.80	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	31	.72	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	9.6	.65	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	5.1	.56	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	2.9	.51	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.44	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.37	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.33	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.29	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	36	.26	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	23	.23	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	14	.20	.00	.00
22	.00	.00	.00	.00	.02	.00	.00	.00	8.9	.19	.00	.00
23	.00	.00	.00	.00	.07	.00	.00	.00	5.9	e.14	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	4.0	e.09	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	3.4	e.05	.00	.00
26	.00	.00	.00	.00	.06	.00	.00	.00	3.1	.03	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	2.8	.01	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	2.1	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.15	0.00	0.09	0.28	365.41	18.27	0.00	0.00
MEAN	.000	.000	.000	.000	.005	.000	.003	.009	12.2	.59	.000	.000
MAX	.00	.00	.00	.00	.07	.00	.09	.19	151	1.9	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.3	.00	.2	.6	725	36	.00	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	1.48	.07	.00	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.00	1.65	.08	.00	.00

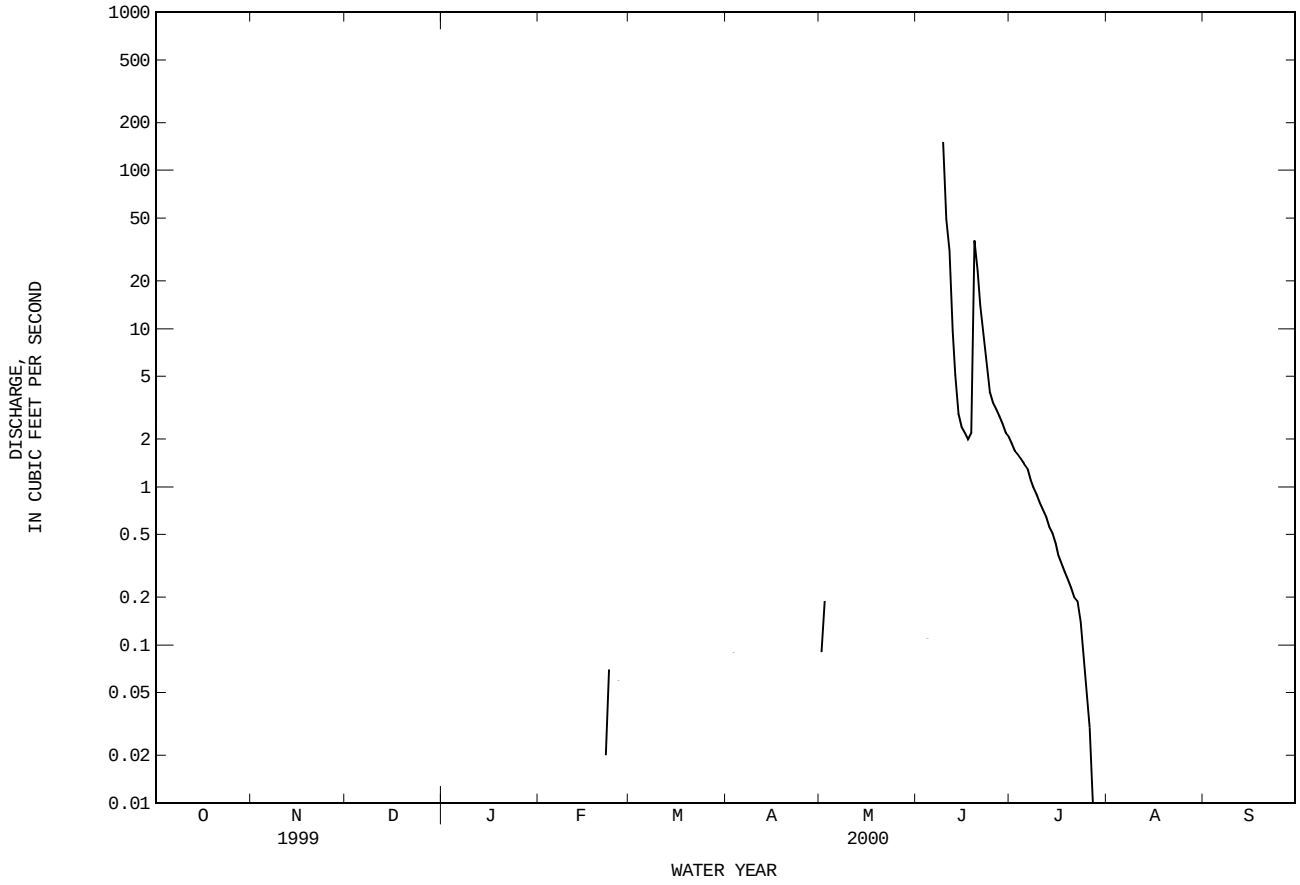
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

MEAN	4.30	2.39	8.07	4.88	6.12	5.61	4.43	9.81	15.7	1.14	.36	.40
MAX	35.5	18.5	75.0	24.4	40.6	22.2	27.1	33.0	101	5.31	2.28	4.33
(WY)	1987	1986	1992	1992	1992	1998	1979	1995	1981	1979	1983	1991
MIN	.000	.000	.000	.000	.000	.000	.000	.009	.002	.000	.000	.000
(WY)	1983	1989	1989	1990	1996	1989	1996	2000	1996	1984	1980	1984

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1978 - 2000	
ANNUAL TOTAL	170.01		384.20			
ANNUAL MEAN	.47		1.05		5.41	
HIGHEST ANNUAL MEAN					17.9	1992
LOWEST ANNUAL MEAN					.003	1996
HIGHEST DAILY MEAN	5.7	May 26	151	Jun 9	901	Jun 11 1981
LOWEST DAILY MEAN	.00	Aug 13	.00	Oct 1	.00	Jan 26 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 13	.00	Oct 1	.00	Jan 26 1978
INSTANTANEOUS PEAK FLOW			1770	Jun 9	6330	Dec 20 1991
INSTANTANEOUS PEAK STAGE			7.96	Jun 9	10.79	Jun 11 1981
ANNUAL RUNOFF (AC-FT)	337		762		3920	
ANNUAL RUNOFF (CFSM)	.057		.13		.66	
ANNUAL RUNOFF (INCHES)	.77		1.73		8.93	
10 PERCENT EXCEEDS	1.0		.46		10	
50 PERCENT EXCEEDS	.49		.00		.32	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

08158840 SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TX--Continued



08158840 SLAUGHTER CREEK AT FARM ROAD 1826 NEAR AUSTIN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL DATA: Jun 1983 to current year.
BIOCHEMICAL DATA: Jun 1983 to current year.
PESTICIDE DATA: Jun 1983 to Sep 1986.

INSTRUMENTATION.--Stage-activated automatic sampler since Oct 26, 1999.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
JUN											
09-09	0705	215	--	166	7.8	--	200	68	--	--	40
26...	1115	--	3.2	702	7.8	26.9	14	.40	7.2	--	<10
JUL											
18...	0945	--	.29	739	7.7	27.9	14	2.6	6.3	82	<10

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
JUN											
09-09	30000	62	168	23	145	<.010	.370	<.020	1.5	1.1	.168
26...	120	258	<10	<10	--	<.010	.137	<.020	.35	.21	<.050
JUL											
18...	K290	240	<10	<10	--	<.010	<.050	<.020	--	.23	<.050

DATE	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)	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)
JUN										
09-09	.052	.030	.09	14	--	--	M	3	4	E22
26...	<.050	<.010	--	3.3	.630	<.100	<1	<1	<1	<31
JUL										
18...	<.050	<.010	--	4.1	.820	<.100	<1	<1	<1	<31

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08158922 WILLIAMSON CREEK AT BRUSH COUNTRY BOULEVARD, OAK HILL, TX

LOCATION.--Lat 30°13′34", long 97°52′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, (levels from city of Austin benchmark). Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 9	1655	638	4.69	No other peak greater than base discharge.			

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	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.03	5.6	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.01	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.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	.07	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.02	.00	.00	.00	.00	.05	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	79	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	2.6	.00	.00	.00
12	.00	.00	.04	.00	.00	.00	.01	.00	.02	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
17	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	e.00
18	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.13	.03	.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	.03	.00	.00	.00	.00	.00	.02	.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	.02	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	e.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.03	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.05	0.00	0.04	0.11	0.05	0.04	0.07	7.13	98.00	0.00	0.03	0.00
MEAN	.002	.000	.001	.004	.002	.001	.002	.23	3.27	.000	.001	.000
MAX	.03	.00	.04	.07	.03	.04	.03	5.6	79	.00	.02	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.1	.00	.08	.2	.1	.08	.1	14	194	.00	.06	.00

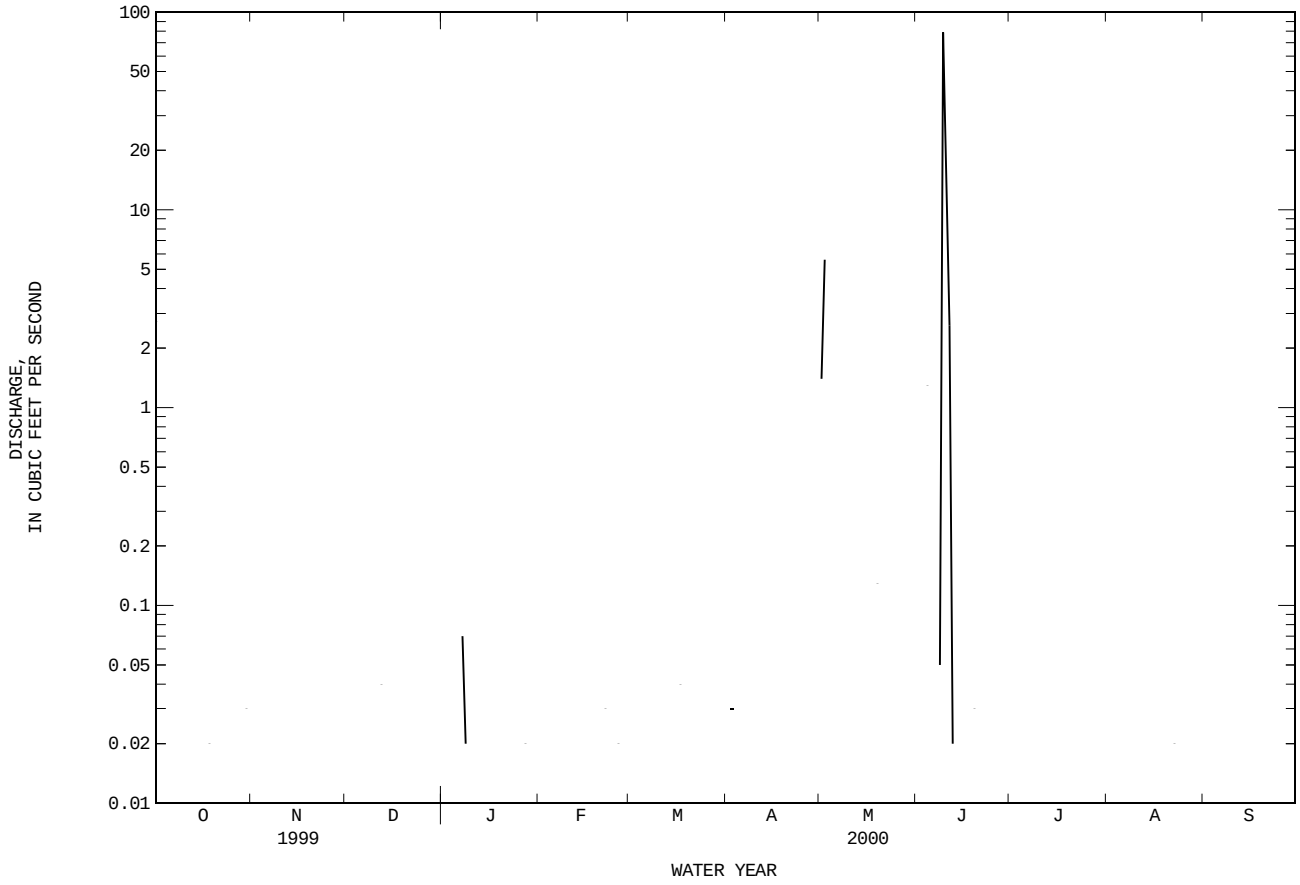
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2000, BY WATER YEAR (WY)

MEAN	4.26	.70	.52	.27	2.28	.76	.48	2.49	2.66	.003	.076	.028
MAX	24.8	4.64	2.38	1.76	15.9	4.88	3.48	10.3	13.1	.014	.55	.14
(WY)	1999	1999	1995	1998	1998	1998	1997	1997	1997	1999	1994	1994
MIN	.000	.000	.000	.000	.000	.000	.000	.004	.001	.000	.000	.000
(WY)	1997	2000	1996	1994	1999	1996	1999	1998	1994	1993	1999	1993

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1993 - 2000	
ANNUAL TOTAL	7.12		105.52			
ANNUAL MEAN	.020		.29		1.27	
HIGHEST ANNUAL MEAN					2.51	1999
LOWEST ANNUAL MEAN					.039	1996
HIGHEST DAILY MEAN	4.1	May 26	79	Jun 9	455	Oct 17 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Mar 11 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Mar 11 1993
INSTANTANEOUS PEAK FLOW			638	Jun 9	2700	Oct 17 1998
INSTANTANEOUS PEAK STAGE			4.69	Jun 9	7.10	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	14		209		921	
10 PERCENT EXCEEDS	.00		.00		.02	
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 since Mar 10, 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
MAY										
01-01	0625	3.2	164	7.6	300	280	49	34000	29000	56
JUN										
04-04	1615	9.8	129	7.2	210	200	43	110000	94000	45

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	RESIDUE FIXED NON FILTER-ABLE (MG/L) (00540)	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)
MAY										
01-01	296	26	270	.726	.027	.753	.397	2.4	1.2	1.6
JUN										
04-04	302	30	272	.406	.018	.424	<.020	1.7	--	1.3

DATE	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)
MAY									
01-01	.333	.081	.058	.178	19	.2	8	11	40
JUN									
04-04	.341	.096	.082	.251	17	.2	7	11	52

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08158930 Williamson Creek at Manchaca Rd., Austin, TX

LOCATION.--Lat 30°13'16", long 97°47'36", (determined from USGS topographic map, Oak Hill Quadrangle, 1966 edition, scale 1:24,00), 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 Sep 1985 (discharge measurements and annual maximum). Jan 2000 to Sep 2000.

GAGE.--Water-stage recorder. Datum of gage is 618.39. Satellite telemeter at gage.

REMARKS.--Records fair. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharges May 1, 1,290 ft^3/s (gage-height 7.65 ft); minimum no flow many days.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s:

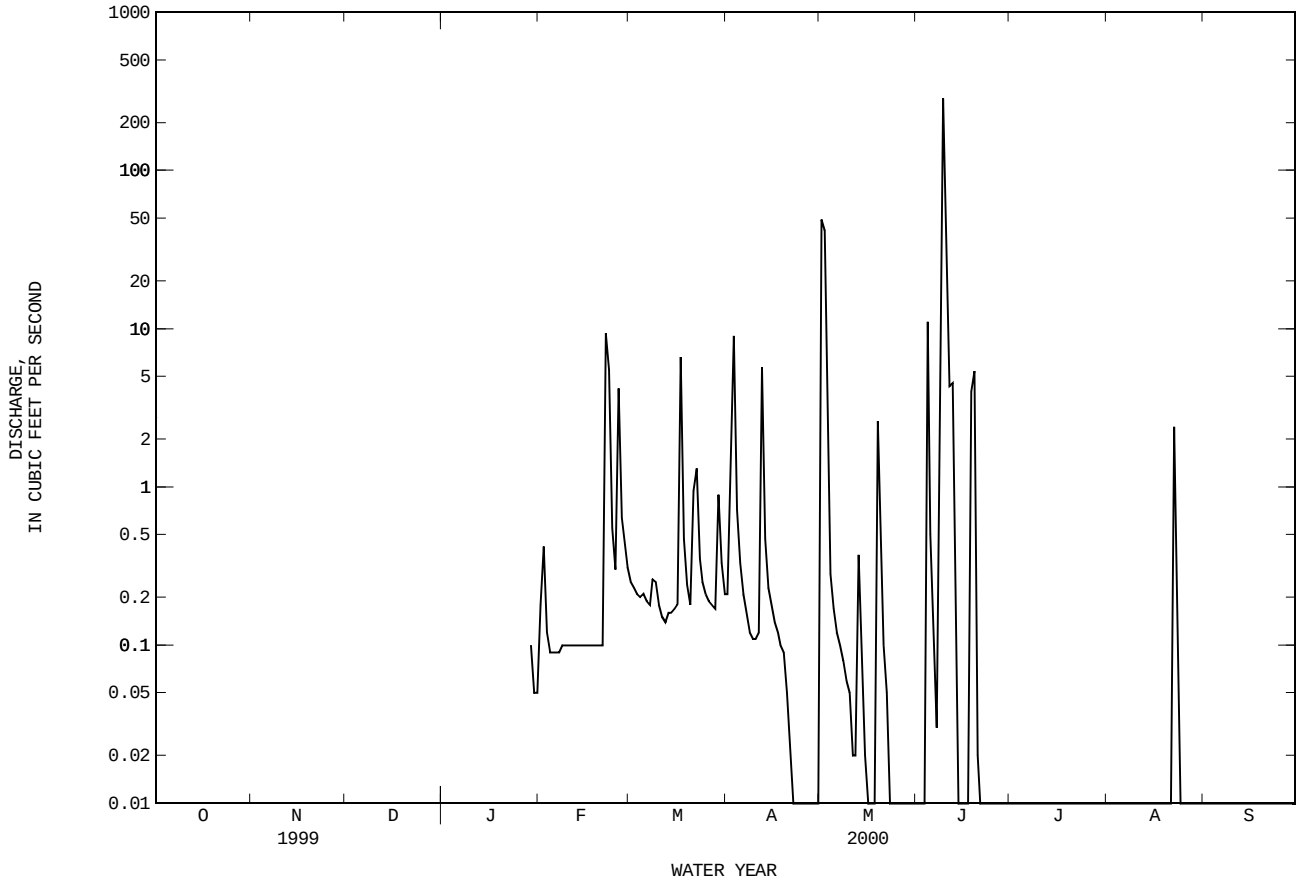
Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 1	0430	663	6.54	Jun 9	1840	1,290	7.65

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	---	---	---	---	.18	.25	.21	49	.00	.00	.00	.00
2	---	---	---	---	.42	.23	2.4	42	.00	.00	.00	.00
3	---	---	---	---	.12	.21	9.0	1.0	.00	.00	.00	.00
4	---	---	---	---	.09	.20	.71	.28	11	.00	.00	.00
5	---	---	---	---	.09	.21	.33	.17	.50	.00	.00	.00
6	---	---	---	---	.09	.19	.21	.12	.11	.00	.00	.00
7	---	---	---	---	.09	.18	.16	.10	.03	.00	.00	.00
8	---	---	---	---	.10	.26	.12	.08	6.8	.00	.00	.00
9	---	---	---	---	.10	.25	.11	.06	286	.00	.00	.00
10	---	---	---	---	.10	.18	.11	.05	60	.00	.00	.00
11	---	---	---	---	.10	.15	.12	.02	4.3	.00	.00	.00
12	---	---	---	---	.10	.14	5.7	.02	4.5	.00	.00	.00
13	---	---	---	---	.10	.16	.47	.37	.72	.00	.00	.00
14	---	---	---	---	.10	.16	.23	.08	.00	.00	.00	.00
15	---	---	---	---	.10	.17	.18	.02	.00	.00	.00	.00
16	---	---	---	---	.10	.18	.14	.00	.00	.00	.00	.00
17	---	---	---	---	.10	6.6	.12	.00	.00	.00	.00	.00
18	---	---	---	---	.10	.47	.10	.00	4.0	.00	.00	.00
19	---	---	---	---	.10	.24	.09	2.6	5.4	.00	.00	.00
20	---	---	---	---	.10	.18	.05	.49	.02	.00	.00	.00
21	---	---	---	---	.10	.94	.02	.10	.00	.00	.00	.00
22	---	---	---	---	9.3	1.3	.00	.05	.00	.00	2.4	.00
23	---	---	---	---	5.5	.35	.00	.01	.00	.00	.25	.00
24	---	---	---	---	.55	.25	.00	.00	.00	.00	.00	.00
25	---	---	---	---	.30	.21	.00	.00	.00	.00	.00	.00
26	---	---	---	---	4.2	.19	.00	.00	.00	.00	.00	.00
27	---	---	---	---	.64	.18	.00	.00	.00	.00	.00	.00
28	---	---	---	---	.43	.17	.00	.00	.00	.00	.00	.00
29	---	---	---	.10	.31	.89	.00	.00	.00	.00	.00	.00
30	---	---	---	.05	---	.33	.00	.00	.00	.00	.00	.00
31	---	---	---	.05	---	.21	---	.00	---	e.00	.00	---
TOTAL	---	---	---	---	23.71	15.63	20.58	96.62	383.38	0.00	2.65	0.00
MEAN	---	---	---	---	.82	.50	.69	3.12	12.8	.000	.085	.000
MAX	---	---	---	---	9.3	6.6	9.0	49	286	.00	2.4	.00
MIN	---	---	---	---	.09	.14	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	47	31	41	192	760	.00	5.3	.00

e Estimated

08158930 Williamson Creek at Manchaca Rd., 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 Sep 1988. Biochemical data: Oct 1976 to Sep 1988. Radiochemical data: Jan 1980. Pesticide data: Oct 1976 to Sep 1986. Sediment data: Oct 1976 to Sep 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.--Records fair, 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1869 occurred about Jul 3, 1869, stage about 38 ft, from newspaper accounts, and Sep 9, 1921, stage 38.0 ft, from floodmark, present site and datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 9	2245	5,180	14.95	No other peak greater than base discharge.			

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	.00	1.6	.86	1.3	3.5	2.0	2.1	116	.00	.00	.00	.00
2	.00	1.6	.85	1.4	9.6	1.8	4.7	243	.00	.00	.00	.00
3	.00	2.5	.93	1.4	5.1	1.3	39	14	.00	.00	.00	.00
4	.00	1.2	1.0	1.3	3.9	1.1	17	3.8	22	.00	.00	.00
5	.00	1.2	.66	1.2	3.5	1.1	8.8	2.2	9.9	.00	.00	.00
6	.00	1.2	.15	1.4	3.4	1.1	4.0	2.1	1.1	.00	.00	.00
7	.00	1.2	.30	79	3.4	1.2	1.9	1.7	.45	.00	.00	.00
8	.00	1.2	.55	122	3.3	1.4	1.5	1.3	.29	.00	.00	.00
9	.00	1.2	.89	13	3.4	1.7	.92	1.1	846	.00	.00	.00
10	.00	1.2	.58	5.4	3.6	1.6	.92	1.1	736	.00	.00	.00
11	.00	1.1	.61	3.0	3.6	1.5	1.1	1.1	82	.00	.00	.00
12	.00	1.1	5.8	2.2	3.3	1.6	35	.99	38	.00	.00	.00
13	.00	1.1	3.0	1.9	3.5	2.1	7.7	1.4	61	.00	.00	.00
14	.00	1.1	1.4	1.8	3.2	2.2	3.9	1.3	9.1	.00	.00	.00
15	.00	1.1	1.0	1.6	3.0	2.3	2.8	.99	2.0	.00	.00	.00
16	.00	1.1	.80	1.8	3.1	2.4	2.0	.83	.00	.00	.00	.00
17	.00	1.1	.90	1.6	3.1	37	1.4	.67	.00	.00	.00	.00
18	.00	1.1	1.1	1.8	3.1	20	1.1	.59	13	.00	.00	.00
19	.00	1.0	1.1	1.8	2.9	15	1.3	.56	42	.00	.00	.00
20	.00	.99	1.1	1.7	2.7	10	1.1	.70	11	.00	.00	.00
21	.00	1.0	2.0	1.8	2.7	7.8	.75	.99	e2.0	.00	.00	.00
22	.00	1.0	1.7	1.9	3.1	8.2	.76	.75	e1.9	.00	.00	.00
23	.00	1.0	1.2	2.0	66	7.2	.74	.54	e1.8	.00	.00	.00
24	.00	.93	1.2	2.1	12	4.6	.65	.44	e1.6	.00	.00	.00
25	.00	.92	1.1	2.0	3.7	3.5	.54	.27	e1.5	.00	.00	.00
26	.00	.92	1.2	1.9	18	2.6	.47	.15	e1.3	.00	.00	.00
27	.00	.92	1.2	35	7.7	2.4	.42	.07	e1.1	.00	.00	.00
28	.00	.83	1.2	24	3.7	2.0	.38	.01	e.90	.00	.00	.00
29	.00	.81	1.2	8.5	2.7	3.9	.31	.00	.44	.00	.00	.00
30	7.2	.80	1.2	4.7	---	4.3	.42	.00	.13	.00	.00	.00
31	5.2	---	1.2	3.8	---	2.3	---	.00	---	.00	.00	---
TOTAL	12.40	34.02	37.98	334.3	193.8	157.2	143.68	398.65	1886.51	0.00	0.00	0.00
MEAN	.40	1.13	1.23	10.8	6.68	5.07	4.79	12.9	62.9	.000	.000	.000
MAX	7.2	2.5	5.8	122	66	37	39	243	846	.00	.00	.00
MIN	.00	.80	.15	1.2	2.7	1.1	.31	.00	.00	.00	.00	.00
AC-FT	25	67	75	663	384	312	285	791	3740	.00	.00	.00
CFSM	.00	.00	.00	.03	.02	.02	.01	.04	.20	.00	.00	.00
IN.	.00	.00	.00	.04	.02	.02	.02	.05	.22	.00	.00	.00

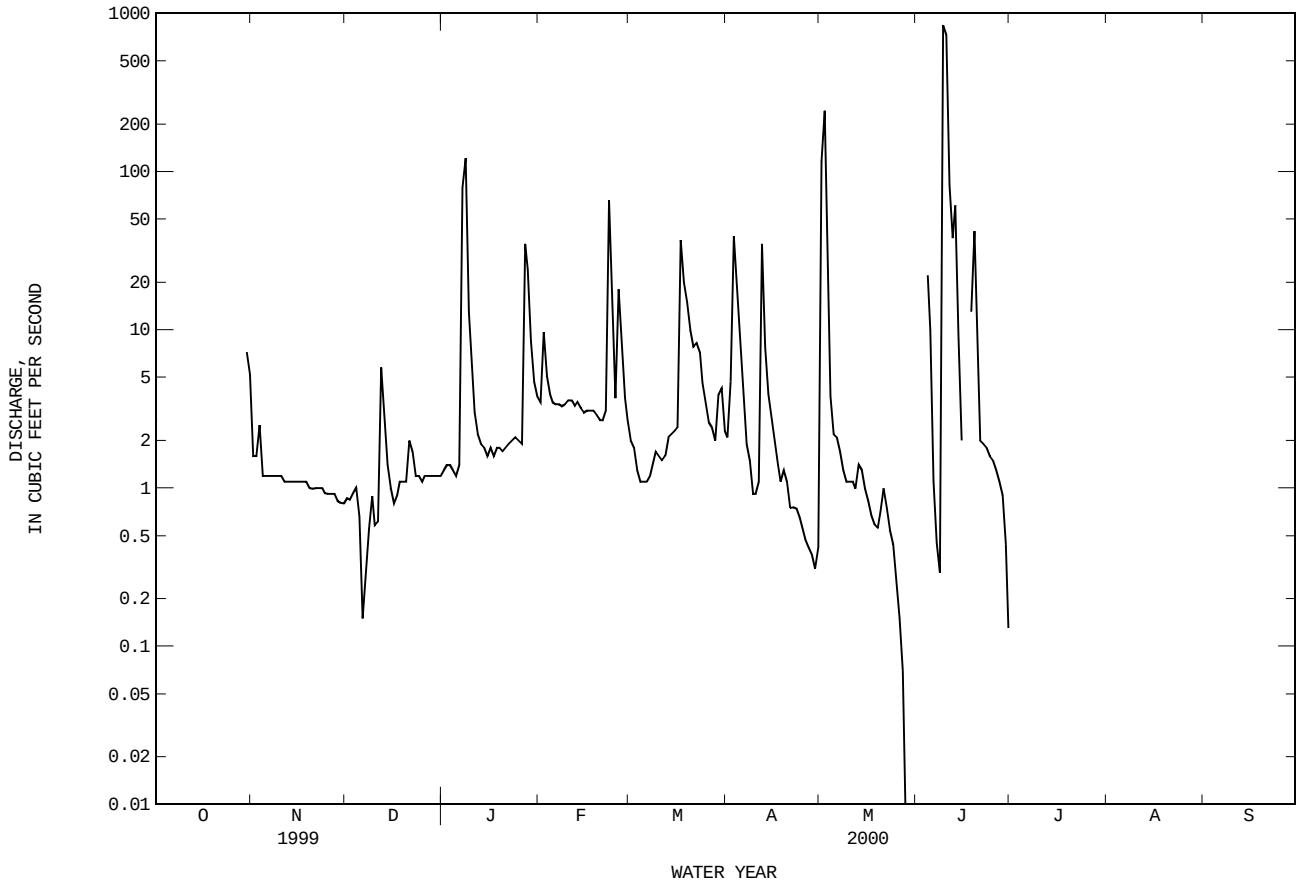
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2000h, BY WATER YEAR (WY)

MEAN	81.8	36.9	92.7	51.5	78.9	81.7	103	175	237	32.2	6.97	8.47
MAX	1346	400	1526	487	908	576	847	1767	2305	133	47.6	48.0
(WY)	1999	1999	1992	1992	1992	1992	1926	1929	1981	1981	1983	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

08159000 ONION CREEK AT U.S. HIGHWAY 183, AUSTIN, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1924 - 2000h	
ANNUAL TOTAL	5666.55		3198.54			
ANNUAL MEAN	15.5		8.74		81.1	
HIGHEST ANNUAL MEAN					379	1992
LOWEST ANNUAL MEAN					1.49	1925
HIGHEST DAILY MEAN	651	Mar 19	846	Jun 9	30500	May 28 1929
LOWEST DAILY MEAN	.00	Jul 28	.00	Oct 1	.00	Jun 3 1925
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 6	.00	Oct 1	.00	Jun 3 1925
INSTANTANEOUS PEAK FLOW			5180	Jun 9	76000	May 28 1929
INSTANTANEOUS PEAK STAGE			14.95	Jun 9	32.36	Oct 17 1998
ANNUAL RUNOFF (AC-FT)	11240		6340		58760	
ANNUAL RUNOFF (CFSM)	.048		.027		.25	
ANNUAL RUNOFF (INCHES)	.66		.37		3.43	
10 PERCENT EXCEEDS	35		7.3		125	
50 PERCENT EXCEEDS	3.9		1.0		6.0	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
h See PERIOD OF RECORD paragraph.



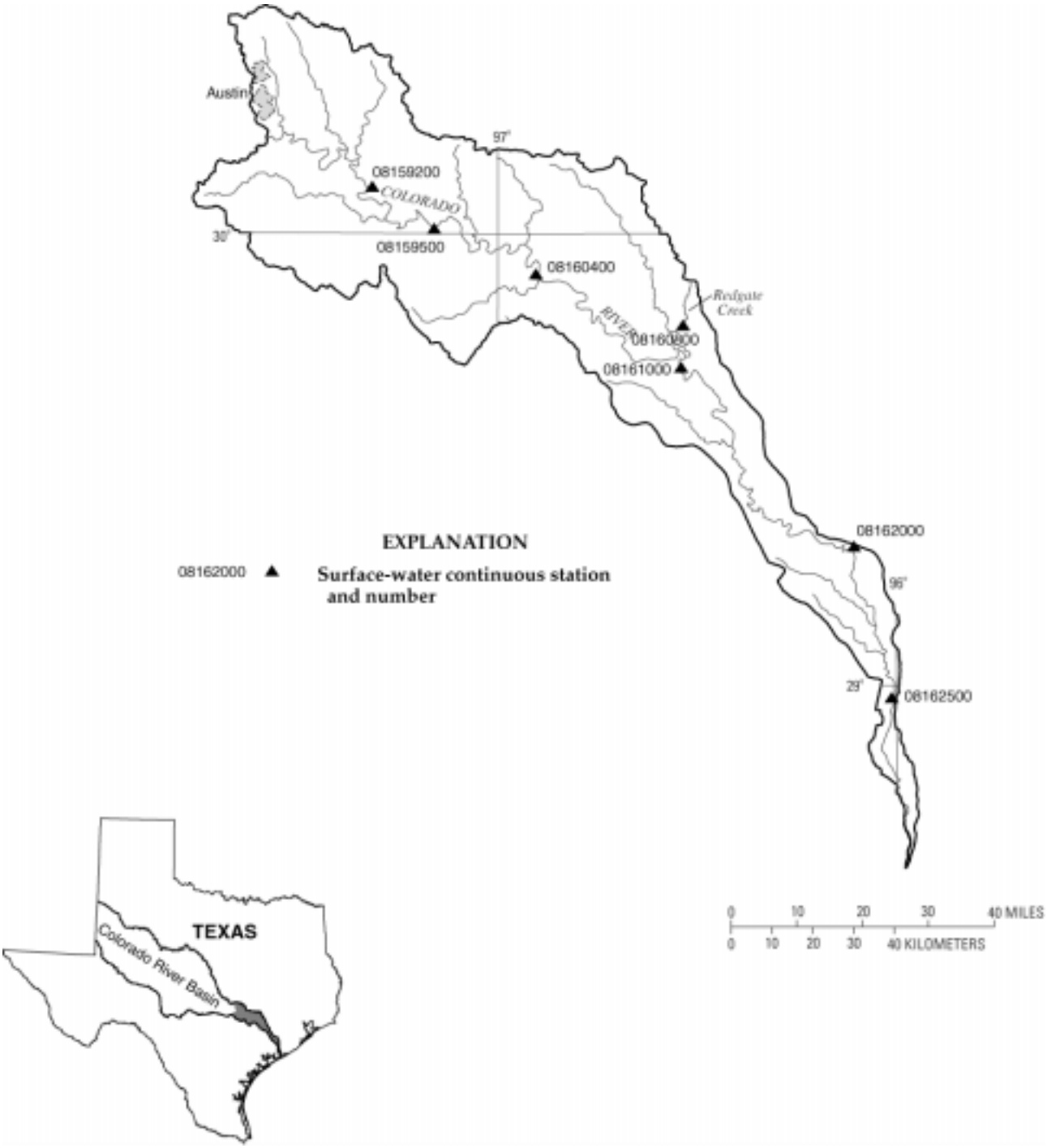


Figure 8.--Map showing location of gaging stations in the fifth section of the Colorado River Basin

08159200 Colorado River at Bastrop, TX 232
08159500 Colorado River at Smithville, TX 234
08160400 Colorado River above LaGrange, TX 236
08160800 Redgate Creek near Columbus, TX 238
08161000 Colorado River at Columbus, TX 240
08162000 Colorado River at Wharton, TX 242
08162500 Colorado River near Bay City, TX 244

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 Sep 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 Sep 1994. Biochemical data: Feb 1968 to Sep 1994. Specific conductance: Nov 1986 to Sep 1994. pH: Nov 1986 to Sep 1994. Water temperature: Nov 1986 to Sep 1994. Dissolved oxygen: Nov 1986 to Sep 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 Sep 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 good. Since installation of gage in Mar 1960, at least 10% of contributing drainage area has been regulated by Lake Travis (station 08154500), Lake Austin (station 08154900), Town Lake (station 08157900), and many other reservoirs (combined conservation pool storage of greater than 4,000,000 acre-ft). 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jul 7 or 8, 1869. Flood of Jun 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

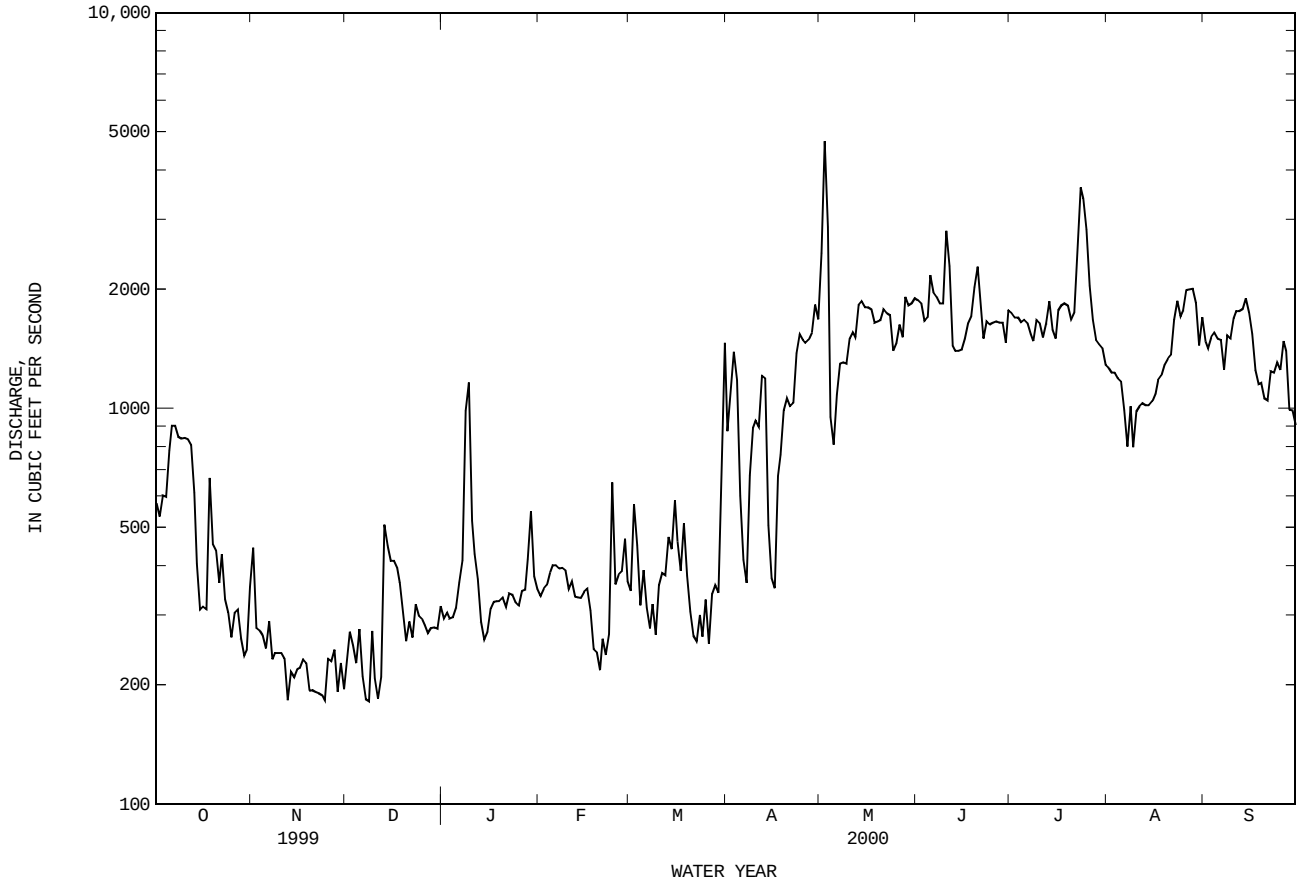
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	576	444	236	294	335	345	875	2460	1880	1740	1270	1480
2	533	278	272	305	350	572	1080	4730	1840	1700	1230	1420
3	603	274	252	294	357	450	1390	2870	1660	1700	1230	1510
4	597	266	227	297	385	317	1180	948	1700	1650	1190	1550
5	781	247	276	314	401	389	599	808	2170	1670	1170	1500
6	905	289	210	363	401	313	414	1080	1960	1640	988	1490
7	903	232	184	411	394	277	361	1300	1910	1540	799	1250
8	850	241	182	985	395	319	677	1310	1840	1480	1010	1530
9	840	241	273	1160	390	267	894	1300	1840	1670	796	1500
10	841	241	207	519	349	358	930	1500	2810	1640	981	1690
11	837	233	184	428	365	383	896	1560	2290	1510	1010	1760
12	807	183	209	369	334	380	1210	1510	1440	1640	1030	1760
13	611	215	507	289	333	473	1190	1820	1400	1860	1020	1780
14	404	209	450	260	332	440	505	1860	1400	1580	1020	1900
15	309	219	412	272	343	584	373	1800	1410	1500	1040	1750
16	315	221	411	311	350	460	351	1800	1500	1770	1090	1540
17	310	232	395	324	308	388	673	1780	1640	1820	1180	1250
18	666	227	363	325	246	512	763	1650	1710	1840	1210	1150
19	453	193	306	325	242	377	987	1660	2020	1820	1290	1160
20	437	194	257	332	218	306	1060	1670	2280	1680	1330	1060
21	362	192	289	315	261	265	1010	1780	1860	1750	1360	1050
22	427	190	263	340	238	257	1030	1740	1500	2620	1680	1240
23	329	188	320	338	268	300	1380	1720	1660	3620	1870	1230
24	305	183	299	323	650	264	1540	1400	1630	3400	1710	1310
25	263	233	293	317	359	328	1490	1460	1650	2830	1770	1250
26	303	229	284	346	379	254	1460	1630	1660	2040	1990	1480
27	309	245	270	348	386	339	1490	1510	1650	1670	2000	1400
28	262	192	278	415	467	358	1550	1910	1650	1490	2010	992
29	237	227	279	548	365	342	1830	1820	1460	1450	1850	989
30	245	195	277	377	---	718	1680	1840	1770	1420	1440	908
31	354	---	316	350	---	1460	---	1900	---	1290	1700	---
TOTAL	15974	6953	8981	12194	10201	12795	30868	54126	53190	57030	41264	41879
MEAN	515	232	290	393	352	413	1029	1746	1773	1840	1331	1396
MAX	905	444	507	1160	650	1460	1830	4730	2810	3620	2010	1900
MIN	237	183	182	260	218	254	351	808	1400	1290	796	908
AC-FT	31680	13790	17810	24190	20230	25380	61230	107400	105500	113100	81850	83070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2000, BY WATER YEAR (WY)

MEAN	1429	1232	1462	1671	2123	2307	2502	3423	4463	2587	1879	1716
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1960 - 2000	
ANNUAL TOTAL	394561		345455			
ANNUAL MEAN	1081		944		2232	
HIGHEST ANNUAL MEAN					9073	1992
LOWEST ANNUAL MEAN					828	1964
HIGHEST DAILY MEAN	6880	Mar 19	4730	May 2	65800	Dec 22 1991
LOWEST DAILY MEAN	182	Dec 8	182	Dec 8	75	Apr 1 1964
ANNUAL SEVEN-DAY MINIMUM	195	Nov 18	195	Nov 18	84	Oct 19 1964
INSTANTANEOUS PEAK FLOW			6780	May 2	79600	Oct 29 1960
INSTANTANEOUS PEAK STAGE			8.23	May 2	37.48	Dec 22 1991
ANNUAL RUNOFF (AC-FT)	782600		685200		1617000	
10 PERCENT EXCEEDS	1910		1820		4170	
50 PERCENT EXCEEDS	999		798		1540	
90 PERCENT EXCEEDS	255		245		254	



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.--Jul 1930 to Sep 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 Sep 1975. Biological data: Oct 1973 to Sep 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 Sep 2, 1971, 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 good. Since installation of gage in Jul 1930, at least 10% of contributing drainage area has been regulated by Lake Travis (station 08154500), Lake Austin (station 08154900), Town Lake (station 08157900), and many other reservoirs (combined conservation pool storage of greater than 4,000,000 acre-ft). 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 Jul 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,720 ft^3/s, May 3, gage height, 6.97 ft; minimum discharge, 229 ft^3/s, Nov 13, 14, gage height, 1.17 ft.

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	705	491	260	387	450	440	1130	1970	1840	1690	1140	1570
2	522	431	303	381	444	507	1050	4290	1840	1690	1100	1480
3	576	314	332	386	451	613	1230	4630	1750	1660	1060	1510
4	657	322	320	375	464	459	1630	1520	1620	1660	1060	1580
5	636	306	300	375	490	402	820	873	1790	1620	999	1610
6	980	303	325	432	497	464	599	922	2060	1670	955	1740
7	1060	330	271	562	501	355	490	1230	1850	1620	687	1280
8	1060	281	250	657	496	365	522	1280	1800	1510	835	1500
9	992	291	266	1720	483	391	845	1300	1800	1520	701	1670
10	1000	292	325	854	448	347	947	1310	2100	1610	742	1610
11	1020	294	276	596	431	462	961	1520	2960	1600	805	1870
12	1010	279	276	521	437	443	1030	1580	1850	1520	829	1890
13	1010	237	298	446	408	500	1460	1810	1330	1650	831	1900
14	582	276	716	387	404	555	835	1900	1370	1880	826	1940
15	435	263	556	362	402	543	550	1850	1370	1450	849	2010
16	375	284	514	388	420	637	467	1850	1350	1620	865	1980
17	378	278	513	415	418	587	582	1820	1490	1780	937	1370
18	612	292	475	420	368	470	745	1720	1620	1840	982	1270
19	663	280	410	417	336	623	835	1670	1720	1830	1020	1220
20	486	252	366	421	331	424	1080	1670	2090	1710	1100	1170
21	423	250	347	424	314	392	1030	1790	2040	1610	1170	1130
22	414	252	348	389	337	355	1020	1790	1730	1760	1180	1190
23	423	255	359	462	383	346	1110	1750	1430	2950	1630	1400
24	341	250	377	421	495	379	1440	1530	1600	3010	1690	1370
25	322	256	366	414	598	349	1550	1400	1570	2730	1620	1460
26	284	300	361	409	440	400	1490	1500	1610	2340	1770	1420
27	323	295	352	476	430	338	1470	1460	1620	1830	1950	1680
28	318	311	345	427	533	423	1530	1660	1590	1500	1970	1260
29	277	261	353	599	489	430	1840	1830	1590	1330	1980	1180
30	271	291	354	565	---	484	1520	1800	1420	1340	1860	1120
31	283	---	367	463	---	1230	---	1840	---	1200	1580	---
TOTAL	18438	8817	11281	15551	12698	14713	31808	55065	51800	54730	36723	45380
MEAN	595	294	364	502	438	475	1060	1776	1727	1765	1185	1513
MAX	1060	491	716	1720	598	1230	1840	4630	2960	3010	1980	2010
MIN	271	237	250	362	314	338	467	873	1330	1200	687	1120
AC-FT	36570	17490	22380	30850	25190	29180	63090	109200	102700	108600	72840	90010

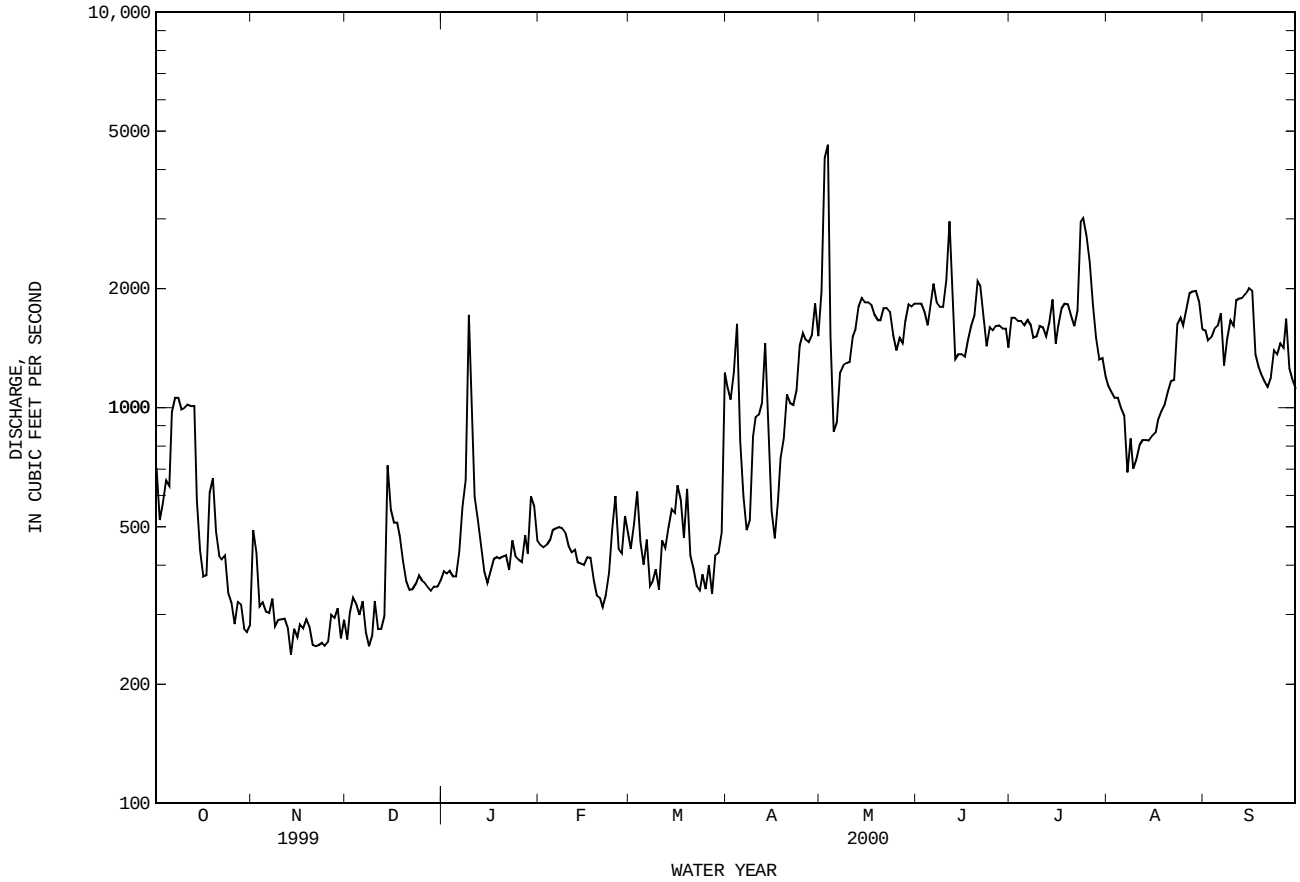
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2000h, BY WATER YEAR (WY)

MEAN	2875	1906	1679	1871	2156	2008	2517	4462	4183	3464	1919	2986
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1930 - 2000h	
ANNUAL TOTAL	467690		357004			
ANNUAL MEAN	1281		975		2677	
HIGHEST ANNUAL MEAN					6780	1935
LOWEST ANNUAL MEAN					794	1952
HIGHEST DAILY MEAN	7470	Mar 20	4630	May 3	219000	Jun 16 1935
LOWEST DAILY MEAN	237	Nov 13	237	Nov 13	79	Nov 1 1934
ANNUAL SEVEN-DAY MINIMUM	256	Nov 19	256	Nov 19	84	Oct 27 1934
INSTANTANEOUS PEAK FLOW			6720	May 3	305000	Jun 16 1935
INSTANTANEOUS PEAK STAGE			6.97	May 3	42.50	Jun 16 1935
ANNUAL RUNOFF (AC-FT)	927700		708100		1939000	
10 PERCENT EXCEEDS	2310		1820		4740	
50 PERCENT EXCEEDS	1170		812		1620	
90 PERCENT EXCEEDS	305		305		338	

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.--1979-82 (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 Sep 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.--No estimated daily discharges. Records good. Since installation of gage in 1988, at least 10% of contributing drainage area has been regulated by Town Lake (station 08157900), Lake Austin (station 08154900), Lake Travis (station 08154500), and many other reservoirs (combined conservation pool storage of greater than 4,000,000 acre-ft). 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jul 9, 1869 (from marble high-water marker in LaGrange). Stages of other floods are as follows: Dec 5, 1913, 56.4 ft, from floodmark; Jun 17, 1935, 50.84 ft, from floodmarks (discharge 255,000 ft^3/s from rating curve extended above 200,000 ft^3/s); Jul 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

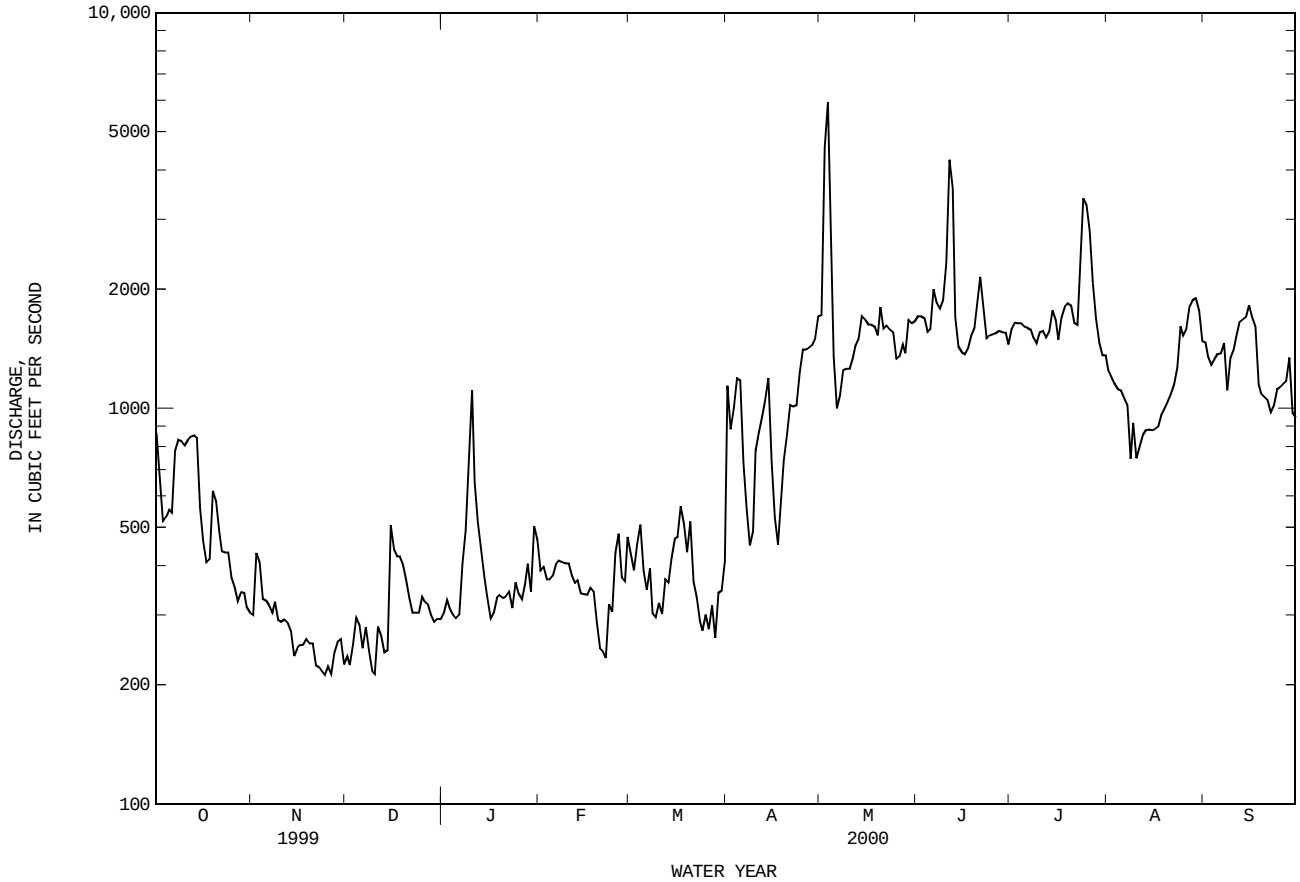
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864	300	236	304	388	428	1140	1720	1710	1590	1250	1470
2	662	431	224	328	396	390	884	4560	1710	1650	1200	1350
3	517	409	253	313	369	454	999	5950	1690	1640	1150	1290
4	530	330	295	301	370	507	1190	2760	1560	1640	1120	1330
5	555	327	284	294	377	388	1180	1350	1580	1610	1110	1370
6	544	317	247	300	403	347	727	1000	2000	1600	1060	1380
7	782	305	279	404	412	394	556	1080	1850	1580	1020	1460
8	832	324	243	491	408	303	450	1250	1790	1510	746	1110
9	827	292	217	694	405	297	489	1260	1880	1460	917	1340
10	806	289	213	1110	405	322	782	1260	2330	1560	748	1410
11	830	292	280	652	378	302	869	1340	4250	1570	800	1520
12	850	287	266	515	361	370	949	1440	3600	1510	856	1650
13	856	273	242	445	367	363	1050	1500	1700	1570	882	1670
14	843	236	244	377	341	421	1190	1710	1430	1770	883	1700
15	560	247	506	330	339	470	736	1680	1390	1670	880	1820
16	459	252	441	294	338	473	531	1630	1370	1490	888	1700
17	407	253	423	305	352	566	452	1630	1420	1700	896	1610
18	415	261	422	332	344	512	578	1610	1530	1800	962	1150
19	617	255	403	337	287	432	737	1530	1600	1840	1000	1090
20	583	255	368	332	247	517	854	1800	1880	1820	1040	1070
21	487	224	332	334	243	365	1020	1590	2150	1650	1090	1050
22	436	222	304	343	234	333	1010	1620	1800	1630	1150	978
23	433	216	305	312	320	290	1020	1580	1500	2320	1270	1020
24	433	212	305	363	306	274	1230	1560	1530	3400	1610	1120
25	374	223	334	339	433	301	1410	1330	1540	3270	1530	1130
26	353	213	324	329	482	276	1410	1350	1550	2810	1590	1150
27	326	242	319	361	374	317	1420	1450	1570	2070	1810	1170
28	343	256	300	404	365	262	1440	1380	1560	1680	1880	1340
29	342	260	288	343	473	342	1500	1670	1550	1470	1900	975
30	314	225	293	504	---	346	1710	1640	1450	1360	1770	946
31	304	---	293	465	---	410	---	1660	---	1360	1480	---
TOTAL	17484	8228	9483	12555	10517	11772	29513	54890	54470	55600	36488	39369
MEAN	564	274	306	405	363	380	984	1771	1816	1794	1177	1312
MAX	864	431	506	1110	482	566	1710	5950	4250	3400	1900	1820
MIN	304	212	213	294	234	262	450	1000	1370	1360	746	946
AC-FT	34680	16320	18810	24900	20860	23350	58540	108900	108000	110300	72370	78090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2000, BY WATER YEAR (WY)

MEAN	1971	822	2252	2692	3774	3869	2846	3376	4511	2846	1665	1548
MAX	10510	4762	16350	18640	31160	18080	7333	8290	15180	12900	2096	1902
(WY)	1999	1999	1992	1992	1992	1992	1997	1992	1997	1997	1992	1992
MIN	476	244	248	247	356	380	984	1771	1816	1543	1177	939
(WY)	1997	1989	1990	1990	1990	2000	2000	2000	2000	1996	2000	1999

08160400 COLORADO RIVER ABOVE LAGRANGE, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1988 - 2000	
ANNUAL TOTAL	445989		340369			
ANNUAL MEAN	1222		930		2705	
HIGHEST ANNUAL MEAN					9913	1992
LOWEST ANNUAL MEAN					930	2000
HIGHEST DAILY MEAN	7170	Mar 20	5950	May 3	84000	Dec 23 1991
LOWEST DAILY MEAN	212	Nov 24	212	Nov 24	167	Dec 21 1989
ANNUAL SEVEN-DAY MINIMUM	222	Nov 21	222	Nov 21	170	Dec 16 1989
INSTANTANEOUS PEAK FLOW			6910	May 2	89800	Oct 20 1998
INSTANTANEOUS PEAK STAGE			10.73	May 2	45.47	Oct 20 1998
ANNUAL RUNOFF (AC-FT)	884600		675100		1960000	
10 PERCENT EXCEEDS	2100		1700		4630	
50 PERCENT EXCEEDS	1050		747		1440	
90 PERCENT EXCEEDS	293		283		363	



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.--Records fair. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, about 33.4 ft in late Jun or early Jul 1940, from information by Texas Department of Transportation and local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

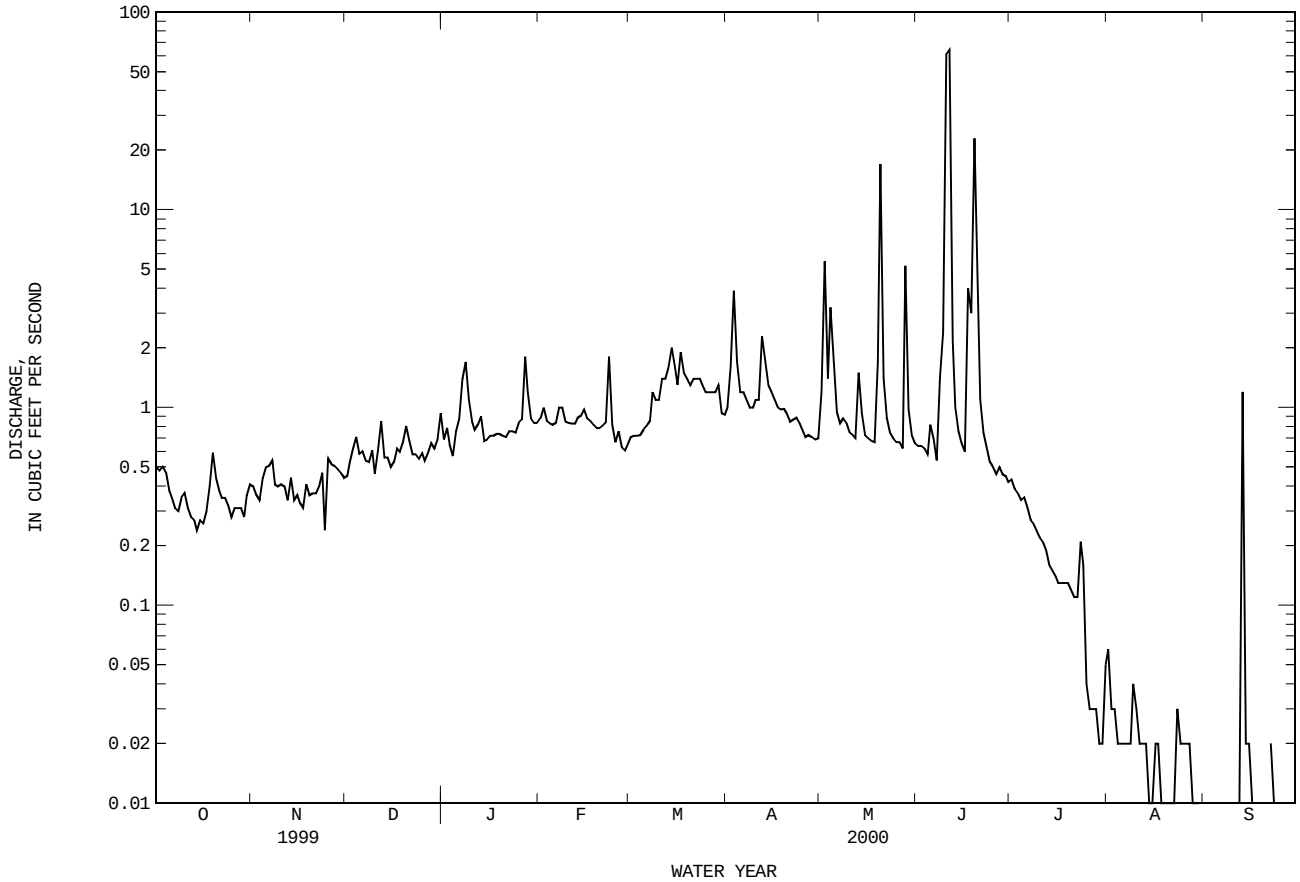
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.40	.45	.69	.88	.71	1.0	1.2	.64	.43	.06	.00
2	.48	.36	.53	.79	1.0	.72	1.6	5.5	.64	.39	.03	.00
3	.50	.34	.62	.65	.86	.72	3.9	1.4	.62	.37	.03	.01
4	.47	.44	.71	.57	.83	.73	1.7	3.2	.58	.34	.02	.01
5	.38	.50	.58	.76	.82	.77	1.2	1.8	.82	.35	.02	.01
6	.35	.51	.60	.88	.84	.81	1.2	.95	.70	.31	.02	.01
7	.31	.54	.54	1.4	1.0	.86	1.1	.83	.54	.27	.02	.01
8	.30	.41	.53	1.7	1.0	1.2	1.0	.88	1.4	.26	.02	.01
9	.35	.40	.61	1.1	.85	1.1	1.0	.84	2.4	.24	.04	.00
10	.37	.41	.46	.85	.84	1.1	1.1	.75	61	.22	.03	.00
11	.31	.40	.61	.77	.83	1.4	1.1	.73	64	.21	.02	.00
12	.28	.34	.85	.82	.83	1.4	2.3	.70	2.2	.19	.02	.01
13	.27	.44	.56	.90	.89	1.6	1.7	1.5	1.0	.16	.02	1.2
14	.24	.34	.56	.68	.91	2.0	1.3	.94	.76	.15	.01	.02
15	.27	.36	.50	.69	.98	1.6	1.2	.73	.66	.14	.01	.02
16	.26	.33	.53	.72	.88	1.3	1.1	.70	.60	.13	.02	.01
17	.30	.31	.62	.72	.86	1.9	1.0	.68	4.0	.13	.02	.00
18	.40	.41	.60	.74	.82	1.5	.98	.67	3.0	.13	.01	.00
19	.59	.36	.67	.74	.79	1.4	.99	1.7	23	.13	.01	.00
20	.44	.37	.81	.72	.79	1.3	.93	17	2.9	.12	.01	.00
21	.38	.37	.68	.71	.81	1.4	.85	1.4	1.1	.11	.01	.00
22	.35	.40	.58	.76	.84	1.4	.87	.89	.75	.11	.01	.02
23	.35	.47	.58	.76	1.8	1.4	.89	.75	.63	.21	.03	.01
24	.32	.24	.55	.75	.82	1.3	.83	.70	.53	.16	.02	.00
25	.28	.55	.59	.84	.67	1.2	.76	.67	.50	.04	.02	.01
26	.31	.52	.54	.87	.76	1.2	.71	.67	.46	.03	.02	.01
27	.31	.51	.59	1.8	.63	1.2	.73	.62	.50	.03	.02	.00
28	.31	.49	.66	1.2	.61	1.2	.71	5.2	.46	.03	.01	.00
29	.28	.47	.62	.88	.65	1.3	.69	.98	.45	.02	.01	.00
30	.36	.44	.69	.84	---	.94	.70	.73	.42	.02	.01	.00
31	.41	---	.94	.84	---	.92	---	.66	---	.05	.01	---
TOTAL	11.03	12.43	18.96	27.14	25.09	37.58	35.14	55.97	177.26	5.48	0.61	1.37
MEAN	.36	.41	.61	.88	.87	1.21	1.17	1.81	5.91	.18	.020	.046
MAX	.59	.55	.94	1.8	1.8	2.0	3.9	17	64	.43	.06	1.2
MIN	.24	.24	.45	.57	.61	.71	.69	.62	.42	.02	.01	.00
AC-FT	22	25	38	54	50	75	70	111	352	11	1.2	2.7
CFSM	.02	.02	.04	.05	.05	.07	.07	.10	.34	.01	.00	.00
IN.	.02	.03	.04	.06	.05	.08	.08	.12	.38	.01	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2000, BY WATER YEAR (WY)

MEAN	6.54	4.92	4.79	6.61	7.84	6.23	7.28	11.7	9.55	1.06	1.21	3.28
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

08160800 REDGATE CREEK NEAR COLUMBUS, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1962 - 2000	
ANNUAL TOTAL	671.37		408.06			
ANNUAL MEAN	1.84		1.11		5.95	
HIGHEST ANNUAL MEAN					20.7	1992
LOWEST ANNUAL MEAN					.82	1964
HIGHEST DAILY MEAN	128	Jun 25	64	Jun 11	1180	Jun 13 1973
LOWEST DAILY MEAN	.24	Oct 14	.00	Sep 1	.00	Aug 7 1962
ANNUAL SEVEN-DAY MINIMUM	.28	Oct 11	.00	Sep 24	.00	Aug 7 1962
INSTANTANEOUS PEAK FLOW			809	Jun 10	5360	May 22 1979
INSTANTANEOUS PEAK STAGE			15.73	Jun 10	27.19	May 22 1979
ANNUAL RUNOFF (AC-FT)	1330		809		4310	
ANNUAL RUNOFF (CFSM)	.11		.064		.34	
ANNUAL RUNOFF (INCHES)	1.44		.88		4.67	
10 PERCENT EXCEEDS	2.1		1.4		5.2	
50 PERCENT EXCEEDS	.91		.61		.87	
90 PERCENT EXCEEDS	.40		.01		.10	



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 Sep 1981. Biochemical data: Feb 1968 to Sep 1981. Sediment data: Mar 1957 to Sep 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. Sep 17, 1930 to Jun 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 by Lake Austin (station 08154900, conservation pool storage 21,000 acre-ft). Flow is also affected at times by discharge from the flood-detention pools of 20 floodwater-retarding structures with a combined detention capacity of 25,570 acre-ft. These structures control runoff from 73.1 mi^2 in the Cummins Creek watershed. 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 Jul 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

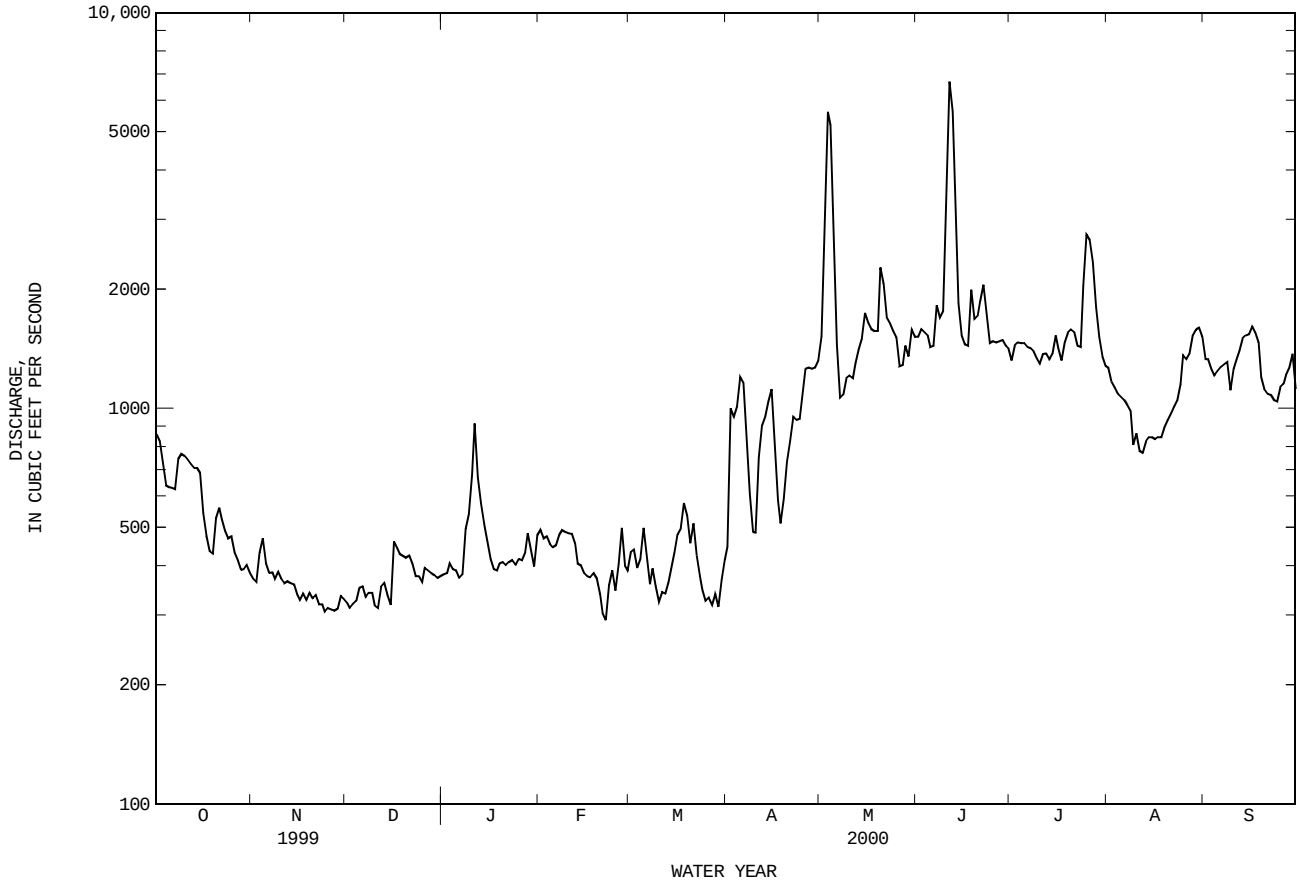
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	861	371	322	381	493	432	447	1520	1520	1320	1270	1330
2	827	364	312	383	469	439	1000	2440	1590	1440	1170	1330
3	722	433	320	405	475	395	953	5610	1560	1470	1130	1260
4	640	470	326	393	453	416	1010	5220	1530	1460	1090	1210
5	633	405	352	389	445	498	1200	2980	1430	1460	1070	1240
6	630	384	355	373	450	424	1160	1450	1440	1430	1050	1270
7	626	385	333	380	478	359	811	1060	1820	1420	1020	1290
8	744	371	342	497	492	394	607	1080	1700	1400	985	1310
9	767	386	342	540	487	355	487	1190	1760	1340	807	1110
10	759	371	317	679	483	324	485	1210	3510	1300	864	1260
11	741	362	313	914	482	343	749	1190	6690	1370	782	1320
12	724	366	354	668	455	341	904	1300	5610	1380	773	1400
13	707	362	362	573	405	364	951	1410	3300	1330	823	1500
14	708	359	337	510	401	401	1040	1500	1840	1380	844	1530
15	687	338	318	460	383	439	1120	1740	1530	1530	847	1540
16	542	328	460	417	377	479	786	1650	1450	1420	836	1610
17	477	341	444	393	374	497	585	1590	1440	1320	844	1550
18	436	328	429	390	382	576	512	1570	1990	1470	845	1470
19	429	342	425	406	371	536	588	1570	1680	1550	896	1200
20	528	330	419	408	339	455	732	2270	1710	1580	934	1120
21	561	337	425	401	303	512	827	2070	1870	1560	969	1090
22	525	319	404	408	291	424	954	1700	2050	1440	1010	1080
23	491	320	376	414	357	376	934	1640	1730	1430	1050	1050
24	469	306	376	402	390	347	943	1570	1460	2040	1150	1040
25	474	312	364	417	346	325	1100	1510	1480	2750	1360	1130
26	433	310	395	414	402	332	1260	1280	1470	2660	1330	1150
27	413	308	390	432	498	318	1270	1290	1480	2340	1380	1220
28	391	311	384	483	400	339	1260	1440	1490	1800	1530	1270
29	392	336	380	438	389	315	1270	1350	1440	1510	1580	1370
30	401	329	373	398	---	368	1320	1580	1420	1350	1600	1120
31	384	---	377	478	---	415	---	1520	---	1280	1520	---
TOTAL	18122	10584	11426	14244	12070	12538	27265	56500	60990	48530	33359	38370
MEAN	585	353	369	459	416	404	909	1823	2033	1565	1076	1279
MAX	861	470	460	914	498	576	1320	5610	6690	2750	1600	1610
MIN	384	306	312	373	291	315	447	1060	1420	1280	773	1040
AC-FT	35940	20990	22660	28250	23940	24870	54080	112100	121000	96260	66170	76110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2000, BY WATER YEAR (WY)

MEAN	3011	2305	2110	2352	2660	2531	3507	5425	5288	3275	1929	2876
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1916 - 2000	
ANNUAL TOTAL	418001		343998			
ANNUAL MEAN	1145		940		3115	
HIGHEST ANNUAL MEAN					10810	1992
LOWEST ANNUAL MEAN					653	1917
HIGHEST DAILY MEAN	8330	Jun 26	6690	Jun 11	164000	Jun 19 1935
LOWEST DAILY MEAN	306	Nov 24	291	Feb 22	93	Sep 1 1918
ANNUAL SEVEN-DAY MINIMUM	312	Nov 22	312	Nov 22	106	Aug 22 1917
INSTANTANEOUS PEAK FLOW			8440	Jun 11	190000	Jun 18 1935
INSTANTANEOUS PEAK STAGE			18.12	Jun 11	48.50	Jun 18 1935
ANNUAL RUNOFF (AC-FT)	829100		682300		2257000	
10 PERCENT EXCEEDS	1800		1570		5940	
50 PERCENT EXCEEDS	949		728		1620	
90 PERCENT EXCEEDS	365		342		399	



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.--Jul 1916 to Aug 1918 (intermittent periods), Mar 1919 to Sep 1925, Jul and Aug 1938 (flood discharge measurements only), Oct 1938 to current year. Jun to Nov 1901, May to Sep 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 Sep 1995. Biochemical data: Jan 1968 to Sep 1995. Radiochemical data: Dec 1973 to Sep 1995. Pesticide data: Oct 1967 to Jun 1982. Sediment data: Oct 1974 to Sep 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 Jun 1, 1956, nonrecording gage 100 ft upstream at datum 13.00 ft higher. Jun 1, 1966 to Sep 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 except those for estimated daily discharges, which are poor. Since installation of gage in Oct 1938, at least 10% of contributing drainage area has been regulated by Lake Austin (station 08154900, conservation pool storage 21,000 acre-ft). Flow is also affected at times by discharge from the flood-detention pools of 20 floodwater-retarding structures with a combined detention capacity of 25,570 acre-ft. There are many diversions above station for irrigation, municipal supply, cooling water for thermal-electric power plant, and for oil field operations. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Jul 12, 1869, reached about same height. Flood of Jun 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 Jul 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	649	345	324	352	471	424	124	369	950	707	1320	852
2	745	329	323	348	567	405	371	953	937	668	1350	835
3	795	375	320	350	564	448	620	2590	990	586	1240	699
4	712	374	349	357	542	451	1230	5700	1010	654	1050	743
5	608	471	335	367	536	401	1050	5390	998	621	955	640
6	536	481	324	359	506	445	1110	3280	937	598	877	511
7	533	420	340	375	500	504	1340	e2360	796	634	841	474
8	532	398	347	392	515	433	1030	e1620	963	709	775	434
9	498	391	334	409	541	390	619	958	1380	702	723	392
10	480	381	342	506	543	407	362	684	2130	676	666	337
11	480	392	334	540	542	366	298	516	4280	598	514	338
12	448	376	319	1000	543	331	1180	429	7860	582	514	462
13	428	367	320	993	538	330	1450	401	6480	624	408	495
14	403	366	340	797	493	414	1210	508	3930	617	416	795
15	392	361	341	690	446	673	1110	581	2260	604	404	1040
16	515	353	322	622	432	503	1300	771	1510	687	302	1260
17	655	336	301	568	409	477	1140	837	1150	790	272	1310
18	572	330	401	520	384	499	823	782	963	612	197	1330
19	534	333	402	485	398	550	568	754	1230	548	e120	1200
20	500	330	394	474	395	588	313	2430	1100	668	e102	864
21	490	336	390	481	368	540	324	2030	1130	803	e133	661
22	579	330	373	478	364	484	321	2300	1320	921	169	659
23	540	348	371	477	449	516	409	1800	1550	908	172	676
24	499	352	350	480	404	428	464	1530	1370	962	237	574
25	447	333	322	479	403	378	420	1210	1010	1280	362	494
26	439	319	314	463	403	316	391	976	809	2230	665	402
27	429	308	337	532	367	258	458	816	848	2460	824	376
28	390	308	378	550	440	238	483	659	835	2260	811	478
29	369	307	370	542	487	180	378	714	790	1890	851	502
30	349	310	365	549	---	196	356	731	768	1580	901	602
31	350	---	358	507	---	147	---	811	---	1320	870	---
TOTAL	15896	10760	10740	16042	13550	12720	21252	45490	52284	29499	19041	20435
MEAN	513	359	346	517	467	410	708	1467	1743	952	614	681
MAX	795	481	402	1000	567	673	1450	5700	7860	2460	1350	1330
MIN	349	307	301	348	364	147	124	369	768	548	102	337
AC-FT	31530	21340	21300	31820	26880	25230	42150	90230	103700	58510	37770	40530

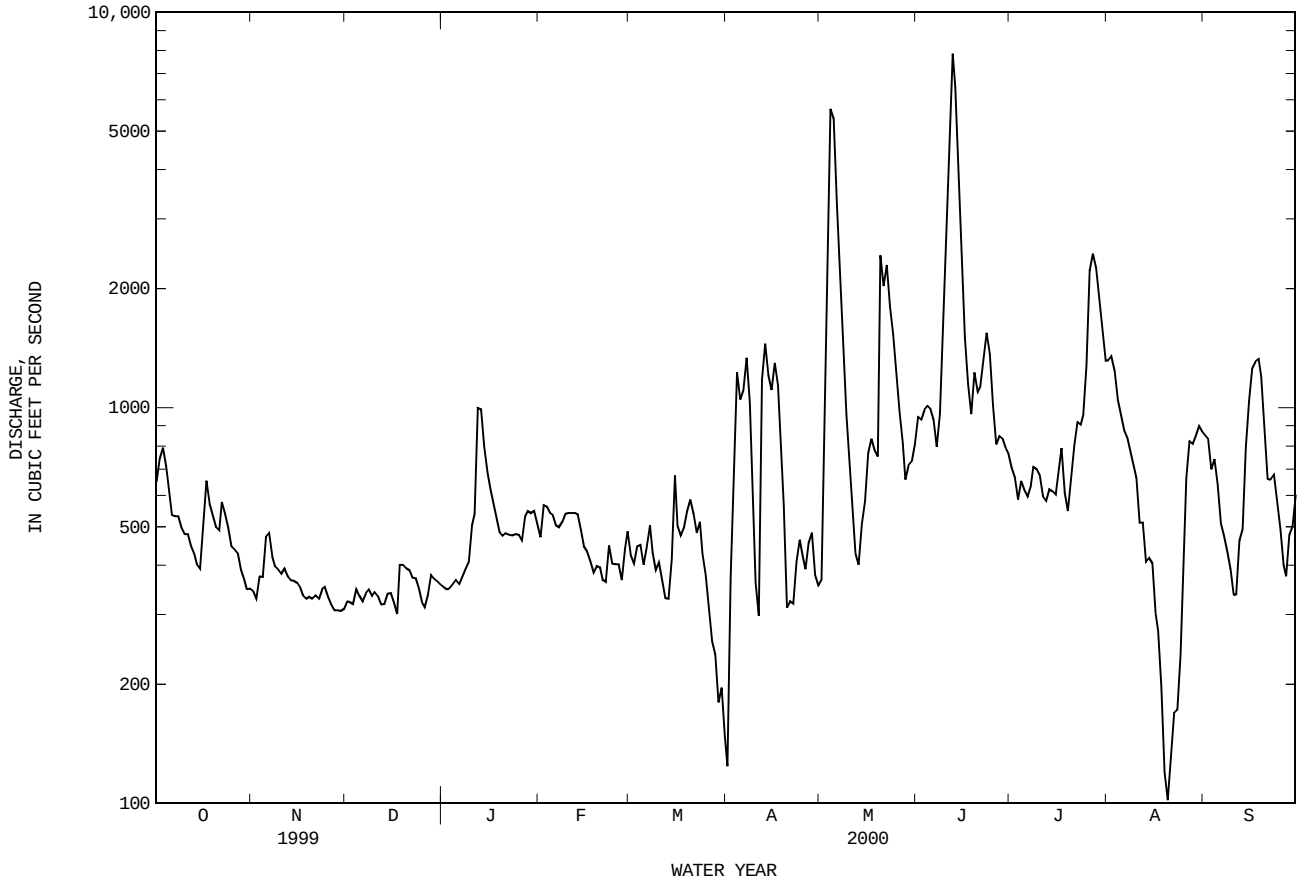
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2000, BY WATER YEAR (WY)

MEAN	2304	2384	2244	2483	2959	2762	3083	4132	4723	2507	1359	1863
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1939 - 2000	
ANNUAL TOTAL	469179		267709			
ANNUAL MEAN	1285		731		2729	
HIGHEST ANNUAL MEAN					11120	1992
LOWEST ANNUAL MEAN					615	1964
HIGHEST DAILY MEAN	8410	Jun 27	7860	Jun 12	90600	Jul 3 1940
LOWEST DAILY MEAN	301	Dec 17	102	Aug 20	42	Aug 22 1964
ANNUAL SEVEN-DAY MINIMUM	314	Nov 26	161	Aug 18	110	Dec 11 1956
INSTANTANEOUS PEAK FLOW			8650	Jun 12	100000	Jul 3 1940
INSTANTANEOUS PEAK STAGE			18.71	Jun 12	48.99	Jul 3 1940
ANNUAL RUNOFF (AC-FT)	930600		531000		1977000	
10 PERCENT EXCEEDS	2430		1270		5470	
50 PERCENT EXCEEDS	1000		506		1310	
90 PERCENT EXCEEDS	350		330		464	

e Estimated



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.--Jul 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 Sep 1975. Biochemical data: Oct 1974 to Sep 1975.

REVISED RECORDS.--WDR TX-81-3: Drainage area. WDR TX-88-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is sea level. Jul 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.--No estimated daily discharges. Records fair. Since installation of gage in Apr 1948, at least 10% of contributing drainage area has been regulated by Lake Austin (station 08154900, conservation pool storage 21,000 acre-ft). Flow is also affected at times by discharge from the flood-detention pools of 20 floodwater-retarding structures with a combined detention capacity of 25,570 acre-ft. These structures control runoff from a 73.1 mi^2 area in the Cummins Creek watershed. There are many other diversions above this station for irrigation and for municipal supply. No flow at times in 1951-53 and 1956. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since 1869, 56.1 ft Dec 10, 1913. Flood in Jul 1869 probably reached about same elevation. Elevation of other floods are as follows: May 8, 1922, 55.4 ft; Jun 1929, 55.0 ft; Jun 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

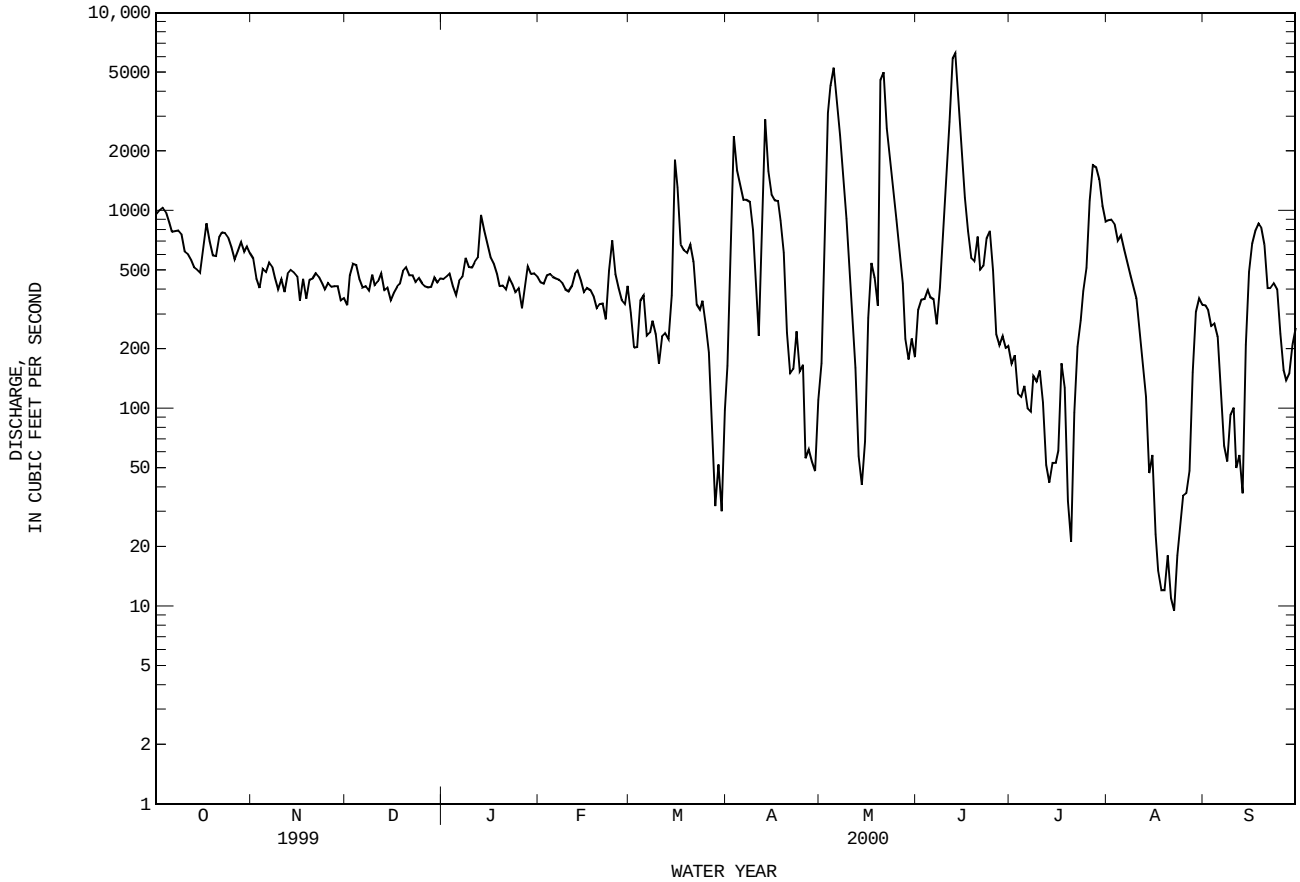
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	959	574	333	451	433	303	163	168	314	169	895	332
2	998	453	472	463	428	203	608	1040	355	185	901	314
3	1030	407	537	479	470	204	2370	3100	357	119	855	259
4	979	507	530	414	478	351	1600	4280	398	114	704	267
5	867	488	452	374	463	370	1350	5280	366	130	748	231
6	780	549	408	442	454	232	1140	3480	359	100	633	115
7	789	519	416	461	448	241	1140	2400	265	96	548	65
8	796	456	395	578	432	277	1110	1450	407	145	469	54
9	760	401	474	521	399	237	797	906	932	137	418	93
10	621	451	417	516	392	167	464	457	1720	155	361	101
11	604	389	438	548	415	231	232	239	2800	107	239	50
12	563	478	481	575	478	240	1100	160	5910	52	167	58
13	517	499	394	949	498	223	2880	57	6270	42	114	37
14	505	487	407	793	445	372	1580	41	3770	53	47	209
15	484	466	352	678	385	1810	1210	68	2080	53	58	490
16	661	349	384	579	407	1310	1130	287	1160	61	23	686
17	864	449	411	537	396	674	1120	545	780	169	15	797
18	700	359	426	478	368	629	888	457	577	127	12	859
19	595	448	492	415	321	610	614	330	556	34	12	824
20	590	453	516	418	337	672	241	4580	735	21	18	673
21	739	481	471	400	340	553	150	5000	502	95	11	407
22	775	460	472	458	281	334	157	2600	523	205	9.5	406
23	768	429	435	423	497	314	245	1840	726	278	18	427
24	729	400	454	384	705	350	154	1250	786	391	27	400
25	654	432	427	403	479	265	166	900	496	511	36	238
26	567	413	414	320	407	191	56	601	237	1120	37	156
27	626	415	409	424	352	68	62	427	209	1700	48	139
28	693	415	412	522	336	32	54	223	232	1660	152	151
29	620	350	456	480	414	52	48	176	201	1440	309	210
30	657	360	431	483	---	30	110	225	206	1060	361	255
31	607	---	454	466	---	98	---	182	---	879	335	---
TOTAL	22097	13337	13570	15432	12258	11643	22939	42749	34229	11408	8580.5	9303
MEAN	713	445	438	498	423	376	765	1379	1141	368	277	310
MAX	1030	574	537	949	705	1810	2880	5280	6270	1700	901	859
MIN	484	349	333	320	281	30	48	41	201	21	9.5	37
AC-FT	43830	26450	26920	30610	24310	23090	45500	84790	67890	22630	17020	18450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2000, BY WATER YEAR (WY)

MEAN	2512	2341	2261	2566	3235	2800	2831	3912	4482	1682	825	1731
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

08162500 COLORADO RIVER NEAR BAY CITY, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1948 - 2000	
ANNUAL TOTAL	444503		217545.5			
ANNUAL MEAN	1218		594		2605	
HIGHEST ANNUAL MEAN					14270	1992
LOWEST ANNUAL MEAN					375	1964
HIGHEST DAILY MEAN	9210	Jun 27	6270	Jun 13	79300	Oct 23 1998
LOWEST DAILY MEAN	118	Sep 3	9.5	Aug 22	.00	Jun 1 1951
ANNUAL SEVEN-DAY MINIMUM	210	Aug 30	14	Aug 17	.44	Oct 4 1969
INSTANTANEOUS PEAK FLOW			7380	Jun 12	84100	Jun 26 1960
INSTANTANEOUS PEAK STAGE			12.98	Jun 12	46.40	Jun 26 1960
ANNUAL RUNOFF (AC-FT)	881700		431500		1887000	
10 PERCENT EXCEEDS	2350		1070		5700	
50 PERCENT EXCEEDS	819		427		895	
90 PERCENT EXCEEDS	395		68		240	



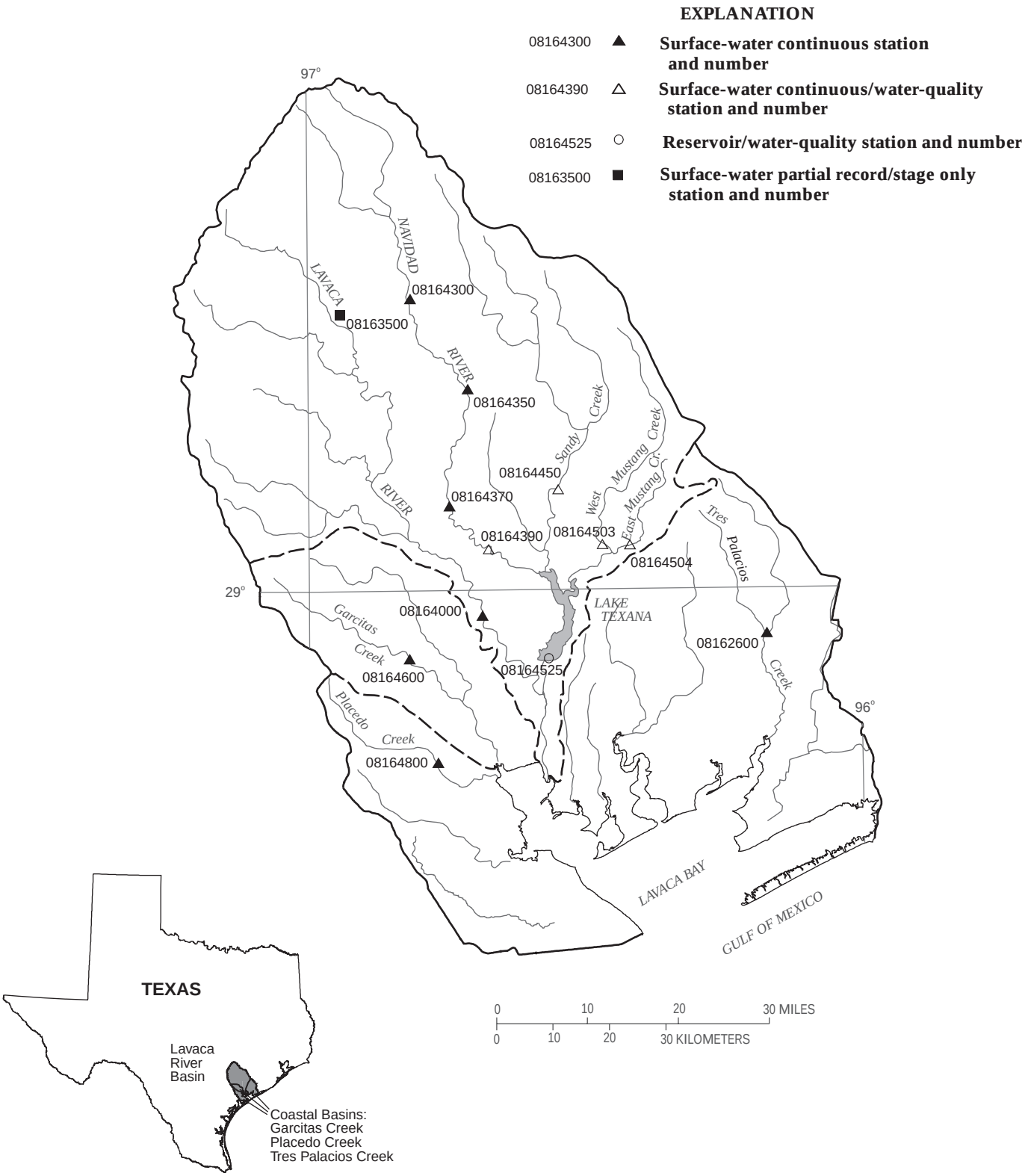


Figure 9.--Map showing location of gaging stations in the Lavaca and Coastal River Basins

08162600 Tres Palacios River near Midfield, TX 248
08163500 Lavaca River at Hallettsville, TX 308
08164000 Lavaca River near Edna, TX 250
08164300 Navidad River near Hallettsville, TX 252
08164350 Navidad River near Speaks, TX 254
08164370 Navidad River at Morales, TX 256
08164390 Navidad River at Strane Park near Edna, TX 258
08164450 Sandy Creek near Ganado, TX 262
08164503 West Mustang Creek near Ganado, TX 266
08164504 East Mustang Creek at FM 647 near Ganado, TX 270
08164525 Lake Texana near Edna, TX 274
08164600 Garcitas Creek near Inez, TX 296
08164800 Placedo Creek near Placedo, TX 298

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.--Jun 1970 to current year. Prior to Oct 1973, published as "Tres Palacios Creek near Midfield".
Water-quality records.--Chemical data: Oct 1968 to Sep 1981. Biochemical data: Oct 1968 to Sep 1981. Pesticide data: Oct 1968 to Sep 1981.

GAGE.--Water-stage recorder. Datum of gage is 5.38 ft above sea level. Jun 17, 1970, to Apr 28, 1988, at same site and datum. Apr 29, 1988, to Sep 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, amounts 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1885, 37 ft in Jun 1960, and 35 ft in Aug 1945, from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 3	0700	1,660	18.91	May 20	2030	3,800	24.97
May 3	0145	3,350	24.03				

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	40	2.2	2.5	.84	5.3	8.1	5.8	8.0	17	15	27	8.2
2	21	1.8	8.3	3.0	4.1	7.7	205	1540	15	13	23	5.1
3	13	1.6	6.6	3.4	3.3	4.7	1390	2360	15	10	18	2.5
4	8.6	1.7	5.0	2.6	3.5	2.5	540	611	14	8.4	14	2.4
5	6.1	1.8	4.5	1.6	2.9	1.0	127	217	13	7.0	12	4.9
6	11	1.6	3.8	3.2	2.2	.60	47	104	13	7.3	28	4.5
7	12	1.4	3.9	11	2.8	.42	21	56	16	9.5	33	3.1
8	8.5	1.6	6.1	17	3.0	.78	10	29	16	9.8	12	2.4
9	5.1	2.7	5.5	22	2.3	2.2	8.3	19	255	9.7	8.2	2.3
10	4.8	7.9	8.9	18	2.0	3.1	8.3	16	462	9.5	13	1.5
11	4.3	6.8	7.7	13	2.0	20	8.8	23	381	15	14	.80
12	4.2	5.4	4.1	6.2	2.0	16	217	22	269	23	11	7.6
13	3.6	5.4	2.9	1.6	2.0	22	739	13	124	26	8.5	11
14	3.2	4.4	4.6	2.2	1.9	144	222	9.9	64	19	4.9	12
15	3.1	2.5	5.0	3.2	1.7	1070	83	14	35	15	2.6	11
16	3.7	1.8	3.8	3.1	1.6	622	43	15	16	18	1.9	9.3
17	5.0	1.8	3.5	7.7	1.5	172	25	8.4	30	14	.78	9.9
18	5.9	4.1	2.9	3.6	1.3	63	14	6.8	97	8.4	.22	10
19	11	5.1	2.9	2.2	1.1	33	10	6.9	61	8.3	1.4	8.8
20	9.7	9.7	4.9	2.4	2.5	20	10	2350	32	8.3	2.1	5.9
21	9.4	10	9.9	1.9	7.6	14	10	2490	21	12	.93	6.6
22	8.8	5.9	18	4.1	6.0	10	7.7	627	21	13	.75	15
23	7.0	3.9	13	7.9	373	6.2	7.5	235	16	21	1.1	12
24	4.4	4.0	6.3	8.1	280	5.6	7.6	121	13	23	1.6	e6.0
25	4.3	2.7	3.1	4.3	96	4.6	6.1	67	12	43	4.8	e2.0
26	9.4	2.5	2.5	2.1	37	4.4	6.2	42	12	43	8.1	e1.8
27	11	2.3	2.4	3.3	16	6.7	7.2	32	12	33	17	1.8
28	8.8	2.2	5.1	36	8.1	5.1	9.1	23	12	21	16	1.3
29	6.8	2.1	2.3	29	6.4	4.3	10	80	17	21	9.8	6.7
30	4.9	3.0	1.9	25	---	4.4	11	73	17	29	6.5	17
31	2.8	---	2.0	10	---	6.8	---	33	---	30	6.2	---
TOTAL	261.4	109.9	163.9	259.54	879.1	2285.20	3816.6	11252.0	2098	543.2	308.38	193.40
MEAN	8.43	3.66	5.29	8.37	30.3	73.7	127	363	69.9	17.5	9.95	6.45
MAX	40	10	18	36	373	1070	1390	2490	462	43	33	17
MIN	2.8	1.4	1.9	.84	1.1	.42	5.8	6.8	12	7.0	.22	.80
AC-FT	518	218	325	515	1740	4530	7570	22320	4160	1080	612	384

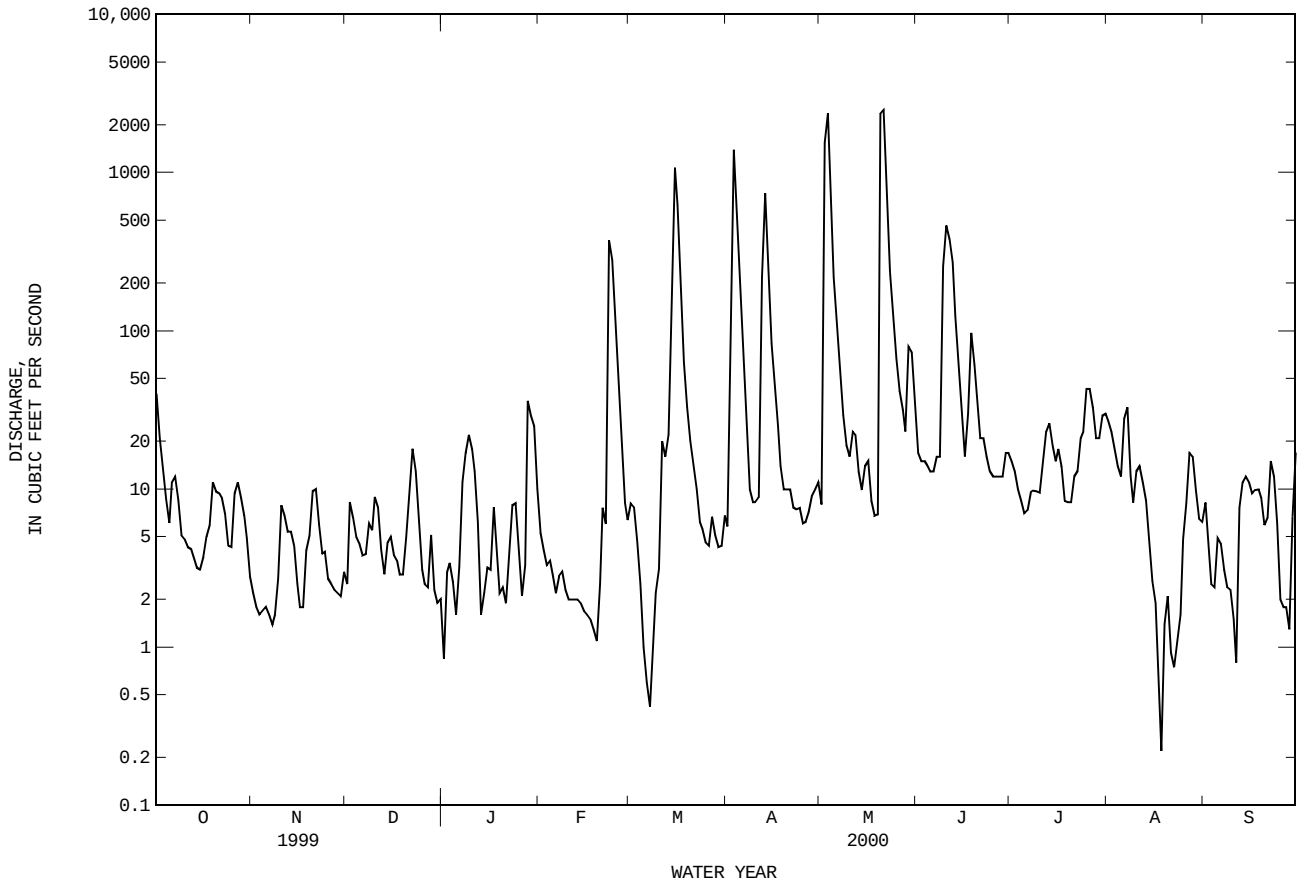
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2000, BY WATER YEAR (WY)

MEAN	254	138	129	140	154	123	149	237	180	107	54.6	244
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

08162600 TRES PALACIOS RIVER NEAR MIDFIELD, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1970 - 2000	
ANNUAL TOTAL	17841.4		22170.62			
ANNUAL MEAN	48.9		60.6		159	
HIGHEST ANNUAL MEAN					325	1992
LOWEST ANNUAL MEAN					42.2	1986
HIGHEST DAILY MEAN	1300	Mar 20	2490	May 21	12500	Oct 19 1994
LOWEST DAILY MEAN	1.4	Nov 7	.22	Aug 18	.22	Aug 18 2000
ANNUAL SEVEN-DAY MINIMUM	1.6	Nov 2	1.0	Aug 17	1.0	Aug 17 2000
INSTANTANEOUS PEAK FLOW			3800	May 20	17000	Oct 17 1984
INSTANTANEOUS PEAK STAGE			24.97	May 20	32.43	Oct 17 1984
ANNUAL RUNOFF (AC-FT)	35390		43980		115400	
10 PERCENT EXCEEDS	113		62		248	
50 PERCENT EXCEEDS	13		8.2		23	
90 PERCENT EXCEEDS	3.5		1.9		8.1	

e Estimated



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 Sep 1981. Water temperature: Nov 1977 to Sep 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 Jun 6, 1939, nonrecording gage (property of U.S. Army Corps of Engineers); Jun 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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,100 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

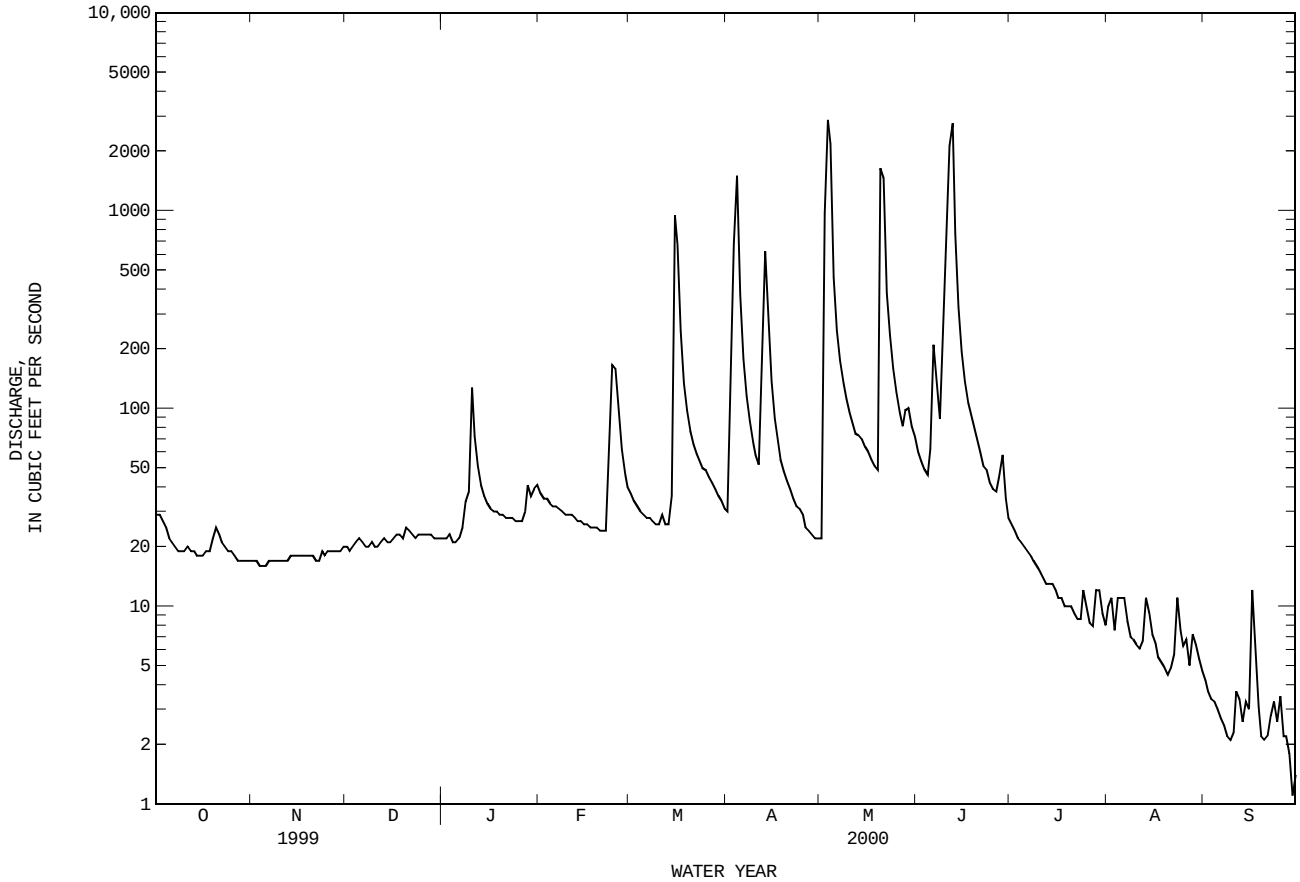
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	17	20	22	37	37	30	22	60	26	10	4.2
2	29	17	19	22	35	34	139	962	54	24	11	3.7
3	27	16	20	23	35	32	680	2870	49	22	7.5	3.4
4	25	16	21	21	33	30	1500	2180	46	21	11	3.3
5	22	16	22	21	32	29	374	459	62	20	11	3.0
6	21	17	21	22	32	28	177	247	209	19	11	2.7
7	20	17	20	25	31	28	115	174	133	18	8.4	2.5
8	19	17	20	34	30	27	86	137	88	17	7.0	2.2
9	19	17	21	38	29	26	68	112	196	16	6.8	2.1
10	19	17	20	127	29	26	58	95	594	15	6.4	2.3
11	20	17	20	72	29	29	52	83	2130	14	6.1	3.7
12	19	17	21	51	28	26	140	75	2760	13	6.7	3.4
13	19	18	22	41	27	26	620	73	761	13	11	2.6
14	18	18	21	36	27	36	279	70	325	13	9.3	3.3
15	18	18	21	33	26	944	137	64	192	12	7.2	3.0
16	18	18	22	31	26	670	89	60	137	11	6.5	12
17	19	18	23	30	25	244	68	55	108	11	5.5	5.6
18	19	18	23	30	25	134	55	51	92	10	5.2	3.1
19	22	18	22	29	25	97	48	49	79	10	4.9	2.2
20	25	18	25	29	24	77	43	1640	68	10	4.5	2.1
21	23	17	24	28	24	66	39	1460	60	9.2	4.9	2.2
22	21	17	23	28	24	59	35	383	51	8.6	5.7	2.8
23	20	19	22	28	59	54	32	234	49	8.6	11	3.3
24	19	18	23	27	166	50	31	159	42	12	7.5	2.6
25	19	19	23	27	159	49	29	120	39	10	6.3	3.5
26	18	19	23	27	96	45	25	96	38	8.2	6.8	2.2
27	17	19	23	30	62	42	24	81	46	7.9	5.0	2.2
28	17	19	23	41	47	39	23	98	58	12	7.2	1.8
29	17	19	22	36	40	36	22	100	35	12	6.4	1.1
30	17	20	22	39	---	34	22	81	28	9.2	5.4	1.4
31	17	---	22	41	---	31	---	72	---	8.0	4.7	---
TOTAL	632	531	674	1089	1262	3085	5040	12362	8589	420.7	227.9	93.5
MEAN	20.4	17.7	21.7	35.1	43.5	99.5	168	399	286	13.6	7.35	3.12
MAX	29	20	25	127	166	944	1500	2870	2760	26	11	12
MIN	17	16	19	21	24	26	22	22	28	7.9	4.5	1.1
AC-FT	1250	1050	1340	2160	2500	6120	10000	24520	17040	834	452	185

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2000, BY WATER YEAR (WY)

MEAN	486	332	246	285	392	274	496	667	644	207	86.9	349
MAX	7118	3875	2400	1564	5214	2696	5014	3239	5005	3999	713	2842
(WY)	1995	1999	1977	1979	1992	1997	1997	1982	1973	1940	1946	1978
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

08164000 LAVACA RIVER NEAR EDNA, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1938 - 2000	
ANNUAL TOTAL	45439		34006.1			
ANNUAL MEAN	124		92.9		371	
HIGHEST ANNUAL MEAN					1385	1992
LOWEST ANNUAL MEAN					6.12	1956
HIGHEST DAILY MEAN	3740	Jun 28	2870	May 3	122000	Oct 19 1994
LOWEST DAILY MEAN	16	Nov 3	1.1	Sep 29	.00	Nov 10 1954
ANNUAL SEVEN-DAY MINIMUM	17	Oct 30	2.1	Sep 24	.00	Jul 2 1956
INSTANTANEOUS PEAK FLOW			3380	Jun 12	150000	Oct 19 1994
INSTANTANEOUS PEAK STAGE			16.98	Jun 12	35.49	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	90130		67450		269000	
10 PERCENT EXCEEDS	181		133		418	
50 PERCENT EXCEEDS	76		23		53	
90 PERCENT EXCEEDS	19		5.6		9.4	



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 diversion. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, 40 ft in Jun 1940; flood in Jul 1936 reached a stage of 39 ft, from information by local residents and Southern Pacific Railroad Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

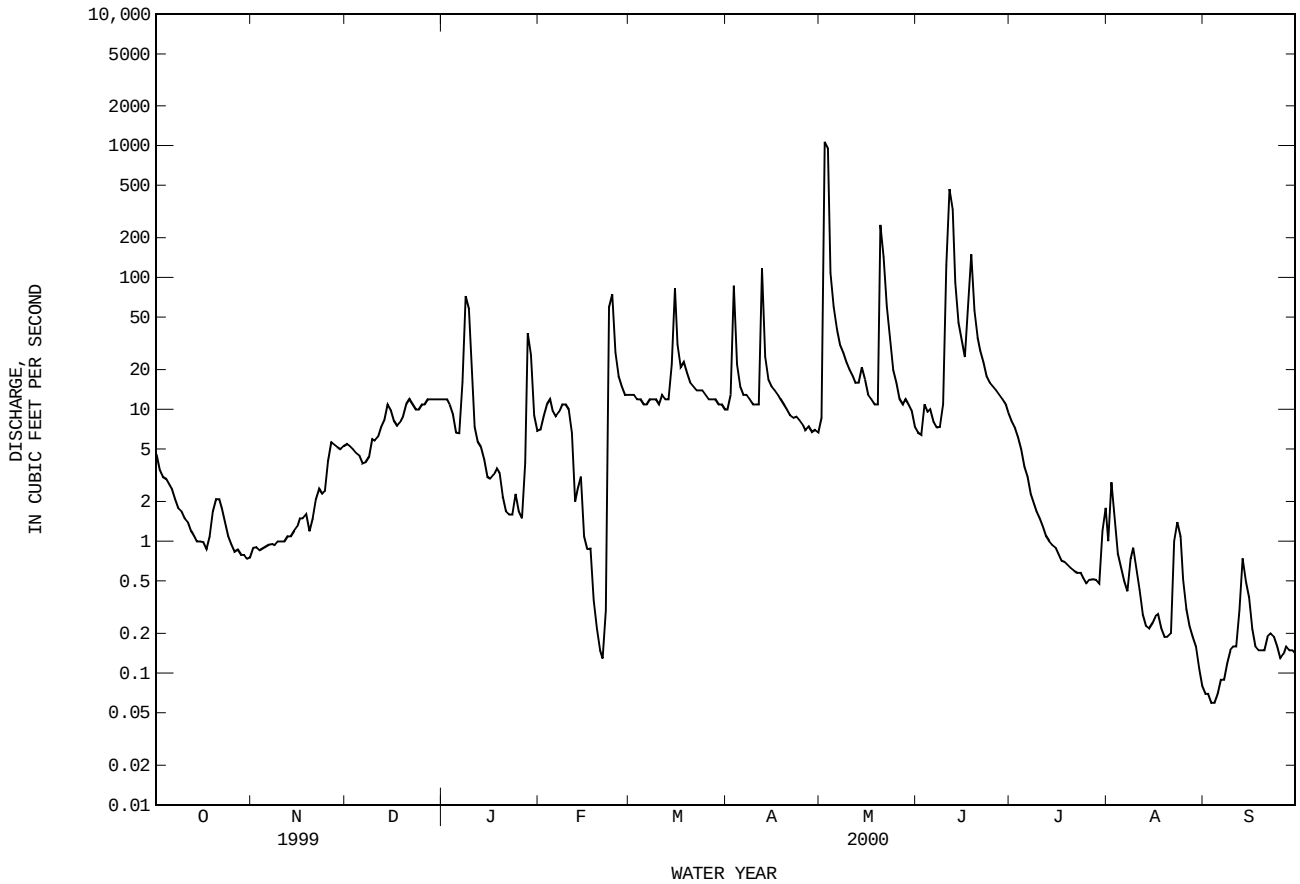
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	.90	5.5	12	7.1	13	10	8.7	6.7	8.2	1.0	.07
2	3.5	.91	5.3	12	9.0	13	13	1070	6.5	7.3	2.8	.07
3	3.1	.86	5.0	11	11	12	87	966	11	6.2	1.5	.06
4	3.0	.89	4.7	9.3	12	12	22	108	9.6	5.0	.81	.06
5	2.7	.92	4.5	6.7	9.8	11	15	60	10	3.7	.64	.07
6	2.5	.95	3.9	6.6	8.9	11	13	41	8.1	3.1	.50	.09
7	2.1	.96	4.0	16	9.6	12	13	31	7.3	2.3	.42	.09
8	1.8	.94	4.4	73	11	12	12	27	7.4	2.0	.74	.12
9	1.7	1.0	6.0	59	11	12	11	23	11	1.7	.90	.15
10	1.5	1.0	5.8	16	10	11	11	20	124	1.5	.62	.16
11	1.4	1.0	6.2	7.4	6.6	13	11	18	471	1.3	.43	.16
12	1.2	1.1	7.4	5.7	2.0	12	117	16	327	1.1	.28	.30
13	1.1	1.1	8.4	5.2	2.5	12	25	16	92	1.0	.23	.74
14	1.0	1.2	11	4.2	3.1	22	17	21	46	.94	.22	.50
15	1.0	1.3	9.9	3.1	1.1	83	15	17	34	.90	.24	.38
16	.99	1.5	8.2	3.0	.88	31	14	13	25	.81	.27	.22
17	.88	1.5	7.5	3.2	.89	21	13	12	57	.72	.28	.16
18	1.1	1.6	7.9	3.6	.36	23	12	11	150	.70	.22	.15
19	1.7	1.2	8.9	3.3	.22	19	11	11	56	.66	.19	.15
20	2.1	1.5	11	2.2	.15	16	10	252	35	.63	.19	.15
21	2.1	2.1	12	1.7	.13	15	9.1	144	28	.60	.20	.19
22	1.8	2.5	11	1.6	.30	14	8.7	61	23	.58	1.0	.20
23	1.4	2.3	10	1.6	60	14	8.9	36	18	.58	1.4	.19
24	1.1	2.4	10	2.3	75	14	8.3	20	16	.53	1.1	.16
25	.95	4.1	11	1.7	27	13	7.7	16	15	.48	.51	.13
26	.84	5.7	11	1.5	18	12	6.9	12	14	.51	.31	.14
27	.87	5.4	12	3.9	15	12	7.4	11	13	.52	.23	.16
28	.79	5.2	12	38	13	12	6.8	12	12	.51	.19	.15
29	.79	5.0	12	26	13	11	7.0	11	11	.48	.16	.15
30	.74	5.3	12	9.1	---	11	6.7	9.8	9.5	1.2	.11	.14
31	.76	---	12	6.9	---	10	---	7.4	---	1.8	.08	---
TOTAL	51.11	62.33	260.5	356.8	338.63	509	529.5	3081.9	1654.1	57.55	17.77	5.46
MEAN	1.65	2.08	8.40	11.5	11.7	16.4	17.6	99.4	55.1	1.86	.57	.18
MAX	4.6	5.7	12	73	75	83	117	1070	471	8.2	2.8	.74
MIN	.74	.86	3.9	1.5	.13	10	6.7	7.4	6.5	.48	.08	.06
AC-FT	101	124	517	708	672	1010	1050	6110	3280	114	35	11
CFSM	.00	.01	.03	.03	.04	.05	.05	.30	.17	.01	.00	.00
IN.	.01	.01	.03	.04	.04	.06	.06	.35	.19	.01	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2000, BY WATER YEAR (WY)

MEAN	157	134	119	133	166	116	199	318	260	24.0	26.0	151
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

08164300 NAVIDAD RIVER NEAR HALLETTSVILLE, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1962 - 2000	
ANNUAL TOTAL	24673.14		6924.65			
ANNUAL MEAN	67.6		18.9		150	
HIGHEST ANNUAL MEAN					508	1992
LOWEST ANNUAL MEAN					11.5	1990
HIGHEST DAILY MEAN	8520	Jun 26	1070	May 2	30500	Sep 14 1974
LOWEST DAILY MEAN	.74	Oct 30	.06	Sep 3	.00	Aug 5 1964
ANNUAL SEVEN-DAY MINIMUM	.81	Oct 26	.07	Aug 31	.00	Sep 2 1964
INSTANTANEOUS PEAK FLOW			2200	May 2	53500	Sep 13 1974
INSTANTANEOUS PEAK STAGE			18.94	May 2	36.05	Sep 13 1974
ANNUAL RUNOFF (AC-FT)	48940		13740		108500	
ANNUAL RUNOFF (CFSM)	.20		.057		.45	
ANNUAL RUNOFF (INCHES)	2.76		.78		6.13	
10 PERCENT EXCEEDS	58		23		128	
50 PERCENT EXCEEDS	20		5.6		22	
90 PERCENT EXCEEDS	1.5		.22		2.0	



08164350 NAVIDAD RIVER NEAR SPEAKS, TX

LOCATION.--Lat 29°19'18", long 96°42'32", Lavaca County, Hydrologic Unit 12100102, at right downstream end of bridge on Farm Road 530, 100 ft downstream from Ragsdale Creek, and 4.6 mi north of Speaks.

DRAINAGE AREA.--437 mi^2.

PERIOD OF RECORD.--Oct 1981 to Sep 1989, Oct 1994 to Sep 1996 (discharge measurements only), Oct 1996 to Sep 2000 (discontinued).
Water-quality records.--Pesticide data: Apr 1996 to Aug 1997.

GAGE.--Water-stage recorder. Datum of gage is 120.00 ft above sea level. Satellite telemeter at station.

REMARKS.--Records poor. No known regulation or diversions. No flow at times.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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	10	5.1	7.8	13	18	17	17	17	19	11	10	1.3
2	9.3	5.1	7.5	13	18	17	47	704	13	9.9	4.2	1.2
3	8.9	5.1	7.3	13	17	16	391	2080	11	9.1	2.8	1.1
4	8.1	5.7	8.1	13	18	15	163	455	12	8.4	3.1	1.0
5	7.7	5.6	10	13	17	14	62	135	17	7.6	3.0	e.90
6	7.5	5.8	9.2	12	16	14	38	87	14	6.8	3.0	e.90
7	6.9	6.1	8.9	13	14	14	30	62	11	6.3	2.4	.92
8	5.7	6.6	8.4	27	14	14	27	46	10	5.6	2.2	1.0
9	4.8	6.6	8.2	87	14	14	25	35	15	5.2	2.1	1.1
10	4.8	6.3	8.7	62	14	14	23	29	76	4.8	2.2	1.2
11	4.5	6.6	9.8	33	14	14	23	26	500	4.4	2.3	1.2
12	4.5	6.7	10	22	15	15	205	24	774	4.1	2.0	1.0
13	4.4	7.1	10	18	14	15	202	23	251	3.7	1.8	1.2
14	4.2	7.1	10	17	13	95	66	20	129	3.2	1.6	1.6
15	4.2	7.0	11	16	13	156	42	25	e86	3.0	1.6	2.7
16	4.1	7.0	14	15	13	110	32	19	62	2.8	1.6	2.6
17	3.9	7.0	11	14	12	55	e29	15	50	2.5	1.5	2.0
18	5.3	6.8	11	14	13	40	28	12	173	2.3	1.4	1.5
19	6.6	6.5	11	13	13	43	26	13	167	2.1	1.3	1.4
20	5.7	7.4	11	14	12	36	24	515	76	1.9	1.3	1.0
21	5.7	7.8	12	14	11	29	23	429	52	1.7	1.3	1.3
22	6.3	6.8	12	13	11	26	21	109	38	1.7	3.2	2.0
23	6.3	6.3	13	13	34	26	19	e50	31	1.6	4.5	1.8
24	6.1	6.6	13	15	118	25	19	31	26	1.8	2.7	1.6
25	5.8	7.0	12	16	77	23	18	25	22	1.9	2.7	2.0
26	5.4	6.6	12	13	38	22	17	26	18	1.8	2.6	1.1
27	5.2	7.0	12	15	26	20	16	21	15	1.7	2.3	1.2
28	5.1	7.7	13	16	21	19	15	22	14	1.8	2.0	1.0
29	4.8	7.5	13	49	18	18	15	21	13	1.6	1.7	.85
30	4.8	7.7	12	36	---	18	14	20	12	1.7	1.5	.82
31	4.8	---	13	22	---	17	---	18	---	3.0	1.4	---
TOTAL	181.4	198.2	329.9	664	646	971	1677	5114	2707	125.0	77.3	40.49
MEAN	5.85	6.61	10.6	21.4	22.3	31.3	55.9	165	90.2	4.03	2.49	1.35
MAX	10	7.8	14	87	118	156	391	2080	774	11	10	2.7
MIN	3.9	5.1	7.3	12	11	14	14	12	10	1.6	1.3	.82
AC-FT	360	393	654	1320	1280	1930	3330	10140	5370	248	153	80

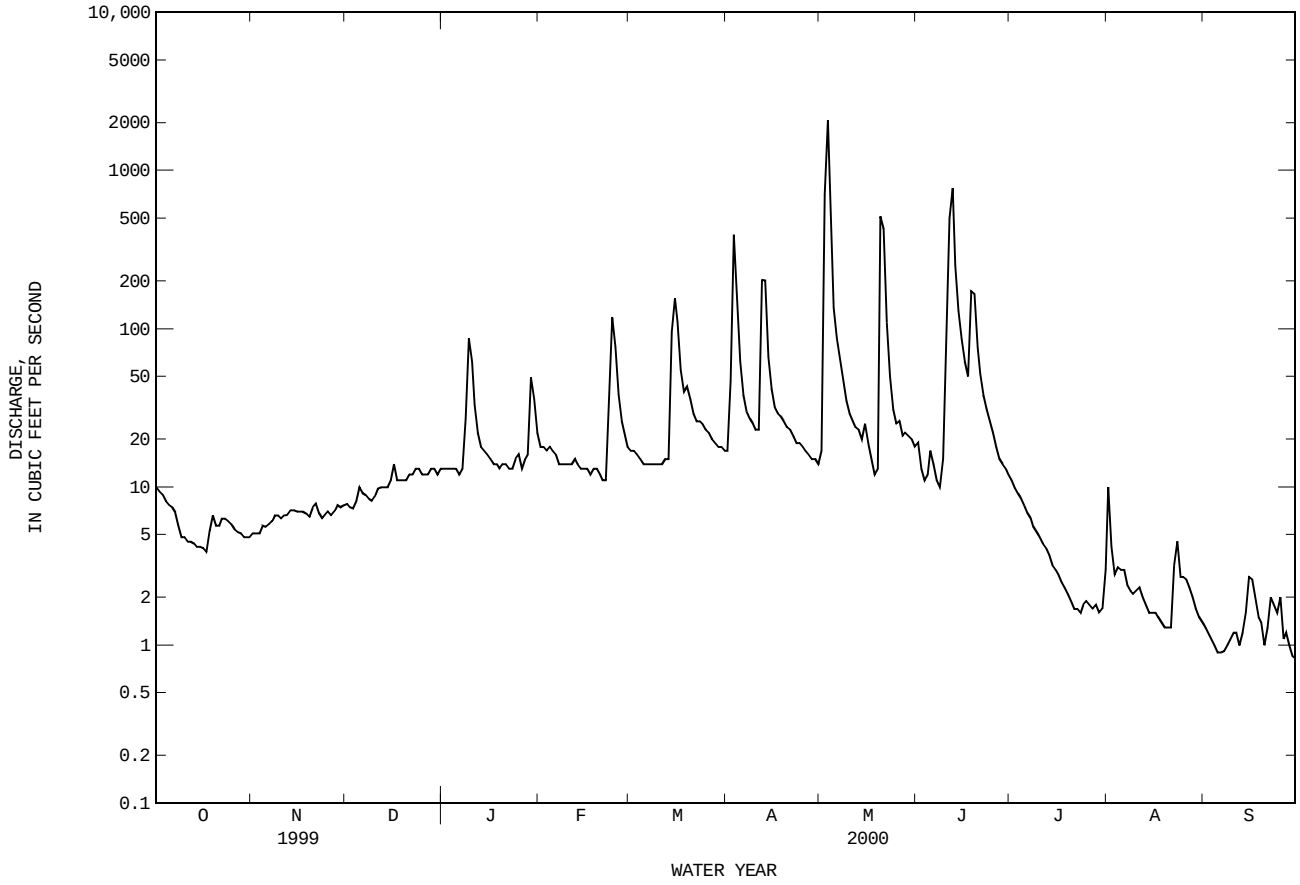
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2000, BY WATER YEAR (WY)

MEAN	326	352	166	141	227	182	166	266	312	30.3	9.11	37.3
MAX	2139	1754	744	518	826	670	1295	833	1445	146	38.1	241
(WY)	1999	1999	1987	1997	1998	1997	1997	1982	1987	1983	1983	1998
MIN	1.01	1.62	3.63	21.4	22.3	31.3	12.1	24.3	18.5	4.03	.56	.70
(WY)	1989	1989	1989	2000	2000	2000	1989	1984	1985	2000	1989	1989

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1982 - 2000	
ANNUAL TOTAL	39320.5		12731.29			
ANNUAL MEAN	108		34.8		184	
HIGHEST ANNUAL MEAN					463	1999
LOWEST ANNUAL MEAN					34.8	2000
HIGHEST DAILY MEAN	7540	Jun 27	2080	May 3	20000	Oct 19 1998
LOWEST DAILY MEAN	3.9	Oct 17	.82	Sep 30	.00	Sep 1 1989
ANNUAL SEVEN-DAY MINIMUM	4.3	Oct 11	.99	Sep 3	.00	Sep 1 1989
INSTANTANEOUS PEAK FLOW			2340	May 3	c25500	Oct 18 1998
INSTANTANEOUS PEAK STAGE			15.63	May 3	a30.24	Oct 18 1998
ANNUAL RUNOFF (AC-FT)	77990		25250		133200	
10 PERCENT EXCEEDS	114		49		182	
50 PERCENT EXCEEDS	30		12		26	
90 PERCENT EXCEEDS	5.8		1.7		2.7	

e Estimated
c From rating curve extended above current meter discharge measurement of 7,480 ft^3/s.
a From floodmark.

08164350 NAVIDAD RIVER NEAR SPEAKS, TX--Continued



08164370 NAVIDAD RIVER AT MORALES, TX

LOCATION.--Lat 29°08′07", long 96°44′39", Jackson County, Hydrologic Unit 12100102, on County Road 283, 1.2 mi northeast of Morales.

DRAINAGE AREA.--549 mi^2.

PERIOD OF RECORD.--Oct 1994 to Sep 1995 (discharge measurements only), Oct 1996 to Sep 2000 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 65.44 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation. Much of low flow during the irrigation season (Apr to Sep) comes from drainage from rice fields irrigated by diversions originating from the Colorado River. No flow at times.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	6.0	9.5	11	18	18	9.6	6.0	11	6.4	1.6	.05
2	11	5.8	9.7	12	17	18	50	744	9.8	6.3	6.5	.02
3	9.6	5.7	9.4	12	16	17	464	2010	8.8	7.1	5.7	.01
4	8.2	5.6	10	11	15	17	413	1240	8.0	6.4	3.3	.00
5	7.6	6.0	10	11	15	17	98	263	9.9	6.0	2.5	.00
6	6.9	6.4	11	11	15	16	46	144	12	5.7	2.0	.00
7	6.7	6.2	11	13	14	16	28	99	11	5.3	1.7	.00
8	6.5	6.5	10	16	13	16	21	79	12	4.9	1.7	.00
9	6.0	6.5	9.8	26	13	16	18	55	16	4.5	1.3	.00
10	5.9	6.6	9.4	64	14	16	17	43	55	4.1	1.1	.00
11	5.5	7.2	10	38	14	15	15	36	418	3.7	.89	.00
12	5.0	7.3	12	23	16	14	106	34	793	3.1	.71	.00
13	5.1	7.6	12	18	15	15	401	46	362	2.6	.73	.00
14	5.1	7.7	12	15	14	56	96	32	125	2.3	.71	.28
15	5.5	7.4	12	14	13	434	45	28	64	2.7	.58	2.7
16	5.9	7.4	11	14	13	185	27	30	40	4.5	.83	.22
17	5.8	7.3	13	14	14	78	21	26	27	2.7	.61	.06
18	e7.2	7.1	13	13	14	38	18	22	28	1.5	.27	.02
19	7.9	7.1	12	13	13	29	17	20	180	1.3	.10	.02
20	8.4	7.0	12	14	13	28	15	1730	72	1.1	.02	.01
21	7.2	8.1	12	13	13	24	12	902	33	1.0	.02	.00
22	6.5	8.4	12	13	12	20	9.7	358	21	.88	.13	.00
23	7.0	8.3	12	13	61	17	9.3	158	16	.87	.18	.00
24	7.1	8.3	12	13	58	17	8.4	80	13	1.4	2.5	.00
25	7.0	8.9	12	13	92	16	7.7	44	11	4.1	4.7	.00
26	6.5	9.2	11	15	48	15	7.0	28	10	4.9	1.7	.00
27	6.3	9.4	11	16	28	14	6.2	19	9.1	3.3	.75	.00
28	6.1	9.3	11	18	21	12	5.6	19	8.5	1.7	.63	.00
29	5.8	9.7	11	15	19	11	5.2	17	7.6	.90	.51	.00
30	5.8	9.6	11	38	---	11	4.9	14	7.1	.74	.31	.00
31	5.9	---	11	25	---	9.8	---	13	---	1.0	.22	---
TOTAL	214.0	223.6	344.8	555	641	1225.8	2001.6	8339.0	2398.8	102.99	44.50	3.39
MEAN	6.90	7.45	11.1	17.9	22.1	39.5	66.7	269	80.0	3.32	1.44	.11
MAX	13	9.7	13	64	92	434	464	2010	793	7.1	6.5	2.7
MIN	5.0	5.6	9.4	11	12	9.8	4.9	6.0	7.1	.74	.02	.00
AC-FT	424	444	684	1100	1270	2430	3970	16540	4760	204	88	6.7

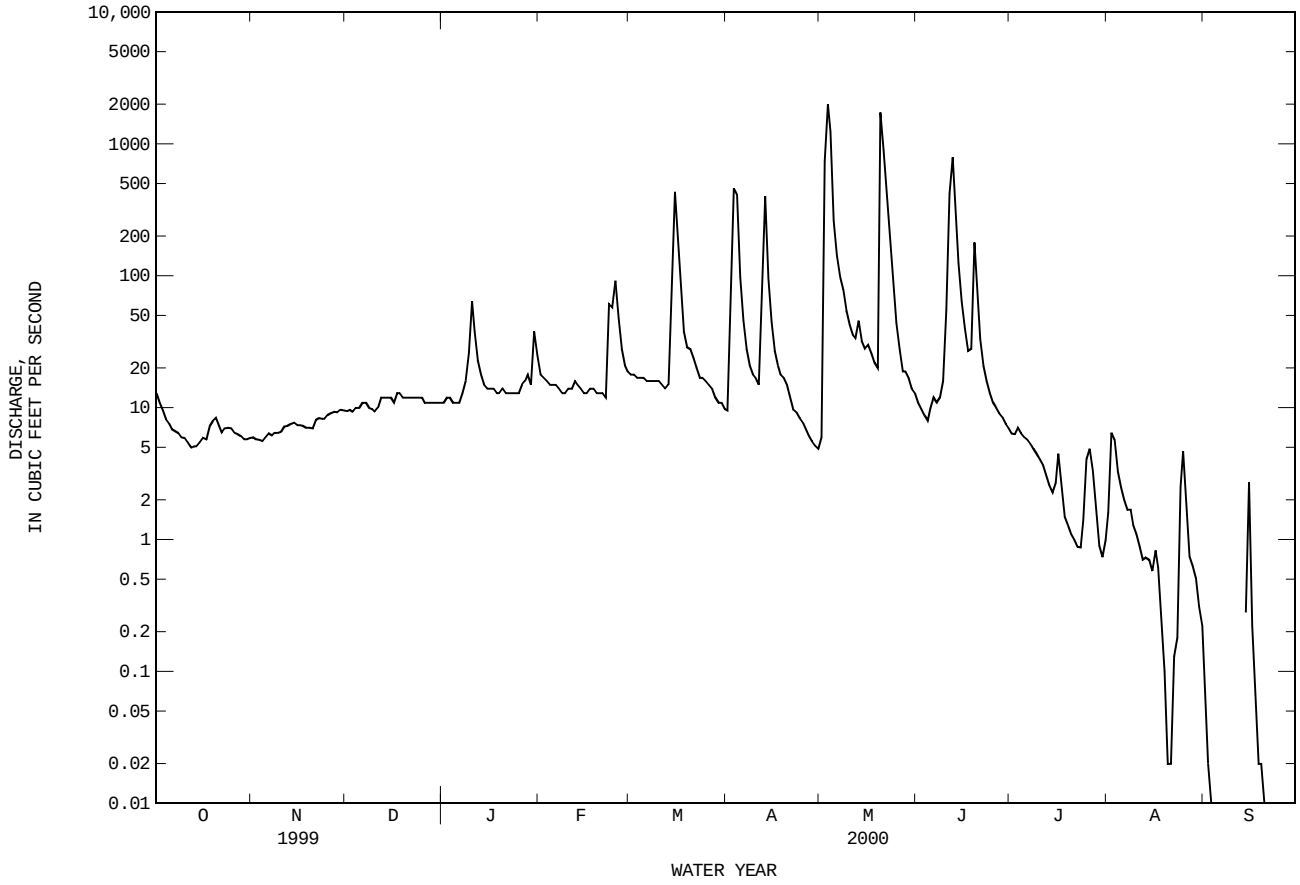
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

MEAN	869	594	200	256	320	438	463	360	529	35.8	23.8	176
MAX	2289	2083	398	631	870	1314	1682	973	1392	80.1	57.8	677
(WY)	1999	1999	1999	1997	1998	1997	1997	1997	1997	1999	1998	1998
MIN	6.90	7.45	11.1	17.9	22.1	39.5	48.7	26.4	58.1	3.32	1.44	.11
(WY)	2000	2000	2000	2000	2000	2000	1999	1998	1998	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	39704.2		16094.48			
ANNUAL MEAN	109		44.0		355	
HIGHEST ANNUAL MEAN					543	1997
LOWEST ANNUAL MEAN					44.0	2000
HIGHEST DAILY MEAN	5000	Jun 27	2010	May 3	21500	Oct 19 1998
LOWEST DAILY MEAN	5.0	Oct 12	.00	Sep 4	.00	Sep 4 2000
ANNUAL SEVEN-DAY MINIMUM	5.4	Oct 11	.00	Sep 4	.00	Sep 4 2000
INSTANTANEOUS PEAK FLOW			2750	May 20	c25000	Oct 19 1998
INSTANTANEOUS PEAK STAGE			21.01	May 20	e33.50	Oct 19 1998
INSTANTANEOUS LOW FLOW					1.9	Aug 5 1998
ANNUAL RUNOFF (AC-FT)	78750		31920		256900	
10 PERCENT EXCEEDS	134		49		464	
50 PERCENT EXCEEDS	33		11		38	
90 PERCENT EXCEEDS	6.8		.30		6.0	

e Estimated
c From rating curve extended above current meter discharge measurement of 7,480 ft^3/s.

08164370 NAVIDAD RIVER AT MORALES, 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.--Jun 1996 to current. Discharge measurements only prior to Oct 1996.

GAGE.--Water-stage recorder. Datum of gage is 42.53 ft above sea level. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. No known regulation or diversions. Much of low flow during the irrigation season (Apr to Sep) comes from drainage from rice fields irrigated by diversions originating from the Colorado River. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	6.8	9.9	10	20	18	12	11	13	6.7	.73	.01
2	12	6.7	10	11	18	17	133	479	11	6.0	.93	.01
3	11	6.7	9.8	10	18	17	342	1980	10	6.1	3.3	.01
4	10	6.7	11	10	17	17	575	1550	9.8	6.2	2.5	.01
5	9.2	6.6	10	10	17	17	155	257	10	5.6	1.9	.01
6	8.9	6.9	10	10	17	16	74	121	12	5.2	1.6	.01
7	8.4	6.9	10	11	16	16	46	73	12	4.7	1.1	.02
8	8.0	7.0	10	14	16	15	33	58	14	4.3	1.0	.05
9	7.6	7.2	9.7	13	15	15	27	44	17	4.0	.86	.02
10	7.9	7.2	9.5	36	16	15	24	33	32	3.6	.73	.01
11	8.2	7.1	9.7	35	16	16	22	26	294	3.1	.45	.01
12	7.7	7.4	11	24	16	16	185	22	769	2.7	.34	.01
13	6.9	7.5	11	19	16	16	456	27	462	2.4	.22	.02
14	6.9	7.5	11	17	17	27	186	21	153	2.2	.13	.04
15	6.9	7.6	11	16	16	371	92	16	84	2.0	.10	.04
16	7.1	7.7	11	15	15	199	54	17	58	1.9	.08	.03
17	7.0	7.7	11	15	16	96	37	14	41	2.9	.06	.34
18	7.6	7.4	13	14	15	49	29	12	32	1.9	.07	.36
19	8.7	7.3	12	14	15	34	25	10	122	1.3	.09	.05
20	9.4	7.2	12	14	15	30	22	1250	89	1.1	.11	.01
21	9.1	7.3	12	15	15	28	19	1190	43	.96	.17	.02
22	8.2	8.1	11	14	15	24	17	383	28	.90	.37	.01
23	8.1	9.5	11	14	44	19	15	158	20	.77	.41	.00
24	8.1	8.2	11	13	62	18	14	82	16	.74	.20	.01
25	8.1	9.1	11	14	71	17	14	51	13	.69	.67	.01
26	8.0	9.0	11	15	51	16	13	34	11	1.8	1.8	.02
27	7.5	9.4	11	17	30	15	12	25	12	2.3	.81	.02
28	7.3	9.2	11	22	23	15	12	20	10	2.1	.38	.02
29	7.0	9.2	11	19	21	14	11	21	8.2	1.4	.15	.02
30	6.8	9.8	11	24	---	13	11	17	7.3	.76	.07	.02
31	6.9	---	11	28	---	13	---	15	---	.60	.02	---
TOTAL	256.5	231.9	334.6	513	659	1209	2667	8017	2413.3	86.92	21.35	1.22
MEAN	8.27	7.73	10.8	16.5	22.7	39.0	88.9	259	80.4	2.80	.69	.041
MAX	12	9.8	13	36	71	371	575	1980	769	6.7	3.3	.36
MIN	6.8	6.6	9.5	10	15	13	11	10	7.3	.60	.02	.00
AC-FT	509	460	664	1020	1310	2400	5290	15900	4790	172	42	2.4

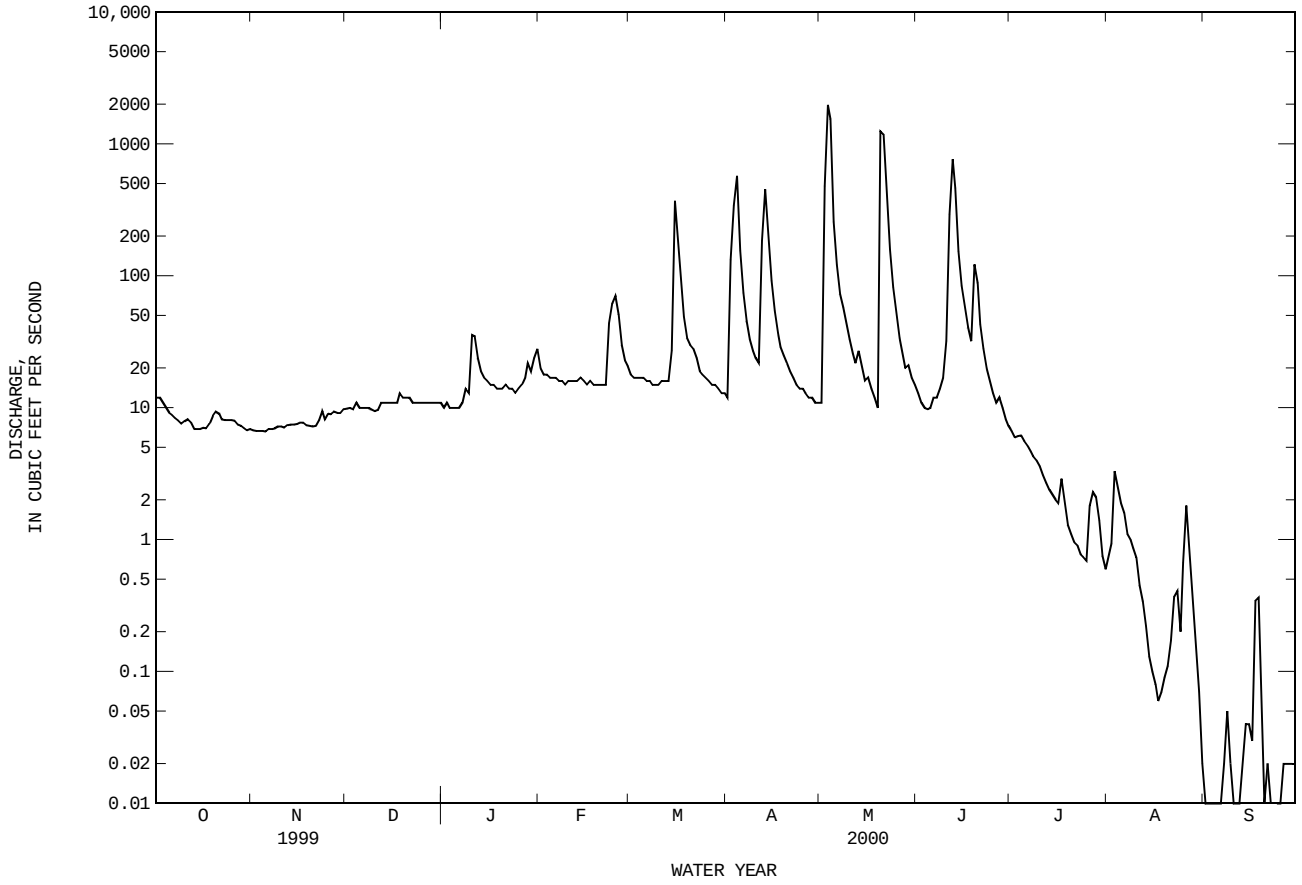
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

MEAN	991	657	208	272	332	501	557	371	596	43.6	27.9	219
MAX	2636	2334	402	690	904	1540	2030	1038	1632	80.5	72.1	848
(WY)	1999	1999	1999	1997	1998	1997	1997	1997	1997	1999	1998	1998
MIN	8.27	7.73	10.8	16.5	22.7	39.0	51.2	27.7	62.9	2.80	.69	.041
(WY)	2000	2000	2000	2000	2000	2000	1999	1998	1998	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	40365.2		16410.79			
ANNUAL MEAN	111		44.8		397	
HIGHEST ANNUAL MEAN					627	1997
LOWEST ANNUAL MEAN					44.8	2000
HIGHEST DAILY MEAN	5050	Jun 28	1980	May 3	23300	Oct 19 1998
LOWEST DAILY MEAN	6.6	Nov 5	.00	Sep 23	.00	Sep 23 2000
ANNUAL SEVEN-DAY MINIMUM	6.7	Oct 30	.01	Aug 31	.01	Aug 31 2000
INSTANTANEOUS PEAK FLOW			2520	May 20	c25000	Oct 19 1998
INSTANTANEOUS PEAK STAGE			17.88	May 20	a30.08	Oct 19 1998
ANNUAL RUNOFF (AC-FT)	80060		32550		287900	
10 PERCENT EXCEEDS	133		51		562	
50 PERCENT EXCEEDS	34		11		44	
90 PERCENT EXCEEDS	7.7		.12		7.1	

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: Jun 1998 to current year.
PESTICIDE DATA: Jun 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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)	SILVEX, DIS-SOLVED (UG/L) (39762)
MAY												
17...	1320	14	550	8.1	27.5	7.8	102	<.0400	<.110	<.100	<.0030	<.0600
AUG												
09...	1305	.82	680	8.0	31.0	10.0	138	<.170	<.110	<.100	<.0030	<.0600

DATE	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)
MAY												
17...	<.120	<.420	<.0020	<.0900	<.002	<.210	<.100	<.0210	<.0020	.041	<.0010	<.0020
AUG												
09...	<.390	<.420	<.0020	<.0900	<.002	<.210	<.170	<.0210	<.0020	<.001	<.0010	<.0020

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 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)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)
MAY												
17...	<.0350	<.0600	<.0400	<.0020	<.0700	<.0030	<.290	<.0030	<.480	<.0040	<.0050	<.230
AUG												
09...	<.0350	<.0600	<.0400	<.0020	<.0700	<.0030	<.290	<.0030	<.480	<.0040	<.0050	<.230

DATE	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)	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)
MAY												
17...	<.0040	<.0390	<.0020	E.0116	<.002	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	<.0600
AUG												
09...	<.0040	<.0390	<.0020	<.0020	<.002	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	<.0600

DATE	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)	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)
MAY											
17...	<.0020	<.0040	<.0030	<.200	<.0600	<.0030	<.004	<.0900	<.0020	.012	<.170
AUG											
09...	<.0020	<.0040	<.0030	<.0700	<.0600	<.0030	<.004	<.150	<.0020	<.005	<.170

DATE	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)	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)
MAY											
17...	<.130	<.0260	<.100	.014	<.004	<.0040	<.0030	<.0700	<.0420	<.310	<.150
AUG											
09...	<.190	<.0260	<.0170	<.002	<.004	<.0040	<.0030	<.0700	<.0420	<.320	<.0180

08164390 NAVIDAD RIVER AT STRANE PARK NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	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)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-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)
MAY											
17...	<.0060	<.004	<.0060	<.0040	<.0040	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130
AUG											
09...	<.0060	<.004	<.0060	<.0040	<.0040	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130

DATE	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)	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)
MAY											
17...	<.0350	<.0800	<.0030	<.0050	E.0058	<.0070	<.0130	.0066	<.0010	<.250	<.0020
AUG											
09...	<.0350	<.0800	<.0030	<.0050	<.0100	<.0070	<.0130	<.0020	<.0010	<.250	<.0020

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.--No estimated daily discharges. Records fair. Much of the low flow during the irrigation season (Apr to Sep) is drainage from rice fields irrigated by water originally diverted from the Colorado River. No known regulation or diversions. No flow at times. Periodic observaitons of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 3	0845	2,610	13.69	Jun 11	2215	1,840	12.00

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	133	.00	.00	.00	.00	.41	.00	.01	8.5	5.4	76	.00
2	94	.00	.00	.00	.01	.00	776	693	22	8.9	79	.00
3	58	.00	.00	.00	.00	.00	1080	2300	21	6.2	81	.00
4	29	.00	.00	.00	.00	.00	1110	1520	18	7.0	65	.00
5	16	.00	.00	.00	.00	.00	613	956	16	16	50	.00
6	18	.00	.00	.00	.00	.00	161	338	31	21	31	.00
7	9.3	.00	.00	.00	.00	.00	61	112	27	17	23	.00
8	2.2	.00	.00	.00	.00	.00	17	38	40	18	17	.00
9	2.4	.00	.00	.00	.00	.00	.00	7.1	111	15	23	.00
10	5.0	.00	.00	.00	.00	.00	.00	1.5	357	14	26	.00
11	.50	.00	.00	.00	.00	.01	.00	.65	1480	20	21	.00
12	1.7	.00	.00	.00	.00	.00	160	.50	1460	13	13	.00
13	13	.00	.00	.00	.00	.00	768	.52	1120	12	9.5	.00
14	13	.00	.00	.00	.00	11	626	.43	670	14	6.1	19
15	11	.00	.00	.00	.00	610	206	.42	244	20	5.6	99
16	16	.00	.00	.00	.00	675	90	.40	101	30	4.2	91
17	7.5	.00	.00	.00	.00	197	43	.36	57	31	3.0	70
18	5.1	.00	.00	.00	.00	74	7.0	.35	124	37	2.0	51
19	4.2	.00	.00	.00	.00	31	1.3	.39	118	50	9.9	36
20	24	.00	.00	.00	.00	17	.10	530	88	64	9.4	28
21	33	.00	.00	.00	.00	9.8	.21	825	56	66	4.2	26
22	30	.00	.00	.00	.00	3.9	.29	796	43	70	6.1	43
23	22	.00	.00	.00	178	.75	.38	344	30	78	5.7	50
24	14	.00	.00	.00	230	.07	.34	129	22	148	3.2	43
25	8.8	.00	.00	.00	72	.00	.25	60	19	172	2.4	33
26	4.4	.00	.00	.00	28	.00	.19	22	15	195	1.2	22
27	.87	.00	.00	.66	11	.00	.00	5.2	8.2	172	.65	12
28	.03	.00	.00	.02	6.1	.00	.00	2.0	12	129	.30	7.7
29	.00	.00	.00	.00	2.4	.00	.00	1.6	12	111	.06	12
30	.00	.00	.00	.00	---	.00	.00	7.8	8.2	89	.00	11
31	.00	---	.00	.00	---	.00	---	3.4	---	80	.00	---
TOTAL	576.00	0.00	0.00	0.68	527.51	1629.94	5721.06	8695.63	6338.9	1729.5	578.51	653.70
MEAN	18.6	.000	.000	.022	18.2	52.6	191	281	211	55.8	18.7	21.8
MAX	133	.00	.00	.66	230	675	1110	2300	1480	195	81	99
MIN	.00	.00	.00	.00	.00	.00	.00	.01	8.2	5.4	.00	.00
AC-FT	1140	.00	.00	1.3	1050	3230	11350	17250	12570	3430	1150	1300

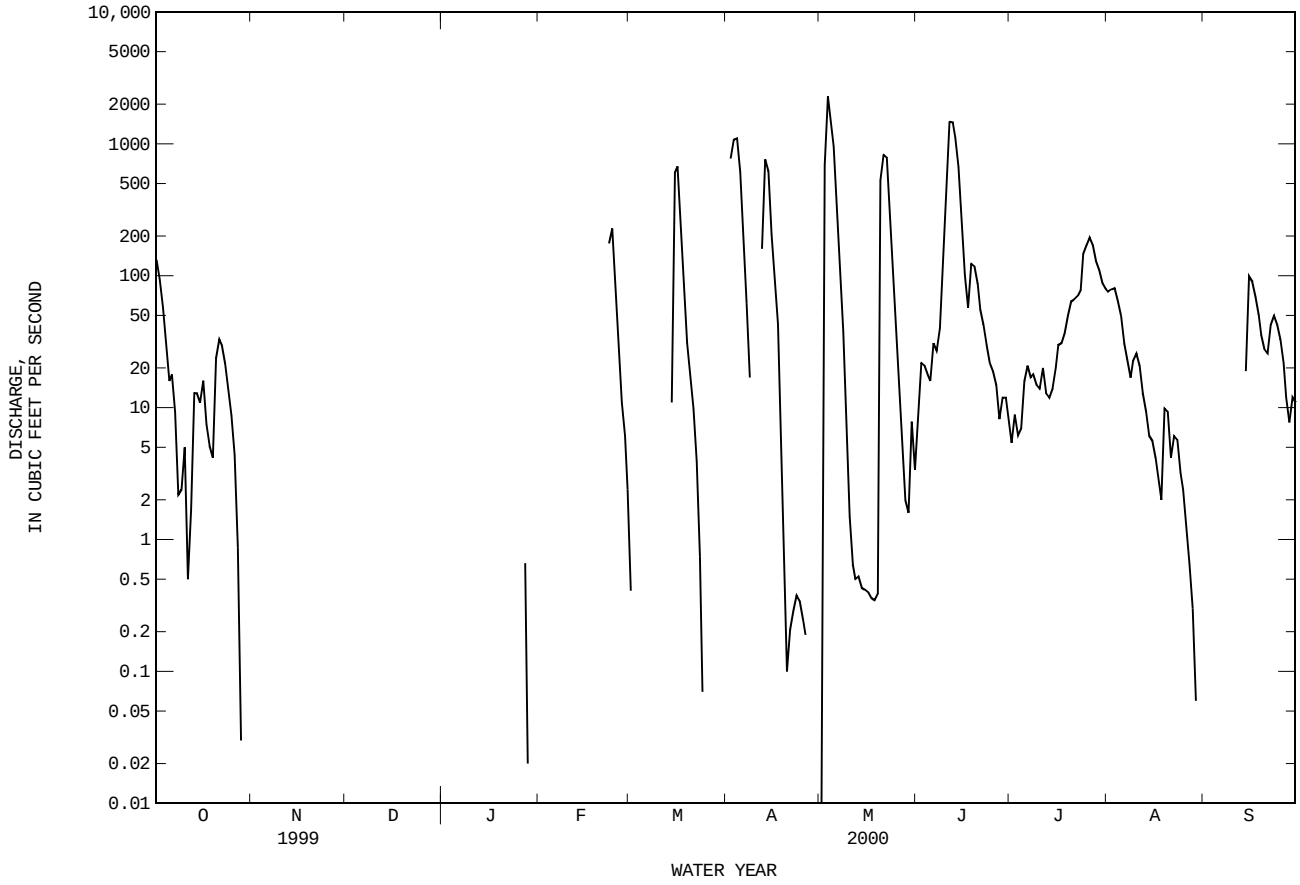
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

MEAN	364	192	137	264	270	173	218	309	365	124	34.7	239
MAX	2917	1513	746	956	2331	1406	1316	1150	1866	475	147	1364
(WY)	1999	1999	1992	1992	1992	1997	1997	1993	1993	1983	1996	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1978 - 2000	
ANNUAL TOTAL	31884.68		26451.43			
ANNUAL MEAN	87.4		72.3		224	
HIGHEST ANNUAL MEAN					606	1992
LOWEST ANNUAL MEAN					51.2	1990
HIGHEST DAILY MEAN	2600	Jun 26	2300	May 3	41100	Oct 19 1998
LOWEST DAILY MEAN	.00	Aug 19	.00	Oct 29	.00	Apr 5 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 29	.00	Oct 29	.00	Mar 10 1980
INSTANTANEOUS PEAK FLOW			2610	May 3	63400	Oct 19 1998
INSTANTANEOUS PEAK STAGE			13.69	May 3	32.72	Oct 19 1998
ANNUAL RUNOFF (AC-FT)	63240		52470		162000	
10 PERCENT EXCEEDS	191		126		453	
50 PERCENT EXCEEDS	9.6		.71		20	
90 PERCENT EXCEEDS	.00		.00		.05	

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 Jul 1981, Apr 1996 to current year.
SEDIMENT DATA: Sep 1978 to Apr 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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)	SILVEX, DIS-SOLVED (UG/L) (39762)
MAY												
17...	1200	.36	293	6.4	29.0	5.8	78	<.0400	<.110	<.190	<.0030	<.0600
25...	1134	59	259	--	28.0	--	--	--	--	--	--	--
AUG												
09...	1220	23	662	7.7	30.0	6.2	84	<.0400	<.110	<.100	<.0030	<.0600

DATE	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)
MAY												
17...	<.160	<.420	<.0020	<.0900	<.002	<.210	<.100	<.0210	<.0020	.028	<.0010	<.0020
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
09...	<.600	<.420	<.0080	<.0900	<.002	<.210	<.100	<.0210	<.0020	<.005	<.0010	<.0020

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 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)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)
MAY												
17...	.201	<.0600	<.0400	<.0020	<.140	<.0030	<.290	E.0071	<.480	<.0040	<.0050	<.230
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
09...	<.0350	<.0600	<.0400	<.0020	<.0700	E.0092	<.290	<.0030	<.480	<.0040	<.0050	<.230

DATE	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)	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)
MAY												
17...	<.0040	<.540	<.0020	<.0080	<.002	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	E.0418
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
09...	<.0040	<.0390	<.0020	E.0031	<.002	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	<.0600

DATE	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)	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)
MAY											
17...	<.0020	<.0040	<.0030	<.0700	<.0600	<.0030	<.004	<.0900	<.0020	<.005	<.170
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	<.0020	<.0040	<.0030	<.0700	<.0600	<.0030	<.004	<.120	<.0020	<.005	<.180

08164450 SANDY CREEK NEAR GANADO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	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)	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)
MAY											
17...	<.130	<.0260	<.0170	.077	<.004	.708	<.0030	<.0700	<.0420	<.310	<1.44
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	<.130	<.0260	<3.48	.012	<.004	<.0100	<.0030	<.260	<.0420	<.410	<.300

DATE	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)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-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)
MAY											
17...	<.0060	<.004	<.0060	<.0040	<.0040	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	<.0060	<.004	<.0060	<.0040	<.0040	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130

DATE	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)	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)
MAY											
17...	<.0350	<.330	<.0030	.0094	.0708	<.0070	<.0130	.414	<.0010	<.250	<.0020
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	<.230	<.190	<.0030	<.0050	.0431	<.100	<.0130	.0094	<.0010	<.250	<.0020

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.--Records fair. No known regulation. Much of low flow during the irrigation season (Apr to Sep) comes from drainage from rice fields irrigated by diversions originating from the Colorado River. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	1815	1,540	13.49	May 21	0430	1,680	13.76
May 3	1645	1,750	13.87	Jun 12	0045	1,820	14.00

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	76	7.1	.70	.44	4.1	6.7	.39	21	28	31	41	4.4
2	66	2.8	.88	.56	4.9	4.1	122	474	33	27	36	4.3
3	49	1.0	.66	.41	4.1	2.9	906	1610	34	22	51	3.4
4	39	.44	.65	.24	4.3	2.2	772	1260	32	19	38	4.1
5	25	.21	.61	.15	5.5	1.6	264	451	27	28	29	2.8
6	19	.11	.39	.10	4.2	1.4	113	171	33	36	26	2.3
7	17	.08	.28	.15	2.1	1.3	59	79	45	49	14	2.4
8	16	e.07	.21	.34	.97	.98	39	48	70	54	9.2	3.3
9	9.0	e.06	.15	.46	.44	.80	24	30	439	59	15	2.0
10	8.7	e.06	.13	.46	.24	.67	16	20	680	55	13	1.8
11	7.7	e.06	.12	.44	.14	.71	18	14	1500	46	14	1.3
12	6.1	.13	.14	.36	.10	6.9	371	12	1570	40	9.5	1.5
13	6.7	.14	.12	.35	.10	3.8	1420	20	732	28	8.7	4.3
14	21	.11	.09	.28	.18	26	795	21	341	24	7.7	7.1
15	36	.10	.08	.18	1.5	1060	181	12	151	18	6.9	16
16	28	.09	e.07	.14	2.5	979	88	19	75	19	7.5	30
17	22	.08	e.06	.10	.88	192	52	13	53	22	6.7	43
18	23	e.07	e.06	.08	.60	75	31	12	84	23	6.3	35
19	28	e.06	e.05	e.06	1.4	41	22	15	73	22	4.1	27
20	35	e.05	e.04	e.05	3.9	26	15	715	53	30	5.2	21
21	39	e.05	e.04	e.04	3.0	18	9.8	1540	38	37	4.4	21
22	29	e.04	e.03	e.03	3.2	12	9.2	619	30	23	5.8	23
23	22	e.06	e.07	e.01	211	17	8.7	233	26	20	9.4	38
24	17	.11	.18	e.00	868	6.8	11	121	23	63	7.3	43
25	10	9.2	.34	.00	243	3.8	14	63	20	120	7.6	32
26	8.0	9.8	.35	e.00	63	2.7	15	36	19	126	8.7	25
27	7.7	4.1	.28	e.00	37	1.8	14	23	20	99	9.1	18
28	4.2	1.5	.22	32	22	1.2	32	19	34	77	12	20
29	3.2	.99	.14	54	12	.78	21	19	33	84	9.0	16
30	1.8	.87	.10	22	---	.57	25	20	29	71	5.5	7.3
31	6.6	---	.08	8.7	---	.46	---	28	---	53	6.7	---
TOTAL	686.7	39.54	7.32	122.13	1504.35	2498.17	5468.09	7738	6325	1425	434.3	460.3
MEAN	22.2	1.32	.24	3.94	51.9	80.6	182	250	211	46.0	14.0	15.3
MAX	76	9.8	.88	54	868	1060	1420	1610	1570	126	51	43
MIN	1.8	.04	.03	.00	.10	.46	.39	12	19	18	4.1	1.3
AC-FT	1360	78	15	242	2980	4960	10850	15350	12550	2830	861	913
CFSM	.12	.01	.00	.02	.29	.45	1.02	1.40	1.18	.26	.08	.09
IN.	.14	.01	.00	.03	.31	.52	1.14	1.62	1.32	.30	.09	.10

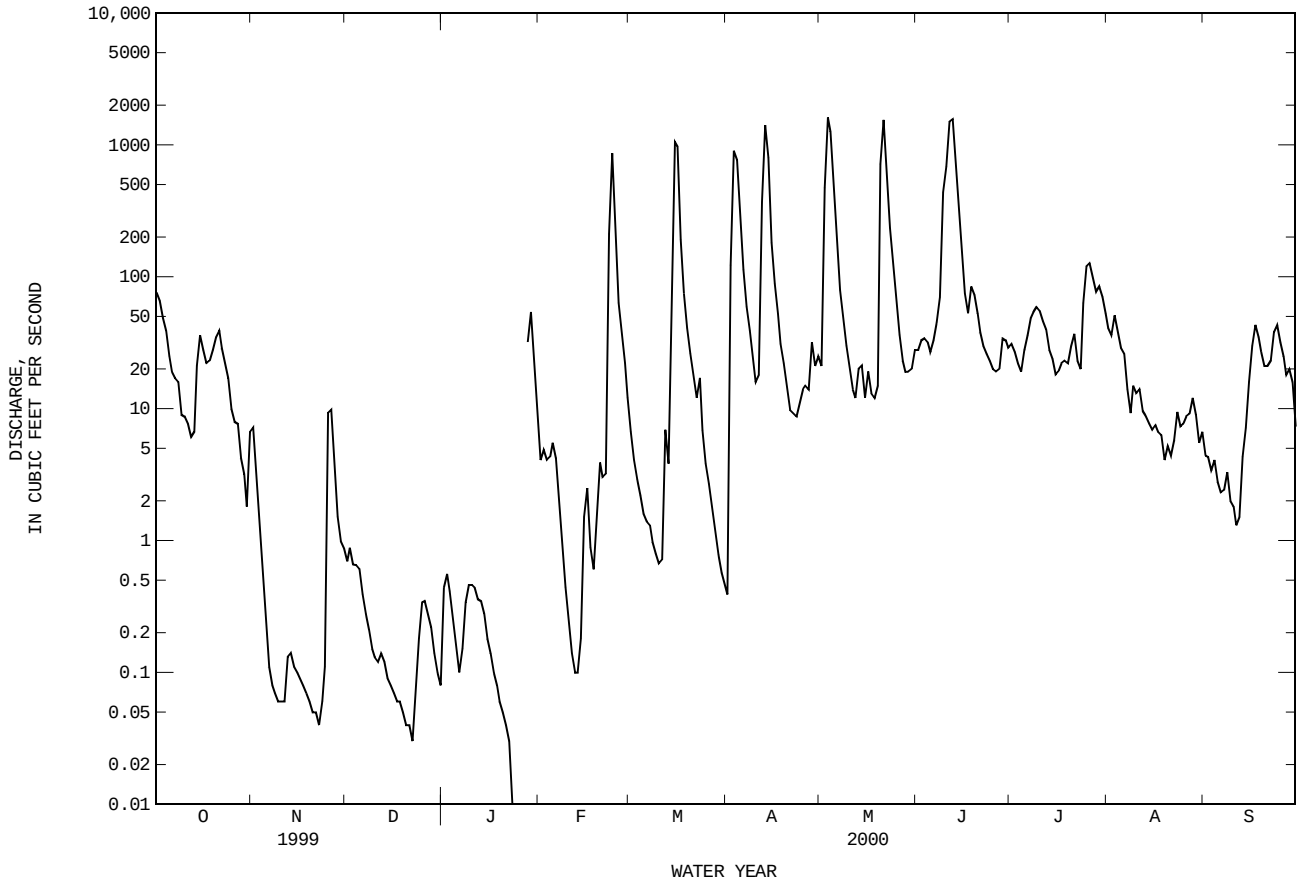
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

MEAN	260	141	110	180	157	117	168	211	209	104	52.3	211
MAX	1746	813	587	881	1243	988	1107	702	958	412	161	1063
(WY)	1995	1999	1992	1980	1992	1997	1997	1993	1993	1983	1998	1979
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

08164503 WEST MUSTANG CREEK NEAR GANADO, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1978 - 2000	
ANNUAL TOTAL	20389.02		26708.90			
ANNUAL MEAN	55.9		73.0		160	
HIGHEST ANNUAL MEAN					325	1997
LOWEST ANNUAL MEAN					45.2	1990
HIGHEST DAILY MEAN	1400	Mar 29	1610	May 3	18700	Oct 19 1994
LOWEST DAILY MEAN	.03	Dec 22	.00	Jan 24	.00	Dec 19 1990
ANNUAL SEVEN-DAY MINIMUM	.05	Dec 16	.01	Jan 21	.01	Dec 19 1990
INSTANTANEOUS PEAK FLOW			1820	Jun 12	c20000	Oct 19 1994
INSTANTANEOUS PEAK STAGE			14.00	Jun 12	a28.39	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	40440		52980		115800	
ANNUAL RUNOFF (CFSM)	.31		.41		.90	
ANNUAL RUNOFF (INCHES)	4.26		5.58		12.20	
10 PERCENT EXCEEDS	125		85		299	
50 PERCENT EXCEEDS	11		10		23	
90 PERCENT EXCEEDS	.15		.10		1.4	

e Estimated
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

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 Jul 1981, Apr 1996 to current year.
SEDIMENT DATA: Sep 1978 to Apr 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	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)	SILVEX, DIS-SOLVED (UG/L) (39762)
MAY												
17...	1100	13	665	6.1	25.0	6.1	76	<.0400	<.110	<.100	E.0012	<.0600
AUG												
09...	1100	15	760	7.6	27.5	5.2	68	<.0400	<.110	<.100	<.0030	<.0600

DATE	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)
MAY												
17...	<.310	<.420	<.0050	<.0900	.020	<.250	<.100	<.0210	<.0020	.139	<.0010	<.0020
AUG												
09...	<.850	<.420	<.0080	<.0900	<.002	<.210	<.100	<.260	<.0020	.007	<.0010	<.0020

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 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)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)
MAY												
17...	<.0350	<.140	<.0400	<.0020	<.0700	<.0030	<.290	E.0085	<.480	<.0040	<.0050	<.230
AUG												
09...	<.0350	<.0600	<.0400	<.0020	<.0700	<.0030	<.290	<.0030	<.480	<.0040	<.0050	<.230

DATE	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)	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)
MAY												
17...	<.0040	<2.11	<.0020	E.0386	<.002	<.130	<.0700	<.0320	<.001	<.0600	<.0170	E.0221
AUG												
09...	<.0040	<.0390	<.0020	E.0028	<.002	<.110	<.0700	<.0320	<.001	<.0600	<.0170	<.0600

DATE	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)	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)
MAY											
17...	<.0020	<.0040	<.0030	<.230	<1.11	<.0030	<.004	<.0900	<.0020	<.005	<.170
AUG											
09...	<.0020	<.0040	<.0030	<.0700	<.130	<.0030	<.004	<.0900	<.0020	<.005	<.350

08164503 WEST MUSTANG CREEK NEAR GANADO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	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)	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)
MAY											
17...	<.130	<.0260	<.0170	.188	<.004	2.21	<.0030	<.0700	<.0420	<.310	<.140
AUG											
09...	<.130	<.0260	<2.85	.009	<.004	.0159	<.0030	<.0700	<.0420	<.360	<.120

DATE	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)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-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)
MAY											
17...	<.0060	<.004	<.0060	<.0040	<.0040	<.0020	<.0500	E.0076	<.0070	E.0032	<.0130
AUG											
09...	<.0060	<.004	.0212	<.0040	<.0040	<.0020	<.140	E.0041	<.0070	<.0040	<.0130

DATE	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)	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)
MAY											
17...	<.120	<1.51	<.0030	.0245	.0189	<.0070	<.0130	.628	<.0010	<.250	<.0020
AUG											
09...	<.120	<.310	<.0030	<.0050	E.0064	<.100	<.0130	.0127	<.0010	<.250	<.0020

08164504 EAST MUSTANG CREEK AT FM 647 NEAR GANADO, 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 Ganado.

DRAINAGE AREA.--90.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Jun 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 43.02 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Much of the low flow during the irrigation season (Apr to Sep) is drainage from rice fields irrigated by water originally diverted from the Colorado River and ground-water wells. No known regulation or diversions. No flow at times. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.08	.05	.10	.37	.26	.10	.25	.95	1.4	2.1	.00
2	1.2	.08	.05	.09	.23	.17	.29	e816	.79	.90	.71	.00
3	.77	.07	.05	.10	.14	.13	.16	403	.70	.57	.24	.00
4	.47	.06	.08	.10	.07	.09	.09	134	.64	.41	.03	.00
5	.28	.06	.04	.10	.05	.10	.08	46	e1.0	.39	.00	.00
6	.19	.06	.03	.08	.06	.10	.09	17	1.5	.22	.00	.00
7	.14	.08	.02	.08	.06	.09	.08	7.4	1.0	.15	.00	.00
8	.22	.08	.02	.13	.05	.09	.08	3.2	e1.0	.10	.00	.00
9	.72	.08	.01	.08	.05	.09	.08	1.7	93	.08	.00	.00
10	.31	.08	.02	.10	.05	.09	.96	1.1	109	.07	.05	.00
11	.18	.06	.03	.06	.06	.10	2.0	.68	e682	.06	.01	.00
12	.11	.05	.03	.06	.06	.10	198	.42	186	.03	.00	.00
13	.08	.04	.04	.06	.06	.42	196	.34	55	.02	.00	.00
14	.08	.03	.04	.06	.06	26	42	.26	21	.00	.00	.00
15	.08	.02	.06	.07	.07	e397	11	.23	7.8	.00	.00	.00
16	.08	.01	.07	.07	.08	89	3.8	.21	3.4	.00	.00	.00
17	.07	.01	.08	.08	.08	19	2.1	.21	3.7	.00	.00	.00
18	.05	.02	.08	.08	.08	5.7	1.4	.19	6.8	.00	.00	.00
19	.05	.03	.08	.08	.08	2.8	.93	.22	3.1	.00	.00	.00
20	.05	.04	.17	.08	.08	1.8	.50	390	1.8	.00	.00	.00
21	.05	.06	.14	.08	.08	3.6	.27	354	1.2	.00	.00	.00
22	.05	.07	.10	.07	.08	3.7	.23	130	.89	.00	.17	.00
23	.05	.10	.10	.06	5.8	1.6	.20	46	.73	.24	.32	.00
24	.05	.11	.10	.06	60	.93	.19	17	.65	9.4	.07	.00
25	.06	.14	.11	.06	8.3	.42	.15	7.3	.53	16	4.2	.00
26	.06	.09	.11	.07	2.8	.21	.76	4.6	.44	11	.17	.00
27	.06	.09	.11	.11	1.4	.15	1.9	3.0	.91	3.6	.01	.00
28	.06	.08	.11	.08	.83	.13	1.1	2.1	.82	3.9	.00	.00
29	.06	.06	.11	.07	.49	.11	.37	1.5	1.9	5.7	.00	.00
30	.06	.06	.11	.52	---	.09	.23	1.1	3.2	5.6	.00	.00
31	.07	---	.11	.68	---	.09	---	1.3	---	4.8	.00	---
TOTAL	6.48	1.90	2.26	3.52	81.62	554.16	465.14	2390.31	1191.45	64.64	8.08	0.00
MEAN	.21	.063	.073	.11	2.81	17.9	15.5	77.1	39.7	2.09	.26	.000
MAX	1.2	.14	.17	.68	60	397	198	816	682	16	4.2	.00
MIN	.05	.01	.01	.06	.05	.09	.08	.19	.44	.00	.00	.00
AC-FT	13	3.8	4.5	7.0	162	1100	923	4740	2360	128	16	.00

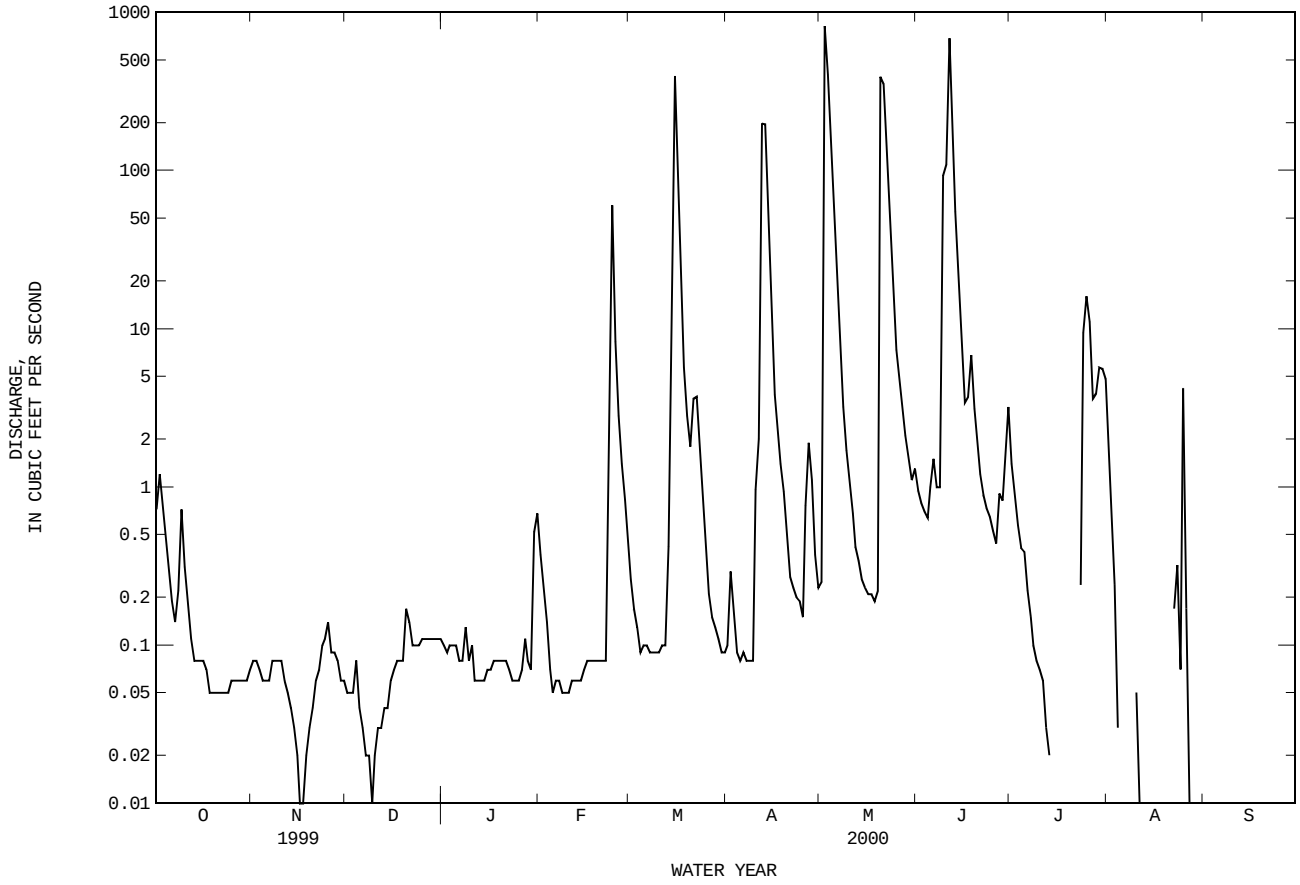
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

MEAN	131	74.2	23.2	48.6	31.5	103	98.6	59.0	17.8	4.31	22.7	115
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	17.9	2.05	2.32	1.23	2.09	.26	.000
(WY)	2000	2000	2000	2000	1999	2000	1998	1998	1998	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	3340.71		4769.56			
ANNUAL MEAN	9.15		13.0		60.8	
HIGHEST ANNUAL MEAN					104	1997
LOWEST ANNUAL MEAN					13.0	2000
HIGHEST DAILY MEAN	773	Mar 28	816	May 2	3640	Sep 11 1998
LOWEST DAILY MEAN	.01	Nov 16	.00	Jul 14	.00	Jul 14 2000
ANNUAL SEVEN-DAY MINIMUM	.02	Nov 13	.00	Jul 14	.00	Jul 14 2000
INSTANTANEOUS PEAK FLOW			1620	May 2	4100	Sep 11 1998
INSTANTANEOUS PEAK STAGE			18.10	May 2	22.16	Sep 11 1998
ANNUAL RUNOFF (AC-FT)	6630		9460		44040	
10 PERCENT EXCEEDS	11		5.6		54	
50 PERCENT EXCEEDS	.72		.09		2.1	
90 PERCENT EXCEEDS	.06		.00		.08	

e Estimated

08164504 EAST MUSTANG CREEK AT FM 647 NEAR GANADO, TX--Continued



08164504 EAST MUSTANG CREEK AT FM 647 NEAR GANADO, 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 1999 TO SEPTEMBER 2000

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)	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)	SILVEX, DIS-SOLVED (UG/L) (39762)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)
MAY												
17...	1130	.17	383	7.4	28.0	5.9	<.0400	E.101	<.100	.0085	<.0600	<.160

DATE	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)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)
MAY												
17...	<.420	<.0020	<.0900	.174	<.210	<.100	<.220	<.0020	.908	E.0418	<.0020	<.0350

DATE	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 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)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)
MAY												
17...	<.230	<.0400	<.0020	<.0700	<.0030	<.290	E.0283	<.480	<.0040	<.0050	<.230	<.0040

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 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)	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)
MAY											
17...	<.0390	<.0020	E.299	<.002	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	.103

DATE	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)	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)
MAY											
17...	<.0020	<.0040	<.0030	.0739	2.70	<.0030	<.004	<.0900	<.0020	<.005	<.170

DATE	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)	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)
MAY											
17...	<.130	<.0260	<.680	1.34	<.004	.446	<.0030	<.0700	<.0420	<.360	<.100

08164504 EAST MUSTANG CREEK AT FM 647 NEAR GANADO, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	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)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-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)
MAY											
17...	<.0060	<.004	<.0060	<.0040	<.0040	<.0020	<.240	E.0076	<.0070	<.0040	<.0130

DATE	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)	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)
MAY											
17...	<.180	<.470	<.0030	.0510	.120	<.0070	<.0130	.0636	<.0010	<.250	E.0009

08164525 LAKE TEXANA NEAR EDNA, TX

LOCATION.--Lat 28°53’30", long 96°34’00", Jackson County, Hydrologic Unit 12100101, at upstream side of dam at old river channel on the Navidad River, 4.9 mi upstream from confluence with Lavaca River, 4.0 mi north of Lolita, and 7.2 mi southeast of Edna.

DRAINAGE AREA.--1,370 mi^2.

WATER-CONTENT RECORDS

PERIOD OF RECORD.--Jul 1999 to current year.
Water-quality records.--Chemical data: Oct 1969 to Sep 1984.

REVISED RECORDS.--WSP 1923: 1953(M), Drainage area.

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

REMARKS.--Records fair. The lake is formed by a earth fill structure 1.3 mile long and includes 6.6 mile of dikes. The concrete spillway is 464 ft wide and has twelve 35 ft wide by 22.5 ft high radial gates to discharge flood flows safely past the dam 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 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 lake is not designed to store floods; therefore, flooding both downstream and upstream remains approximately the same as conditions were before construction. Conservation storage pool is 153,137 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	58.0
Top of gate	45.3
Crest of spillways	23.0

EXTREMES FOR WATER YEAR 1999.--Maximum contents, 157,600 acre-ft, Jun 19, elevation, 44.20 ft; minimum contents, 135,400 acre-ft, Sep 25, 27, elevation, 41.91 ft.

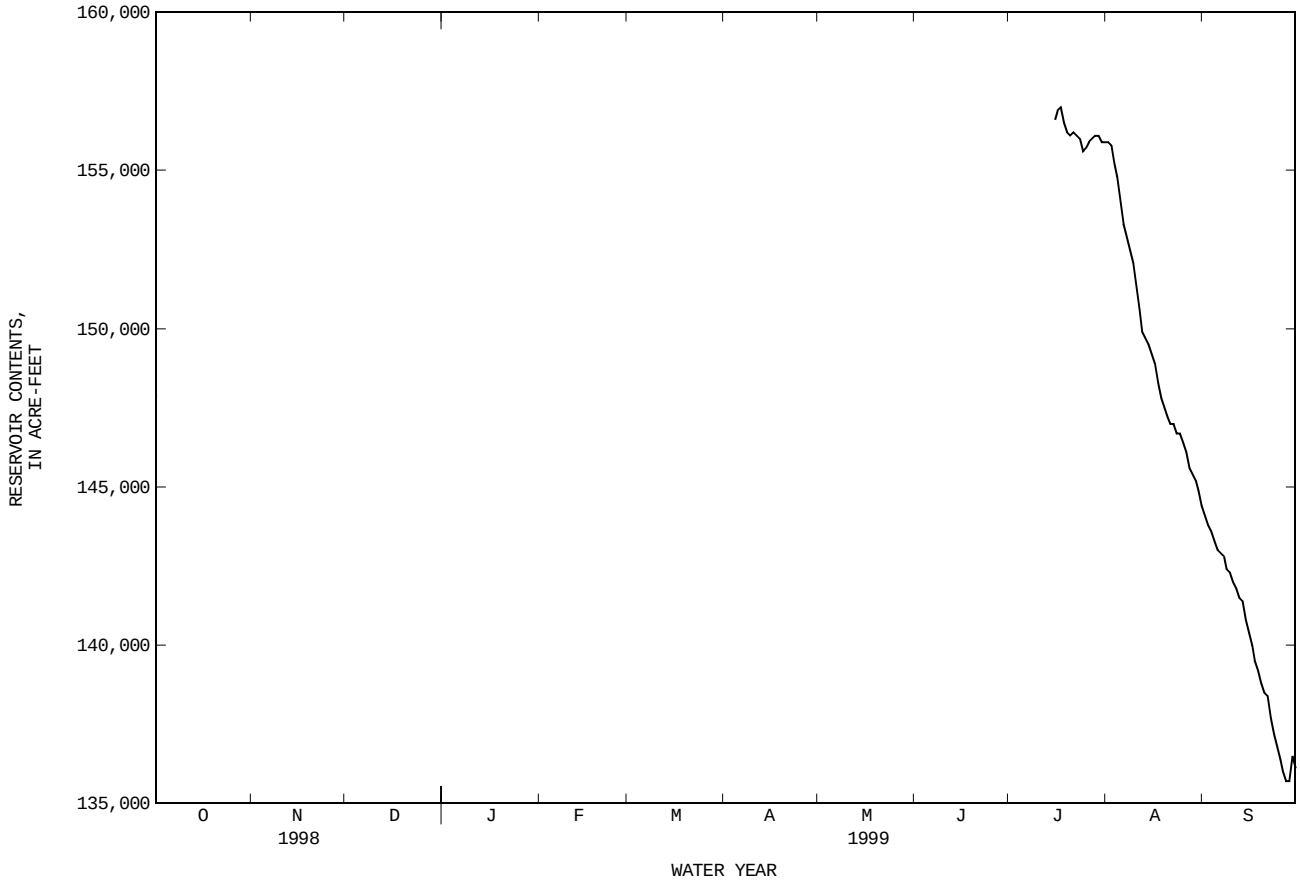
EXTREMES FOR CURRENT YEAR.--Maximum contents, 158,900 acre-ft, Jun 14, elevation, 44.33 ft; minimum contents, 105,200 acre-ft, Feb 22, elevation, 38.33 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	155900	144100
2	---	---	---	---	---	---	---	---	---	---	155800	143800
3	---	---	---	---	---	---	---	---	---	---	155300	143600
4	---	---	---	---	---	---	---	---	---	---	154800	143300
5	---	---	---	---	---	---	---	---	---	---	154100	143000
6	---	---	---	---	---	---	---	---	---	---	153300	142900
7	---	---	---	---	---	---	---	---	---	---	152900	142800
8	---	---	---	---	---	---	---	---	---	---	152500	142400
9	---	---	---	---	---	---	---	---	---	---	152100	142300
10	---	---	---	---	---	---	---	---	---	---	151300	142000
11	---	---	---	---	---	---	---	---	---	---	150600	141800
12	---	---	---	---	---	---	---	---	---	---	149900	141500
13	---	---	---	---	---	---	---	---	---	---	149700	141400
14	---	---	---	---	---	---	---	---	---	---	149500	140800
15	---	---	---	---	---	---	---	---	---	156600	149200	140400
16	---	---	---	---	---	---	---	---	---	156900	148900	140000
17	---	---	---	---	---	---	---	---	---	157000	148300	139500
18	---	---	---	---	---	---	---	---	---	156500	147800	139200
19	---	---	---	---	---	---	---	---	---	156200	147500	138800
20	---	---	---	---	---	---	---	---	---	156100	147200	138500
21	---	---	---	---	---	---	---	---	---	156200	147000	138400
22	---	---	---	---	---	---	---	---	---	156100	147000	137700
23	---	---	---	---	---	---	---	---	---	156000	146700	137200
24	---	---	---	---	---	---	---	---	---	155600	146700	136800
25	---	---	---	---	---	---	---	---	---	155700	146400	136400
26	---	---	---	---	---	---	---	---	---	155900	146100	136000
27	---	---	---	---	---	---	---	---	---	156000	145600	135700
28	---	---	---	---	---	---	---	---	---	156100	145400	135700
29	---	---	---	---	---	---	---	---	---	156100	145200	136500
30	---	---	---	---	---	---	---	---	---	155900	144900	136100
31	---	---	---	---	---	---	---	---	---	155900	144400	---
MAX	---	---	---	---	---	---	---	---	---	---	155900	144100
MIN	---	---	---	---	---	---	---	---	---	---	144400	135700
(+)										44.03	42.87	41.99
(@)											-11500	-8300

(+) 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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

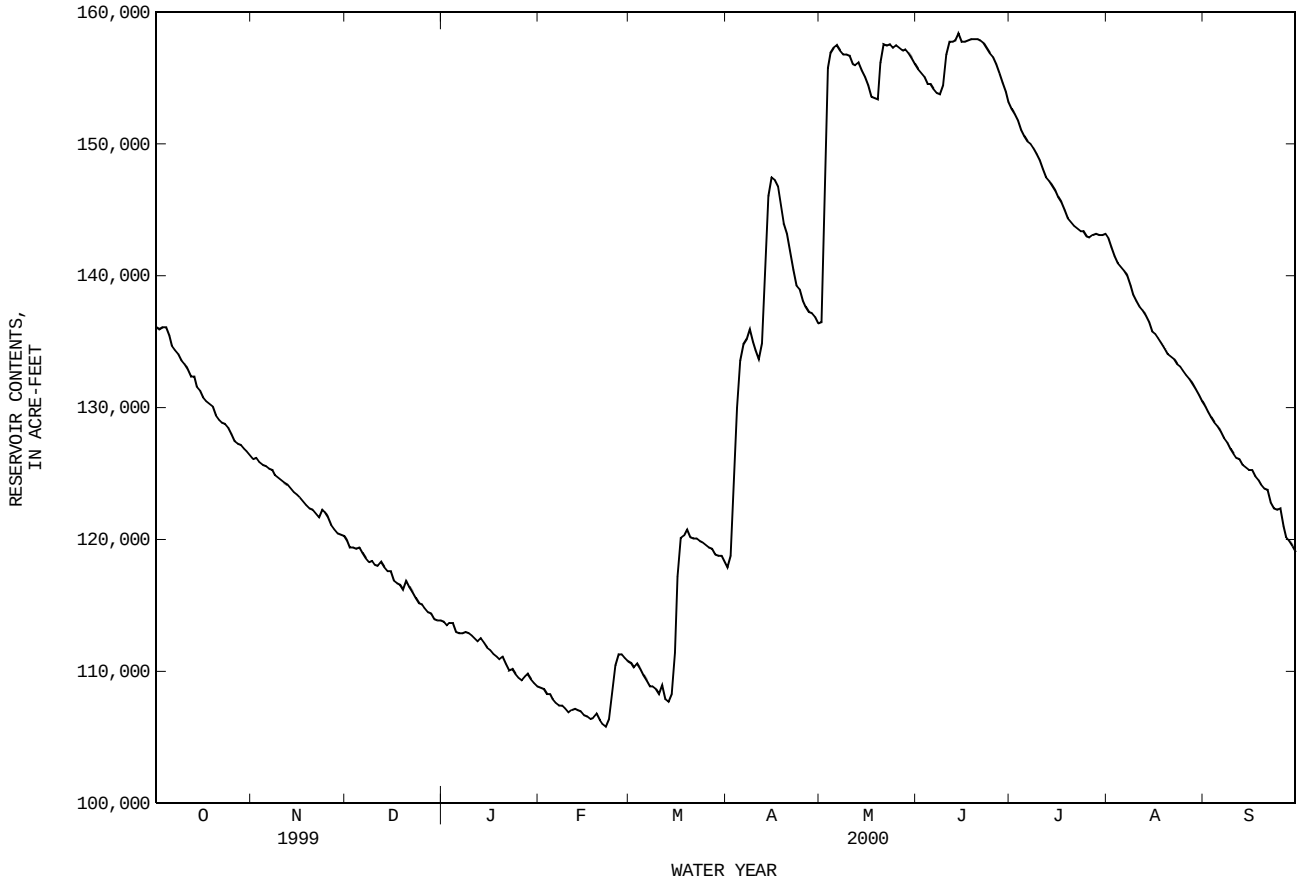
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136100	126100	119900	113800	108800	110700	117900	136500	155700	152700	142900	130100
2	136000	126200	119400	113500	108700	110300	118800	143400	155400	152300	142200	129700
3	136100	e125900	e119400	113700	108300	110600	123800	155800	155100	151800	141500	129300
4	136100	125700	119300	113700	108300	110200	130000	156900	154600	151100	141000	128900
5	135500	125600	119400	113000	107900	109700	133600	157300	154600	150600	140700	128600
6	134700	125400	119000	112900	107600	109300	134800	157500	154200	150200	140400	128200
7	e134400	125300	118600	112900	107400	108900	135200	157100	153900	150000	140000	127700
8	e134100	124900	118300	113000	107400	108900	136000	156800	153800	149700	139300	127400
9	e133600	124700	118400	112900	107200	108700	135000	156800	154500	149300	138600	126900
10	e133300	124500	118100	e112700	106900	108300	134400	156700	156800	148800	138100	126500
11	e132900	124300	118000	e112500	107100	109000	133700	156100	157800	148100	137700	126200
12	e132400	124200	118300	112300	107200	107900	134900	156000	157800	147500	137400	e126100
13	e132400	123900	117900	112500	107100	107700	141000	156200	157900	147200	137000	e125700
14	e131600	123600	117600	112200	107000	108300	146100	155600	158400	146800	136500	125500
15	e131300	123400	117600	111800	106700	111400	147500	155100	157800	146400	135800	125300
16	e130800	123200	116900	111600	106600	117200	147300	154500	157800	146000	135600	125300
17	e130500	122900	116700	111300	106400	120100	146800	153600	157900	145600	135300	124800
18	130300	122600	116600	111100	106500	120300	145600	153500	158000	145000	134900	124500
19	130100	122400	116200	110900	106800	120800	144000	153400	158000	144400	134500	124200
20	129400	122300	116900	111100	106300	120200	143200	156200	158000	144100	134100	123900
21	129100	122000	116400	110600	106000	120100	141900	157600	157900	143800	133900	123800
22	128900	121700	116000	110100	105800	120100	140500	157500	157700	143600	133700	122800
23	128800	122300	115600	110200	106400	119900	139300	157600	157300	143400	133300	122400
24	128500	122100	115200	109800	108600	119800	139000	157300	156900	143400	133100	122300
25	128000	121700	115100	109500	110500	119600	138100	157500	156600	143000	132800	122400
26	127500	121100	114800	109300	111300	119400	137700	157300	156100	142900	132500	121000
27	127300	120800	114500	109600	111300	119300	137300	157100	155400	143100	132200	120200
28	127200	120500	114400	109800	111000	118900	137200	157200	154700	143200	131800	119900
29	126900	120400	114000	109400	110800	118800	136900	156900	154000	143100	131400	119500
30	126700	120300	113900	109100	---	118800	136400	156500	153200	143100	131000	119100
31	126400	---	113900	108900	---	118300	---	156100	---	143200	130500	---
MAX	136100	126200	119900	113800	111300	120800	147500	157600	158400	152700	142900	130100
MIN	126400	120300	113900	108900	105800	107700	117900	136500	153200	142900	130500	119100
(+)	40.9	40.2	39.4	38.8	39.0	40.0	42.0	42.0	44.1	43.8	42.7	40.0
(@)	-9700	-6100	-6400	-5000	+1900	-7500	+18100	+19700	-2900	-10000	-12700	-11400

WTR YR 2000 MAX 158400 MIN 105800 (@) -17000

e Estimated

(+) 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: Oct 1969 to Sep 1984, Jan 1988 to current year.
BIOCHEMICAL DATA: Jan 1988 to current year.
PESTICIDE DATA: May 1994 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285331096343501 - Lk Texana Site AC

DATE	TIME	RESER-VOIR STORAGE (AC-FT) (00054)	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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
FEB										
09...	0943	107000	1.00	269	8.2	14.0	2.62	10.0	96	92
09...	0945	--	10.0	269	8.1	12.5	--	9.9	92	--
09...	0947	--	20.0	269	8.0	12.5	--	9.8	91	--
09...	0949	--	30.0	270	8.0	12.5	--	9.8	91	--
09...	0951	--	37.0	269	8.0	12.5	--	9.8	91	--
09...	0953	--	43.0	269	8.0	12.5	--	9.7	90	--
09...	0955	--	49.0	269	7.9	12.5	--	9.8	91	--
09...	0957	--	55.0	269	8.0	12.0	--	10.2	94	93
MAY										
11...	0820	156000	1.00	264	7.8	25.0	1.64	6.8	83	90
11...	0822	--	10.0	263	7.8	25.0	--	6.8	83	--
11...	0824	--	20.0	264	7.9	25.0	--	6.6	80	--
11...	0826	--	32.0	266	7.7	25.0	--	6.4	78	--
11...	0828	--	40.0	269	7.8	24.5	--	5.8	70	--
11...	0830	--	50.0	271	7.5	24.0	--	4.9	59	--
11...	0832	--	65.0	299	7.0	24.5	--	4.9	59	100
AUG										
09...	0810	139000	1.00	223	7.9	29.0	2.30	5.8	75	75
09...	0812	--	10.0	225	7.9	29.0	--	6.0	78	--
09...	0814	--	20.0	225	7.9	29.0	--	6.0	78	--
09...	0816	--	30.0	225	7.6	28.5	--	5.9	76	--
09...	0818	--	40.0	223	7.5	28.0	--	5.8	74	--
09...	0820	--	50.0	225	7.4	28.0	--	5.7	72	--
09...	0822	--	59.0	232	7.2	27.5	--	4.7	59	79

285331096343501 - Lk Texana Site AC

DATE	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)	SODIUM PERCENT (00932)	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)
FEB										
09...	8	31	3.6	17	.8	28	3.6	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	10	31	3.6	17	.8	28	3.5	--	--	--
MAY										
11...	9	30	3.7	17	.8	28	3.7	0	98	80
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	8	35	4.1	18	.8	26	3.7	0	118	96
AUG										
09...	6	25	3.2	13	.6	26	4.0	0	83	68
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	7	26	3.4	11	.5	22	3.8	0	88	72

08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285331096343501 - Lk Texana Site AC

DATE	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)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L) (00556)	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)
FEB										
09...	84	7.2	26	.19	13	152	--	<1.0	<1.0	E2
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	83	7.2	26	.18	13	152	--	<1.0	<1.0	E2
MAY										
11...	--	8.6	25	.20	12	148	E4	9.6	<1.0	E2
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	E5	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	8.7	27	.20	14	169	--	6.0	<1.0	E2
AUG										
09...	--	7.4	18	.20	12	123	--	<1.0	<1.0	2
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	7.5	18	.24	12	125	--	1.3	<1.0	3

285331096343501 - Lk Texana Site AC

DATE	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)	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)
FEB										
09...	108	<1.0	<1.0	<.80	<1.0	1.9	<10	<1.0	<4	<1.0
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	109	<1.0	<1.0	<.80	<1.0	1.9	<10	<1.0	<4	5.1
MAY										
11...	105	<1.0	<1.0	<.80	<1.0	2.1	<10	<1.0	E3	<1.0
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	121	<1.0	<1.0	<.80	<1.0	2.1	<10	<1.0	<4	75
AUG										
09...	83	<1.0	<1.0	<.80	<1.0	2.7	<10	<1.0	<4	<1.0
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	94	<1.0	<1.0	<.80	<1.0	3.0	<10	<1.0	<4	68

08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285331096343501 - Lk Texana Site AC

DATE	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
FEB									
09...	<.2	<1.0	1.3	<2	<1.0	102	<10	<1.0	<1.0
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	<.2	<1.0	1.2	<2	<1.0	102	<10	1.3	<1.0
MAY									
11...	<.2	<1.0	1.1	<2	<1.0	102	E7	2.9	<1.0
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--
11...	<.2	<1.0	1.2	<2	<1.0	112	<10	3.8	<1.0
AUG									
09...	<.2	<1.0	1.2	<2	<1.0	86	<10	<1.0	<1.0
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	<.2	<1.0	1.5	<2	<1.0	90	<10	3.2	<1.0

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)
FEB							
09...	1025	1.00	269	8.2	13.5	9.9	94
09...	1027	10.0	269	8.1	12.5	9.8	91
09...	1029	20.0	268	8.1	12.5	9.7	90
09...	1031	29.0	270	8.1	12.5	9.7	90
MAY							
11...	0910	1.00	263	7.7	25.0	7.1	86
11...	0912	10.0	263	7.7	25.0	7.0	85
11...	0914	20.0	263	7.8	25.0	7.0	85
11...	0916	30.0	266	7.8	25.0	7.0	85
11...	0918	35.0	267	7.8	24.5	6.8	82
AUG							
09...	0844	1.00	224	7.8	29.0	6.0	78
09...	0846	10.0	225	7.8	29.0	6.1	79
09...	0848	20.0	225	7.8	29.0	6.1	79
09...	0850	34.0	224	7.6	28.5	6.1	78

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)
FEB							
09...	1045	1.00	274	8.2	14.0	9.8	94
09...	1047	10.0	274	8.0	12.5	9.7	90
09...	1049	20.0	280	8.0	12.0	9.5	87
09...	1051	34.0	281	8.0	12.0	9.3	85
MAY							
11...	0930	1.00	237	7.7	26.0	6.8	85
11...	0932	10.0	237	7.7	26.0	6.7	83
11...	0934	20.0	230	7.6	25.5	6.4	79
11...	0936	30.0	176	7.2	25.5	5.9	73
11...	0938	40.0	175	7.2	25.5	5.9	73
AUG							
09...	0902	1.00	226	7.8	27.5	6.1	77
09...	0904	10.0	227	7.8	29.5	6.1	80
09...	0906	20.0	227	7.7	29.5	6.1	80
09...	0908	30.0	225	7.6	28.5	6.1	78
09...	0910	36.0	226	7.6	28.5	6.2	80

08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285816096320201 - Lk Texana Site CC

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)	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)
FEB											
09...	1104	1.00	299	8.2	13.5	2.95	10.2	97	<.0400	<.110	<.100
09...	1106	3.50	300	8.2	13.5	--	10.2	97	--	--	--
09...	1108	6.50	296	8.2	13.5	--	10.2	97	--	--	--
09...	1110	9.50	302	8.2	13.0	--	9.7	91	--	--	--
09...	1112	12.5	311	8.0	12.5	--	9.5	88	--	--	--
09...	1114	15.5	311	8.0	12.5	--	9.4	87	--	--	--
09...	1116	18.5	315	8.0	12.0	--	9.3	85	--	--	--
09...	1118	21.5	319	8.0	12.0	--	9.3	85	--	--	--
09...	1120	24.5	318	8.0	12.0	--	9.3	85	--	--	--
09...	1122	27.5	319	8.0	12.0	--	9.2	85	--	--	--
09...	1124	30.5	320	8.0	12.0	--	9.3	85	--	--	--
MAY											
11...	1010	1.70	174	7.4	25.5	1.97	6.6	81	<.0400	E.065	<.100
11...	1012	5.20	175	7.4	25.5	--	6.6	81	--	--	--
11...	1014	8.70	175	7.4	25.5	--	6.5	80	--	--	--
11...	1016	12.2	174	7.4	25.5	--	6.6	81	--	--	--
11...	1018	15.7	174	7.4	25.5	--	6.6	81	--	--	--
11...	1020	19.2	175	7.4	25.5	--	6.5	80	--	--	--
11...	1022	22.7	174	7.4	25.5	--	6.4	79	--	--	--
11...	1024	26.2	168	7.3	25.5	--	6.1	75	--	--	--
11...	1026	29.7	169	7.4	25.5	--	6.0	74	--	--	--
11...	1028	33.2	162	7.2	25.5	--	5.9	72	--	--	--
11...	1030	35.0	--	--	--	--	--	--	--	--	--
AUG											
09...	0920	1.00	250	7.6	30.0	1.97	6.3	83	--	--	--
09...	0922	10.0	235	7.7	29.5	--	6.4	83	--	--	--
09...	0924	20.0	232	7.8	29.5	--	6.5	85	--	--	--
09...	0926	30.0	233	7.7	29.5	--	6.6	86	--	--	--
09...	0928	35.0	232	7.8	29.0	--	6.7	87	--	--	--

285816096320201 - Lk Texana Site CC

DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	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)
FEB											
09...	<.0030	<.0600	<.170	<.420	<.0020	<.0900	.009	<.210	<.100	<.0210	<.0020
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MAY											
11...	<.0030	<.0600	<.220	<.420	.0151	<.0900	.429	<.580	<.100	<.360	<.0020
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AUG											
09...	<.0030	--	--	--	<.0020	--	.093	--	--	--	<.0020
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285816096320201 - Lk Texana Site CC

DATE	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)	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 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)
FEB											
09...	.125	<.0010	<.0020	<.0350	<.170	<.0400	<.0020	<.0700	<.0030	<.290	<.0030
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MAY											
11...	.714	<.0010	<.0020	<.0350	<4.31	<.0400	<.0020	<.0700	E.0320	<.350	E.0237
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AUG											
09...	.413	<.0010	<.0020	--	--	--	<.0020	--	<.0030	--	<.0030
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285816096320201 - Lk Texana Site CC

DATE	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)	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, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
FEB											
09...	--	<.480	<.0040	<.0050	<.380	<.0040	<.220	<.0020	E.0307	--	<.002
09...	--	--	--	--	--	--	--	--	--	--	--
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MAY											
11...	--	<.480	<.0040	<.0050	<.230	<.0040	<.260	<.0020	E.0782	--	<.010
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11...	<.400	--	--	--	--	--	--	--	--	<.400	--
AUG											
09...	--	--	<.0040	<.0050	--	<.0040	--	<.0020	E.0608	--	<.002
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285816096320201 - Lk Texana Site CC

DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	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)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	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)
FEB											
09...	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	<.0600	<.0020	<.0040	--	<.0030
09...	--	--	--	--	--	--	--	--	--	--	--
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MAY											
11...	<.0430	<.120	<.0320	<.001	<.0600	<.0170	.206	<.0020	<.0040	--	<.0030
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AUG											
09...	--	--	--	<.001	--	<.0170	--	<.0020	<.0040	--	<.0030
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285816096320201 - Lk Texana Site CC

DATE	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)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)
FEB											
09...	<.0700	.0639	<.0030	<.004	<.0900	<.0020	--	<.005	<.170	<.130	<.0260
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MAY											
11...	<.180	2.34	<.0030	<.004	<.0900	<.0020	--	<.005	<.170	<.130	<.0260
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AUG											
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DATE	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)
FEB											
09...	<.450	.068	<.004	E.0017	<.0030	<.0700	<.0420	<.310	<.0180	<.0060	--
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MAY											
11...	<.0170	.882	<.004	.460	<.0030	<.0700	<.0420	<.540	<.140	<.0060	--
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285816096320201 - Lk Texana Site CC

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)	PROP-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)
FEB											
09...	<.004	--	<.0060	<.0040	<.0040	<.0020	<.0500	E.0049	<.0070	<.0040	<.0130
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MAY											
11...	<.004	--	<.0060	<.0040	.0212	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130
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AUG											
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285816096320201 - Lk Texana Site CC

DATE	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)	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)
FEB											
09...	<.0350	<.0800	<.0030	.0492	E.0061	<.0070	<.0130	<.0020	<.0010	<.250	<.0020
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MAY											
11...	<10.9	<.0800	<.0030	.0707	.0550	<.0070	<.0130	.316	<.0010	<.250	<.0020
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AUG											
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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)
FEB												
09...	1442	1.00	330	8.5	16.5	--	11.0	112	--	<.0400	<.110	<.100
09...	1444	3.00	331	8.5	16.5	--	10.8	110	--	--	--	--
09...	1446	5.00	332	8.5	16.0	--	10.6	106	--	--	--	--
09...	1448	7.00	344	8.2	14.5	--	10.0	97	--	--	--	--
09...	1450	9.00	344	8.2	14.5	--	9.9	96	--	--	--	--
09...	1452	11.0	375	8.0	13.5	--	9.6	91	--	--	--	--
09...	1454	19.0	367	7.8	13.0	--	8.8	83	--	--	--	--
09...	1456	21.0	364	7.8	13.0	--	8.8	83	--	--	--	--
MAY												
11...	1125	1.40	163	7.3	27.5	2.30	6.4	81	<1	<.120	.286	<.100
11...	1127	3.60	163	7.3	27.5	--	6.4	81	--	--	--	--
11...	1129	5.80	164	7.3	27.5	--	6.4	81	--	--	--	--
11...	1131	8.00	163	7.3	27.5	--	6.4	81	--	--	--	--
11...	1133	10.2	163	7.3	27.5	--	6.4	81	--	--	--	--
11...	1135	12.4	163	7.4	27.5	--	6.4	81	--	--	--	--
11...	1137	14.6	163	7.4	27.5	--	6.4	81	--	--	--	--
11...	1139	16.8	163	7.4	27.0	--	6.4	81	--	--	--	--
11...	1141	19.0	163	7.4	27.0	--	6.1	77	--	--	--	--
11...	1143	21.2	163	7.4	27.0	--	5.8	73	--	--	--	--
11...	1145	22.3	--	--	--	--	--	--	--	--	--	--
AUG												
09...	1000	1.00	331	7.7	30.0	1.97	--	--	--	--	--	--
09...	1002	10.0	349	7.6	29.5	--	--	--	--	--	--	--
09...	1004	21.0	347	7.6	29.5	--	--	--	--	--	--	--

08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

290042096331401 - Lk Texana Site DC

DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	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)
FEB											
09...	<.0030	<.0600	<.110	<.420	<.0020	<.0900	.005	<.380	<.100	<.0210	<.0020
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MAY											
11...	<.0030	<.0600	<.470	<.420	<.0020	<.0900	.015	<.210	<.170	<.130	<.0020
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AUG											
09...	<.0030	--	--	--	<.0020	--	.028	--	--	--	<.0020
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290042096331401 - Lk Texana Site DC

DATE	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)	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 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)
FEB											
09...	.086	<.0010	<.0020	<.0350	<.160	<.0400	<.0020	<.0700	<.0030	<.290	<.0030
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MAY											
11...	.104	<.0010	<.0020	<.0350	<.140	<.0400	<.0020	<.0700	E.0230	<.290	E.0130
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AUG											
09...	.162	<.0010	<.0020	--	--	--	<.0020	--	<.0030	--	<.0030
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

290042096331401 - Lk Texana Site DC

DATE	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)	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, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
FEB											
09...	--	<.480	<.0040	<.0050	<.230	<.0040	<.0390	<.0020	E.0212	--	<.002
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MAY											
11...	--	<1.06	<.0040	<.0050	<.230	<.0040	<.730	<.0020	E.0197	--	<.002
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AUG											
09...	--	--	<.0040	<.0050	--	<.0040	--	<.0020	E.0294	--	<.002
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290042096331401 - Lk Texana Site DC

DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	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)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	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)
FEB											
09...	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	<.0600	<.0020	<.0040	--	<.0030
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MAY											
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AUG											
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

290042096331401 - Lk Texana Site DC

DATE	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)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)
FEB											
09...	<.0700	E.0361	<.0030	<.004	<.0900	<.0020	--	<.005	<.170	<.130	<.0260
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MAY											
11...	<.210	<1.29	<.0030	<.004	<.0900	<.0020	--	<.005	<.170	<.130	<.0260
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AUG											
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290042096331401 - Lk Texana Site DC

DATE	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)
FEB											
09...	<.0170	.041	<.004	E.0020	<.0030	<.0700	<.0420	<.310	<.0180	<.0060	--
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MAY											
11...	<.0170	.337	.019	2.47	<.0030	<.0700	<.0420	<.310	<.0180	<.0060	--
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)	PROP-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)
FEB											
09...	<.004	--	<.0060	<.0040	<.0040	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130
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MAY											
11...	<.004	--	<.0060	<.0040	<.0170	<.0020	<.0500	<.0180	<.0070	<.0040	<.0130
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AUG											
09...	<.004	--	<.0060	<.0040	<.0040	<.0020	--	E.0083	<.0070	<.0040	<.0130
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290042096331401 - Lk Texana Site DC

DATE	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)	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)
FEB											
09...	<.0350	<.0800	<.0030	.0358	E.0063	<.0070	<.0130	<.0020	<.0010	<.250	<.0020
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MAY											
11...	<.0350	<1.54	<.0030	<.0160	<.0300	<.0070	<.0130	.654	<.0010	<.250	<.0020
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AUG											
09...	--	--	<.0030	.0231	.0396	<.0070	<.0130	<.0020	<.0010	--	<.0020
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285940096312101 - Lk Texana Site EC

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)	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)
FEB											
09...	1400	3.00	385	8.3	15.5	--	9.6	95	<.0400	<.140	<.100
09...	1402	6.00	387	8.3	15.5	--	9.4	93	--	--	--
09...	1404	9.00	386	8.3	15.5	--	9.1	90	--	--	--
09...	1406	12.0	421	8.2	15.0	--	8.8	86	--	--	--
09...	1408	15.0	461	8.1	14.0	--	8.6	83	--	--	--
MAY											
11...	1045	1.40	147	7.0	26.5	1.97	6.0	75	<.0400	E.067	<.100
11...	1047	4.10	147	7.0	26.5	--	5.9	74	--	--	--
11...	1049	6.80	147	7.0	26.5	--	5.7	71	--	--	--
11...	1051	9.50	147	6.9	26.0	--	5.7	71	--	--	--
11...	1053	12.2	147	6.9	26.0	--	5.3	66	--	--	--
11...	1055	14.9	148	6.9	25.5	--	4.8	59	--	--	--
11...	1057	17.6	149	6.7	25.0	--	3.9	47	--	--	--
11...	1059	20.3	148	6.8	25.0	--	3.8	46	--	--	--
11...	1101	23.0	151	6.6	24.5	--	3.2	39	--	--	--
11...	1103	25.7	154	6.6	24.0	--	4.2	50	--	--	--
11...	1105	27.0	--	--	--	--	--	--	--	--	--
AUG											
09...	0940	1.00	286	7.4	30.0	1.97	6.5	86	<.0400	<.110	<.100
09...	0942	10.0	338	7.2	29.5	--	--	--	--	--	--
09...	0944	20.0	345	7.2	29.5	--	--	--	--	--	--
09...	0946	25.0	355	7.1	29.5	--	--	--	--	--	--

285940096312101 - Lk Texana Site EC

DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	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)
FEB											
09...	<.0030	<.0600	<.110	<.420	<.0020	<.0900	.007	<.210	<.210	<.0210	<.0020
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MAY											
11...	<.0030	<.0600	<.240	<.420	.0255	<.0900	.618	<.760	<.100	<.0210	<.0020
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AUG											
09...	<.0030	<.0600	<.210	<.420	<.0020	<.520	.041	<3.60	<.100	<.230	<.0020
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08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285940096312101 - Lk Texana Site EC

DATE	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)	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 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)
FEB											
09...	.086	<.0010	<.0020	.0770	<.0600	<.0400	<.0020	<.0700	<.0030	<.290	<.0030
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MAY											
11...	3.11	<.0010	<.0020	<.0350	<.450	<.0400	<.0020	<.0700	E.0360	<.290	E.0690
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AUG											
09...	.213	<.0010	<.0020	<.0350	<.190	<.0400	<.0020	<.0700	<.0030	<.290	<.0030
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285940096312101 - Lk Texana Site EC

DATE	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)	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, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
FEB											
09...	--	<.480	<.0040	<.0050	<.230	<.0040	<.0390	<.0020	E.0192	--	<.002
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MAY											
11...	--	<.480	<.0040	<.0050	<.230	<.0040	<.100	<.0020	E.146	--	<.006
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11...	<.200	--	--	--	--	--	--	--	--	<.200	--
AUG											
09...	--	<.480	<.0040	<.0050	<.230	<.0040	<.0390	<.0020	E.0220	--	<.002
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285940096312101 - Lk Texana Site EC

DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	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)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	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)
FEB											
09...	<.0430	<.0700	<.0320	<.001	<.0600	<.0170	<.0600	<.0020	<.0040	--	<.0030
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MAY											
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11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	<.200	--
AUG											
09...	<.0430	<.0700	<.0320	<.001	<.750	<.0170	<.0600	<.0020	<.0040	--	<.0030
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--

285940096312101 - Lk Texana Site EC

DATE	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)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)
FEB											
09...	<.0700	E.0492	<.0030	<.004	<.0900	<.0020	--	<.005	<.210	<.130	<.0260
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.0700	1.15	<.0030	<.004	<.0900	<.0020	--	<.005	<.170	<.130	<.0260
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	<.200	--	--	--	--
AUG											
09...	<.0700	<.110	<.0030	<.004	<.160	<.0020	--	<.005	<.170	<.130	<.340
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--

08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285940096312101 - Lk Texana Site EC

DATE	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)
FEB											
09...	<.210	.045	<.004	E.0026	<.0030	<.0700	<.0420	<.310	<.0180	<.0060	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<2.02	1.70	.021	1.99	<.0030	<.0700	<.0420	<.380	<.0180	<.0060	--
11...	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	<.200
AUG											
09...	--	.218	.005	.0421	<.0030	<.330	<.0420	<.930	--	<.0060	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--

285940096312101 - Lk Texana Site EC

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)	PROP-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)
FEB											
09...	<.004	--	<.0060	<.0040	<.0040	<.0020	<.130	<.0180	<.0070	<.0040	<.0130
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.004	--	<.0060	<.0040	.0336	<.0020	<.0500	E.0134	<.0070	<.0040	<.0130
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	<.200	--	--	--	--	--	--	--	--	--
AUG											
09...	<.004	--	<.0060	<.0040	<.0040	<.0020	<.0500	E.0157	<.0070	<.0040	<.0130
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--

08164525 LAKE TEXANA NEAR EDNA, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

285940096312101 - Lk Texana Site EC

DATE	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)	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)
FEB											
09...	<.0350	<.0800	<.0030	.0467	E.0072	<.0070	<.0130	<.0020	<.0010	<.250	<.0020
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.0350	<.890	<.0030	.819	.0620	<.0070	<.0130	.843	<.0010	<.250	E.0036
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
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11...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	<.0350	<.190	<.0030	.0630	E.0577	<.100	<.0130	.0087	<.0010	<.250	<.0020
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--

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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.--Jun 1970 to current year.
Water-quality records.--Chemical data: Apr 1965 to Aug 1988. Biochemical data: Apr 1965 to Aug 1988. Pesticide data: Jul 1970 to Jul 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. --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. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

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 Sep 1967 reached a stage of 23.4 ft, from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.02	e.07	.02	.13	.63	.48	.46	4.8	14	1.1	.14	.01
2	e.01	e.05	.02	.13	.64	.48	166	82	9.5	1.4	.12	.01
3	e.01	e.03	.03	.13	.63	.45	450	190	6.9	1.2	.12	.01
4	e.00	e.02	.06	.11	.58	.38	490	69	5.2	.99	.11	.00
5	e.00	e.01	.08	.15	.54	.33	91	33	4.3	.76	.11	.00
6	e.00	e.01	.05	.16	.53	.33	42	18	3.8	.59	.10	.00
7	e.00	e.00	.03	.57	.53	.32	24	11	3.2	.41	.09	.00
8	e.00	e.00	.05	4.0	.53	.30	15	7.7	5.8	.31	.09	.00
9	e.00	e.00	.09	2.3	.52	.31	10	5.4	302	.29	.09	.00
10	e.00	e.00	.08	1.3	.53	.33	7.7	4.1	520	.25	.08	.00
11	e.00	e.00	.11	.99	.53	.41	6.3	3.4	815	.18	.08	.00
12	e.00	e.00	.18	.87	.52	.30	14	3.0	639	1.1	.08	.00
13	e.00	e.00	.21	.79	.53	.34	41	3.6	139	3.2	.07	.00
14	e.00	e.00	.17	.65	.54	3.8	28	3.0	63	4.3	.06	.00
15	e.00	e.00	.17	.62	.51	56	15	2.9	36	2.7	.07	.00
16	e.00	e.00	.18	.55	.53	41	9.6	2.5	23	.96	.08	.00
17	e.01	e.00	.18	.56	.54	19	6.7	2.2	17	.51	.08	.00
18	.20	e.00	.23	.57	.52	8.1	5.1	2.1	13	.24	.07	.00
19	.55	e.00	.22	.58	.52	4.5	4.2	2.2	10	.12	.06	.00
20	.86	e.00	.33	.59	.73	3.6	3.5	113	8.7	.08	.06	.00
21	.57	e.00	.36	.58	.53	2.3	2.9	68	7.2	.09	.05	.00
22	.47	e.00	.34	.58	.48	1.7	2.6	27	4.8	.08	.06	.00
23	.52	e.00	.28	.56	.67	1.3	2.5	14	3.9	.11	.06	.00
24	.43	e.00	.26	.58	.65	1.0	2.3	8.4	3.3	.16	.05	.00
25	.37	.02	.20	.54	.70	.87	2.1	5.7	2.9	.15	.06	.00
26	.33	.00	.15	.53	.65	.81	2.0	4.2	2.5	.12	.05	.00
27	.27	.00	.16	2.4	.59	.89	1.9	3.3	2.1	.11	.04	.00
28	.26	.00	.18	1.6	.52	.77	2.2	108	1.9	.11	.03	.00
29	.21	.01	.20	1.1	.50	.67	2.1	153	1.5	.11	.02	.00
30	.16	.02	.15	.87	---	.56	3.0	45	1.3	.12	.02	.00
31	e.10	---	.15	.70	---	.47	---	23	---	.13	.01	---
TOTAL	5.35	0.24	4.92	25.79	16.42	152.10	1453.16	1022.5	2669.8	21.98	2.21	0.03
MEAN	.17	.008	.16	.83	.57	4.91	48.4	33.0	89.0	.71	.071	.001
MAX	.86	.07	.36	4.0	.73	56	490	190	815	4.3	.14	.01
MIN	.00	.00	.02	.11	.48	.30	.46	2.1	1.3	.08	.01	.00
AC-FT	11	.5	9.8	51	33	302	2880	2030	5300	44	4.4	.06
CFSM	.00	.00	.00	.01	.01	.05	.53	.36	.97	.01	.00	.00
IN.	.00	.00	.00	.01	.01	.06	.59	.41	1.08	.01	.00	.00

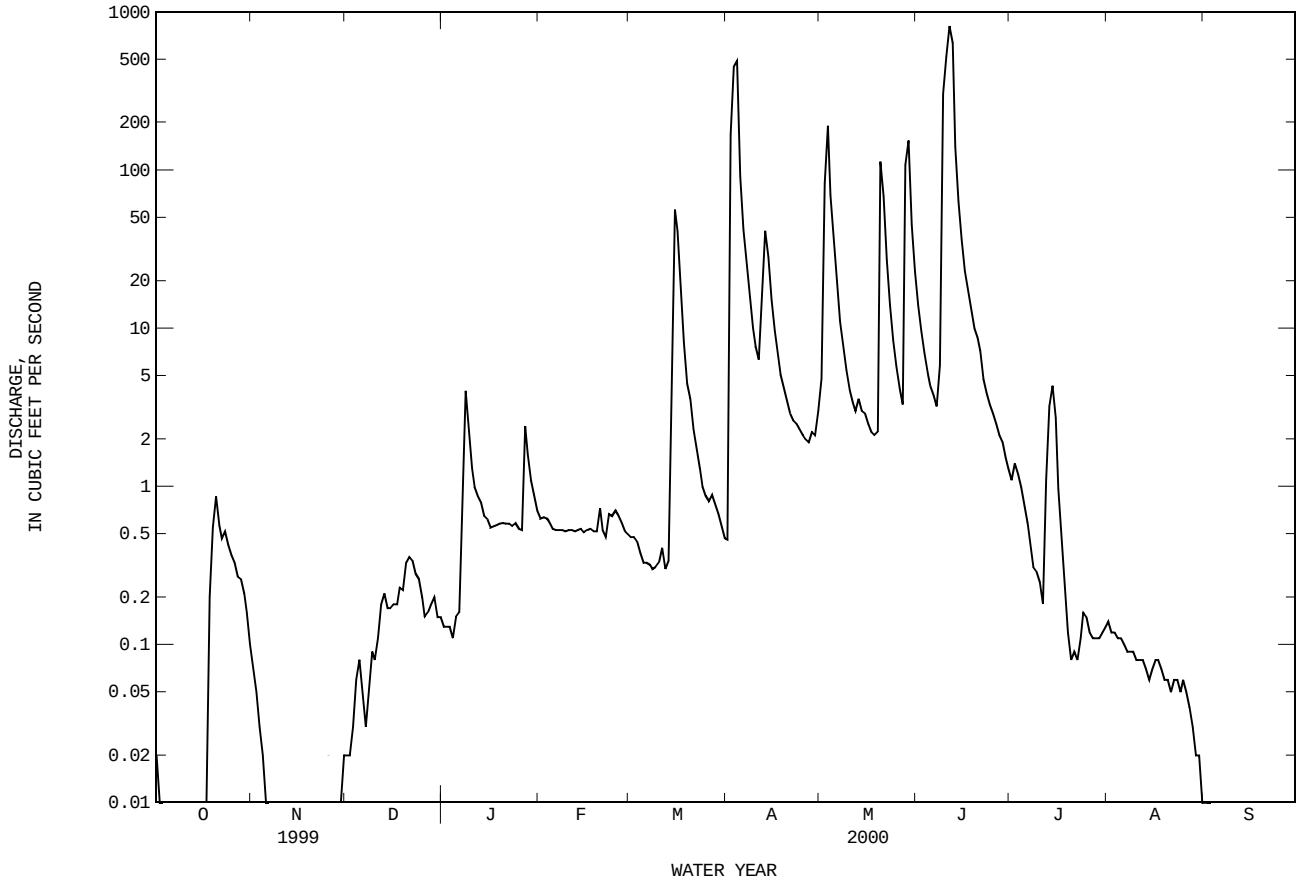
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2000, BY WATER YEAR (WY)

MEAN	71.4	44.1	36.5	40.1	51.0	44.2	82.4	111	117	20.3	6.56	74.8
MAX	695	541	263	220	558	578	658	503	745	218	64.1	789
(WY)	1995	1999	1977	1992	1992	1997	1991	1979	1981	1983	1998	1978
MIN	.000	.000	.006	.022	.14	.48	.25	.045	.000	.006	.056	.000
(WY)	1990	1990	1990	1990	1990	1996	1996	1996	1990	1998	1988	1988

08164600 GARCITAS CREEK NEAR INEZ, TX--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1970 - 2000	
ANNUAL TOTAL	1027.98		5374.50			
ANNUAL MEAN	2.82		14.7		58.3	
HIGHEST ANNUAL MEAN					144	1992
LOWEST ANNUAL MEAN					2.65	1989
HIGHEST DAILY MEAN	46	Jun 27	815	Jun 11	13100	Oct 19 1994
LOWEST DAILY MEAN	.00	Oct 4	.00	Oct 4	.00	May 22 1971
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 4	.00	Oct 4	.00	May 26 1971
INSTANTANEOUS PEAK FLOW			1010	Jun 11	19700	Jun 12 1981
INSTANTANEOUS PEAK STAGE			13.45	Jun 11	33.43	Oct 19 1994
ANNUAL RUNOFF (AC-FT)	2040		10660		42210	
ANNUAL RUNOFF (CFSM)	.031		.16		.64	
ANNUAL RUNOFF (INCHES)	.42		2.18		8.63	
10 PERCENT EXCEEDS	6.9		14		54	
50 PERCENT EXCEEDS	.65		.44		3.1	
90 PERCENT EXCEEDS	.01		.00		.24	

e Estimated



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.--Jun 1970 to current year.
Water-quality records.--Chemical data: Oct 1968 to Sep 1979. Biochemical data: Oct 1968 to Sep 1979. Pesticide data: Oct 1968 to Sep 1979.

GAGE.--Water-stage recorder. Datum of gage is 5.58 ft above sea level. Satellite telemeter at station.

REMARKS.--Records fair. No known regulation or diversions. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1930, 31.9 ft in Sep 1967 and 30.4 ft in 1960 (probably Oct), from information by local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)

No peak greater than base discharge.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.23	.25	.31	.99	.31	.28	.50	6.1	.92	1.0	.01
2	1.6	.24	.26	.35	.86	.29	.41	168	3.3	.81	.59	.01
3	1.1	.21	.28	.34	.83	.26	.51	357	2.3	.73	.39	.01
4	.80	.27	.39	.27	.66	.25	.92	59	1.8	.66	.27	.01
5	.67	.30	.42	.26	.57	.25	.46	21	1.7	.69	.17	.02
6	.61	.31	.29	.31	.54	.27	.31	9.4	1.6	.75	.14	.02
7	.54	.29	.25	.60	.55	.26	.27	4.4	1.4	.66	.13	.02
8	.52	.28	.27	25	22	.26	.23	2.5	2.2	.55	.18	.02
9	.50	.28	.29	35	8.5	.27	.20	1.7	79	.52	.17	.02
10	.47	.28	.32	6.1	7.0	.26	.21	1.3	100	.47	.12	.02
11	.45	.29	.30	2.0	.62	.29	.24	1.1	303	.37	.11	.02
12	.42	.28	.38	.98	.42	.28	104	.99	182	.33	.08	.02
13	.43	.25	.34	.71	.40	.26	163	1.3	64	.33	.05	.02
14	.43	.25	.30	.54	.38	8.2	32	22	23	.31	.03	.03
15	.41	.22	.29	.47	.37	67	13	11	11	.29	.02	.02
16	.40	.22	.28	.45	3.2	27	5.6	4.1	6.1	.28	.02	.02
17	.35	.22	.30	.44	10	7.9	3.0	1.8	4.1	.26	.02	.02
18	e.33	.23	.32	.41	.52	2.8	1.9	1.1	3.0	.24	.03	.03
19	.38	.23	.30	.41	.32	1.4	1.3	.96	2.6	.23	.02	.03
20	.30	.23	.40	.38	.29	.92	1.0	275	2.3	.21	.01	.03
21	.26	.22	.37	.34	.30	.77	.83	101	2.0	.19	.01	.05
22	.24	.24	.31	.36	.31	.70	.71	28	1.8	.17	.01	.03
23	.24	.29	.33	.37	.33	.62	.92	11	1.6	.14	.02	.04
24	.22	.25	.32	.34	.33	.55	.88	4.5	1.4	1.1	.02	.06
25	.21	.30	.33	.32	.31	.46	.57	2.5	1.3	1.1	.02	.08
26	.22	.29	.32	.32	.33	.42	.48	1.6	1.2	1.1	.02	.06
27	.23	.28	.32	2.3	.31	.39	.42	1.3	1.6	.70	.05	.05
28	.24	.27	.31	21	.28	.36	.38	36	1.3	.71	.03	.05
29	.25	.28	.30	14	.30	.34	.37	120	1.1	.59	.02	.04
30	.25	.26	.32	4.1	---	.31	.37	33	.99	.27	.01	.03
31	.24	---	.32	1.6	---	.27	---	13	---	.56	.01	---
TOTAL	14.03	7.79	9.78	120.38	61.82	123.92	334.77	1296.05	814.79	16.24	3.77	0.89
MEAN	.45	.26	.32	3.88	2.13	4.00	11.2	41.8	27.2	.52	.12	.030
MAX	1.6	.31	.42	35	22	67	163	357	303	1.1	1.0	.08
MIN	.21	.21	.25	.26	.28	.25	.20	.50	.99	.14	.01	.01
AC-FT	28	15	19	239	123	246	664	2570	1620	32	7.5	1.8

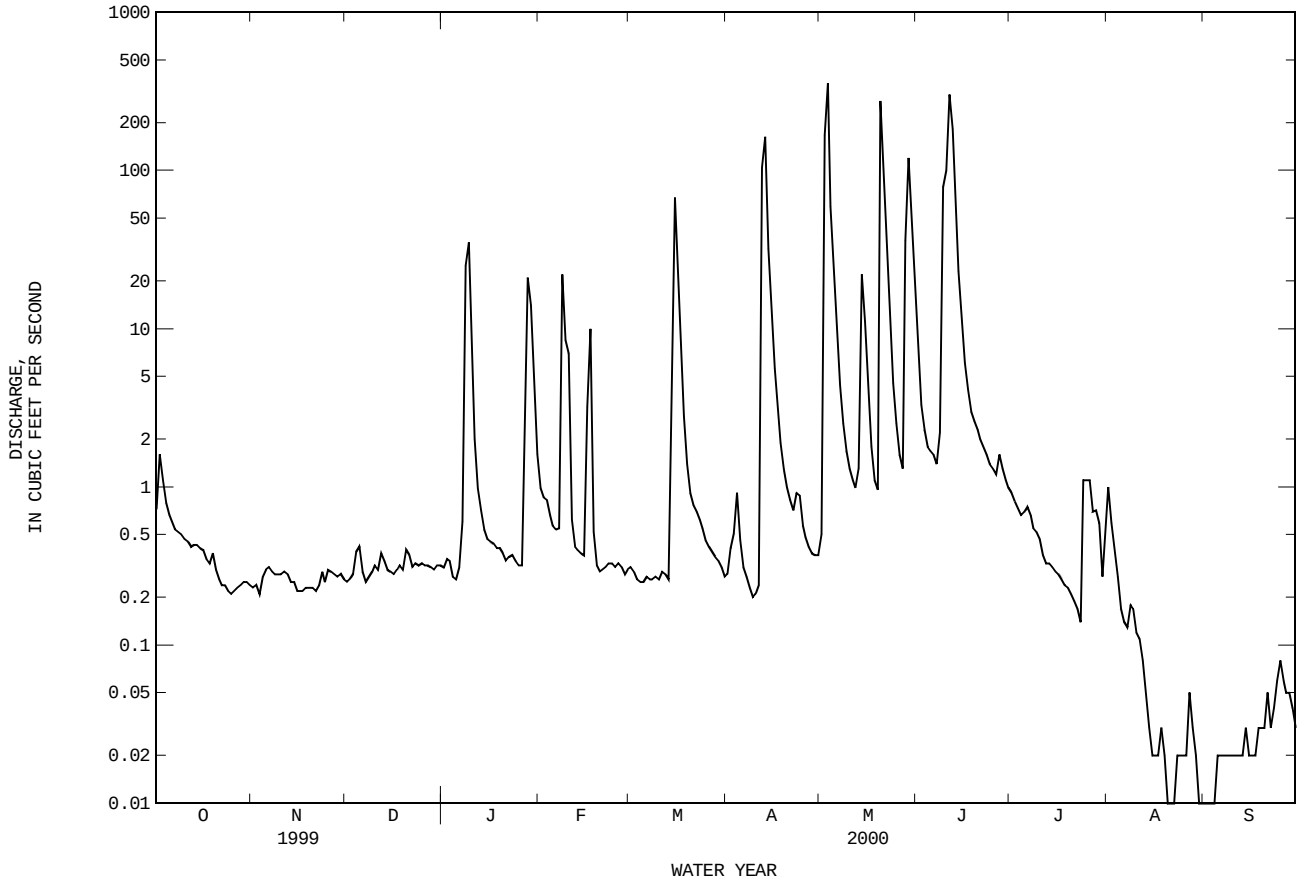
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2000, BY WATER YEAR (WY)

MEAN	73.1	70.1	42.4	41.1	54.2	46.4	61.6	92.8	88.1	57.8	11.9	109
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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1970 - 2000	
ANNUAL TOTAL	1622.45		2804.23			
ANNUAL MEAN	4.45		7.66		62.2	
HIGHEST ANNUAL MEAN					154	1992
LOWEST ANNUAL MEAN					1.20	1989
HIGHEST DAILY MEAN	137	Jun 20	357	May 3	11400	Nov 1 1981
LOWEST DAILY MEAN	.21	Oct 25	.01	Aug 20	.00	Aug 12 1981
ANNUAL SEVEN-DAY MINIMUM	.22	Nov 15	.01	Aug 29	.00	Jul 27 1982
INSTANTANEOUS PEAK FLOW			792	May 3	18300	Oct 31 1981
INSTANTANEOUS PEAK STAGE			17.01	May 3	31.62	Nov 13 1998
ANNUAL RUNOFF (AC-FT)	3220		5560		45040	
10 PERCENT EXCEEDS	6.5		8.0		46	
50 PERCENT EXCEEDS	.98		.34		1.5	
90 PERCENT EXCEEDS	.28		.03		.14	

e Estimated

08164800 PLACEDO CREEK NEAR PLACEDO, TX--Continued



MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
08117995	Colorado Rv nr Gail, TX	06-05-00	1240	28	278	25.0
	Colorado Rv nr Gail, TX	06-28-00	1735	.06	380	31.5
08120700	Colorado Rv nr Cuthbert, TX	11-10-99	1145	.15	4400	13.5
	Colorado Rv nr Cuthbert, TX	12-07-99	1400	1.7	3750	8.0
	Colorado Rv nr Cuthbert, TX	01-26-00	0855	2.6	4290	6.0
	Colorado Rv nr Cuthbert, TX	03-22-00	1540	632	352	11.5
	Colorado Rv nr Cuthbert, TX	03-23-00	1330	14800	135	11.5
	Colorado Rv nr Cuthbert, TX	04-06-00	1515	15	8490	22.0
	Colorado Rv nr Cuthbert, TX	05-03-00	1500	3.5	8190	24.0
	Colorado Rv nr Cuthbert, TX	06-06-00	1030	10	2930	24.0
	Colorado Rv nr Cuthbert, TX	06-28-00	1530	1.4	5370	30.0
08121000	Colorado Rv at Colorado City, TX	03-22-00	0815	.19	13000	15.5
	Colorado Rv at Colorado City, TX	05-03-00	1245	.49	11700	25.0
	Colorado Rv at Colorado City, TX	06-28-00	0750	.36	7170	24.5
	Colorado Rv at Colorado City, TX	08-15-00	0830	.03	7270	23.5
08123800	Beals Ck nr Westbrook, TX	03-24-00	1130	3420	1070	14.5
	Beals Ck nr Westbrook, TX	04-06-00	0815	81	8130	20.5
	Beals Ck nr Westbrook, TX	05-03-00	0900	.08	7850	19.5
08123850	Colorado Rv abv Silver, TX	10-22-99	1250	.25	4870	20.0
	Colorado Rv abv Silver, TX	12-10-99	1030	.13	6400	7.0
	Colorado Rv abv Silver, TX	01-24-00	1155	1.2	10600	10.5
	Colorado Rv abv Silver, TX	02-18-00	1035	1.3	11700	16.0
	Colorado Rv abv Silver, TX	03-21-00	1415	2.4	8780	20.0
	Colorado Rv abv Silver, TX	03-26-00	1430	3400	539	16.5
	Colorado Rv abv Silver, TX	03-30-00	1630	805	3550	20.0
	Colorado Rv abv Silver, TX	04-05-00	1045	194	4520	16.0
	Colorado Rv abv Silver, TX	05-02-00	1330	8.6	7910	21.0
	Colorado Rv abv Silver, TX	06-06-00	1435	81	3310	28.0
	Colorado Rv abv Silver, TX	06-27-00	1320	4.8	4300	28.5
	Colorado Rv abv Silver, TX	08-14-00	1400	.16	5980	27.0
08124000	Colorado Rv at Robert Lee, TX	10-21-99	1705	21	5360	21.0
	Colorado Rv at Robert Lee, TX	12-10-99	1400	3.4	5870	11.0
	Colorado Rv at Robert Lee, TX	01-24-00	1355	1.9	5930	13.0
	Colorado Rv at Robert Lee, TX	02-22-00	1005	1.5	6150	15.5
	Colorado Rv at Robert Lee, TX	03-21-00	1145	.83	6490	19.5
	Colorado Rv at Robert Lee, TX	05-02-00	1055	8.0	5980	20.5
	Colorado Rv at Robert Lee, TX	06-27-00	1055	11	5300	27.5
	Colorado Rv at Robert Lee, TX	08-14-00	1215	10	4360	27.5
08126380	Colorado Rv nr Ballinger, TX	03-03-00	1220	.68	4220	18.5
	Colorado Rv nr Ballinger, TX	05-04-00	1235	.64	4900	29.0
08127000	Elm Ck at Ballinger, TX	06-05-00	1300	76	304	25.0
08128400	Middle Concho Rv abv Tankersley, TX	06-12-00	0840	150	200	25.0
08129500	Dove Ck Spg nr Knickerbocker, TX	11-10-99	1125	6.4	596	21.0
	Dove Ck Spg nr Knickerbocker, TX	01-07-00	0915	6.1	613	19.5
	Dove Ck Spg nr Knickerbocker, TX	04-13-00	1105	6.0	597	21.0
	Dove Ck Spg nr Knickerbocker, TX	05-25-00	1130	6.4	607	22.0
	Dove Ck Spg nr Knickerbocker, TX	07-11-00	1135	5.9	605	22.0
	Dove Ck Spg nr Knickerbocker, TX	08-30-00	1045	6.5	600	21.5

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
08134000	N Concho Rv nr Carlsbad, TX	03-24-00	1325	9390	150	15.0
	N Concho Rv nr Carlsbad, TX	03-24-00	1545	10600	143	15.5
	N Concho Rv nr Carlsbad, TX	03-25-00	1025	309	219	15.5
	N Concho Rv nr Carlsbad, TX	03-31-00	1005	7.9	705	18.0
	N Concho Rv nr Carlsbad, TX	04-18-00	1620	1.6	1150	26.5
08134250	N Concho Rv nr Grape Ck, TX	03-24-00	1520	7740	154	15.0
	N Concho Rv nr Grape Ck, TX	03-24-00	1920	10300	151	15.5
	N Concho Rv nr Grape Ck, TX	03-24-00	2150	4750	156	16.0
	N Concho Rv nr Grape Ck, TX	03-25-00	0110	2320	162	16.5
	N Concho Rv nr Grape Ck, TX	03-25-00	0355	1380	166	16.5
	N Concho Rv nr Grape Ck, TX	03-25-00	0920	549	200	15.5
	N Concho Rv nr Grape Ck, TX	03-25-00	1705	256	230	18.0
	N Concho Rv nr Grape Ck, TX	03-26-00	1130	96	300	17.5
	N Concho Rv nr Grape Ck, TX	03-26-00	1830	81	329	19.0
	N Concho Rv nr Grape Ck, TX	03-27-00	0920	44	393	17.5
	N Concho Rv nr Grape Ck, TX	03-29-00	0905	20	501	19.0
	N Concho Rv nr Grape Ck, TX	03-30-00	1150	10	558	19.5
	N Concho Rv nr Grape Ck, TX	03-31-00	1120	7.3	590	17.0
	N Concho Rv nr Grape Ck, TX	04-03-00	1010	4.2	645	14.0
	N Concho Rv nr Grape Ck, TX	04-05-00	1130	7.5	793	16.5
	N Concho Rv nr Grape Ck, TX	04-07-00	1455	3.3	776	23.5
	N Concho Rv nr Grape Ck, TX	04-10-00	0950	1.4	743	19.0
	N Concho Rv nr Grape Ck, TX	04-11-00	1415	.79	871	22.5
	N Concho Rv nr Grape Ck, TX	04-13-00	1415	.36	910	21.5
08136000	Concho Rv at San Angelo, TX	01-06-00	1650	1.5	2330	9.5
	Concho Rv at San Angelo, TX	02-18-00	1245	.05	3110	19.5
	Concho Rv at San Angelo, TX	04-07-00	1050	.05	3000	22.5
	Concho Rv at San Angelo, TX	05-24-00	1345	.01	3220	26.5
	Concho Rv at San Angelo, TX	07-12-00	0915	7.1	1060	29.0
	Concho Rv at San Angelo, TX	09-08-00	0930	.02	1870	24.5
08136500	Concho Rv at Paint Rock, TX	06-15-00	1530	369	410	31.0
	Concho Rv at Paint Rock, TX	06-16-00	1610	29	472	30.5
08136700	Colorado Rv nr Stacy, TX	10-06-99	1110	6.9	2250	23.0
	Colorado Rv nr Stacy, TX	03-02-00	1118	3.6	2510	19.0
	Colorado Rv nr Stacy, TX	04-18-00	1100	11	2400	24.0
	Colorado Rv nr Stacy, TX	05-30-00	1330	17	1350	32.5
	Colorado Rv nr Stacy, TX	06-15-00	1150	2930	190	22.0
	Colorado Rv nr Stacy, TX	08-01-00	1425	11	2600	33.5
08138000	Colorado Rv at Winchell, TX	06-04-00	1700	1960	245	23.5
08143600	Pecan Bayou nr Mullin, TX	03-01-00	0925	4.2	1140	15.5
	Pecan Bayou nr Mullin, TX	04-18-00	1455	7.1	680	25.0
	Pecan Bayou nr Mullin, TX	05-30-00	1615	2.7	815	32.0
	Pecan Bayou nr Mullin, TX	06-16-00	1130	1360	220	24.5
	Pecan Bayou nr Mullin, TX	08-02-00	0905	1.1	523	27.5
08143900	Spgs at Ft McKavett, TX	11-17-99	1025	12	590	18.0
	Spgs at Ft McKavett, TX	02-28-00	1020	13	595	15.5
	Spgs at Ft McKavett, TX	06-01-00	1355	12	557	27.5
	Spgs at Ft McKavett, TX	08-03-00	1630	9.8	553	28.0
	Spgs at Ft McKavett, TX	09-11-00	1515	12	551	28.0

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
08144600	San Saba Rv nr Brady, TX	11-15-99	1130	14	466	17.0
	San Saba Rv nr Brady, TX	02-29-00	1510	18	445	23.5
	San Saba Rv nr Brady, TX	08-09-00	1740	.11	380	31.5
08146500	San Saba Spgs at San Saba, TX	11-15-99	1455	9.4	1070	22.0
	San Saba Spgs at San Saba, TX	03-01-00	1250	9.7	1060	21.0
	San Saba Spgs at San Saba, TX	04-19-00	0740	9.6	1100	23.0
	San Saba Spgs at San Saba, TX	05-31-00	0955	9.4	1090	24.0
	San Saba Spgs at San Saba, TX	08-02-00	1245	10	1080	25.5
08146500	San Saba Spgs at San Saba, TX	09-11-00	1145	9.0	1090	25.0
08149400	S Llano Rv nr Telegraph, TX	11-16-99	1315	23	442	19.0
	S Llano Rv nr Telegraph, TX	02-28-00	1410	22	443	20.0
	S Llano Rv nr Telegraph, TX	04-19-00	1635	20	427	26.5
	S Llano Rv nr Telegraph, TX	06-01-00	1130	21	417	26.5
	S Llano Rv nr Telegraph, TX	08-03-00	1335	18	426	27.0
	S Llano Rv nr Telegraph, TX	09-12-00	1050	17	460	25.0
08150800	Beaver Ck nr Mason, TX	11-16-99	0900	1.6	837	17.5
	Beaver Ck nr Mason, TX	02-29-00	1150	3.3	712	21.0
	Beaver Ck nr Mason, TX	04-19-00	1450	2.7	704	24.5
	Beaver Ck nr Mason, TX	05-31-00	1615	1.5	594	33.0
	Beaver Ck nr Mason, TX	08-02-00	1530	.02	969	29.5
08151500	Llano Rv at Llano, TX	10-07-99	0811	77	348	22.5
	Llano Rv at Llano, TX	05-02-00	1300	1050	203	21.2
08152000	Sandy Ck nr Kingsland, TX	11-08-99	1010	.92	425	21.0
	Sandy Ck nr Kingsland, TX	04-12-00	1445	193	454	19.2
	Sandy Ck nr Kingsland, TX	05-02-00	1122	787	225	20.5
08152900	Pedernales Rv nr Fredericksburg, TX	10-06-99	1210	2.3	798	27.0
08154700	Bull Ck at Loop 360 nr Austin, TX	10-07-99	0900	.01	808	18.5
	Bull Ck at Loop 360 nr Austin, TX	01-21-00	1152	1.9	714	12.0
	Bull Ck at Loop 360 nr Austin, TX	03-01-00	0937	4.5	652	18.2
	Bull Ck at Loop 360 nr Austin, TX	05-10-00	1130	2.8	648	24.9
	Bull Ck at Loop 360 nr Austin, TX	07-19-00	1025	.03	711	29.6
08155200	Barton Ck at SH 71 nr Oak Hill, TX	05-02-00	0833	6.2	501	20.0
	Barton Ck at SH 71 nr Oak Hill, TX	05-03-00	1150	.67	678	20.0
	Barton Ck at SH 71 nr Oak Hill, TX	05-10-00	0950	.36	597	23.5
	Barton Ck at SH 71 nr Oak Hill, TX	06-09-00	1047	151	240	23.8
	Barton Ck at SH 71 nr Oak Hill, TX	06-12-00	1212	27	446	--
	Barton Ck at SH 71 nr Oak Hill, TX	06-27-00	0940	8.8	531	27.9
	Barton Ck at SH 71 nr Oak Hill, TX	07-18-00	1038	.25	542	27.8
08155240	Barton Ck at Lost Ck Blvd nr Austin, TX	10-07-99	1200	.00	670	21.5
	Barton Ck at Lost Ck Blvd nr Austin, TX	01-24-00	0910	1.5	838	14.0
	Barton Ck at Lost Ck Blvd nr Austin, TX	04-03-00	0953	3.8	675	19.0
	Barton Ck at Lost Ck Blvd nr Austin, TX	04-11-00	0910	2.7	773	19.0
	Barton Ck at Lost Ck Blvd nr Austin, TX	05-10-00	1035	4.8	743	24.5
	Barton Ck at Lost Ck Blvd nr Austin, TX	06-27-00	1040	13	590	28.4
	Barton Ck at Lost Ck Blvd nr Austin, TX	07-18-00	1130	1.6	692	28.5

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
08155300	Barton Ck at Loop 360, Austin, TX	05-01-00	1015	1.7	94	19.5
	Barton Ck at Loop 360, Austin, TX	06-12-00	0930	48	515	--
08155400	Barton Ck abv Barton Spgs at Austin, TX	06-12-00	0805	41	458	--
	Barton Ck abv Barton Spgs at Austin, TX	06-26-00	1015	.09	612	24.8
08155500	Barton Spgs at Austin, TX	07-18-00	1240	35	667	21.6
	Barton Spgs at Austin, TX	09-25-00	1400	17	716	23.2
08156800	Shoal Ck at W 12th St, Austin, TX	04-03-00	0859	24	214	17.0
	Shoal Ck at W 12th St, Austin, TX	05-01-00	0705	428	146	19.0
	Shoal Ck at W 12th St, Austin, TX	05-01-00	1242	50	190	21.0
	Shoal Ck at W 12th St, Austin, TX	05-03-00	0900	1.9	436	19.0
	Shoal Ck at W 12th St, Austin, TX	09-15-00	0845	.38	293	25.5
08157600	E Bouldin Ck at S 1st St, Austin, TX	10-05-99	0844	.01	805	20.0
	E Bouldin Ck at S 1st St, Austin, TX	10-30-99	1653	1.7	156	18.5
	E Bouldin Ck at S 1st St, Austin, TX	01-19-00	1038	.21	640	16.5
	E Bouldin Ck at S 1st St, Austin, TX	06-27-00	1140	.03	666	26.6
08157700	Blunn Ck nr Little Stacy Pk, Austin, TX	12-12-99	0259	--	314	--
	Blunn Ck nr Little Stacy Pk, Austin, TX	01-07-00	1457	35	155	--
	Blunn Ck nr Little Stacy Pk, Austin, TX	01-20-00	1415	.08	1090	16.0
	Blunn Ck nr Little Stacy Pk, Austin, TX	05-08-00	1000	.04	1010	17.5
	Blunn Ck nr Little Stacy Pk, Austin, TX	06-27-00	1203	.87	448	27.0
08158000	Colorado Rv at Austin, TX	03-14-00	0908	1620	556	20.5
	Colorado Rv at Austin, TX	06-27-00	1028	288	454	29.0
08158050	Boggy Ck at US Hwy 183, Austin, TX	10-31-99	1045	2.0	198	19.5
	Boggy Ck at US Hwy 183, Austin, TX	04-03-00	0832	37	160	15.5
08158600	Walnut Ck at Webberville Rd, Austin, TX	10-06-99	0900	.83	491	20.5
	Walnut Ck at Webberville Rd, Austin, TX	12-12-99	1446	70	372	14.5
	Walnut Ck at Webberville Rd, Austin, TX	12-14-99	1020	4.3	453	--
	Walnut Ck at Webberville Rd, Austin, TX	01-18-00	0950	6.1	569	15.0
	Walnut Ck at Webberville Rd, Austin, TX	03-08-00	0839	8.4	511	19.5
	Walnut Ck at Webberville Rd, Austin, TX	04-11-00	1200	5.4	512	19.5
	Walnut Ck at Webberville Rd, Austin, TX	07-19-00	1225	.57	565	30.6
	Walnut Ck at Webberville Rd, Austin, TX	07-23-00	1739	118	226	25.8
08158700	Onion Ck nr Driftwood, TX	10-01-99	1146	.23	487	24.0
	Onion Ck nr Driftwood, TX	05-12-00	1040	1.8	464	25.5
	Onion Ck nr Driftwood, TX	06-09-00	1730	68	460	24.8
	Onion Ck nr Driftwood, TX	06-27-00	0848	2.5	531	27.9
	Onion Ck nr Driftwood, TX	07-19-00	0910	.26	521	28.2

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
08158810	Bear Ck bl FM 1826 nr Driftwood, TX	03-13-00	1300	.04	622	19.0
	Bear Ck bl FM 1826 nr Driftwood, TX	05-12-00	1250	.12	561	--
	Bear Ck bl FM 1826 nr Driftwood, TX	06-26-00	1143	2.4	622	28.4
08158840	Slaughter Ck at FM 1826 nr Austin, TX	06-09-00	1000	37	98	25.0
	Slaughter Ck at FM 1826 nr Austin, TX	06-12-00	1108	8.6	460	--
	Slaughter Ck at FM 1826 nr Austin, TX	06-26-00	1115	3.2	702	26.9
	Slaughter Ck at FM 1826 nr Austin, TX	06-26-00	1300	3.2	702	26.9
	Slaughter Ck at FM 1826 nr Austin, TX	07-18-00	0945	.29	739	27.9
08158922	Williamson Ck at Brush Country Blvd, Oak Hill, TX	05-01-00	0828	5.1	158	18.5
	Williamson Ck at Brush Country Blvd, Oak Hill, TX	06-09-00	0940	84	121	19.0
08158930	Williamson Ck at Manchaca Rd, Austin, TX	01-08-00	0950	5.0	138	11.5
	Williamson Ck at Manchaca Rd, Austin, TX	01-14-00	1100	.02	572	15.0
	Williamson Ck at Manchaca Rd, Austin, TX	02-23-00	0735	1.9	181	16.0
	Williamson Ck at Manchaca Rd, Austin, TX	04-03-00	0751	4.2	174	15.7
	Williamson Ck at Manchaca Rd, Austin, TX	05-01-00	0715	86	123	17.8
	Williamson Ck at Manchaca Rd, Austin, TX	05-01-00	0945	34	142	18.0
08159000	Onion Ck at US Hwy 183, Austin, TX	11-03-99	1342	.82	525	16.0
	Onion Ck at US Hwy 183, Austin, TX	01-18-00	1335	1.7	493	18.0
	Onion Ck at US Hwy 183, Austin, TX	03-13-00	1000	2.1	565	20.0
	Onion Ck at US Hwy 183, Austin, TX	04-12-00	1415	40	513	25.0
	Onion Ck at US Hwy 183, Austin, TX	06-27-00	0850	1.3	469	28.4
08159200	Colorado Rv at Bastrop, TX	07-19-00	0945	1310	517	30.7
	Colorado Rv at Bastrop, TX	07-21-00	0925	2140	508	30.9
08160400	Colorado Rv abv La Grange, TX	10-07-99	1100	786	611	24.5
08160800	Redgate Ck nr Columbus, TX	06-02-00	0920	.57	681	27.2
	Redgate Ck nr Columbus, TX	07-14-00	0905	.15	705	27.5
	Redgate Ck nr Columbus, TX	09-08-00	0855	.01	556	24.7
08162000	Colorado Rv at Wharton, TX	06-08-00	1045	927	520	28.8
	Colorado Rv at Wharton, TX	07-19-00	1237	518	556	31.7
08162500	Colorado Rv nr Bay City, TX	02-17-00	1040	412	709	22.9
	Colorado Rv nr Bay City, TX	06-07-00	1416	242	550	30.7

MULTIPLE STATION ANALYSES

STATION NUMBER	STATION NAME	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
08162600	Tres Palacios Rv nr Midfield, TX	06-07-00	1123	17	810	27.0
	Tres Palacios Rv nr Midfield, TX	07-18-00	1600	7.8	870	34.0
	Tres Palacios Rv nr Midfield, TX	08-29-00	1247	10	875	31.5
08164000	Lavaca Rv nr Edna, TX	12-15-99	0932	21	750	10.5
	Lavaca Rv nr Edna, TX	02-10-00	0955	29	763	17.5
	Lavaca Rv nr Edna, TX	03-29-00	1251	36	690	27.0
	Lavaca Rv nr Edna, TX	05-23-00	1821	208	195	28.5
	Lavaca Rv nr Edna, TX	09-05-00	1600	3.1	642	31.5
08164300	Navidad Rv nr Hallettsville, TX	12-14-99	1202	9.9	870	11.5
	Navidad Rv nr Hallettsville, TX	02-08-00	1114	11	868	15.0
	Navidad Rv nr Hallettsville, TX	03-30-00	0917	11	903	20.5
	Navidad Rv nr Hallettsville, TX	05-30-00	1428	8.9	708	27.0
	Navidad Rv nr Hallettsville, TX	09-08-00	1100	.13	980	25.0
08164390	Navidad Rv at Strane Pk nr Edna, TX	12-15-99	1539	11	781	12.1
	Navidad Rv at Strane Pk nr Edna, TX	03-16-00	1215	201	1690	14.3
	Navidad Rv at Strane Pk nr Edna, TX	05-17-00	1320	14	550	27.5
	Navidad Rv at Strane Pk nr Edna, TX	05-26-00	1024	35	295	26.7
	Navidad Rv at Strane Pk nr Edna, TX	08-09-00	1305	.82	680	31.0
	Navidad Rv at Strane Pk nr Edna, TX	09-07-00	0946	.03	872	27.8
08164450	Sandy Ck nr Ganado, TX	05-17-00	1200	.36	293	29.0
	Sandy Ck nr Ganado, TX	05-25-00	1134	59	259	28.0
	Sandy Ck nr Ganado, TX	08-09-00	1220	23	662	30.0
08164503	W Mustang Ck nr Ganado, TX	12-15-99	1204	.08	1020	14.0
	W Mustang Ck nr Ganado, TX	05-17-00	1100	13	665	25.0
	W Mustang Ck nr Ganado, TX	05-24-00	1500	111	295	27.8
	W Mustang Ck nr Ganado, TX	07-11-00	1142	46	728	27.9
	W Mustang Ck nr Ganado, TX	08-09-00	1100	15	760	27.5
	W Mustang Ck nr Ganado, TX	09-06-00	1036	2.4	828	27.9
08164504	E Mustang Ck at FM 647 nr Louise, TX	05-17-00	1130	.17	383	28.0
08164600	Garcitas Ck nr Inez, TX	12-13-99	1446	.22	591	14.5
	Garcitas Ck nr Inez, TX	02-09-00	1308	.51	611	18.0
	Garcitas Ck nr Inez, TX	03-28-00	1425	.75	390	25.5
	Garcitas Ck nr Inez, TX	05-24-00	1004	8.7	208	27.0
	Garcitas Ck nr Inez, TX	06-12-00	1835	426	82	27.5
08164800	Placedo Ck nr Placedo, TX	12-15-99	1446	.32	2610	13.5
	Placedo Ck nr Placedo, TX	02-09-00	1445	3.5	556	19.5
	Placedo Ck nr Placedo, TX	04-11-00	0856	.23	567	24.0
	Placedo Ck nr Placedo, TX	05-23-00	0927	12	324	27.0

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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 2000

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	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✞, 1959-2000	11-10-99 01-07-00 02-17-00 04-13-00 05-25-00 07-11-00 08-30-00	6.39 6.14 5.58 6.03 6.37 5.90 6.53
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, 1958-2000	11-17-99 01-11-00 02-28-00 04-17-00 06-01-00 08-03-00 09-11-00	12.1 13.4 13.0 14.4 11.6 9.81 11.5
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, 1959-2000	11-15-99 01-13-00 03-01-00 04--19-00 05-31-00 08-02-00 09-11-00	9.45 6.84 9.70 9.63 9.36 10.1 9.04
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, 1959-2000	11-16-99 01-12-00 02-28-00 04-19-00 06-01-00 08-03-00 09-12-00	22.8 23.5 22.2 20.2 21.0 17.9 17.1
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, 1959-2000	11-16-99 01-12-00 02-28-00 04-19-00 06-01-00 08-03-00 09-12-00	20.4 19.2 23.8 20.5 19.6 16.2 16.6

✞ 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 2000

Station name and number	Location	Period of record	Water Year 2000 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis-charge (ft^3/s)	Date	Gage height (ft)	Dis-charge (ft^3/s)
		Lavaca River Basin						
Lavaca River at Hallettsville, TX 08163500	Lat 29°26’35”, long 96°56’41”, Lavaca County, at downstream side of bridge on U.S. Highway 77 in Hallettsville. Drainage area is 108 mi^2.	1939-92✞ 1993-2000	05-02-00	11.72	--	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 2000

Station number	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Dis-charge (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	1984-2000	01-11-00 04-17-00 06-01-00 09-11-00	10.3 13.1 9.77 10.4
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, 1987-2000	11-16-99 01-12-00 02-28-00 04-19-00 06-01-00 08-03-00 09-12-00	11.7 10.7 9.94 9.90 11.1 10.5 11.1

✞ Operated as a continuous-record station.

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